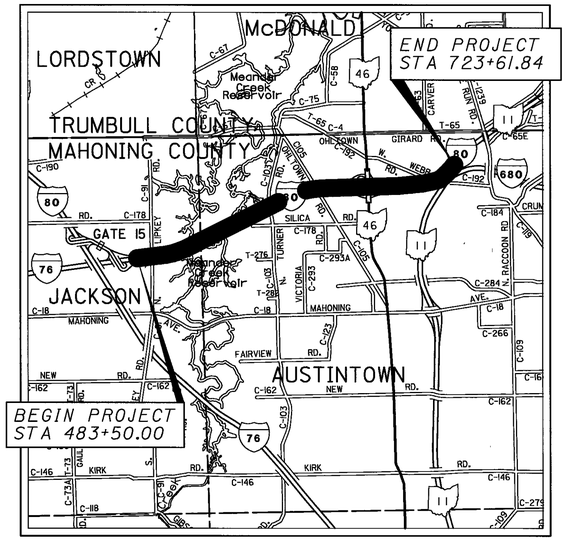

LOCATION MAP

LATITUDE: 41° 07′ 05″ LONGITUDE: 80° 47′ 35″

SCALE IN MILES

0 1 2 3 4

N

PORTION TO BE IMPROVED

INTERSTATE & DIVIDED HIGHWAY

UNDIVIDED STATE & FEDERAL ROUTES

OTHER ROADS

FOR DESIGN DESIGNATION SEE SHEET 2

UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG
CALL 1-800-362-2764 (TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

PLAN PREPARED BY:

GANNETT FLEMING ENGINEERS
& ARCHITECTS, P.C.
4151 EXECUTIVE PARKWAY
SUITE 350
WESTERVILLE, OHIO 43081

ENGINEERS SEAL:	ENGINEERS SEAL:	ENGINEERS SEAL:
ROADWAY PLANS SHEETS 1-915 1063-1082	STRUCTURES OVER 20′ SHEETS 916-1029	BRIDGE MAH-80-0332 SHEETS 1030-1062
STATE OF OHIO · PHILIP RAY SCHROEDER E-59486 · REGISTERED PROFESSIONAL ENGINEER	STATE OF OHIO · PAUL L COBLENTZ E 57136 · REGISTERED PROFESSIONAL ENGINEER	STATE OF OHIO · NABIL F. FARAH 54420 · REGISTERED PROFESSIONAL ENGINEER
SIGNED:	SIGNED:	SIGNED:
DATE: 9/9/05	DATE: 9/9/05	DATE: 9/9/05

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

MAH-80-0.97
PART 1
JACKSON TOWNSHIP
AUSTINTOWN TOWNSHIP
MAHONING COUNTY

(FOR PART 2 - SEE MAH – 80 - 0.97)

INDEX OF SHEETS:

47, 234, 235, 552, AND 553 NOT USED

PROJECT DESCRIPTION

RECONSTRUCTION AND WIDENING OF 4.55 MILES OF IR 80. INCLUDING PARTIAL RECONSTRUCTION OF SEVEN INTERCHANGE RAMPS, THE REHABILITATION OF SIX BRIDGES, THE REPLACEMENT OF THE MEANDER CREEK RESERVOIR BRIDGES, AND THE CONSTRUCTION OF A 20′ X 14′ 3-SIDED CULVERT TO REPLACE EXISTING BRIDGES.

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.

2005 SPECIFICATIONS

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

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

UNDER AUTHORITY OF SECTION 4511.21, DIVISION (H) OF THE OHIO REVISED CODE, THE REVISED PRIMA FACIE SPEED LIMITS AS INDICATED HEREIN ARE DETERMINED TO BE REASONABLE AND SAFE, AND ARE HEREBY ESTABLISHED FOR THE DURATION OF THIS PROJECT. THE PRIMA FACIE SPEED LIMIT OR LIMITS HEREBY ESTABLISHED SHALL BECOME EFFECTIVE WHEN APPROPRIATE SIGNS GIVING NOTICE THEREOF ARE ERECTED.

STANDARD CONSTRUCTION DRAWINGS

												SUPPLEMENTAL SPECIFICATIONS	
BP-2.1	7-16-04	GR-5.1	4-18-03	I-2.3	7-15-05	HL-40.20	1-16-04	MT-101.70	10-18-02	TC-51.12	4-20-01	800	10-21-05
BP-2.2	7-16-04	GR-5.2	1-16-04			HL-50.11	7-20-01	MT-102.10	10-18-02	TC-52.10	4-20-01	802	4-15-05
BP-2.3	7-16-04	GR-5.3	1-16-04	MH-1.2	7-15-05	HL-50.21	1-21-05	MT-102.20	10-18-02	TC-52.20	4-20-01	812	4-15-05
BP-2.4	7-16-04	GR-6.1	4-18-03			HL-60.31	7-20-01	MT-105.10	10-18-02	TC-61.10	1-19-01		
BP-3.1	7-16-04	GR-6.2	4-18-03	DM-1.1	1-21-05			MT-105.11	10-18-02			832	4-17-04
BP-4.1	7-16-04			DM-1.2	1-21-05	MT-35.10	4-20-01			TC-65.10	1-21-05	833	2-12-03
BP-5.1	7-28-00	RM-1.1	4-18-03	DM-1.4	1-21-05	MT-95.30	7-16-04	TC-07.65	7-18-03	TC-65.11	1-21-05	836	4-15-05
BP-6.1	7-28-00	RM-4.2	4-18-03	DM-4.1	7-19-02	MT-95.31	7-16-04	TC-12.30	1-19-01	TC-72.20	1-21-05	843	4-18-03
BP-8.1	7-28-00	RM-4.3	4-18-03	DM-4.2	1-21-05	MT-95.32	7-16-04	TC-21.10	1-19-01	TC-73.10	1-19-01	884	4-15-05
BP-9.1	4-15-05	RM-4.5	4-18-03	DM-4.3	7-19-02	MT-95.40	7-16-04	TC-21.20	1-19-01			892	4-15-05
		RM-4.6	1-16-04	DM-4.4	7-19-02			TC-22.10	1-19-01	A-1-69	7-19-02	898	7-16-04
F-1.1	7-16-04					MT-95.41	7-16-04			AS-1-81	7-19-02		
F-2.1	7-28-00	CB-1.1	7-15-05	HL-20.11	4-19-02	MT-98.12	4-19-02	TC-22.20	1-19-01	BS-1-93	7-19-02		
F-3.1	7-28-00	CB-2.1	7-15-05	HL-20.13	1-21-05	MT-98.13	4-19-02	TC-41.10	1-19-01	CPA-5-94	7-19-02		
F-3.3	7-28-00	CB-2.2	7-15-05	HL-20.14	1-21-05	MT-98.14	4-19-02	TC-41.20	1-19-01	CS-1-03	4-18-03		
F-3.4	7-28-00	CB-3.1	7-15-05	HL-30.11	1-21-05	MT-98.15	7-16-04			EXJ-6-95	7-19-02		
		CB-3.3	7-15-05	HL-30.21	4-19-02			TC-41.40	7-16-04	GSD-1-96	7-19-02		
GR-1.1	7-16-04	CB-3.4	7-15-05			MT-98.16	4-19-02	TC-41.41	1-19-01	PCB-91	7-19-02		
GR-2.1	1-16-04			HL-30.22	1-21-05	MT-99.20m	1-30-95	TC-42.10	1-19-01	PSID-1-99	7-18-03		
GR-3.1	4-18-03	HW-1.1	1-21-05	HL-30.31	1-21-05	MT-99.31	4-16-04	TC-42.20	7-16-04	SBR-1-99	7-19-02		
GR-3.2	4-18-03	HW-2.1	7-15-05	HL-30.32	4-19-02	MT-100.00	4-19-02	TC-51.11	4-20-01				
GR-4.2	4-15-05	HW-2.2	7-15-05	HL-40.10	4-19-02	MT-101.60	10-18-02						

PROJECT EDA = 162 ACRES
CONTRACTOR EDA = 188 ACRES
NOI EDA = 197.4 ACRES

APPROVED _____ DISTRICT DEPUTY DIRECTOR
DATE 9-14-05

APPROVED _____ DIRECTOR, DEPARTMENT OF TRANSPORTATION
DATE 10-19-05

SPECIAL PROVISIONS

MODULAR EXPANSION JOINTS	08/05/05
OEPA SWIMS ID NO. 052322	07/08/05

FEDERAL PROJECT NO. 0805046
PID NO. 6080
CONSTRUCTION PROJECT NO.
RAILROAD INVOLVEMENT NONE

MAH-80-0.97

1
1100

MAH - 80 - 0.97
060002 PID - 6080
Dist 4 2/1/2006

9/9/2005 24467 PM
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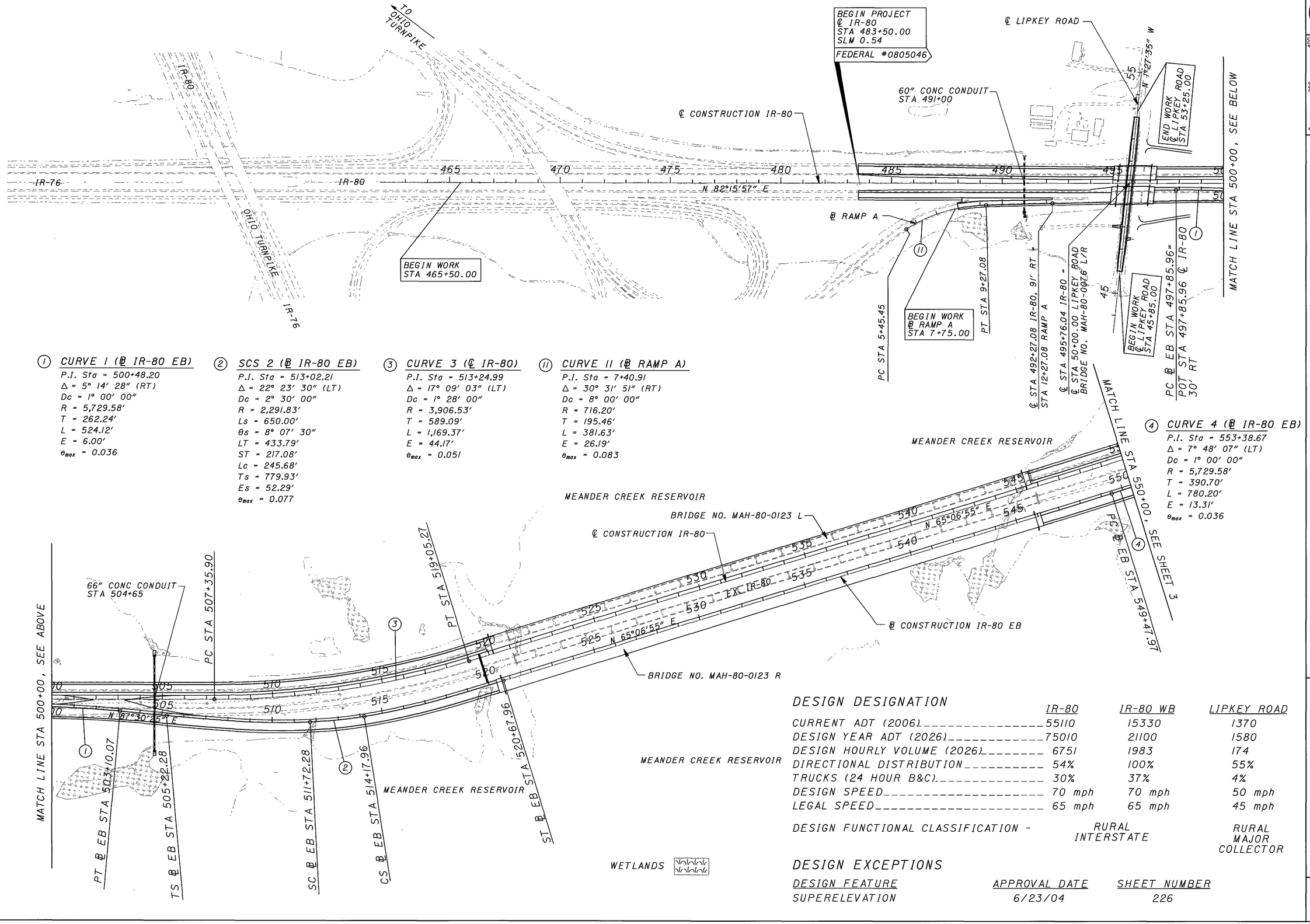

① **CURVE 1 (℄ IR-80 EB)**
P.I. Sta = 500+48.20
Δ = 5° 14' 28" (RT)
Dc = 1° 00' 00"
R = 5,729.58'
T = 262.24'
L = 524.12'
E = 6.00'
e_{max} = 0.036

② **SCS 2 (℄ IR-80 EB)**
P.I. Sta = 513+02.21
Δ = 22° 23' 30" (LT)
Dc = 2° 30' 00"
R = 2,291.83'
Ls = 650.00'
θs = 8° 07' 30"
LT = 433.79'
ST = 217.08'
Lc = 245.68'
Ts = 779.93'
Es = 52.29'
e_{max} = 0.077

③ **CURVE 3 (℄ IR-80)**
P.I. Sta = 513+24.99
Δ = 17° 09' 03" (LT)
Dc = 1° 28' 00"
R = 3,906.53'
T = 589.09'
L = 1,169.37'
E = 44.17'
e_{max} = 0.051

⑪ **CURVE 11 (℄ RAMP A)**
P.I. Sta = 7+40.91
Δ = 30° 31' 51" (RT)
Dc = 8° 00' 00"
R = 716.20'
T = 195.46'
L = 381.63'
E = 26.19'
e_{max} = 0.083

④ **CURVE 4 (℄ IR-80 EB)**
P.I. Sta = 553+38.67
Δ = 7° 48' 07" (LT)
Dc = 1° 00' 00"
R = 5,729.58'
T = 390.70'
L = 780.20'
E = 13.31'
e_{max} = 0.036

DESIGN DESIGNATION

	IR-80	IR-80 WB	LIPKEY ROAD
CURRENT ADT (2006)	55110	15330	1370
DESIGN YEAR ADT (2026)	75010	21100	1580
DESIGN HOURLY VOLUME (2026)	6751	1983	174
DIRECTIONAL DISTRIBUTION	54%	100%	55%
TRUCKS (24 HOUR B&C)	30%	37%	4%
DESIGN SPEED	70 mph	70 mph	50 mph
LEGAL SPEED	65 mph	65 mph	45 mph

DESIGN FUNCTIONAL CLASSIFICATION - RURAL INTERSTATE | RURAL MAJOR COLLECTOR

DESIGN EXCEPTIONS

DESIGN FEATURE	APPROVAL DATE	SHEET NUMBER
SUPERELEVATION	6/23/04	226

SCHEMATIC PLAN
STA 465+50 TO STA 550+00

MAH-80-0.97

2
1100

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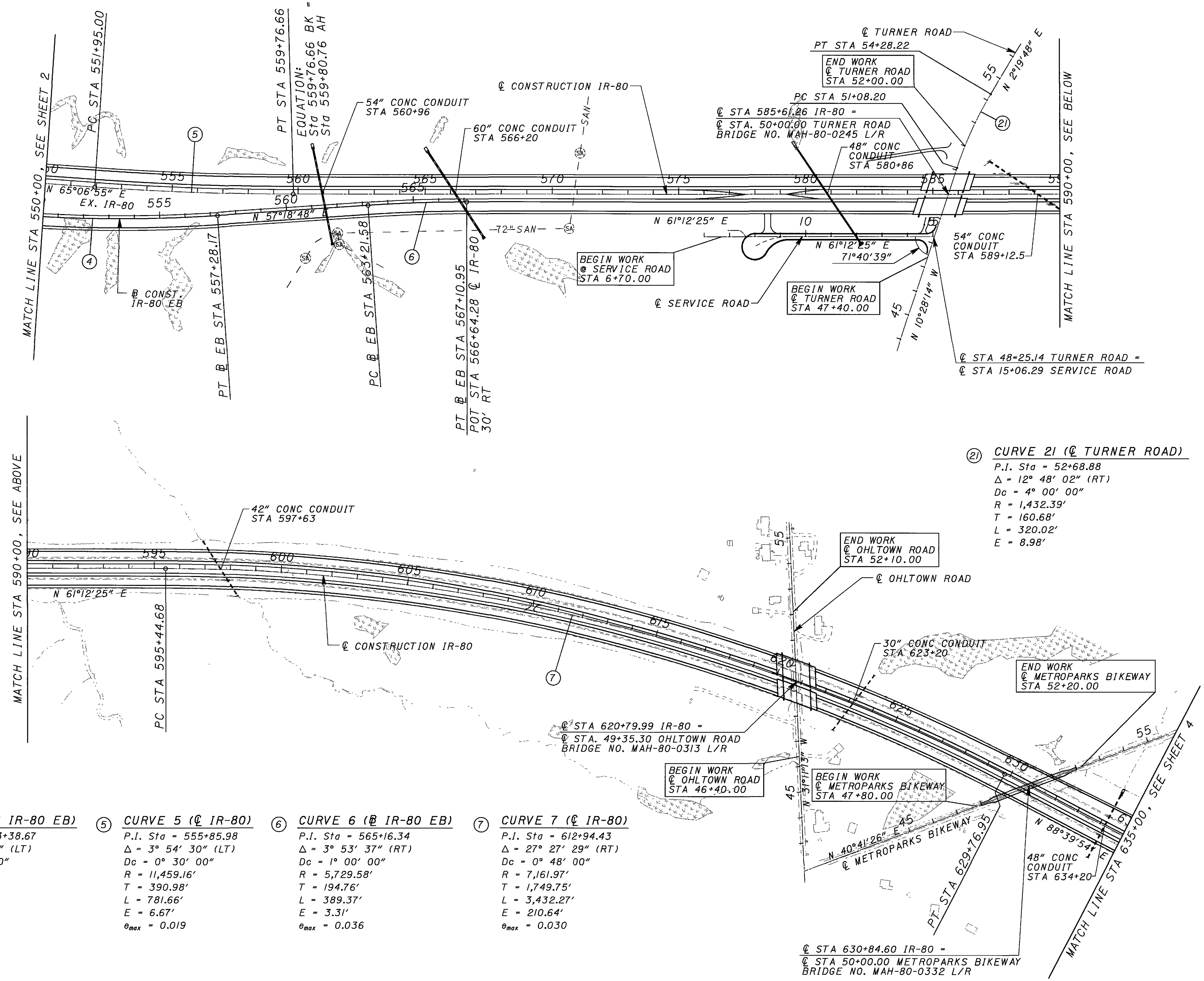

(21) CURVE 21 (℄ TURNER ROAD)
P.I. Sta = 52+68.88
Δ = 12° 48' 02" (RT)
Dc = 4° 00' 00"
R = 1,432.39'
T = 160.68'
L = 320.02'
E = 8.98'

(4) CURVE 4 (BL IR-80 EB)
P.I. Sta = 553+38.67
Δ = 7° 48' 07" (LT)
Dc = 1° 00' 00"
R = 5,729.58'
T = 390.70'
L = 780.20'
E = 13.31'
e_{max} = 0.036

(5) CURVE 5 (℄ IR-80)
P.I. Sta = 555+85.98
Δ = 3° 54' 30" (LT)
Dc = 0° 30' 00"
R = 11,459.16'
T = 390.98'
L = 781.66'
E = 6.67'
e_{max} = 0.019

(6) CURVE 6 (BL IR-80 EB)
P.I. Sta = 565+16.34
Δ = 3° 53' 37" (RT)
Dc = 1° 00' 00"
R = 5,729.58'
T = 194.76'
L = 389.37'
E = 3.31'
e_{max} = 0.036

(7) CURVE 7 (℄ IR-80)
P.I. Sta = 612+94.43
Δ = 27° 27' 29" (RT)
Dc = 0° 48' 00"
R = 7,161.97'
T = 1,749.75'
L = 3,432.27'
E = 210.64'
e_{max} = 0.030

WETLANDS ▨

0 200 400
HORIZONTAL
SCALE IN FEET

SCHEMATIC PLAN
STA 550+00 TO STA 635+00

MAH-80-0.97

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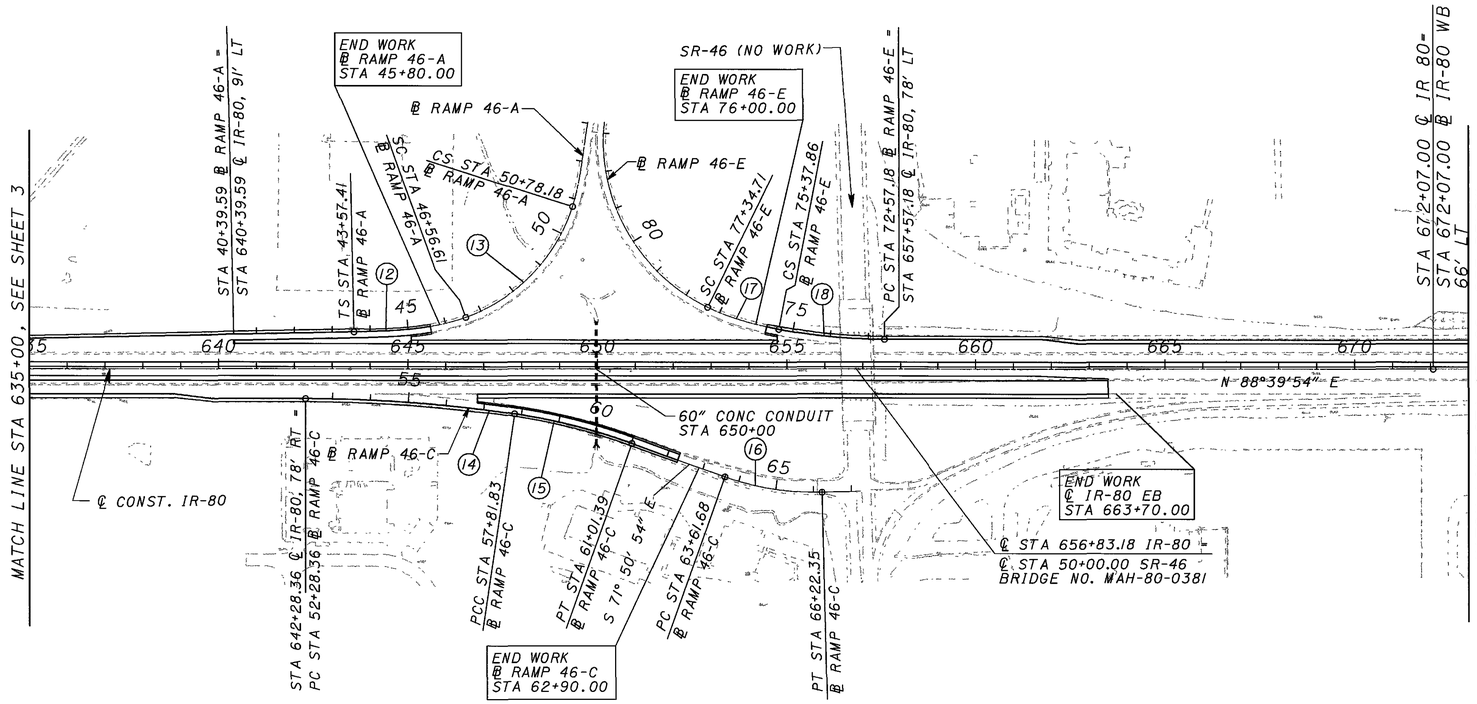


(8) CURVE 8 (℄ IR-80 WB)
P.I. STA = 681+78.57
Δ = 13° 00′ 00″ (LT)
Dc = 1° 00′ 00″
R = 5,729.58′
T = 652.80′
L = 1,300.00′
E = 37.07′
e_{max} = 0.036

(9) CURVE 9 (℄ IR-80 WB)
P.I. STA = 702+73.26
Δ = 30° 36′ 46″ (LT)
Dc = 1° 05′ 00″
R = 5,288.84′
T = 1,447.49′
L = 2,825.79′
E = 194.50′
e_{max} = 0.039

(14) CURVE 14 (℄ RAMP 46-C)
P.I. STA = 55+05.58
Δ = 8° 18′ 08″ (RT)
Dc = 1° 30′ 00″
R = 3,819.72′
T = 277.22′
L = 553.47′
E = 10.05′
e_{max} = 0.041

(15) CURVE 15 (℄ RAMP 46-C)
P.I. STA = 59+42.12
Δ = 11° 11′ 04″ (RT)
Dc = 3° 30′ 00″
R = 1,637.02′
T = 160.29′
L = 319.56′
E = 7.83′
e_{max} = 0.076

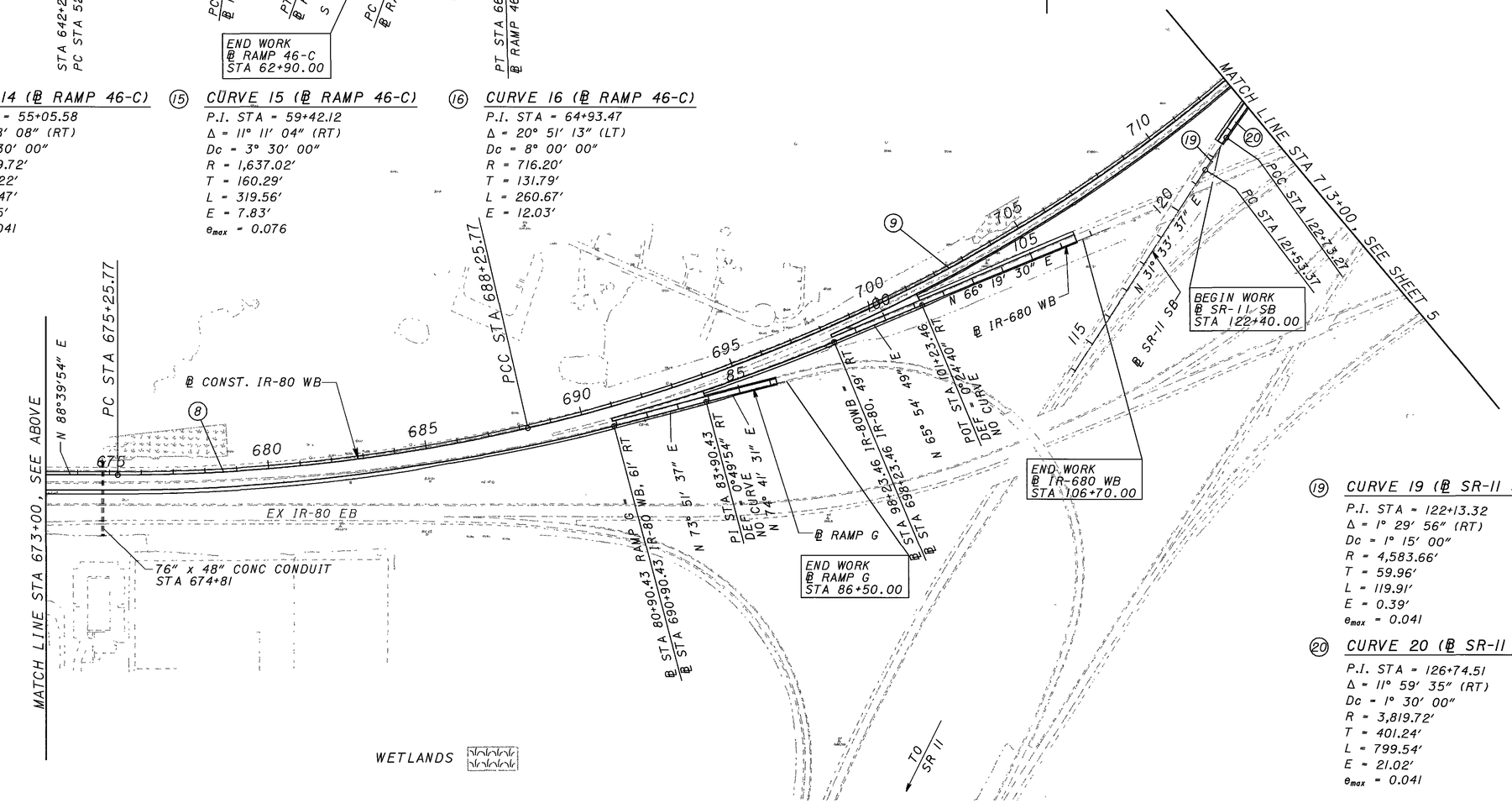
(16) CURVE 16 (℄ RAMP 46-C)
P.I. STA = 64+93.47
Δ = 20° 51′ 13″ (LT)
Dc = 8° 00′ 00″
R = 716.20′
T = 131.79′
L = 260.67′
E = 12.03′

(12) SPIRAL 12 (℄ RAMP 46-A)
P.I. STA = 45+58.00
Δ = 18° 39′ 42″ (LT)
Dc = 12° 28′ 28″
R = 459.31′
Ls = 299.20′
θs = 6° 12′ 54″
LT = 200.59′
ST = 100.75′
Lc = 421.57′
Ts = 541.32′
Es = 150.87′
e_{max} = 0.046

(13) CURVE 13 (℄ RAMP 46-A)
P.I. STA = 48+83.56
Δ = 52° 35′ 17″ (LT)
Dc = 12° 28′ 28″
R = 459.31′
T = 226.95′
L = 421.57′
E = 53.01′
e_{max} = 0.060

(17) SPIRAL 17 (℄ RAMP 46-E)
P.I. STA = 76+53.26
Δ = 15° 16′ 44″ (RT)
Dc1 = 3° 52′ 51″
Dc2 = 11° 38′ 34″
R1 = 1476.36′
R2 = 492.12′
Ls = 196.85′
θs = 6° 21′ 53″
LT = 115.40′
ST = 82.56′
e_{max} = 0.059

(18) CURVE 18 (℄ RAMP 46-E)
P.I. STA = 73+97.94
Δ = 10° 53′ 34″ (RT)
Dc = 3° 52′ 51″
R = 1,476.36′
T = 140.76′
L = 280.68′
E = 6.70′
e_{max} = 0.059



(19) CURVE 19 (℄ SR-11 SB)
P.I. STA = 122+13.32
Δ = 1° 29′ 56″ (RT)
Dc = 1° 15′ 00″
R = 4,583.66′
T = 59.96′
L = 119.91′
E = 0.39′
e_{max} = 0.041

(20) CURVE 20 (℄ SR-11 SB)
P.I. STA = 126+74.51
Δ = 11° 59′ 35″ (RT)
Dc = 1° 30′ 00″
R = 3,819.72′
T = 401.24′
L = 799.54′
E = 21.02′
e_{max} = 0.041

HORIZONTAL SCALE IN FEET
0 200 400

SCHEMATIC PLAN
STA 635+00 TO STA 713+00

MAH-80-0.97

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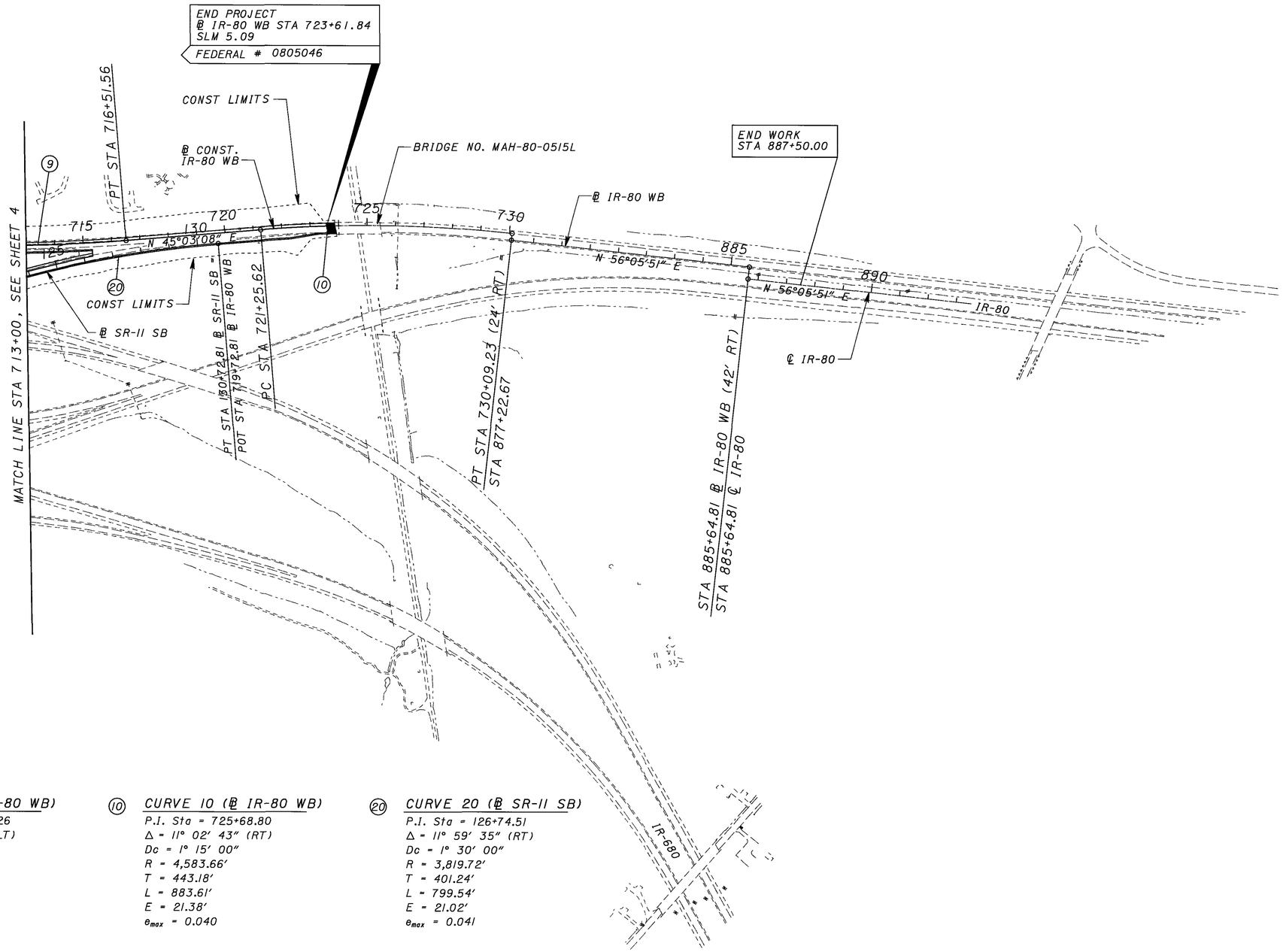

(9) CURVE 9 (℄ IR-80 WB)
P.I. Sta = 702+73.26
Δ = 30° 36′ 46″ (LT)
Dc = 1° 05′ 00″
R = 5,288.84′
T = 1,447.49′
L = 2,825.79′
E = 194.50′
e_{max} = 0.039

(10) CURVE 10 (℄ IR-80 WB)
P.I. Sta = 725+68.80
Δ = 11° 02′ 43″ (RT)
Dc = 1° 15′ 00″
R = 4,583.66′
T = 443.18′
L = 883.61′
E = 21.38′
e_{max} = 0.040

(20) CURVE 20 (℄ SR-11 SB)
P.I. Sta = 126+74.51
Δ = 11° 59′ 35″ (RT)
Dc = 1° 30′ 00″
R = 3,819.72′
T = 401.24′
L = 799.54′
E = 21.02′
e_{max} = 0.041

HORIZONTAL SCALE IN FEET
0 200 400

SCHEMATIC PLAN
STA 713+00 TO STA 887+50

MAH-80-0.97

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1100

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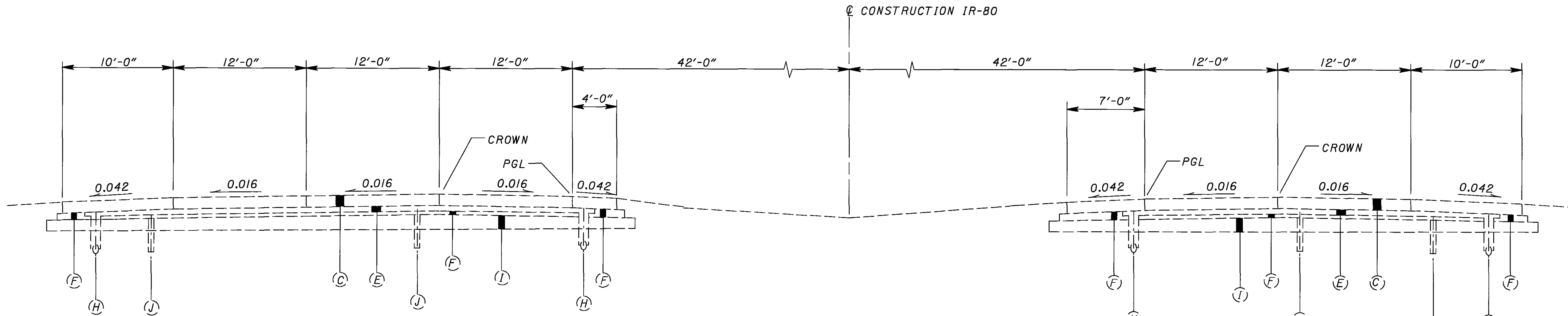
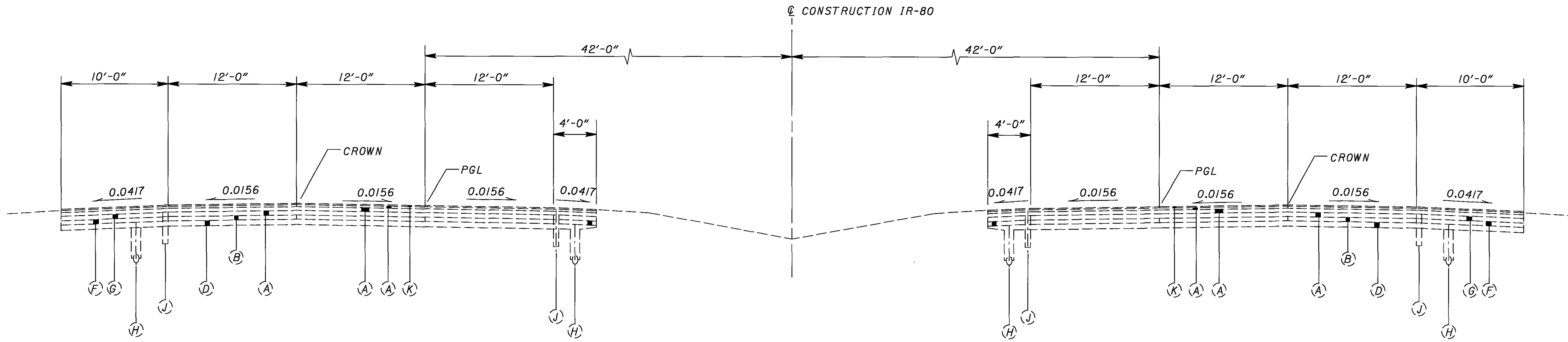
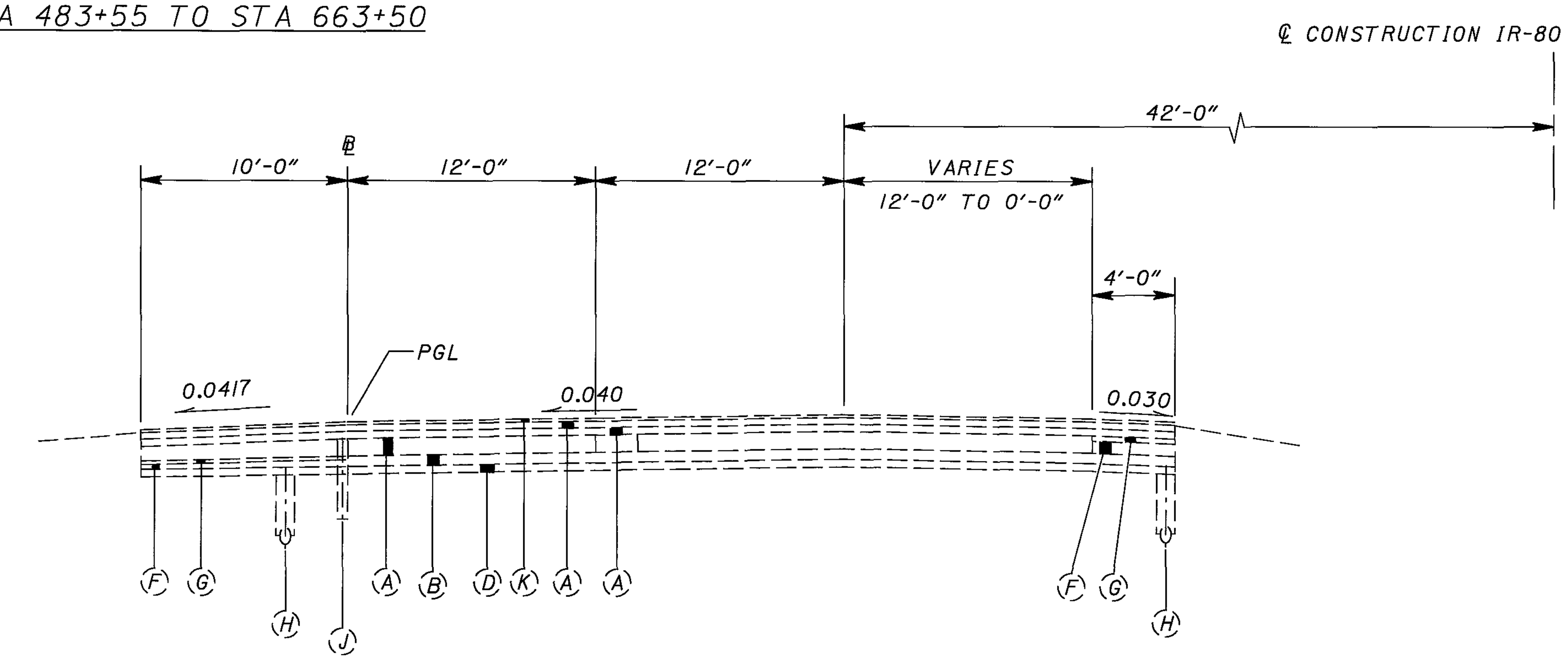


STA 483+50 TO STA 483+55



STA 483+55 TO STA 663+50



STA 663+50 TO STA 672+07 ℄ IR-80
STA 672+07 TO STA 723+87.12 Ⓑ IR-80 WB

EXISTING PAVEMENT LEGEND

(A) 1¼" - 4¼" ASPHALT CONCRETE PAVEMENT
(B) 10" REINFORCED CONCRETE PAVEMENT
(C) 14" PLAIN CONCRETE PAVEMENT
(D) 6" SUBBASE
(E) 4" FREE DRAINING AGGREGATE BASE
(F) 7" AGGREGATE BASE
(G) 3" WATERPROOF AGGREGATE BASE
(H) 6" PIPE UNDERDRAIN
(I) ROCK EXCAVATION
(J) 4" SHALLOW UNDERDRAIN
(K) ¾" RUBBERIZED ASPHALT CONCRETE
(L) 9" BITUMINOUS AGGREGATE BASE

CALCULATED PRS
CHECKED TLW

EXISTING TYPICAL SECTION - IR-80

MAH-80-0.97

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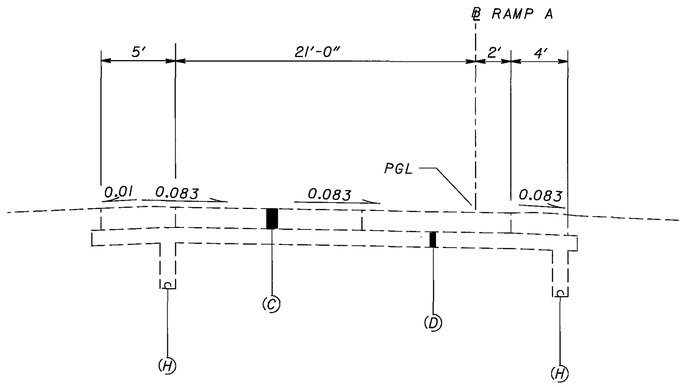
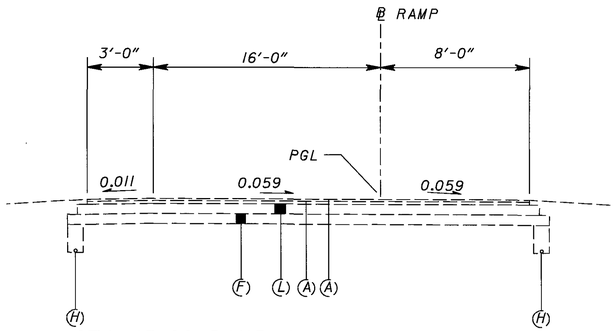
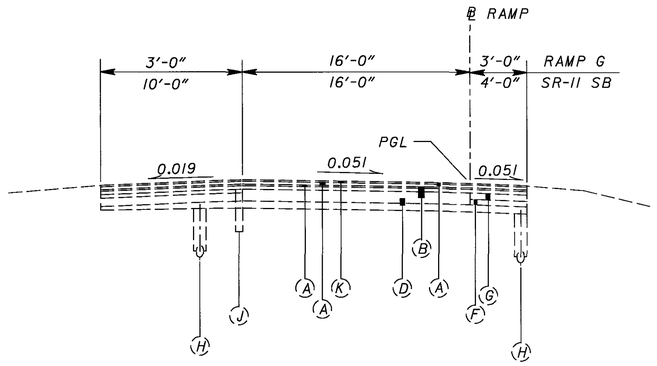
SHEET 1



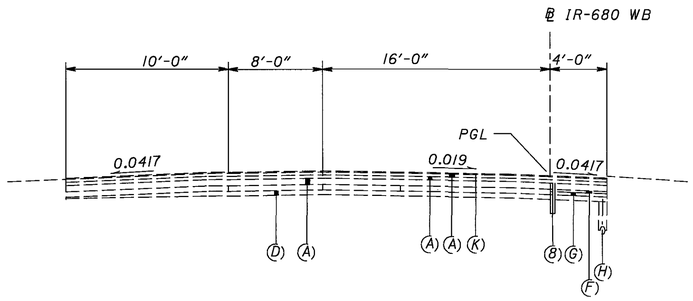
STA 8+00 RAMP A



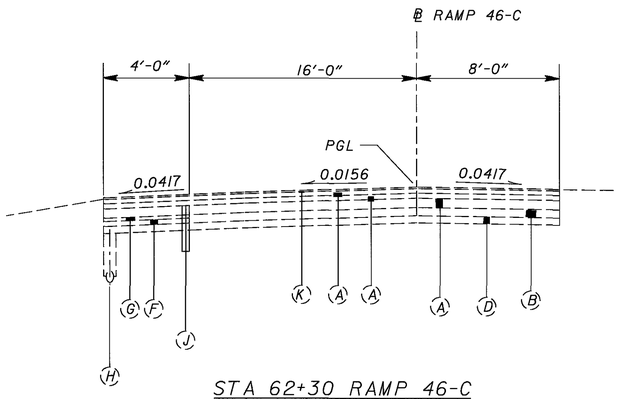
STA 45+60 RAMP 46-A (LOOKING BACK)
STA 75+70 RAMP 46-E



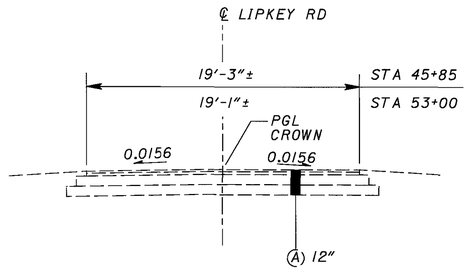
STA 86+20 RAMP G
STA 122+50 SR-11 SB



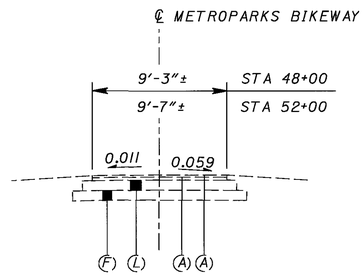
STA 106+50 IR-680 WB



STA 62+30 RAMP 46-C



LIPKEY ROAD



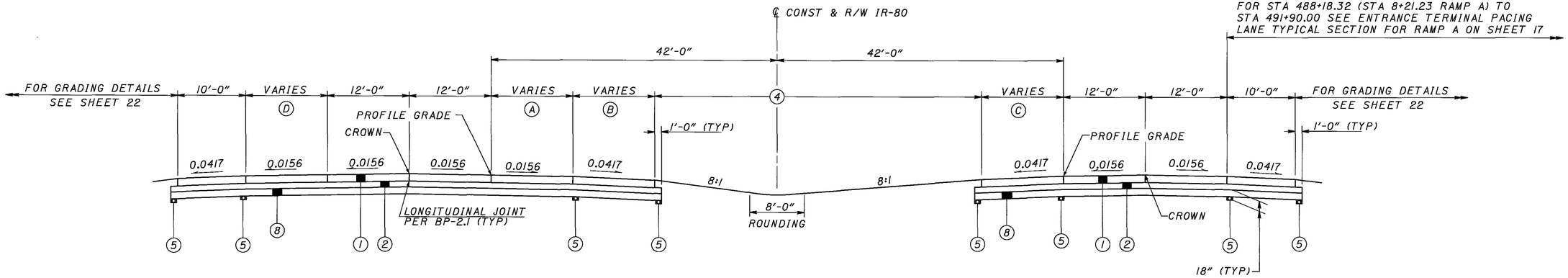
METROPARKS BIKEWAY

FOR EXISTING PAVEMENT LEGEND, SEE SHEET 6

CALCULATED PRS
CHECKED TLW

EXISTING TYPICAL SECTION - IR-80

MAH-80-0.97

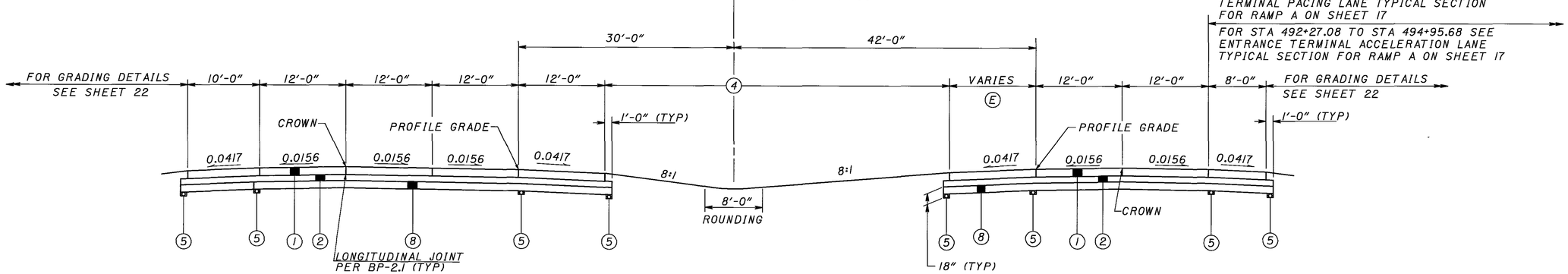


NORMAL SECTION

STATION LIMITS:

STA. 483+50.00 TO STA. 491+90.00 = 840.00 FT.

STATION FROM	STATION TO	(A)	(B)	(C)	(D)
483+50.00	491+90.00	0'-0" TO 12'-0"	- - - - - - -	- - - - - - -	12'-0" TO 0'-0"
483+50.00	485+50.00	- - - - - - -	4'-0" TO 12'-0"	7'-0" TO 12'-0"	- - - - - - -
485+50.00	491+90.00	- - - - - - -	12'-0"	12'-0"	- - - - - - -



STATION FROM	STATION TO	(E)
491+90.00	494+00.00	12'-0"
494+00.00	494+95.68	14'-0" TO 24'-0"

NORMAL SECTION

WESTBOUND STATION LIMITS

STA. 491+90.00 TO STA. 495+02.46 = 312.46 FT.

EASTBOUND STATION LIMITS

STA. 491+90.00 TO STA. 494+95.68 = 305.68 FT.

LEGEND

(1) ITEM 884 - 13" PORTLAND CEMENT CONCRETE PAVEMENT (7 YEAR WARRANTY)
(2) ITEM 304 - 10" AGGREGATE BASE, AS PER PLAN
(3) NOT USED
(4) ITEM 659 - SEEDING AND MULCHING (WITH 4" TOPSOIL)
(5) ITEM 605 - 6" BASE PIPE UNDERDRAINS
(6) ITEM 606 - GUARDRAIL, TYPE 5
(7) ITEM 448 - 2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG64-22, UNDER GUARDRAIL, AS PER PLAN
(8) ITEM 206 - CEMENT STABILIZED SUBGRADE, 12 INCHES DEEP
(9) ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE D
(10) ITEM 526 - 15" REINFORCED CONCRETE APPROACH SLAB, AS PER PLAN "A"
(11) ITEM 526 - 15" REINFORCED CONCRETE APPROACH SLAB, AS PER PLAN "B"
(12) ITEM 609 - CURB, TYPE 2-A
(13) ITEM 408 - PRIME COAT, AS PER PLAN
(14) ITEM 617 - 2" COMPACTED AGGREGATE, TYPE A, AS PER PLAN
(15) ITEM 609 - COMBINATION CURB AND GUTTER, TYPE 4

CALCULATED PRS
CHECKED TLW

PROPOSED TYPICAL SECTIONS - IR-80

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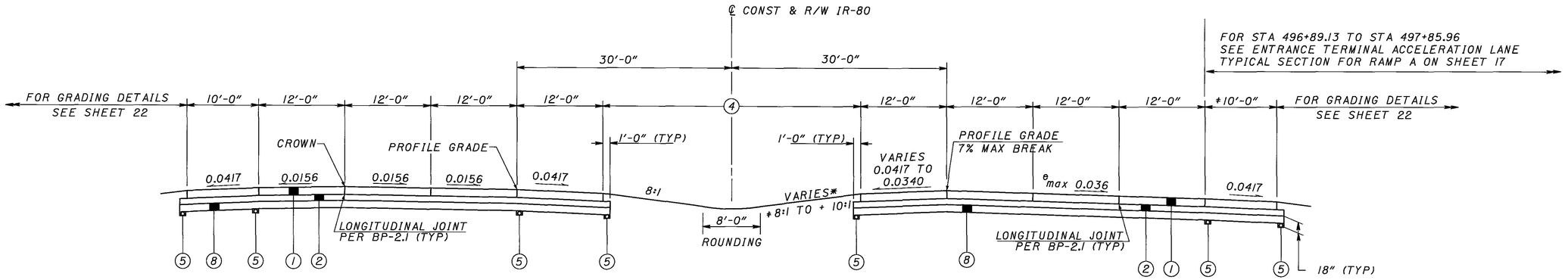
SHEET 2



WB NORMAL/EB SUPERELEVATED SECTION

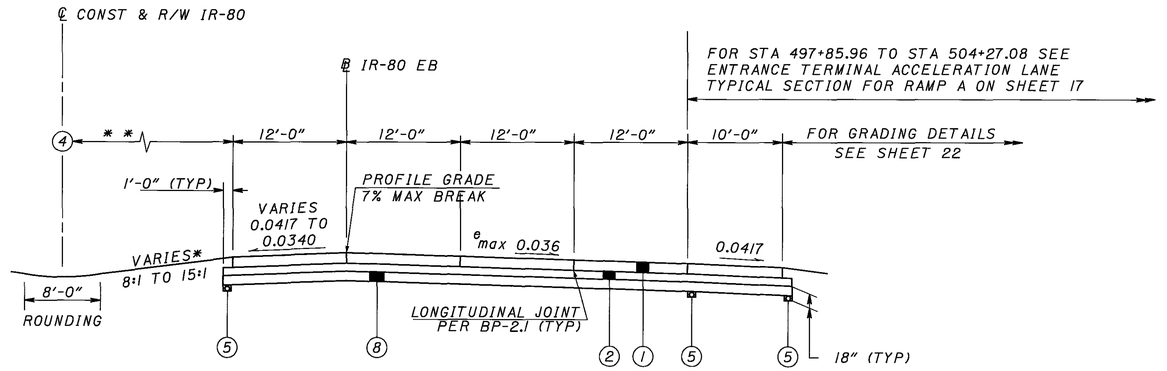
WESTBOUND STATION LIMITS

STA 496+95.89 TO STA 503+83.20 = 687.31 FT.

EASTBOUND STATION LIMITS

+ STA. 496+89.13 TO STA. 497+85.96 = 96.83 FT.
* STA. 566+64.28 (AHD) TO STA. 568+33.53 = 169.25 FT.

* FOR PROPOSED SLOPES, SEE CROSS SECTIONS



EB SUPERELEVATED SECTION

EASTBOUND STATION LIMITS (℄ EB STATIONS)

STA. 497+85.96 TO STA. 504+79.00 = 693.04 FT.
STA. 561+52.80 TO STA. 567+10.95 (BK) = 558.15 FT.

* * FOR RELATIONSHIP OF ℄ CONST IR-80 AND
℄ IR-80 EB SEE SCHEMATIC PLAN

FOR PROPOSED LEGEND, SEE SHEET 8

CALCULATED PRS
CHECKED TLW

PROPOSED TYPICAL SECTIONS - IR-80

MAH-80-0.97

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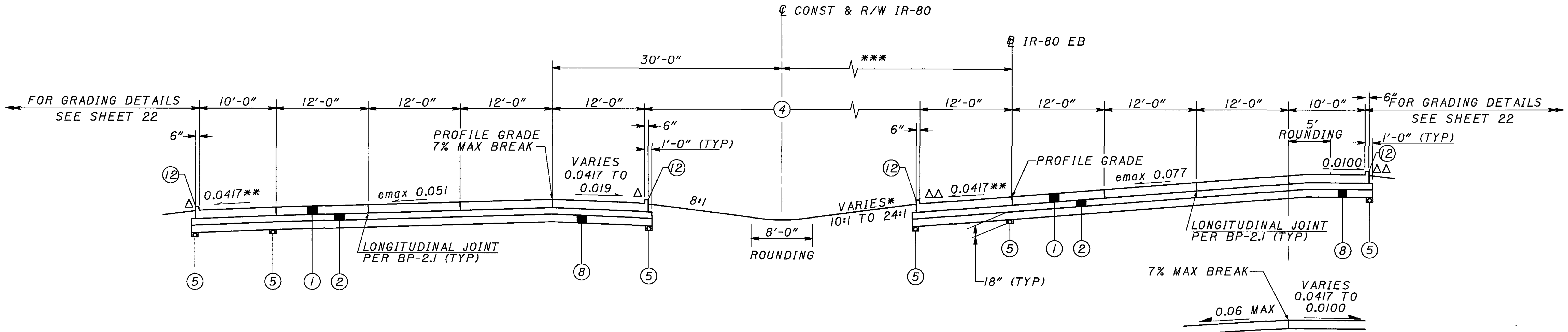


*   FOR PROPOSED SLOPES, SEE CROSS SECTIONS
** OR RATE OF SUPERELEVATION "IF GREATER"
*** FOR RELATIONSHIP OF ℄ CONST IR-80 AND ℄ IR-80 EB SEE SCHEMATIC PLAN
△   TYPE 2-A CURB FROM STA. 519+20.92 TO STA. 519+94.92 LT. AND STA. 519+59.92 TO STA. 519+94.92 RT.
△△ TYPE 2-A CURB FROM STA. 520+00.92 TO STA. 520+35.92 LT. AND STA. 520+08.92 TO STA. 520+35.92 RT.

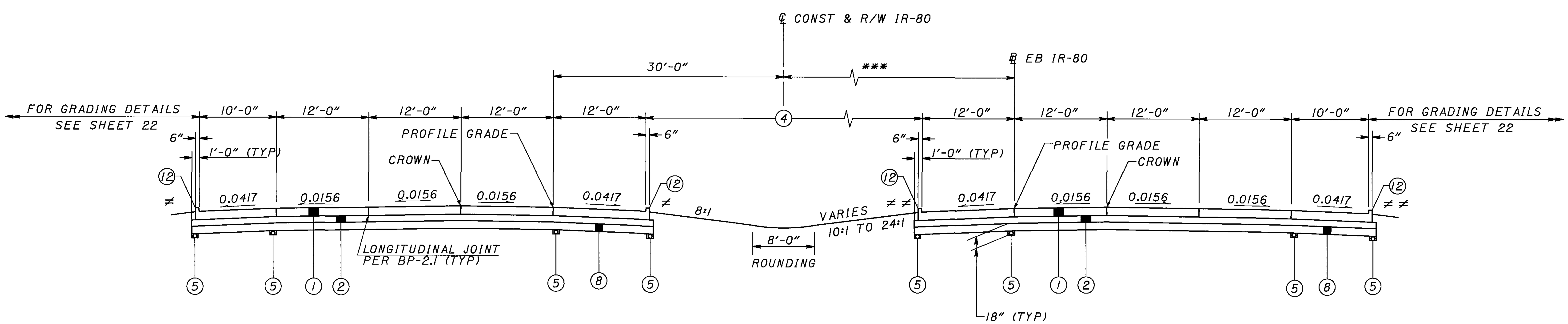
SUPERELEVATED SECTION

WESTBOUND STATION LIMITS (℄ IR-80 STATIONS)

STA. 503+83.20 TO STA. 519+94.92 = 1611.72 FT. (emax = 0.051)
STA. 551+00.80 TO STA. 559+76.66 (BK) = 875.86 FT. (emax = 0.019)
STA. 559+80.76 (AHD) TO STA. 560+75.30 = 94.54 FT. (emax = 0.019)

EASTBOUND STATION LIMITS (℄ EB STATIONS)

STA. 504+79.00 TO STA. 520+35.92 = 1556.92 FT. (emax = 0.077)
STA. 546+85.20 TO STA. 559+90.80 = 1305.60 FT. (emax = 0.036)



≠   TYPE 2-A CURB FROM STA. 545+72.08 TO STA. 546+04.08 LT. AND RT.
≠≠ TYPE 2-A CURB FROM STA. 546+13.08 TO STA. 546+45.08 LT. AND STA. 546+13.08 TO STA. 546+55.08 RT.

NORMAL SECTION

WESTBOUND STATION LIMITS (IR-80 STATIONS)

STA. 545+72.08 TO STA. 551+00.80 = 528.72 FT.
STA. 560+75.30 TO STA. 584+57.12 = 2381.82 FT.
STA. 586+50.73 TO STA. 593+18.20 = 667.47 FT.

EASTBOUND STATION LIMITS (℄ EB STATIONS)

STA. 546+13.08 TO STA. 546+85.20 = 72.12 FT.
STA. 559+90.80 TO STA. 561+52.80 = 162.00 FT.

FOR PROPOSED LEGEND, SEE SHEET 8

PROPOSED TYPICAL SECTIONS - IR-80

MAH-80-0.97

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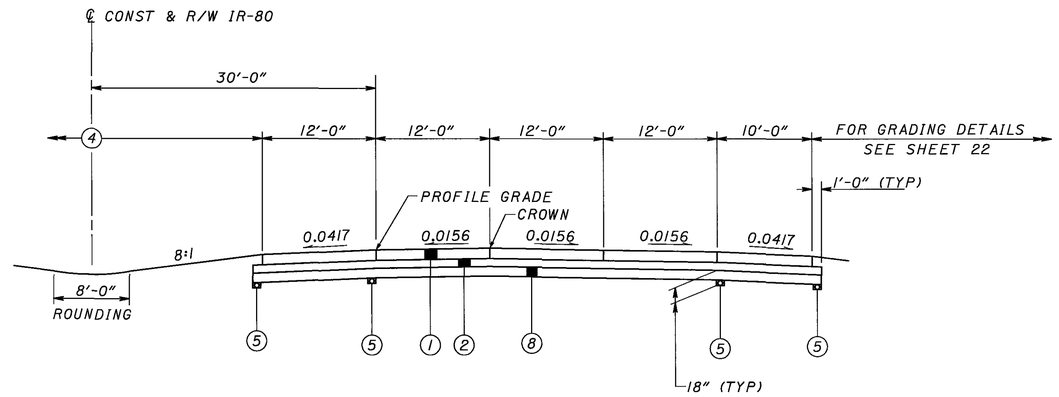
SHEET 4

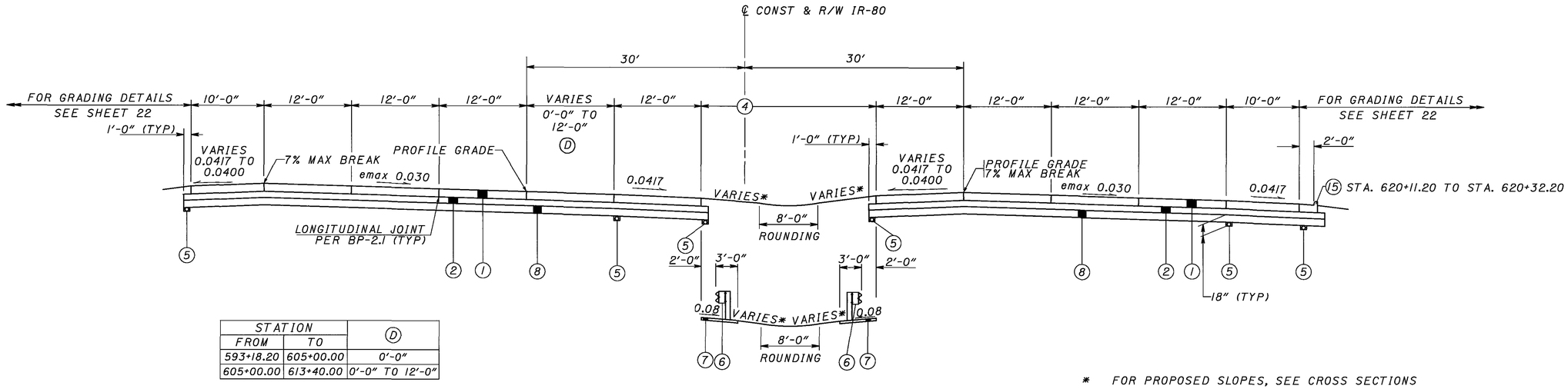


NORMAL SECTION

EASTBOUND STATION LIMITS

STA. 568+33.53 TO STA. 584+37.49 = 1603.96 FT.

STA. 586+30.97 TO STA. 594+11.80 = 780.83 FT.



STATION		D
FROM	TO	
593+18.20	605+00.00	0'-0"
605+00.00	613+40.00	0'-0" TO 12'-0"

* FOR PROPOSED SLOPES, SEE CROSS SECTIONS

SUPERELEVATED SECTION

WESTBOUND STATION LIMITS

STA. 593+18.20 TO STA. 613+40.00 = 2021.80 FT.

EASTBOUND STATION LIMITS

STA. 594+11.80 TO STA. 620+12.58 = 2600.78 FT.

FOR PROPOSED LEGEND, SEE SHEET 8

CALCULATED PRS
CHECKED TLW

PROPOSED TYPICAL SECTIONS - IR-80

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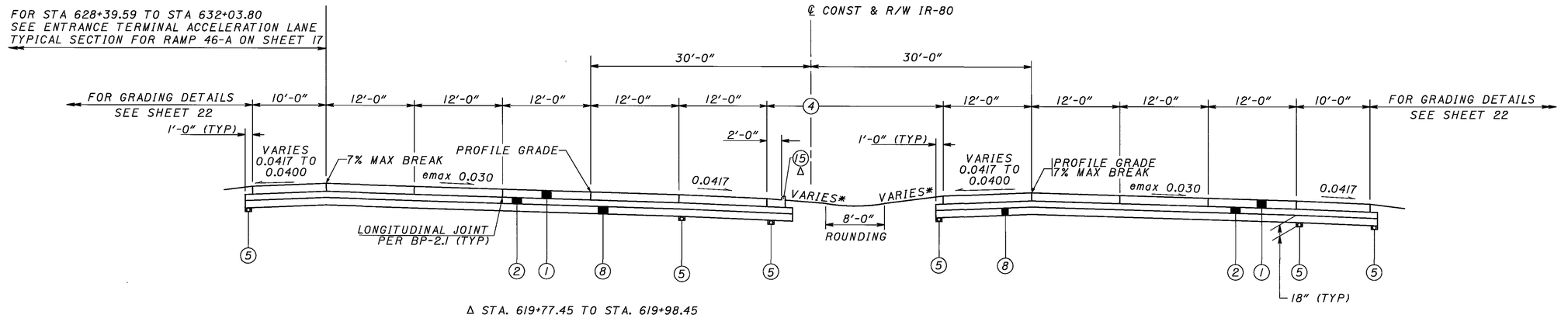


Δ STA. 619+77.45 TO STA. 619+98.45

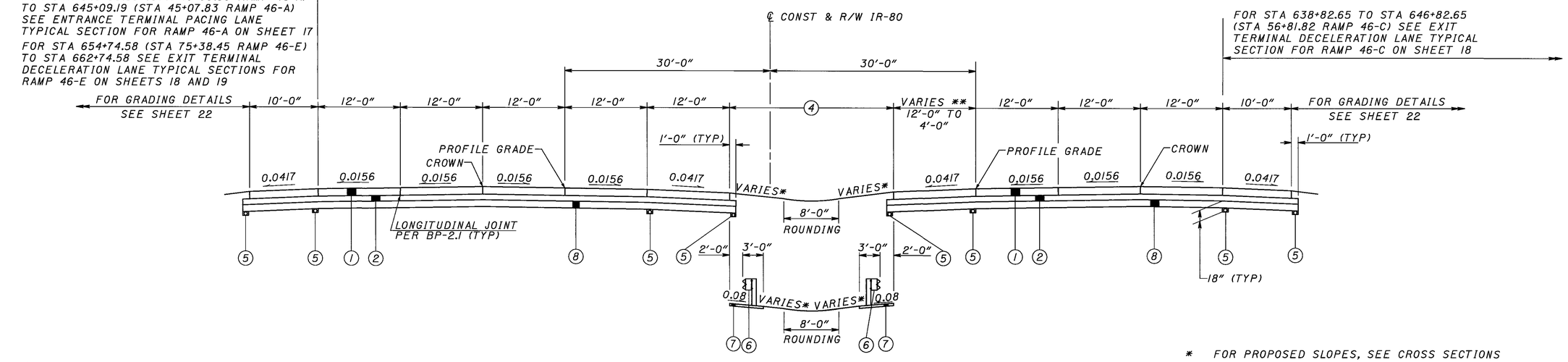
WESTBOUND STATION LIMITS

STA. 613+40.00 TO STA. 619+87.90 = 647.90 FT.
STA. 621+50.99 TO STA. 632+03.80 = 1052.81 FT.

SUPERELEVATED SECTION

EASTBOUND STATION LIMITS

STA. 621+76.74 TO STA. 632+03.80 = 1027.06 FT.



* FOR PROPOSED SLOPES, SEE CROSS SECTIONS

** 12'-0" FROM STA. 632+03.80 TO STA. 661+50.00 VARIES FROM 12'-0" AT STA. 661+50.00 TO 4'-0" AT STA. 663+50.00

NORMAL SECTION

WESTBOUND STATION LIMITS

STA. 632+03.80 TO STA. 672+07.00 = 4003.20 FT.

EASTBOUND STATION LIMITS

STA. 632+03.80 TO STA. 663+50.00 = 3146.20 FT.

FOR PROPOSED LEGEND, SEE SHEET 8

PROPOSED TYPICAL SECTIONS - IR-80

CALCULATED PRS
CHECKED TLW

MAH-80-0.97

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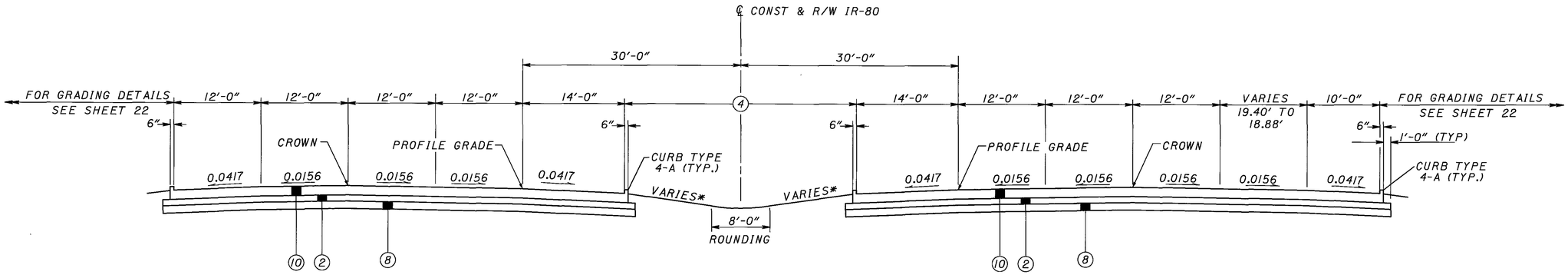
SHEET 7



APPROACH SLAB NORMAL SECTION

WESTBOUND STATION LIMITS

STA. 495+02.46 TO STA. 495+27.46 = 25.00 FT.

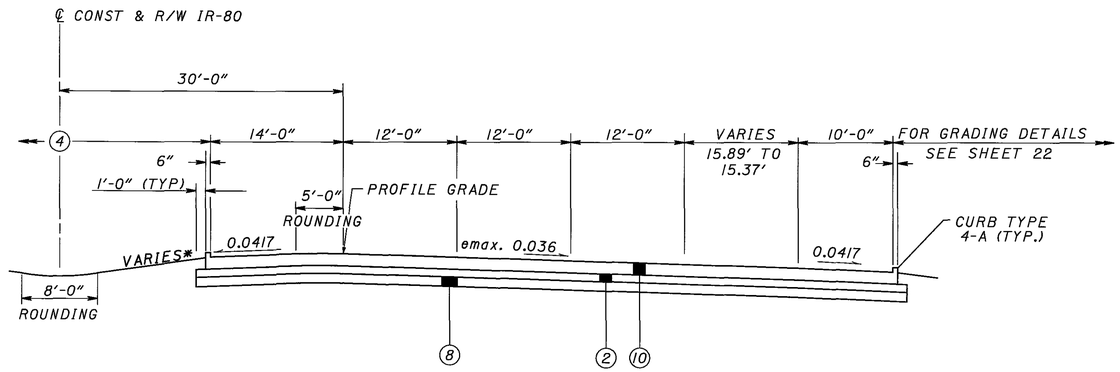
BRIDGE LIMITS: STA. 495+27.46 TO STA. 496+70.89 = 143.43
(BRIDGE NO. MAH-80-0076 L)

STA. 496+70.89 TO STA. 496+95.89 = 25.00 FT.

EASTBOUND STATION LIMITS

STA. 494+95.68 TO STA. 495+20.68 = 25.00 FT.

BRIDGE LIMITS: STA. 495+20.68 TO STA. 496+64.13 = 143.45
(BRIDGE NO. MAH-80-0076 R)



APPROACH SLAB SUPERELEVATED SECTION

EASTBOUND STATION LIMITS

STA. 496+64.13 TO STA. 496+89.13 = 25.00 FT.

* FOR PROPOSED SLOPES, SEE CROSS SECTIONS

FOR PROPOSED LEGEND, SEE SHEET 8

CALCULATED PRS CHECKED TLW

PROPOSED TYPICAL SECTIONS - IR 80

MAH-80-0.97

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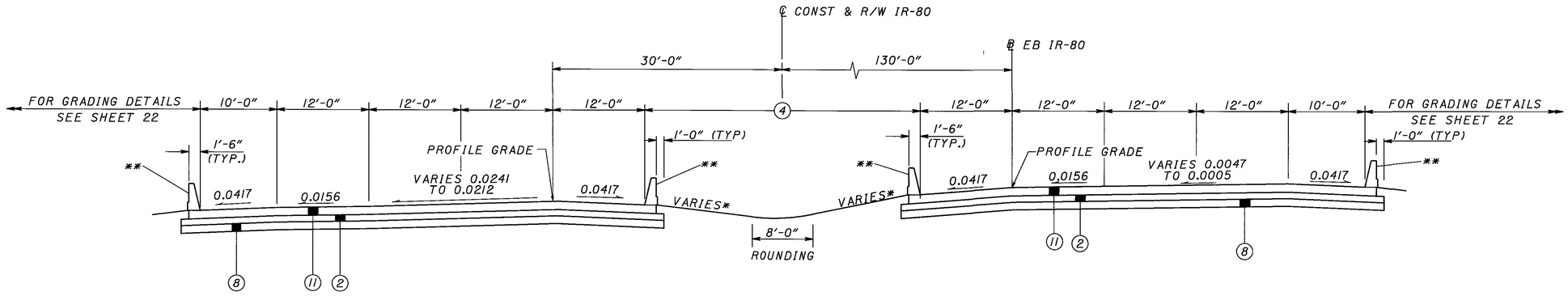
SHEET 2



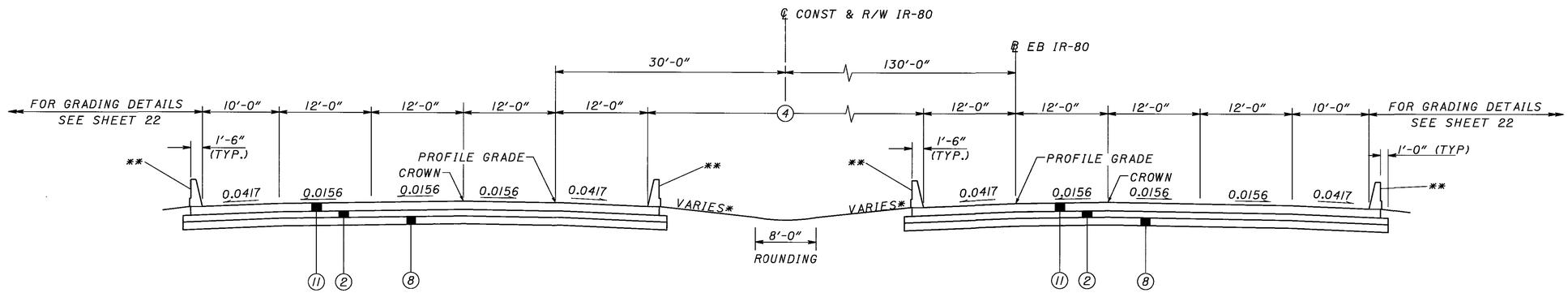
APPROACH SLAB SUPERELEVATED SECTION

WESTBOUND STATION LIMITS (℄ IR-80 STATIONS)

STA. 519+94.92 TO STA. 520+19.92 = 25.00 FT.
BRIDGE LIMITS: STA. 520+19.92 TO STA. 545+47.08 = 2527.16 FT.
(BRIDGE No. MAH-80-0123L)

EASTBOUND STATION LIMITS (℄ EB STATIONS)

STA. 520+35.92 TO STA. 520+60.92 = 25.00 FT.
BRIDGE LIMITS: STA. 520+60.92 TO STA. 545+88.08 = 2527.16 FT.
(BRIDGE No. MAH-80-0123R)



APPROACH SLAB NORMAL SECTION

WESTBOUND STATION LIMITS (℄ IR-80 STATIONS)

STA. 545+47.08 TO STA. 545+72.08 = 25.00 FT.

EASTBOUND STATION LIMITS (℄ EB STATIONS)

STA. 545+88.08 TO STA. 546+13.08 = 25.00 FT.

* FOR PROPOSED SLOPES, SEE CROSS SECTIONS
** SEE SHEET 984 FOR PARAPET WALL AND TRANSITION DETAILS

FOR PROPOSED LEGEND, SEE SHEET 8

CALCULATED PRS
CHECKED TLW

PROPOSED TYPICAL SECTIONS - IR 80

MAH-80-0.97

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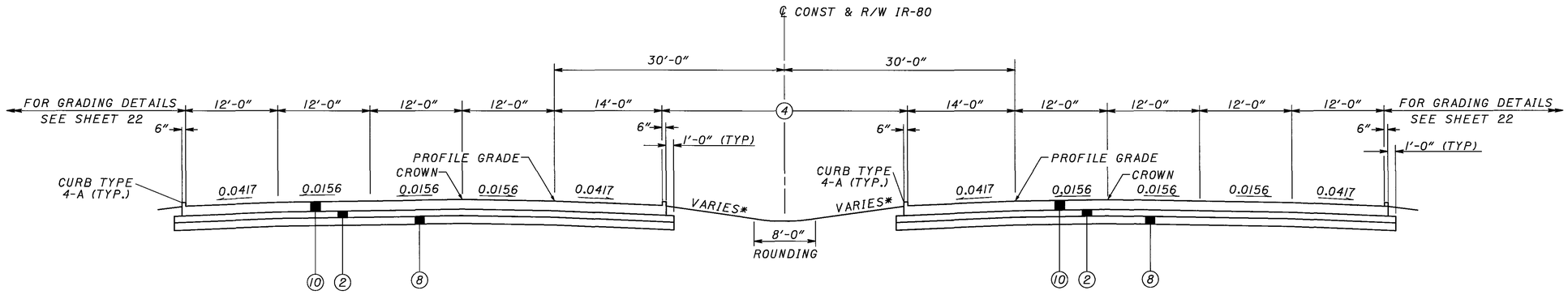
SHEET 3



APPROACH SLAB NORMAL SECTION

WESTBOUND STATION LIMITS

STA. 584+57.12 TO STA. 584+82.12 = 25.00 FT.

BRIDGE LIMITS: STA. 584+82.12 TO STA. 586+25.73 = 143.61 FT.
(BRIDGE NO. MAH-80-0245 L)

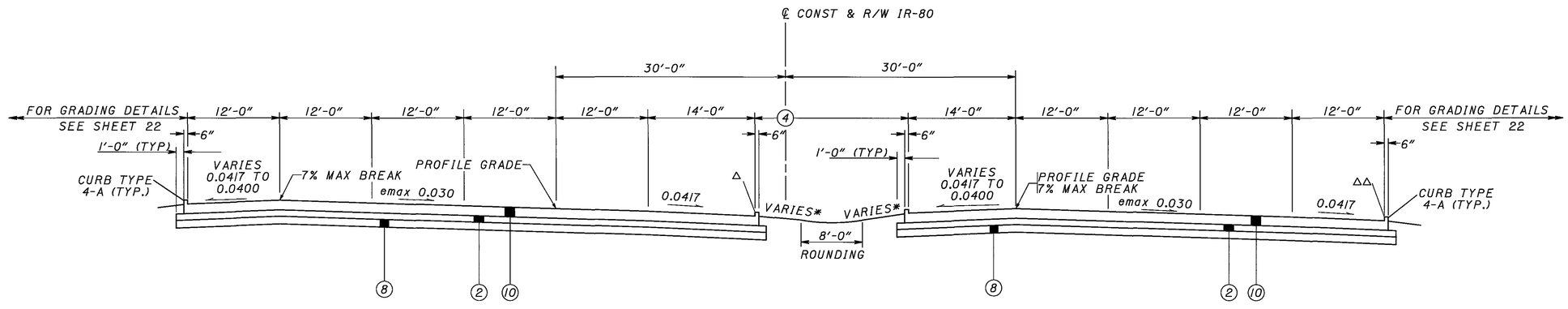
STA. 586+25.73 TO STA. 586+50.73 = 25.00 FT.

EASTBOUND STATION LIMITS

STA. 584+37.49 TO STA. 584+62.49 = 25.00 FT.

BRIDGE LIMITS: STA. 584+62.49 TO STA. 586+05.97 = 143.48 FT.
(BRIDGE NO. MAH-80-0245 R)

STA. 586+05.97 TO STA. 586+30.97 = 25.00 FT.



APPROACH SLAB SUPERELEVATED SECTION

△ TYPE 2-A CURB FROM STA. 619+78.00 TO STA. 619+99.00
△△ TYPE 2-A CURB FROM STA. 620+11.00 TO STA. 620+32.00

WESTBOUND STATION LIMITS

STA. 619+87.90 TO STA. 620+12.90 = 25.00 FT.

BRIDGE LIMITS: STA. 620+12.90 TO STA. 621+25.99 = 113.09 FT.
(BRIDGE NO. MAH-80-0313 L)

STA. 621+25.99 TO STA. 621+50.99 = 25.00 FT.

EASTBOUND STATION LIMITS

STA. 620+12.58 TO STA. 620+37.58 = 25.00 FT.

BRIDGE LIMITS: STA. 620+37.58 TO STA. 621+51.74 = 114.16 FT.
(BRIDGE NO. MAH-80-0313 R)

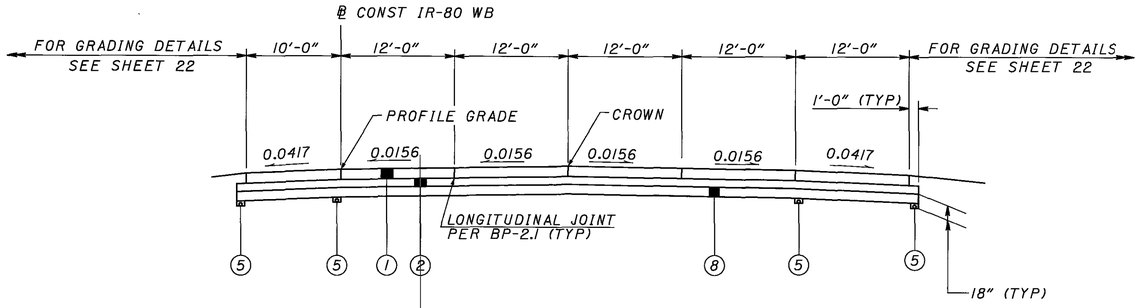
STA. 621+51.74 TO STA. 621+76.74 = 25.00 FT.

* FOR PROPOSED SLOPES, SEE CROSS SECTIONS
FOR PROPOSED LEGEND, SEE SHEET 8

CALCULATED PRS
CHECKED TLW

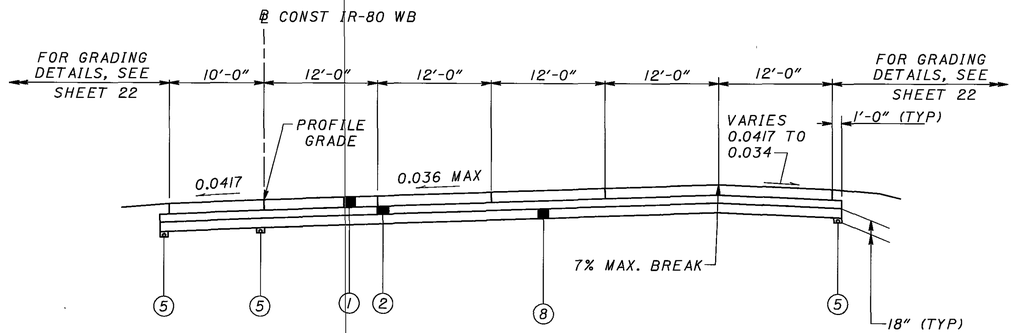
PROPOSED TYPICAL SECTIONS - IR 80

MAH-80-0.97



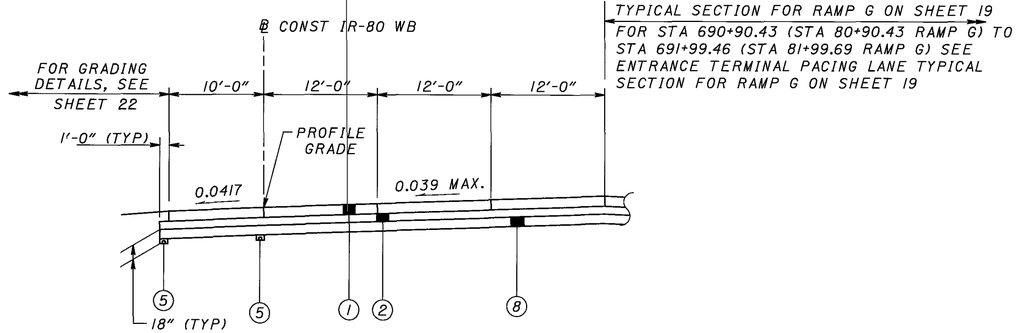
NORMAL 4-LANE RAMP SECTION

IR-80 WB: STA. 672+07.00 TO STA. 672+38.00 = 31.00 FT.



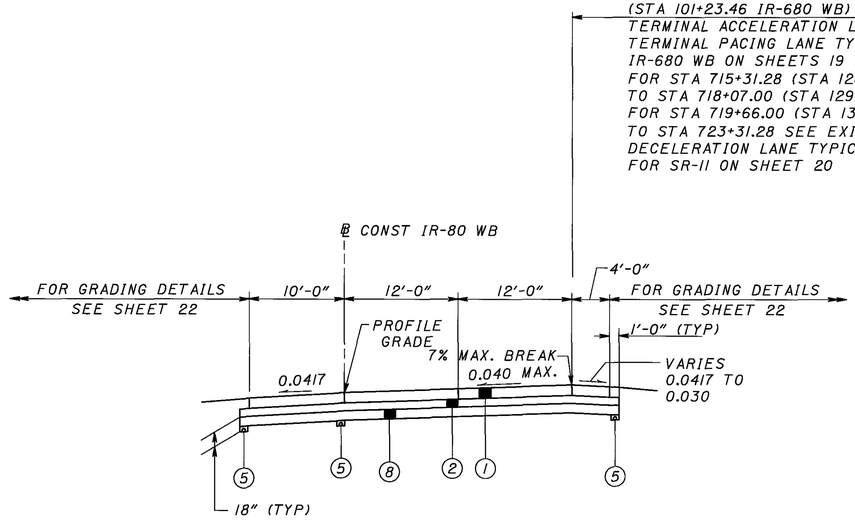
SUPERELEVATED 4-LANE RAMP SECTION

IR-80 WB: STA. 672+38.00 TO STA. 684+66.43 = 1228.43 FT.



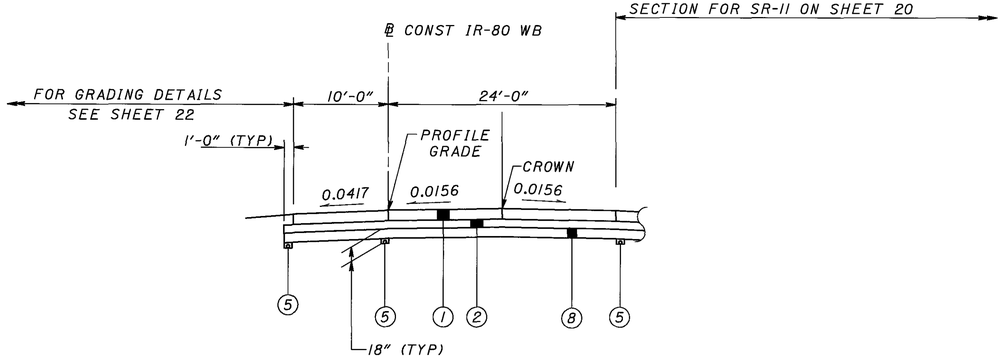
SUPERELEVATED 3-LANE RAMP SECTION

IR-80 WB: STA. 684+66.43 TO STA. 691+99.46 = 733.03 FT.



SUPERELEVATED 2-LANE RAMP SECTION

IR-80 WB: STA. 691+99.46 TO STA. 718+07.00 = 2607.54 FT.
STA. 719+66.00 TO STA. 723+61.84 = 395.84 FT.



NORMAL 2-LANE RAMP SECTION

IR-80 WB: STA. 718+07.00 TO STA. 719+66.00 = 159.00 FT.

FOR PROPOSED LEGEND, SEE SHEET 8

* OR RATE OF SUPERELEVATION IF GREATER

CALCULATED PRS
CHECKED TLW

PROPOSED TYPICAL SECTIONS - IR-80 WB

MAH-80-0.97

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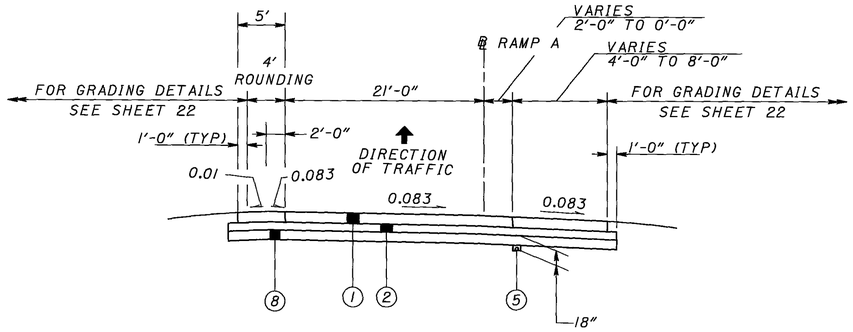
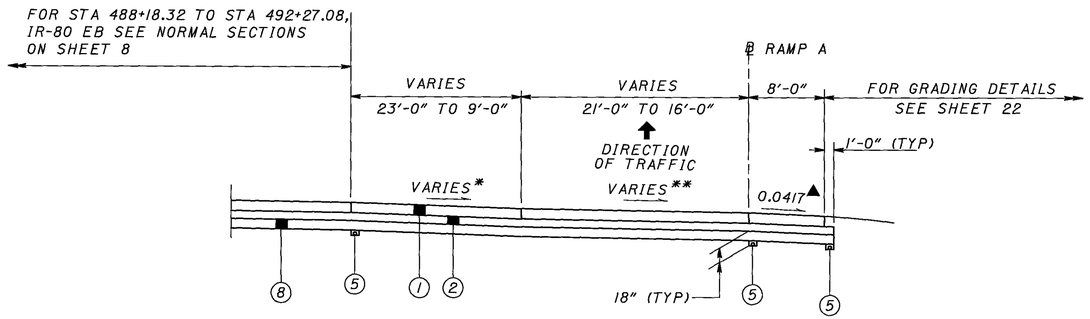


SINGLE RAMP SECTION (RAMP A)

STA. 8+00.00 TO STA. 8+21.23 (STA 488+18.32 IR-80) = 21.23 FT.



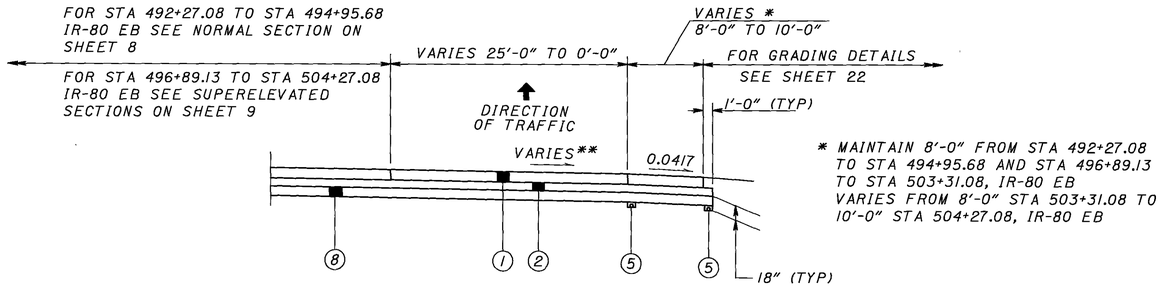
* VARIES FROM 0.038 TO 0.0156

** VARIES FROM 0.083 TO 0.0156

▲ OR RATE OF SUPERELEVATION IF GREATER

ENTRANCE TERMINAL PACING LANE (RAMP A)

STA. 8+21.23 (STA 488+18.32 IR-80) TO STA. 12+27.08 (STA 492+27.08 IR-80) = 405.85 FT.



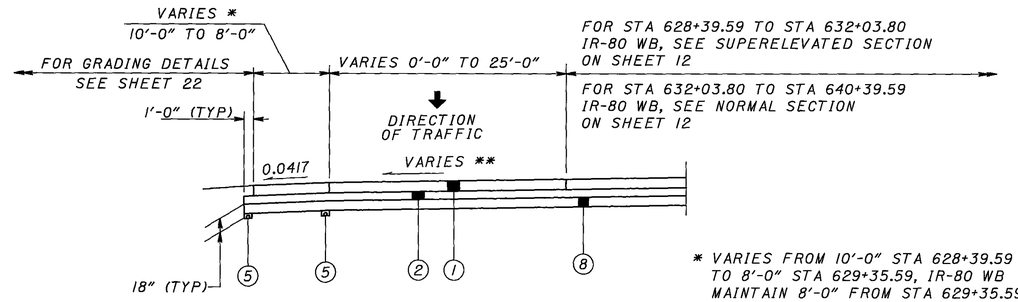
* MAINTAIN 8'-0" FROM STA 492+27.08 TO STA 494+95.68 AND STA 496+89.13 TO STA 503+31.08, IR-80 EB
VARIES FROM 8'-0" STA 503+31.08 TO 10'-0" STA 504+27.08, IR-80 EB

** VARIES - CONTINUATION OF THRU LANE SLOPE

ENTRANCE TERMINAL ACCELERATION LANE (RAMP A)

IR-80 EB: STA. 492+27.08 TO STA. 494+95.68 = 268.60 FT.

IR-80 EB: STA. 496+89.13 TO STA. 504+27.08 = 737.95 FT.

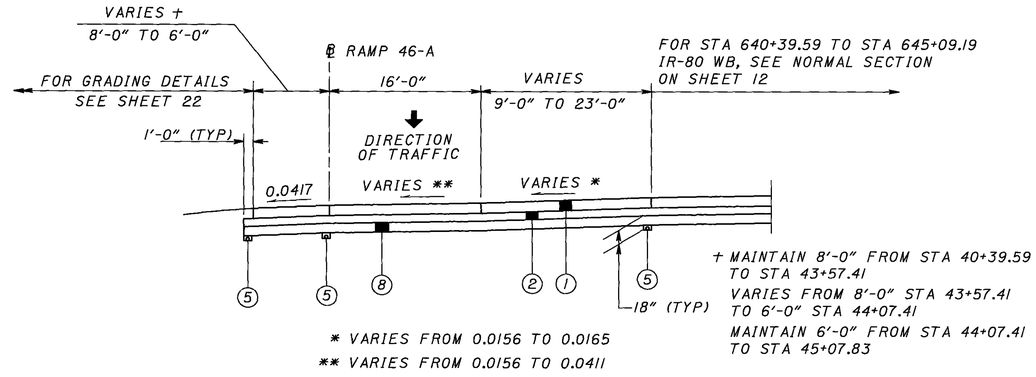


* VARIES FROM 10'-0" STA 628+39.59 TO 8'-0" STA 629+35.59, IR-80 WB
MAINTAIN 8'-0" FROM STA 629+35.59 TO STA 640+39.59, IR-80 WB

** VARIES - CONTINUATION OF THRU LANE SLOPE

ENTRANCE TERMINAL ACCELERATION LANE (RAMP 46-A)

IR-80 WB: STA. 628+39.59 TO STA. 640+39.59 = 1200.00 FT.



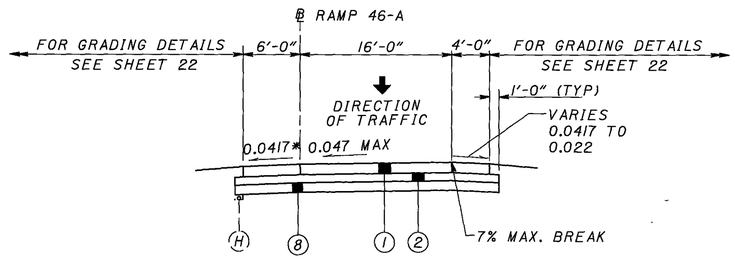
* VARIES FROM 0.0156 TO 0.0165

** VARIES FROM 0.0156 TO 0.0411

\+ MAINTAIN 8'-0" FROM STA 40+39.59 TO STA 43+57.41
VARIES FROM 8'-0" STA 43+57.41 TO 6'-0" STA 44+07.41
MAINTAIN 6'-0" FROM STA 44+07.41 TO STA 45+07.83

ENTRANCE TERMINAL PACING LANE (RAMP 46-A)

STA. 40+39.59 (STA 640+39.59 IR-80) TO STA. 45+07.83 (STA 645+09.19 IR-80) = 468.24 FT.



* OR RATE OF SUPERELEVATION IF GREATER

SINGLE RAMP SECTION (RAMP 46-A)

STA. 45+07.83 TO STA. 45+60.00 = 52.17 FT.

FOR PROPOSED LEGEND SEE SHEET 8

CALCULATED PRS
CHECKED TLW

PROPOSED TYPICAL SECTIONS RAMPS A AND 46-A

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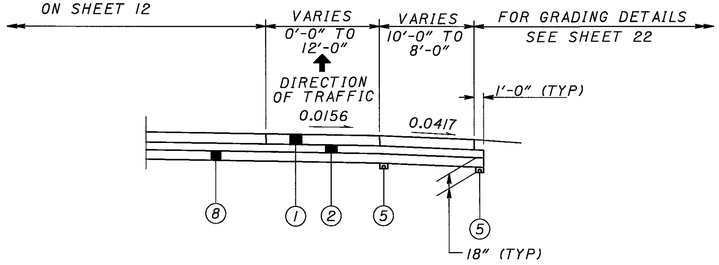
SHEET 2

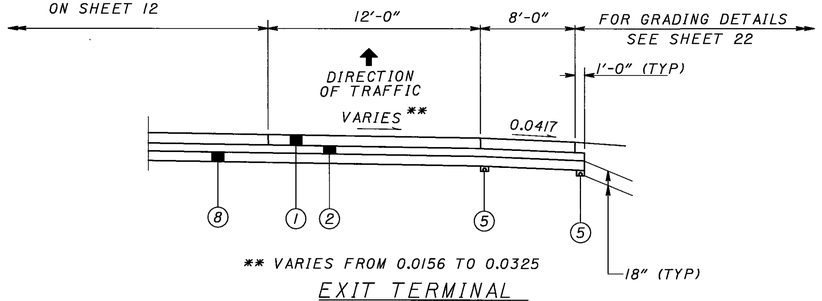
FOR STA 638+82.65 TO STA 639+82.65 IR-80 EB, SEE NORMAL SECTION ON SHEET 12



EXIT TERMINAL DECELERATION LANE (RAMP 46-C)

IR-80 EB: STA. 638+82.65 TO STA. 639+82.65 = 100.00 FT.

FOR STA 639+82.65 TO STA 642+28.36 IR-80 EB, SEE NORMAL SECTION ON SHEET 12

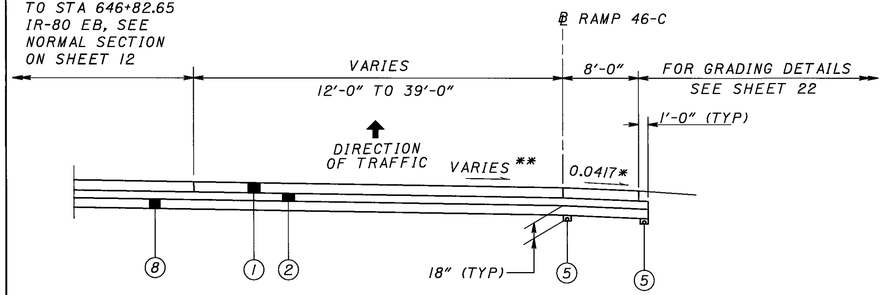


** VARIES FROM 0.0156 TO 0.0325

EXIT TERMINAL DECELERATION LANE (RAMP 46-C)

IR-80 EB: STA. 639+82.65 TO STA. 642+28.36 (STA 52+28.36 RAMP 46-C) = 245.71 FT.

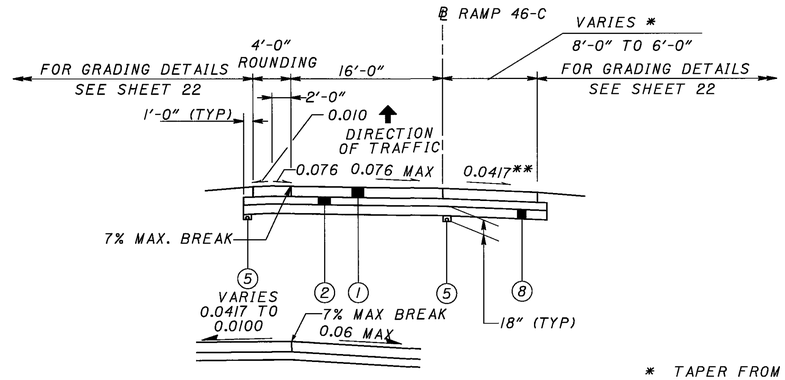
FOR STA 642+28.36 TO STA 646+82.65 IR-80 EB, SEE NORMAL SECTION ON SHEET 12



* OR RATE OF SUPERELEVATION IF GREATER
** VARIES FROM 0.0325 TO 0.041

EXIT TERMINAL DECELERATION LANE (RAMP 46-C)

IR-80 EB: STA. 642+28.36 (STA 52+28.36 RAMP 46-C) TO STA. 646+82.65 (STA. 56+81.82 RAMP 46-C) = 454.29 FT.

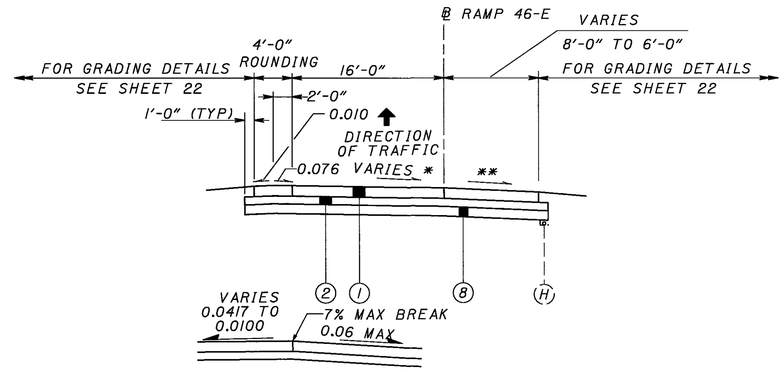


* TAPER FROM 8'-0" AT STA. 56+81.82 TO 6'-0" AT STA. 57+31.82. MAINTAIN 6'-0" FROM STA. 57+31.82 TO STA. 62+30.00

** OR RATE OF SUPERELEVATION IF GREATER

SINGLE RAMP SECTION (RAMP 46-C)

STA. 56+81.82 TO STA. 62+30.00 = 548.18 FT.

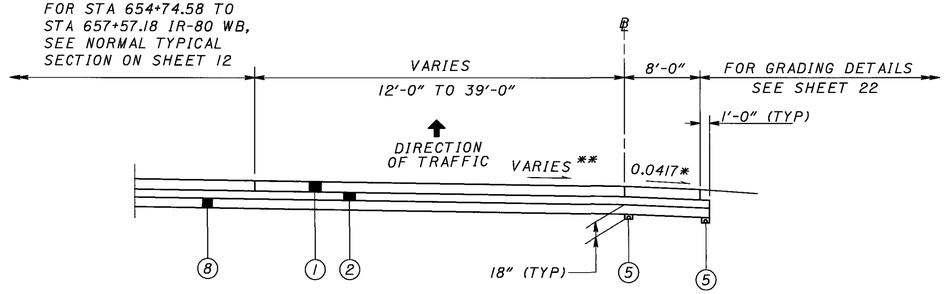


* VARIES FROM 0.059 TO 0.0475
** MATCH RATE OF SUPERELEVATION

SINGLE RAMP SECTION (RAMP 46-E)

STA. 75+38.45 TO STA. 75+70.00 = 31.55 FT.

FOR STA 654+74.58 TO STA 657+57.18 IR-80 WB, SEE NORMAL TYPICAL SECTION ON SHEET 12



* OR RATE OF SUPERELEVATION IF GREATER
** VARIES FROM 0.0156 TO 0.0475

EXIT TERMINAL DECELERATION LANE (RAMP 46-E)

IR-80 WB: STA. 657+57.18 (STA 72+57.18 RAMP 46-E) TO STA. 654+74.58 (STA 75+38.45 RAMP 46-E) (LOOKING BACK) = 282.60 FT.

FOR PROPOSED LEGEND, SEE SHEET 8

PROPOSED TYPICAL SECTIONS RAMPS 46-C AND 46-E

CALCULATED PRS
CHECKED TLW

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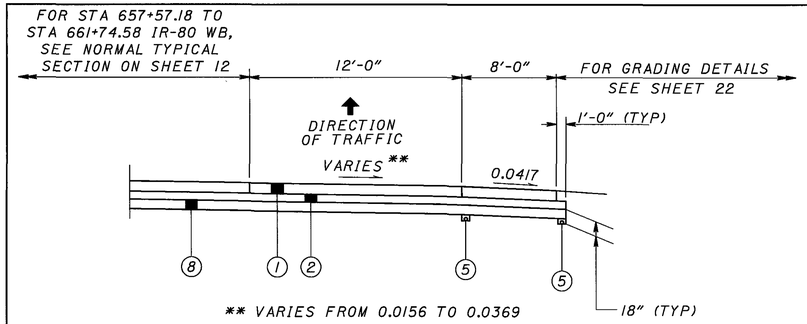
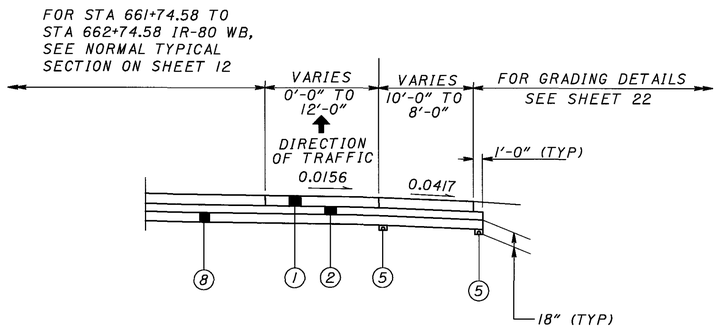


** VARIES FROM 0.0156 TO 0.0369

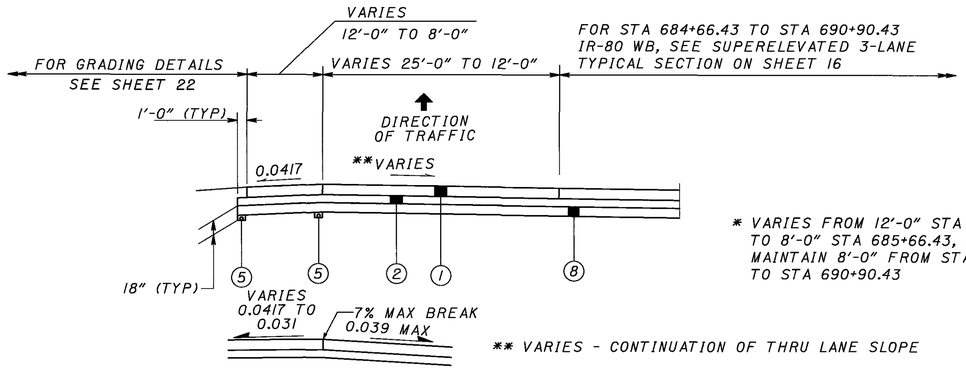
EXIT TERMINAL DECELERATION LANE (RAMP 46-E)

IR-80 WB: STA. 661+74.58 TO STA. 657+57.18 (STA 72+57.18 RAMP 46-E) (LOOKING BACK) = 417.40 FT.



EXIT TERMINAL DECELERATION LANE (RAMP 46-E)

IR-80 WB: STA. 662+74.58 TO STA. 661+74.58 (LOOKING BACK) = 100.00 FT.



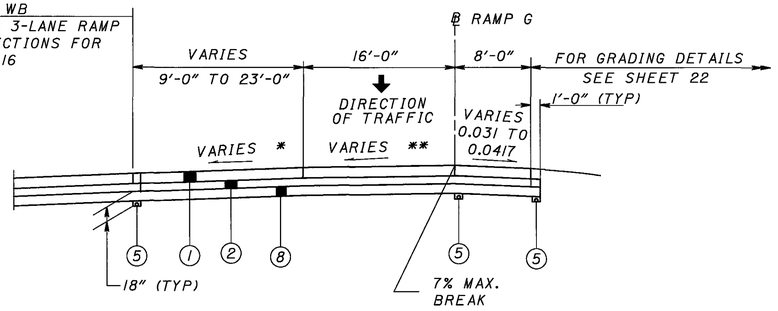
* VARIES FROM 12'-0" STA 684+66.43 TO 8'-0" STA 685+66.43, IR-80 WB. MAINTAIN 8'-0" FROM STA 685+66.43 TO STA 690+90.43

** VARIES - CONTINUATION OF THRU LANE SLOPE

ENTRANCE TERMINAL ACCELERATION LANE (RAMP G)

IR-80 WB: STA. 690+90.43 (STA 80+90.43 IR-80 WB) TO STA. 684+66.43 (LOOKING BACK) = 624.00 FT.

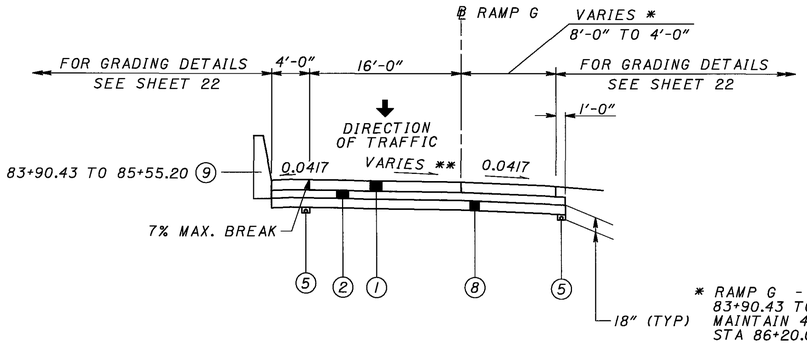
FOR STA 690+90.43 TO STA 693+87.52 IR-80 WB SEE SUPERELEVATED 3-LANE RAMP AND 2-LANE RAMP SECTIONS FOR IR-80 WB ON SHEET 16



* RAMP G - VARIES 0.0390 TO 0.045
** VARIES 0.0390 TO 0.0156

ENTRANCE TERMINAL PACING LANE (RAMP G)

STA. 80+90.43 (STA 690+90.43 IR-80 WB) TO STA. 83+90.43 (STA 693+87.52 IR-80 WB) = 300.00 FT.

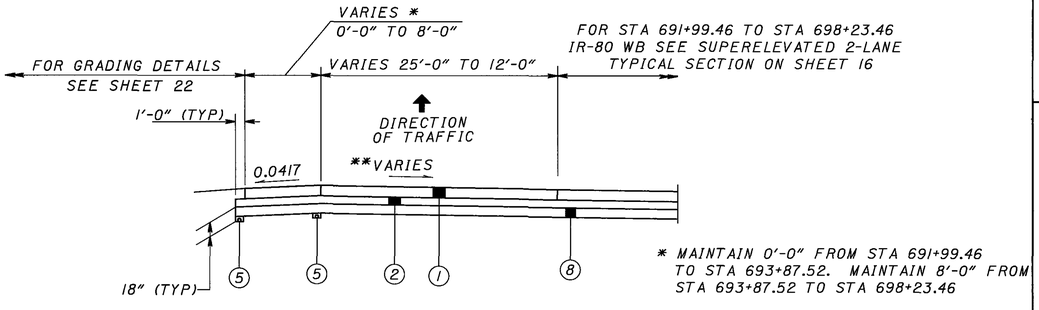


* RAMP G - TAPER FROM 8'-0" AT STA 83+90.43 TO 4'-0" AT STA 84+90.43. MAINTAIN 4'-0" FROM STA 84+90.43 TO STA 86+20.00

** VARIES -0.0156 TO 0.022

SINGLE RAMP SECTION (RAMP G)

STA. 83+90.43 TO STA. 86+20.00 = 229.57 FT.



* MAINTAIN 0'-0" FROM STA 691+99.46 TO STA 693+87.52. MAINTAIN 8'-0" FROM STA 693+87.52 TO STA 698+23.46

** VARIES - CONTINUATION OF THRU LANE SLOPE

ENTRANCE TERMINAL ACCELERATION LANE (IR-680 WB)

IR-80 WB: STA. 698+23.46 (STA 98+23.46 IR-680 WB) TO STA. 691+99.46 (LOOKING BACK) = 624.00 FT.

FOR PROPOSED LEGEND, SEE SHEET 8

CALCULATED PRS
CHECKED TLW

PROPOSED TYPICAL SECTIONS RAMPS 46-E, G, AND IR-680 WB

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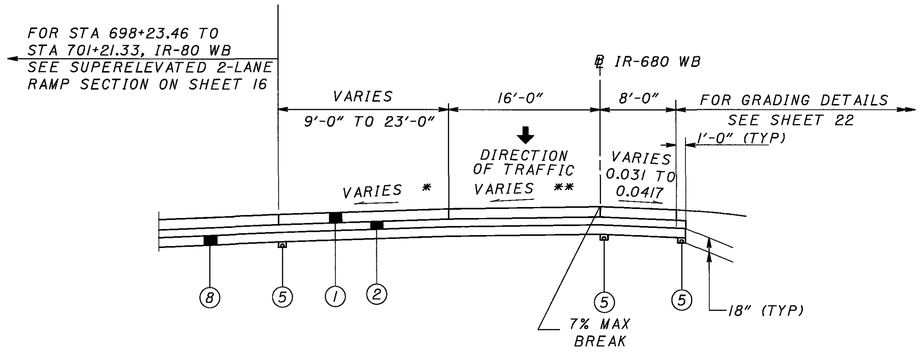
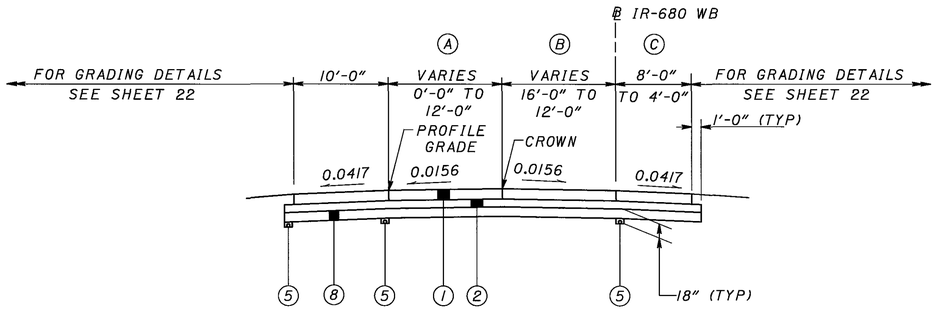
SHEET 4



* IR-680 WB - VARIES 0.0390 TO 0.007
** VARIES 0.0390 TO -0.0156

ENTRANCE TERMINAL PACING LANE (IR-680 WB)

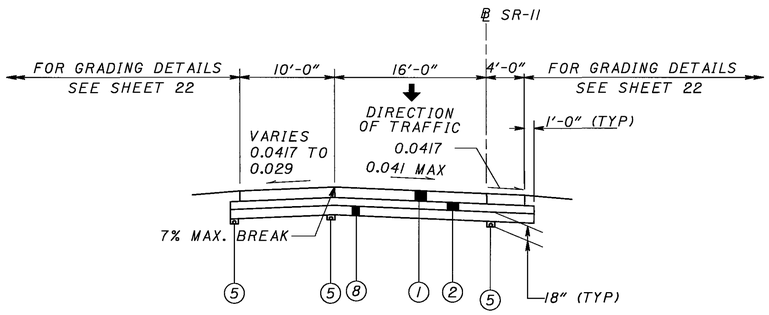
IR-680 WB: STA. 98+23.46 (STA 698+23.46 IR-80 WB) TO STA. 101+23.46 (STA 701+21.33 IR-80 WB) = 300.00 FT.



NORMAL SECTION (IR-680 WB)

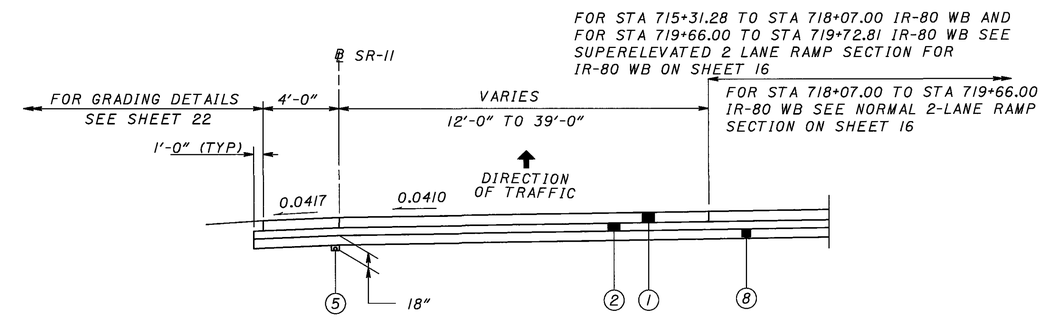
STA. 101+23.46 (STA 701+21.33 IR-80 WB) TO STA. 106+50.00 = 526.54 FT.

STATION		Ⓐ	Ⓑ	Ⓒ
FROM	TO			
101+23.46	101+50	0'-0"	16'-0"	- - - -
101+50	103+90	0'-0" TO 8'-0"	16'-0" TO 12'-0"	- - - -
103+90	106+30	8'-0" TO 12'-0"	12'-0"	- - - -
106+30	106+50	12'-0"	12'-0"	- - - -
101+23.46	102+23.46	- - - -	- - - -	8'-0" TO 4'-0"



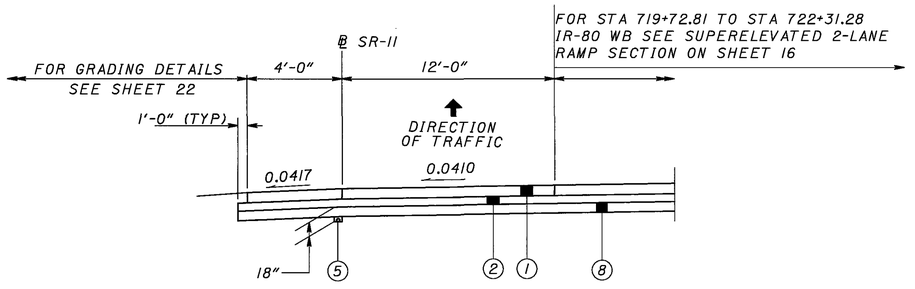
SINGLE RAMP SECTION (SR-11)

STA. 122+50.00 TO STA. 126+31.09 = 381.09 FT.



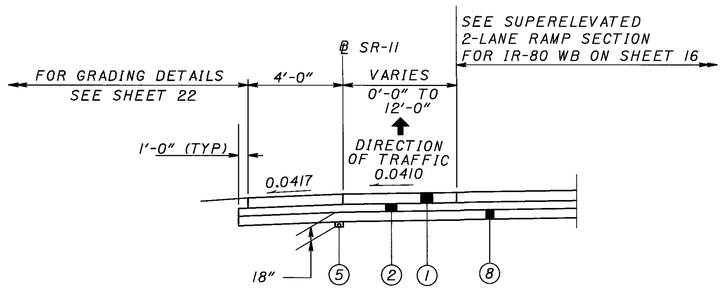
EXIT TERMINAL DECELERATION LANE (SR-11)

STA. 130+72.81 (STA 719+72.81 IR-80 WB) TO
STA. 126+31.09 (STA 715+31.28 IR-80 WB) (LOOKING BACK) = 441.72 FT.



EXIT TERMINAL DECELERATION LANE (SR-11)

IR-80 WB: STA. 722+31.28 TO STA. 719+72.81 (STA 130+72.81 SR-11) (LOOKING BACK) = 258.47 FT.



EXIT TERMINAL DECELERATION LANE (SR-11)

IR-80 WB: STA. 723+31.28 TO STA. 722+31.28 (LOOKING BACK) = 100.00 FT.

FOR PROPOSED LEGEND, SEE SHEET 8

CALCULATED PRS
CHECKED TLW

PROPOSED TYPICAL SECTIONS RAMPS IR-680 WB AND SR-11

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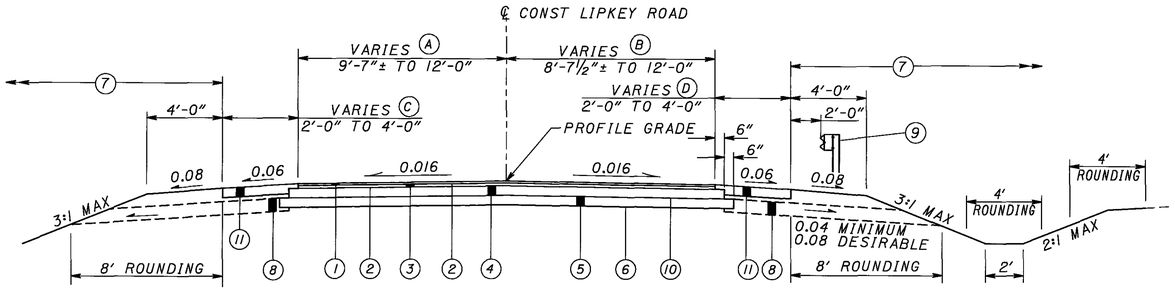
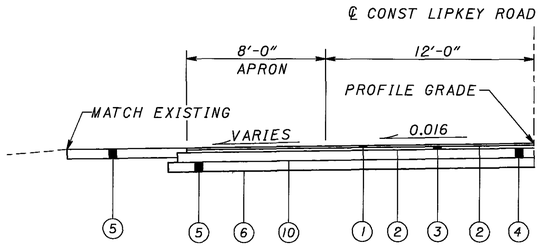


STATION		(A)	(B)	(C)	(D)
FROM	TO				
46+00.00	46+66.50	10'-8" TO 12'-0"	-	2'-0" TO 4'-0"	-
46+00.00	47+69.50	-	8'-7½" TO 12'-0"	-	2'-0" TO 4'-0"
46+66.50	51+76.50	12'-0"	-	4'-0"	-
47+69.50	51+76.50	-	12'-0"	-	4'-0"
51+76.50	53+00.00	12'-0" TO 9'-7"	12'-0" TO 9'-6½"	4'-0" TO 2'-0"	4'-0" TO 2'-0"

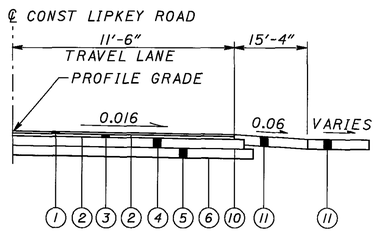
LIPKEY ROAD NORMAL SECTION

STA. 46+00.00 TO STA. 53+00.00 = 700.00 FT.



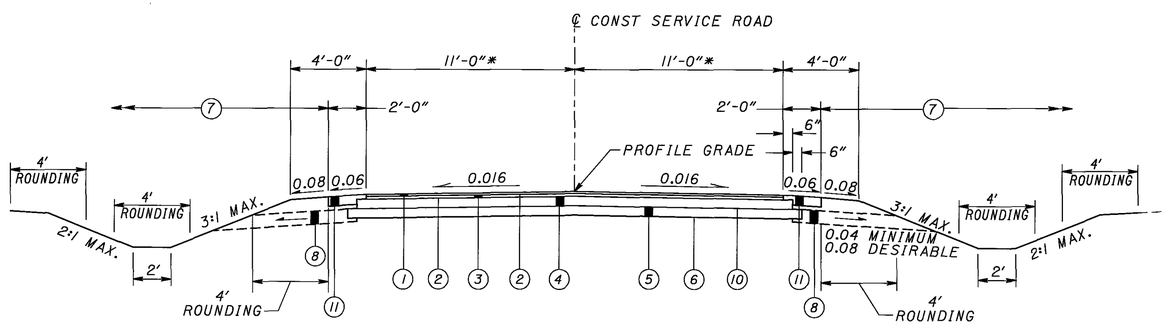
ASPHALT DRIVE

LIPKEY ROAD STA 48+00 LT



FIELD DRIVE

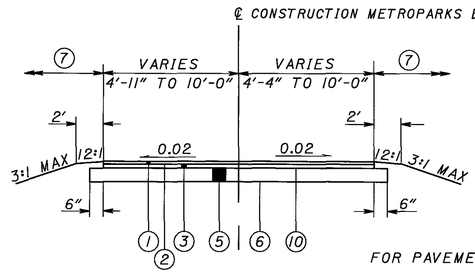
LIPKEY ROAD STA 47+50 RT



SERVICE ROAD NORMAL SECTION

STA. 7+50.00 TO STA. 14+99.20 = 749.20 FT.

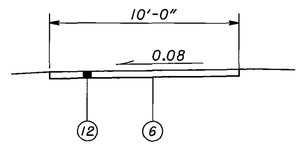
* VARIES FROM STA. 7+50.00 TO STA. 9+31.59
SEE SHEET 826 FOR DETAILS



FOR PAVEMENT WIDTHS SEE SHEET 792

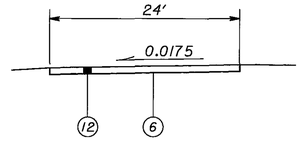
METROPARKS BIKEWAY NORMAL SECTION

STA. 48+00.00 TO STA. 52+00.00 = 400.00 FT.



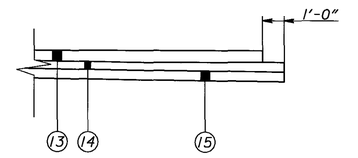
ACCESS RAMP A

STA 0+24.18 TO STA 2+31.95 = 207.77 FT



ACCESS BETWEEN SERVICE RD AND IR-80

STA 578+50 RT



FOR PAVEMENT WIDTHS AND CROSS SLOPES SEE
PERMANENT CROSSOVER DETAILS ON SHEETS 822 TO 824

PAVEMENT CROSSOVER

STA. 500+18.80 TO STA. 507+36.71 (℄ IR-80)
STA. 575+01.77 TO STA. 580+55.54

FOR CROSSOVER AT STA 610+00, SEE SHEET 825

LEGEND

(1) ITEM 448 - 1¼" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22
(2) ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE (0.040 GAL/SQ YD)
(3) ITEM 448 - 1¾" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG64-22
(4) ITEM 301 - 6" ASPHALT CONCRETE BASE
(5) ITEM 304 - 6" AGGREGATE BASE
(6) ITEM 204 - SUBGRADE COMPACTION
(7) ITEM 659 - SEEDING AND MULCHING (WITH 4" TOPSOIL)
(8) ITEM 605 - AGGREGATE DRAINS
(9) ITEM 606 - GUARDRAIL, TYPE 5
(10) ITEM 408 - PRIME COAT (0.4 GAL/SQ YD)
(11) ITEM 304 - 8" AGGREGATE BASE
(12) ITEM 411 - 8" STABILIZED CRUSHED AGGREGATE
(13) ITEM 452 - 13" NON-REINFORCED CONCRETE PAVEMENT
(14) ITEM 304 - 10" AGGREGATE BASE
(15) ITEM 206 - CEMENT STABILIZED SUBGRADE, 12 INCHES DEEP

* FOR PROPOSED SLOPES, SEE CROSS SECTIONS

CALCULATED PRS
CHECKED TLW

PROPOSED TYPICAL SECTIONS
LIPKEY ROAD, SERVICE ROAD, PERMANENT CROSSOVER & METROPARK BIKEWAY

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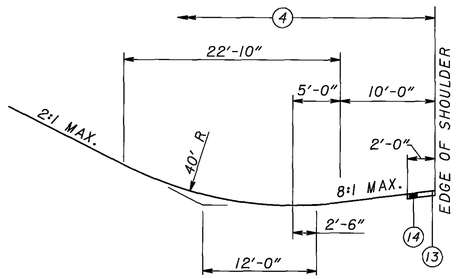
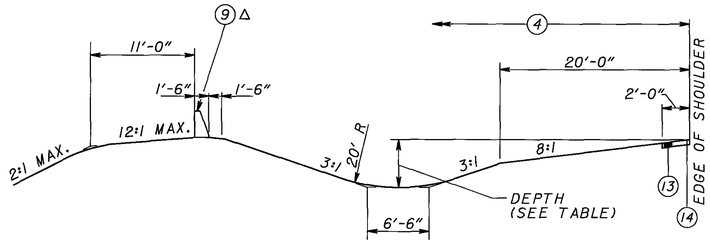
SHEET #



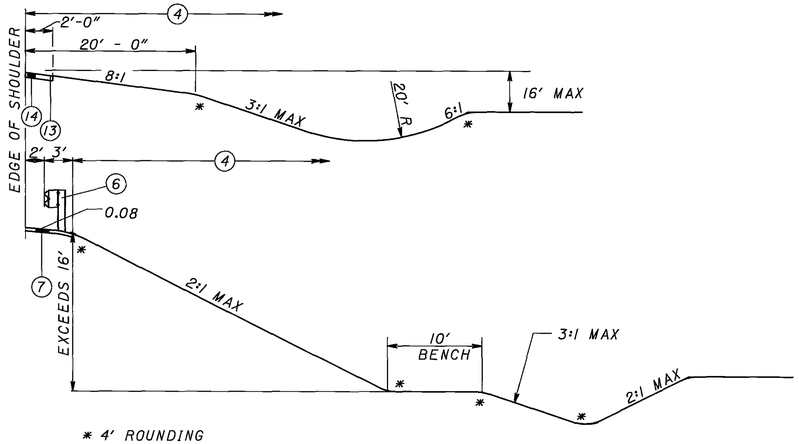
CUT SECTION DETAIL



Δ CONCRETE BARRIER, SINGLE SLOPE, TYPE D
FROM STA. 500+00 TO STA. 520+42 E.B.
FROM STA. 508+00 TO STA. 519+57 W.B.
FROM STA. 545+71 TO STA. 570+00 W.B.
FROM STA. 546+19 TO STA. 561+50 E.B.

SPILL CONTAINMENT SECTION DETAIL

SECTION APPLIES: ℄ STA 496+80 TO ℄ STA 520+32
℄ STA 545+56 TO ℄ STA 584+56
℄ STA 545+61 TO ℄ STA 584+56
℄ STA 546+06 TO ℄ STA 584+56



FILL SECTION DETAILS

FOR ADDITIONAL SPILL CONTAINMENT DITCH DETAILS, SEE SHEET 850

FOR PROPOSED LEGEND, SEE SHEET 8

SEE CROSS SECTIONS FOR APPLICATION (ALSO APPLIES TO OPPOSITE HAND)

CALCULATED PMS
CHECKED TLW

PROPOSED TYPICAL SECTIONS - GRADING DETAILS

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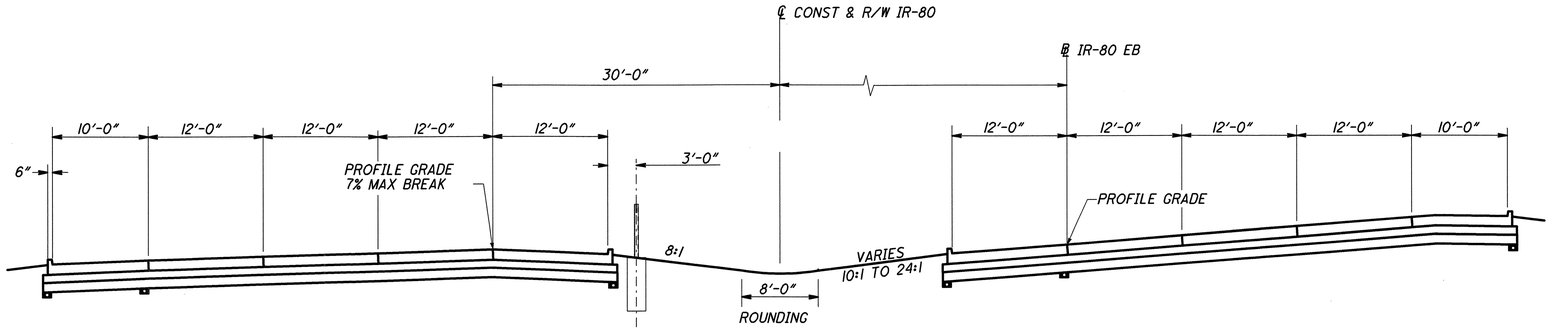
SHEET 12

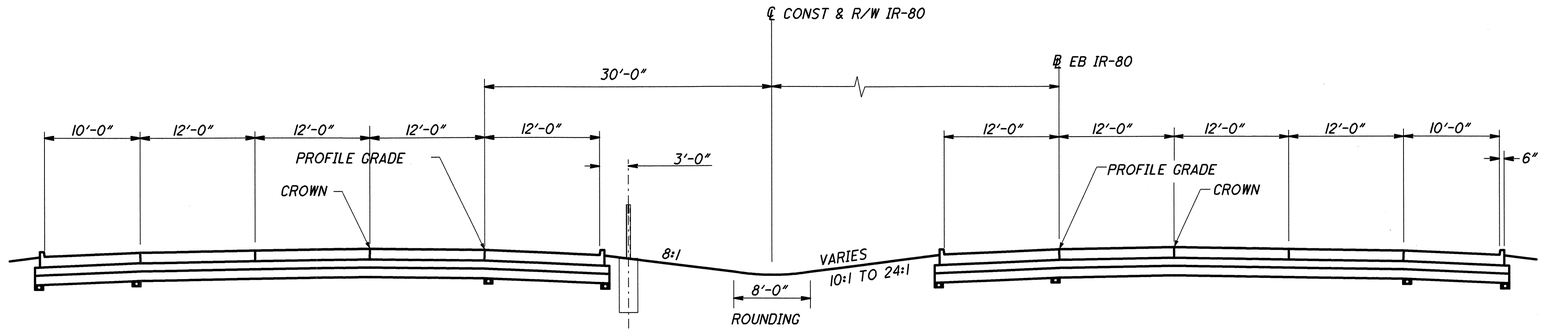


SUPERELEVATED SECTION

WESTBOUND MEDIAN CABLE GUARDRAIL STATION LIMITS (℄ IR-80 STATIONS)

STA. 559+12.50 TO STA. 559+76.66 (BK) = 64.16 FT.

STA. 559+80.76 (AHD) TO STA. 560+75.30 = 94.54 FT.

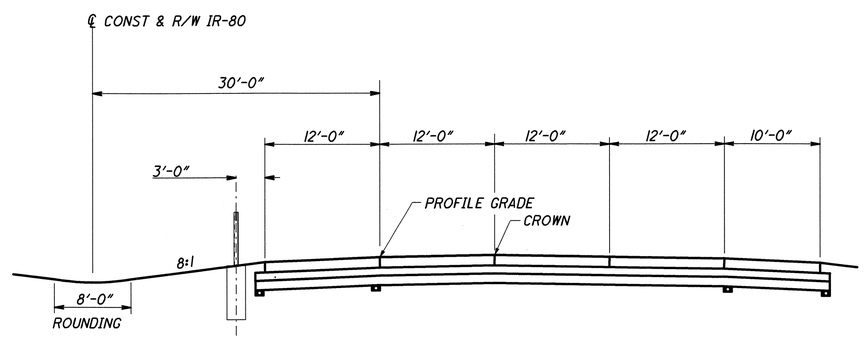


NORMAL SECTION

WESTBOUND MEDIAN CABLE GUARDRAIL STATION LIMITS (IR-80 STATIONS)

STA. 560+75.30 TO STA. 575+50.00 = 1474.70 FT.

STA. 587+00.00 TO STA. 593+18.20 = 618.20 FT.



NORMAL SECTION

EASTBOUND MEDIAN CABLE GUARDRAIL STATION LIMITS

STA. 580+50.00 TO STA. 584+00.00 = 350.00 FT.

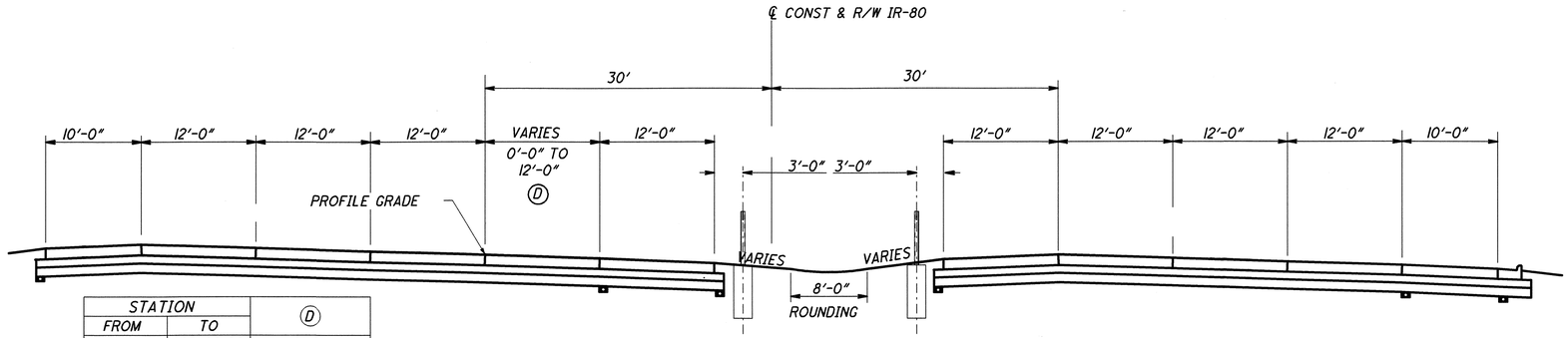
PROPOSED MEDIAN CABLE GUARDRAIL TYPICAL SECTIONS - IR-80

CALCULATED PRS
CHECKED TLW

MAH-80-0.97

22A
1100

$DATE$
$FILE$
$TIME$



STATION		Ⓓ
FROM	TO	
593+18.20	605+00.00	0'-0"
605+00.00	613+40.00	0'-0" TO 12'-0"

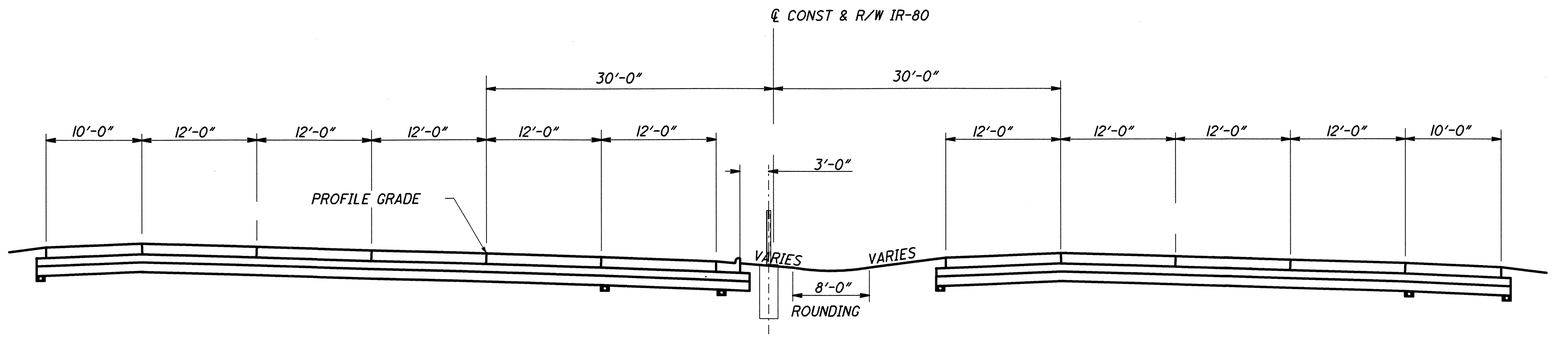
SUPERELEVATED SECTION

WESTBOUND MEDIAN CABLE GUARDRAIL STATION LIMITS

STA. 593+18.20 TO STA. 609+75.00 = 1656.80 FT.

EASTBOUND MEDIAN CABLE STATION LIMITS

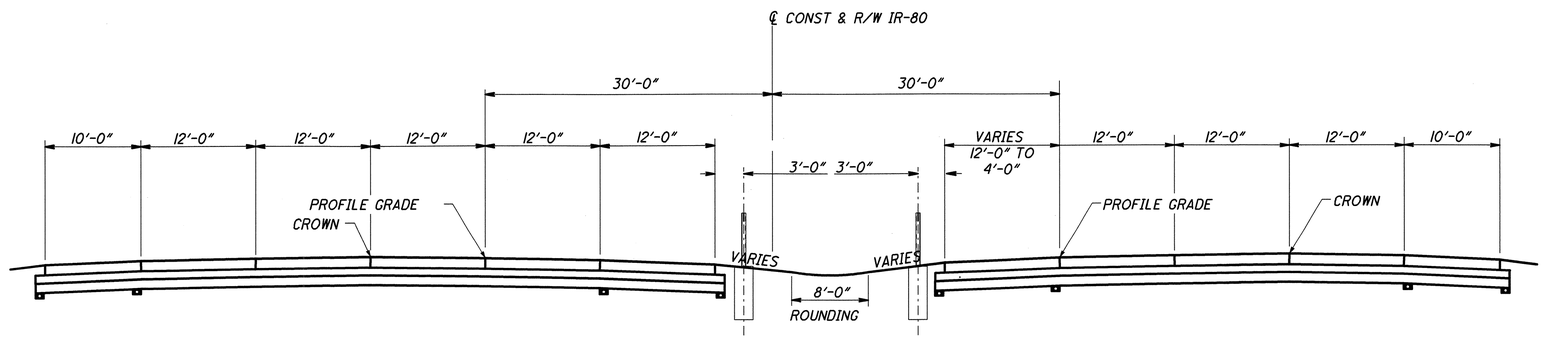
STA. 613+62.5 TO STA. 619+75.00 = 612.5 FT.



SUPERELEVATED SECTION

WESTBOUND W/O GUARDRAIL STATION LIMITS

STA. 622+50 TO STA. 632+03.80 = 953.8 FT.



NORMAL SECTION

WESTBOUND MEDIAN CABLE GUARDRAIL STATION LIMITS

STA. 632+03.80 TO STA. 639+90.00 = 786.2 FT.

STA. 659+75 TO STA. 668+37.5 = 862.5 FT.

STA. 669+12.5 TO STA. 676+50.00 = 737.5 FT.

EASTBOUND MEDIAN CABLE BARRIER STATION LIMITS

STA. 639+62.5 TO STA. 643+87.5 = 425 FT.

STA. 644+62.5 TO STA. 654+55.5 = 993 FT.

CALCULATED PRS
CHECKED TLH

PROPOSED MEDIAN CABLE GUARDRAIL TYPICAL SECTIONS - IR-80

MAH-80-0.97

22B
1100

$TIME$
$DATE$
$FILE$

BM	STATION	OFFSET	ELEVATION	NORTHING	EASTING	DESCRIPTION
1	466+37	0	970.15	530383.06	2427847.40	CONCRETE MONUMENT WITH PIN
2	466+40	138' Lt.	978.56	530520.56	2427831.64	KS ORANGE CAPPED PIN SET
3	470+23	147' Lt.	987.38	530580.65	2428209.67	MONUMENT BOX WITH DISK
4	474+80	220' Rt.	985.42	530278.35	2428712.47	KS ORANGE CAPPED PIN SET
5	476+34	0	964.02	530517.15	2428835.04	CONCRETE MONUMENT WITH PIN
6	NOT USED					
7	486+78	0	956.38	530658.05	2429869.81	CONCRETE MONUMENT WITH PIN
8	487+19	99' Rt.	958.36	530565.00	2429923.31	CONCRETE MONUMENT WITH PIN
9	495+20	179' Rt.	934.90	530593.32	2430728.40	R.R. SPIKE ON E. SIDE OF UN-NUMBERED
						UTILITY POLE, S. SIDE OF I-80, W. SIDE LIPKEY RD.
10	497+00	0	946.66	530795.25	2430882.19	CONCRETE MONUMENT WITH PIN
11	507+36	0	925.91	530934.73	2431909.18	CONCRETE MONUMENT WITH PIN
12	512+68	17' Rt.	920.46	531025.97	2432434.07	KS TRAVERSE PIN
13	519+05	0	917.83	531261.72	2433026.60	CONCRETE MONUMENT WITH PIN
14	545+99	0	917.21	532395.25	2435470.73	CONCRETE MONUMENT WITH PIN
15	551+64	22' Rt.	916.99	532612.74	2435992.08	KS RED CAPPED PIN SET
16	555+86	7' Rt.	914.39	532810.66	2436365.83	CONCRETE MONUMENT WITH PIN
17	560+12	0	913.08	533013.84	2436735.62	CONCRETE MONUMENT WITH PIN
18	567+00	23' Lt.	918.45	533365.65	2437327.77	KS RED CAPPED PIN SET
19	580+99	0	938.34	534019.48	2438565.18	CONCRETE MONUMENT WITH PIN
20	587+29	125' Rt.	955.68	534212.61	2439177.06	KS ORANGE CAPPED PIN SET
21	588+99	0	954.17	534404.76	2439266.02	CONCRETE MONUMENT WITH PIN
22	595+12	124' Rt.	970.75	534591.36	2439862.44	KS ORANGE CAPPED PIN SET
23	595+45	0	963.59	534715.92	2439832.46	CONCRETE MONUMENT WITH PIN
24	599+60	134' Lt.	974.01	535025.71	2440144.02	MONUMENT BOX WITH DISK
25	603+99	0	986.38	535081.48	2440603.41	CONCRETE MONUMENT WITH PIN
26	604+00	133' Rt.	985.82	534958.33	2440653.41	KS ORANGE CAPPED PIN SET
27	612+61	0	1011.22	535354.82	2441419.81	CONCRETE MONUMENT WITH PIN
28	612+60	119' Rt.	1030.50	535239.70	2441449.93	KS ORANGE CAPPED PIN SET
29	621+98	0	1036.59	535538.26	2442338.60	CONCRETE MONUMENT WITH PIN
30	621+99	121' Lt.	1024.43	535659.01	2442323.76	KS ORANGE CAPPED PIN SET
31	629+77	105' Lt.	1037.29	535703.85	2443111.87	KS ORANGE CAPPED PIN SET
32	629+77	0	1047.91	535598.93	2443114.19	CONCRETE MONUMENT WITH PIN
33	636+98	0	1040.80	535615.85	2443834.90	CONCRETE MONUMENT WITH PIN
34	636+97	140' Lt.	1023.09	535755.36	2443831.16	KS ORANGE CAPPED PIN SET
35	643+48	0	1031.91	535631.32	2444484.65	CONCRETE MONUMENT WITH PIN
36	643+42	119' Rt.	1029.22	535511.58	2444482.39	KS ORANGE CAPPED PIN SET
37	651+25	0	1022.78	535649.11	2445261.92	NE CORNER OF CONCRETE DRAINING STRUCTURE
38	653+01	246' Lt.	1030.50	535898.66	2445431.89	KS ORANGE CAPPED PIN SET
39	656+83	0	1033.37	535662.01	2445819.65	CONCRETE MONUMENT WITH PIN
40	661+45	124' Rt.	1035.76	535549.23	2446284.39	MONUMENT BOX WITH DISK
41	669+50	0	918.27	535691.63	2447086.43	NE CORNER OF CONCRETE DRAINING STRUCTURE
42	673+00	66' Rt.	1044.89	535699.78	2447436.33	NE CORNER OF CONCRETE DRAINING STRUCTURE
43	672+95	183' Rt.	1043.43	535582.53	2447433.89	KS ORANGE CAPPED PIN SET
44	682+51	70' Rt.	1058.16	535764.27	2448392.55	CONCRETE MONUMENT WITH PIN
45	684+58	267' Rt.	1055.57	535605.91	2448636.44	KS ORANGE CAPPED PIN SET
46	684+95	102' Rt.	1058.32	535774.65	2448642.47	MONUMENT BOX WITH DISK
47	686+84	144' Rt.	1057.04	535774.53	2448840.29	CONCRETE MONUMENT WITH PIN
48	691+87	73' Rt.	1066.81	535979.85	2449315.07	KS RED CAPPED PIN SET
49	697+68	53' Lt.	1053.89	536308.92	2449810.91	KS ORANGE CAPPED PIN SET
50	697+94	53' Rt.	1062.26	536224.39	2449879.01	CONCRETE MONUMENT WITH PIN
51	706+09	208' Rt.	1042.19	536496.21	2450682.47	CHISELED "X" ON NORTH BOLT OF LIGHT POLE A4-2
52	706+81	27' Rt.	1053.68	536687.70	2450642.40	NE CORNER OF SQUARE CONCRETE MANHOLE
53	716+08	63' Rt.	1055.38	537253.24	2451385.74	CAPPED 5/8" REBAR - ODOT REFERENCE POINT
54	716+28	61' Rt.	1055.23	537268.28	2451398.62	CAPPED 5/8" REBAR - ODOT REFERENCE POINT
55	716+79	52' Rt.	1057.20	537311.06	2451428.68	NE BOLT ON SE POLE FOR OVERHEAD SIGN
56	721+12	40' Rt.	1048.86	537625.67	2451726.11	5/8" REBAR
57	723+92	30' Rt.	1048.99	537823.77	2451921.72	SW CORNER OF SOUTH WALL OF BRIDGE

NOTE: ALL STATIONS AND OFFSETS ARE SHOWN TO THE NEAREST FOOT. ALL COORDINATES ARE PROJECT GROUND COORDINATES. TO OBTAIN OH-NORTH STATE PLANE GRID COORDINATES, DIVIDE BOTH NORTHING AND EASTING BY THE PROJECT P.A.F.

P.A.F. = 1.00010307999

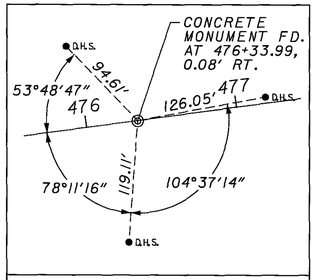
HORIZONTAL DATUM: NAD 83(1995)

VERTICAL DATUM: NAVD 88

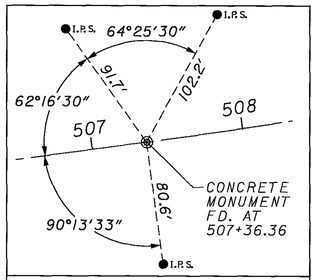
CALCULATED KS | CHECKED PYS

BENCHMARKS AND REFERENCE TIES

MAH-80-0.97



℄ STA. 476+34.00, IR-80



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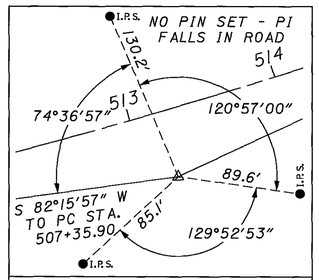

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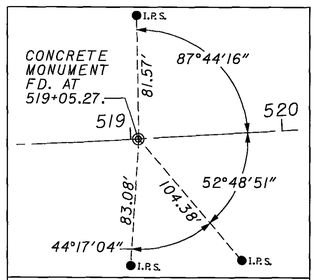

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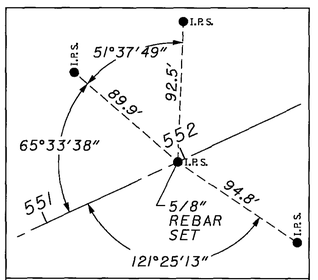
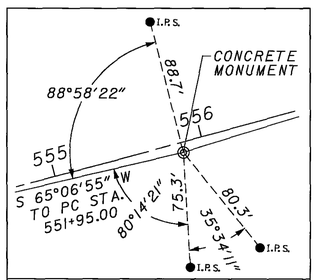
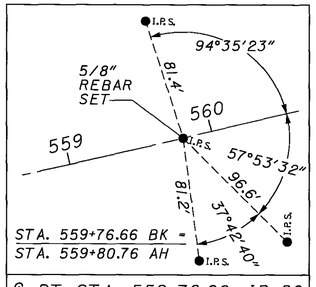


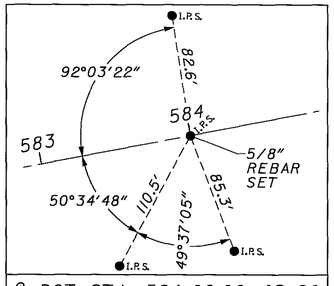
℄ PC STA. 551+95.00, IR-80



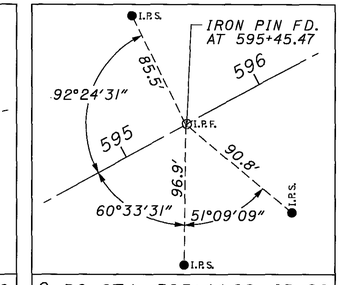
℄ PI STA. 555+85.98, IR-80



℄ PT STA. 559+76.66, IR-80



℄ POT STA. 584+00.00, IR-80



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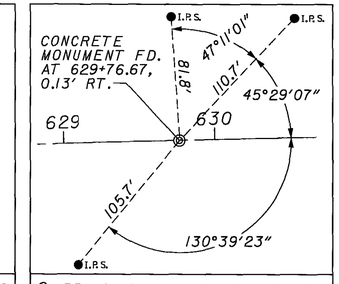

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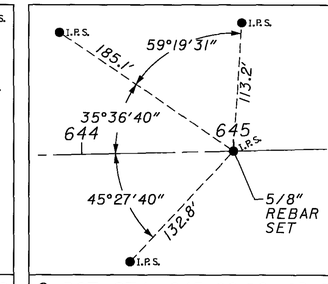
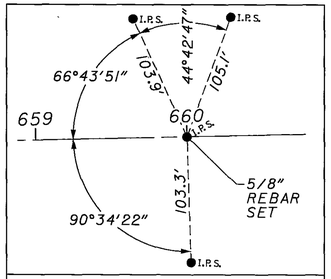
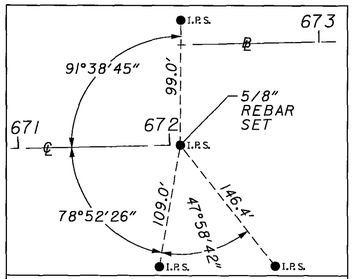


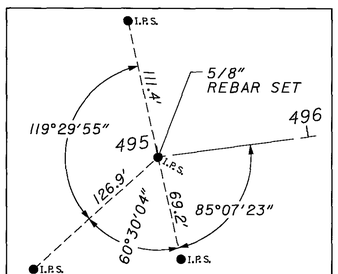
℄ POT STA. 645+00.00, IR-80



℄ POT STA. 660+00.00, IR-80



℄ POT STA. 672+07.00, IR-80 = ℄ POT STA. 672+07.00, RAMP A 66' LT.



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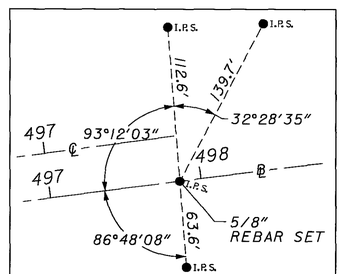
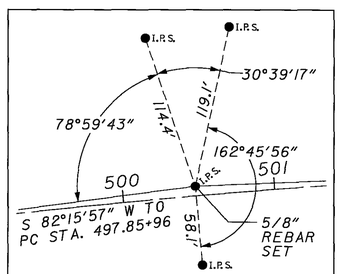
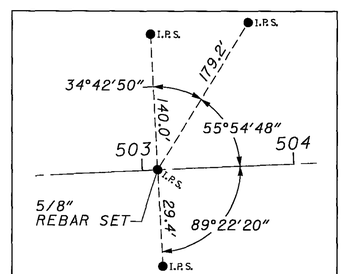


℄ PC STA. 497+85.96, IR-80 = ℄ POT STA. 497+85.96, 30' LT.



℄ PI STA. 500+48.20, IR-80



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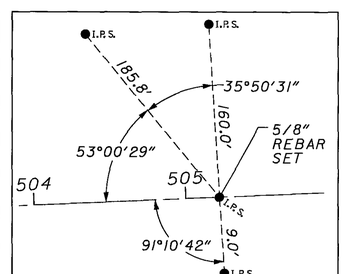
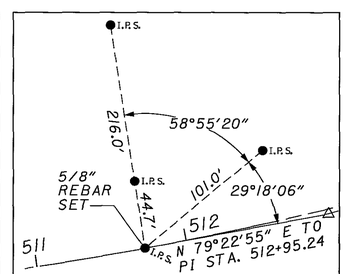


℄ TS STA. 505+22.28, IR-80



℄ SC STA. 511+72.28, IR-80

CALCULATED KS
CHECKED PYS

BENCHMARKS AND REFERENCE TIES

MAH-80-0.97

7/25/2005 8:43:00 AM
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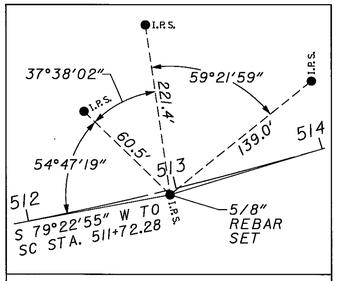

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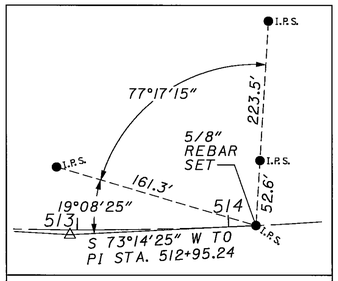

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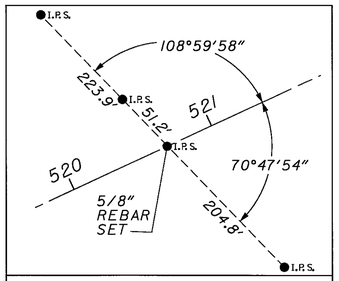
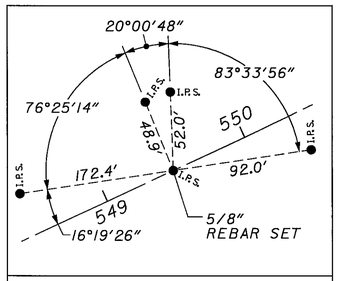


℄ ST STA. 520+67.96, IR-80



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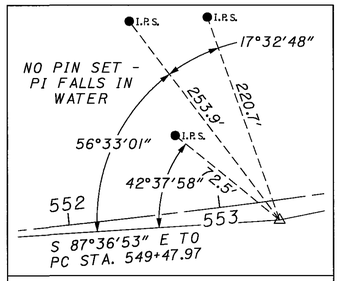

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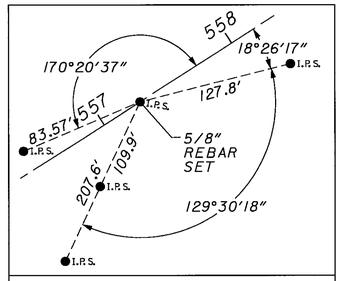

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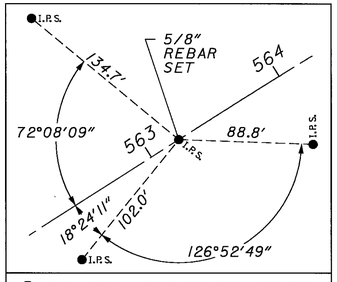
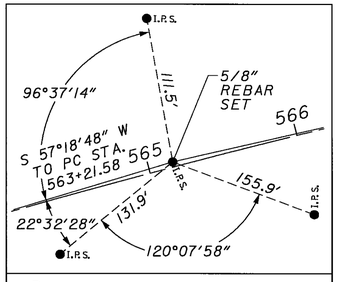
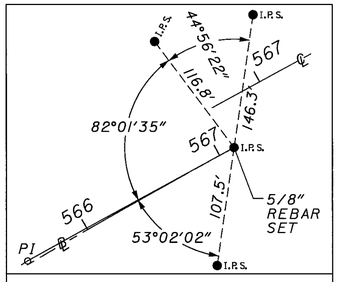


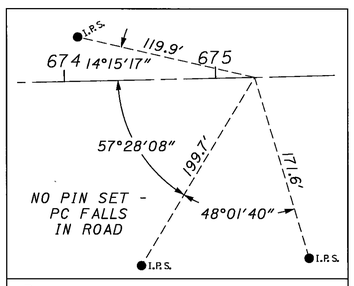
℄ PC STA. 563+21.58, IR-80



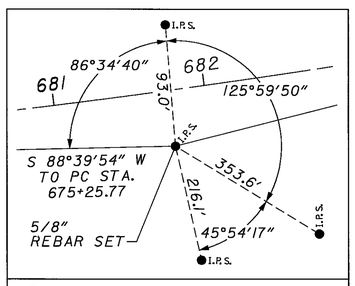
℄ PI STA. 565+16.34, IR-80



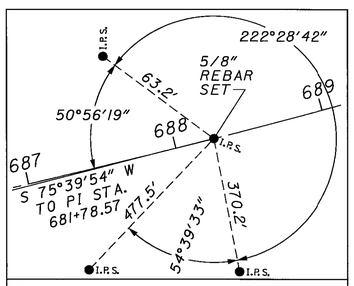
℄ PT STA. 567+10.95, IR-80 =
℄ POT STA. 566+64.28, 30' RT.



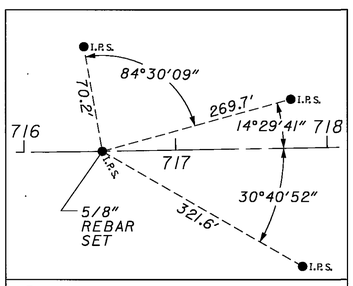
℄ PC STA. 675+25.77, RAMP A



℄ PI STA. 681+78.57, RAMP A



℄ PCC STA. 688+25.77, RAMP A



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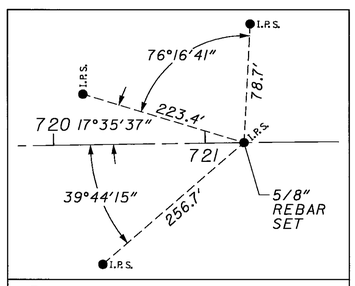

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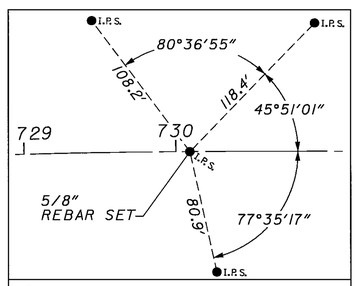

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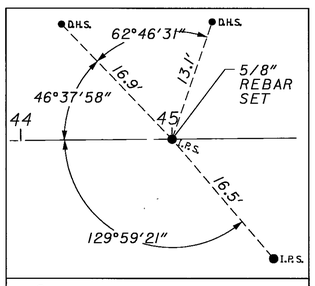

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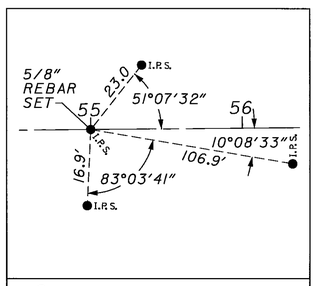
LIPKEY ROAD



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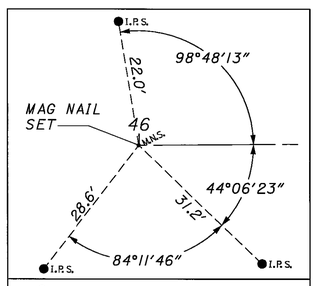

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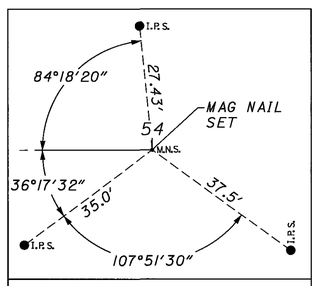
MAHONING BIKEWAY



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MAHONING BIKEWAY

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BENCHMARKS AND REFERENCE TIES

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ROUNDING

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

UTILITIES

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

DOMINION EAST OHIO
1165 WEST RAYEN AVENUE
YOUNGSTOWN, OHIO 44502
MR. JIM SYMPSON
330-742-8138

DOMINION ENGINEERING SERVICES (GAS TRANSMISSION)
7015 FREEDOM AVENUE N.W.
NORTH CANTON, OHIO 44720
MR. JOHN GRANT
330-266-2136

OHIO EDISON
730 SOUTH AVENUE
YOUNGSTOWN, OHIO 44502
MR. BILL SPEECE
330-740-7635

AMERITECH
50 WEST BOWERY STREET, 4th FLOOR
AKRON, OHIO 44308
MR. RICK DeLAGRANGE
330-384-8057

ARMSTRONG CABLE
9328 WOODWORTH ROAD
NORTH LIMA, OHIO 44452
MR. GENO SHONCE
330-726-0115 x240

NORTH COAST ENERGY
33 NORTH WICKCLIFF CIRCLE
YOUNGSTOWN, OHIO 44515
MR. NELSON BEGEOT
330-793-6974

MAHONING COUNTY ENGINEER'S OFFICE
940 BEARS DEN ROAD
YOUNGSTOWN, OHIO 44511
MR. MICHAEL STIPETICH
330-799-1581

MAHONING VALLEY SANITARY DISTRICT
P.O. BOX 4119
YOUNGSTOWN, OHIO 44515-4119
MR. MARTY KIELBASA
330-799-6315

CITY OF YOUNGSTOWN - WATER DIVISION
26 SOUTH PHELPS STREET
YOUNGSTOWN, OHIO 44503
MR. GENE LESON
330-742-8746

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

CONTRACTOR'S USE OF ODOT RIGHT-OF-WAY

HIRE AN ECOLOGICAL ENVIRONMENTAL CONSULTANT TO CERTIFY THAT THE PROPOSED BORROW AND WASTE OPERATIONS WILL NOT IMPACT "THE WATERS OF THE UNITED STATES" OR A ISOLATED WETLAND(S) OR TO OBTAIN AN U.S. ARMY CORPS OF ENGINEERS 404 PERMIT AND AN OHIO EPA 401 PERMIT, PER THE REQUIREMENTS OF CONSTRUCTION AND MATERIAL SPECIFICATIONS 105.16.

ELEVATION DATUM

ALL ELEVATIONS ARE BASED ON U.S.G.S. DATUM, NAVD 88.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

CLEARING AND GRUBBING

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING.

FOR THE EMBANKMENT AREAS WHERE WICK DRAINS ARE TO BE INSTALLED (SEE SHEETS 859 TO 861), CLEARING AND GRUBBING SHALL BE PERFORMED TO CONFORM WITH SPECIFICATION 201.03.A.

ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSSOVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT. IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY. PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 603 CONDUIT ITEM.

ITEM 603 - CONDUIT BORED AND JACKED

WHERE IT IS SPECIFIED THAT A CONDUIT BE INSTALLED BY THE METHOD OF BORING AND JACKING, NO TRENCH EXCAVATION SHALL BE CLOSER THAN 30 FEET TO THE EDGE OF PAVEMENT. TRENCHES SHALL BE ADEQUATELY SUPPORTED AND THE SPECIFICATION REQUIREMENTS FOR TYPE 2 BEDDING SHALL BE DISREGARDED. IF A CASING PIPE IS USED IN THE BORING AND JACKING OPERATION, THE VOID BETWEEN IT AND THE INTERIOR CARRIER PIPE SHALL BE COMPLETELY FILLED WITH ITEM 613, SAND, GROUT OR OTHER MATERIAL APPROVED BY THE ENGINEER. PAYMENT FOR ITEM 613 MATERIAL SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT ITEM 603 CONDUIT BORED AND JACKED.

ITEM 605 - AGGREGATE DRAINS

AGGREGATE DRAINS SHALL BE PLACED AT 50 FOOT INTERVALS ON EACH SIDE OF LIPKEY ROAD AND THE SERVICE ROAD, STAGGERED SO THAT EACH DRAIN IS 25 FEET FROM THE ADJACENT DRAIN ON THE OPPOSITE SIDE.

ITEM 605, AGGREGATE DRAINS	505 FT

REVIEW OF DRAINAGE FACILITIES

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE STATE, REPRESENTATIVES OF THE STATE AND THE CONTRACTOR, ALONG WITH LOCAL REPRESENTATIVES, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCE SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE STATE.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE STATE. ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 603 CONDUIT ITEMS.

ITEM 617 - COMPACTED AGGREGATE, AS PER PLAN

RECYCLED ASPHALT PAVEMENT (RAP) SHALL BE USED ADJACENT TO THE PAVED SHOULDERS IN AREAS WITHOUT GUARDRAIL. THE RAP SHALL HAVE A MINIMUM PG CONTENT OF 4.5% AND MEET THE GRADATION PER 703.18. ONCE THE STOCKPILE MEETS THE GRADATION, THE PG CONTENT OF THE RAP SHALL BE DETERMINED PER 441.03. THE RAP ANALYSIS MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL 2 WEEKS PRIOR TO USE. METHOD OF MEASUREMENT SHALL BE AS PER 617.06. PLACEMENT AND COMPACTION SHALL MEET THE REQUIREMENTS OF ITEM 617. ALL MATERIALS, LABOR EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 617 COMPACTED AGGREGATE, AS PER PLAN.

MODIFIED GRADATION SHALL APPLY:

SIEVE	TOTAL PERCENT PASSING
1-1/2"	100
3/4"	50-90
NO. 4	35-70
NO. 30	9-33
NO. 200	0-13

AN ESTIMATED QUANTITY OF 284 CU. YD. HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THIS WORK.

ITEM SPECIAL - PIPE CLEANOUT

THIS WORK SHALL CONSIST OF REMOVING SEDIMENT AND DEBRIS FROM THE EXISTING 76" x 48" RCP CULVERT AT STATION 674+79. ALL MATERIAL REMOVED SHALL BE DISPOSED OF AS PER 105.16 AND 105.17. ALL SEWERS SHALL BE CLEANED OUT TO THE SATISFACTION OF THE ENGINEER. CLEANOUT OF THE PIPE SHALL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM SPECIAL PIPE CLEANOUT. THIS PRICE SHALL INCLUDE THE COST FOR MATERIAL, EQUIPMENT, LABOR, AND ALL INCIDENTALS REQUIRED TO COMPLETE THE CLEANOUT.

SEEDING AND MULCHING

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

659, SOIL ANALYSIS TEST	5 EACH
659, TOPSOIL	48533 CU. YD.
659, REPAIR SEEDING AND MULCHING	21862 SQ. YD.
659, INTER-SEEDING	21862 SQ. YD.
659, COMMERCIAL FERTILIZER	61.0 TON
659, LIME	91 ACRES
659, WATER	2421 M. GAL.
659, MOWING	984 M. SQ. FT.

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

CONTRACTION AND/OR EXPANSION JOINTS

ALTHOUGH SPECIFIC LOCATIONS OF CERTAIN CONTRACTION AND EXPANSION JOINTS HAVE BEEN DETAILED ON THIS PLAN, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. IN ALL CASES, THE PROVISION OF EXPANSION JOINTS AT ALL MAJOR STRUCTURES INCLUDING THE MAXIMUM SPACING BETWEEN CONTRACTION JOINTS IS IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING BP-2.2 AND THE SPECIFICATIONS.

ITEM 618 - RUMBLE STRIPS

AN ESTIMATED QUANTITY FOR THIS ITEM HAS BEEN PROVIDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

ITEM 618, RUMBLE STRIPS, (CONCRETE)	71604 FT

ITEM 304 AGGREGATE BASE, AS PER PLAN

GRANULATED SLAG (GS) SHALL NOT BE PERMITTED FOR THIS ITEM. ALL OTHER REQUIREMENTS OF SECTIONS 304 AND 703.17 OF THE CONSTRUCTION AND MATERIALS SPECIFICATIONS STILL APPLY.

CALCULATED PRS
CHECKED AJP

GENERAL NOTES

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CALCULATED PRS
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GENERAL NOTES

CONVERSION OF STANDARD CONSTRUCTION DRAWINGS

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

MONUMENT ASSEMBLIES

CONSTRUCT MONUMENT ASSEMBLIES IN ACCORDANCE WITH THE DETAILS SHOWN ON THE STANDARD CONSTRUCTION DRAWINGS AND AT THE LOCATIONS SHOWN ON SHEET NO. 1086.

ITEM 204 - PROOF ROLLING

THE FOLLOWING QUANTITY IS PROVIDED IN THE GENERAL SUMMARY TO ADDRESS LOCATIONS REQUIRING PROOF ROLLING. SEE PLAN SHEET NO. 177 FOR ADDITIONAL INFORMATION.

ITEM 204 - PROOF ROLLING 4 HOUR

ADDITIONAL SOIL INFORMATION

THE SOIL PROFILE AND/OR STRUCTURE FOUNDATION INVESTIGATIONS SHEETS CONTAIN ALL AVAILABLE SOIL AND BEDROCK INFORMATION WHICH CAN BE CONVENIENTLY SHOWN. ADDITIONAL SUBSURFACE INVESTIGATION INFORMATION IS AVAILABLE FROM ODOT - DISTRICT 4, THE OFFICE OF GEOTECHNICAL ENGINEERING, AND THE OFFICE OF STRUCTURAL ENGINEERING.

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.

ITEM 408 - PRIME COAT, AS PER PLAN

THE CONTRACTOR WILL APPLY "MC-70" AT THE RATE OF 0.4 GALLONS PER SQUARE YARD, OR AS DETERMINED BY THE ENGINEER, TO THE COMPLETED COMPACTED AGGREGATE, AS PER PLAN MATERIAL.

THE CONTRACTOR SHALL PROVIDE A SHIELD TO PREVENT THE SPRAYING OR DRIFTING OF LIQUID PRIME COAT MATERIAL ONTO THE EDGE OF THE PAVEMENT OR EDGELINE. CARE ALSO SHALL BE TAKEN TO AVOID SPRAYING LIQUID PRIME COAT MATERIAL ONTO DRIVEWAY APRONS, MAILBOX APPROACHES OR ANY PEDESTRIAN AREAS. THE ATTENTION OF THE CONTRACTOR IS DIRECTED TO 107.10 OF THE SPECIFICATIONS.

AN ESTIMATED QUANTITY OF 4080 GALLONS HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THIS WORK.

ITEM 606 - ANCHOR ASSEMBLY, TYPE E-98

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

1) THE ET-2000 (1997) MANUFACTURED BY TRINITY INDUSTRY, 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330-545-4373). THE LENGTH OF THE ET-2000 (1997) SYSTEM IS CONSIDERED TO BE 50'-0", INCLUSIVE OF TWO 25'-0" LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. #	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
SS265M	ET-2000 (1997) PLAN, ELEVATION & SECTIONS	6/20/97	3/6/98
SS142	ET2000 PLUS 50'-0" PLAN, ELEVATION & SECTION 25'-0" RAIL, SLEEVE W/PL POSTS 1-4	4/12/00	7/31/00
SS141	ET2000 PLUS PLAN, ELEVATION & SECTION 25'-0" RAIL, HBA POSTS 1-4	2/29/00	7/31/00
SS158	ET2000 PLUS 50'-0" WITH12'-6" PANELS & HBA POSTS 1-4 PLAN, ELEVATION & SECTION	5/22/00	7/31/00

2) THE SKT-350 MANUFACTURED BY ROAD SYSTEMS, INC., 2516 MALLORY LANE, STOW, OHIO, 44224, (TELEPHONE: 330-346-0721). THE LENGTH OF THE SKT-350 SYSTEM IS CONSIDERED TO BE 50'-0", INCLUSIVE OF FOUR 12'-6" LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

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

THE FACE OF THE TYPE E-98 IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19, APPROXIMATELY 18" X 18". REFER TO THE MANUFACTURER'S INSTRUCTION REGARDING THE INSTALLATION OF, AND THE GRADING AROUND, THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4-INCHES 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 27-3/4 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-98, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 606 - ANCHOR ASSEMBLY, TYPE B-98

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

1) THE SRT-350, GUARDRAIL END TERMINAL AS MANUFACTURED BY TRINITY INDUSTRY, 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330-545-4373).

THE LENGTH OF THE SRT-350 SYSTEM IS CONSIDERED TO BE 37'-6", INCLUSIVE OF THREE 12'-6" LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. #	DRAWING NAME	DWG./REV DATE	ODOT APPROVAL DATE
SS444 SS444M	SLOTTED RAIL TERMINAL POST LAYOUT AND ERECTION DETAILS SRT-350 (12.5, 8 POST)	7/12/99 REV.1 7/12/99	8/27/99
SS425M	SLOTTED RAIL TERMINAL SRT-350 POST LAYOUT AND ERECTION DETAILS (12.5, 9 POST)	6/21/97 REV. 1	3/6/98

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

THE LENGTH OF THE FLEAT-350 IS CONSIDERED TO BE 37'-6", INCLUSIVE OF THREE 12'-6" LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. #	DRAWING NAME	DWG./REV DATE	ODOT APPROVAL DATE
FLT-M	FLARED ENERGY ABSORBING TERMINAL (FLEAT-350) ASSEMBLY	4/16/98	7/31/98

REFER TO THE MANUFACTURER'S INSTRUCTION REGARDING THE INSTALLATION OF, AND THE GRADING AROUND, THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4-INCHES 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 27-3/4 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-98 IMPACT HEAD SHALL BE COVERED WITH TYPE G REFLECTIVE SHEETING, PER CMS 730.19: APPROXIMATELY 36" W X 12" H FOR THE SRT-350 AND 14" W X 20" H FOR THE FLEAT.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, TYPE B-98, 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.

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ITEM 606-IMPACT ATTENUATOR, TYPE 1-98 (BIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING IMPACT ATTENUATORS:

1) THE C-A-T MANUFACTURED BY TRINITY INDUSTRY, 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330-545-4373).

THE LENGTH OF THE C-A-T SYSTEM IS CONSIDERED TO BE 31'-3" LONG. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. #	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
SS245M	CRASH-CUSHION ATTENUATING TERMINAL PLAN, ELEVATION & SECTIONS FOR USE AS A LONGITUDINAL MEDIAN BARRIER TERMINAL OR CRASH CUSHION ATTENUATOR	4/10/97 REV. 4	3/6/98
SS224M	C-A-T TRANSITION TO MEDIAN BARRIER GUARDRAIL PLAN, ELEVATION & SECTIONS	4/26/96	3/6/98
SS226M	C-A-T TRANSITION TO VERTICAL WALL OR PIER PLAN, ELEVATION & SECTIONS	4/26/96	3/6/98

2) THE BRAKEMASTER MANUFACTURED BY ENERGY ABSORPTION SYSTEMS, INC., ONE EAST WACKER DRIVE, CHICAGO, IL 60601 (TELEPHONE: 312-467-6750).

THE LENGTH OF THE BRAKEMASTER SYSTEM IS CONSIDERED TO BE 32'-8" LONG. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. #	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
92-00-02	BRAKEMASTER GENERAL ASSEMBLY (BIDIRECTIONAL SYSTEM)	3/10/97 REV. K	3/6/98
92-00-82	BRAKEMASTER (BIDRECTIONAL) WITH FOUNDATION TUBES	2/9/98	3/6/98
9202024	ANCHOR ASSEMBLY, FOUNDATION TUBE, 6.5 FT., BRS	6/12/97 REV. D	3/6/98

3) THE FLEAT-MT MANUFACTURED BY ROAD SYSTEMS, INC. (RSI). 3616 OLD HOWARD COUNTY AIRPORT ROAD, BIG SPRINGS, TX, 79720 (TELEPHONE: 915-263-2435) AND AVAILABLE FROM RSI'S LIST OF APPROVED DISTRIBUTORS.

THE LENGTH OF THE FLEAT-MT SYSTEM IS CONSIDERED TO BE 37'-6" LONG. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATION AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS AND THE MANUFACTURER'S INSTALLATION MANUAL.

DWG. #	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
MEDFLT-W-US	FLARED ENERGY ABSORBING TERMINAL - FLEAT-MT ASSEMBLY FOR WOOD BREAKAWAY POST SYSTEM	4/10/02 REV. 5	1/6/03
MEDFLT-S-US	FLARED ENERGY ABSORBING TERMINAL - FLEAT-MT ASSEMBLY FOR STEEL BREAKWAY POST SYSTEM	4/10/02 REV. 6	1/6/03

THE FACE OF THE TYPE 1-98 IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19, APPROXIMATELY 36" X 12" (ONE 9" X 18" FOR EACH FLEAT-MT IMPACT HEAD). PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, IMPACT ATTENUATOR, TYPE 1-98 (BIDIRECTIONAL), EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIAL 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.

PAVING UNDER GUARDRAIL

THIS OPERATION SHALL INCLUDE PREPARATION OF THE GRADED SHOULDER USING ITEM 209, LINEAR GRADING, AS PER PLAN AND PAVING UNDER THE GUARDRAIL USING 448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG 64-22, UNDER GUARDRAIL, AS PER PLAN.
ITEM 209, LINEAR GRADING, AS PER PLAN SHALL CONSIST OF EXCAVATING TOPSOIL, PLACING GRANULAR MATERIAL AND APPLYING HERBICIDE AS SPECIFIED IN THE PLANS AND IN ACCORDANCE WITH THE FOLLOWING:

ALL COLLECTED DEBRIS AND TOPSOIL, INCLUDING RHIZOMES, ROOTS AND OTHER VEGETATIVE PLANT MATERIAL SHALL BE REMOVED AND DISPOSED OF AS SPECIFIED IN 105.17.

THE REMOVED MATERIAL SHALL BE REPLACED WITH COMPACTABLE GRANULAR MATERIAL CONFORMING TO 703.16 PLACED TO GRADE AS DETAILED ON THE TYPICAL SECTION OR AS APPROVED BY THE ENGINEER.

HERBICIDE SHALL BE EPA APPROVED FOR PAVING UNDER GUARDRAIL. IT SHALL BE APPLIED TO THE PREPARED AREA AFTER FINAL LEVELING AND GRADING HAS BEEN COMPLETED. THE APPLICATION SHALL BE JUST PRIOR TO PAVING AND SHALL STRICTLY ADHERE TO THE MANUFACTURER'S INSTRUCTIONS.

EACH SUCCESSFUL BIDDER MUST BE LICENSED BY THE OHIO DEPARTMENT OF AGRICULTURE AS A COMMERCIAL APPLICATOR AND ALL PERSONS INVOLVED IN THE ACTUAL SPRAYING SHALL BE LICENSED AS COMMERCIAL OPERATORS IN THE APPROPRIATE SPRAY CATEGORY.

HERBICIDE LABEL, MATERIAL SAFETY DATA SHEET AND COPY OF APPLICATORS LICENSES SHALL BE SUBMITTED TO THE ENGINEER FOR VERIFICATION PRIOR TO COMMENCING WORK. ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PERFORM THE WORK OUTLINED ABOVE SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 209, LINEAR GRADING, AS PER PLAN.

ITEM 209, LINEAR GRADING, 4.89 MILES
AS PER PLAN

PAVING UNDER GUARDRAIL SHALL CONSIST OF PLACING ITEM 448 TO THE DEPTH SPECIFIED USING ONE OF THE FOLLOWING METHODS:

METHOD A:

1. SET GUARDRAIL POSTS
2. PLACE ITEM 448

METHOD B:

1. PLACE ITEM 448
2. BORE ASPHALT AT POST LOCATIONS (MAY BE OMITTED IF STEEL POSTS ARE USED)
3. SET GUARDRAIL POSTS
4. PATCH AROUND POSTS. THE MATERIALS USED FOR PATCHING SHALL BE AN ASPHALT CONCRETE APPROVED BY THE ENGINEER. PATCHED AREAS SHALL BE COMPACTED USING EITHER HAND OR MECHANICAL METHODS. FINISHED SURFACES SHALL BE SMOOTH AND SLOPED TO DRAIN AWAY FROM THE POSTS.

ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PERFORM THE WORK OUTLINED ABOVE, WITH THE EXCEPTION OF SETTING GUARDRAIL POSTS, SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 448, ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 1, PG 64-22, UNDER GUARDRAIL, AS PER PLAN.

UNSUITABLE FOUNDATION SOILS

IF UNSUITABLE FOUNDATION SOILS ARE ENCOUNTERED IN THE AREAS OF THE PROPOSED ROADBED, THEY SHALL BE REMOVED AND REPLACED WITH SUITABLE MATERIAL MEETING THE REQUIREMENTS OF 203.02.R. THE LOCATIONS AND DIMENSIONS WILL BE AS DETERMINED BY THE ENGINEER.

THE FOLLOWING CONTINGENCY QUNTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER. THE STATE OF OHIO RESERVES THE RIGHT TO NON-PERFORM 100% OF THESE ITEMS:

ITEM 203, EMBANKMENT 500 CU. YDS.

ITEM 203, EXCAVATION 500 CU. YDS.

EMBANKMENT SUBGRADE

FOR THE EMBANKMENT IN THE RESERVOIR BETWEEN STATIONS 503+00 AND 521+00 AND STATIONS 545+00 AND STA 566+00, CONSTRUCT EMBANKMENT FOUNDATION IN ACCORDANCE WITH ITEM 203.05. IN THE EVENT THE SUBGRADE CANNOT BE COMPACTED AS REQUIRED, EXCAVATE TO LIMITS DETERMINED BY THE ENGINEER AND BACKFILL WITH ITEM 203 - GRANULAR MATERIAL, TYPE D, AS PER PLAN.

THE FOLLOWING CONTINGENCY QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER. THE STATE OF OHIO RESERVES THE RIGHT TO NON-PERFORM 100% OF THESE ITEMS:

ITEM 203, EXCAVATION 2000 CU. YDS.

ITEM 203, GRANULAR MATERIAL, 2000 CU. YDS.
TYPE D, AS PER PLAN

ITEM 622 - PORTABLE CONCRETE BARRIER, 32", AS PER PLAN, FOR PERMANENT CROSSOVERS

THE CONTRACTOR SHALL PROVIDE AND PLACE NEW 32" PORTABLE CONCRETE BARRIER AT THE PERMANENT CROSSOVERS AS DETAILED ON SHEETS 822 AND 823. THIS BARRIER IS TO REMAIN UPON COMPLETION OF CONSTRUCTION.

AN ESTIMATED QUANTITY FOR THIS ITEM HAS BEEN PROVIDED IN THE GENERAL SUMMARY AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO COMPLETE THE PLACEMENT OF THE BARRIER.

ITEM 622, PORTABLE CONCRETE BARRIER, 32", 360 FT
AS PER PLAN

FENCE LENGTHS

THE LENGTHS OF FENCE SHOWN IN THE PLANS ARE HORIZONTAL DIMENSIONS. MEASUREMENTS OF THE FINAL QUANTITIES SHALL BE MADE IN ACCORDANCE WITH ITEM 607.

CONSTRUCTION CONTACT NUMBERS

A LIST OF ALL TELEPHONE, EMERGENCY TELEPHONE AND FAX NUMBERS OF THE OHIO DEPARTMENT OF TRANSPORTATION (ODOT) CONSTRUCTION FIELD OFFICE AND THE CONTRACTOR FIELD OFFICE ESTABLISHED FOR THE PROJECT, IN ADDITION TO THE CELLULAR PHONE AND PAGER NUMBERS OF THE ODOT DISTRICT 4 CONSTRUCTION FIELD ENGINEER AND PROJECT ENGINEER AND THE CONTRACTOR PROJECT ENGINEER, SUPERVISOR AND/OR MANAGER ASSIGNED TO THE PROJECT, SHALL BE SUBMITTED TO BOTH THE MAHONING VALLEY SANITARY DISTRICT (MVSD) CHIEF ENGINEER AND RESIDENT ENGINEER BY THE ENGINEER PRIOR TO THE START OF CONSTRUCTION. THE MVSD CHIEF AND RESIDENT ENGINEERS SHALL ALSO BE ADVISED OF ANY CHANGED AND/OR ADDITIONAL CONSTRUCTION CONTACT NUMBERS DURING PROJECT CONSTRUCTION AS APPROPRIATE.

MATERIAL SAFETY DATA SHEETS

ONE (1) COPY OF THE MATERIAL SAFETY DATA SHEET(S) FOR ALL MATERIALS (i.e. CHEMICALS, SEALERS, PAINTS, ETC.) USED FOR THIS PROJECT DURING PROJECT CONSTRUCTION SHALL BE SUBMITTED TO BOTH THE MAHONING VALLEY SANITARY DISTRICT (MVSD) CHIEF ENGINEER AND RESIDENT ENGINEER, P.O. BOX 4119, YOUNGSTOWN, OHIO 44515-0119, AND THE MAHONING COUNTY EMERGENCY MANAGEMENT AGENCY - DISASTER SERVICES/HAZMAT, 700 INDUSTRIAL ROAD, YOUNGSTOWN, OHIO 44509, BY THE ENGINEER PRIOR TO THE START OF CONSTRUCTION.

CALCULATED PRS CHECKED AJP

GENERAL NOTES

MAH-80-0.97

ITEM SPECIAL - WICK DRAIN

DESCRIPTION: THIS WORK SHALL CONSIST OF THE FURNISHING AND INSTALLATION OF VERTICAL PLASTIC WICK DRAINS IN CONFORMANCE WITH THE PLANS AND THESE SPECIFICATIONS. THE WICK DRAINS SHALL CONSIST OF A BAND SHAPED PLASTIC CORE ENCLOSED IN SUITABLE FILTER MATERIAL AND SHALL BE SPACED AND ARRANGED AS SHOWN IN THE PLANS. THE DRAINS WILL BE INSTALLED ON LAND THROUGH THE ONE-FOOT THICKNESS OF GRANULAR MATERIAL, TYPE D, AND IN WATER PRIOR TO THE PLACEMENT OF DUMPED ROCK FILL.

EQUIPMENT: THE WICK DRAINS SHALL BE INSTALLED USING A MANDREL OR SLEEVE THAT IS ADVANCED INTO THE GROUND, TO THE REQUIRED DEPTH, USING EITHER STATIC OR VIBRATORY METHODS. TO MINIMIZE DISTURBANCE TO THE SUBSOIL, THE MANDREL CANNOT BE ADVANCED INTO THE SUBSOIL USING IMPACT METHODS. JETTING SHALL NOT BE PERMITTED FOR INSTALLATION OF THE DRAIN. THE MANDREL SHALL PROTECT THE PREFABRICATED DRAIN MATERIAL FROM TEARS, CUTS AND ABRASIONS DURING INSTALLATION OF THE DRAIN.

THE WICKS MAY BE INSTALLED THROUGH THE COMPRESSIBLE SOILS TO THE REQUIRED DEPTH USING VIBRATORY, CONSTANT LOAD, OR CONSTANT RATE OF ADVANCEMENT METHODS. THE WICK SHALL BE PROVIDED WITH AN ANCHOR PLATE OR ROD AT THE BOTTOM TO ANCHOR THE BOTTOM TO THE WICK AT THE REQUIRED DEPTH AT THE TIME OF MANDREL REMOVAL. THE PROJECTED CROSS-SECTIONAL AREA OF THE MANDREL AND ANCHOR COMBINATION SHALL NOT BE GREATER THAN THAT SUGGESTED BY THE MANUFACTURER AND APPROVED BY THE ENGINEER.

THE CONTRACTOR SHALL EXAMINE THE SITE TO DETERMINE THE EQUIPMENT REQUIRED FOR THE SUPPORT CONDITIONS ANTICIPATED. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SELECTION OF SUCH EQUIPMENT AND, IF REQUIRED, SHALL MODIFY SUCH EQUIPMENT OR PROVIDE CONSTRUCTION PLATFORMS SUCH THAT ADEQUATE SUPPORT IS ACHIEVED TO INSTALL THE WICK DRAINS IN ACCORDANCE WITH THE SPECIFICATIONS.

AT LEAST THREE WEEKS PRIOR TO THE INSTALLATION OF WICK DRAINS, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR HIS REVIEW AND APPROVAL DETAILS OF THE SEQUENCE AND METHOD OF INSTALLATION. THE SUBMITTAL SHALL, AT A MINIMUM, CONTAIN THE FOLLOWING SPECIFICATION INFORMATION:

A) SIZE, TYPE, WEIGHT, MAXIMUM PUSHING FORCE, VIBRATORY HAMMER RATED ENERGY, AND CONFIGURATION OF THE INSTALLATION RIG;

B) DIMENSIONS AND LENGTH OF MANDREL;

C) DETAILS OF DRAIN ANCHORAGE;

D) DETAILED DESCRIPTION OF PROPOSED INSTALLATION PROCEDURES, INCLUDING THE METHOD OF LOCATING THE WICK DRAINS IN WATER;

E) PROPOSED METHOD(S) FOR OVERCOMING OBSTRUCTIONS;

F) PROPOSED METHOD(S) FOR SPLICING DRAINS.

APPROVAL WILL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO PERFORM THE INSTALLATION IN ACCORDANCE WITH THE PLANS AND THESE SPECIFICATIONS. IF, AT ANY TIME, THE ENGINEER CONSIDERS THE METHOD OF INSTALLATION TO NOT PRODUCE A SATISFACTORY DRAIN, THE CONTRACTOR SHALL ALTER HIS METHOD AND/OR EQUIPMENT AS NECESSARY TO COMPLY WITH THE PLANS AND SPECIFICATION.

MATERIALS: WICK DRAINS SHALL BE OF THE PREFABRICATED TYPE CONSISTING OF A CONTINUOUS PLASTIC CORE WRAPPED IN A NONWOVEN GEOTEXTILE WITH MINIMUM DIMENSIONS OF 4 INCHES BY 0.13 INCHES. THE CORE SHALL BE FABRICATED WITH SUITABLE DRAINAGE CHANNELS. THE WICK DRAIN MATERIAL SHALL BE SIMILAR TO THE FOLLOWING PRODUCTS:

PRODUCT NAME	DISTRIBUTOR	CITY & STATE
MEBRA-DRAIN (MD 7007)	NILEX CORPORATION	DENVER, CO
ALIDRAIN	TERRASYSTEMS, INC.	LOVETTSVILLE, VA
AMERDRAIN (TYPE 407)	AMERICAN WICK DRAIN CORP.	MONROE, NC
OTHERS AS APPROVED BY THE ENGINEER		

EACH SEPARATE COMPONENT (GEOTEXTILE AND CORE) AND THE COMPOSITE WICK DRAIN SHALL HAVE MINIMUM TENSILE STRENGTH WITHOUT DISTRESS OR SEPARATION OF 15 POUNDS PER INCH WIDTH BY CLAMPING OVER THE FULL WIDTH AND TESTING IN ACCORDANCE WITH ASTM D-4595 (I.E., 4-INCH GAUGE LENGTH TESTED IN A CONSTANT RATE OF EXTENSION TEST MACHINE AT 10 PERCENT STRAIN PER MINUTE).

THE COMPOSITE WICK DRAIN SHALL HAVE THE FOLLOWING FLOW CHARACTERISTICS. FLOW CAPACITY THROUGH THE CORE SHALL BE NOT LESS THAN 0.5 GALLONS PER MINUTE AS MEASURED UNDER A NORMAL STRESS OF 5000 PSF AFTER A PERIOD OF 24 HOURS USING A GRADIENT OF 1. THE PERMEABILITY OF THE GEOTEXTILE SHALL BE GREATER THAN 0.01 CENTIMETERS PER SECOND AS DETERMINED BY ASTM D-4491. THE GEOTEXTILE SHALL HAVE AN AOS OF NOT GREATER THAN 0.30 MILLIMETERS AND NOT LESS THAN 0.10 MILLIMETERS.

SOURCE APPROVAL - PRIOR TO DELIVERY OF THE WICK DRAIN PRODUCT, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A COPY OF AN AFFIDAVIT SIGNED BY A LEGALLY AUTHORIZED OFFICIAL FROM THE COMPANY MANUFACTURING THE WICK DRAIN CORE AND THE GEOTEXTILE WRAP. THE AFFIDAVIT SHALL ATTEST THAT THE PRODUCTS MEET THE PHYSICAL AND MECHANICAL REQUIREMENTS STATED IN THE SPECIFICATION AND SHALL INCLUDE TEST RESULTS. A WICK DRAIN SAMPLE SHALL BE SUBMITTED FOR EVALUATION AT LEAST 15 WORKING DAYS PRIOR TO DELIVERY TO THE PROJECT. THIS SAMPLE SHALL BE AT LEAST 5 LINEAL FEET. APPROVAL OF THE WICK DRAIN BY THE ENGINEER SHALL BE REQUIRED PRIOR TO SITE DELIVERY.

CONTROL TESTING - SAMPLES OF THE WICK DRAIN SHALL BE PERIODICALLY REVIEWED BY THE ENGINEER. THE ENGINEER RESERVES THE RIGHT TO COLLECT SAMPLES PERIODICALLY DURING CONSTRUCTION FOR CONFIRMATION TESTING.

SHIPMENT AND STORAGE - DURING PERIODS OF SHIPMENT AND STORAGE, THE WICK DRAINS SHALL BE WRAPPED IN A HEAVY DUTY PROTECTIVE COATING. THE STORAGE AREA SHALL BE SUCH THAT THE DRAINS ARE PROTECTED FROM SUNLIGHT, MUD, DIRT, DUST, DEBRIS, AND DETRIMENTAL SUBSTANCES.

INSTALLATION: WICK DRAINS SHALL BE LOCATED, NUMBERED AND STAKED OUT ON LAND BY THE CONTRACTOR. THE METHOD OF LOCATING THE WICK DRAINS IN WATER SHALL BE PROVIDED AND DEMONSTRATED BY THE CONTRACTOR AND SHALL BE VERIFIED AND APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL TAKE ALL REASONABLE PRECAUTIONS TO PRESERVE THE STAKES. THE WICK DRAIN INSTALLATION EQUIPMENT SHALL BE CHECKED FOR PLUMBNESS PRIOR TO ADVANCING EACH WICK, AND SHALL NOT DEVIATE MORE THAN 0.5 INCH PER FOOT FROM THE VERTICAL. THE LOCATION OF THE WICK DRAINS SHALL NOT VARY BY MORE THAN 6 INCHES ON LAND AND 12 INCHES IN WATER FROM THE LOCATIONS SHOWN IN THE CONTRACT DOCUMENTS WICK DRAINS THAT ARE OUT OF THEIR PROPER LOCATION BY MORE THAN THEIR TOLERANCE, DAMAGED IN SHIPPING, HANDLING OR CONSTRUCTION, OR IMPROPERLY INSTALLED WILL BE REJECTED.

THE WICK DRAINS SHALL BE INSTALLED IN AN EQUILATERAL TRIANGULAR PATTERN WITH THE CENTER-TO-CENTER SPACING AND DEPTH AS SPECIFIED IN THE PLANS. THE WICK DRAINS SHALL BE INSTALLED FROM THE WORKING SURFACE PRIOR TO DUMPED ROCK FILL PLACEMENT TO THE DEPTH SHOWN IN THE PLANS, OR TO SUCH A DEPTH WHERE THE SOIL RESISTS REASONABLE EFFORT AT FURTHER PENETRATION.

THE ENGINEER MAY VARY THE DEPTHS, SPACING, OR THE NUMBER OF WICKS TO BE INSTALLED, AND MAY REVISE THE PLAN LIMITS FOR THIS WORK AS NECESSARY. THE CONTRACTOR SHALL PREPARE AND SUBMIT A MAP, ON DAILY BASIS, TO THE ENGINEER WHICH DEPICTS HOW DEEP EACH DRAIN WAS INSTALLED.

WICK DRAINS THAT ARE OUT OF THEIR PROPER LOCATION BY MORE THAN ALLOWED, WICK DRAINS THAT ARE DAMAGED IN CONSTRUCTION, AND WICK DRAINS THAT ARE IMPROPERLY COMPLETED WILL BE REJECTED, AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH SUITABLE MEANS, AS APPROVED BY THE ENGINEER, OF MAKING A LINEAR DETERMINATION OF THE QUANTITY OF WICK DRAIN MATERIAL USED AT EACH WICK LOCATION, AND A SUITABLE MEANS OF DETERMINING THE DEPTH OF THE WICK DRAINS AT ANY GIVEN TIME.

SPLICES OR CONNECTIONS IN THE WICK DRAIN MATERIAL SHALL BE DONE SO AS TO ENSURE CONTINUITY OF THE WICK MATERIAL. AFTER INSTALLATION, EACH DRAIN SHALL BE CUT OFF SO THAT 6 TO 12 INCHES OF DRAIN MATERIAL EXTENDS ABOVE THE GROUND OR WATER SURFACE AT EACH WICK INSTALLATION. THE WICK MATERIAL SHALL BE CUT NEATLY AT ITS UPPER END.

WHERE OBSTRUCTIONS ARE ENCOUNTERED BELOW THE WORKING SURFACE THAT CANNOT BE PENETRATED USING NORMAL PROCEDURES, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND A NEW WICK DRAIN SHALL BE INSTALLED WITHIN 1.5 FEET FROM THE ORIGINAL WICK DRAIN. IF, AFTER TWO ATTEMPTS, THE DRAIN CAN NOT BE INSTALLED, THE LOCATION SHALL BE DELETED OR FURTHER MOVED AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR WILL BE PERMITTED TO USE AUGERING OR OTHER METHODS TO LOOSEN DENSE STRATA OR CLEAR OBSTRUCTIONS AFTER ATTEMPTS TO PENETRATE THE LAYER USING STATIC OR VIBRATORY METHODS ARE UNSUCCESSFUL. THE AUGERING SHALL NOT PENETRATE MORE THAN TWO FEET INTO THE UNDERLYING, COMPRESSIBLE SOILS.

MEASUREMENT AND PAYMENT: WICK DRAINS WILL BE MEASURED BY THE LINEAR FOOT SATISFACTORILY COMPLETED IN PLACE FROM THE TOP OF THE WORKING PLATFORM, OR WATER SURFACE, TO THE BOTTOM OF THE DRAIN. PAYMENT FOR WICK DRAINS WILL BE MADE AT THE CONTRACT UNIT PRICE PER LINEAR FOOT, FOR "ITEM SPECIAL - WICK DRAIN," WHICH PRICE SHALL BE FULL COMPENSATION FOR THE COST OF FORMING THE DRAIN, FURNISHING WICK MATERIAL FOR FULL DEPTH OF DRAIN, ALTERING OF THE EQUIPMENT AND METHODS OF INSTALLATION IN ORDER TO PRODUCE THE REQUIRED END RESULT IN ACCORDANCE WITH THE PLANS. THIS PAYMENT SHALL INCLUDE PROTECTION, REPAIR, AND REPLACEMENT OF WICK DRAINS FOLLOWING INSTALLATION. THIS PAYMENT SHALL ALSO INCLUDE THE COST OF FURNISHING ALL TOOLS, MATERIALS, LABOR, EQUIPMENT AND ALL OTHER COSTS NECESSARY TO COMPLETE THE REQUIRED WORK. NO DIRECT PAYMENT WILL BE MADE FOR UNACCEPTABLE DRAINS OR FOR ANY DELAYS OR EXPENSES INCURRED THROUGH CHANGED OF METHOD OR EQUIPMENT WHERE DIRECTED BY THE ENGINEER, BUT THE COSTS OF SUCH SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THIS WORK.

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GENERAL NOTES

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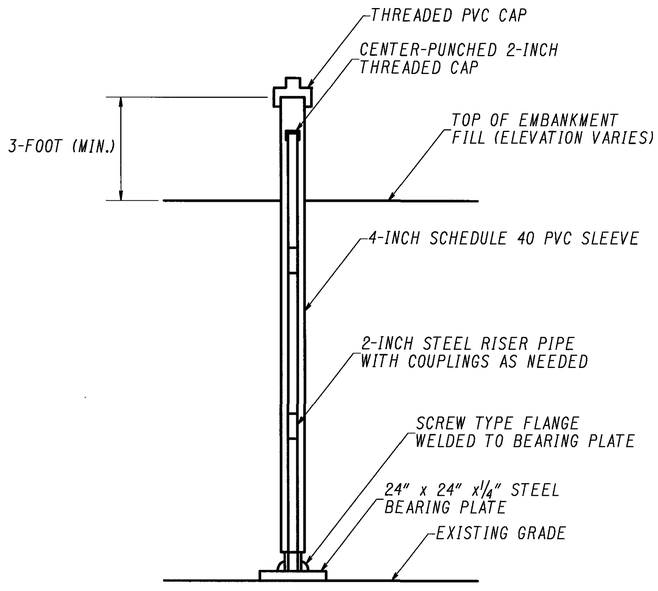
ITEM SPECIAL - SETTLEMENT PLATFORM

DESCRIPTION: THIS WORK SHALL CONSIST OF THE FABRICATION, INSTALLATION, PROTECTION, AND MAINTENANCE OF SETTLEMENT PLATFORMS AND OBTAINING SETTLEMENT READINGS IN ACCORDANCE WITH THESE PLANS AND AS DIRECTED BY THE ENGINEER. AT THE OPTION AND EXPENSE OF THE CONTRACTOR, ADDITIONAL SETTLEMENT PLATFORMS MAY BE INSTALLED AT LOCATIONS APPROVED BY THE ENGINEER.

MATERIALS: THE SETTLEMENT PLATFORM SHALL BE CONSTRUCTED OF A STEEL BEARING PLATE, STEEL RISER PIPE, PVC SLEEVE, FITTINGS AND ANY INCIDENTALS MEETING THE APPROVAL OF THE ENGINEER, AND SHALL BE SECURELY FASTENED TOGETHER AS DETAILED IN THE PLANS. ALL STEEL PIPE AND FITTINGS SHALL BE GALVANIZED AND FABRICATED FROM STANDARD WEIGHT STOCK OF THE SIZE SHOWN IN THE PLANS. MATERIALS WILL BE ACCEPTED ON THE BASIS OF CERTIFICATION AND A VISUAL INSPECTION.



SETTLEMENT PLATFORM (TYPICAL)
NOT TO SCALE

INSTALLATION: THE SETTLEMENT PLATFORMS SHALL BE INSTALLED BEFORE ANY FILL MATERIAL IS PLACED AT THE LOCATIONS SPECIFIED IN THE PLANS. THE BEARING PLATE SHALL BE PLACED ON COMPACTED EXISTING GROUND AND THE PLATE SHALL BE PLACED LEVEL. THE BEARING PLATE WITH ATTACHED RISER PIPE SHALL BE PLACED ON THE PREPARED SUBGRADE AND THE FIRST SECTION OF THE SLEEVE SHALL BE SLIPPED OVER THE RISER PIPE AND CENTERED ABOUT IT.

BEFORE CONSTRUCTION OF THE EMBANKMENT, THE INITIAL ELEVATION OF THE TOP OF THE BEARING PLATE SHALL BE DETERMINED AND RECORDED BY THE CONTRACTOR. WITH THE RISER PIPE CENTERED IN THE PVC SLEEVE AND MAINTAINED IN A VERTICAL POSITION, THE EMBANKMENT MATERIAL SHALL BE PLACED IN LAYERS AND THOROUGHLY COMPACTED.

COMPACTION OF EMBANKMENT MATERIAL AROUND THE SETTLEMENT PLATES SHALL CONFORM TO OTHER EARTHWORK SPECIFICATIONS; HOWEVER, THE EMBANKMENT MATERIAL SHALL BE PLACED BY HAND USING LIGHT-WEIGHT WALK BEHIND COMPACTION EQUIPMENT IN ORDER NOT TO DISTURB SETTLEMENT PLATES AND SLEEVES. WHEN THE INSTALLATION DESCRIBED ABOVE IS COMPLETE, THE CONTRACTOR SHALL DETERMINE THE ELEVATION OF THE TOP OF THE RISER PIPE AT THIS TIME. NO ADDITIONAL EMBANKMENT SHALL BE PLACED UNTIL THIS ELEVATION HAS BEEN DETERMINED.

WHEN THE ELEVATION OF THE TOP SURFACE OF THE EMBANKMENT FILL REACHES A LEVEL APPROXIMATELY 3 FEET BELOW THE TOP OF THE SLEEVE, THE CONTRACTOR SHALL INSTALL THE NEXT SECTION OF THE SLEEVE AND RISER PIPE. ADDED SECTIONS SHOULD NOT BE GREATER THAN 5 FEET IN LENGTH. AS EACH ADDITIONAL LENGTH OF PIPE IS ADDED, THE PIPE CAP ON THE SLEEVE SHALL BE IMMEDIATELY TRANSFERRED TO THE NEW SECTION, AND THE NEW SECTION WRENCH TIGHTENED SO AS TO PREVENT FILL MATERIAL FROM ENTERING THE SLEEVE. AT OTHER TIMES, THE CAP SHALL ONLY BE REMOVED TO CHECK SETTLEMENT. AS THE HEIGHT OF THE EMBANKMENT FILL INCREASES, THE PROCEDURE SHALL BE REPEATED UNTIL THE EMBANKMENT FILL IS COMPLETED.

THE CONTRACTOR SHALL TAKE ALL SETTLEMENT PLATE READINGS. ALL SETTLEMENT PLATE READINGS SHALL BE OBTAINED TO AN ACCURACY OF 0.01 FEET AND BE PART OF A CLOSED CIRCUIT LEVEL RUN. THE CONTRACTOR SHALL TAKE ELEVATION READINGS OF THE BEARING PLATES AND EXTENSIONS AS FOLLOWS:

- UPON INSTALLATION OF THE SETTLEMENT PLATE, THE TOP OF THE BASE PLATE AND THE TOP OF THE FIRST PIPE EXTENSION.
- AS EACH EXTENSION IS ADDED, THE TOP OF THE PREVIOUS EXTENSION AND THE TOP OF THE NEW EXTENSION.
- DAILY READINGS DURING THE PLACEMENT OF THE FILL, INCLUDING THE HEIGHT OF THE FILL.
- DURING THE ENTIRE TIME OF CONSTRUCTION UP TO THE END OF THE WAITING PERIOD, AT INTERVALS NOT TO EXCEED ONE WEEK.

THE READINGS SHALL BE PLOTTED ON GRAPH PAPER PRESENTING DEFORMATION (ON THE NEGATIVE Y-AXIS) AND FILL HEIGHT (ON THE POSITIVE Y-AXIS) VERSUS TIME (ON THE X-AXIS). A COPY OF EACH CUMULATIVE PLOT SHALL BE SENT TO THE OFFICE OF GEOTECHNICAL ENGINEERING, ATTENTION: GEOTECHNICAL DESIGN COORDINATOR, AFTER EACH SETTLEMENT READING IS RECORDED.

BASED UPON INTERPRETATION OF SETTLEMENT MONITORING DATA, THE ENGINEER WILL PROVIDE APPROVAL FOR THE ACTUAL DURATION OF THE WAITING PERIOD. UPON COMPLETION OF THE WAITING PERIOD, THE CONTRACTOR SHALL REMOVE OR CUT OFF THE PIPE EXTENSIONS TO A DEPTH TWO FEET BELOW THE FINISHED GRADES OR SUBGRADES, WHICHEVER IS APPLICABLE, OR TO A GREATER DEPTH THAT WILL NOT INTERFERE WITH THE CONSTRUCTION OF OTHER ITEMS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE SETTLEMENT OF PLATFORMS IN WORKING ORDER DURING THE PERIOD OF HIS CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL OPERATE HIS EQUIPMENT IN A MANNER TO ENSURE THAT THE SETTLEMENT PLATFORMS ARE NOT DAMAGED OR DISPLACED LATERALLY. EACH ASSEMBLY SHALL BE CLEARLY MARKED AND FLAGGED WITH GUARD STAKES AND PROTECTIVE BARRICADES. ALL SETTLEMENT PLATFORMS DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR WITHIN SEVEN (7) DAYS AFTER BEING DAMAGED. NO ADDITIONAL FILL SHALL BE PLACED IN THE AREA UNTIL THE PLATFORMS ARE REPAIRED.

MEASUREMENT AND PAYMENT: EACH SETTLEMENT PLATFORM ASSEMBLY ACCEPTABLY INSTALLED AND MAINTAINED IN A SATISFACTORY OPERATING CONDITION UNTIL THE AREA IS RELEASED FOR FURTHER CONSTRUCTION, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR "ITEM SPECIAL - SETTLEMENT PLATFORM." PRICE AND PAYMENT SHALL BE FULL COMPENSATION FOR FURNISHING ALL MATERIAL, LABOR AND EQUIPMENT FOR PROPER INSTALLATION OF THE SETTLEMENT PLATFORM, FOR PROTECTING SETTLEMENT PLATFORMS, FOR REPAIR AND REPLACING DAMAGED SETTLEMENT PLATFORMS, FOR MONITORING SETTLEMENT PLATFORMS, AND FOR ALL OTHER WORK AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED HEREIN, SHOWN IN THE PLANS AND AS DIRECTED BY THE ENGINEER.

ITEM SPECIAL - FILL AND PLUG EXISTING CONDUIT

THIS ITEM SHALL CONSIST OF THE CONSTRUCTION OF BULKHEADS IN AN EXISTING CONDUIT AND FILLING THE AREA THUS SEALED OFF WITH LEAN GROUT, ITEM 613, SAND, OR OTHER MATERIAL APPROVED BY THE ENGINEER.

BULKHEADS SHALL BE LOCATED AT THE LIMITS OF THE AREA TO BE FILLED AS INDICATED ON THE PLANS. THE BULKHEADS SHALL CONSIST OF BRICK OR CONCRETE MASONRY WITH A MINIMUM THICKNESS OF 12 INCHES.

THE FILL MATERIAL SHALL BE PUMPED INTO PLACE, OR PLACED BY OTHER MEANS APPROVED BY THE ENGINEER, SO THAT, AFTER SETTLEMENT, AT LEAST 90 PERCENT OF THE CROSS-SECTIONAL AREA OF THE CONDUIT, FOR ITS ENTIRE LENGTH, SHALL BE FILLED. THE LENGTH OF FILLED AND PLUGGED CONDUIT TO BE PAID FOR SHALL BE THE ACTUAL NUMBER OF FEET (MEASURED ALONG THE CENTERLINE OF EACH CONDUIT FROM OUTER FACE TO OUTER FACE OF BULKHEADS) FILLED AND PLUGGED AS DESCRIBED ABOVE.

IN LIEU OF FILLING AND PLUGGING THE EXISTING CONDUIT, THE PIPE MAY BE CRUSHED AND BACKFILLED IN ACCORDANCE WITH THE PROVISIONS OF 203, OR IT MAY BE REMOVED. THE LENGTH, MEASURED AS PROVIDED ABOVE, SHALL BE PAID FOR AT THE CONTRACT PRICE PER FOOT FOR, ITEM SPECIAL, FILL AND PLUG EXISTING CONDUIT.

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GENERAL NOTES

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SEQUENCE OF CONSTRUCTION

THERE ARE NINE (9) RUNS OF TENSIONED CABLE GUARDRAIL ON THIS PROJECT (BEGIN RUN ANCHOR TERMINAL TO END RUN ANCHOR TERMINAL).

POSTS ARE SET IN SOCKETED CONCRETE FOUNDATIONS AND SHALL NOT BE PERMANENTLY INSTALLED UNTIL THEIR RESPECTIVE RUNS OF TENSIONED CABLE GUARDRAIL ARE READY FOR FINAL CONNECTION TO THE END TERMINAL ASSEMBLY.

THE CONTRACTOR SHALL REPLACE ANY POST DAMAGED DURING INSTALLATION AS DETERMINED BY THE ENGINEER AT NO ADDITIONAL COST TO THE STATE.

TENSIONED CABLE ANCHOR ASSEMBLY

THE TENSIONED CABLE ANCHOR ASSEMBLIES SHALL FOLLOW THE MANUFACTURERS SPECIFICATIONS FOR WEAK SOIL CONDITIONS. THE MANUFACTURER SHALL PROVIDE A DESIGN TO ADEQUATELY HANDLE THE STATIC LOAD, ANY IMPACT LOADS NEAR THE ANCHOR ASSEMBLY PLUS THE APPROPRIATE FACTORS OF SAFETY.

ITEM 606 - GUARDRAIL, MISC.: TENSIONED CABLE WITH CONCRETE FOUNDATION LINE POST (SOCKETED)

ITEM 606 - GUARDRAIL, MISC.: TENSIONED CABLE ANCHOR TERMINAL

ITEM 606 - GUARDRAIL, MISC.: W-BEAM TRANSITION

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING A TENSIONED CABLE GUARDRAIL SYSTEM MEETING NCHRP REPORT 350 TEST LEVEL-3 REQUIREMENTS BY USING ONE OF THE THREE FOLLOWING PRODUCTS:

1) MARION STEEL'S WIRE ROPE BARRIER, MARION STEEL COMPANY,
912 CHENEY AVE., MARION, OHIO, 43302
(CONTACT: RICK MAUER,603-430-9350 OR 603-490-1603).

2) TRINITY CABLE SAFETY SYSTEM (CASS), TRINITY INDUSTRIES,
2525 STEMMONS FREEWAY, DALLAS TEXAS, 75207
(CONTACT: BRIAN SMITH 214-631-4420 OR 800 527-6050 EXT. 8140)

3) BRIFEN USA WIRE ROPE SAFTEY FENCE SYSTEM
9215 S. SHIELDS BLVD., OKLAHOMA CITY, OK 73160
(CONTACT: JERRY EMERSON, P.E. 405-793-9500 OR 866-427-4336)

INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS AND IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. SYSTEMS WILL BE INSTALLED IN A MEDIAN APPLICATION (BIDIRECTIONAL TRAFFIC).
THE SYSTEM SHALL HAVE A MAXIMUM DEFLECTION OF 8 FEET.

INSTALLATION WILL BE A THREE OR FOUR STRAND TENSION CABLE INSTALLED IN SOCKETED POSTS.

PAYMENT FOR THE ABOVE WORK SHALL BE AT THE UNIT BID PRICE FOR:

ITEM 606 - GUARDRAIL, MISC.: TENSIONED CABLE WITH CONCRETE FOUNDATION LINE POST (SOCKETED)

ITEM 606 - GUARDRAIL, MISC.: TENSIONED CABLE ANCHOR TERMINAL

ITEM 606 - GUARDRAIL, MISC.: W-BEAM TRANSITION

THE BID PRICE SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT, AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL CABLE GUARDRAIL SYSTEM, INCLUDING ALL RELATED HARDWARE, GRADING, EMBANKMENT, AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER AND ODOT PROJECT ENGINEER.

THE CONTRACTOR SHALL PROVIDE DELINEATORS ON THE GUARDRAIL POSTS AT A MINIMUM INTERVAL OF 100 FT.

POSTS ARE SET IN SOCKETED CONCRETE FOUNDATIONS AND SHALL NOT BE PERMANENTLY INSTALLED UNTIL THEIR RESPECTIVE RUNS OF TENSIONED CABLE GUARDRAIL ARE READY FOR FINAL CONNECTION TO THE END TERMINAL ASSEMBLY.

THE CONTRACTOR SHALL REPLACE ANY POST DAMAGED DURING INSTALLATION AS DETERMINED BY THE ENGINEER AT NO ADDITIONAL COST TO THE STATE.

ENDANGERED SPECIES HABITAT - BALD EAGLE

THIS PROJECT IS WITHIN THE RANGE OF THE FEDERALLY THREATENED BALD EAGLE (HALIAEETUS LEUCOCEPHALUS) AND AN ACTIVE BALD EAGLE NESTING SITE HAS BEEN IDENTIFIED APPROXIMATELY 0.5 MILES NORTH OF IR-80 AT MEANDER CREEK RESERVOIR. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR DISTURB THE BALD EAGLE NESTING SITE.

ENDANGERED SPECIES HABITAT - INDIANA BAT

THIS PROJECT IS WITHIN THE RANGE OF THE FEDERALLY ENDANGERED INDIANA BAT (MYOTIS SODALIS) AND MAY IMPACT SUMMER ROOSTING AND BROOD-REARING HABITAT FOR THIS SPECIES. THE SUMMER ROOSTING AND BROOD-REARING HABITAT FOR THE INDIANA BAT CONSISTS OF LIVING OR STANDING DEAD TREES OR SNAGS WITH EXFOLIATING, PEELING OR LOOSE BARK, SPLIT TRUNKS AND/OR BRANCHES OR CAVITIES. THEREFORE, ANY UNAVOIDABLE CUTTING OF TREES AND/OR SNAGS WITH EXFOLIATING, PEELING OR LOOSE BARK, SPLIT TRUNKS AND/OR BRANCHES OR CAVITIES SHALL BE PERFORMED ONLY AFTER SEPTEMBER 15 AND BEFORE APRIL 15 WHEN THE SPECIES WOULD NOT BE USING SUCH HABITAT. THE UNDERSIDE OF BRIDGES SHALL BE CHECKED FOR THE PRESENCE OF BATS PRIOR TO CONSTRUCTION BY THE ENGINEER. IF BATS ARE FOUND, THE DISTRICT 4 ENVIRONMENTAL SECTION SHALL BE CONTACTED FOR FURTHER DIRECTION.

IN-RESERVOIR / IN-STREAM WORK

ALL MATERIALS REMOVED FROM THE RESERVOIR, DITCHES, STREAMS OR WETLANDS MUST BE IMMEDIATELY REMOVED TO AN UPLAND SITE AND STABILIZED (I.E., SEEDED) TO PREVENT REDISTRIBUTION INTO ANY WATERS OF THE UNITED STATES. IMMEDIATE REMOVAL IS DEFINED BY THE UNITED STATES ARMY CORPS OF ENGINEERS AS DEPOSITING THE REMOVED MATERIALS DIRECTLY INTO A TRUCK AND REMOVING THE MATERIAL FROM THE SITE; PLACEMENT OF REMOVED MATERIALS INTO A WETLAND OR ON THE BANKS OF A STREAM EVEN TEMPORARILY IS CONSIDERED A FILL AND REQUIRES A PERMIT ACTION. ANY AREAS DISTURBED BY EQUIPMENT ACTIVITIES MUST BE SEEDED TO PREVENT EROSION OF SEDIMENTS INTO WATERS OF THE UNITED STATES.

IN-RESERVOIR/IN-STREAM WORK WILL BE LIMITED WHERE PRACTICABLE AND ONLY CLEAN NON-ERODIBLE MATERIAL WILL BE USED FOR STREAM CROSSING, COFFERDAMS, OR OTHER EQUIPMENT ACCESS PADS. THIS TEMPORARILY PLACED MATERIAL WILL BE REMOVED AND THE RESERVOIR/STREAM BOTTOM RESTORED TO NEAR NATURAL CONDITIONS WHEN THE WORK IS COMPLETED.

BEST MANAGEMENT PRACTICES

WATER COLUMN AND SEDIMENTATION IMPACTS SHALL BE KEPT TO A MINIMUM THROUGH THE USE OF BEST MANAGEMENT PRACTICES FOR SOIL EROSION AND SEDIMENTATION CONTROL.

IN-STREAM BLASTING

NO IN-STREAM BLASTING WILL BE PERMITTED WITHOUT PRIOR WRITTEN PERMISSION OF THE CHIEF OF THE DIVISION OF WILDLIFE, OHIO DEPARTMENT OF NATURAL RESOURCES, IN ACCORDANCE WITH OHIO REVISED CODE SECTION 1533.58.

MECHANICAL EQUIPMENT OPERATION AT RESERVOIR / STREAM CHANNEL

THE MECHANICAL EQUIPMENT USED TO EXECUTE THE WORK AUTHORIZED HEREIN SHALL BE OPERATED IN SUCH A WAY AS TO MINIMIZE TURBIDITY AND DIESEL SPRAY THAT COULD DEGRADE WATER QUALITY AND ADVERSELY AFFECT AQUATIC PLANT AND ANIMAL LIFE.

RESERVOIR / STREAM CHANNEL EXCAVATION

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT ANY INCIDENTAL DISCHARGES ASSOCIATED WITH THE EXCAVATION AND HAULING OF MATERIAL FROM THE RESERVOIR AND/OR STREAM CHANNEL. THIS PERTAINS TO ANY EXCAVATION OPERATION SUCH AS, FOUNDATION PIER OR ABUTMENT EXCAVATION, CHANNEL CLEAN OUT, EXCAVATION FOR ROCK CHANNEL PROTECTION AND REMOVAL OF ANY TEMPORARY FILL ASSOCIATED WITH CONSTRUCTION OPERATIONS.

WETLANDS IMPACTS/AVOIDANCE

THIS PROJECT WILL IMPACT AN ESTIMATED 2.06 ACRE OF WETLANDS IDENTIFIED ON THE PLANS. THE FOLLOWING WETLANDS WILL BE IMPACTED BY THIS PROJECT:

WETLAND	IMPACT RANGE *	ACRES	FEET
SW-BB	STA 488+20RT TO STA 489+30 RT	0.026	110
NW-E	STA 500+10 LT TO STA 500+40 LT	0.008	30
SW-1	STA 504+20 RT TO STA 504+70 RT	0.026	50
NW-F	STA 504+70 LT TO STA 505+40 LT	0.017	70
NW-D	STA 509+60 LT TO STA 510+10 LT	0.046	50
SW-3	STA 511+20 RT TO STA 511+80 RT	0.046	60
NW-1	STA 512+50 LT TO STA 513+40 LT	0.108	90
NW-2	STA 513+90 LT TO STA 514+80 LT	0.245	90
NW-C	STA 517+20 LT TO STA 517+50 LT	0.019	30
SW-A	STA 518+70 RT TO STA 519+80 RT	0.114	110
NW-A	STA 520+00 LT TO STA 521+70 LT	0.113	170
SE-10	STA 543+90 RT TO STA 545+10 RT	0.035	120
NE-6	STA 544+50 RT TO STA 545+30 LT	0.038	80
NE-B	STA 546+40 LT TO STA 548+30 LT	0.070	190
SE-A	STA 547+85 RT TO STA 549+40 RT	0.084	155
NE-5	STA 550+95 LT TO STA 551+20 LT	0.008	125
NE-5	STA 552+70 LT TO STA 553+10 LT	0.025	40
SE-5	STA 550+40 RT TO STA 552+00 RT	0.360	160
SE-9	STA 552+50 RT TO STA 553+10 RT	0.101	60
SE-8	STA 554+30 RT TO STA 556+10 RT	0.097	180
NE-4	STA 556+80 LT TO STA 559+40 LT	0.136	260
NE-A	STA 560+90 LT TO STA 561+30 LT	0.020	40
SE-2/3	STA 561+20 RT TO STA 562+50 RT	0.092	130
SE-1	STA 568+15 RT TO STA 568+25 RT	0.005	10
NE-1	STA 579+55 LT TO STA 579+70 LT	0.004	15
B	STA 626+50 RT TO STA 628+30 RT	0.029	180
NE-8	STA 630+30 LT TO STA 631+70 LT	0.030	140
F	STA 673 +70 LT TO STA 674+35 LT	0.020	65
F	STA 676+00 LT TO STA 677+05 LT	0.013	105
D	STA 703+50 LT TO STA 705+10 LT	0.049	160
NE-2	STA 565+20 LT TO STA 565+90 LT	0.058	70
SE-D	STA 603+00 RT TO STA 604+50 RT	0.138	150
SE-E	STA 604+30 RT TO STA 605+10 RT	0.076	80
SE-F	STA 611+60 RT TO STA 612+50 RT	0.063	90
SE-G	STA 616+00 RT TO STA 619+20 RT	0.384	320
SE-H	STA 620+20 RT TO STA 621+50 RT	0.055	130
NE-7	STA 623+60 LT TO STA 632+00 LT	2.678	840

* ALL STATIONING REFERS TO CENTERLINE IR-80

UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR IMPACT THE REMAINING ADJACENT WETLANDS LISTED ABOVE AND INDICATED ON THE PLANS. UNDER NO CURCUMSTANCES SHALL THE CONTRACTOR IMPACT THE FOLLOWING WETLANDS AS INDICATED ON THE PLANS.

WETLAND	AVOIDANCE RANGE *	ACRES	FEET
SW-AA	STA 490+40 RT TO STA 491+10 RT	0.074	70
SE-11	STA 539+20 RT TO STA 541+80 RT	0.478	260
SE-6	STA 541+50 RT TO STA 543+40 RT	0.416	190

* ALL STATIONING REFERS TO CENTERLINE IR-80

UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR STORE EQUIPMENT AND/OR MATERIALS WITHIN THESE WETLAND AREAS. TO PROTECT AND DELINEATE THE BOUNDARY OF THE EXISTING REMAINING ADJACENT WETLANDS AND AVOIDED WETLANDS, AS APPROPRIATE, FILTER FABRIC FENCE AND TEMPORARY CONSTRUCTION FENCE SHALL BE INSTALLED AROUND THE PERIMETER OF THE WETLANDS WITHIN AND ADJACENT TO THE LIMITED ACCESS RIGHT-OF-WAY, MAINTAINING A MINIMUM OF ONE (1) FOOT BUFFER BETWEEN THE FENCE AND THE WETLAND BOUNDARY, OR AT THE PROPOSED CONSTRUCTION LIMITS WITHIN THE WETLANDS AREA, AS APPLICABLE. IN ORDER TO MINIMIZE TEMPORARY AND SHORT-TERM WATER QUALITY IMPACTS TO WETLAND SE-11, A SILT CURTAIN/TURBIDITY CURTAIN SHALL BE INSTALLED AROUND THE PERIMETER OF THE WETLAND. THIS FILTER FABRIC FENCE, TEMPORARY CONSTRUCTION FENCE, AND/OR SILT CURTAIN/TURBIDITY CURTAIN SHALL BE INSTALLED BY THE CONTRACTOR PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES WITHIN THESE LIMITS AND ADJACENT AREA, INCLUDING ANY NECESSARY CLEARING AND GRUBBING ACTIVITIES, AND MAINTAINED BY THE CONTRACTOR THROUGHOUT PROJECT CONSTRUCTION.

PAYMENT FOR THE ABOVE WORK SHALL BE INCLUDED IN THE CONTRACT PRICE FOR ITEM 832 EROSION CONTROL.

404/401 PERMIT COMPLIANCE

THE 404/401 WATERWAY PERMITS FOR THIS PROJECT HAVE YET TO BE AUTHORIZED BY THE U. S. ARMY CORPS OF ENGINEERS AND/OR THE OHIO ENVIRONMENTAL PROTECTION AGENCY. THE CONTRACTOR SHALL NOT PERFORM ANY WORK IN AND/OR PLACE ANY FILL IN JURISDICTIONAL STREAMS OR WETLANDS UNTIL THE FINAL 404/401 PERMITS ARE AUTHORIZED BY THE U. S. ARMY CORPS OF ENGINEERS AND/OR THE OHIO ENVIRONMENTAL PROTECTION AGENCY. IT IS ANTICIPATED THE COMPLETE/AUTHORIZED 404/401 PERMITS MAY BE PROVIDED TO THE CONTRACTOR BY ODOT PERSONNEL BY MARCH 31, 2006.

WATERWAY PERMIT DETERMINATION (404/401) -ODOT PROJECTS

ALL PROJECTS INVOLVING JURISDICTIONAL WATERS OF THE UNITED STATES (STREAMS, RIVERS, NON-ISOLATED WETLANDS) AND/OR ISOLATED WETLANDS ARE SUBJECT TO REGULATION UNDER SECTIONS 404 AND 401 OF THE CLEAN WATER ACT, AND POSSIBLY OHIO EPA ISOLATED WETLAND LAW. THE UNITED STATES ARMY CORPS OF ENGINEERS (USACE) HAS AUTHORIZED THE PROJECT UNDER _____; BASED UPON THE ANTICIPATED IMPACTS TO STREAM(S) AND/OR WETLAND(S). HOWEVER, THIS PERMIT DETERMINATION DID NOT INCLUDE THE USE OF TEMPORARY CONSTRUCTION ACCESS FILLS THAT MAY BE REQUIRED FOR CONSTRUCTION (I.E., CAUSEWAY STREAM CROSSINGS, CONSTRUCTION ACCESS PADS, COFFERDAMS, ETC.). INFORMATION REGARDING THE USE OF TEMPORARY CONSTRUCTION ACCESS FILLS MAY NOT HAVE BEEN KNOWN AT THE TIME OF THE PERMIT DETERMINATION. THE CONTRACTOR SHOULD BE AWARE THAT THE USE OF TEMPORARY FILL BELOW THE ORDINARY HIGH WATER MARK (OHWM), WHICH IS THE USACE'S JURISDICTIONAL LIMITS, WILL REQUIRE A PRECONSTRUCTION NOTIFICATION (PCN) AND AUTHORIZATION BY THE USACE UNDER NWP 33 - TEMPORARY CONSTRUCTION ACCESS AND DEWATERING. SHOULD TEMPORARY CONSTRUCTION ACCESS FILL BE REQUIRED, THE CONTRACTOR SHALL COORDINATE SUCH ACTIVITIES, INCLUDING THE PCN, THROUGH OFFICE OF ENVIRONMENTAL SERVICES (OES) AND ALLOW 60 DAYS MINIMUM FOR PROCESSING WITH THE USACE. THE CONTRACTOR SHALL NOT COORDINATE THESE ACTIVITIES DIRECTLY WITH THE USACE. THE CONTRACTOR SHALL NOT UTILIZE TEMPORARY FILLS BELOW OHWM UNTIL SUCH ACTIVITY IS AUTHORIZED BY THE USACE. SHOULD A PCN BE REQUIRED, THE PCN SHALL INCLUDE PERTINENT INFORMATION (I.E., VOLUME AND SURFACE AREA OF TEMPORARY FILLS) AND DRAWINGS (PLAN AND PROFILE VIEW) OF TEMPORARY FILLS BELOW OHWM. ONLY CLEAN, NON-ERODIBLE MATERIALS SHALL BE USED FOR TEMPORARY CONSTRUCTION ACCESS FILLS. ANY TEMPORARY FILLS BELOW OHWM SHALL BE REMOVED FOLLOWING COMPLETION OF THE AUTHORIZED ACTIVITY AND THE AREA OF STREAM WHERE TEMPORARY FILL WAS LOCATED SHALL BE RESTORED TO ITS PRE-CONSTRUCTION CONDITION. PLEASE NOTE THAT FORDING OF WATERWAYS IS NOT ALLOWED PER ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS 2005, ITEM 207.03.

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UNANTICIPATED DISCOVERY OF ARCHAEOLOGICAL RESOURCES

IN ACCORDANCE WITH 36 CFR 800.13(b)(3), SHOULD AN UNANTICIPATED DISCOVERY OF ARCHAEOLOGICAL RESOURCES OCCUR WITHIN THE PROJECT AREA, CONSTRUCTION RELATED ACTIVITY WILL BE TEMPORARILY DISCONTINUED AND THE OHIO STATE HISTORIC PRESERVATION OFFICE (OSHPO) CONTACTED WITHIN 48 HOURS. ODOT SHALL ENTER INTO CONSULTATION WITH THE OSHPO TO EVALUATE THE SIGNIFICANCE OF THE HISTORIC RESOURCE, ASSESS POTENTIAL EFFECTS, AND DEVELOP MITIGATION STRATEGIES AS NECESSARY. ALL ACTIVITIES WILL BE IN ACCORDANCE WITH THE SECRETARY OF THE INTERIOR'S STANDARDS AND GUIDELINES FOR ARCHAEOLOGICAL DOCUMENTATION AND DATA RECOVERY (48 CFR 44716-44740); TAKE INTO ACCOUNT THE ADVISORY COUNCIL ON HISTORIC PRESERVATION'S PUBLICATION TREATMENT OF ARCHAEOLOGICAL PROPERTIES, A HANDBOOK (1980), AND WILL BE APPROVED BY THE OSHPO PRIOR TO IMPLEMENTATION. ALL ARCHAEOLOGICAL WORK WILL BE CARRIED OUT BY OR UNDER THE DIRECT SUPERVISION OF INDIVIDUALS MEETING, AT A MINIMUM, THE APPROPRIATE FEDERAL QUALIFICATIONS AND PRE-QUALIFIED BY ODOT FOR SUCH WORK [(36 CFR PART 61, APPENDIX A; THE OSHPO ARCHAEOLOGY GUIDELINES (1994)].

STRUCTURE PAINTING AND CONCRETE SEALING OPERATIONS

MEANDER CREEK RESERVOIR IS THE PRINCIPLE DRINKING WATER SOURCE FOR THE MAHONING VALLEY. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT EPOXY-URETHANE SEALER, PAINT, OR OTHER MATERIALS USED TO REPAIR, CLEAN, SEAL, OR TREAT ANY BRIDGE STRUCTURE FROM ENTERING THE RESERVOIR, ANY STREAMS, WETLANDS OR OTHER WATERS OF THE UNITED STATES AND TAKE THE APPROPRIATE ACTIONS IN THE EVENT OF A RELEASE. THE CONTRACTOR SHALL LIMIT THE AMOUNT OF OPEN PAINT/SEALER MATERIAL TO THE EXTENT PRACTICABLE TO PERFORM THE REQUIRED WORK. DISCARDED CONTAINERS SHALL BE REMOVED FROM THE VICINITY OF THE RESERVOIR AND UNDER NO CIRCUMSTANCES SHALL ANY PAINT/SEALER MATERIAL BE STORED WITHIN THE 100-YEAR FLOODPLAIN. IF THERE IS AN INCIDENT OF DEBRIS AND/OR MATERIALS THAT FALL OR MIGRATE INTO THE RESERVOIR, STREAMS, WETLANDS OR OTHER WATERS OF THE UNITED STATES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER/SUPERVISOR AND THE FOLLOWING AGENCIES:

MAHONING VALLEY SANITARY DISTRICT (MVSD) AT (330) 799-6315;

MAHONING COUNTY EMERGENCY MANAGEMENT - DISASTER SERVICES/HAZMAT, AT 330-740-2200, OR 24-HOUR HAZMAT EMERGENCY, AT 330-740-1922;

OHIO EPA SPILL REPORTING, 24-HOUR EMERGENCY SERVICE, AT 1-800-282-9378;

AND PROVIDE AS MUCH OF THE FOLLOWING INFORMATION AS POSSIBLE:

1. TIME OBSERVED
2. LOCATION
3. MATERIAL RELEASED
4. PROBABLE SOURCE
5. VOLUME & DURATION
6. PRESENT & ANTICIPATED MOVEMENT OF CONTAMINANT
7. PERSONNEL ON SCENE
8. ACTIONS ALREADY INITIATED
9. PERSON(S) ON THE SCENE TO CONTACT

TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES

ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE PRIOR TO ANY EXCAVATION, GRADING OR FILLING OPERATIONS AND INSTALLATION OF PROPOSED STRUCTURES OR UTILITIES. THEY SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETE AND THE AREA IS STABILIZED AS ACCEPTED BY THE ENGINEER.

CONSTRUCTION AND DEMOLITION DEBRIS

THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID CONSTRUCTION AND/OR LIMIT DEMOLITION DEBRIS FROM ENTERING THE RESERVOIR AND/OR STREAMS. ANY MATERIAL THAT DOES FALL INTO THE RESERVOIR AND/OR STREAMS SHALL BE REMOVED AS SOON AS POSSIBLE.

PROTECTION OF DRINKING WATER SUPPLY AND MEANDER CREEK RESERVOIR

THIS PROJECT IS LOCATED UPSTREAM OF THE RAW WATER INTAKE OPERATED BY THE MAHONING VALLEY SANITARY DISTRICT (MVSD) FOR A MAJOR MUNICIPAL WATER SUPPLY. THE CONTRACTOR SHALL AVOID OR MINIMIZE ANY POTENTIAL IMPACTS TO THE WATER QUALITY OF MEANDER CREEK RESERVOIR.

PRIOR TO PROJECT COMMENCEMENT, THE CONTRACTOR SHALL NOTIFY THE MAHONING VALLEY SANITARY DISTRICT (MVSD) CHIEF ENGINEER AND RESIDENT ENGINEER AT (330) 799-6315. ANY ACTIVITY THAT HAS ADDED OR IS EXPECTED TO ADD POLLUTANTS TO THE MEANDER CREEK RESERVOIR OR ITS TRIBUTARIES WHICH MAY THREATEN TO CONTAMINATE THE WATER SUPPLY SHALL BE REPORTED TO MVSD. SUCH ACTIVITIES INCLUDE BUT ARE NOT LIMITED TO EARTH DISTURBING ACTIVITIES, DISTURBANCE OF THE MEANDER CREEK RESERVOIR BOTTOM, AND THE RELEASE OR SPILL OF HAZARDOUS/TOXIC MATERIALS.

THE CONTRACTOR SHALL IMMEDIATELY MITIGATE ANY EVENT, SUCH AS A SPILL OF FUELS, OILS, OR CHEMICALS, THAT COULD THREATEN TO CONTAMINATE THE DRINKING WATER SUPPLY. ANY SUCH SPILL OR EVENT SHALL BE REPORTED IMMEDIATELY TO THE MAHONING VALLEY SANITARY DISTRICT (MVSD) AT (330) 799-6315. IF THE SPILL IS A REPORTABLE AMOUNT, THE CONTRACTOR SHALL ALSO CONTRACT THE MAHONING COUNTY EMERGENCY MANAGEMENT - DISASTER SERVICES/HAZMAT, AT 330-740-2200, OR 24-HOUR HAZMAT EMERGENCY, AT 330-740-1922; AND THE OHIO EPA SPILL REPORTING, 24-HOUR EMERGENCY SERVICE, AT 1-800-282-9378; FOR CLEAN UP OF THE SPILL.

TO MINIMIZE THE POTENTIAL TO CONTAMINATE THE DRINKING WATER SUPPLY, PROJECT RELATED REFUELING AND MAINTENANCE ACTIVITIES SHALL BE PERFORMED IN AN ENVIRONMENTALLY RESPONSIBLE MANNER. THESE ACTIVITIES SHALL BE PERFORMED AT THE FARTHEST FEASIBLE POINT FROM MEANDER CREEK RESERVOIR OR ITS TRIBUTARIES. THE MOST SENSITIVE AREA FOR THE DRINKING WATER SUPPLY IS FROM THE BEGINNING OF THE PROJECT AT STATION 483+50 UNTIL STATION 605+00, EAST OF THE OHLTOWN ROAD BRIDGE.

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MAINTENANCE OF TRAFFIC

THIS ITEM SHALL CONSIST OF MAINTENANCE OF TRAFFIC ON EXISTING ROADWAYS AND RAMPS IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, CURRENT EDITION, LATEST REVISION, THE SPECIFICATIONS AND THE FOLLOWING:

1. A MINIMUM OF TWO ELEVEN FOOT LANE IN EACH DIRECTION SHALL BE MAINTAINED ON THE EXISTING PAVEMENT (COMPLETED PAVEMENT AND PAVEMENT FOR MAINTAINING TRAFFIC) DURING CONSTRUCTION OF THE WORK.

2. THE CONTRACTOR SHALL INFORM THE DISTRICT OFFICE (330) 786-3148, EIGHTEEN (18) DAYS PRIOR TO THE BEGINNING OF WORK.

3. CONES SHALL NOT BE ACCEPTABLE TRAFFIC CONTROL DEVICES FOR LANE RESTRICTIONS OR LANE REDUCTIONS THAT ARE IN OPERATION ONE-HALF HOUR AFTER SUNSET OR ONE HALF-HOUR BEFORE SUNRISE. ALL NIGHTTIME LANE RESTRICTIONS SHALL REQUIRE DRUMS OR BARRICADES AT A MAXIMUM SPACING OF FIFTY (50) FEET.

4. LANE RESTRICTIONS OR LANE REDUCTIONS SHALL NOT BE PERMITTED AFTER NORMAL WORKING HOURS. NORMAL WORKING HOURS SHALL BE THOSE HOURS DURING WHICH THE CONTRACTOR HAS A FULL COMPLEMENT OF EMPLOYEES AND EQUIPMENT ACTIVELY REMOVING AND/OR PLACING PAVEMENT MATERIALS.

5. THE CONTRACTOR SHALL FURNISH, ERECT, MAINTAIN AND SUBSEQUENTLY REMOVE ALL FLAGS, BARRICADES, SIGNS, SIGN SUPPORTS AND FURNISH AND MAINTAIN ALL FLAGGERS, WATCHERS AND INCIDENTALS RELATED THERETO.

6. ALL FULL DEPTH PAVEMENT REMOVAL AND REPLACEMENT OPERATIONS SHALL BE COMPLETED THE SAME DAY THE EXCAVATION IS MADE. IF THE CONTRACTOR CANNOT COMPLETE THE WORK, THE EXCAVATION SHALL BE BACKFILLED OR PROTECTED.

7. NO FULL DEPTH BRIDGE REPAIR SHALL BE PERFORMED OVER AN OPEN LANE. A SAFETY NET OR PLATFORM SHALL BE REQUIRED TO PROTECT THE ROADWAY OR STREAM DURING THE REMOVAL OF THE EXISTING CONCRETE PARAPET AND DECK. THE CONTRACTOR SHALL PROVIDE A SAFETY NET OR PLATFORM OF SUITABLE STRENGTH ON THE UNDERSIDE OF THE DECK. THE DESIGN OF THE NET OR PLATFORM SHALL CONFORM WITH OSHA REQUIREMENTS AND THE APPROVAL OF THE ENGINEER AND SHALL REMAIN IN PLACE UNTIL THE WORK HAS BEEN COMPLETED AND ACCEPTED OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL SUBMIT A DEMOLITION PLAN AND SAFETY NET OR PLATFORM DESIGN 30 DAYS PRIOR TO COMMENCING ANY DEMOLITION FOR APPROVAL BY THE ENGINEER. THE SUBMITTAL SHALL BE IN WRITING TO THE DISTRICT CONSTRUCTION ENGINEER WITH A COPY TO THE PROJECT ENGINEER.

8. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR BE PERMITTED TO HAVE SUCCESSIVE WORK ZONES UNLESS THE DISTANCE BETWEEN THE DRUMS, BARRICADES OR CONES EXCEEDS TWO (2) MILES.

9. ONLY DURING OFF-PEAK PERIODS (IE. ANY PERIOD OTHER THAN 6-8AM AND 3-6PM) SHALL THE CONTRACTOR INSTALL AND SUBSEQUENTLY RESET ALL TRAFFIC CONTROL NECESSARY FOR THE WORK ZONE FOR EACH CONSTRUCTION PHASE.

10. IN ADDITION TO THE REQUIREMENTS OF 614 WORK ZONE PAVEMENT MARKINGS (614.11), AT THE END OF EACH DAY OF WORK, THE CONTRACTOR SHALL REPLACE (WITH WORK ZONE MARKINGS) ALL LANE, EDGE, STOP OR CHANNELIZING LINES THAT WERE REMOVED OR COVERED DURING THE PAVEMENT REMOVAL OR PLACEMENT OPERATIONS. QUANTITIES FOR SUCH PLACEMENT ARE CARRIED AS PART OF THE ITEMS LISTED UNDER 614 WORK ZONE PAVEMENT MARKINGS.

11. PRIOR TO OPENING TO TRAFFIC EACH LANE SHALL BE IN A SAFE, PASSABLE CONDITION. ALL TRANSVERSE JOINTS SHALL EXTEND ACROSS THE FULL LANE AND SHOULDER WIDTH AND EACH LANE SHALL BE FREE FROM UNEVEN LONGITUDINAL JOINTS. THE CONTRACTOR SHALL PROVIDE ASPHALT WEDGES FOR TRANSVERSE JOINTS WHEREVER THERE ARE PAVEMENT ELEVATION DIFFERENCES.

THE FOLLOWING ESTIMATED QUANTITIES SHALL BE USED FOR THE MAINTENANCE OF TRAFFIC ON THIS PROJECT (SEE MAINTENANCE OF TRAFFIC QUANTITIES SHEETS FOR SPECIFIC VALUES):

ITEM NO. - DESCRIPTION: (UNIT)	STAGE-PHASE					
	1-B	2-A	2-B	3	4	5-A
614 - WORK ZONE LANE LINE, CLASS I, 740.06, TYPE I: (MILE)	3.33	2.52	0.05	7.58	0	0.08
614 - WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE I: (MILE)	9.51	9.68	2.71	22.61	0.61	2.11
614 - WORK ZONE CHANNELIZING LINE, CLASS I, 740.06, TYPE I: (FT)	4461	5776	885	8169	150	1338
614 - WORK ZONE DOTTED LINE, CLASS I, 740.06, TYPE I: (FT)	0	0	0	150	0	0

12. A QUANTITY OF 500 CU. YDS. OF 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC SHALL BE PROVIDED FOR USE IN MAINTAINING EXISTING PAVEMENT, SHOULDERS AND OTHER LOCATIONS PRIOR TO PLACING NEW PAVEMENT, AS DIRECTED BY THE ENGINEER.

ALTERNATE MAINTENANCE OF TRAFFIC PLAN

THE CONTRACTOR MAY SUBMIT AN ALTERNATE MAINTENANCE OF TRAFFIC PLAN FOR APPROVAL. NO ALTERNATE PLAN SHALL BE PLACED IN EFFECT UNTIL APPROVAL HAS BEEN GRANTED IN WRITING BY THE ODOT DISTRICT 4 CONSTRUCTION ENGINEER.

TRENCH FOR WIDENING

TRENCH EXCAVATION FOR BASE WIDENING SHALL BE ONLY ON ONE SIDE OF THE PAVEMENT AT A TIME. THE OPEN TRENCH SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH DRUMS OR BARRICADES AT ALL TIMES. AS SHOWN ON THE DROP-OFF INSERT SHEET. PLACEMENT OF PROPOSED BASE MATERIAL SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND THE EXCAVATION OPERATIONS. THE LENGTH OF WIDENING TRENCH WHICH IS OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO THE APPROVAL OF THE ENGINEER. THE BASE WIDENING ON THIS PROJECT WILL BE COMPLETED TO A DEPTH OF 3 INCHES BELOW THE EXISTING PAVEMENT BY THE END OF THE WORK DAY. NO TRENCH WILL BE LEFT OPEN OVERNIGHT. IN CASE WORK MUST BE SUSPENDED BECAUSE OF INCLEMENT WEATHER OR OTHER REASONS, THE TRENCH FOR THE UNCOMPLETED BASE WIDENING WILL BE BACKFILLED AT THE DIRECTION OF THE ENGINEER.

STAGING OF MAINTENANCE OF TRAFFIC

GENERAL

ACCESS TO ALL RAMPS WILL BE MAINTAINED THROUGHOUT THE PROJECT EXCEPT FOR A TEMPORARY CLOSURE OF THE NB SR 11 TO WB IR-80 ON-RAMP AND WB IR-80 TO SB SR 11 OFF-RAMP DURING STAGE 1, PHASE B.

IN ADDITION TO THE REQUIREMENTS FOR MAINTAINING TRAFFIC AS INDICATED IN THE OHIO MANUAL OF UNIFORM CONTROL DEVICES (OMUTCD) FOR STREETS AND HIGHWAYS, CURRENT EDITION, AND ITEM 614, THE FOLLOWING REQUIREMENTS SHALL APPLY:

DURING THE PROJECT, ALL PHASES OF WORK SHALL BE CONDUCTED IN A MANNER THAT WILL ASSURE MINIMUM DANGER AND INCONVENIENCE TO THE MOTORIST.

THE CONTRACTOR SHALL ARRANGE HIS OPERATIONS SO AS TO PREVENT ANY INTERFERENCE TO THE CONTINUOUS FLOW OF TRAFFIC.

THERE SHALL BE AVAILABLE ON THE JOB AT ALL TIMES SIX (6) SPECIAL BLACK AND ORANGE "WATCH FOR STOPPED TRAFFIC" SIGNS (W3-H7-48). THERE SHALL BE TWO FOR EACH DIRECTION OF TRAFFIC AND TWO SPARES. THESE SIGNS SHALL BE MOUNTED ON A PORTABLE BARRICADE AND ARE TO BE USED IN THE EVENT THAT TRAFFIC BACKS UP. IF THIS OCCURS THEY WILL BE LOCATED APPROXIMATELY 1/4 MILE IN ADVANCE OF THE BACK UP AND WILL BE MOVED AS THE BACK UP INCREASES.

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN, AND SUBSEQUENTLY REMOVE ALL WORK ZONE TRAFFIC CONTROL DEVICES, INCLUDING REGULATORY SIGNS.

WORK ON CULVERTS THAT ARE TO BE ABANDONED, EXTENDED, OR HAVE RAISED HEADWALLS SHALL BE PERFORMED PRIOR TO OR DURING THE STAGE OF CONSTRUCTION THAT CONTAINS PROPOSED EMBANKMENT GRADING.

THE CONTRACTOR MAY BEGIN CONSTRUCTION OF THE EAST AND WEST SPILL CONTAINMENT BASINS DURING STAGE 1. HOWEVER, THE BASINS SHALL BE CONSTRUCTED PRIOR TO CONSTRUCTION OF PROPOSED DITCHES OR STORM PIPES THAT OUTFALL INTO THE BASINS.

SEQUENCE OF CONSTRUCTION

STAGE 1 PHASE A

PRIOR TO BEGINNING WORK SHOWN IN THE PLANS, REPAIRS TO EXISTING PAVEMENT AND BRIDGES SHALL BE MADE AS OUTLINED IN ITEM 251, PARTIAL DEPTH PAVEMENT REPAIR, ITEM 252, FULL DEPTH PAVEMENT REMOVAL AND FLEXIBLE REPLACEMENT AND ITEM SPECIAL - STRUCTURE, MISC.: PATCHING BRIDGE DECKS WITH ASPHALT.

EXISTING WB OUTSIDE SHOULDERS AND EXISTING WB DRIVING LANE AS SHOWN IN THE TYP. SECTIONS THAT WILL BE USED TO CARRY TRAFFIC IN STAGE 1 PHASE B AND STAGE 2 SHALL BE STRENGTHENED BY PLANING TO A DEPTH OF TWO INCHES (2") AND REPLACED WITH TWO INCHES (2") OF 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC. THE WORK SHALL BE ACCOMPLISHED AS A CONTINUOUS MOVING OPERATION. A TEMPORARY RIGHT/LEFT LANE CLOSURE MAY BE NECESSARY TO PERFORM THE PLANING AND RESURFACING. REFER TO STANDARD CONSTRUCTION DRAWING MT-95.30 FOR DETAILS. LANE CLOSURES SHALL CONFORM TO REQUIREMENTS OUTLINED IN THE LANE CLOSURE NOTE ON SHEET 33.

EMERGENCY PULLOFFS AT STA. 520+00 AND AT STA. 595+50 SHOULD BE CONSTRUCTED WHILE THE TEMPORARY CLOSURE OF THE RIGHT LANE IS IN PLACE. SEE SHEET 48 FOR DETAILS.

STAGE 1 PHASE B

DURING STAGE 1 PHASE B, INCENTIVE/DISINCENTIVE CONTRACT METHODS ARE ENFORCED. SEE PROPOSAL NOTES FOR DETAILS OF THE INCENTIVE/DISINCENTIVE REQUIREMENTS. WESTBOUND TRAFFIC SHALL BE MAINTAINED WITH ONE TWELVE FOOT LANE, FROM STA. 887+50 TO THE MERGER POINT OF IR-680 RAMP AT STA. 698+00, AND TWO TWELVE FOOT LANES FROM STA. 698+00 TO THE WEST END OF THE PROJECT. WESTBOUND TRAFFIC WILL USE THE OUTSIDE RESURFACED SHOULDER AND EXISTING PAVEMENT. EASTBOUND TRAFFIC SHALL BE MAINTAINED ON EXISTING EASTBOUND LANES. THE FOLLOWING WORK WILL BE PERFORMED DURING THIS PHASE:

1. CONSTRUCT RAMP AND MAINLINE CROSSOVERS THAT ARE NEEDED FOR STAGES 2 THROUGH 4 AT STA. 480+00 MAINLINE, 488+00 RAMP, 507+00 MAINLINE, 555+00 MAINLINE, 616+00 RAMP, 640+00 RAMP AND 665+00 MAINLINE.
2. THE EXISTING WESTBOUND BRIDGE OVER THE FUTURE METROPARKS BIKEWAY AT STA. 615+00 WILL BE TEMPORARILY WIDENED TO CARRY EASTBOUND TRAFFIC DURING STAGE 2 OF CONSTRUCTION. REFER TO SHEET NO. 1058 FOR BIKEWAY CLOSURE DETAILS.
3. PLACE PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, ON THE MEDIAN SIDE OF THE EXISTING WESTBOUND LANES FROM STA. 483+50 TO STA. 645+54. THE LEFT SHOULDER OF THE EXISTING WESTBOUND LANES WITHIN THESE STATION LIMITS WILL BE STRENGTHENED BY PLANING TO A DEPTH OF TWO INCHES (2") AND REPLACED WITH TWO INCHES (2") OF 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC, AS SHOWN IN THE PLANS.
4. AT THE START OF THE PHASE, TRAFFIC SHALL BE MAINTAINED AS SHOWN IN STAGE 1, PHASE B, PART 1 (SEE SHEET 74A) BETWEEN STA. 669+00 AND STA. 695+00. PRIOR TO THE COMPLETING ALL WORK SPECIFIED FOR THIS PHASE CLOSE THE NORTHBOUND SR 11 TO WESTBOUND IR-80 ON RAMP TO TRAFFIC FOR THE DURATION STATED IN THE PROPOSAL NOTES. THE ACTUAL TIMING OF THIS CLOSURE SHALL BE DETERMINED BY THE CONTRACTOR BASED ON WORK AND LIMITATIONS SPECIFIED IN THE PROPOSAL NOTES. THE RAMP SHALL REOPEN TO THE TRAFFIC PATTERN SHOWN IN STAGE 2 OF THE MOT PLANS AT THE COMPLETION OF THE SPECIFIED WORK. FOR MORE DETAILS SEE "RAMP CLOSURES" AND "DETOUR DURATION" NOTES.
5. CLOSE THE WESTBOUND IR-80 TO SOUTHBOUND SR 11 OFF RAMP TO TRAFFIC FOR THE DURATION STATED IN THE PROPOSAL NOTES AND RECONSTRUCT PAVEMENT AS SHOWN IN THE PLANS. THE ACTUAL TIMING OF THIS CLOSURE SHALL BE DETERMINED BY THE CONTRACTOR. PRIOR TO CLOSING THE RAMP EXISTING TRAFFIC PATTERN AND TRAFFIC CONTROL DEVICES SHALL BE IN PLACE BETWEEN STA. 715+00 AND STA. 893+00. THE RAMP SHALL REOPEN TO THE TRAFFIC PATTERN SHOWN IN STAGE 2 OF THE MOT PLANS (SEE SHEETS 108-110) AT THE COMPLETION OF THE SPECIFIED WORK. FOR MORE DETAILS SEE "RAMP CLOSURES" AND "DETOUR DURATION" NOTES.
6. THE MEDIAN SIDES OF THE WESTBOUND BRIDGES OVER LIPKEY, TURNER, AND OHLTOWN ROADS WILL BE RECONSTRUCTED TO THEIR FINAL POSITION TO CARRY TRAFFIC DURING STAGE 2 AND SUBSEQUENT STAGES. MAINLINE PAVEMENT PROFILE WILL NEED TO BE ADJUSTED BY USING CLASS A, PAVEMENT FOR MAINTAINING TRAFFIC. IT WILL BE NECESSARY TO CLOSE LIPKEY, TURNER, AND OHLTOWN ROADS AS DESCRIBED IN ROAD CLOSURE NOTES BELOW.
7. CONSTRUCT FINAL PAVEMENT ON THE MEDIAN SIDE OF THE WESTBOUND IR-80 ROADWAY FROM STATION 645+54 TO STATION 724+00.
8. CONSTRUCT EMERGENCY PULLOFF AT STA. 623+50.

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9. CONSTRUCT LONGITUDINAL ASPHALT WEDGE THAT WILL BE USED TO CARRY TRAFFIC IN STAGE 2 FROM STA. 673+00 TO STA. 676+00.
10. CONSTRUCT LIPKEY ROAD. SEE CLOSURE BELOW.
11. CONSTRUCT THE TEMPORARY MEDIAN CONDUITS AS SHOWN IN THE PLANS.
12. CONSTRUCT THE PROPOSED MEDIAN STORM SEWER FROM STATION 650+00 TO STATION 665+00.

LIPKEY ROAD CLOSURE

CLOSE LIPKEY ROAD FOR A PERIOD OF NO MORE THAN 60 DAYS DURING THIS PHASE FOR ROAD CONSTRUCTION, PIER AND DECK PLACEMENT. DETOUR TRAFFIC ON LIPKEY ROAD AS PER DETOUR MAP ON SHEET NO. 42.

DETOUR DURATION: LIPKEY ROAD

THE MAXIMUM LENGTH OF TIME THE DETOUR ROUTE CAN BE IN EFFECT DUE TO A ROAD CLOSURE SHALL BE SIXTY (60) CONSECUTIVE DAYS. CONSTRUCTION WORK MAY BE PERFORMED BEFORE AND AFTER THE DETOUR LIMITATION DATES, BUT THERE SHALL BE NO RESTRICTIONS (LANE WIDTH REDUCTIONS, TEMPORARY ROADWAYS, OR ONE WAY TRAFFIC) TO THROUGH OR LOCAL TRAFFIC. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SCHEDULE AND PERFORM THE CONSTRUCTION WORK WITHIN THE DETOUR LIMITATION TIME. THE FAILURE OF THE CONTRACTOR TO MEET THE DETOUR LIMITATION DATES WILL CAUSE SEPARATE LIQUIDATED DAMAGES OF $2,000.00 PER CALENDAR DAY OF OVERRUN OF DETOUR LIMITATION TIME TO BE ASSESSED. THE CONTRACTOR WILL COMPLY WITH ALL PROVISIONS OF 108.07 OF THE DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS.

OHLTOWN ROAD CLOSURE

CLOSE OHLTOWN ROAD FOR A PERIOD OF NO MORE THAN 60 DAYS DURING THIS PHASE FOR PIER AND DECK PLACEMENT. DETOUR TRAFFIC ON OHLTOWN ROAD AS PER THE DETOUR MAP ON SHEET NO. 43. OHLTOWN ROAD CLOSURE SHALL NOT OCCUR SIMULTANEOUSLY WITH THE CLOSURE OF TURNER ROAD.

DETOUR DURATION: OHLTOWN ROAD

THE MAXIMUM LENGTH OF TIME THE DETOUR ROUTE CAN BE IN EFFECT DUE TO A ROAD CLOSURE SHALL BE SIXTY (60) CONSECUTIVE DAYS. CONSTRUCTION WORK MAY BE PERFORMED BEFORE AND AFTER THE DETOUR LIMITATION DATES, BUT THERE SHALL BE NO RESTRICTIONS (LANE WIDTH REDUCTIONS, TEMPORARY ROADWAYS, OR ONE WAY TRAFFIC) TO THROUGH OR LOCAL TRAFFIC. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SCHEDULE AND PERFORM THE CONSTRUCTION WORK WITHIN THE DETOUR LIMITATION TIME. THE FAILURE OF THE CONTRACTOR TO MEET THE DETOUR LIMITATION DATES WILL CAUSE SEPARATE LIQUIDATED DAMAGES OF $2000.00 PER CALENDAR DAY OF OVERRUN OF DETOUR LIMITATION TIME TO BE ASSESSED. THE CONTRACTOR WILL COMPLY WITH ALL PROVISIONS OF 108.07 OF THE DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS.

TURNER ROAD CLOSURE

CLOSE TURNER ROAD FOR A PERIOD OF NO MORE THAN 60 DAYS DURING THIS PHASE FOR PIER AND DECK PLACEMENT. DETOUR TRAFFIC ON TURNER ROAD AS PER THE DETOUR MAP ON SHEET NO. 44. TURNER ROAD CLOSURE SHALL NOT OCCUR SIMULTANEOUSLY WITH THE CLOSURE OF OHLTOWN ROAD.

DETOUR DURATION: TURNER ROAD

THE MAXIMUM LENGTH OF TIME THE DETOUR ROUTE CAN BE IN EFFECT DUE TO A ROAD CLOSURE SHALL BE SIXTY (60) CONSECUTIVE DAYS. CONSTRUCTION WORK MAY BE PERFORMED BEFORE AND AFTER THE DETOUR LIMITATION DATES, BUT THERE SHALL BE NO RESTRICTIONS (LANE WIDTH REDUCTIONS, TEMPORARY ROADWAYS, OR ONE WAY TRAFFIC) TO THROUGH OR LOCAL TRAFFIC. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SCHEDULE AND PERFORM THE CONSTRUCTION WORK WITHIN THE DETOUR LIMITATION TIME. THE FAILURE OF THE CONTRACTOR TO MEET THE DETOUR LIMITATION DATES WILL CAUSE SEPARATE LIQUIDATED DAMAGES OF $2000.00 PER CALENDAR DAY OF OVERRUN OF DETOUR LIMITATION TIME TO BE ASSESSED. THE CONTRACTOR WILL COMPLY WITH ALL PROVISIONS OF 108.07 OF THE DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS.

RAMP CLOSURES

RAMPS SR-11 NB TO IR-80 WB (DETAIL ON SHEET 76 TO 77) AND IR-80 WB TO SR-11 SB (DETAIL ON SHEET 78 TO 80).

DURING STAGE 1 PHASE B WORK ALL OTHER RAMPS ARE TO REMAIN OPEN. SEE STANDARD DRAWINGS MT-98.13 AND MT-98.14.

ONCE A RAMP IS CLOSED, WORK IS TO PROGRESS AS REQUIRED BY THE CONTRACT THROUGH COMPLETION OF THE SURFACE COURSE INCLUDING PERMANENT OR WORK ZONE PAVEMENT MARKING AND THE RAMP RE-OPENED TO TRAFFIC AS SOON AS POSSIBLE.

WHILE A RAMP IS CLOSED, THE FOLLOWING IS TO BE THE MINIMUM PROCEDURE:

1. ALL EXISTING GUIDE SIGNS AND EXIT SIGNS FOR THE CLOSED RAMP, ON BOTH IR-80 AND SR-11, SHALL HAVE THE MESSAGE FOR THAT RAMP, COVERED BY AN OVERLAY. THIS OVERLAY SHALL HAVE A BLACK LEGEND ON A REFLECTORIZED ORANGE BACKGROUND BEARING THE MESSAGE "CLOSED". THE OVERLAY FOR THE GUIDE SIGNS SHALL BE 8' X 1'-6". THE OVERLAY FOR EXIT SIGNS SHALL BE 4' X 1'-6". SEE PLAN SHEETS 45 AND 46 FOR DETAILS.
2. THE RAMP TERMINAL ON SR-11 SHALL BE CLOSED WITH DRUMS AND BARRICADES. THE DRUMS ARE TO BE PLACED 20' CENTER TO CENTER IN A MANNER, DIRECTED BY THE ENGINEER, WHICH BEST FITS THAT RAMP TERMINAL. SEE STANDARD CONSTRUCTION DRAWING MT-98.19 FOR DETAILS.
3. THE RAMP TERMINAL ON WB IR-80 SHALL BE CLOSED WITH DRUMS AND PORTABLE CONCRETE BARRIERS (PCB) AS DETAILED ON PLAN SHEETS 78 TO 80.
4. THE CONTRACTOR SHALL ERECT A NOTICE OF CLOSURE SIGN ON THE APPROACH TO THE RAMP ADVISING MOTORISTS OF THE CLOSURE. THE SIGN SHALL BE IN PLACE FOR A MINIMUM OF ONE (1) WEEK PRECEDING THE CLOSURE. THE SIGN SHALL BE BLACK LEGEND ON REFLECTORIZED ORANGE BACKGROUND. SEE ITEM 614 - MAINTAINING TRAFFIC (NOTICE OF CLOSURE SIGN).
5. DURING THE DURATION OF CLOSURE FOR EACH RAMP THE CONTRACTOR WILL PLACE PORTABLE CHANGEABLE MESSAGE SIGNS IN THE FOLLOWING LOCATIONS:

   SR-11 NB TO IR-80 WB
   IR-80 WB TO SR-11 SB

THE MESSAGES THAT WILL BE DISPLAYED AND EXACT SIGN LOCATIONS WILL BE DETERMINED BY THE ENGINEER.

ITEM 614 PORTABLE CHANGEABLE MESSAGE SIGN, CLASS I, AS PER PLAN (2 SIGNS) - 1 SIGN MONTH. THIS QUANTITY IS FOR CLOSURE OF ABOVE TWO (2) RAMPS. SEE ITEM 614 PORTABLE CHANGEABLE MESSAGE SIGN, CLASS I, AS PER PLAN.

DETOUR DURATION: SR-11 NB TO IR-80 WB

THE MAXIMUM LENGTH OF TIME THE DETOUR ROUTE CAN BE IN EFFECT DUE TO CLOSURE OF EACH RAMP SHALL BE AS SPECIFIED IN PROPOSAL NOTES. CONSTRUCTION WORK MAY BE PERFORMED BEFORE AND AFTER THE DETOUR LIMITATION DATES, BUT THERE SHALL BE NO RESTRICTIONS (LANE WIDTH REDUCTIONS, TEMPORARY ROADWAYS, OR ONE WAY TRAFFIC) TO THROUGH OR LOCAL TRAFFIC. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SCHEDULE AND PERFORM THE CONSTRUCTION WORK WITHIN THE DETOUR LIMITATION TIME.

DETOUR DURATION: IR-80 WB TO SR-11 SB

THE MAXIMUM LENGTH OF TIME THE DETOUR ROUTE CAN BE IN EFFECT DUE TO CLOSURE OF EACH RAMP SHALL BE AS SPECIFIED IN PROPOSAL NOTES. CONSTRUCTION WORK MAY BE PERFORMED BEFORE AND AFTER THE DETOUR LIMITATION DATES, BUT THERE SHALL BE NO RESTRICTIONS (LANE WIDTH REDUCTIONS, TEMPORARY ROADWAYS, OR ONE WAY TRAFFIC) TO THROUGH OR LOCAL TRAFFIC. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SCHEDULE AND PERFORM THE CONSTRUCTION WORK WITHIN THE DETOUR LIMITATION TIME.

STAGE 2 PHASE A

ALL RAMPS ARE TO REMAIN OPENED TO TRAFFIC DURING THIS PHASE.

WESTBOUND IR-80 TRAFFIC SHALL BE MAINTAINED IN THE TRAFFIC PATTERN USED IN STAGE 1 PHASE B. EASTBOUND TRAFFIC WILL BE ROUTED TO THE MEDIAN SIDE OF THE WESTBOUND IR-80 ROADWAY BY THE CROSSOVER LOCATED AT APPROXIMATE STA. 480+00. THE CROSSOVER AT STA. 507+00 WILL BE USED TO ROUTE THE EASTBOUND TRAFFIC BACK TO THE EASTBOUND IR-80 ROADWAY TO USE THE EXISTING EASTBOUND MEANDER CREEK RESERVOIR BRIDGE AS SHOWN IN THESE PLANS. THE EASTBOUND TRAFFIC WILL THEN USE CROSSOVER AT STA. 555+00 TO TRAVEL ON MEDIAN SIDE OF WESTBOUND IR-80 ROADWAY UNTIL STA. 665+00 WHEN IT WILL USE THE CROSSOVER TO RETURN TO THE EXISTING EASTBOUND LANES. MAINTAIN A MINIMUM OF TWO ELEVEN FOOT LANES IN EACH DIRECTION. THE FOLLOWING ITEMS ARE ALSO TO BE CONSTRUCTED DURING THIS PHASE:

1. PROPOSED PAVEMENT FOR EASTBOUND IR-80 AS SHOWN IN THESE PLANS.
2. PROPOSED EASTBOUND BRIDGE OVER THE MEANDER CREEK RESERVOIR.
3. PROPOSED EASTBOUND BRIDGES OVER LIPKEY, TURNER AND OHLTOWN ROAD. ROAD CLOSURES WILL BE NECESSARY. SEE ROAD CLOSURES NOTE BELOW.
4. PROPOSED CULVERT AND EMBANKMENT FOR FUTURE METROPARKS BIKEWAY UNDER EASTBOUND IR-80. REFER TO SHEET NO. 1058 FOR BIKEWAY CLOSURE DETAILS.
5. SECTIONS OF WESTBOUND IR-80 AND WESTBOUND IR-680 PROPOSED PAVEMENTS AS SHOWN IN THESE PLANS.
6. EMERGENCY PULLOFFS AT STA. 518+12, STA. 556+09, STA. 614+50, AND STA. 616+00.
7. ACCESS ROAD FROM STA. 577+50 TO TURNER ROAD.
8. THE PROPOSED MEDIAN CATCH BASINS AND LATERALS THAT OUTFALL ON SOUTH SIDE OF IR-80
9. THE CULVERTS AT STATIONS 504+65, 560+96, 566+20, AND 580+86 VIA COMBINATION OPEN CUT AND BORED OR JACKED (CONSTRUCTION OF CULVERTS AT STATIONS 560+96 AND 566+20 MAY BE COMPLETED IN STAGE 4)
10. CONSTRUCT THE CULVERT FOR THE FUTURE METROPARKS BIKEWAY.

LIPKEY, TURNER, AND OHLTOWN ROAD CLOSURES

CLOSE LIPKEY, TURNER AND OHLTOWN ROADS FOR A PERIOD OF NO MORE THAN 30 DAYS EACH DURING THIS PHASE FOR EASTBOUND IR-80 DECK PLACEMENT. DETOUR TRAFFIC ON LIPKEY, OHLTOWN, AND TURNER ROADS AS PER DETOUR MAPS ON SHEET NO. 42, 43, AND 44, RESPECTIVELY. CLOSURE OF OHLTOWN ROAD AND TURNER ROAD SHALL NOT OCCUR SIMULTANEOUSLY.

DETOUR DURATION

THE MAXIMUM LENGTH OF TIME THE DETOUR ROUTE CAN BE IN EFFECT DUE TO A ROAD CLOSURE SHALL BE THIRTY (30) CONSECUTIVE DAYS EACH FOR LIPKEY, TURNER AND OHLTOWN ROAD. CONSTRUCTION WORK MAY BE PERFORMED BEFORE AND AFTER THE DETOUR LIMITATION DATES, BUT THERE SHALL BE NO RESTRICTIONS (LANE WIDTH REDUCTIONS, TEMPORARY ROADWAYS, OR ONE WAY TRAFFIC) TO THROUGH OR LOCAL TRAFFIC. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SCHEDULE AND PERFORM THE CONSTRUCTION WORK WITHIN THE DETOUR LIMITATION TIME. THE FAILURE OF THE CONTRACTOR TO MEET THE DETOUR LIMITATION DATES WILL CAUSE SEPARATE LIQUIDATED DAMAGES OF $1,500.00 PER CALENDAR DAY OF OVERRUN OF DETOUR LIMITATION TIME TO BE ASSESSED FOR LIPKEY ROAD AND $1000 PER CALENDAR DAY FOR EACH OF TURNER AND OHLTOWN ROADS. THE CONTRACTOR WILL COMPLY WITH ALL PROVISIONS OF 108.07 OF THE DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS.

STAGE 2 PHASE B

MAINTAIN TRAFFIC PATTERN FROM STAGE 2 PHASE A EXCEPT WHERE NOTED BELOW:

EASTBOUND TRAFFIC FROM TURNPIKE RAMP A WILL BE ROUTED ONTO THE PROPOSED EASTBOUND IR-80 PAVEMENT (CONSTRUCTED IN STAGE 2 PHASE A) AND WILL TRAVEL IN A SINGLE ELEVEN (11) FEET LANE UNTIL MERGER WITH EASTBOUND IR-80 TRAFFIC AT STA. 513+50.

EASTBOUND IR-80 TRAFFIC TO RAMP 46-C WILL USE RAMP CROSSOVER AT STA. 616+00 AND TRAVEL ON NEW IR-80 EASTBOUND ROADWAY IN A SINGLE ELEVEN (11) FEET LANE TO EXIT.

ADDITIONAL WORK TO BE PERFORMED IN THIS PHASE:

1. REMOVE THE TURNPIKE RAMP A TEMPORARY CROSSOVER AT STA. 488+00 AND CONSTRUCT THE PROPOSED PAVEMENT.
2. CONSTRUCT PROPOSED EASTBOUND IR-80 PAVEMENT BETWEEN STA. 638+50 AND STA. 647+00 AS SHOWN IN THE PLANS.
3. CONSTRUCT PAVEMENT FOR MAINTAINING TRAFFIC BETWEEN STA. 634+00 AND STA. 643+00 TO BE USED IN STAGE 4 FOR RAMP 46-A TRAFFIC.
4. REMOVE THE TEMPORARY CROSSOVER FOR RAMP 46-C AT STA. 640+00 USED IN STAGE 2 PHASE A.
5. BUILD TEMPORARY MAINLINE CROSSOVER AT STA. 649+00.
6. PLACE PROPOSED OVERHEAD SIGN SUPPORTS WITH SIGNS AT STA. 594+50, 622+00, 638+80, AND 645+00. SIGNS SHALL BE COVERED AS SHOWN IN THE PLANS DURING THIS PHASE.
7. CONSTRUCT THE TEMPORARY MEDIAN CONDUITS AS SHOWN ON STAGING PLANS.
8. CONSTRUCT THE PROPOSED MEDIAN CATCH BASINS AND LATERALS THAT OUTFALL ON THE SOUTH SIDE OF IR-80.

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MAINTENANCE OF TRAFFIC
GENERAL NOTES

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STAGE 3

THE DURATION OF THIS STAGE SHALL BE LIMITED TO THE TIME REQUIRED TO CONSTRUCT THE TEMPORARY CROSSOVER FOR RAMP 46-A BETWEEN STA. 643+00 AND STA. 647+00 OR SEVEN (7) DAYS, WHICHEVER IS SHORTER. WESTBOUND IR-80 TRAFFIC WILL BE ROUTED TO THE NEW EASTBOUND PAVEMENT BY USING THE CROSSOVER LOCATED AT STA. 649+00. THIS TRAFFIC WILL RETURN TO THE EXISTING WESTBOUND IR-80 ROADWAY BY USING THE CROSSOVER AT STA. 480+00. EASTBOUND IR-80 TRAFFIC WILL ALSO USE THE NEW IR-80 EASTBOUND ROADWAY. TRAFFIC FROM RAMP 46-A WILL USE THE EXISTING WESTBOUND PAVEMENT AND THE EXISTING EASTBOUND BRIDGE OVER THE MEANDER CREEK RESERVOIR AS SHOWN IN THE PLANS. THIS RAMP TRAFFIC WILL MERGE WITH THE WESTBOUND IR-80 TRAFFIC AT STA. 505+18. MOT PAVEMENT MARKINGS ON PROPOSED PAVEMENT THAT IS NOT THE FINAL TRAFFIC PATTERN SHALL BE TAPE.

THE FOLLOWING WORK SHALL BE PERFORMED:

1. CONSTRUCT THE TEMPORARY CROSSOVER FOR RAMP 46-A BETWEEN STA. 643+00 AND STA. 647+00.
2. PLACE PROPOSED OVERHEAD SIGN SUPPORTS WITH SIGNS AT STA. 695+40, 706+80 AND 717+00. PLACE PROPOSED SIGN ON EXISTING SUPPORT AT STA. 890+00.
3. CONSTRUCT THE PROPOSED MEDIAN CATCH BASINS AND LATERALS THAT OUTFALL ON NORTH SIDE OF IR-80.

STAGE 4

MAINTAIN THE TRAFFIC PATTERN USED IN STAGE 3 EXCEPT WHERE NOTED BELOW:

THE TRAFFIC ON RAMP 46-A WILL USE THE RAMP CROSSOVER CONSTRUCTED IN STAGE 3 AND MERGE WITH WESTBOUND IR-80 TRAFFIC AT STA. 641+00. MAINTAIN TWO LANES FOR EACH DIRECTION WITH A MINIMUM WIDTH OF ELEVEN (11) FEET EACH AS SHOWN IN THE PLANS.

THE FOLLOWING WORK SHALL BE PERFORMED:

1. CONSTRUCT PROPOSED PAVEMENT FOR WESTBOUND IR-80 AS SHOWN IN THESE PLANS.
2. CONSTRUCT PROPOSED WESTBOUND BRIDGE OVER THE MEANDER CREEK RESERVOIR.
3. CONSTRUCT PROPOSED WESTBOUND BRIDGES OVER LIPKEY, TURNER AND OHLTOWN ROAD. PERFORM THE ROAD CLOSURES AS STATED BELOW.
4. PLACE EMBANKMENT OVER PROPOSED CULVERT FOR FUTURE METROPARKS BIKEWAY NEAR WESTBOUND IR-80 STA. 631+00. REFER TO SHEET NO. 1058 FOR BIKEWAY CLOSURE DETAILS.
5. REMOVE THE CROSSOVER AT STA. 665+00.
6. CONSTRUCT THE PERMANENT CROSSOVERS AT STA. 502+50 AND AT STA. 578+50.
7. PLACE THE PAVEMENT FOR MAINTAINING TRAFFIC TO CARRY RAMP 46-E TRAFFIC IN STAGE 5 PHASE A BETWEEN STA. 653+00 AND STA. 654+50.
8. PLACE PROPOSED SIGN SUPPORT AT STA. 494+00, STA. 519+00, STA. 613+50, STA. 640+00. OVERHEAD MOUNTED SIGNS ON THESE SUPPORTS SHALL BE COVERED DURING THIS STAGE.
9. CONSTRUCT THE PROPOSED MEDIAN CATCH BASINS AND LATERALS THAT OUTFALL ON THE NORTH SIDE OF IR-80.

LIPKEY, TURNER, AND OHLTOWN ROAD CLOSURES

CLOSE LIPKEY, TURNER AND OHLTOWN ROADS FOR A PERIOD OF NO MORE THAN 30 DAYS EACH DURING THIS STAGE FOR WESTBOUND IR-80 DECK PLACEMENT. DETOUR TRAFFIC ON LIPKEY, OHLTOWN, AND TURNER ROADS AS PER THE DETOUR MAPS ON SHEETS 42, 43, AND 44, RESPECTIVELY. CLOSURE OF OHLTOWN ROAD AND TURNER ROAD SHALL NOT OCCUR SIMULTANEOUSLY.

DETOUR DURATION

THE MAXIMUM LENGTH OF TIME THE DETOUR ROUTE CAN BE IN EFFECT DUE TO A ROAD CLOSURE SHALL BE THIRTY (30) CONSECUTIVE DAYS EACH FOR LIPKEY, TURNER AND OHLTOWN ROAD. CONSTRUCTION WORK MAY BE PERFORMED BEFORE AND AFTER THE DETOUR LIMITATION DATES, BUT THERE SHALL BE NO RESTRICTIONS (LANE WIDTH REDUCTIONS, TEMPORARY ROADWAYS, OR ONE WAY TRAFFIC) TO THROUGH OR LOCAL TRAFFIC. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SCHEDULE AND PERFORM THE CONSTRUCTION WORK WITHIN THE DETOUR LIMITATION TIME. THE FAILURE OF THE CONTRACTOR TO MEET THE DETOUR LIMITATION DATES WILL CAUSE SEPARATE LIQUIDATED DAMAGES OF $1,500.00 PER CALENDAR DAY OF OVERRUN OF DETOUR LIMITATION TIME TO BE ASSESSED FOR LIPKEY ROAD AND $1200 PER CALENDAR DAY FOR EACH OF TURNER AND OHLTOWN ROADS. THE CONTRACTOR WILL COMPLY WITH ALL PROVISIONS OF 108.07 OF THE DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS.

STAGE 5 PHASE A

EASTBOUND IR-80 TRAFFIC WILL BE MAINTAINED IN THE TRAFFIC PATTERN USED IN STAGES 3 AND 4. WESTBOUND IR-80 TRAFFIC WILL BE MAINTAINED IN THE SAME TRAFFIC PATTERN AS IN STAGE 4 FROM THE EAST END OF THE PROJECT TO THE PERMANENT CROSSOVER AT STA. 578+50 WHERE IT WILL BE ROUTED ON TO THE PROPOSED IR-80 WESTBOUND LANES. RAMP 46-A TRAFFIC WILL TRAVEL IN A SINGLE TWELVE (12) FOOT LANE ON THE PROPOSED WESTBOUND ROADWAY UNTIL ITS MERGER WITH THE IR-80 WESTBOUND TRAFFIC AT STA. 574+00.

COMPLETE FINAL NEW PAVEMENT FOR WESTBOUND LANES IN THE AREA OF STATIONS 644+00 AND 655+00. MOVE TRAFFIC INTO FINAL LANE CONFIGURATION AND REMOVE ANY REMAINING PAVEMENT THAT WAS USED FOR MAINTAINING TRAFFIC.

THE FOLLOWING WORK WILL BE PERFORMED:

1. CONSTRUCT PROPOSED PAVEMENT AT VARIOUS LOCATIONS FOR WESTBOUND IR-80 AS SHOWN IN THESE PLANS.
2. REMOVE MAINLINE CROSSOVER AT STA. 480+00 AND RAMP 46-A CROSSOVER BETWEEN STA. 632+50 AND STA. 647+00.
3. PLACE PROPOSED SIGN SUPPORT AT STA. 668+00. "LANE ENDS" SIGN ON THIS SUPPORT SHALL BE COVERED DURING THIS PHASE.
4. REMOVE EMERGENCY PULLOFF AT STA. 518+12.

STAGE 5 PHASE B

PROPOSED TRAFFIC PATTERN SHALL BE USED FOR THIS PHASE. ALL PROPOSED PAVEMENT MARKINGS, SIGNS, AND GUARDRAILS SHALL BE IN PLACE AND FULLY FUNCTIONAL. REMOVE REMAINING PAVEMENT FOR MAINTAINING TRAFFIC AT LOCATIONS SHOWN ON SHEETS 163A AND 164. REMOVE EMERGENCY PULLOFFS AT STA. 556+09, STA. 614+50, AND AT STA. 616+00. THIS WORK WILL REQUIRE A LEFT/RIGHT SHOULDER AND PARTIAL LANE CLOSURE USING DRUMS IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING MT-95.30.

ITEM 251, PARTIAL DEPTH PAVEMENT REPAIR

A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THE ITEM SHALL CONSIST OF REPAIRING EXISTING LOCATIONS EXIBITING SURFACE DETERIORATION AND PLACING 3 1/4 "± OF ITEM 448 ASPHALT CONCRETE, TYPE 2. THE ASPHALT CONCRETE SHALL BE COMPACTED WITH A TYPE I PNEUMATIC TIRE ROLLER AND A STEEL WHEEL ROLLER AS PER 401.13.

PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REPAIR.

ITEM 251 PARTIAL DEPTH PAVEMENT REPAIR - 1500 SY DEPTH PAVEMENT REPAIR

ITEM 252, FULL DEPTH PAVEMENT REMOVAL AND FLEXIBLE REPLACEMENT

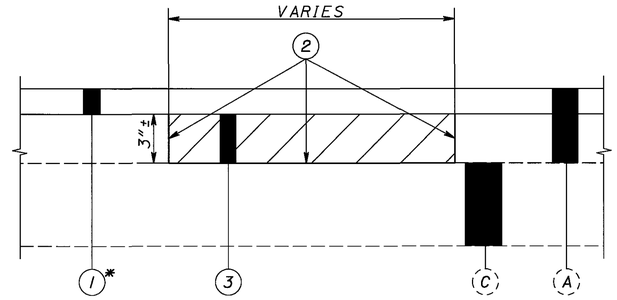
A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THIS ITEM SHALL CONSIST OF CUTTING AND REMOVING DETERIORATED CONCRETE FULL DEPTH AND PLACING 13"± CLASS C CONCRETE ACCORDING TO ITEM 252.

FOR REPAIRS IN THE WESTBOUND DRIVING LANE, UNLESS OTHERWISE DIRECTED BY THE ENGINEER, THIS ITEM SHALL BE PERFORMED AFTER THE COMPLETION OF THE WESTBOUND DRIVING LANE PAVEMENT PLANING. ALSO, THIS ITEM SHALL COMMENCE WITHIN 7 DAYS OF THE COMPLETION OF THE WESTBOUND DRIVING LANE PAVEMENT PLANING. IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED AREA WITHIN THE PROJECT. THE ENGINEER SHALL DETERMINE WHICH AREAS ARE TO BE REPAIRED.

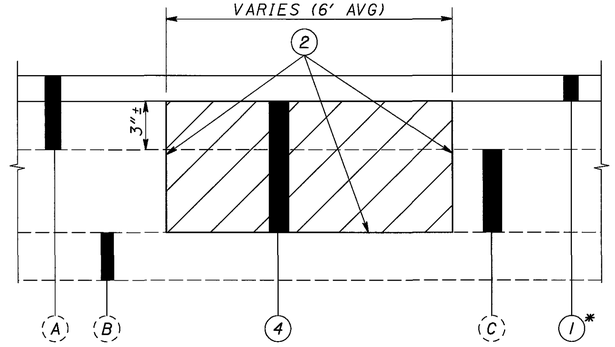
PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF CONCRETE REMOVED AND REPLACED TO THE LIMITS DESIGNATED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 252, FULL DEPTH RIGID PAVEMENT REMOVAL AND FLEXIBLE REPLACEMENT - 1500 SY

ITEM 252, FULL DEPTH PAVEMENT SAWING - 4500 FT



PARTIAL DEPTH PAVEMENT REPAIR - TYPICAL SECTION



FULL DEPTH PAVEMENT REMOVAL AND FLEXIBLE REPLACEMENT
TYPICAL SECTION (NOTES ON PAGE 31)

LEGEND

*(1)	254	2" PAVEMENT PLANING, ASPHALT CONCRETE (WESTBOUND LANE ONLY)
(2)	407	TACK COAT
(3)	251	3"± PARTIAL DEPTH PAVEMENT REPAIR
(4)	253	13"± PAVEMENT REPAIR
(A)		EXISTING ASPHALT PAVEMENT
(B)		EXISTING SUBBASE
(C)		10" EXISTING REINFORCED CONCRETE PAVEMENT

CALCULATED PRS
CHECKED JFM

MAINTENANCE OF TRAFFIC
GENERAL NOTES

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ITEM SPECIAL - STRUCTURE, MISC.: PATCHING BRIDGE DECKS WITH ASPHALT

PORTIONS OF THE FOLLOWING EXISTING BRIDGE DECKS OF SHALL BE PATCHED WITH ASPHALT AS DIRECTED BY THE ENGINEER.

MAH-80-0076 L&R

MAH-80-0125 L&R

MAH-80-0245 L&R

MAH-80-0313 L&R

MAH-80-0332 L&R

ALL OF THE ABOVE BRIDGES, EXCEPT MAH-80-0125 L&R, HAVE EXISTING ASPHALT WEARING SURFACES APPROXIMATELY 5" THICK. MAH-80-0125 L&R HAVE APPROXIMATELY 4" THICK ASPHALT WEARING SURFACES.

THE PROJECT ENGINEER/SUPERVISOR SHALL SPRAY PAINT AREAS WHICH HE OR SHE DETERMINES SHOULD BE PATCHED. LOOSE OR DETERIORATED ASPHALT MAY BE REMOVED BY MILLING OR BY USE OF CHIPPING HAMMERS NOT HEAVIER THAN THE NOMINAL 35 POUND CLASS. PRIOR TO THE USE OF CHIPPING HAMMER, THE PERIMTER OF THE PATCH SHALL BE SAW CUT A MINIMUM OF 3 INCHES DEEP.

AFTER REMOVAL OF ALL DETERIORATED ASPHALT, ANY LOOSE AND VISUALLY UNSOUND CONCRETE SHALL BE REMOVED WITH CHIPPING HAMMERS NOT HEAVIER THAN THE NOMINAL 35 POUND CLASS. THE CHIPPING HAMMERS SHALL BE OPERATED AT AN ANGLE NOT LESS THAN 45 DEGREES WITH RESPECT TO THE DECK SURFACE.

THE HOLE SHALL BE CLEANED OUT WITH COMPRESSED AIR SO ALL DEBRIS IS REMOVED. TACK ALL EXPOSED SURFACES (BOTH VERTICAL AND HORIZONTAL) WITH ITEM 407. THE HOLE SHALL BE FILLED WITH ITEM 448 ASPHALT CONCRETE SURFACE COURSE, TYPE 2, PG 64-28. THE ASPHALT SHALL BE PLACED IN LIFTS WITH A MAXIMUM COMPACTED THICKNESS OF 3".

PAYMENT FOR THE PATCHING WILL BE MADE AT THE UNIT PRICE BID PER SQUARE YARD AND WILL INCLUDE ALL MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS TO SAW CUT THE EXISTING DECK SURFACE, REMOVE UNSOUND ASPHALT AND/OR CONCRETE MATERIAL, TACK, AND PATCH WITH ASPHALT. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE SUB-SUMMARY.

ITEM SPECIAL - STRUCTURE, MISC.: PATCHING BRIDGE DECKS WITH ASPHALT

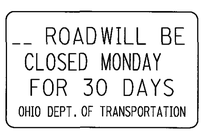
ESTIMATED QUANTITY: 6000 SQ. YD.

DETOUR NOTIFICATION

THE CONTRACTOR SHALL ADVISE THE ODOT DISTRICT OFFICE (330)786-3148 AND THE MAHONING COUNTY ENGINEER EIGHTEEN (18) DAYS IN ADVANCE OF WHEN THE DETOUR ROUTE SHOULD BE IN EFFECT. ALL WORK ZONE DEVICES REQUIRED SHALL BE FURNISHED, ERECTED, MAINTAINED, AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR.

ITEM 614, NOTICE OF CLOSURE SIGN

NOTICE OF CLOSURE SIGNS, AS SHOWN BELOW, SHALL BE ERECTED BY THE CONTRACTOR AT LEST ONE WEEK IN ADVANCE OF THE SCHEDULED ROAD OR RAMP CLOSURE. THE SIGNS SHALL BE ERECTED ON THE RIGHT HAND SIDE OF THE ROAD/RAMP FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF THE ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANYWHERE ON THE RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.



W20-H14 (60"x36")

ITEM 614, MAINTAINING TRAFFIC (WINTER TIME LIMITATIONS)

ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC BETWEEN NOVEMBER 15 AND APRIL 1. NOVEMBER 14 SHALL BE CONSIDERED TO CONSTITUTE AN INTERIM COMPLETION DATE AND LIQUIDATED DAMAGES SHALL BE ASSESSED IN ACCORDANCE WITH CMS 108.07 FOR EACH CALENDAR DAY THAT ALL LANES ARE NOT OPEN AND AVAILABLE TO TRAFFIC.

THE CONTRACTOR MAY CLOSE LANES PRIOR TO APRIL 1 WITH THE WRITTEN APPROVAL FROM THE DISTRICT 4 CONSTRUCTION ENGINEER.

ITEM 614, MAINTAINING TRAFFIC (LANES OPEN DURING HOLIDAYS OR SPECIAL EVENTS)

NO WORK SHALL BE PERFORMED ON MAINLINE IR-80 AND A MINIMUM OF TWO-11-FOOT LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

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 OR EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF THE WEEK TIME ALL LANES MUST BE OPEN TO TRAFFIC

SUNDAY 12:00N FRIDAY THROUGH 12:00N MONDAY
MONDAY 12:00N FRIDAY THROUGH 12:00N TUESDAY
TUESDAY 12:00N MONDAY THROUGH 12:00N WEDNESDAY
WEDNESDAY 12:00N TUESDAY THROUGH 12:00N THURSDAY
THURSDAY 12:00N WEDNESDAY THROUGH 12:00N MONDAY
FRIDAY 12:00N THURSDAY THROUGH 12:00N MONDAY
SATURDAY 12:00N FRIDAY THROUGH 12:00N MONDAY

NO EXTENSIONS OF TIME SHALL BE GRANTED FOR DELAYS IN MATERIAL DELIVERIES, UNLESS SUCH DELAYS ARE INDUSTRY-WIDE, OR FOR LABOR STRIKES, UNLESS SUCH STRIKES ARE AREA-WIDE.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES IN (THE AMOUNT OF $2000.00 PER DAY (IN ACCORDANCE WITH CMS 108.07).

LANE CLOSURES

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.

DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AS PER THE PERMITTED LANE CLOSURE CHART. THE PERMITTED LANE CLOSURE CHART USED FOR THIS PROJECT SHALL BE THE MOST CURRENT CHART AVAILABLE ON THE DATE THIS PROJECT SELLS.

THE CHART CAN BE FOUND AT:

https://dotaw100.dot.state.oh.us/plcm/plcm_web.jsp

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THE REQUIREMENTS IN THE CHART, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES IN THE AMOUNT OF $10,000 PER HOUR OR PORTION THEREOF THAT THE LANE REDUCTION REMAINS BEYOND THE SPECIFIED LIMIT.

ITEM 614, WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL OR BIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING IMPACT ATTENUATORS:

1. THE QUADGUARD CZ, (24 INCHES WIDE SIX-BAY) WORK ZONE IMPACT ATTENUATOR MANUFACTURED BY ENERGY ABSORPTION SYSTEMS, INC., ONE 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
35-40-16	QUADGUARD SYSTEM BACKUP ASSEMBLY, CZ, QG	7/30/99 REV. F	8/27/99
35405IZ	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	2/18/99	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	6/30/99	8/27/99

3. THE GREAT CZ IMPACT ATTENUATOR MANUFACTURED BY ENERGY ABSORPTION SYSTEMS, INC.

THIS ATTENUATOR MAY BE USED UNTIL JANUARY 1, 2007 IF THE ITEM WAS PURCHASED BEFORE OCTOBER 1, 1998 AND IS IN THE CONTRACTOR'S INVENTORY.

THE CONTRACTOR SHALL PROVIDE A REPLACEMENT UNIT WHEN AN IMPACT IS SEVERE ENOUGH TO REQUIRE COMPLETE REPLACEMENT OF THE ATTENUATOR. THE CONTRACTOR SHALL HAVE A SPARE PARTS PACKAGE AVAILABLE ON THE PROJECT SITE AT ALL TIMES WHEN AN ATTENUATOR IS IN PLACE. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF ONE COMPLETE SPARE PARTS PACKAGE FOR EVERY ONE TO SIX UNITS INSTALLED ON THE PROJECT SITE. FOR EXAMPLE, FIVE INSTALLED UNITS REQUIRE ONE SPARE PARTS PACKAGE AND SEVEN INSTALLED UNITS REQUIRE TWO SPARE PARTS PACKAGES.

WHEN BIDIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS. PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 614, WORK ZONE IMPACT ATTENUATOR, (UNIDIRECTIONAL OR BIDIRECTIONAL), EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT, MAINTAIN, REPAIR, REPLACE OR RELOCATE 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.

CALCULATED PRS
CHECKED JFM

MAINTENANCE OF TRAFFIC
GENERAL NOTES

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ITEM 614, WORK ZONE LIGHTING SYSTEM (FOR SHOULDER TRANSITION)

THIS WORK SHALL CONSIST OF FURNISHING, ERECTING, OPERATING, MAINTAINING AND REMOVING A WORK ZONE LIGHTING SYSTEM FOR AN AREA INVOLVING USE OF THE SHOULDER FOR THROUGH TRAFFIC, AS WELL AS THE AREAS LEADING INTO AND OUT OF THIS SECTION. THE SYSTEM SHALL BE AS SHOWN ON SCD MT-102.10 (MT-102.20). THE CONTRACTOR SHALL ARRANGE FOR AND PAY FOR POWER AND ANY COSTS OF PROVIDING SERVICE. ALL MATERIALS AND CONSTRUCTION SHALL COMPLY WITH APPLICABLE PORTIONS OF CMS 625 AND 725 EXCEPT: THE PERFORMANCE TEST OF CMS 625.19F, AND CERTIFIED DRAWING REQUIREMENT OF CMS 625.04 ARE WAIVED AND USED MATERIALS IN GOOD CONDITION ARE ACCEPTABLE. A PHOTOCELL SHALL TURN ON THE LIGHTING WHEN AMBIENT LIGHT IS BELOW 3 FOOT CANDLES. ALL OVERHEAD WIRING SHALL BE #4 AWG MINIMUM. DOWN GUY ANCHORS SHALL BE PROVIDED AT BOTH ENDS OF OVERHEAD SPANS. ALL WIRES CROSSING THE ROADWAY SHALL HAVE A MINIMUM HEIGHT OF 20 FEET.

PAYMENT WILL BE MADE AT THE UNIT PRICE PER EACH ITEM 614, WORK ZONE LIGHTING SYSTEM WHICH WILL INCLUDE ERECTION, OPERATION, MAINTENANCE, REMOVAL AND POWER FOR ALL LIGHTING REQUIRED BY SCD MT-102.10 (MT-102.20).

THE FOLLOWING ESTIMATED QUANTITY FOR THIS ITEM HAS BEEN CARRIED TO THE SUBSUMMARY.

ITEM 614, WORK ZONE LIGHTING SYSTEM 4 EACH

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING CONTINGENCY QUANTITIES HAVE BEEN INCLUDED FOR DUST CONTROL PURPOSES:

ITEM 616, WATER 181 M. GAL

ITEM 622, PORTABLE CONCRETE BARRIER, 50", AS PER PLAN
ITEM 622, PORTABLE CONCRETE BARRIER, 50", BRIDGE MOUNTED, AS PER PLAN

THIS WORK SHALL CONSIST OF FURNISHING, INSTALLING, MAINTAINING, AND SUBSEQUENTLY REMOVING A 32 INCH PORTABLE CONCRETE BARRIER WITH AN 18 INCH MINIMUM HEIGHT GLARE SCREEN AT THE LOCATIONS SHOWN ON THE PLANS. FOR DETAILS, SEE SCD RM-4.1.

THE GLARE SCREEN SHALL BE CONSTRUCTED USING ONE OF THE FOLLOWING SYSTEMS OR AN APPROVED EQUAL:

CARSONITE MODULAR GLARE SCREEN
CARSONITE INTERNATIONAL
605 BOB GIFFORD BLVD.
EARLY BRANCH, SOUTH CAROLINA 29916
702-883-5104 OR 800-648-7974

TRINITY GLAREFOIL
TRINITY INDUSTRY
1170 N. STATE ST.,
GIRARD, OHIO 44420
330-545-4373

PADDLE OR INTERMITTENT TYPE GLARE SCREENS SHALL BE DESIGNED USING A 20 DEGREE CUT-OFF ANGLE BASED ON TANGENT ALIGNMENT. THAT SPACING SHALL BE USED THROUGHOUT THE BARRIER LENGTH WITHOUT REGARD TO BARRIER CURVATURE.

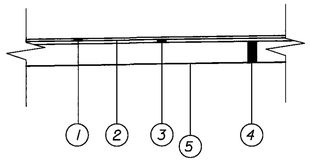
THE GLARE SCREEN SYSTEM SHALL BE SECURELY FASTENED TO THE 32-INCH PORTABLE CONCRETE BARRIER USING THE HARDWARE AND PROCEDURES SPECIFIED BY THE MANUFACTURER.

PAYMENT SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO PERFORM THE WORK AND SHALL BE PAID FOR AT THE CONTRACT PRICE PER FOOT FOR ITEM 622, PORTABLE CONCRETE BARRIER, 50 INCH, AS PER PLAN OR ITEM 622, PORTABLE CONCRETE BARRIER, 50 INCH, BRIDGE MOUNTED, AS PER PLAN.

ITEM 615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF 615, THIS ITEM REPLACES THE 7 INCHES OF ITEM 301 ASPHALT CONCRETE BASE AND THE 4 INCHES OF ITEM 304 AGGREGATE BASE WITH 12 INCHES OF ITEM 302 ASPHALT CONCRETE BASE.

ON THIS PROJECT THE CLASS A PAVEMENT FOR MAINTAINING TRAFFIC SHALL BE PLACED AS DETAILED IN THE MOT PLAN OR PLAN/PROFILE SHEETS. THE ALIGNMENT SHALL BE AS DETAILED ON MOT PLAN SHEETS AND PAVEMENT TYPICAL SECTION SHALL BE AS DETAILED BELOW.

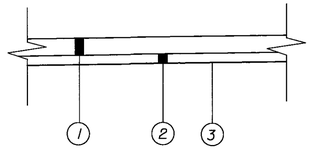


FLEXIBLE OPTION
TYPICAL

LEGEND

(1) ITEM 448 - 1¼" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22
(2) ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE
(3) ITEM 448 - 1¾" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22
(4) ITEM 302 - 12" ASPHALT CONCRETE BASE, PG64-22
(5) ITEM 204 - SUBGRADE COMPACTION

THE CONTRACTOR WILL HAVE THE OPTION TO USE RIGID TEMPORARY PAVEMENT OF CLASS C CONCRETE CONFORMING TO ITEM 452 IN LIEU OF CLASS F CONCRETE. THE ALIGNMENT SHALL BE AS DETAILED ON THE MOT PLAN SHEETS AND PAVEMENT TYPICAL SECTION SHALL BE AS DETAILED BELOW.



RIGID OPTION
TYPICAL

LEGEND

(1) ITEM 452 - 11" NON-REINFORCED CONCRETE PAVEMENT
(2) ITEM 304 - 6" AGGREGATE BASE
(3) ITEM 204 - SUBGRADE COMPACTION

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY TO BE USED IN CONSTRUCTING THE PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN.

ITEM 615 ROADS FOR MAINTAINING TRAFFIC LUMP SUM

AN ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY TO BE USED IN CONSTRUCTING THE PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN, (SEE MAINTENANCE OF TRAFFIC QUANTITY SHEETS FOR SPECIFIC VALUES).

UPON COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL REMOVE THE PAVEMENT FOR MAINTAINING TRAFFIC INCLUDING ANY TEMPORARY DRAINAGE FACILITIES. THE AFFECTED EXISTING EARTH MEDIAN AND PAVED SHOULDERS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AS DIRECTED BY THE ENGINEER AND AS PER 615.08.

ALTHOUGH ESTIMATES FOR TEMPORARY EXCAVATION, EMBANKMENT MAY BE SHOWN ON THE PLAN DETAILS, THESE ITEMS SHALL BE CONSIDERED INCIDENTAL TO, AND INCLUDED WITH PAYMENT FOR ITEM 615 ROADS FOR MAINTAINING TRAFFIC.

EARTHWORK FOR MAINTAINING TRAFFIC

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED IN THE PLAN FOR INFORMATION ONLY:

EXCAVATION FOR MAINTAINING TRAFFIC 3670 CU. YD.
EMBANKMENT FOR MAINTAINING TRAFFIC 54969 CU. YD.

PAYMENT FOR THESE ITEMS SHALL BE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 615, ROADS FOR MAINTAINING TRAFFIC.

ITEM 614, WORK ZONE SPEED LIMIT SIGN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN, COVER DURING SUSPENSION OF WORK, AND SUBSEQUENTLY REMOVE WORK ZONE SPEED LIMIT (R2-1) (55 MPH SPEED LIMIT) SIGNS AND SUPPORTS WITHIN THE WORK LIMITS IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS.

THE CONTRACTOR SHALL COVER OR REMOVE ANY EXISTING SPEED LIMIT OR MINIMUM SPEED SIGNS WITHIN THE REDUCED SPEED ZONE. THESE SIGNS SHALL BE RESTORED DURING SUSPENSION OR TERMINATION OF THE REDUCED SPEED LIMIT. THE EXPENSE OF COVERING OR REMOVAL AND RESTORATION OF EXISTING SPEED LIMIT OR MINIMUM SPEED SIGNS IS INCIDENTAL TO THE PAY ITEM FOR THE WORK ZONE SPEED LIMIT SIGNS.

THE WORK ZONE SPEED LIMIT SIGNS MAY BE ERECTED AND COVERED PRIOR TO STARTING WORK OR MAY BE ERECTED UNCOVERED NO MORE THAN 4 HOURS BEFORE THE IMPLEMENTATION OF A LANE REDUCTION OR RESTRICTION. THE SIGNS SHALL BE REMOVED OR COVERED NO LATER THAN 4 HOURS FOLLOWING RESTORATION OF ALL LANES OF TRAFFIC WITH NO RESTRICTIONS OR SOONER AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL ERECT A WORK ZONE SPEED LIMIT SIGN IN ADVANCE OF ANY LANE RESTRICTION EXPECTED TO LAST AT LEAST 30 CONSECUTIVE CALENDAR DAYS, OR AS DIRECTED BY THE ENGINEER. THE SIGN SHALL BE MOUNTED ON BOTH SIDES OF DIVIDED HIGHWAYS. THE FIRST WORK ZONE SPEED LIMIT SIGN SHALL BE PLACED 500 FEET IN ADVANCE OF THE LANE REDUCTION TAPER OR AT A POINT WHEREVER CONSTRUCTION BEGINS, WHICHEVER COMES FIRST. THE SIGN SHALL BE MOUNTED ON THE RIGHT SIDE, 250 FEET IN ADVANCE OF THE LANE REDUCTION TAPER ON UNDIVIDED HIGHWAYS. THE SIGN SHALL BE REPEATED, ON THE SIDE NEAREST TRAFFIC, EVERY 1 MILE FOR 55 MPH ZONES AND EVERY ONE-HALF MILE FOR 50 MPH AND 45 MPH ZONES. THESE SIGNS SHALL ALSO BE ERECTED IMMEDIATELY AFTER EACH OPEN ENTRANCE RAMP WITHIN THE ZONE.) REDUCED SPEED AHEAD SIGNS SHALL BE ERECTED IN ADVANCE OF THE SPEED REDUCTION, APPROXIMATELY 1300 FEET ON MULTI-LANE HIGHWAYS AND 500 FEET ON 2-LANE HIGHWAYS.

A SIGN(S) TO INDICATE THE RESUMPTION OF THE STATUTORY SPEED LIMIT SHALL BE ERECTED AT THE END OF ANY REDUCED SPEED ZONE. R2-1 (SPEED LIMIT) SIGNS SHALL BE USED ON UNDIVIDED ROADWAYS. R2-1 (SPEED LIMIT) AND R2-H2A SIGNS SHALL BE USED ON DIVIDED ROADWAYS. WHEN USED THE R2-1 AND R2-H2A SIGNS SHALL BE MOUNTED SIDE-BY-SIDE ON SEPARATE SUPPORTS. THE CONTRACTOR MAY USE SIGNS AND SUPPORTS IN USED, BUT GOOD, CONDITION PROVIDED THE SIGNS MEET CURRENT ODOT SPECIFICATIONS. SIGN FACES SHALL BE REFLECTORIZED WITH TYPE G SHEETING COMPLYING WITH THE REQUIREMENTS OF CMS 730.19.

WORK ZONE SPEED LIMIT SIGNS SHALL BE MOUNTED ON TWO ITEM 630, GROUND MOUNTED SUPPORTS, NO.3 POSTS. WORK ZONE SPEED LIMIT SIGNS AND SUPPORTS WILL BE MEASURED AS THE NUMBER OF SIGN INSTALLATIONS, INCLUDING THE SIGNS AND NECESSARY SUPPORTS. IF A SIGN AND SUPPORT COMBINATION IS REMOVED AND RE-ERECTED AT ANOTHER LOCATION WITHIN THE PROJECT DUE TO CHANGES IN THE SPEED ZONE DIRECTED BY THE ENGINEER, IT SHALL BE CONSIDERED ANOTHER UNIT. PAYMENT FOR ACCEPTED QUANTITIES, COMPLETE IN PLACE, WILL BE MADE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, INCIDENTALS AND EQUIPMENT FOR FURNISHING, ERECTING, MAINTAINING, COVERING DURING SUSPENSION OF WORK, AND REMOVING THE SIGNS AND SUPPORTS. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, WORK ZONE SPEED LIMIT SIGN 22 EACH

THE SIGNS WILL BE PLACED AT LOCATONS SHOWN IN THE PLANS.

ITEM 614, BARRIER REFLECTORS AND/OR OBJECT MARKERS

BARRIER REFLECTORS AND/OR OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE CONCRETE BARRIER USED FOR TRAFFIC CONTROL. BARRIER REFLECTORS, OBJECT MARKERS AND THEIR INSTALLATION SHALL CONFORM TO CMS 626, EXCEPT THAT THE SPACING SHALL BE AS REQUIRED BY SCD MT-101.70.

CALCULATED PRS
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MAINTENANCE OF TRAFFIC
GENERAL NOTES

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WORK ZONE INCREASED PENALTY SIGN (RII-H5A)

RII-H5A-48 SIGNS SHALL BE FURNISHED, ERECTED, AND MAINTAINED IN GOOD CONDITION AND/OR REPLACED AS NECESSARY AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR. SIGNS SHALL BE MOUNTED AT THE APPROPRIATE OFFSETS AND ELEVATIONS AS PRESCRIBED BY THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. THEY SHALL BE MAINTAINED ON SUPPORTS MEETING CURRENT SAFETY CRITERIA.

THE SIGNS MAY BE ERECTED OR UNCOVERED NO MORE THAN FOUR HOURS BEFORE THE ACTUAL START OF WORK. THE SIGNS SHALL BE REMOVED OR COVERED NO LATER THAN FOUR HOURS FOLLOWING RESTORATION OF ALL LANES TO TRAFFIC WITH NO RESTRICTIONS, OR SOONER AS DIRECTED BY THE ENGINEER.

TEMPORARY SIGN COVERING AND UNCOVERING DUE TO TEMPORARY LANE RESTORATIONS SHALL BE GUIDED BY THE FOUR-HOUR LIMITATIONS STATED ABOVE. SUCH LANE RESTORATIONS SHOULD BE EXPECTED TO REMAIN IN EFFECT FOR 30 OR MORE CONSECUTIVE CALENDAR DAYS, SUCH AS DURING WINTER SHUT-DOWNS.

(THE SIGNS SHALL BE DUAL MOUNTED. THE FIRST SIGN SHALL BE PLACED BETWEEN THE ROAD WORK AHEAD (W20-1) SIGN AND THE NEXT SIGN IN THE SEQUENCE. SIGNS SHALL BE ERECTED ON EACH ENTRANCE RAMP AND EVERY 2 MILES THROUGH THE CONSTRUCTION WORK LIMITS.)

THE CONTRACTOR MAY USE SIGNS AND SUPPORTS IN USED, BUT GOOD, CONDITION PROVIDED THE SIGNS MEET CURRENT ODOT SPECIFICATIONS. SIGN FACES SHALL BE REFLECTORIZED WITH TYPE G SHEETING COMPLYING WITH THE REQUIREMENTS OF CMS 730.19.

WORK ZONE INCREASED PENALTIES SIGNS AND SUPPORTS WILL BE MEASURED AS THE NUMBER OF SIGN INSTALLATIONS, INCLUDING THE SIGN AND NECESSARY SUPPORTS. IF A SIGN AND SUPPORT COMBINATION IS REMOVED AND REERECTED AT ANOTHER LOCATION AS DIRECTED BY THE ENGINEER, IT SHALL BE CONSIDERED ANOTHER UNIT.

PAYMENT FOR ACCEPTED QUANTITIES, COMPLETE, IN PLACE WILL BE MADE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, INCIDENTALS AND EQUIPMENT FOR FURNISHING, ERECTING, MAINTAINING, COVERING DURING SUSPENSION OF WORK AND REMOVAL OF THE SIGN AND SUPPORT.

ITEM 614, WORK ZONE INCREASED PENALTIES SIGN 12 EACH

WORK ZONE INCREASED PENALTIES SIGNS WILL BE PLACED AT THE LOCATIONS SHOWN IN THE PLANS.

ITEM 614 - MAINTAINING TRAFFIC, MISC.: EMERGENCY PULLOFFS

THE CONTRACTOR SHALL INSTALL EMERGENCY PULLOFFS AT THE STATIONS SPECIFIED IN THE MAINTENANCE OF TRAFFIC SEQUENCE OF CONSTRUCTION. THE PAVEMENT DESIGN SHALL CONSIST OF PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B AS PER 615.05.

THE BID PRICE FOR EACH ITEM 614 MAINTAINING TRAFFIC, MISC.: EMERGENCY PULLOFFS SHALL INCLUDE ALL LABOR, MATERIALS AND EQUIPMENT NOT LIMITED TO GRADING, PAVEMENT, PAVEMENT MARKINGS, SIGNS AND SIGN SUPPORTS AS DETAILED ON SHEET 48 FOR A COMPLETE INSTALLATION. THIS ITEM SHALL ALSO INCLUDE THE REMOVAL OF THE SAME WHEN IT IS DETERMINED TO BE NO LONGER NEEDED AS SPECIFIED IN THE PLANS.

FLOODLIGHTING

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.

ITEM 614, WORK ZONE CROSSOVER LIGHTING SYSTEM

THIS WORK SHALL CONSIST OF FURNISHING, ERECTING, OPERATING, MAINTAINING AND REMOVING A WORK ZONE LIGHTING SYSTEM FOR A SINGLE CROSSOVER, OR OVERLAPPING A PAIR OF CROSSOVERS ON A TWO-LANE, TWO-WAY OPERATION. THE SYSTEM SHALL BE AS SHOWN ON SCD MT-100.00. THE CONTRACTOR SHALL ARRANGE FOR AND PAY FOR POWER. ALL MATERIALS AND CONSTRUCTION SHALL COMPLY WITH APPLICABLE PORTIONS OF 625 AND 725 EXCEPT: THE PERFORMANCE TEST OF 625.19F, AND CERTIFIED DRAWING REQUIREMENT OF 625.04, ARE WAIVED AND USED MATERIALS IN GOOD CONDITION ARE ACCEPTABLE.

POLES MAY BE LESS THAN 30 FT FROM THE EDGE OF PAVEMENT WHEN BEHIND GUARDRAIL. ADDITIONAL POLE LINES, CABLES AND APPURTENANCES NECESSARY TO FURNISH POWER TO THE LIGHTING SYSTEM SHALL BE INCLUDED IN THIS ITEM. SERVICE POLES SHALL BE POSITIONED WITH THE SAME CONSTRAINTS AS THE LIGHTING POLES AS A MINIMUM.

PAYMENT WILL BE MADE AT THE UNIT PRICE PER EACH FOR ITEM 614, WORK ZONE CROSSOVER LIGHTING SYSTEM THROUGHOUT ALL PHASES OF WORK WHEN THE CROSSOVER ROADWAYS ARE USED.

WORK ZONE CROSSOVER LIGHTING SYSTEM 7 EACH.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, [3] PORTABLE CHANGEABLE MESSAGE SIGNS [PCMS], ON SITE, FOR THE DURATION OF TIME SPECIFIED IN THIS NOTE, EACH SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS MAINTAINED BY THE DIRECTOR. UNITS SHALL HAVE A MINIMUM LEGIBILITY DISTANCE OF 1250 FEET.

EACH SIGN SHALL BE TRAILER MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM TO DIM THE SIGN DURING DARKNESS AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY.

PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION 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 PCMS SHOULD NOT BE LOCATED IN THE MEDIAN OF THE HIGHWAY UNLESS IT IS PROTECTED FROM BOTH DIRECTIONS OF TRAFFIC. THE PCMS SHOULD BE LOCATED BEHIND GUARDRAIL WHEREVER POSSIBLE. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE THE 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-INCH BY 15-INCH MINIMUM SIZE FACING TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT AND TO REVISE SIGN MESSAGES, IF NECESSARY.

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE CONTRACTOR. A LIST OF ALL PROPOSED PREPROGRAMMED MESSAGES WILL BE GIVEN TO THE ENGINEER PRIOR TO CONSTRUCTION. THE SIGN SHALL HAVE TWO DIFFERENT MEMORIES [PROM AND RAM] AND CAPABILITY TO STORE UP TO 99 MESSAGES IN EACH MEMORY. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. IN ORDER TO CONVEY A MAXIMUM OF INFORMATION AT A SINGLE GLANCE, ONLY THREE LINE PRESENTATION FORMATS WITH A MAXIMUM OF SIX MESSAGE PHASES WILL BE PERMITTED. NORMALLY, ONLY A MAXIMUM OF THREE MESSAGE PHASES SHOULD BE EMPLOYED. 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, DE-ACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

THE PCMS SHALL CONTAIN A CELLULAR TELEPHONE DATA LINK WHICH WILL [IN ACTIVE CELLULAR AREAS] ALLOW REMOTE SIGN ACTIVATION, DEACTIVATION, MESSAGE CHANGES, MESSAGE ADDITIONS AND REVISIONS TO TIME OF DAY PROGRAMS. THE SYSTEM SHALL ALSO PERMIT VERIFICATION OF CURRENT AND PROGRAMMED MESSAGES.

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF 614. 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 FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS INCLUDING WEEKENDS

FAILURE TO COMPLY MAY 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 HIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24 HOURS PER DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES. THE REQUIREMENT TO FURNISH, INSTALL, MAINTAIN AND REMOVE A PCMS UNIT ON THIS PROJECT SHALL NOT IN ANY WAY RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITIES AS OUTLINED IN 614.02.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE BID FOR EACH SIGN MONTH OF 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.

ITEM 614 PORTABLE CHANGEABLE MESSAGE
SIGN, AS PER PLAN 73 SIGN MONTH

ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR

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

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

DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.

DURING PEAK TRAFFIC TIMES (6:00AM-8:00AM AND 3:00PM TO 6:00PM).

DURING THIS TIME, THREE OFFICERS IN PATROL CARS, INCLUDING ONE SUPERVISOR, SHALL PATROL THE CONSTRUCTION AREA. THE ASSIGNMENT OF THESE OFFICERS WILL BE MADE EXCLUSIVELY BY THE POST COMMANDER.

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

THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR THESE SERVICES WITH:

CANFIELD PATROL POST
500 SOUTH BROAD STREET
CANFIELD, OH 44406
PHONE: (330) 533-6866

IF AFTER CONTACTING THE OHIO HIGHWAY PATROL, IT IS DETERMINED THAT THEY CANNOT SUPPLY THE LEO, THEN AN AUTHORIZED MUNICIPAL OR COUNTY POLICE OFFICER WITH A MARKED AND FLASHER-LIGHT EQUIPPED OFFICIAL POLICE OR PATROL CAR SHALL BE PROVIDED.

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

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR 300 HOURS

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

IF THE CONTRACTOR WISHES TO UTILIZE LEO'S FOR FLAGGING AND TRAFFIC CONTROL OTHER THAN FOR THAT REQUIRED IN THESE PLANS, HE MAY DO SO AT THIS OWN EXPENSE. PAYMENT FOR THE EXCESS ABOVE THE CONTRACT REQUIREMENTS WILL BE INCLUDED UNDER ITEM 614 MAINTAINING TRAFFIC.

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MAINTENANCE OF TRAFFIC
GENERAL NOTES

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WORKSITE TRAFFIC SUPERVISOR

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

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

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

THE WTS SHALL BE PRESENT WHEN THE CONTRACTOR OR SUBCONTRACTOR INSTALLS A TRAFFIC RESTRICTION, LANE CLOSURE, ETC. IN LIEU OF THE WTS BEING PRESENT WHEN A SUBCONTRACTOR HAS A WORK ZONE IN PLACE, THE CONTRACTOR MAY USE HIS OWN PERSONNEL THAT IS A CERTIFIED WTS. THE CONTRACTOR OR SUBCONTRACTOR MUST PRESENT A COPY OF HIS WTS CERTIFICATE TO THE PROJECT ENGINEER. A WTS MUST BE PRESENT WHEN THE WORK ZONE IS BEING SET UP.

DAILY, INCLUDING WEEKENDS AND HOLIDAYS, THE WTS SHALL SPEND A MINIMUM OF ONE HOUR REVIEWING THE WORK ZONE AND/OR CRASH DATA FOR DEFICIENCIES AND MAINTAINING THE WORK ZONE. THE WTS MUST RETRIEVE/COLLECT ALL CRASH REPORTS (OH-1) FROM ALL LAW ENFORCING AGENCIES, EVALUATE THE CRASHES, AND RECOMMEND SOLUTIONS TO ADDRESS ANY ISSUES THAT ARE POTENTIALLY CREATING CRASHES WITHIN THE WORK ZONE. THE WTS MUST PRESENT HIS/HER SOLUTIONS TO THE ENGINEER AND THE DISTRICT WORK ZONE TRAFFIC MANAGER (DWZTM) FOR APPROVAL AT ALL PROJECT PROGRESS MEETINGS. UPON APPROVAL BY THE ENGINEER AND THE DWZTM, THE CONTRACTOR MUST BE IMPLEMENTING THE RECOMMENDED SOLUTIONS TO THE WORK ZONES WITHIN ONE WEEK. THESE HOURS MAY ADJUSTED BY THE ENGINEER BUT MUST BE PERFORMED ONCE A DAY DURING THE CONSTRUCTION SEASONS. THE WTS MUST INSPECT THE WORK ZONE AT THE BEGINNING AND THE END OF EACH WORK DAY AND ONE TIME PER WEEK DURING THE HOURS OF DARKNESS.

A RECORD OF EACH DAYS REVIEW SHALL BE GIVEN TO THE PROJECT ENGINEER THE FOLLOWING WORK DAY. ALSO IN WRITING THE WTS REPORT SHALL INCLUDE: TRAFFIC CONTROL DEVICE CONDITION, PLACEMENT, VISIBILITY, TRAFFIC FLOW CONDITIONS, INCIDENTS, ACCIDENTS, CONGESTION POINTS, ADEQUACY OF ADVANCED WARNING SIGNS BEYOND PROJECT LIMITS, INTERACTION OF WORK VEHICLES AND TRAFFIC, PROPER STORAGE OF MATERIALS AND EQUIPMENT.

IF THE RESTRICTIONS ARE SHORT TERM, THE WTS SHALL MONITOR THE ZONE FOR COMPLIANCE. DURING THE LANE CLOSURE HE SHALL MAKE SURE ALL TRAFFIC CONTROL ITEMS ARE FUNCTIONING PROPERLY. TRAFFIC CONTROL AND CRASH DATA EVALUATION WILL BE THE WTS MAIN DUTY DURING IMPLEMENTATION OF ZONES OR SHORT TERM ZONES. THE WTS SHALL HAVE THE AUTHORITY TO HAVE DEFICIENCIES CORRECTED AS SOON AS POSSIBLE. THE WTS SHALL PROVIDE THE DISTRICT WORK ZONE TRAFFIC CONTROL ENGINEER A SKETCH OF THE TRAFFIC CONTROL PLAN (TCP) EVERY DAY THERE IS TO BE A SHORT TERM TRAFFIC RESTRICTION, LANE CLOSURE, ETC. THIS TCP SHALL SHOW HOW THE WORK ZONES ARE TO BE IMPLEMENTED.

THE WTS SHALL BE AVAILABLE ON A 24-HOUR BASIS TO REPAIR AND/OR REPLACE DAMAGED OR MISSING TRAFFIC CONTROL DEVICES. A 24-HOUR PHONE NUMBER SHALL BE MADE AVAILABLE TO THE PROJECT ENGINEER IN ORDER TO CONTACT THE WTS. THE WTS SHALL HAVE A PAGER AND THE PHONE NUMBER PROVIDED TO THE PROJECT ENGINEER.

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

PAYMENT FOR THE WTS SHALL BE INCLUDED UNDER THE LUMP SUM PRICE FOR ITEM 614 - MAINTAINING TRAFFIC.

COVERING OF SIGNS

WHERE THE PLANS CALL FOR A PERMANENT SIGN TO BE OVERLAYED, THE CONTRACTOR SHALL DO SO IN SUCH A MANNER AS TO AVOID DAMAGING THE PERMANENT SIGN WHEN THE OVERLAY IS REMOVED. THE OVERLAY SHALL BE TOTALLY OPAQUE. THE USE OF ADHESIVE TAPE APPLIED DIRECTLY TO A SIGN FACE IS STRICTLY PROHIBITED. THE OVERLAYS MAY BE RIVETED TO THE PERMANENT SIGN. THE CONTRACTOR SHALL PROVIDE ALL OF THE PLAQUES, SIGNS AND SIGN PANELS NECESSARY.

WHERE THE PLANS CALL FOR A PERMANENT SIGN TO BE OVERLAYED, THE CONTRACTOR SHALL DO SO IN SUCH A MANNER AS TO AVOID DAMAGING THE PERMANENT SIGN WHEN THE OVERLAY IS REMOVED. THE OVERLAY SHALL BE TOTALLY OPAQUE. THE USE OF ADHESIVE TAPE APPLIED DIRECTLY TO A SIGN FACE IS STRICTLY PROHIBITED. THE OVERLAYS MAY BE RIVETED TO THE PERMANENT SIGN. THE CONTRACTOR SHALL PROVIDE ALL OF THE PLAQUES, SIGNS AND SIGN PANELS NECESSARY.

CONTRACTOR'S EQUIPMENT - OPERATION AND STORAGE

A QUALIFIED FLAGGER SHALL BE EMPLOYED WHERE THE CONTRACTOR'S EQUIPMENT MUST MERGE WITH THE TRAFFIC STREAM. THE CONTRACTOR'S EQUIPMENT SHALL BE EQUIPPED WITH AT LEAST ONE AMBER FLASHING LIGHT. PAVERS, ROLLERS AND OTHER EQUIPMENT MAY BE PARKED IN AREAS ALONG THE HIGHWAY WHEN PAVING OPERATIONS ARE SCHEDULED TO CONTINUE WITHIN THE NEXT WORKDAY. OTHERWISE THE EQUIPMENT SHALL BE STORED AT A STORAGE AREA OUTSIDE THE R/W, THE LOCATION OF WHICH SHALL HAVE PRIOR APPROVAL OF THE ENGINEER. WHEN PARKING ALONG THE HIGHWAY THE EQUIPMENT SHALL BE PLACED AND DELINEATED AS PER 614.03. NO EQUIPMENT SHALL BE PARKED IN THE MEDIAN OF THE HIGHWAY. ADEQUATE BARRICADES AND LIGHTS SHALL BE PLACED ON THE PAVEMENT SIDE OF THE EQUIPMENT TO IDENTIFY THE LIMITS OF THE EQUIPMENT. ALL OTHER EQUIPMENT, INCLUDING PRIVATE VEHICLES, SHALL BE STORED AT THE APPROVED CONTRACTOR'S STORAGE AREA. NO EQUIPMENT SHALL BE PARKED ON PRIVATE PROPERTY UNLESS PRIOR APPROVAL OF THE OWNER AND THE PROJECT ENGINEER/SUPERVISOR HAS BEEN GRANTED.

SIGNS AT ADJACENT ROAD INTERSECTIONS

THE CONTRACTOR SHALL, IN ADDITION TO THE GENERAL REQUIREMENTS OF ITEM 614 ON THE PROJECT PERFORM THE FOLLOWING: PROVIDE, ERECT, AND MAINTAIN STANDARD 48"X30" SIZE "ROAD CLOSED" SIGN SUPPORTS AT THE LOCATIONS SHOWN IN PLANS, DURING PERIOD(S) IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC.

SIGN SUPPORTS FOR "ROAD CLOSED" SIGNS SHALL BE AS DETAILED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR PROVIDING, ERECTING, MAINTAINING, AND REMOVING SIGNS, AND SIGN SUPPORTS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 MAINTAINING TRAFFIC.

REFER TO STANDARD CONSTRUCTION DRAWING MT-101.60

PROTECTION OF TRAFFIC

PRIOR TO THE DEMOLITION OF ANY PORTIONS OF THE EXISTING SUPERSTRUCTURE, THE CONTRACTOR SHALL SUBMIT HIS PLANS FOR THE PROTECTION OF VEHICLE TRAFFIC UNDER THE STRUCTURE TO THE ENGINEER FOR APPROVAL. THESE PLANS SHALL INCLUDE PROVISIONS FOR ANY DEVICES AND STRUCTURES THAT MAY BE NECESSARY TO ENSURE SUCH PROTECTION.

PROTECTION OF EXISTING MEDIAN GUARDRAIL

DURING THE MAINTENANCE OF TRAFFIC, THE EXISTING TRAILING ENDS OF MEDIAN GUARDRAIL SHALL BE PROTECTED FROM OPPOSING TRAFFIC BY PORTABLE CONCRETE BARRIER.

PROTECTION OF BRIDGE PARAPETS AND GUARDRAIL

DURING STAGES 2 AND 3 MAINTENANCE OF TRAFFIC, THE EXISTING MEDIAN PARAPETS AND GUARDRAILS OF AT GRADE STRUCTURES SHALL BE PROTECTED BY PORTABLE CONCRETE BARRIER.

WORK ZONE DELINEATION

IN TRANSITION AREAS FOR LANE SHIFTS EQUAL TO OR GREATER THAN 4 FEET AND FOR CROSSOVERS, THE CONTRACTOR SHALL PROVIDE DELINEATION AS FOLLOWS:

1. ON ASPHALT SURFACES, DELINEATION SHALL BE BY USE OF 642 TYPE 2 ALKYD PAINT OR 643 POLYESTER, WITH 621 PERMANENT RAISED PAVEMENT MARKERS. THIS MARKING SHALL CONSIST OF 4 INCH EDGE LINES, 8 INCH CHANNELIZING LINES, AND RAISED PAVEMENT MARKERS. IN THE TRANSITION AREA, THE RAISED PAVEMENT MARKERS SHALL BE LOCATED AT 20 FT. SPACING ALONG THE EDGE LINES AND THE CHANNELIZING LINES.

REMOVAL OF RAISED PAVEMENT MARKERS, WHEN NO LONGER NEEDED, SHALL BE AS PER 202.10. REMOVAL OF THE EXISTING SURFACE COURSE WITHIN THE TRANSITION AREA SHALL BE MADE AS PER 202.05, TO A DEPTH NECESSARY TO MATCH THE LEVEL OF THE INTERMEDIATE COURSE OF THE PROPOSED PAVEMENT. THE TRANSITION AREA SHALL BE RESURFACED AT THE TIME THAT THE SURFACE COURSE IS BEING APPLIED, USING THE SAME MATERIAL USED FOR THE SURFACE COURSE FOR THE PROJECT. FOR DETAILS ON THIS DELINEATION SCHEME SEE PLAN INSERT SHEET 37A.

2. ON CONCRETE PAVEMENT, DELINEATION IN THE TRANSITION AREA DURING THE CONSTRUCTION SEASON SHALL BE BY USE OF 873 WET REFLECTIVE REMOVABLE TAPE. DURING THE WINTER SEASON (DECEMBER 1 THROUGH MARCH 31) DELINEATION IN THE TRANSITION AREA SHALL BE BY USE OF 643 POLYESTER. IN THE WINTER, PIECES (4 X 12 INCHES) OF 873 WET REFLECTIVE REMOVABLE TAPE SHALL ALSO BE PROVIDED AT 20 FOOT INCREMENTS, OFFSET FROM EACH OF THE CHANNELIZING LINES. FOR DETAILS ON THIS DELINEATION SCHEME SEE PLAN INSERT SHEET 37B.

3. IN TRANSITION AREAS WHERE MOTORISTS TRANSITION FROM CONCRETE TO ASPHALT SURFACE OR ASPHALT TO CONCRETE SURFACE, DELINEATION OF THE TRANSITION AREA SHALL BE THE SAME AS DELINEATION FOR CONCRETE SURFACES. SEE SHEET 37B FOR DETAILS.

ALL MATERIAL FURNISHED FOR 873 WET REFLECTIVE TAPE SHALL BE LISTED ON THE DEPARTMENT'S PRE-QUALIFIED LISTS. THE INSTALLATION OF ALL MATERIALS SHALL MEET OR EXCEED THE MANUFACTURER'S RECOMMENDATIONS.

AFTER REMOVABLE PAVEMENT MARKINGS HAVE BEEN INSTALLED, THEY SHALL BE CUT AT 10 FOOT OR SHORTER INTERVALS.

THE TRANSITION AREA FOR SHIFT TAPERS IS GENERALLY CONSIDERED TO BEGIN 300 FT IN ADVANCE OF THE BEGINNING OF THE SHIFT TAPER AND TO END 300 FT BEYOND THE TERMINATION OF THE SHIFT TAPER. THE TRANSITION AREA FOR CROSSOVERS IS GENERALLY CONSIDERED TO BEGIN 300 FT IN ADVANCE OF THE BEGINNING OF THE CROSSOVER GEOMETRICS AND TO END 300 FT BEYOND THE TERMINATION OF THE CROSSOVER GEOMETRICS.

PAYMENT FOR ALL WORK ZONE DELINEATION SHALL BE MADE AS TRANSITION AREA DELINEATION. PAYMENT SHALL BE MADE AT THE CONTRACT BID PRICE PER FOOT OF TRANSITION AREA AND SHALL INCLUDE THE COST OF FURNISHING, INSTALLING, MAINTAINING AND REMOVING, IF NECESSARY, THE APPROPRIATE DELINEATION SCHEME SPECIFIED ABOVE. PAYMENT SHALL ALSO INCLUDE THE COST OF REMOVAL OF THE SURFACE COURSE WITHIN THE TRANSITION AREA AND RESURFACING OF THE AREA.

PAVEMENT SHALL ALSO INCLUDE REPLACEMENT, AS PER 614.11.A (CONSTRUCTION AND MATERIALS SPECIFICATIONS) OR 614.115.D (PROPOSAL NOTE 101-2002), OF ANY PART OF THE DELINEATION SYSTEM WHICH, IN THE JUDGMENT OF THE ENGINEER, FAILS. LANE CLOSURES REQUIRED TO REPAIR OR REPLACE MISSING TAPE OR RAISED PAVEMENT MARKERS WILL BE AT THE ENGINEER'S APPROVAL AND AT THEN CONTRACTOR'S COST.

THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE AS FOLLOWS:

ITEM 614, TRANSITION AREA DELINEATION 13540 FT

ITEM 618 - RUMBLE STRIPS

THE FOLLOWING ESTIMATED QUANTITY FOR THIS ITEM HAS BEEN CARRIED TO THE SUBSUMMARY FOR USE AT THE CROSSOVER SHOWN ON SHEET 52, OR AS DIRECTED BY THE ENGINEER.

ITEM 618, RUMBLE STRIPS, (ASPHALT CONCRETE) 500 FT

ITEM 411 - STABILIZED CRUSHED AGGREGATE

THE FOLLOWING ESTIMATED QUANTITY FOR THIS ITEM HAS BEEN CARRIED TO THE SUBSUMMARY FOR USE AT THE CROSSOVERS SHOWN ON SHEETS 49-58, OR AS DIRECTED BY THE ENGINEER.

ITEM 411, STABILIZED CRUSHED AGGREGATE 284 CU YD

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GENERAL NOTES

1. It is intended that this drawing be used for treatment of drop-offs that develop during construction operations, and that are not otherwise provided for in the construction plans. Where the plans do not provide specific items for labor, equipment, or materials to implement the drop-off treatments specified herein, they shall be included for payment in the lump sum bid for Item 614 - Maintaining Traffic.

2. While the need for certain advisory signing is noted herein, it is not intended that this be indicative of all signing that may be required to advise or warn motorist, and all requirements of the Ohio Manual of Uniform Traffic Control Devices (OMUTCD) must be fulfilled.

3. In urban or otherwise heavily developed areas where pedestrians and/or bicyclists may be present in significant numbers, additional signing and protective measures other than those shown herein may be required.

4. The drop-off treatment selected for use at any given location shall be appropriate for the prevailing conditions at the site.

5. Where concrete barrier is specified, it shall be in accordance with Standard Construction Drawing PCB - 9.1, RM-4.2 and Item 622.

6. When drums are specified for a drop-off condition, a minimum number of four drums shall be used. Spacing shall be as indicated in the plans or as specified in the OMUTCD.

7. When OW-15l (Low Shoulder) signs or OW-17l (Uneven Lanes symbol), OWP-17l (uneven lane plaque), and OC-53 (Maintain Present Lane) signs are required, they shall be placed 750' in advance of the condition, on all intersecting entrance ramps within the limits of the condition and immediately beyond all intersecting roadways within the limits of the condition. When the drop-off condition extends more than one-half mile, additional signs shall be erected at intervals of a maximum of one mile.

8. For locations, such as at ramps, lane shifts, lane closures, etc., where traffic is required to negotiate any difference in elevation between pavements, the Optional Wedge Treatment shall be provided.

9. Portable concrete barrier shall be placed on the same level as the traffic surface and shall not encroach on lane width(s) designated as the minimum required for traffic use. Where drums are used, and their presence would reduce traveled lane widths to less than 10', drums may be placed on the opposite level from that of traffic provided the drop-off depth does not exceed 5" and approval is granted by the Project Engineer.

10. Pavement Repairs (or similar work):

   a. Lengths greater than 60 feet - utilize appropriate treatment from Condition I.

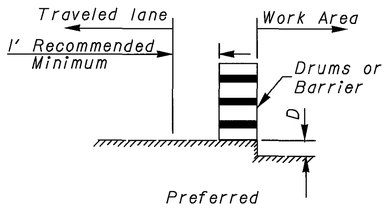
   b. Lengths of 60 feet or less - repairs shall be affected in accordance with Item 255.08. Drums may be used as a separator adjacent to the traveled lane.

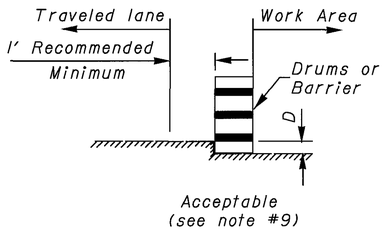
CONDITION I

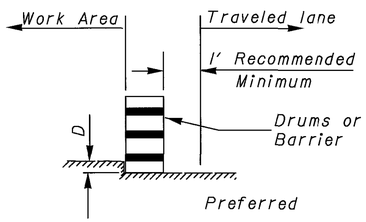
1. These treatments are to be used for resurfacing, pavement planing excavation, etc., between, beside or within traveled lanes.

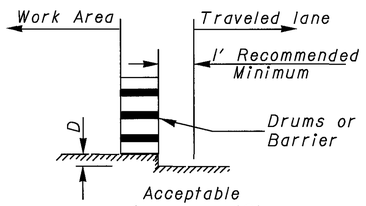
Distance From Traveled Lane	D (in)	Treatment
1FT-12FT	≤ 1½	Erect OW-17l, AND OWP-17l.
1FT-12FT	1½-3	1. Lane closure utilizing drums* as shown below. (use only on 3 or more lanes) - or - 2. Optional Wedge Treatment.
1FT-12FT	3 - 5	Lane closure utilizing drums as shown below
1FT-12FT	5 - 12	Lane closure utilizing portable concrete barrier as shown below.
>12FT-20FT	12 - 24	Lane closure utilizing drums as shown below
>12FT-20FT	>24	Lane closure utilizing portable concrete barrier as shown below.

*Cones may be used for daytime only conditions.







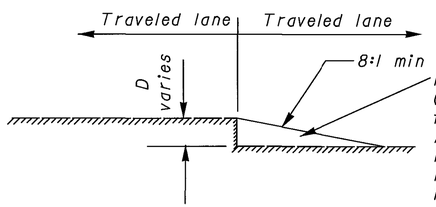


OPTIONAL WEDGE TREATMENT

(MILLING OR RESURFACING)

1. This treatment may be used when permitted for Condition I only.

2. OW-17l, OWP-17l, and OC-53 signs required.



Firm and unyielding material (to be removed prior to placing the abutting pavement course) All labor, equipment, materials, and incidentals to provide and subsequently remove the pavement wedge shall be included and paid under the lump sum bid for Item 614- Maintaining Traffic

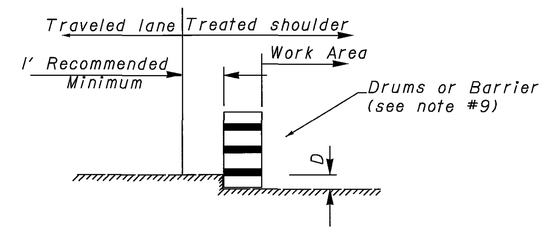
CONDITION II

DROPOFFS WITHIN GRADED SHOULDER AREA
[except for linear grading areas]

The treatments indicated below are for use in conjunction with resurfacing, planing, or excavation within the graded shoulder area.

Distance From Traveled Lane	D (in)	Treatment
1FT-12FT	≤ 1½	1.) If edgelines are present, no treatment necessary. or 2.) Erect OW-17l, OWP-17l, and OC-53 signs
1FT-12FT	1½- 5	1) If min. lane widths* requirements can be met, maintain lanes utilizing drums as shown below. - or - 2) If min. lane width* requirements cannot be met, close adjacent lane utilizing drums. (use only on 3 or more lanes) - or - 3) Optional shoulder treatment
>12FT-30FT	<= 24	Shoulder closure utilizing drums as shown below
>12FT-30FT	>24	Shoulder closure utilizing portable concrete barrier as shown below.

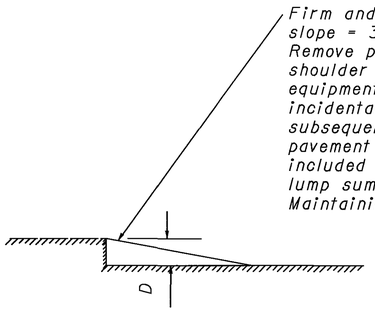
*Minimum lane widths shall be 10' unless otherwise specified in the plans.



OPTIONAL SHOULDER TREATMENT

1. This treatment shall not be used within a bituminous shoulder where a hot longitudinal joint per 401.17 is required.

2. OW-151 signs required.



Firm and unyielding material slope = 3:1 or flatter. Remove prior to placing the shoulder course. All labor, equipment, materials and incidentals to provide and subsequently remove the pavement wedge shall be included and paid under the lump sum bid for item 614 - Maintaining Traffic.

MAINTENANCE OF TRAFFIC DROPOFFS IN WORK ZONES

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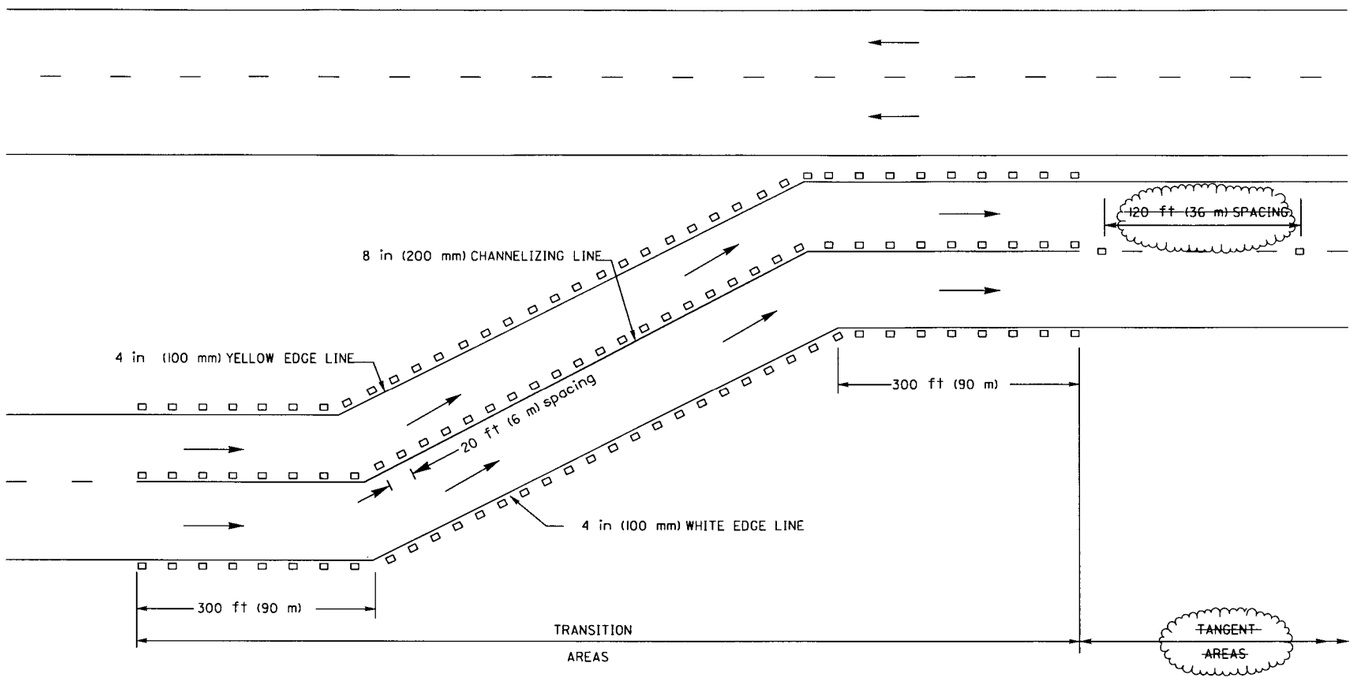
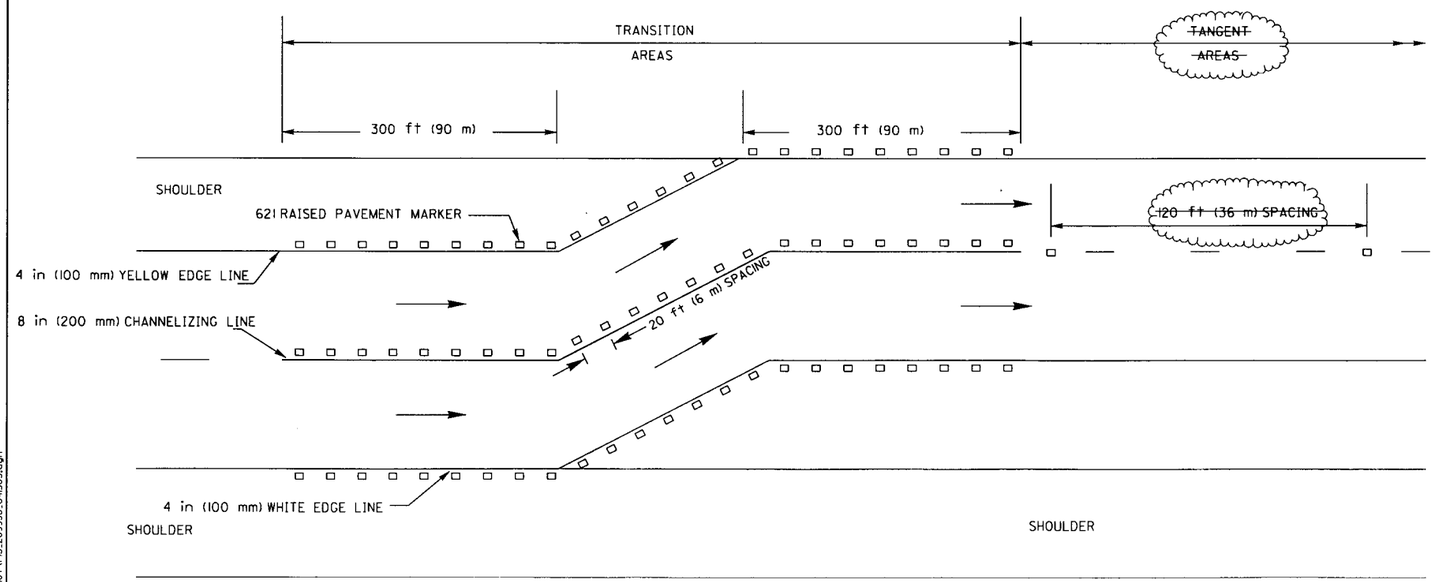


WORK ZONE DELINEATION FOR CROSSOVERS



WORK ZONE DELINEATION
FOR LANE SHIFTS ≥ 4 FT. (1.2 M)

NOTES

1. All material furnished shall be listed on the Department's Prequalified Lists.
2. All edge lines shall be 4 inches (100 mm) wide. All lines between adjacent lanes shall be 8 inches (200 mm) channelizing lines.
3. The geometrics of the crossover shall be as shown in the plans.
4. See Standard Construction Drawings MT-102.10 and MT-102.20 for more details concerning lane shifts.
5. Pavement marking material shall consist of 642 Type 2 Alkyd Paint or 643 Polyester, with Permanent Raised Pavement Markers.
6. Spacing of 621 raised pavement markers shall be at 20 feet (6 m) center-to-center within the transition areas ~~and at 120 feet (36m) center-to-center within tangent areas.~~
7. The 621 raised pavement markers on the edge lines shall be 1-way white or yellow and shall match the edge line.
8. The 621 raised pavement markers on the channelizing line shall be 1-way white facing oncoming traffic.
9. Resurfacing of the transition area shall be performed prior to project completion. The pavement shall be removed to a depth of 1 1/4 to 1 1/2 inch and resurfaced using the same material as used for the permanent surface course.
10. The RPMs shall be removed when they are no longer apropriate. The resulting holes shall be filled as per 202.10.

LEGEND

→ DIRECTION OF TRAVEL

□ RAISED PAVEMENT MARKER

04-15-05

WORK ZONE DELINEATION ON ASPHALT SURFACES

OFFICE OF TRAFFIC ENGINEERING

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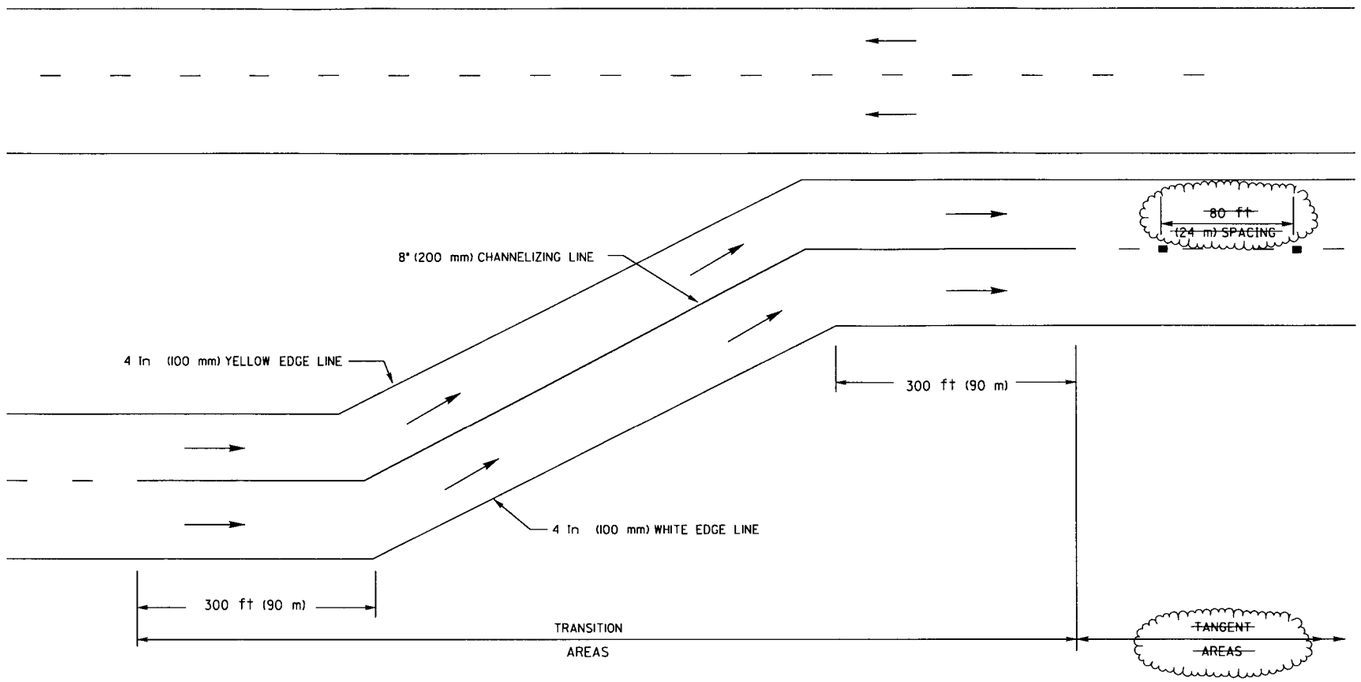
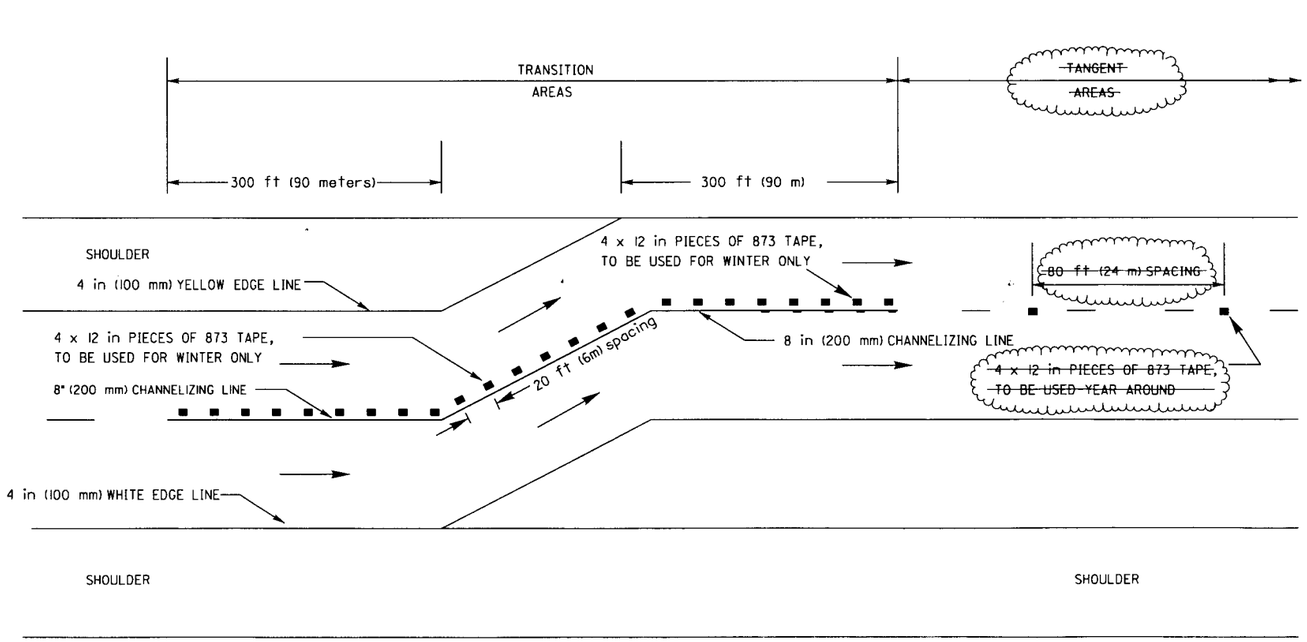


WORK ZONE DELINEATION FOR CROSSOVERS



WORK ZONE DELINEATION
FOR LANE SHIFTS ≥ 4 FT. (1.2 M)

NOTES

1. All material furnished shall be listed on the Department's Prequalified Lists.
2. All edge lines shall be 4 inches (100 mm) wide. All lines between adjacent lanes shall be 8 inches (200 mm) channelizing lines.
3. The geometrics of the crossover shall be as shown in the plans.
4. See Standard Construction Drawings MT-102.10 and MT-102.20 for aditional details concerning lane shifts.
5. During the construction season (non winter season) 873 Wet Reflective tape shall be used for all long line markings within the transition area. Within the tangent areas, long line marking shall be 643 polyester. Additionally, within the tangent areas provide pieces of 873 tape, 12 x 4 inches along the lane lines, spaced at 80 feet intervals.
6. During the winter season, all long line marking shall be 643 Polyseter. The 873 Wet Reflective Tape used for long line marking during the construction season shall be removed and replaced with 643 Polyester. Additionally, within the transition area, provide pieces of 873 tape 12 x 4 inches along the channelizing lines at 20 foot spacing.
7. The winter season is considered to be from December 1 through March 31. The contractor shall remove all 873 long line marking by November 30 except when permitted to do otherwise by the Project Engineer. The minimum temperature for placement of polyester is 50 degrees. It may be necessary to place the polyester prior to November 30 to assure that it is placed at the proper temperature. If the temperature remains below 50 degrees prior to placement of the polyester, the contractor shall provide marking using 642 alkyd paint. The project engineer shall review the condition of the alkyd paint throughout the winter and shall require the contractor to re-stripe the marking as necessary in order to maintain acceptable deliniation throught the winter season. All other long line marking shall be paid for as per the associated bid item.
8. Where a construction phase <u>unexpectedly</u> will extend into the winter season, it shall be the District's responsibility to initiate a change order if deemed appropriate, in order to provide necessary marking for the winter season. Unexpected delays shall be as discussed in CMS 108.06.D. If liquidated damages are being assessed the contractor for failure to meet an interum or final completion date, the cost of removing and replacing the markings shall be borne by the contractor.

LEGEND

DIRECTION OF TRAVEL

873 WET REFLECTIVE TAPE
12 X 4 in (300 X 100 mm)

04-15-05

WORK ZONE DELINEATION ON CONCRETE SURFACES

OFFICE OF TRAFFIC ENGINEERING

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MAINTENANCE OF TRAFFIC SCHEMATIC PLAN
STA. 467+00 TO STA. 550+00

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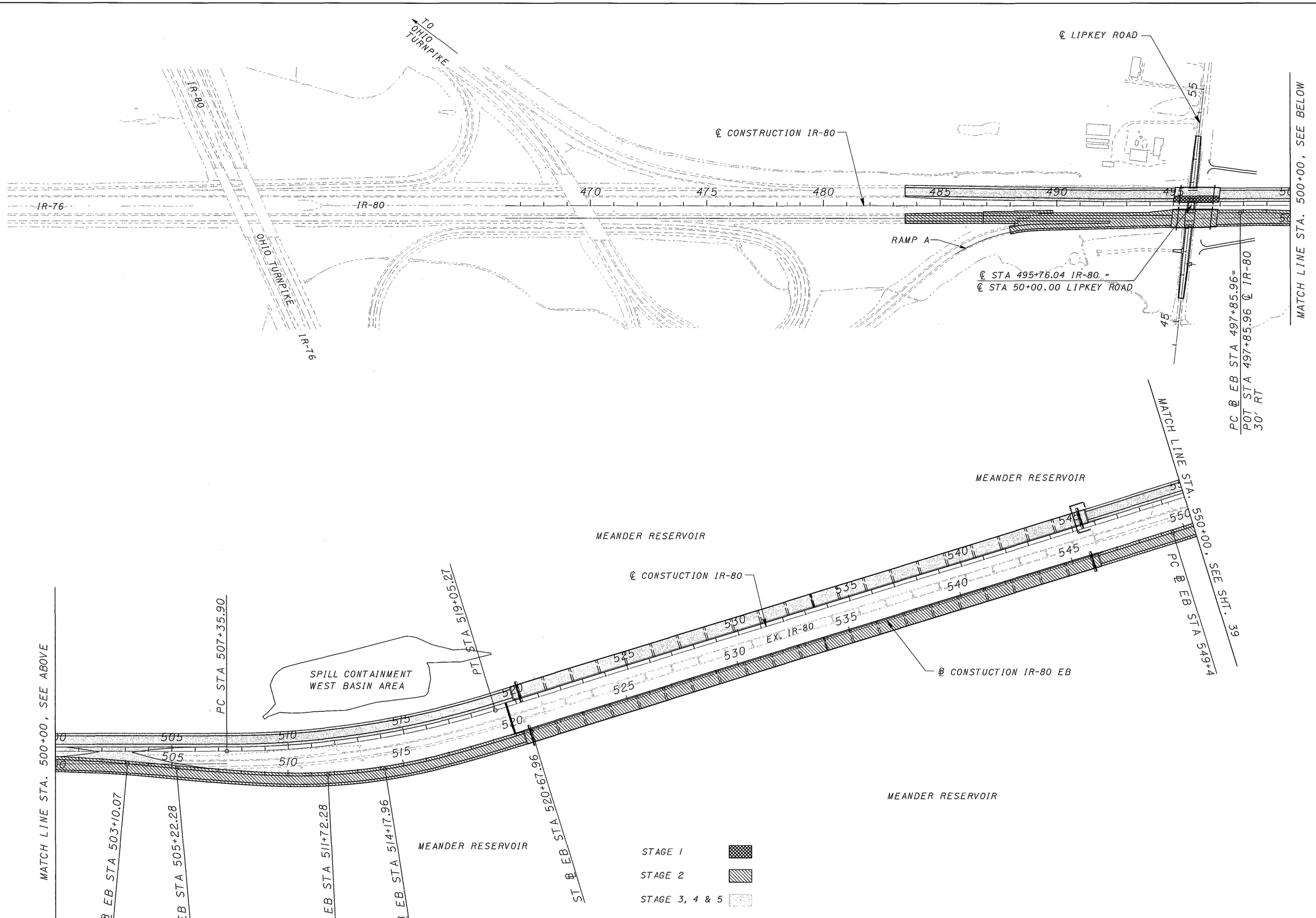
HORIZONTAL SCALE IN FEET
0 200 400



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MAINTENANCE OF TRAFFIC SCHEMATIC PLAN
STA. 550+00 TO STA. 635+00

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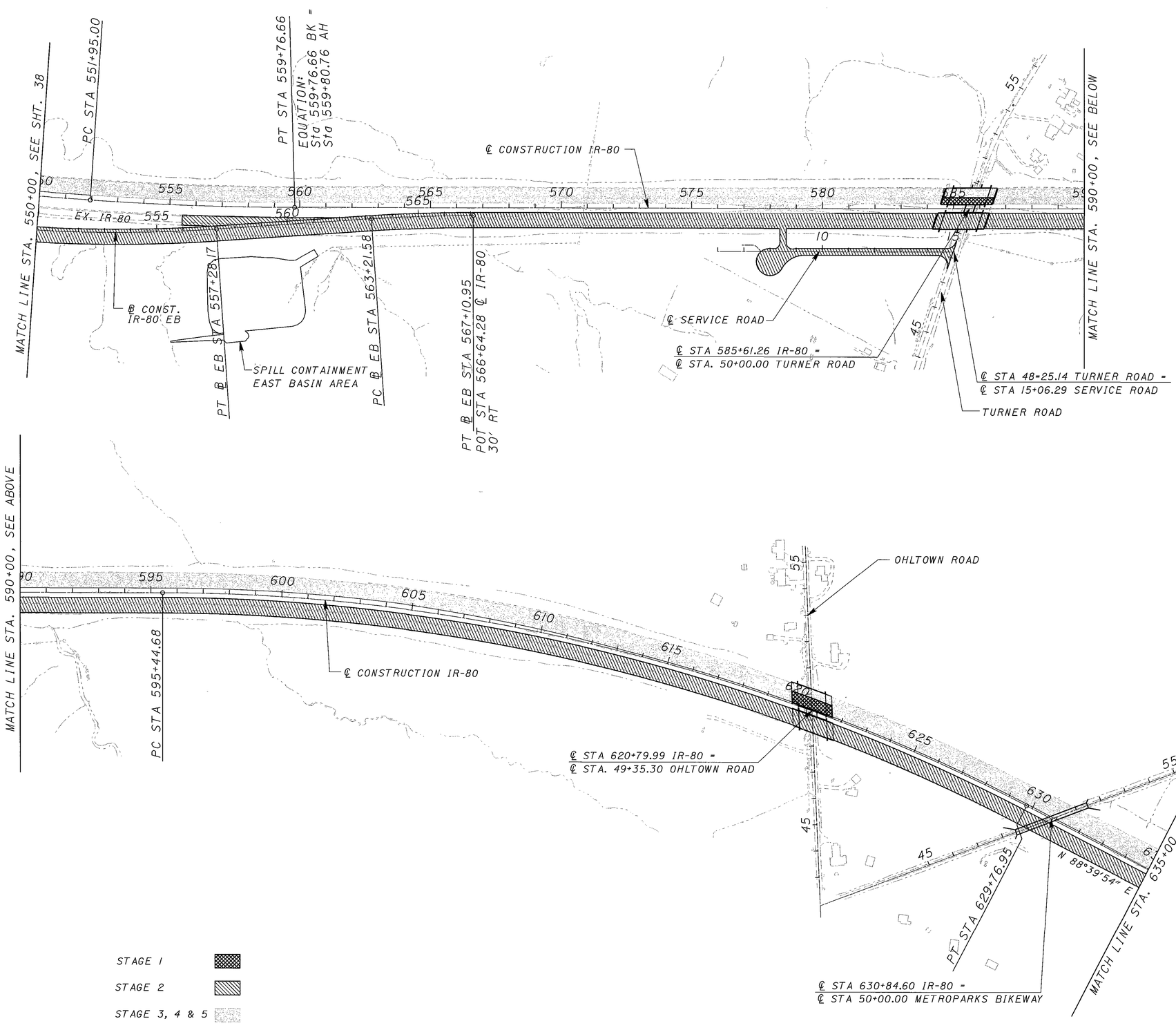
HORIZONTAL SCALE IN FEET
0 200 400



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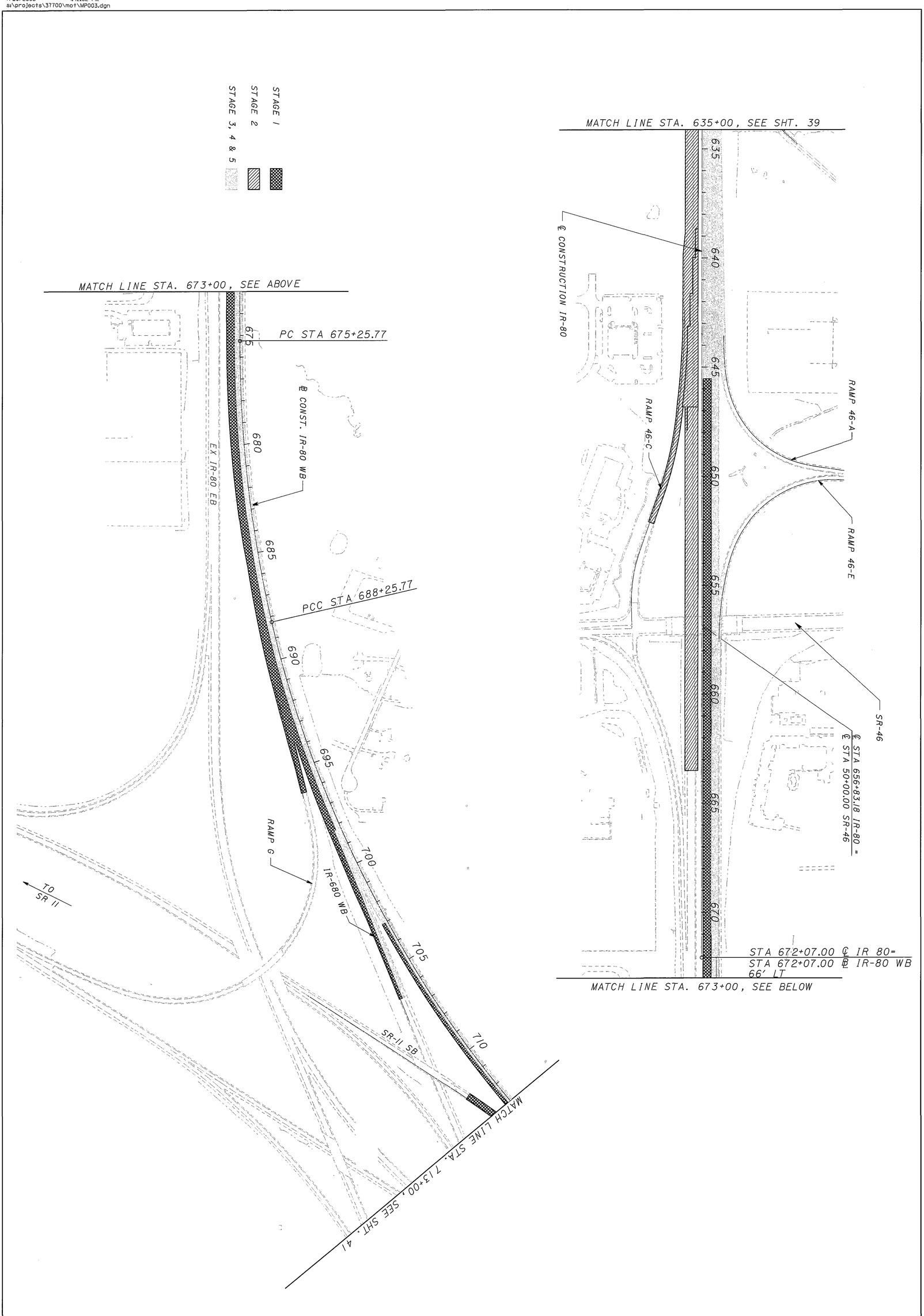

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0 200 400
HORIZONTAL SCALE IN FEET

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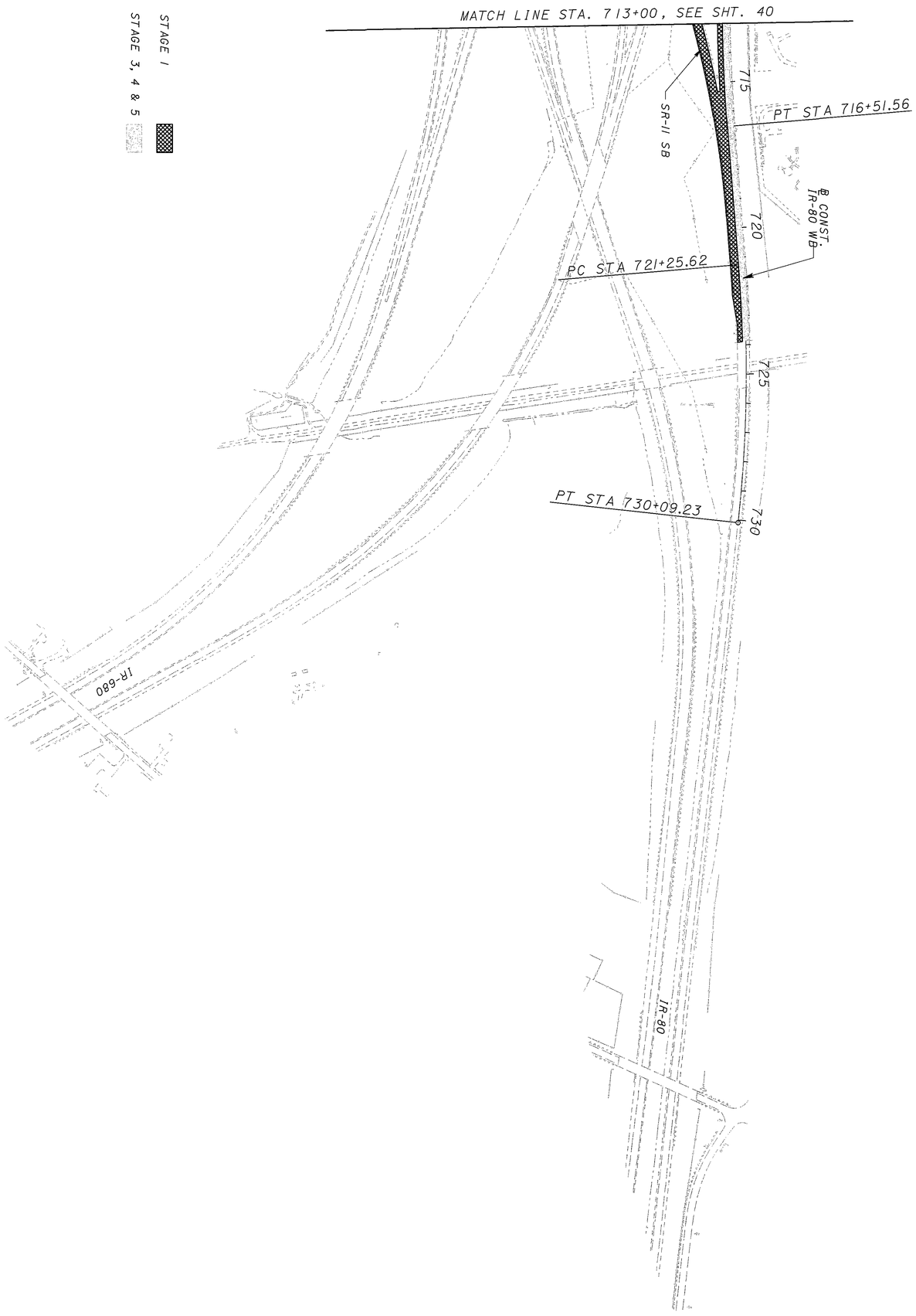

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MAINTENANCE OF TRAFFIC SCHEMATIC PLAN
STA. 713+00 TO STA. 730+00

0 200 400
HORIZONTAL SCALE IN FEET

MAINTENANCE OF TRAFFIC
LIPKEY ROAD DETOUR

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NOT TO SCALE
HORIZONTAL SCALE IN FEET

CALCULATED ATR
CHECKED JFM

LEGEND
EXISTING SIGN TO REMAIN
NEW SIGN

C-330
C-190
C-190
RD.
C-103
RD.
C-91
C-178
SILICA RD.
CR
80
80
76
45
EXIT 21B
TURNER
T-276
C-103
N.
T-282
C-18
C-18
MAHONING AVE.
FAIRVIEW
N. LIPKEY RD.
LIPKEY RD.
C-91
C-67
RD.
NEW RD.
C-162
C-162

SOUTH M3-3
LIPKEY RD. D-3
DETOUR M4-9L

NORTH M3-1
LIPKEY RD. D-3
DETOUR M4-9R

NORTH M3-1
LIPKEY RD. D-3
DETOUR M4-9R

SOUTH M3-3
LIPKEY RD. D-3
DETOUR M4-9L

W20-2-48 DETOUR AHEAD
FLASHING WARNING LIGHTS

W20-2-48 DETOUR AHEAD
FLASHING WARNING LIGHTS

W20-3-48 ROAD CLOSED AHEAD

M4-10R-48 DETOUR
R11-3A-60 ROAD CLOSED 0.4 MILES AHEAD LOCAL TRAFFIC ONLY

500'
500'
500'
500'
500'
500'
500'

TYPE III BARRICADES
GATES AND BARRICADES PER MT-101.60
TYPE III BARRICADES

R11-2-48 ROAD CLOSED
FLASHING WARNING LIGHTS
W20-3-48 ROAD CLOSED AHEAD

FLASHING WARNING LIGHTS
W20-2-48 DETOUR AHEAD

FLASHING WARNING LIGHTS
W20-2-48 DETOUR AHEAD

R11-3A-60 ROAD CLOSED 0.6 MILES AHEAD LOCAL TRAFFIC ONLY
M4-10L-48 DETOUR

LIPKEY ROAD CLOSURE

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MAINTENANCE OF TRAFFIC
OHLTOWN ROAD DETOUR

NOT TO SCALE
HORIZONTAL SCALE IN FEET

CALCULATED ATR
CHECKED JFM

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43
1100

LEGEND

EXISTING SIGN TO REMAIN

NEW SIGN

FLASHING WARNING LIGHTS
DETOUR AHEAD
W20-2-48

M4-10R-48
DETOUR
R11-3A-60
ROAD CLOSED 0.5 MILES AHEAD
LOCAL TRAFFIC ONLY

W20-3-48
ROAD CLOSED AHEAD
FLASHING WARNING LIGHTS

TYPE III BARRICADES
GATES AND BARRICADES PER MT-101.60

ROAD CLOSED
R11-2-48

ROAD CLOSED AHEAD
W20-3-48

ROAD CLOSED 0.3 MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3A-60
DETOUR
M4-10L-48

M5-11L
DETOUR
M4-8
OHLTOWN RD.
D-3
SOUTH
M3-3

NORTH M3-1
OHLTOWN RD.
D-3
DETOUR
M4-9R

M4-9L
DETOUR
OHLTOWN RD.
D-3
SOUTH
M3-3

DETOUR
M4-8
OHLTOWN RD.
D-3
SOUTH
M3-3

M7-2

500'

C-67
C-75
C-105 OHLTOWN RD.
C-103 RD.
C-178
C-293A
C-293
C-105
C-284
C-192
C-65E
C-184
C-182
C-119
T-66
T-276
T-282
C-18
N. TURNER
VICTORIA RD.
SILICA RD.
N. RACCOON RD
CRUM
MAHONING

46
80
11
680

OHLTOWN ROAD DETOUR

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LEGEND

EXISTING SIGN TO REMAIN

NEW SIGN

FLASHING WARNING LIGHTS
DETOUR AHEAD
W20-2-48

FLASHING WARNING LIGHTS
DETOUR AHEAD
W20-2-48

500'

C-75

C-67

C-67

500'

500'

M4-10L-48
DETOUR
R11-3A-60
ROAD CLOSED 0.5 MILES AHEAD LOCAL TRAFFIC ONLY

TURNER RD.
D-3
DETOUR
M4-9L

FLASHING WARNING LIGHTS
DETOUR AHEAD
W20-2-48

FLASHING WARNING LIGHTS
DETOUR AHEAD
W20-2-48

W20-3-48
ROAD CLOSED AHEAD

500'

N. TURNER RD.

OHLTOWN RD.

TYPE III BARRICADES

FLASHING WARNING LIGHTS

GATES AND BARRICADES PER MT-101.60

80

ROAD CLOSED
R11-2-48

M4-9R
DETOUR
D-3
TURNER RD.
SOUTH
M3-3

C105

SILICA RD.

C-178

ROAD CLOSED TO THRU TRAFFIC
R11-4-60

DETOUR
M4-10R-48

FLASHING WARNING LIGHTS
DETOUR AHEAD
W20-2-48

T-276

500'

500'

C-293A

C-105

C-103

VICTORIA RD.

C-293

DETOUR
M4-9L

TURNER RD.
D-3

NORTH
M3-1

FLASHING WARNING LIGHTS
DETOUR AHEAD
W20-2-48

T-282

C-18

MAHONING

46

46

11

11

T-66

C-65E

80

680

C-192

C-184

C-184

CRUM

C-182

C-119

N. RACCOON RD

C-284

TURNER ROAD DETOUR

MAINTENANCE OF TRAFFIC
TURNER ROAD DETOUR

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CALCULATED ATR
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NOT TO SCALE
HORIZONTAL SCALE IN FEET

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LEGEND

EXISTING SIGN TO REMAIN

NEW SIGN

* SEE STAGE I PHASE B PLAN SHEETS FOR DETAIL

C-67

C-75

C-103

C105 OHLTOWN RD.

RD.

SILICA RD.

C-178

C-293A

C-105

T-276

C-103

T-282

C-18

N. TURNER

VICTORIA RD.

C-293

MAHONING

C-284

C-192

C-65E

T-66

C-184

CRUM

C-182

C-119

N. RACCOON RD

46

80

680

II

M6-1 M1-5 SOUTH M3-3 DETOUR M4-8

DETOUR M4-8 SOUTH M3-3 M1-5 M5-1R

Niles 4

Canfield 7

DETOUR M4-8 SOUTH M3-3 M1-5 M6-3

EXIT 223 46 Niles EXIT ONLY

DETOUR M4-8 SOUTH M3-3 M1-5 M6-2R

EXIT 223 46 Niles NEXT RIGHT

DETOUR M4-8 SOUTH M3-3 M1-5 M6-3

EXIT 224 SOUTH Canfield LEFT 1/4 MILE

DETOUR M4-8 SOUTH M3-3 M1-5 M6-3

M6-1 M1-5 SOUTH M3-3 DETOUR M4-8

IR-80 WB TO SB SR II RAMP CLOSURE

MAINTENANCE OF TRAFFIC DETOUR ROUTES

NOT TO SCALE

HORIZONTAL SCALE IN FEET

CALCULATED ATR

CHECKED JFM

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LEGEND

EXISTING SIGN TO REMAIN

NEW SIGN

46

C-1239 4 MILE RUN RD.

DETOUR M4-8 / WEST IM-40 / 80 M-5-2 / M6-3

EAST NORTH 80 NEW YORK

680 YOUNGSTOWN EXIT ONLY

80 WEST CLOSED CLEVELAND

EXIT 226 Salt Springs Rd 1/4 MILE

80

C-64

11 NORTH Warren Ashtabula LEFT 1¼ MILES

80 EAST New York

422 Girard

DETOUR M4-8 / WEST M3-4 / 80 M-5-2 / M6-2R

EXIT 227

422 Girard 1/4 MILE

C-65

ST.

11

304

WEST SOUTH 80 11 CLEVELAND

DETOUR M4-8 / M5-11L

WEST SOUTH 80 11 CLEVELAND

DETOUR M4-8 / WEST M3-4 / 80 M-5-2 / M6-2R

EXIT 227

422

DETOUR M4-8 / WEST M3-4 / 80 M-5-2 / M6-3

EAST NORTH 80 11 New York

680 Youngstown EXIT ONLY

Youngstown 4 Business District

422

DETOUR M4-8 / WEST M3-4 / 80 M-5-2 / M6-1

C-4

T-65

OHLTOWN GIRARD RD.

T-1912

T-1912

C-184

C-192

W. WEBB RD.

EXIT 226 Salt Springs Rd 1 MILE

80

C-198

RIBLET RD.

680

422

(CR) 711

DETOUR M4-8 / WEST M3-4 / 80 M-5-2 / M6-3

80 WEST CLOSED Cleveland

DETOUR M4-8 / WEST M3-4 / 80 M-5-2 / M6-3

46

To 76 Ohio Turnpike Akron NEXT LEFT CLOSED

80 11 New York Cleveland KEEP LEFT

680 Youngstown KEEP RIGHT

C-119

CRUM RD.

C-182

NB SR 11 TO IR-80 WB RAMP CLOSURE

NOT TO SCALE

HORIZONTAL SCALE IN FEET

CALCULATED ATR

CHECKED JFM

MAINTENANCE OF TRAFFIC DETOUR ROUTES

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MAINTENANCE OF TRAFFIC
EMERGENCY PULLOFF TYPICAL

CALCULATED AJP | CHECKED JFM

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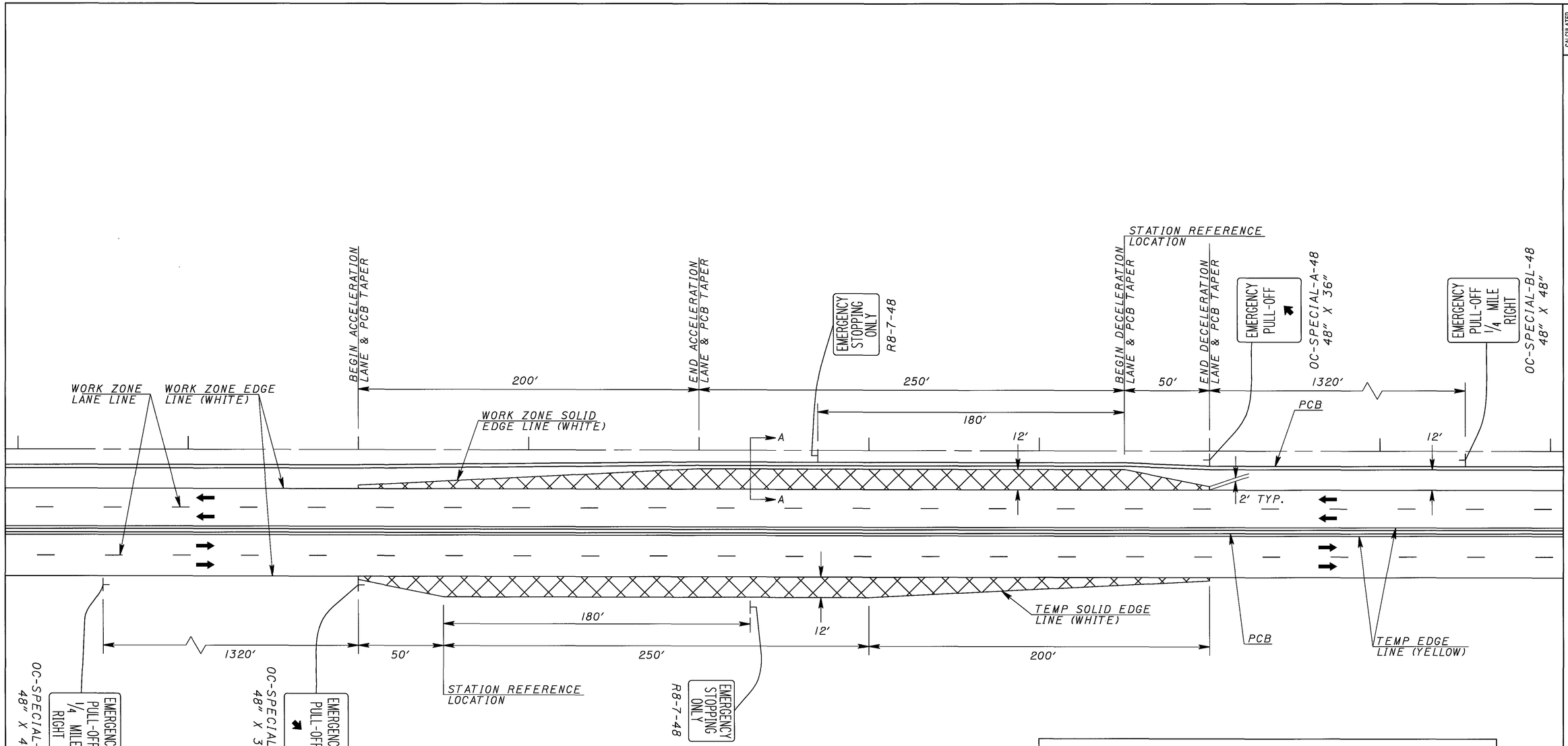
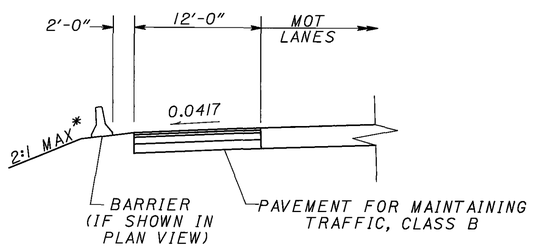


EMERGENCY PULL-OFFS - TYPICAL

LEGEND

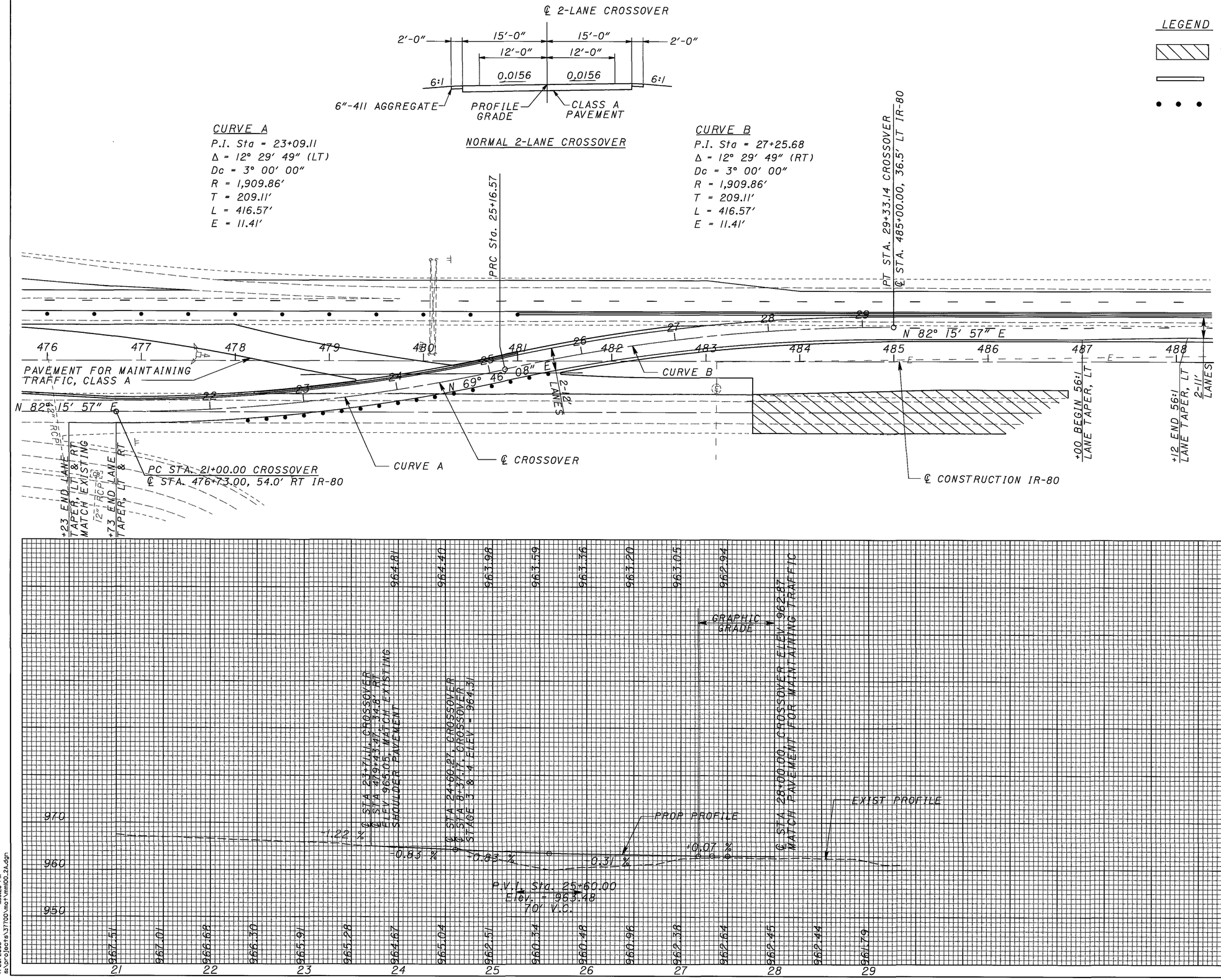
EMERGENCY PULLOFF AREA - ITEM 615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B



SECTION A-A
NTS

* MATCH EXISTING OR PROPOSED GRADING IN AREA.

PULLOFF CONSTRUCTION & REMOVAL SCHEDULE				
STATION	STAGE BUILT	STAGE USED	STAGE REMOVED	DIRECTION OF TRAFFIC
520+00	STAGE 1 PHASE A	STAGE 1 PHASE B STAGE 2 PHASE A & B	STAGE 3 OR 4	WESTBOUND
595+50	STAGE 1 PHASE A	STAGE 1 PHASE B STAGE 2 PHASE A & B	STAGE 4	WESTBOUND
623+50	STAGE 1 PHASE B	STAGE 2 PHASE A & B	STAGE 4	EASTBOUND
518+12	STAGE 2 PHASE A	STAGE 3, 4, 5	STAGE 5 PHASE B	WESTBOUND
556+09	STAGE 2 PHASE A	STAGE 3, 4, 5	STAGE 5 PHASE B	EASTBOUND
614+50	STAGE 2 PHASE A	STAGE 3, 4, 5	STAGE 5 PHASE B	EASTBOUND
616+00	STAGE 2 PHASE A	STAGE 3, 4, 5	STAGE 5 PHASE B	WESTBOUND



LEGEND

- WORK AREA
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS

HORIZONTAL SCALE IN FEET: 0, 25, 50, 100

CALCULATED AJP
CHECKED JFM

CROSSOVER PLAN AND PROFILE

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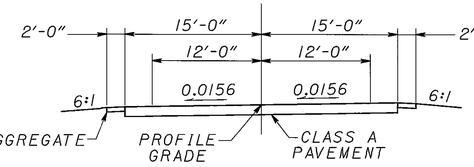
℄ 2-LANE CROSSOVER

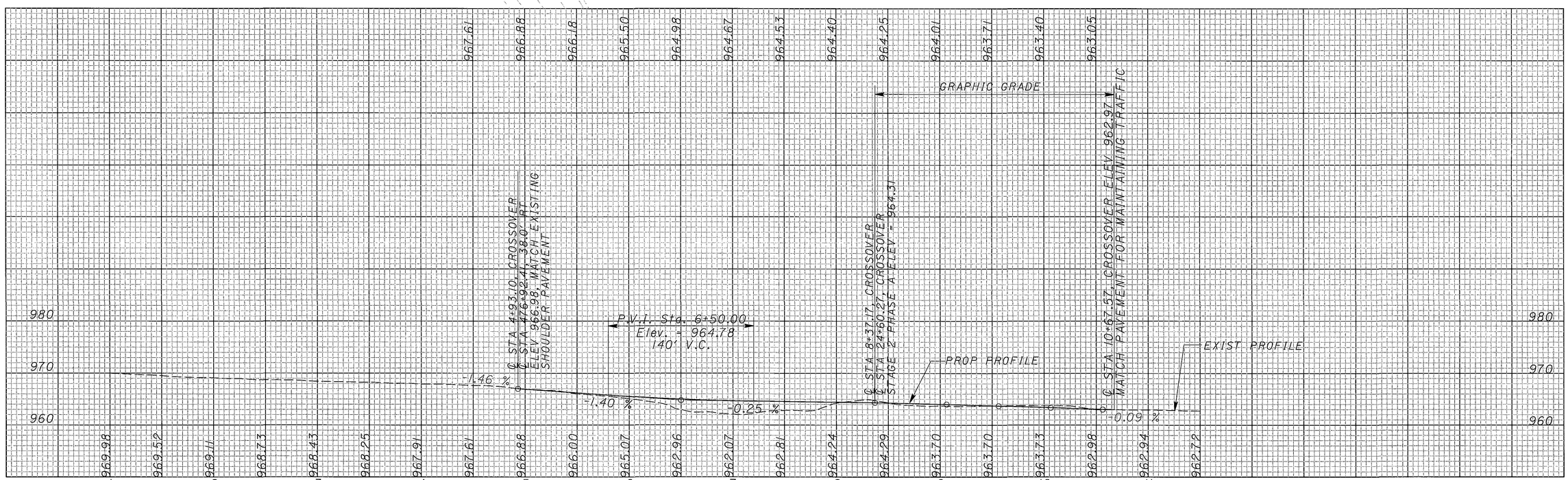


NORMAL 2-LANE CROSSOVER

CURVE A
P.I. Sta = 4+50.57
Δ = 12° 24′ 52″ (RT)
Dc = 3° 00′ 00″
R = 1,909.86′
T = 207.72′
L = 413.81′
E = 11.26′

CURVE B
P.I. Sta = 8+62.91
Δ = 12° 19′ 37″ (LT)
Dc = 3° 00′ 00″
R = 1,909.86′
T = 206.25′
L = 410.90′
E = 11.10′

LEGEND
- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- PORTABLE CONCRETE BARRIER, 50″ UNLESS OTHERWISE NOTED
- • • • DRUMS, 20′ C/C



HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

CROSSOVER PLAN AND PROFILE

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+80 END 35:1
EDGE LINE TAPER

POT STA 36+59.30, CROSSOVER
℄ STA 491+00.00, 11.5' LT IR-80

POT STA 38+59.31, CROSSOVER
℄ STA 493+00.00, 9.5' LT IR-80
BEGIN EDGE LINE TAPER

+27 END EDGE
LINE TAPER, 18.5' LT

POT STA 30+00.00 CROSSOVER
℄ STA
+00 BEGIN 35:1
EDGE LINE TAPER

POT STA 4+80.00 RAMP A

PC STA 5+45.45

PAVEMENT FOR MAINTAINING
TRAFFIC, CLASS A

CURVE A

℄ CROSSOVER

N 80° 04' 59" E

℄ RAMP A

N 47° 38' 00" E

PC STA 33+17.87 CROSSOVER
℄ STA 487+73.11, 63.5' RT IR-80

PT STA 9+27.08

PT STA 35+44.41 CROSSOVER
℄ STA 489+85.20, 7.1' LT IR-80

N 82° 40' E

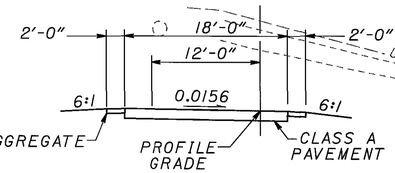
℄ CONSTRUCTION IR-80

CURVE A
P.I. Sta = 34+34.27
Δ = 32° 26' 59" (RT)
Dc = 14° 19' 26"
R = 400.00'
T = 116.40'
L = 226.54'
E = 16.59'

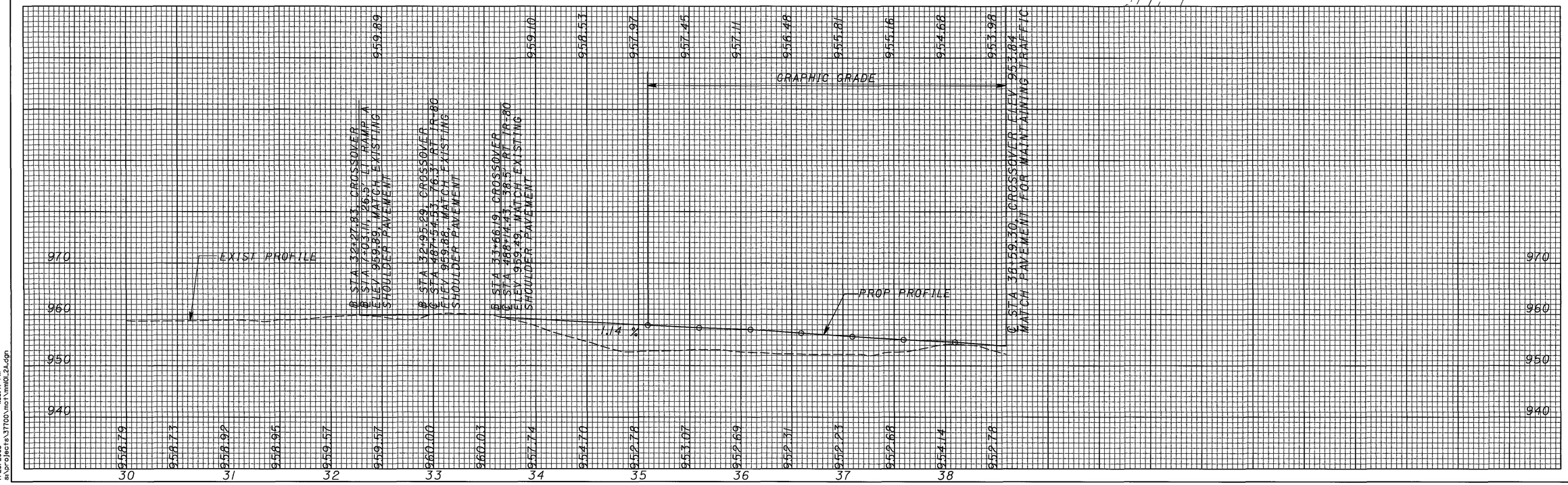
LEGEND

- WORK AREA
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- WORK ZONE IMPACT ATTENUATOR
- DRUMS, 20' C/C

℄ SINGLE LANE CROSSOVER



NORMAL SINGLE LANE CROSSOVER



HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

CROSSOVER PLAN AND PROFILE

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LEGEND

WORK AREA

PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN

PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED

DRUMS, 50' C/C

CURVE A
P.I. Sta = 4+67.54
Δ = 10° 01' 35" (RT)
Dc = 3° 00' 00"
R = 1,909.86'
T = 167.54'
L = 334.22'
E = 7.33'

CURVE B
P.I. Sta = 9+38.38
Δ = 18° 05' 53" (LT)
Dc = 3° 00' 00"
R = 1,909.86'
T = 304.17'
L = 603.27'
E = 24.07'

SPILL CONTAINMENT WEST BASIN AREA

PT STA 12+37.48 CROSSOVER
℄ STA 513+45.00, 50.9' RT IR-80

PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A

12-11' LANES

+05 BEGIN 56:1 LANE TAPER, LT

+17 END 56:1 LANE TAPER, LT

PC STA 507+35.90

S 82° 15' 57" W

S 87° 44' 28" W

N 74° 11' 41" E

CURVE A

CURVE B

PC STA 3+00.00 CROSSOVER
℄ STA 504+17.26, 36.5' LT IR-80

℄ 2-LANE CROSSOVER

2'-0" 15'-0" 15'-0" 2'-0"
12'-0" 12'-0"
6:1 0.0156 0.0156 6:1

6"-#11 AGGREGATE
PROFILE GRADE
CLASS A PAVEMENT

NORMAL 2-LANE CROSSOVER

℄ STA 3+00.00 CROSSOVER
ELEV. 936.62, MATCH PAVEMENT
FOR MAINTAINING TRAFFIC

GRAPHIC GRADE

PROP PROFILE

-2.35 %

-0.95 %

P.V.I. Sta. 7+20.00
Elev. = 928.22
170' V.C.

℄ STA 9+25.13 CROSSOVER
℄ STA 510+41.26, 32.5' RT
ELEV. 926.26, MATCH EXISTING
SHOULDER PAVEMENT

EXIST PROFILE

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

CROSSOVER PLAN AND PROFILE

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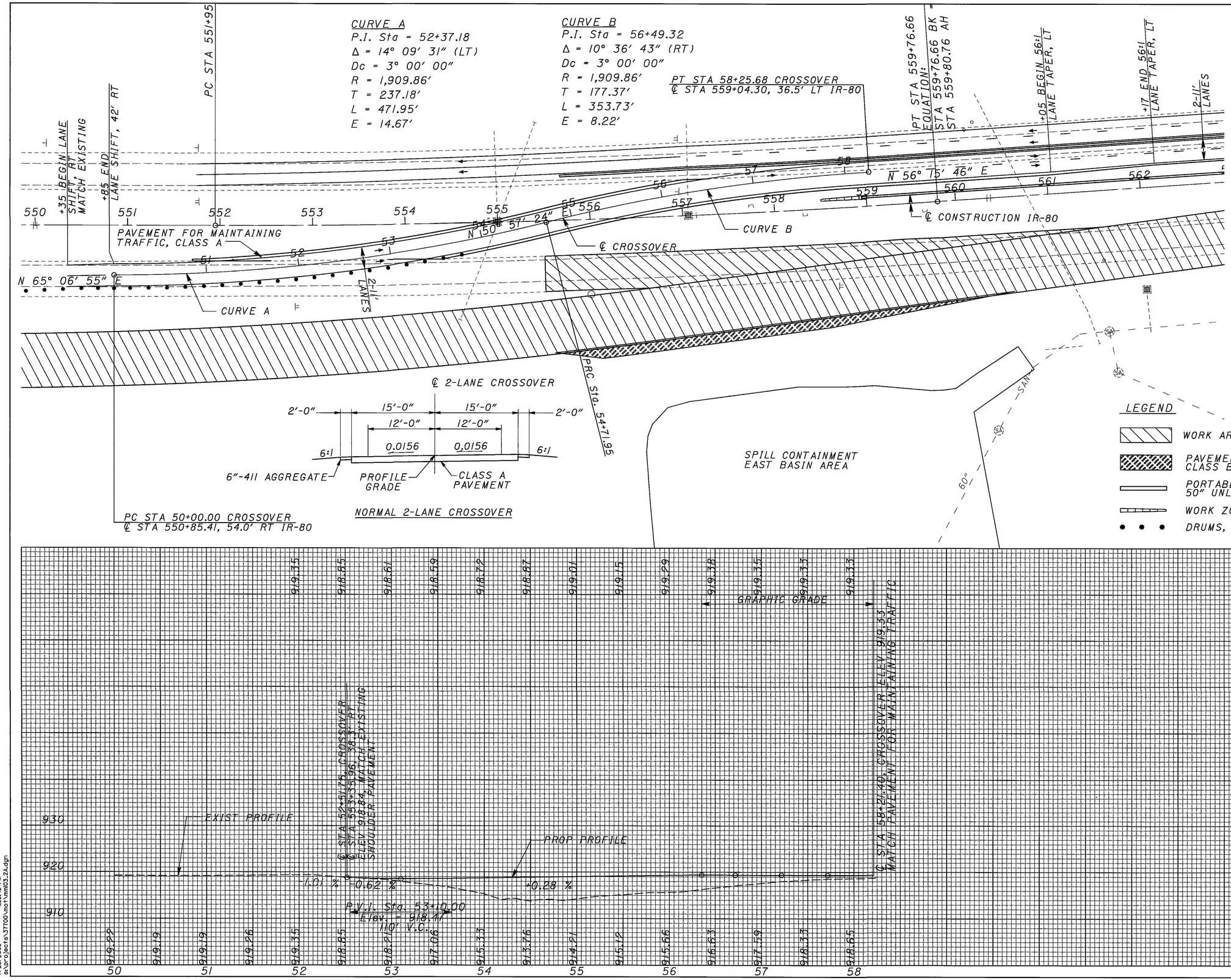
CURVE A
P.I. Sta = 52+37.18
Δ = 14° 09′ 31″ (LT)
Dc = 3° 00′ 00″
R = 1,909.86′
T = 237.18′
L = 471.95′
E = 14.67′
CURVE B
P.I. Sta = 56+49.32
Δ = 10° 36′ 43″ (RT)
Dc = 3° 00′ 00″
R = 1,909.86′
T = 177.37′
L = 353.73′
E = 8.22′
PT STA 58+25.68 CROSSOVER
℄ STA 559+04.30, 36.5′ LT IR-80
PT STA 559+76.66
EQUATION:
STA 559+76.66 BK
STA 559+80.76 AH
PC STA 551+95
+35 BEGIN LANE SHIFT, RT MATCH EXISTING
+85 END LANE SHIFT, 42′ RT
+05 BEGIN 56:1 LANE TAPER, LT
+17 END 56:1 LANE TAPER, LT
2-11′ LANES
N 56° 15′ 46″ E
N 150° 57′ 24″ E
N 65° 06′ 55″ E
PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A
CURVE A
CURVE B
℄ CROSSOVER
℄ CONSTRUCTION IR-80
PRC Sta. 54+71.95
℄ 2-LANE CROSSOVER
2′-0″
15′-0″
15′-0″
2′-0″
12′-0″
12′-0″
6:1
0.0156
0.0156
6:1
6″-411 AGGREGATE
PROFILE GRADE
CLASS A PAVEMENT
NORMAL 2-LANE CROSSOVER
PC STA 50+00.00 CROSSOVER
℄ STA 550+85.41, 54.0′ RT IR-80
SPILL CONTAINMENT EAST BASIN AREA
SAN
60″
LEGEND
WORK AREA
PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN
PORTABLE CONCRETE BARRIER, 50″ UNLESS OTHERWISE NOTED
WORK ZONE IMPACT ATTENUATOR
DRUMS, 20′ C/C
EXIST PROFILE
PROP PROFILE
GRAPHIC GRADE
℄ STA 552+51.75, CROSSOVER ELEV. 918.84, MATCH EXISTING SHOULDER PAVEMENT
℄ STA 553+35.96, 38.3′ RT
-1.01 %
-0.62 %
+0.28 %
P.V.I. Sta. 53+10.00
Elev. = 918.41
110′ V.C.
℄ STA 56+21.40, CROSSOVER ELEV 919.33
MATCH PAVEMENT FOR MAINTAINING TRAFFIC
HORIZONTAL SCALE IN FEET
CALCULATED AJP
CHECKED JFM
CROSSOVER PLAN AND PROFILE
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LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN
- PROPOSED PAVEMENT IN PLACE
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- WORK ZONE IMPACT ATTENUATOR
- DRUMS

POT Sta. 89+00.00

N 89° 42' 24" E

PC Sta. 89+27.02

+00 BEGIN 56:1 LANE TAPER, LT

PT Sta. 90+56.02

+56 END 56:1 LANE TAPER, LT

℄ CONSTRUCTION IR-80

℄ CONSTRUCTION RAMP 46-A

PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A

S 86° 25' 24" E

℄ CROSSOVER

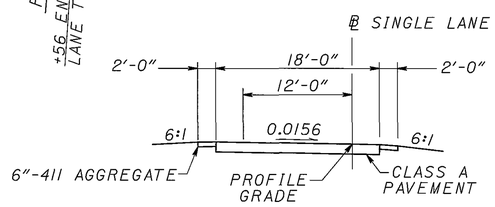
+00 BEGIN 56:1 LANE TAPER, LT

+56 END 56:1 LANE TAPER, LT

℄ CONSTRUCTION RAMP 46-C

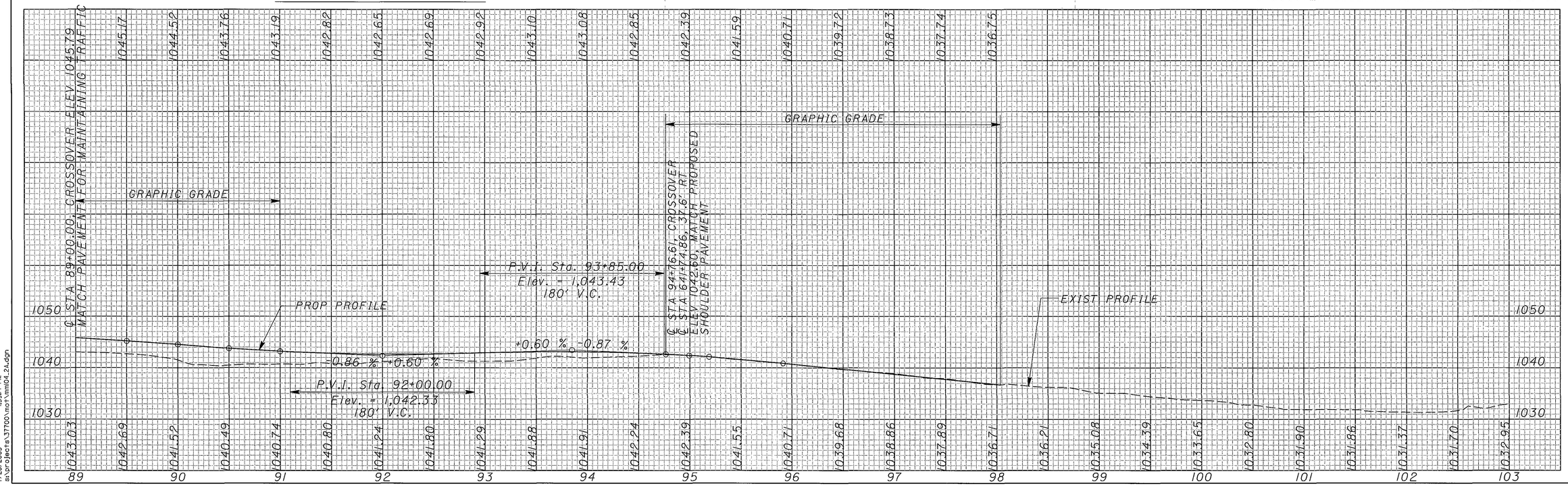
PC Sta. 99+89.50

℄ SINGLE LANE CROSSOVER



NORMAL SINGLE LANE CROSSOVER

FOR CROSSOVER GEOMETRICS SEE SHEETS 92 & 93



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HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

CROSSOVER PLAN AND PROFILE

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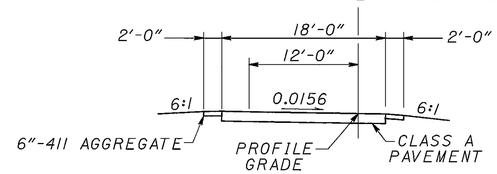
LEGEND

- PROPOSED PAVEMENT IN PLACE
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- WORK ZONE IMPACT ATTENUATOR
- DRUMS

CURVE A
P.I. Sta = 102+41.34
Δ = 14° 24' 15" (RT)
Dc = 3° 00' 00"
R = 1,909.86'
T = 241.34'
L = 480.14'
E = 15.19'

CURVE B
P.I. Sta = 106+26.30
Δ = 8° 45' 08" (LT)
Dc = 3° 00' 00"
R = 1,909.86'
T = 146.16'
L = 291.74'
E = 5.58'

℄ SINGLE LANE CROSSOVER



NORMAL SINGLE LANE CROSSOVER

*NOTE:
TRAVEL LANE FOR SR 46 RAMP C TRAFFIC TO BE RESTRICTED TO OUTSIDE LANE OF PERMANENT EASTBOUND PAVEMENT, WITH USE OF DRUMS.

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HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

CROSSOVER PLAN AND PROFILE

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℄ 2-LANE CROSSOVER

2′-0″ | 15′-0″ | 15′-0″ | 2′-0″
12′-0″ | 12′-0″
6:1 | 0.0156 | 0.0156 | 6:1
6″-4II AGGREGATE | PROFILE GRADE | CLASS A PAVEMENT

NORMAL 2-LANE CROSSOVER

CURVE A
P.I. Sta = 63+86.85
Δ = 10° 43′ 20″ (RT)
Dc = 3° 00′ 00″
R = 1,909.86′
T = 179.23′
L = 357.41′
E = 8.39′

CURVE B
P.I. Sta = 67+42.89
Δ = 10° 38′ 26″ (LT)
Dc = 3° 00′ 00″
R = 1,909.86′
T = 177.86′
L = 354.69′
E = 8.26′

LEGEND
- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- PORTABLE CONCRETE BARRIER, 50″ UNLESS OTHERWISE NOTED
- DRUMS

PT STA 69+19.72 CROSSOVER ℄ STA 668+15.55, 41.2′ RT IR-80

2-11′ LANES

N 88° 39′ 54″ E

PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A

CURVE A

S 80° 38′ 45″ E

2-12′ LANES

CURVE B

N 88° 44′ 48″ E

+66 BEGIN LANE TAPER, 29.3 RT

+16 END LANE TAPER, MATCH EXISTING

℄ CONSTRUCTION IR-80

℄ CROSSOVER

PRC Sta. 65+65.03

+07 BEGIN 56:1 LANE TAPER, LT

+07 END 56:1 LANE TAPER, LT

PC STA 62+07.62 ℄ STA 661+07.62, 25.5′ LT IR-80

+66 BEGIN LANE TAPER, 53.3 RT

+16 END LANE TAPER BEGIN LANE TAPER

+00 END LANE TAPER MATCH EXISTING

GRAPHIC GRADE

℄ STA 64+80.79, CROSSOVER ℄ STA 663+71.86, 6.0′ LT ELEV 1039.08, MATCH EXISTING SHOULDER PAVEMENT

℄ STA 66+81.39, CROSSOVER ℄ STA 665+71.86, 26.0′ RT ELEV 1041.02, MATCH EXISTING SHOULDER PAVEMENT

EXIST PROFILE

PROP PROFILE

+0.24 % | -1.84 % | -0.24 %

P.V.I. Sta. 65+90.00
Elev. = 1039.34
180′ V.C.

1050 | 1040 | 1030

1037.20 1037.72 1038.18 1038.59 1038.90 1039.13 1039.36 1039.81 1040.48 1041.44

1032.78 1033.54 1033.67 1034.97 1034.99 1035.19 1035.20 1035.56 1035.46 1035.43 1035.62 1036.60 1038.18 1039.80 1041.44 1042.05 1042.71 1043.50 1044.10 1044.59 1044.86 1045.62 1046.51

60 61 62 63 64 65 66 67 68 69 70 7

HORIZONTAL SCALE IN FEET 0 25 50 100

CALCULATED AJP CHECKED JFM

CROSSOVER PLAN AND PROFILE

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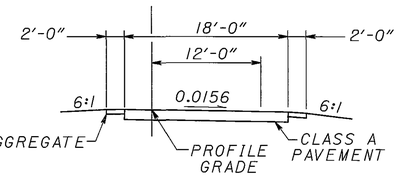
℄ SINGLE LANE CROSSOVER



NORMAL SINGLE LANE CROSSOVER

POT Sta. 40+00.00

60' END LANE TAPER,

PT STA 48+22.53 CROSSOVER
℄ STA 46+01.08, 16.9' RT RAMP 46-A
BEGIN EDGE LINE TAPER RT

CURVE A
P.I. Sta = 45+91.00
Δ = 28° 22' 43" (LT)
Dc = 6° 00' 00"
R = 954.93'
T = 241.45'
L = 472.98'
E = 30.05'

PC STA 43+49.55 CROSSOVER
℄ 641+49.55, 11.0' RT IR-80

POT STA 49+49.17 CROSSOVER
℄ STA 47+24.84 RAMP 46-A
END EDGE LINE TAPER RT

℄ CONSTRUCTION RAMP 46-A

PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A

℄ CROSSOVER

N 88° 39' 54" E

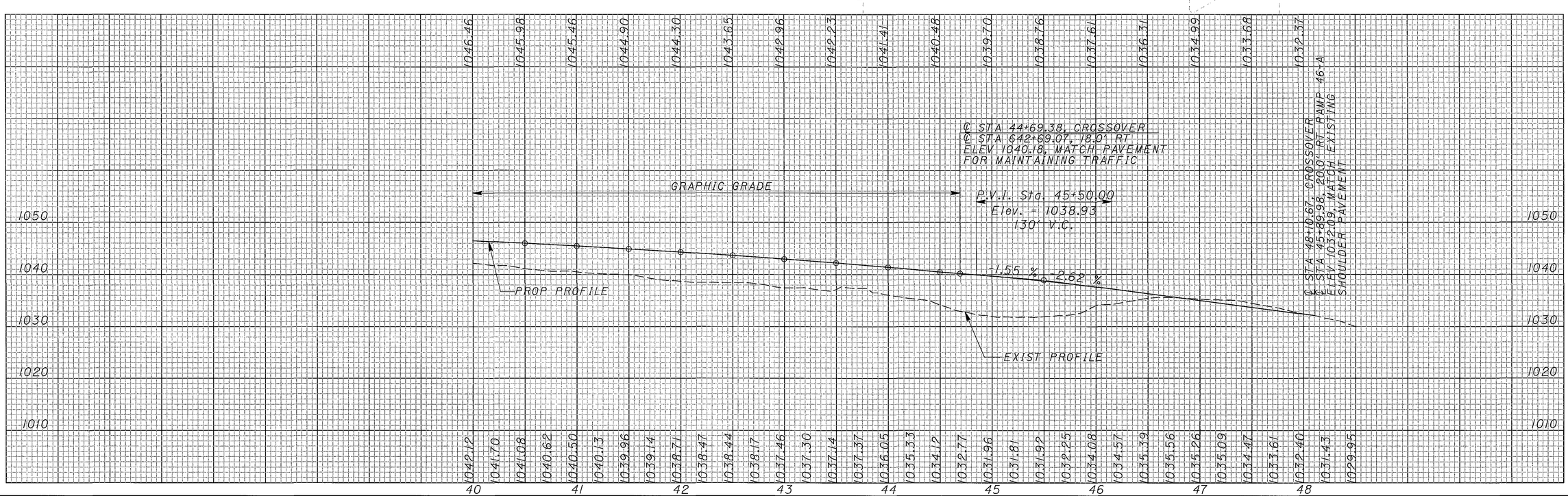
N 60° 11' 11" E

℄ CONSTRUCTION IR-80

℄ CONSTRUCTION RAMP 46-C

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- WORK ZONE IMPACT ATTENUATOR
- DRUMS, 20' C/C



HORIZONTAL SCALE IN FEET

CALCULATED AJP
CHECKED JFM

PLAN AND PROFILE

CROSSOVER PLAN

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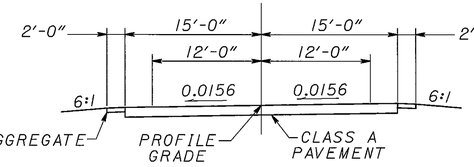
℄ 2-LANE CROSSOVER



NORMAL 2-LANE CROSSOVER

℄ CONSTRUCTION RAMP 46-A

℄ CONSTRUCTION RAMP 46-E

SC STA 77+34.71

POT Sta. 34+02.64

CS STA 75+37.86

WATER

CURVE B
P.I. Sta = 29+06.44
Δ = 9° 12' 16" (RT)
Dc = 3° 00' 00"
R = 1,909.86'
T = 153.74'
L = 306.82'
E = 6.18'

℄ CROSSOVER

PRC Sta. 27+52.70

+13 IR 80 END LANE TAPER, 29' LT & 7' LT

+57 IR 80 BEGIN 56:1 LANE TAPER, 30' LT & 6' LT

2-11' LANES

2-12' LANES

PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A

N 88° 39' 54" E

N 79° 29' 38" E

CURVE B

℄ CROSSOVER

℄ CONSTRUCTION IR-80

PT STA 30+59.52 CROSSOVER
℄ STA 651+56.88, 18.0' LT IR-80

2-11' LANES

℄ RAMP 46-C STA 52+28.36

+33 IR 80 BEGIN 56:1 LANE TAPER, 23' RT

+00 IR-80 BEGIN LANE TAPER, 45' RT

+45 IR-80 END 56:1 LANE TAPER, 20.5' RT

CURVE A
P.I. Sta = 25+99.62
Δ = 9° 12' 16" (LT)
Dc = 3° 00' 00"
R = 1,909.86'
T = 153.74'
L = 306.82'
E = 6.18'

CURVE A

+45.9 IR-80 END LANE TAPER, 42.3' RT

℄ CONSTRUCTION RAMP 46-C

PC STA 24+45.88 CROSSOVER
℄ STA 645+45.88, 31.2' RT IR-80

℄ STA 57+30.83

℄ STA 61+01.39

PC STA 63+61.68

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- WORK ZONE IMPACT ATTENUATOR
- DRUMS, XX' C/C

GRAPHIC GRADE

GRAPHIC GRADE

℄ STA 26+70.42, CROSSOVER
℄ STA 641+69.91, 18.0' RT
ELEV 1032.89, MATCH PROPOSED
SHOULDER PAVEMENT

℄ STA 28+45.31, CROSSOVER
℄ STA 643+43.13, 6.6' LT
ELEV 1030.74, MATCH PROPOSED
SHOULDER PAVEMENT

PROP PROFILE

EXIST PROFILE

-1.90 % -0.53 %
P.V.I. Sta. 27+60.00
Elev. = 1031.19
170' V.C.

1050
1040
1030
1020

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

CROSSOVER PLAN AND PROFILE

MAH-80-0.97

58
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SHEET NUMBER																			ITEM	TOTAL	UNIT	LEGEND ⬭ QUANTITY REVISED — DESCRIPTION
30		32	33	34	35	36		70	81	94	111	112	124	132	151	165						
		1500																	251	1500	SQ YD	PARTIAL DEPTH PAVEMENT REPAIR
		1500																	252	1500	SQ YD	FULL DEPTH RIGID PAVEMENT REMOVAL AND FLEXIBLE REPLACEMENT
		4500																	252	4500	FT	FULL DEPTH PAVEMENT SAWING
								31128	(14569)										254	(45697)	SQ YD	PAVEMENT PLANING, ASPHALT CONCRETE
						284													411	284	CU YD	STABILIZED CRUSHED AGGREGATE
			6000																530	6000	SQ YD	SPECIAL - STRUCTURE, MISC.: PATCHING BRIDGE DECKS WITH ASPHALT
												2047							603	2047	FT	12" CONDUIT, TYPE B
					300														614	300	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR
						13540													614	13540	FT	TRANSITION AREA DELINEATION
								2	2	6	3	2	7	3	1	5			614	31	EACH	WORK ZONE IMPACT ATTENUATOR
				22															614	22	EACH	WORK ZONE SPEED LIMIT SIGN
					12														614	12	EACH	WORK ZONE INCREASED PENALTIES SIGN
				4															614	4	EACH	WORK ZONE LIGHTING SYSTEM
					7														614	7	EACH	WORK ZONE CROSSOVER LIGHTING SYSTEM
500								1742	(811)										614	(3053)	CU YD	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC
								930	867	656	569	72	1628	199	48	185			614	5154	EACH	BARRIER REFLECTOR, TYPE B
								80	2	219	17	72	266	199	48	151			614	1054	EACH	OBJECT MARKER, ONE WAY
								2	1	4									614	7	EACH	MAINTAINING TRAFFIC, MISC.: EMERGENCY PULLOFFS
					73														614	73	SIGN MNTH	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN
								1.92	1.41	2.37	0.15	0.05	6.6	0.98		0.08			614	13.56	MILE	WORK ZONE LANE LINE, CLASS I, 740.06, TYPE I
								4.54	5.18	6.48	3.2	2.71	18.94	3.67	0.61	2.11			614	47.44	MILE	WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE I
								2391	2910	3365	2411	885	4629	3540	150	1338			614	21619	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 740.06, TYPE I
													150						614	150	FT	WORK ZONE DOTTED LINE, CLASS I, 740.06, TYPE I
				LUMP															615	LUMP		ROADS FOR MAINTAINING TRAFFIC
								26528	(10054)	923		3306	677		234				615	(41722)	SQ YD	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN
									245										615	245	SQ YD	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B
				181															616	181	M GAL	WATER
						500													618	500	FT	RUMBLE STRIPS, (ASPHALT CONCRETE)
								3680	5830	10100	730	3360	12900	9700	2270	7000			622	55570	FT	PORTABLE CONCRETE BARRIER, 32"
								10300	9000	4960	6800		17000			400			622	48460	FT	PORTABLE CONCRETE BARRIER, 50", AS PER PLAN
										240									622	240	FT	PORTABLE CONCRETE BARRIER, 32", BRIDGE MOUNTED
								290	270	400									622	960	FT	PORTABLE CONCRETE BARRIER, 50", BRIDGE MOUNTED, AS PER PLAN
													60						630	60	FT	GROUND MOUNTED SUPPORT, NO. 6 POST
													56						630	56	FT	GROUND MOUNTED SUPPORT, W12X30 BEAM
									72				144	70					630	286	SQ FT	SIGN, FLAT SHEET
													2						630	2	EACH	GROUND MOUNTED BEAM SUPPORT FOUNDATION
													1						630	1	EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND REERECTION
										2			1						630	3	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND REERECTION

CALCULATED EFD
CHECKED JFM

MAINTENANCE OF TRAFFIC SUBSUMMARY

MAH-80-0.97

59
1100

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℄ CONSTRUCTION IR-80

11'-0" | 11'-0" | 1'-6" | 51'-0"

EXISTING SHOULDER VARIES

SECTION A-A
STA. 473+00
NTS

END ROAD WORK G20-2-48

465+50 BEGIN LANE SHIFT MATCH EXISTING

PLANE ENTIRE SHOULDER

PA 1 | EL 1 | EL 2 | CL 1 | YL | +00 END LANE SHIFT 75.7' LT | CL | 2-11' LANES | WL | +00 | LL A

TO WB IR-80

END ROAD WORK G20-2-48

RESTRICTIVE 80

150' | +40

IR-76 WB

467 | 468 | 469 | 470 | 471 | 472 | 473 | LL 1 A

OHIO TURNPIKE (IR-80)

MATCHLINE STA 474+00

15" CSP

42" RCP | 42" RCP | 200'

IR-76 EB

℄ CONSTRUCTION IR-80

3100' | 800' | 200'

W20-1-48 ROAD WORK AHEAD | TYPE A WARNING LIGHT

W16-3a-30 1 MILE

R2-5A-48 REDUCED SPEED AHEAD

W21-H5-48 SHOULDER WORK AHEAD | TYPE A WARNING LIGHT

R2-1-48 STA 466+00 SPEED LIMIT 55

6"CPP | 12" RCP

W21-5a-48 STA. 473+50 55 MPH

W13-1-24 LEFT SHOULDER CLOSED

LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN
- 2" PLANING AND ITEM 614 OVERLAY, WORK TO BE DONE IN PHASE A
- 2" PLANING AND ITEM 614 OVERLAY, WORK TO BE DONE IN PHASE B
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- WORK ZONE IMPACT ATTENUATOR
- DRUMS, 50' C/C

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82, MT-98.16, MT-100.00, AND MT-102.10.

- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR ADDITIONAL DETAILS ON THE WB TRANSITION FOR USE OF THE SHOULDER REFER TO SCD MT-102.10.

FOR MOT QUANTITIES, SEE SHEET 70

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC
STAGE 1 PHASE B

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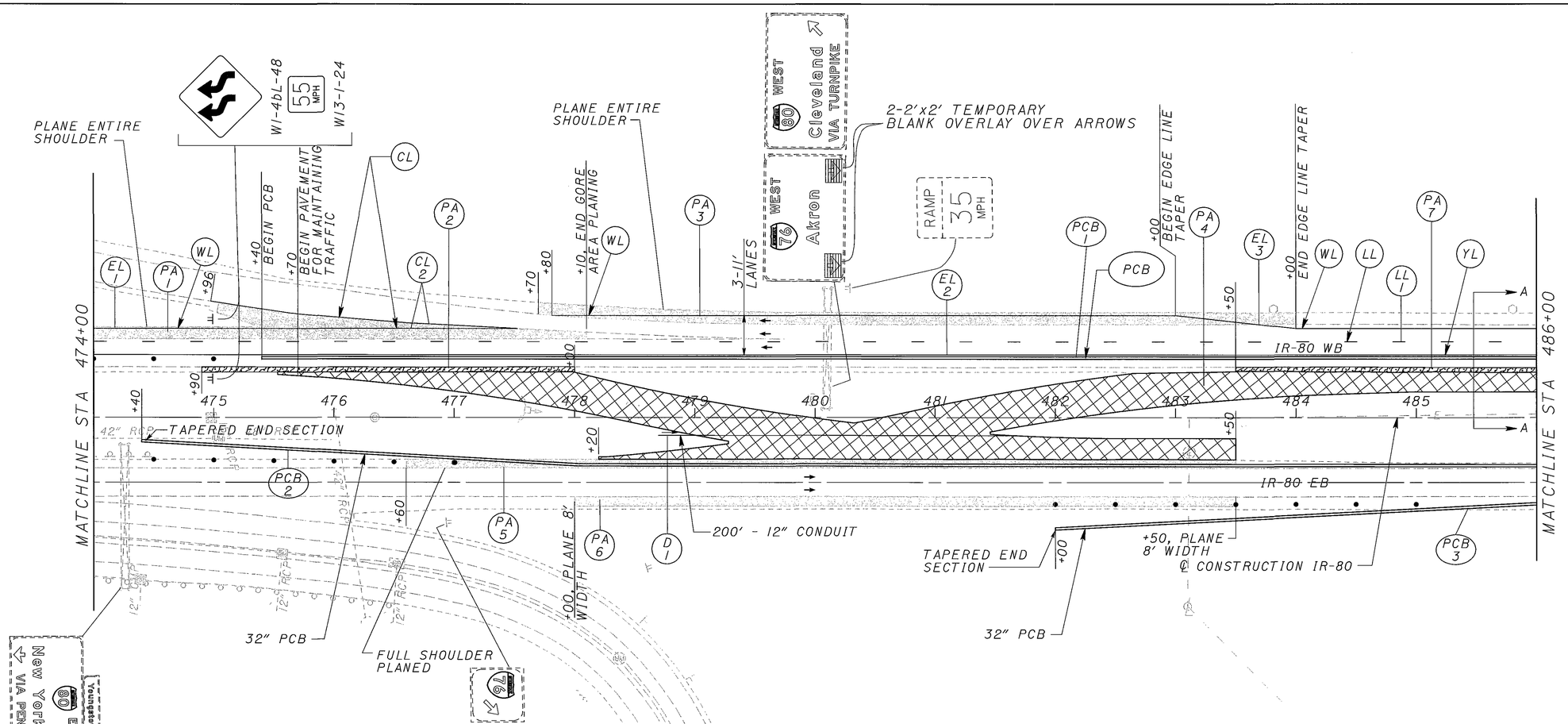
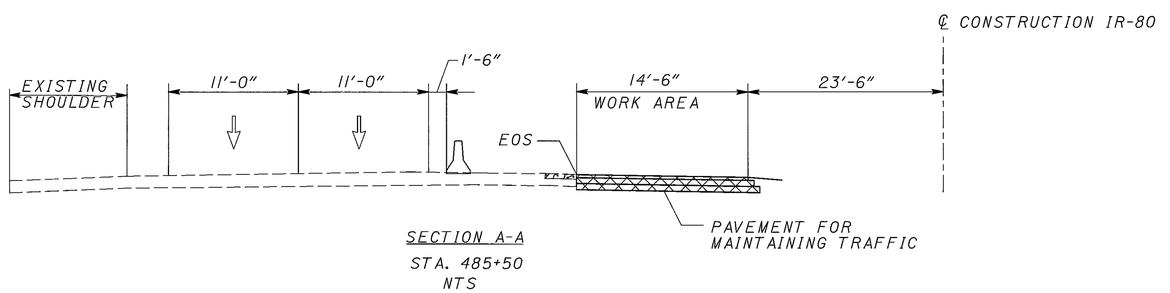


LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN
- 2" PLANING AND ITEM 614 OVERLAY, WORK TO BE DONE IN PHASE A
- 2" PLANING AND ITEM 614 OVERLAY, WORK TO BE DONE IN PHASE B
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- WORK ZONE IMPACT ATTENUATOR
- DRUMS, 50' C/C

- (D) 12" CONDUIT, TYPE B
- (WL) EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (WL) WHITE EDGE LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER
- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82, MT-98.16, MT-100.00, AND MT-102.10.



SECTION A-A
STA. 485+50
NTS

FOR MOT QUANTITIES, SEE SHEET 70
FOR MOT DRAINAGE QUANTITIES SEE SHEET 112
FOR CROSSOVER PROFILE AND GEOMETRICS, SEE SHEET 49 AND 50

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 1 PHASE B

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61
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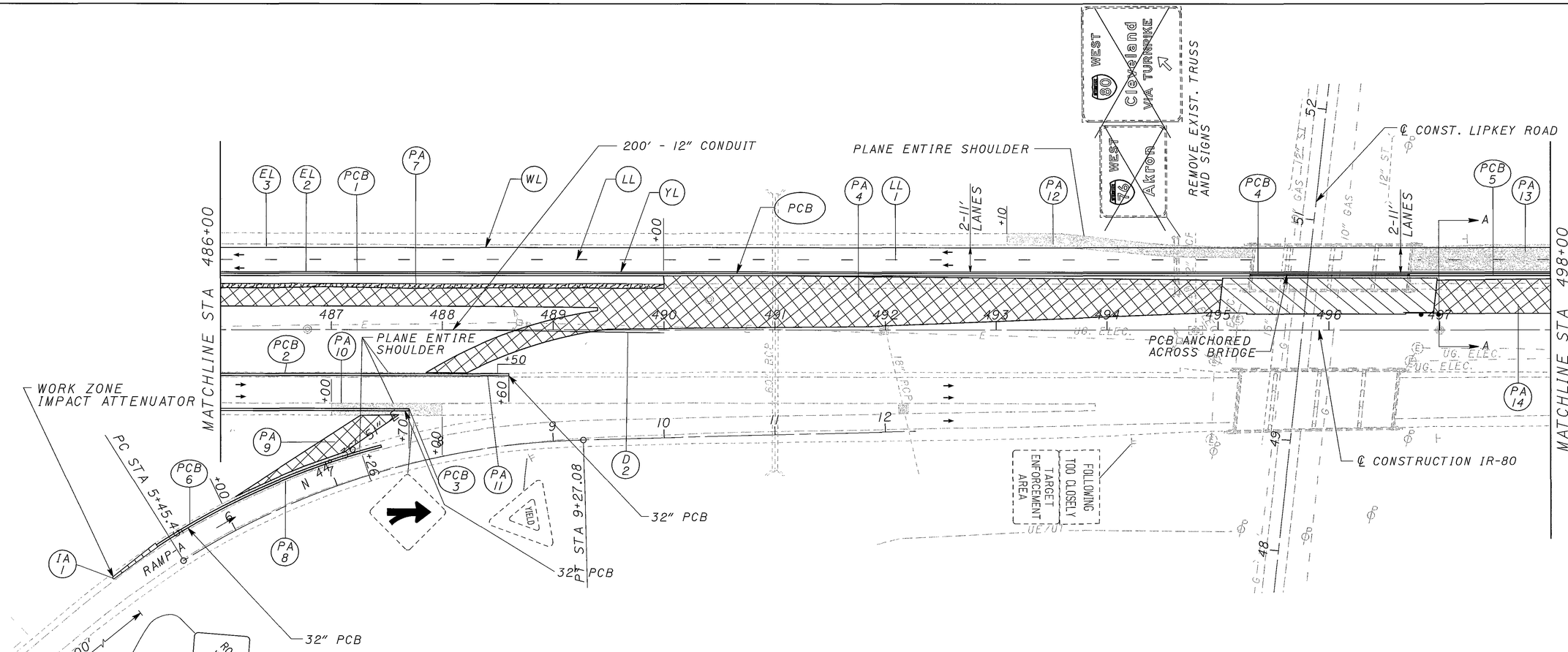

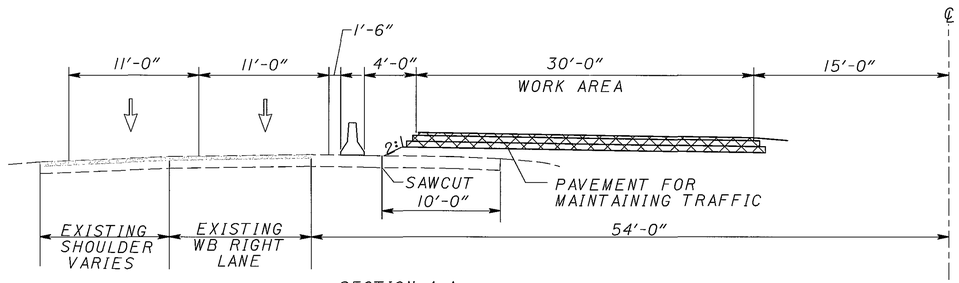

SECTION A-A
STA. 497+00
NTS

LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN
- 2" PLANING AND ITEM 614 OVERLAY, WORK TO BE DONE IN PHASE A
- 2" PLANING AND ITEM 614 OVERLAY, WORK TO BE DONE IN PHASE B
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- WORK ZONE IMPACT ATTENUATOR
- DRUMS

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82, MT-98.16, MT-100.00, AND MT-102.10.

- (D) 12" CONDUIT, TYPE B
- (WL) WHITE EDGE LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR MOT QUANTITIES, SEE SHEET 70
FOR MOT DRAINAGE QUANTITIES SEE SHEET 112
FOR CROSSOVER PROFILE AND GEOMETRICS, SEE SHEET 51

N

0 25 50 100
HORIZONTAL SCALE IN FEET

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 1 PHASE B

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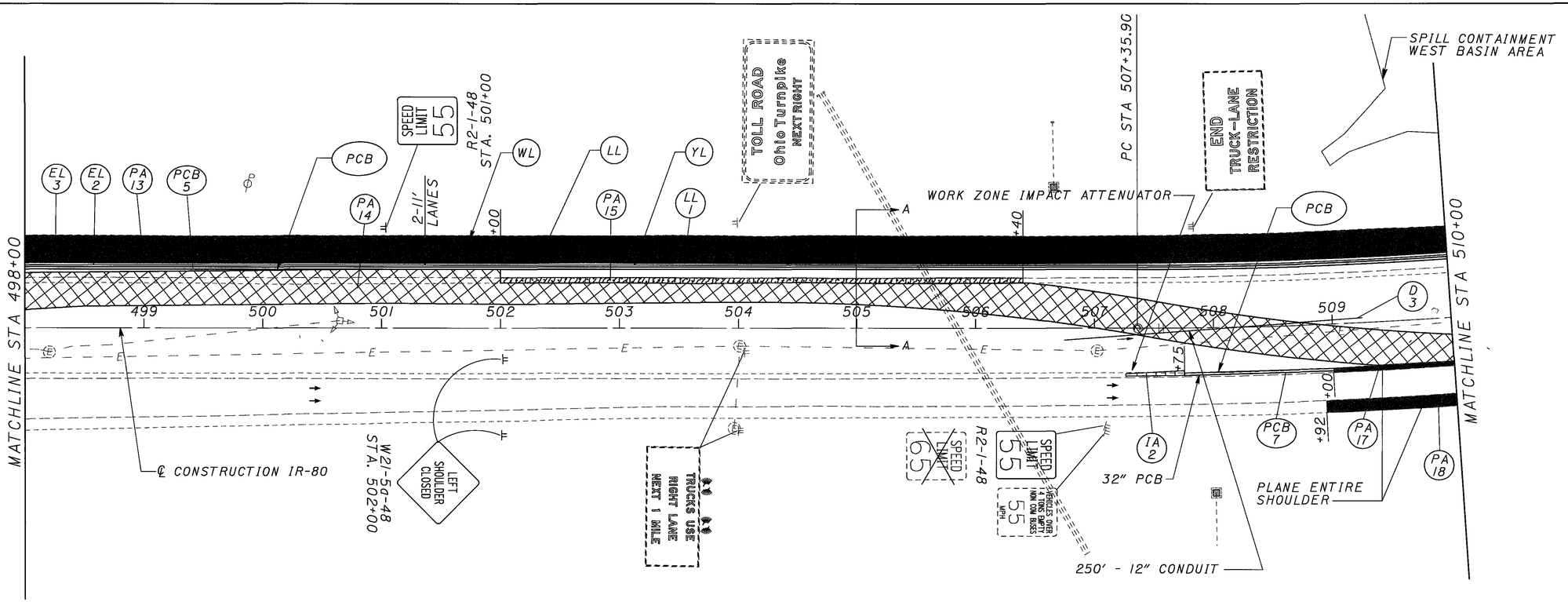

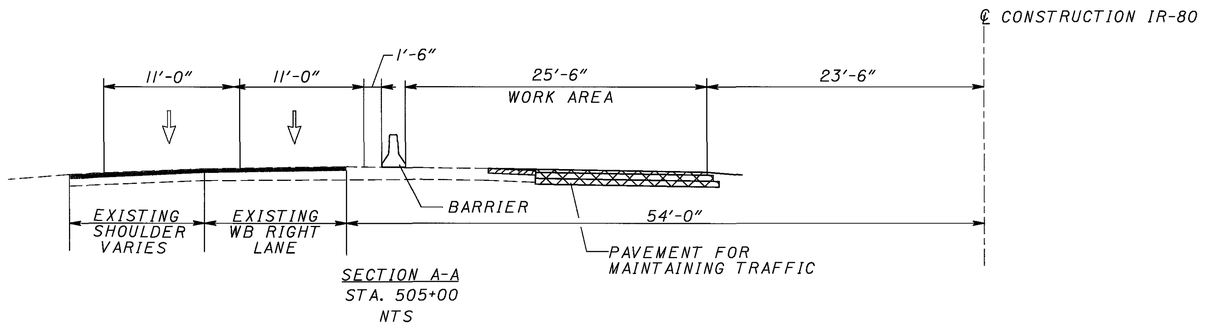

SECTION A-A
STA. 505+00
NTS

LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN
- 2" PLANING AND ITEM 614 OVERLAY, WORK TO BE DONE IN PHASE A
- 2" PLANING AND ITEM 614 OVERLAY, WORK TO BE DONE IN PHASE B
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- WORK ZONE IMPACT ATTENUATOR
- DRUMS

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82, MT-98.16, MT-100.00, AND MT-102.10.

- (WL) WHITE EDGE LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR MOT QUANTITIES, SEE SHEET 70
FOR MOT DRAINAGE QUANTITIES SEE SHEET 112
FOR CROSSOVER PROFILE AND GEOMETRICS, SEE SHEET 52

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 1 PHASE B

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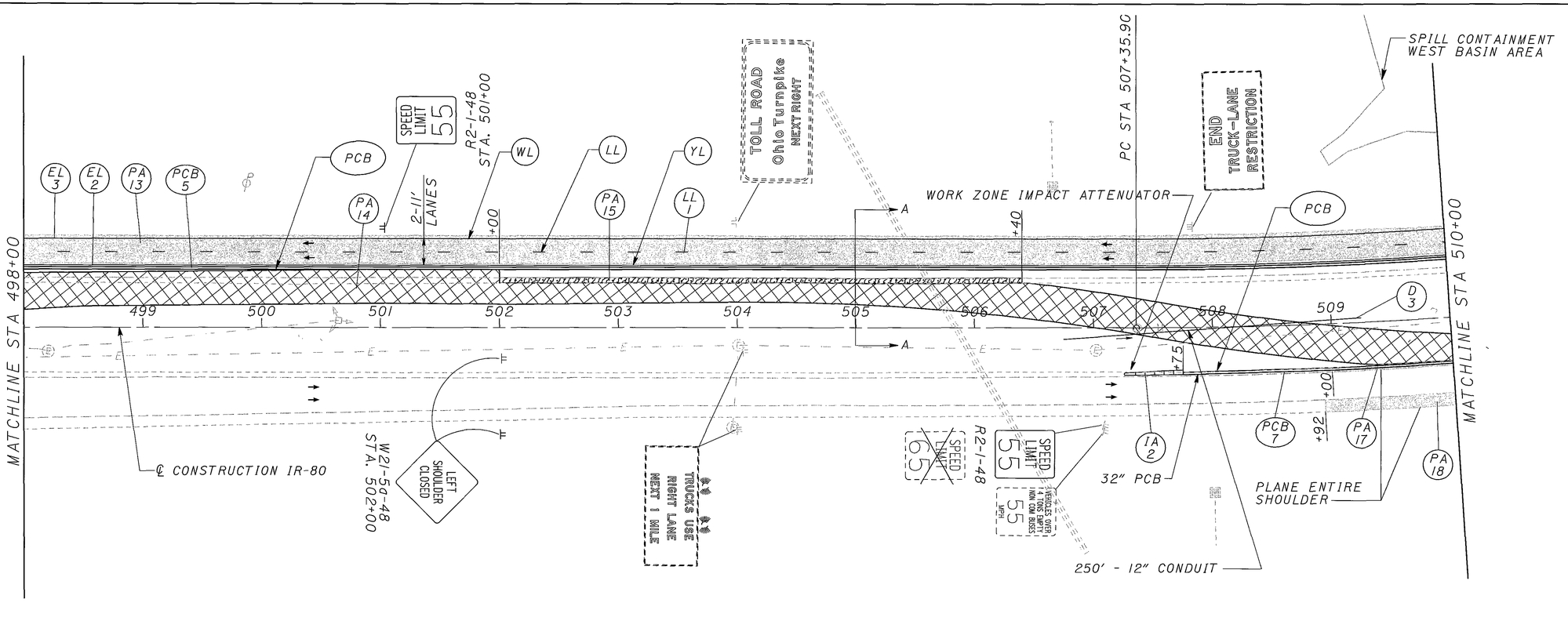

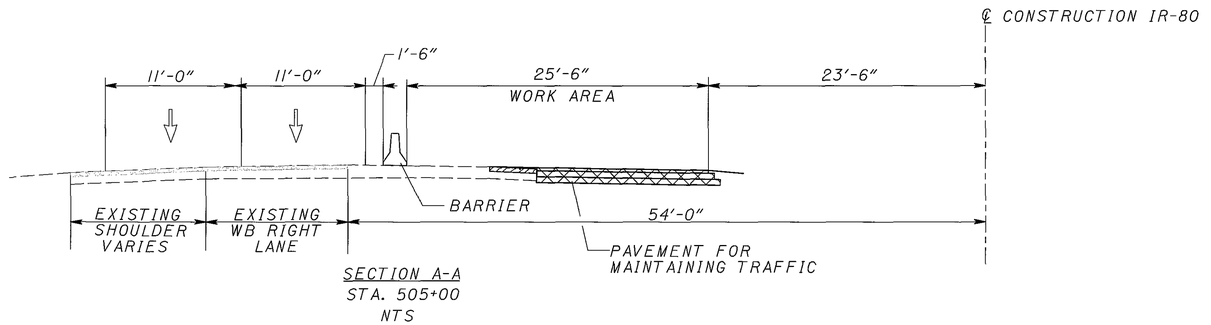

SECTION A-A
STA. 505+00
NTS

LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN
- 2" PLANING AND ITEM 614 OVERLAY, WORK TO BE DONE IN PHASE A
- 2" PLANING AND ITEM 614 OVERLAY, WORK TO BE DONE IN PHASE B
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- WORK ZONE IMPACT ATTENUATOR
- DRUMS

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82, MT-98.16, MT-100.00, AND MT-102.10.

- (WL) WHITE EDGE LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR MOT QUANTITIES, SEE SHEET 70
FOR MOT DRAINAGE QUANTITIES SEE SHEET 112
FOR CROSSOVER PROFILE AND GEOMETRICS, SEE SHEET 52

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MAINTENANCE OF TRAFFIC STAGE 1 PHASE B

CALCULATED AJP
CHECKED JFM

HORIZONTAL SCALE IN FEET
0 25 50 100

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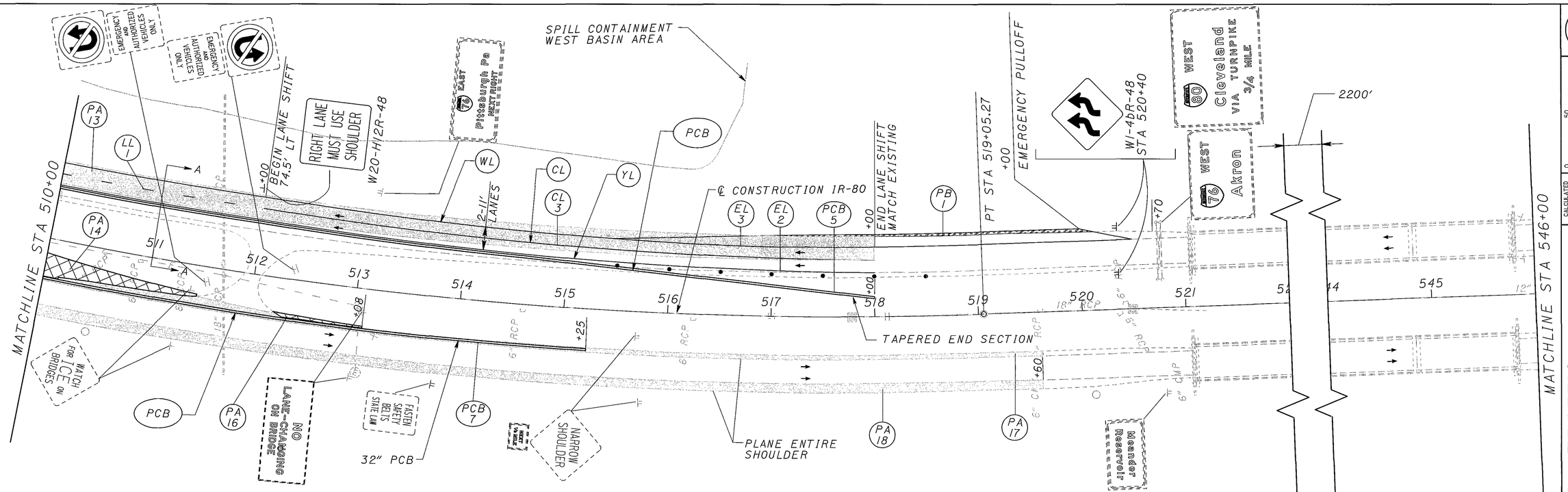
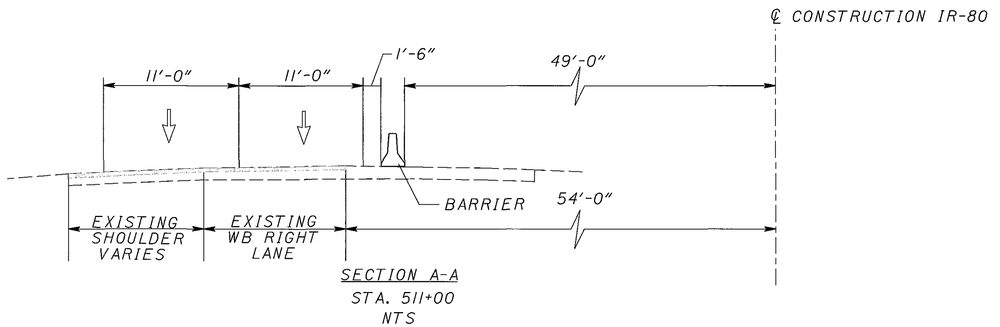
63
1100





SECTION A-A
STA. 511+00
NTS

LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN
- 2" PLANING AND ITEM 614 OVERLAY, WORK TO BE DONE IN PHASE A
- 2" PLANING AND ITEM 614 OVERLAY, WORK TO BE DONE IN PHASE B
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- WORK ZONE IMPACT ATTENUATOR
- • • • DRUMS, 50' C/C

- (WL) WHITE EDGE LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW LINE, 614
- (CL) CHANNELIZING LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82, MT-98.16, MT-100.00, AND MT-102.10.

FOR ADDITIONAL DETAILS ON THE WB TRANSITION FOR USE OF THE SHOULDER, REFER TO SCD MT-102.10

FOR MOT QUANTITIES, SEE SHEET 70
EMERGENCY PULLOFF DETAILS, SEE SHEET 45
FOR CROSSOVER PROFILE AND GEOMETRICS, SEE SHEET 52

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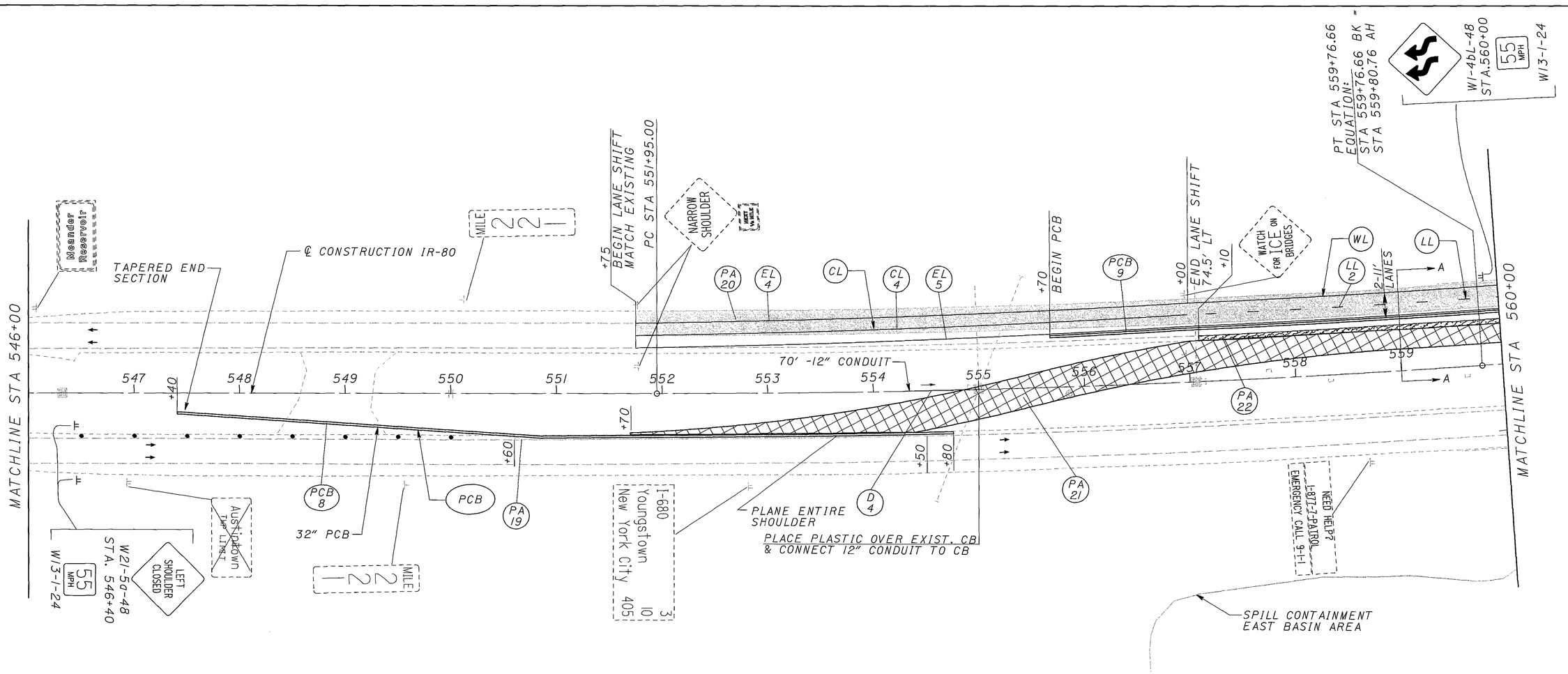
MAINTENANCE OF TRAFFIC STAGE 1 PHASE B

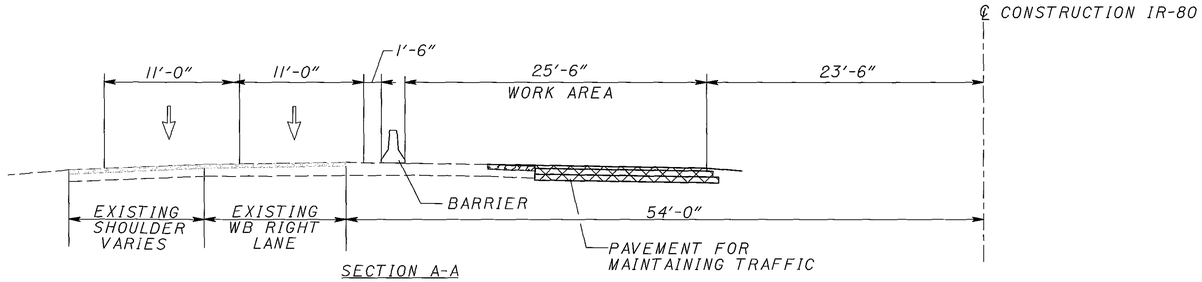
HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAH-80-0.97

64
1100





SECTION A-A
STA. 559+00
NTS

LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN
- 2" PLANING AND ITEM 614 OVERLAY, WORK TO BE DONE IN PHASE A
- 2" PLANING AND ITEM 614 OVERLAY, WORK TO BE DONE IN PHASE B
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- WORK ZONE IMPACT ATTENUATOR
- DRUMS, 50' C/C

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82, MT-98.16, MT-100.00, AND MT-102.10.

- (WL) WHITE EDGE LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW LINE, 614
- (CL) CHANNELIZING LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER
- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR ADDITIONAL DETAILS ON THE WB TRANSITION FOR USE OF THE SHOULDER, REFER TO SCD MT-102.10

FOR MOT QUANTITIES, SEE SHEET 70
FOR MOT DRAINAGE QUANTITIES SEE SHEET 112
FOR CROSSOVER PROFILE AND GEOMETRICS, SEE SHEET 53

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HORIZONTAL SCALE IN FEET
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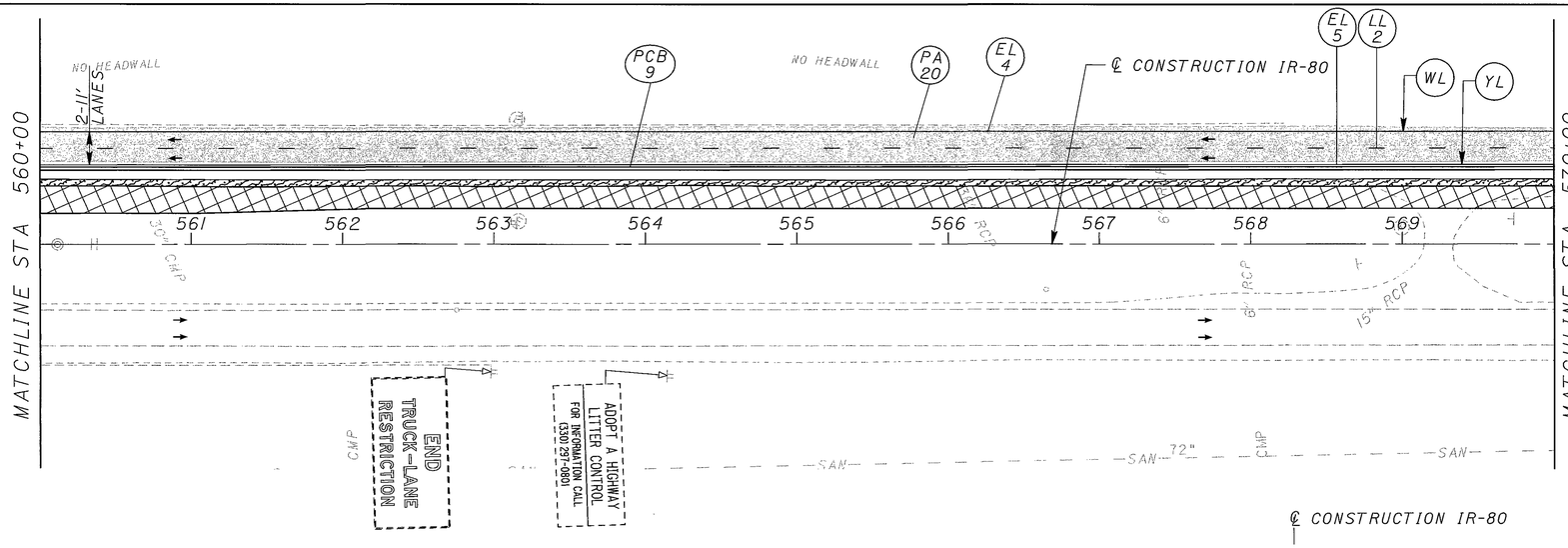
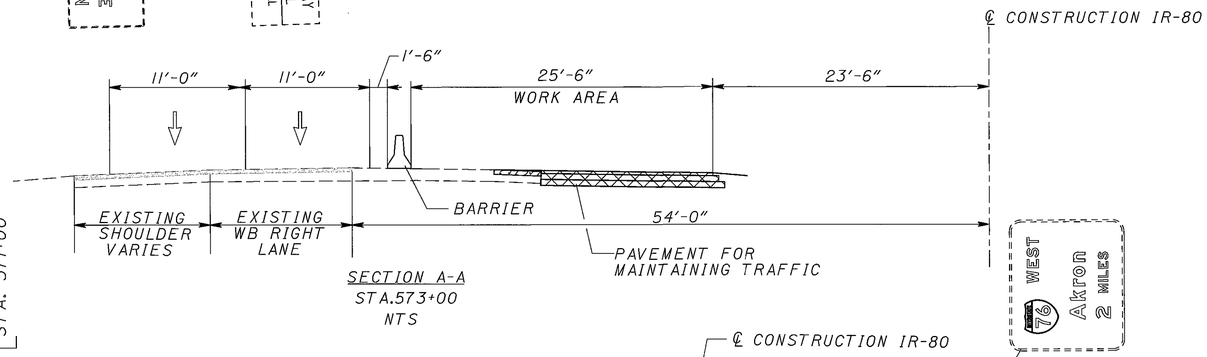
CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 1 PHASE B

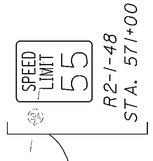
MAH-80-0.97

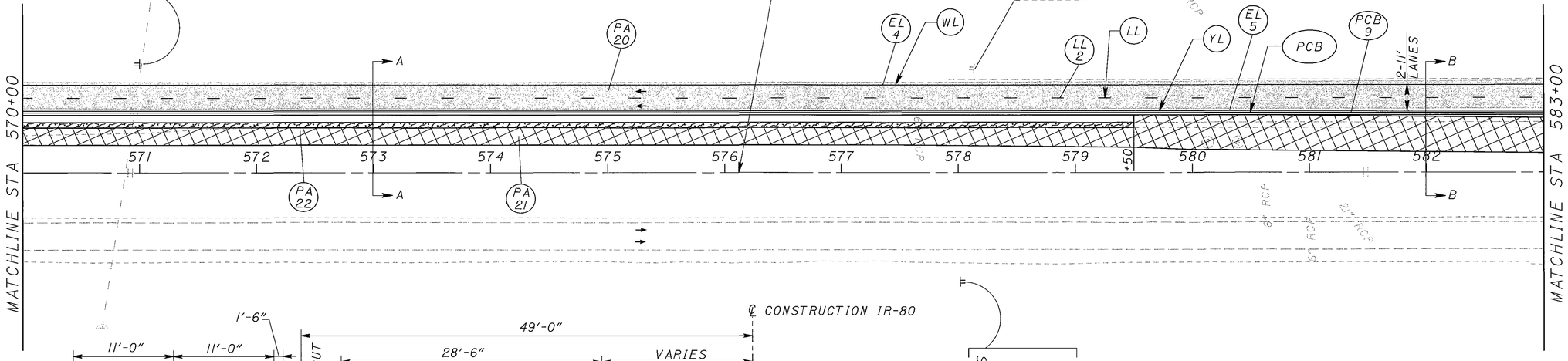
65
1100

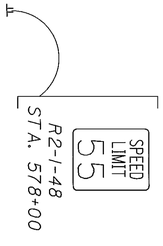


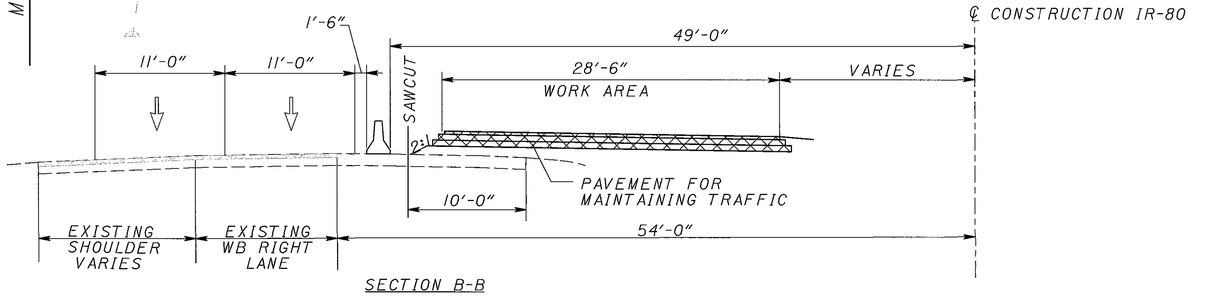


SECTION A-A
STA.573+00
NTS









SECTION B-B
STA. 582+00
NTS

LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN
- 2" PLANING AND ITEM 614 OVERLAY, WORK TO BE DONE IN PHASE A
- 2" PLANING AND ITEM 614 OVERLAY, WORK TO BE DONE IN PHASE B
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- WORK ZONE IMPACT ATTENUATOR
- DRUMS

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82, MT-98.16, MT-100.00, AND MT-102.10.

- (WL) WHITE EDGE LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 1 PHASE B

MAH-80-0.97

FOR MOT QUANTITIES, SEE SHEET 70

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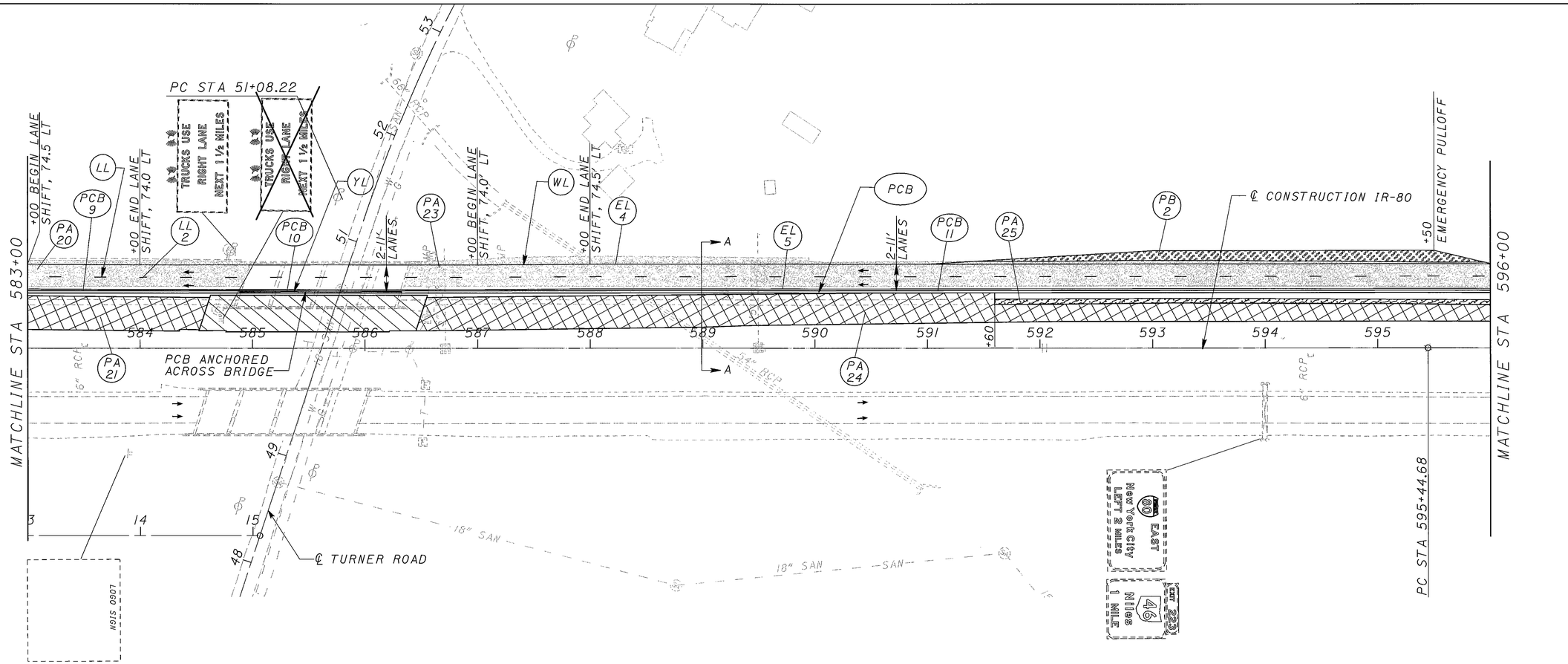

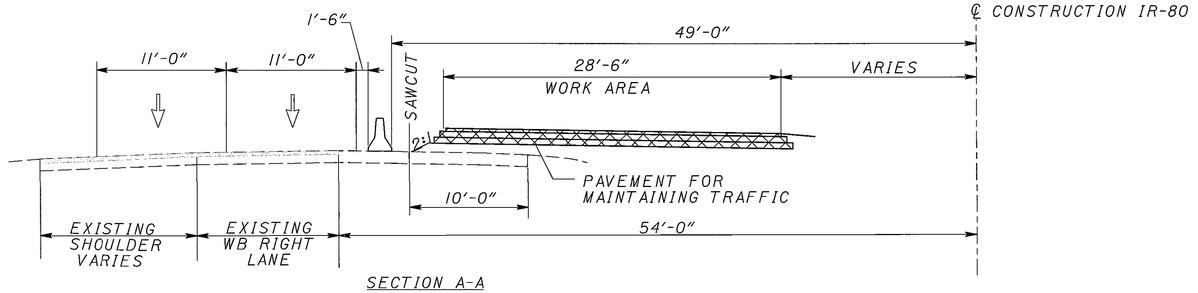

SECTION A-A
STA. 589+00
NTS

LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN
- 2" PLANING AND ITEM 614 OVERLAY, WORK TO BE DONE IN PHASE A
- 2" PLANING AND ITEM 614 OVERLAY, WORK TO BE DONE IN PHASE B
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- WORK ZONE IMPACT ATTENUATOR
- DRUMS

- (WL) WHITE EDGE LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82, MT-98.16, MT-100.00, AND MT-102.10.

FOR MOT QUANTITIES, SEE SHEET 70
EMERGENCY PULLOFF DETAILS, SEE SHEET 45

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 1 PHASE B

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67
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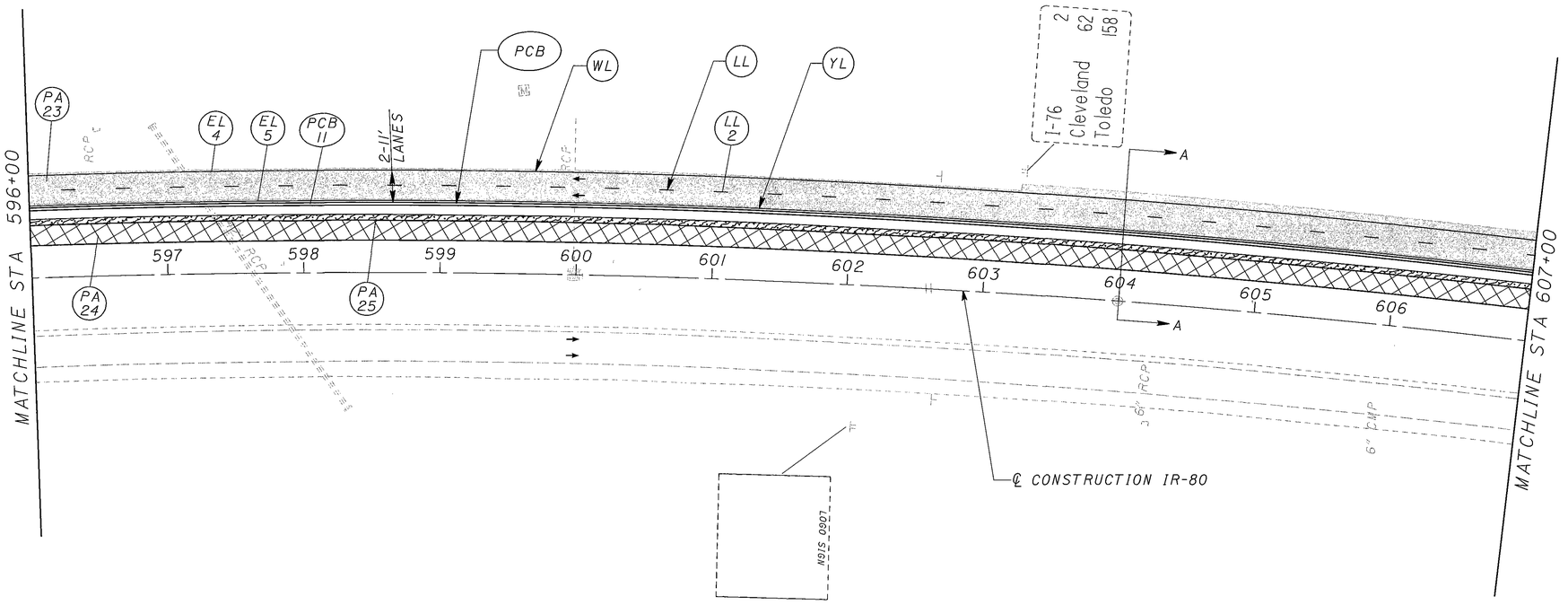

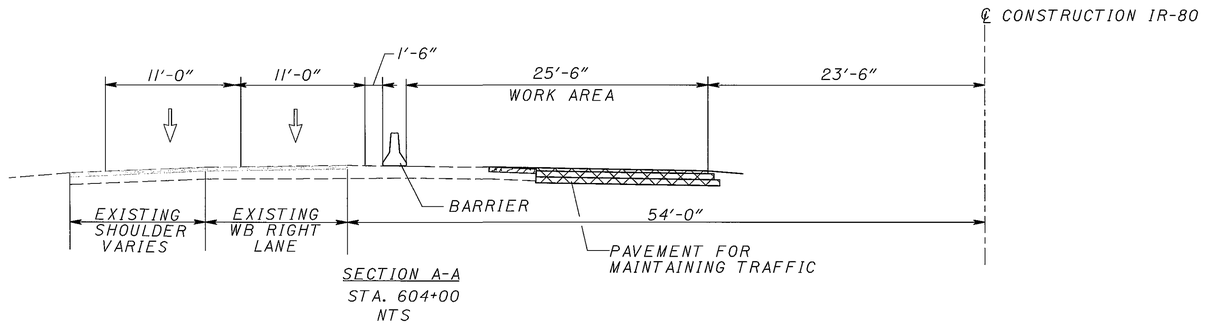

LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN
- 2" PLANING AND ITEM 614 OVERLAY, WORK TO BE DONE IN PHASE A
- 2" PLANING AND ITEM 614 OVERLAY, WORK TO BE DONE IN PHASE B
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- WORK ZONE IMPACT ATTENUATOR
- • • • DRUMS

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82, MT-98.16, MT-100.00, AND MT-102.10.

- (WL) WHITE EDGE LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER
- (CL) CHANNELIZING LINE, 614

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR MOT QUANTITIES, SEE SHEET 70

CALCULATED AJP
CHECKED JFM

0 25 50 100 HORIZONTAL SCALE IN FEET

MAINTENANCE OF TRAFFIC STAGE 1 PHASE B

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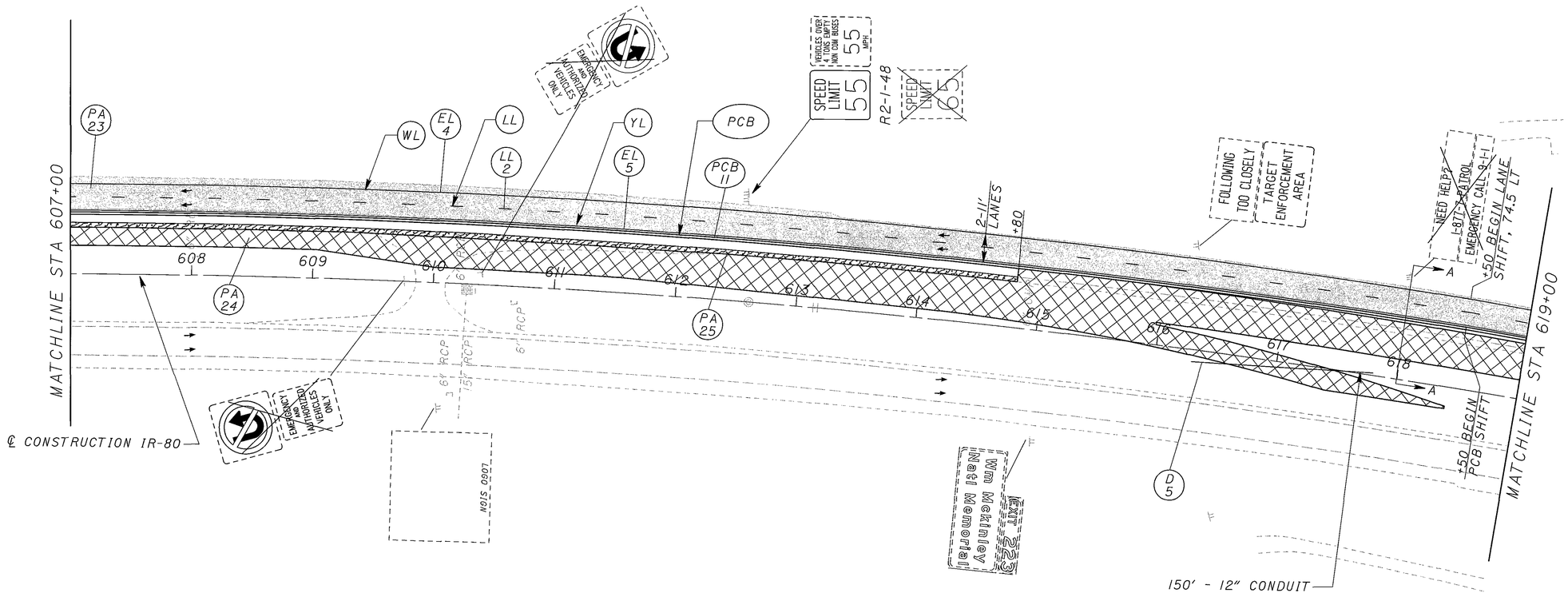

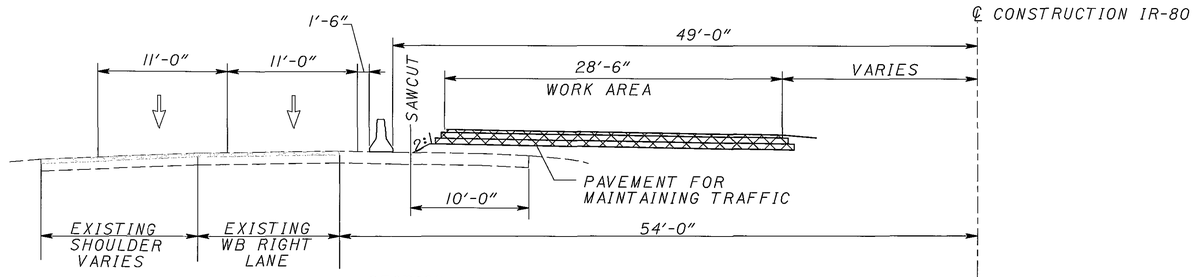

SECTION A-A
STA. 618+00
NTS

LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN
- 2" PLANING AND ITEM 614 OVERLAY, WORK TO BE DONE IN PHASE A
- 2" PLANING AND ITEM 614 OVERLAY, WORK TO BE DONE IN PHASE B
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- WORK ZONE IMPACT ATTENUATOR
- • • • DRUMS

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82, MT-98.16, MT-100.00, AND MT-102.10.

- (WL) WHITE EDGE LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER
- (CL) CHANNELIZING LINE, 614

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR MOT QUANTITIES, SEE SHEET 70
FOR MOT DRAINAGE QUANTITIES SEE SHEET 112
FOR CROSSOVER PROFILE AND GEOMETRICS, SEE SHEET 54

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 1 PHASE B

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REF NO.	SHEET NO.	STATION FROM		STATION TO		SIDE	254 PAVEMENT PLANING, ASPHALT CONCRETE	614 2" ASPHALT CONCRETE FOR MAINTAINING TRAFFIC (PHASE A WORK)	614 2" ASPHALT CONCRETE FOR MAINTAINING TRAFFIC (PHASE B WORK)	614 WORK ZONE IMPACT ATTENUATOR	614 BARRIER REFLECTOR, TYPE B	614 OBJECT MARKER, ONE WAY	614 MAINTAINING TRAFFIC, MISC.: EMERGENCY PULLOFFS	614 WORK ZONE LANE LINE, CLASS 1, 740.06, TYPE 1	614 WORK ZONE EDGE LINE, CLASS 1, 740.06, TYPE 1 (Yellow)	614 WORK ZONE EDGE LINE, CLASS 1, 740.06, TYPE 1 (White)	614 WORK ZONE CHANNELIZING LINE, CLASS 1, 740.06, TYPE 1	615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN		622 PORTABLE CONCRETE BARRIER, 32"	622 PORTABLE CONCRETE BARRIER, 50", AS PER PLAN		622 PORTABLE CONCRETE BARRIER, 50", BRIDGE MOUNTED, AS PER PLAN		
							SQ YD	CU YD	CU YD	EACH	EACH	EACH	EACH	MILE	MILE	MILE	FT	SQ YD		FT	FT		FT		
CL1	60	CL	465+50	CL	473+04	LT											754								
CL2	61	CL	474+96	CL	477+52	LT											512								
CL3	64	CL	512+00	CL	518+00	LT											600								
CL4	65	CL	551+75	CL	557+00	LT											525								
EL1	60-61	CL	465+50	CL	474+96	LT										0.18									
EL2	60-64	CL	465+50	CL	518+00	LT									0.995										
EL3	61-64	CL	477+80	CL	520+50	LT										0.809									
EL4	65-69	CL	551+75	CL	619+00	LT										1.274									
EL5	65-69	CL	551+75	CL	619+00	LT									1.274										
IA1	62	A	5+40			RT				1															
IA2	63	CL	507+75			RT				1															
LL1	60-64	CL	473+04	CL	512+00	LT								0.738											
LL2	65-69	CL	557+00	CL	619+00	LT								1.175											
PA1	60-61	CL	465+40	CL	478+10	LT	1616.6	89.9																	
PA2	61	CL	474+90	CL	478+00	LT	145.4		8.1																
PA3	61	CL	477+70	CL	484+00	LT	706	39.3																	
PA4	61-62	CL	475+70	CL	495+02	LT/RT												6898.6							
PA5	61	CL	476+60	CL	483+50	RT	549.7	30.6																	
PA6	61	CL	478+00	CL	483+50	RT	488.9	27.2																	
PA7	61-62	CL	483+50	CL	490+00	LT	270.8		15.1																
PA8	62	CL	486+00	CL	487+26	RT	96.8	5.4																	
PA9	62	CL	486+13	CL	487+60	RT												200							
PA10	62	CL	487+00	CL	488+00	RT	119.2	6.7																	
PA11	62	CL	487+50	CL	488+50	RT	43.1	2.4																	
PA12	62	CL	493+10	CL	495+31	LT	264.4	14.7																	
PA13	62-64	CL	496+75	CL	518+00	LT	5391.3	299.6																	
PA14	62-64	CL	496+96	CL	511+50	LT/RT												3921.1							
PA15	63	CL	502+00	CL	506+40	LT	11.7		11.7																
PA16	64	CL	512+25	CL	513+08	RT												24.3							
PA17	63-64	CL	509+00	CL	519+60	RT	611	34																	
PA18	63-64	CL	508+92	CL	519+60	RT	1113.7	61.9																	
PA19	65	CL	550+60	CL	554+50	RT	183.8	10.3																	
PA20	65-67	CL	551+75	CL	584+96	LT	8497.8	472.1																	
PA21	65-67	CL	551+70	CL	584+56	LT/RT												6918.5							
PA22	65-66	CL	557+10	CL	579+50	LT	1094.4		60.8																
PA23	67-69	CL	586+40	CL	619+00	LT	8857.2	492.1																	
PA24	67-69	CL	586+50	CL	619+00	LT/RT												8564.7							
PA25	69	CL	591+60	CL	614+80	LT	1066.2		59.3																
PB1	64	CL	516+87	CL	520+13	LT							1												
PB2	67	CL	591+00	CL	596+00	LT							1												
PCB1	61-62	CL	475+40	CL	495+30	LT					162										1990				
PCB2	61-62	CL	474+40	CL	488+60	RT					30	30								1420					
PCB3	61-62	CL	482+00	CL	487+70	RT					13	13								570					
PCB4	62	CL	495+30	CL	496+80	LT					8													150	
PCB5	62-64	CL	496+80	CL	518+00	LT					172										2120				
PCB6	62	A	5+40	A	7+40	RT					5	5								200					
PCB7	63-64	CL	507+75	CL	515+25	RT					16	16								750					
PCB8	65	CL	547+40	CL	554+80	RT					16	16								740					
PCB9	65-67	CL	555+70	CL	584+90	LT					236										2920				
PCB10	67	CL	584+90	CL	586+30	LT					8													140	
PCB11	67-69	CL	586+30	CL	619+00	LT					264										3270				
SUBTOTAL							31128	1586.2	155	2	930	80	2	1.913	2.269	2.263	2391	26527.2		3680	10300		290		
TOTALS CARRIED TO SUBSUMMARY ON SHEET 59							31128	1587	155	2	930	80	2	1.92	2.27	2.27	2391	26528		3680	10300		290		

SUMMARY OF TRAFFIC QUANTITIES
MAINTENANCE
STAGE 1 - START
OF PROJECT TO STA. 619+00

CALCULATED EFD
CHECKED JFM

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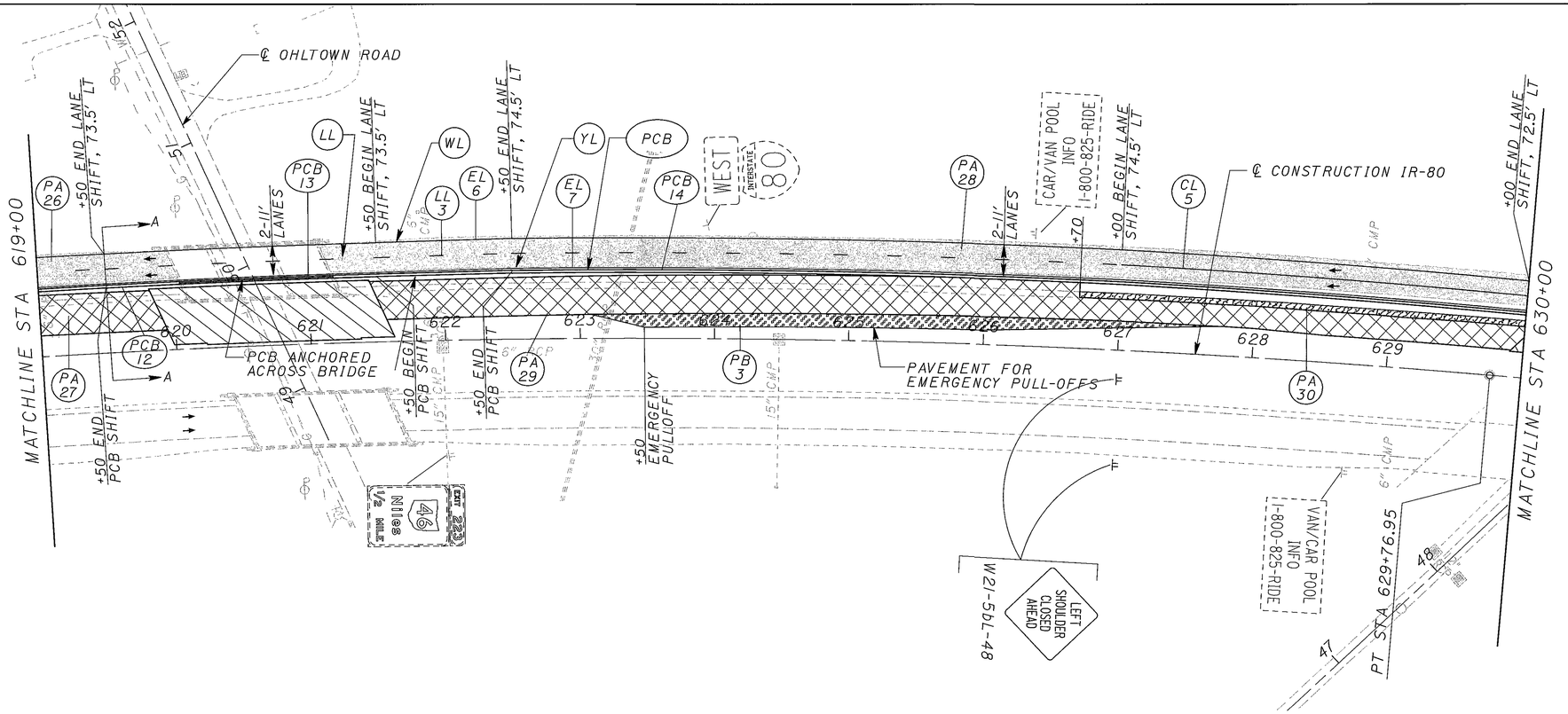


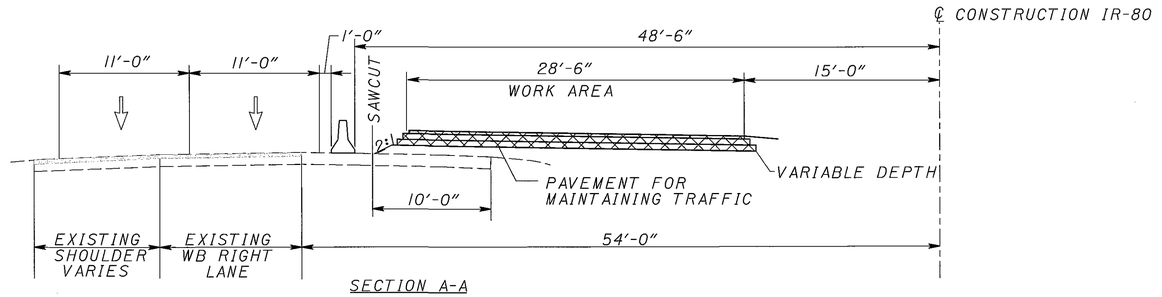
LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN
- 2" PLANING AND ITEM 614 OVERLAY, WORK TO BE DONE IN PHASE A
- 2" PLANING AND ITEM 614 OVERLAY, WORK TO BE DONE IN PHASE B
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- WORK ZONE IMPACT ATTENUATOR
- DRUMS

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82, MT-98.16, MT-100.00, AND MT-102.10.

- (WL) WHITE EDGE LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER
- (CL) CHANNELIZING LINE, 614

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN



SECTION A-A
STA. 619+50
NTS

FOR MOT QUANTITIES, SEE SHEET 81
EMERGENCY PULLOFF DETAILS, SEE SHEET 45

CALCULATED AJP
CHECKED JFM

HORIZONTAL SCALE IN FEET
0 25 50 100

MAINTENANCE OF TRAFFIC STAGE 1 PHASE B

MAH-80-0.97

71
1100

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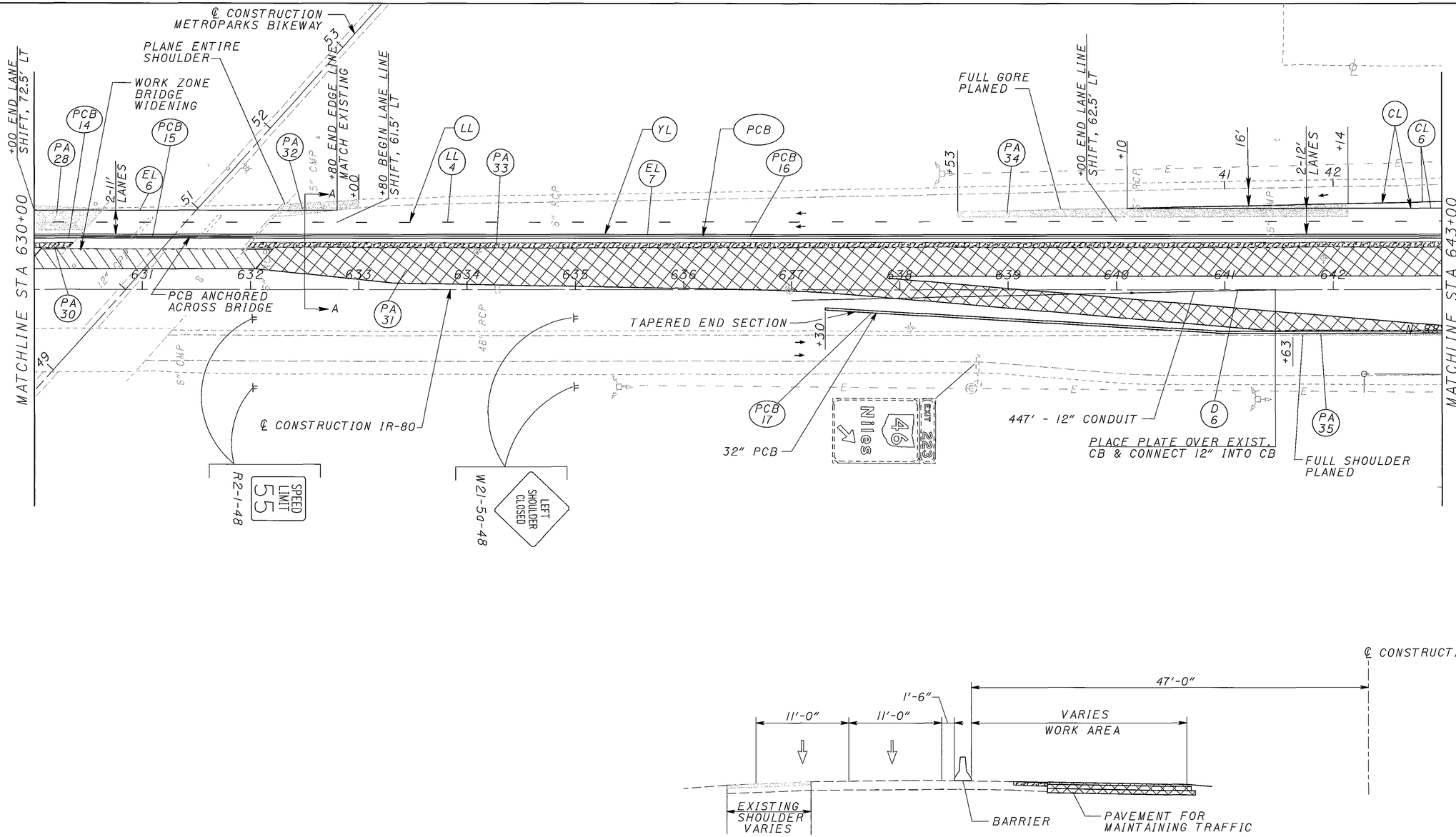

SECTION A-A
STA. 632+50
NTS

LEGEND

- WORK ZONE
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN
- 2" PLANING AND ITEM 614 OVERLAY, WORK TO BE DONE IN PHASE A
- 2" PLANING AND ITEM 614 OVERLAY, WORK TO BE DONE IN PHASE B
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- WORK ZONE IMPACT ATTENUATOR
- • • • DRUMS

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82, MT-98.16, MT-100.00, AND MT-102.10.

- (WL) WHITE EDGE LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER
- (CL) CHANNELIZING LINE, 614

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR MOT QUANTITIES, SEE SHEET 81
FOR MOT DRAINAGE QUANTITIES SEE SHEET 112
FOR CROSSOVER PROFILE, SEE SHEET 54
FOR CROSSOVER GEOMETRICS, SEE SHEET 92
FOR WORK ZONE BRIDGE WIDENING, SEE SHEETS 1044 TO 1054

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AUP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 1 PHASE B

MAH-80-0.97

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1100

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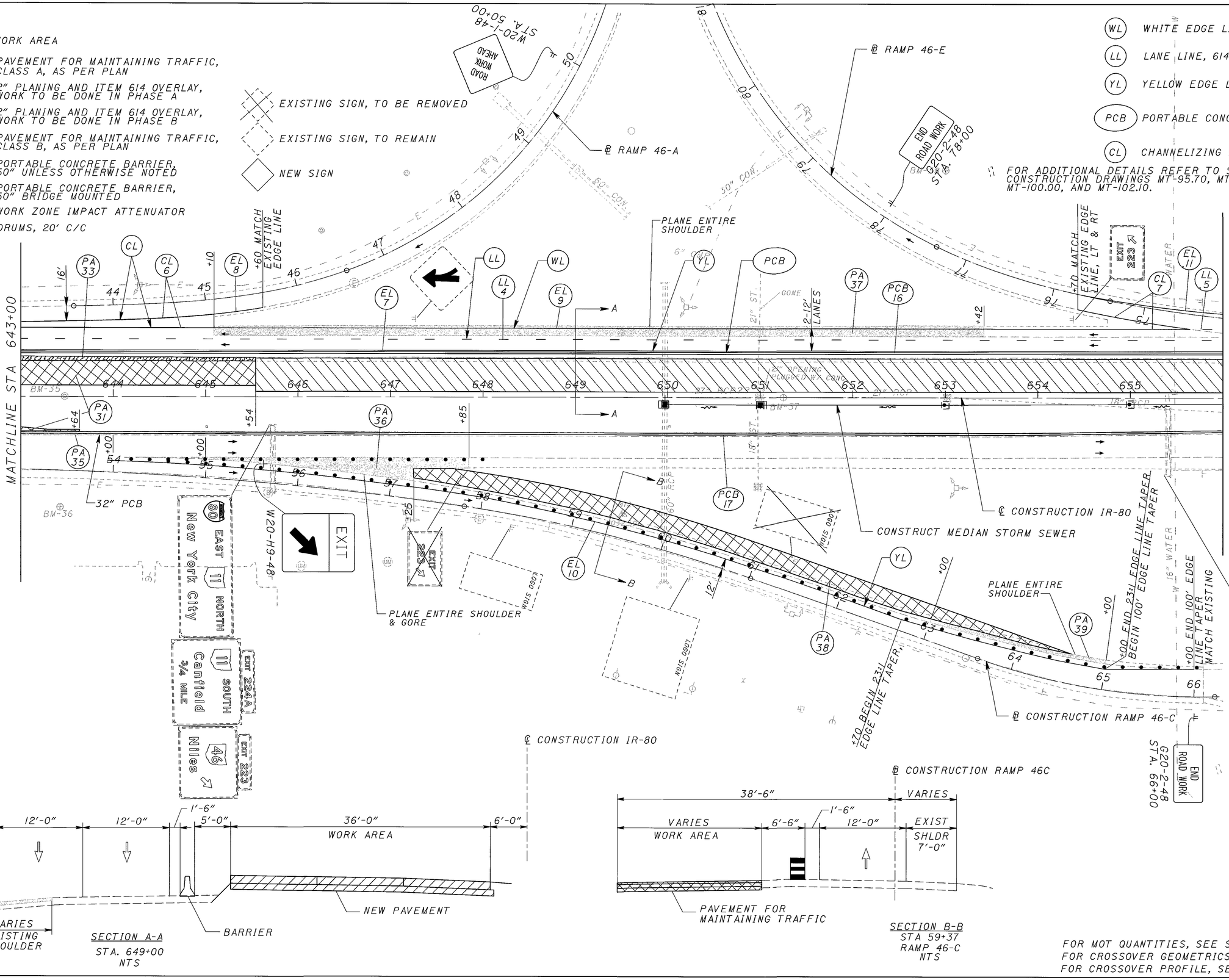
LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN
- 2" PLANING AND ITEM 614 OVERLAY, WORK TO BE DONE IN PHASE A
- 2" PLANING AND ITEM 614 OVERLAY, WORK TO BE DONE IN PHASE B
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- WORK ZONE IMPACT ATTENUATOR
- DRUMS, 20' C/C
- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN
- (WL) WHITE EDGE LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER
- (CL) CHANNELIZING LINE, 614

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82, MT-98.16, MT-100.00, AND MT-102.10.



SECTION A-A
STA. 649+00
NTS

SECTION B-B
STA 59+37
RAMP 46-C
NTS

FOR MOT QUANTITIES, SEE SHEET 81
FOR CROSSOVER GEOMETRICS, SEE SHEET 93
FOR CROSSOVER PROFILE, SEE SHEET 54

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 1 PHASE B

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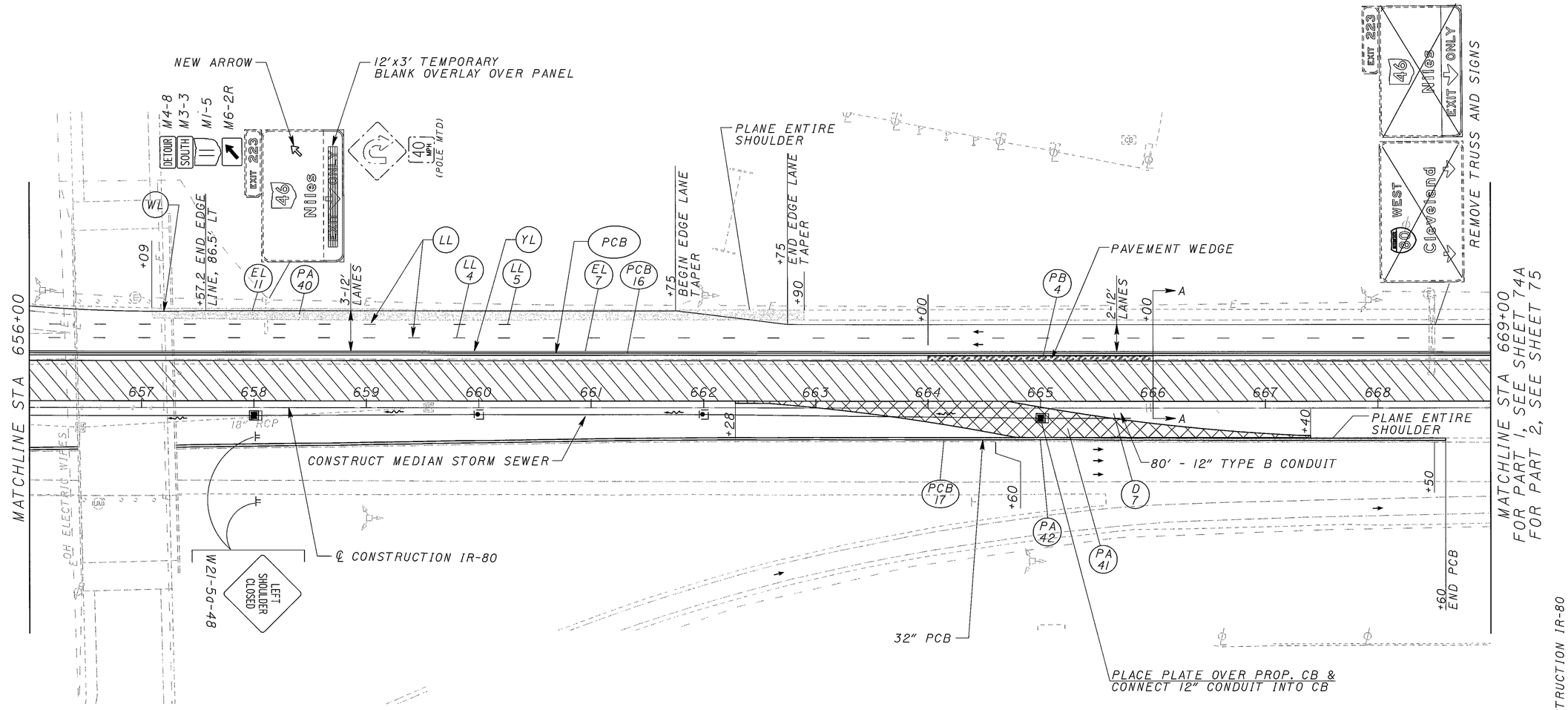

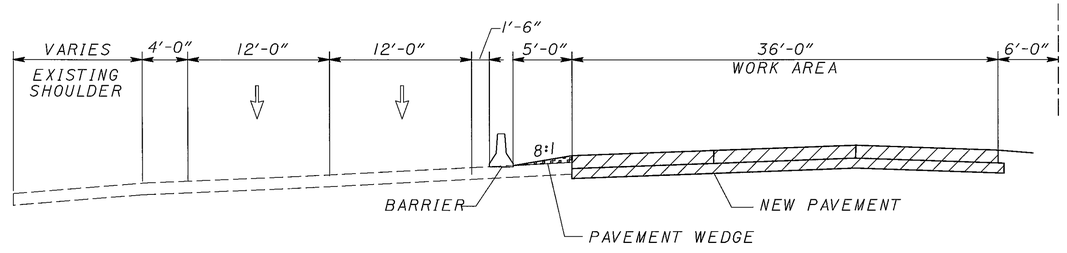

SECTION A-A
STA. 666+00
NTS

LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN
- 2" PLANING AND ITEM 614 OVERLAY, WORK TO BE DONE IN PHASE A
- 2" PLANING AND ITEM 614 OVERLAY, WORK TO BE DONE IN PHASE B
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- WORK ZONE IMPACT ATTENUATOR
- DRUMS

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82, MT-98.16, MT-100.00, AND MT-102.10.

- (WL) WHITE EDGE LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER
- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR MOT QUANTITIES, SEE SHEET 81
FOR MOT DRAINAGE QUANTITIES SEE SHEET 112
FOR CROSSOVER PROFILE AND GEOMETRICS, SEE SHEET 56

N

0 25 50 100 HORIZONTAL SCALE IN FEET

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 1 PHASE B

MAH-80-0.97

74
1100

8/18/2005 3:40:41 PM
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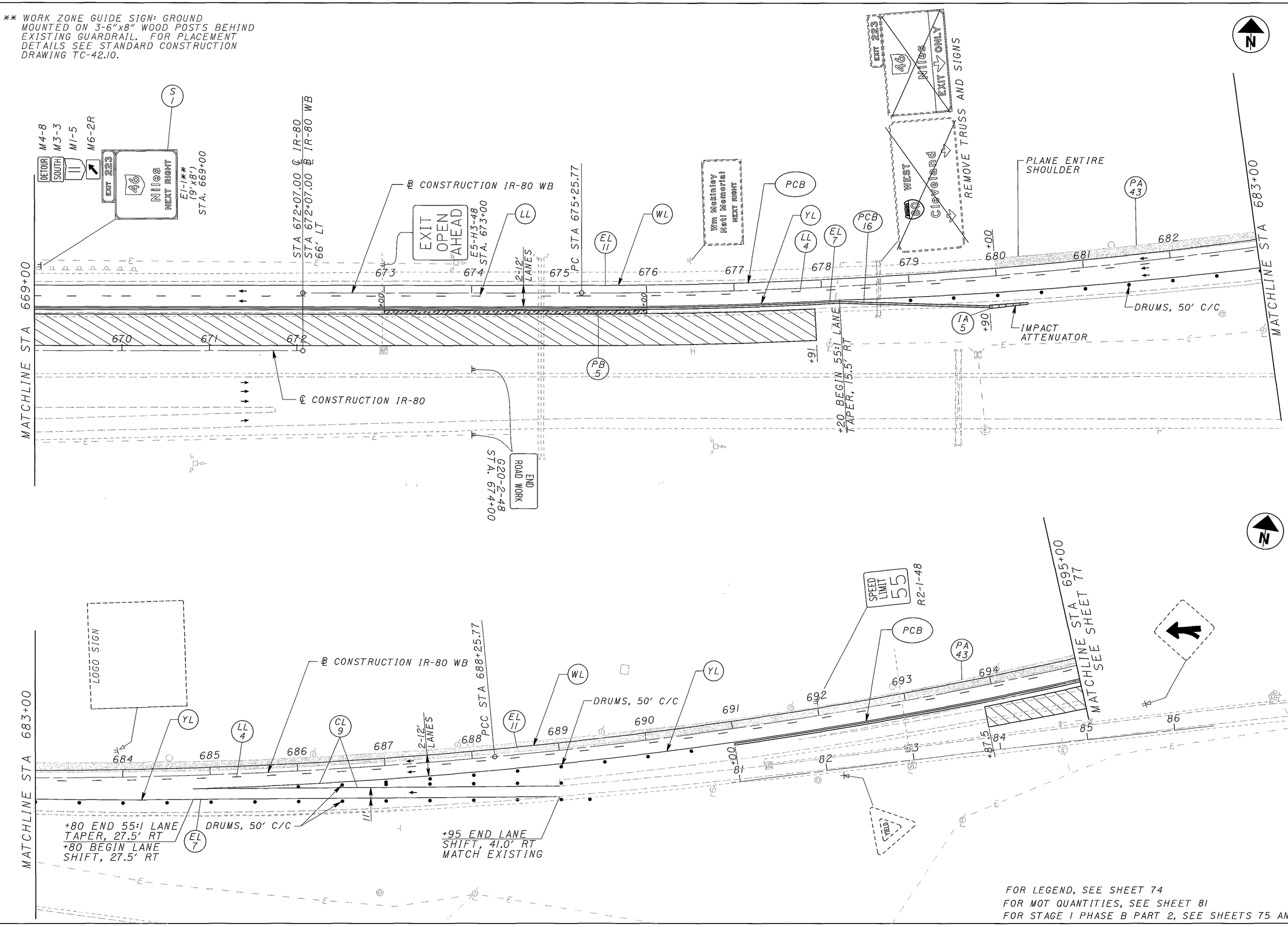
** WORK ZONE GUIDE SIGN: GROUND MOUNTED ON 3-6"x8" WOOD POSTS BEHIND EXISTING GUARDRAIL. FOR PLACEMENT DETAILS SEE STANDARD CONSTRUCTION DRAWING TC-42.10.



FOR LEGEND, SEE SHEET 74
FOR MOT QUANTITIES, SEE SHEET 81
FOR STAGE I PHASE B PART 2, SEE SHEETS 75 AND 76

CALCULATED AJP
CHECKED JFM

0 25 50 100
HORIZONTAL SCALE IN FEET

MAINTENANCE OF TRAFFIC
STAGE 1 PHASE B (PART 1)

MAH-80-0.97

74A
1100

8/18/2005 3:09:28 PM
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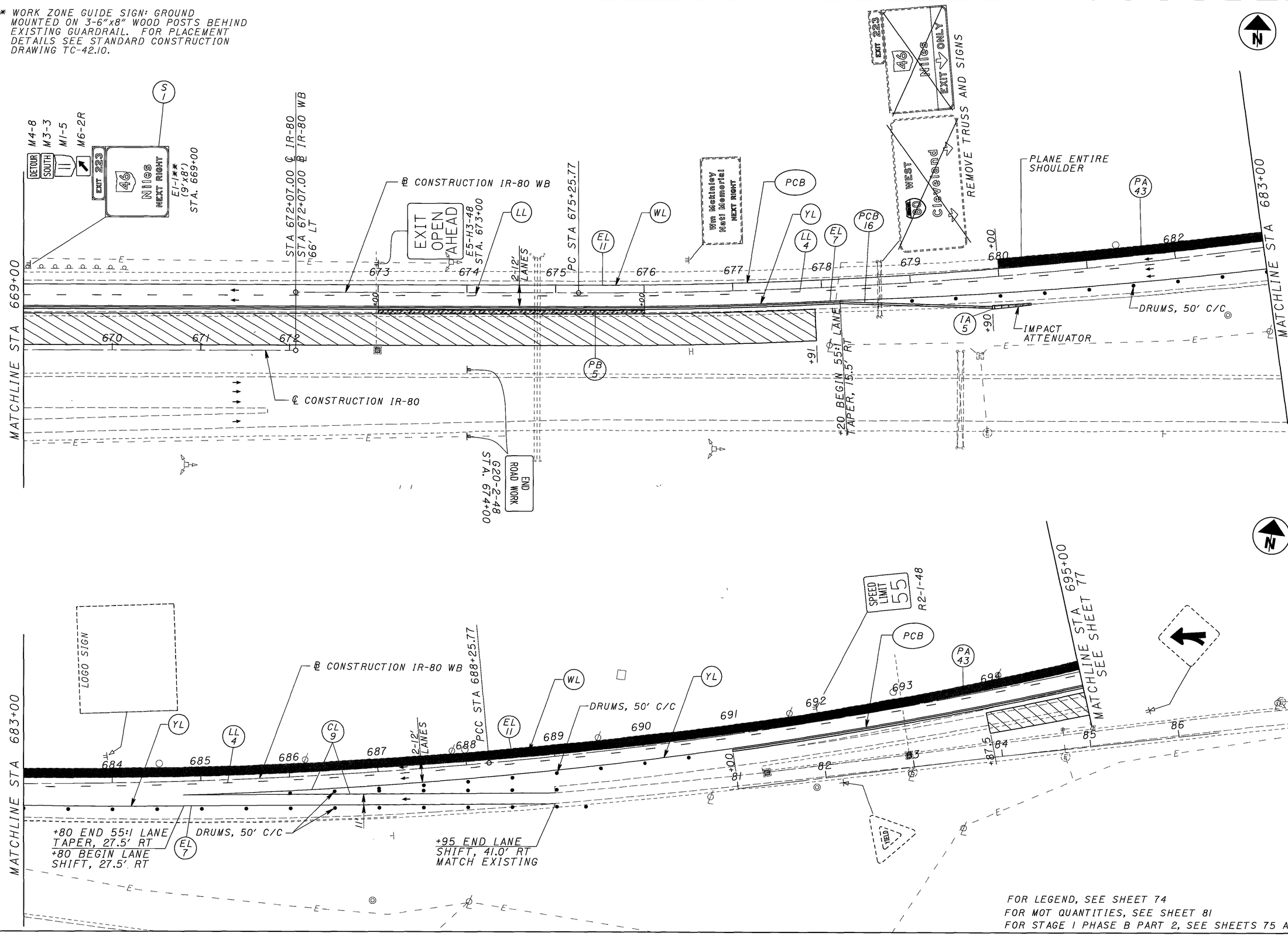
** WORK ZONE GUIDE SIGN: GROUND MOUNTED ON 3-6"x8" WOOD POSTS BEHIND EXISTING GUARDRAIL. FOR PLACEMENT DETAILS SEE STANDARD CONSTRUCTION DRAWING TC-42.10.



FOR LEGEND, SEE SHEET 74
FOR MOT QUANTITIES, SEE SHEET 81
FOR STAGE I PHASE B PART 2, SEE SHEETS 75 AND 76

CALCULATED AJP
CHECKED JFM

HORIZONTAL SCALE IN FEET
0 25 50 100

MAINTENANCE OF TRAFFIC
STAGE 1 PHASE B (PART 1)

MAH-80-0.97

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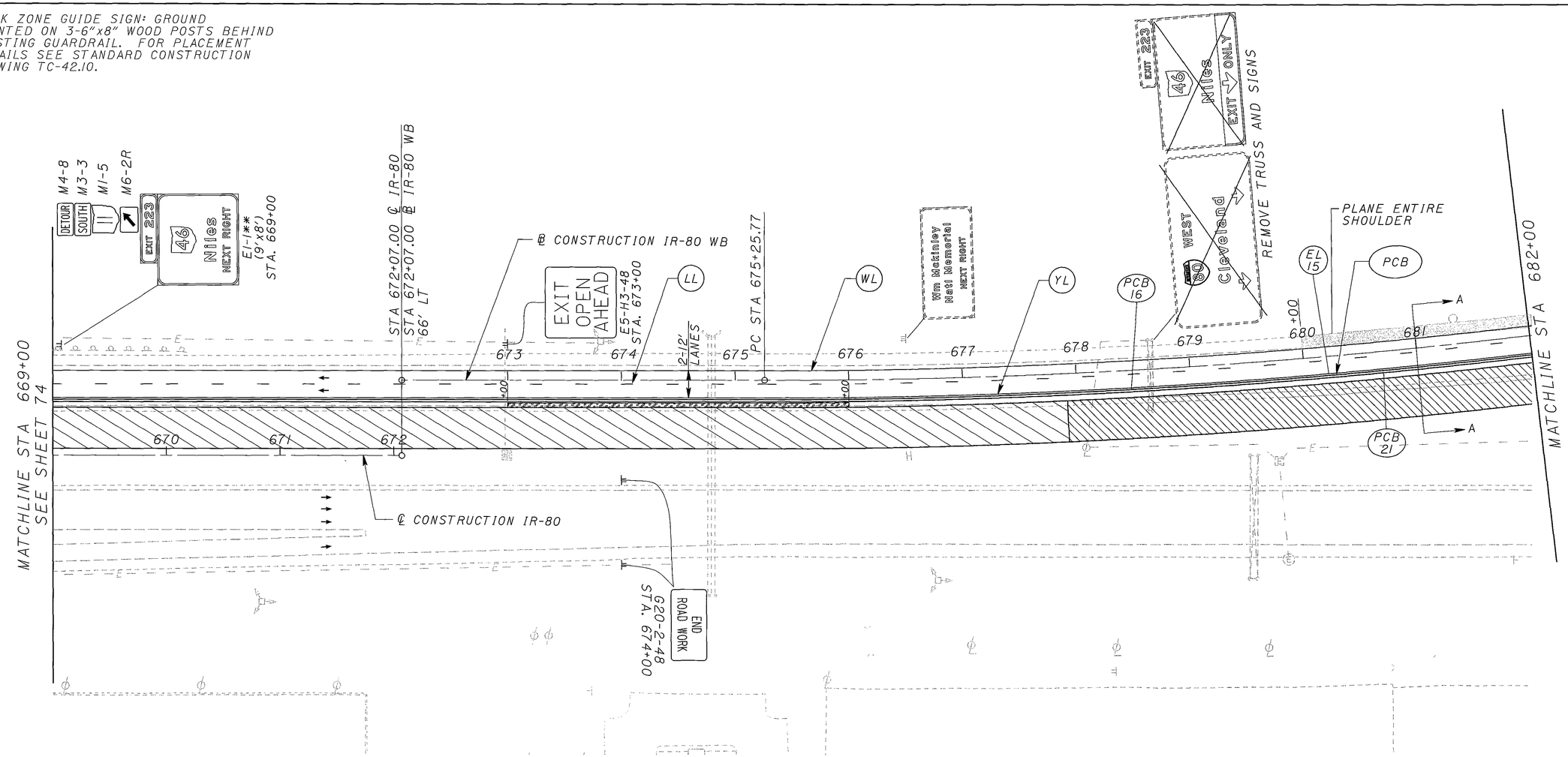
** WORK ZONE GUIDE SIGN: GROUND MOUNTED ON 3-6"x8" WOOD POSTS BEHIND EXISTING GUARDRAIL. FOR PLACEMENT DETAILS SEE STANDARD CONSTRUCTION DRAWING TC-42.10.

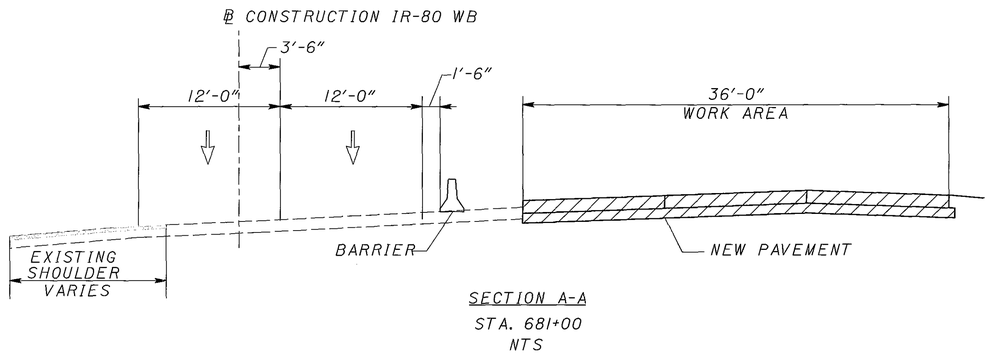


LEGEND

- WORK AREA, PART 1
- WORK AREA, PART 2
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN
- 2" PLANING AND ITEM 614 OVERLAY, WORK TO BE DONE IN PHASE A
- 2" PLANING AND ITEM 614 OVERLAY, WORK TO BE DONE IN PHASE B
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- WORK ZONE IMPACT ATTENUATOR
- DRUMS

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82, MT-98.16, MT-100.00, AND MT-102.10.

- (WL) WHITE EDGE LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER
- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN



SECTION A-A
STA. 681+00
NTS

FOR MOT QUANTITIES, SEE SHEET 81
FOR STAGE 1 PHASE B PART 1, SEE SHEET 74A

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N

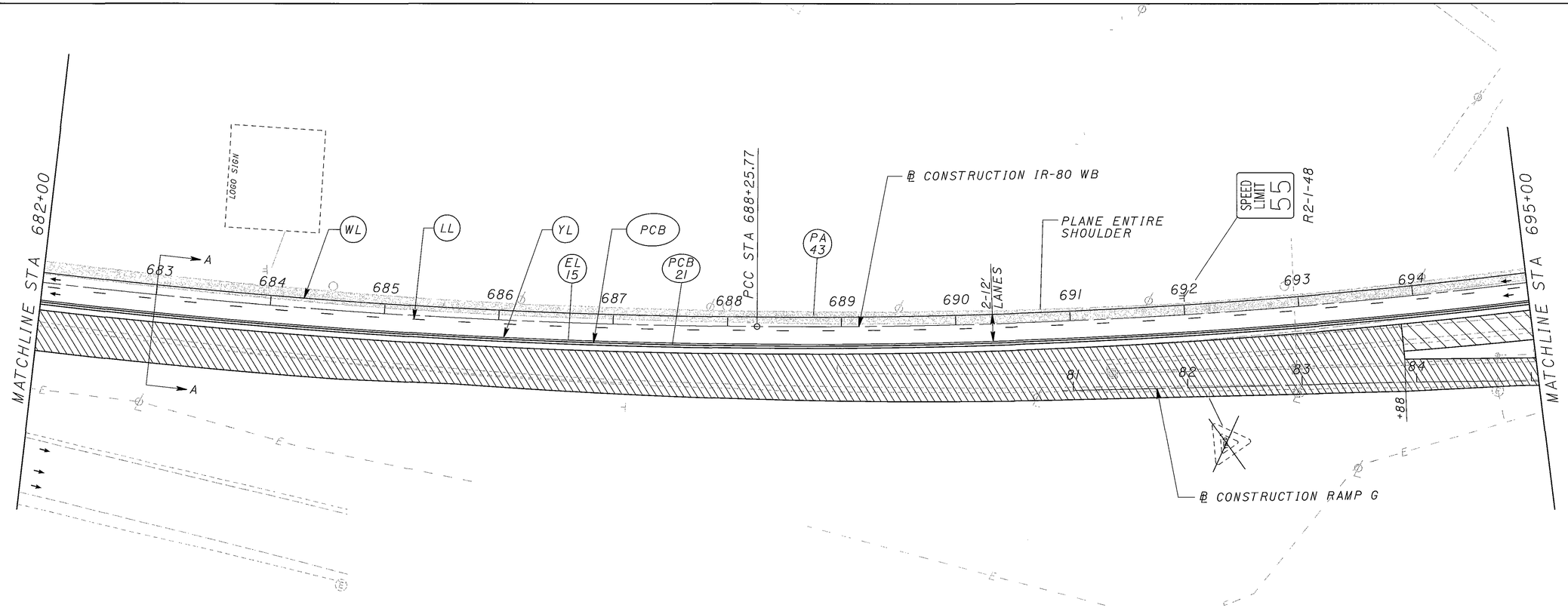
0 25 50 100 HORIZONTAL SCALE IN FEET

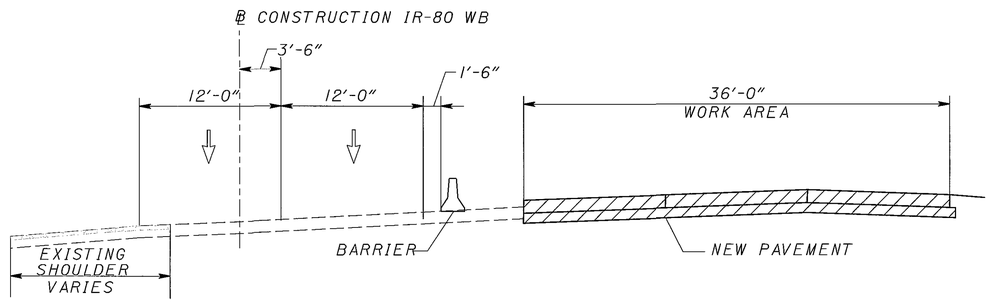
CALCULATED AJP CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 1 PHASE B (PART 2)

MAH-80-0.97

75 / 1100





SECTION A-A
STA. 683+00
NTS

LEGEND

- WORK AREA, PART 1
- WORK AREA, PART 2
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN
- 2" PLANING AND ITEM 614 OVERLAY, WORK TO BE DONE IN PHASE A
- 2" PLANING AND ITEM 614 OVERLAY, WORK TO BE DONE IN PHASE B
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- WORK ZONE IMPACT ATTENUATOR
- DRUMS

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82, MT-98.16, MT-100.00, AND MT-102.10.

- (WL) WHITE EDGE LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER
- (CL) CHANNELIZING LINE, 614

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR MOT QUANTITIES, SEE SHEET 81
FOR STAGE 1 PHASE B PART 1, SEE SHEET 74A

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC
STAGE 1 PHASE B (PART 2)

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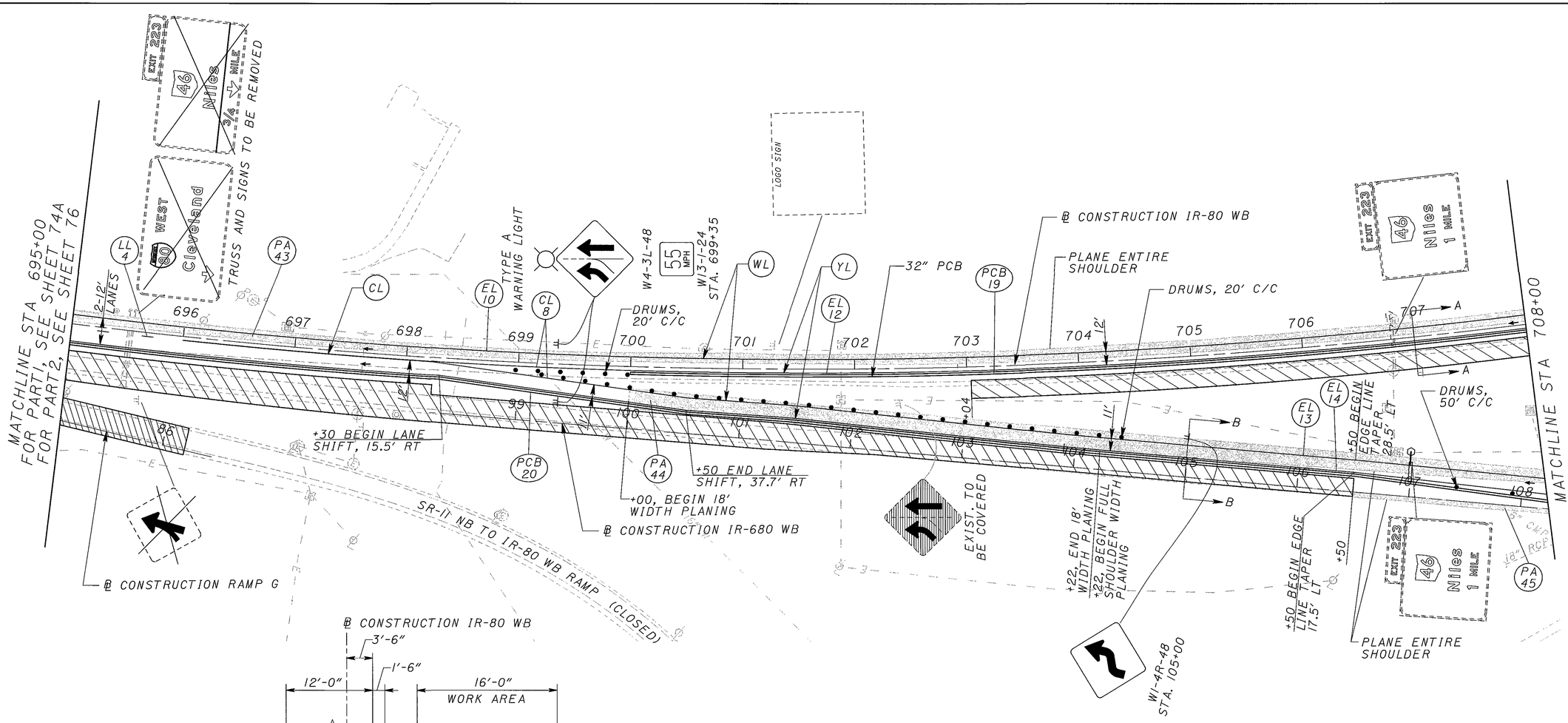

LEGEND

- WORK AREA, PART 1
- WORK AREA, PART 2
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN
- 2" PLANING AND ITEM 614 OVERLAY, WORK TO BE DONE IN PHASE A
- 2" PLANING AND ITEM 614 OVERLAY, WORK TO BE DONE IN PHASE B
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- WORK ZONE IMPACT ATTENUATOR
- DRUMS

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82, MT-98.16, MT-100.00, AND MT-102.10.

- (WL) WHITE EDGE LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER
- (CL) CHANNELIZING LINE, 614

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR MOT QUANTITIES, SEE SHEET 81
FOR STAGE 1 PHASE B PART 1, SEE SHEET 74A

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 1 PHASE B (PART 2)

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LEGEND

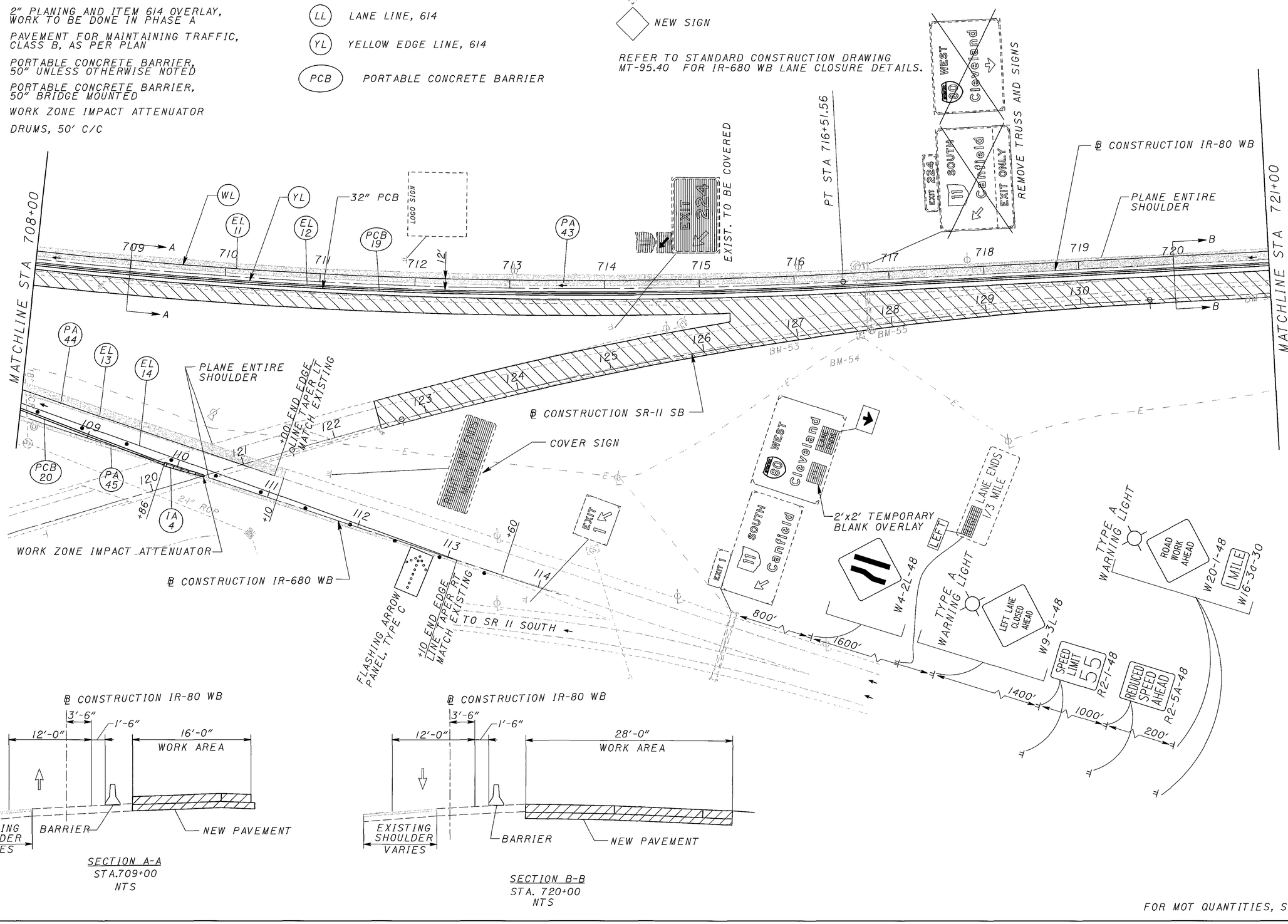
- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN
- 2" PLANING AND ITEM 614 OVERLAY, WORK TO BE DONE IN PHASE A
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- WORK ZONE IMPACT ATTENUATOR
- DRUMS, 50' C/C

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82, MT-98.16, MT-100.00, AND MT-102.10.

- (WL) WHITE EDGE LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

REFER TO STANDARD CONSTRUCTION DRAWING MT-95.40 FOR IR-680 WB LANE CLOSURE DETAILS.



SECTION A-A
STA.709+00
NTS

SECTION B-B
STA. 720+00
NTS

FOR MOT QUANTITIES, SEE SHEET 81

CALCULATED AJP
CHECKED JFM

HORIZONTAL SCALE IN FEET
0 25 50 100

MAINTENANCE OF TRAFFIC
STAGE 1 PHASE B

MAH-80-0.97

78
1100

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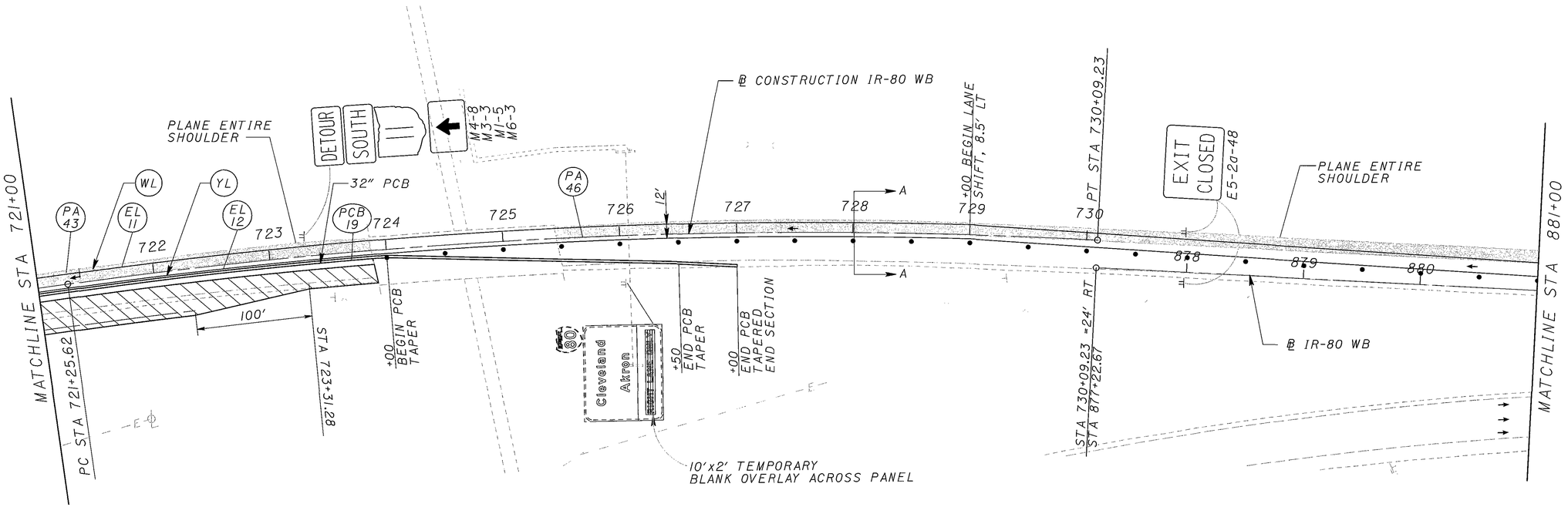

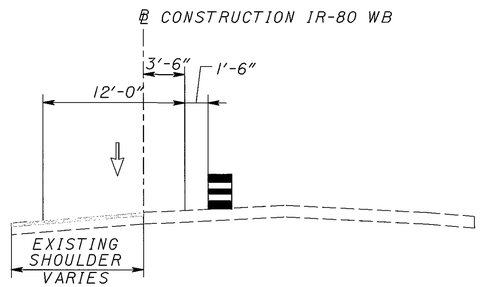

SECTION A-A
STA. 728+00
NTS

LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN
- 2" PLANING AND ITEM 614 OVERLAY, WORK TO BE DONE IN PHASE A
- 2" PLANING AND ITEM 614 OVERLAY, WORK TO BE DONE IN PHASE B
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- WORK ZONE IMPACT ATTENUATOR
- • • • DRUMS, 50' C/C

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82, MT-98.16, MT-100.00, AND MT-102.10.

- (WL) WHITE EDGE LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER
- (CL) CHANNELIZING LINE, 614

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR MOT QUANTITIES, SEE SHEET 81

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 1 PHASE B

MAH-80-0.97

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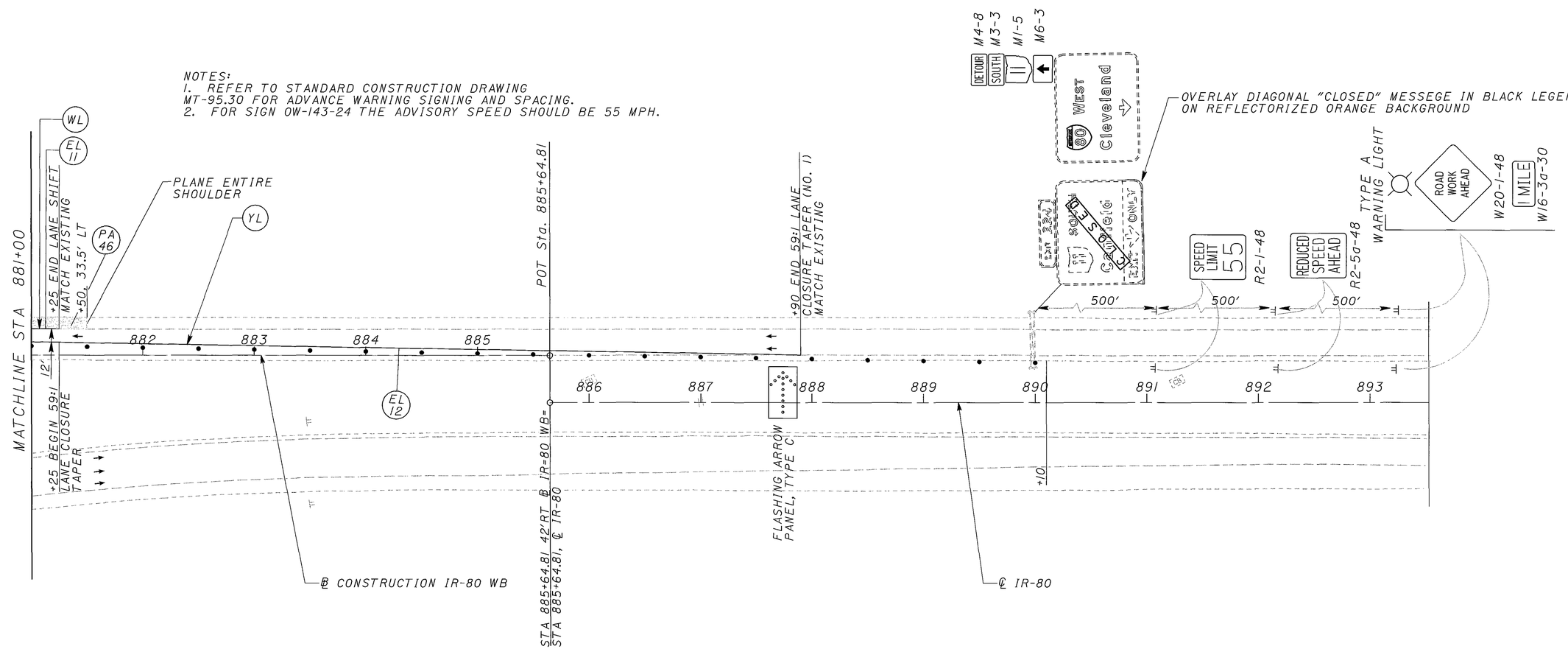
NOTES:
1. REFER TO STANDARD CONSTRUCTION DRAWING MT-95.30 FOR ADVANCE WARNING SIGNING AND SPACING.
2. FOR SIGN OW-1-43-24 THE ADVISORY SPEED SHOULD BE 55 MPH.



LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN
- 2" PLANING AND ITEM 614 OVERLAY, WORK TO BE DONE IN PHASE A
- 2" PLANING AND ITEM 614 OVERLAY, WORK TO BE DONE IN PHASE B
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- WORK ZONE IMPACT ATTENUATOR
- DRUMS, 50' C/C

(WL) WHITE EDGE LINE, 614
(LL) LANE LINE, 614
(YL) YELLOW EDGE LINE, 614
(PCB) PORTABLE CONCRETE BARRIER

EXISTING SIGN, TO BE REMOVED
EXISTING SIGN, TO REMAIN
NEW SIGN

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82, MT-98.16, MT-100.00, AND MT-102.10.

FOR MOT QUANTITIES, SEE SHEET 81

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 1 PHASE B

MAH-80-0.97

80
1100

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LEGEND
(○) QUANTITIES IN COLUMN REVISED
[ ] NEW QUANTITY

REF NO.	SHEET NO.	STATION FROM		STATION TO		SIDE	(254) PAVEMENT PLANING, ASPHALT CONCRETE	(614) 2" ASPHALT CONCRETE FOR MAINTAINING TRAFFIC (PHASE A WORK)	614 2" ASPHALT CONCRETE FOR MAINTAINING TRAFFIC (PHASE B WORK)	614 WORK ZONE IMPACT ATTENUATOR	614 BARRIER REFLECTOR, TYPE B	614 OBJECT MARKER, ONE WAY	614 MAINTAINING TRAFFIC, MISC.: EMERGENCY PULLOFFS	614 WORK ZONE LANE LINE, CLASS 1, 740.06, TYPE 1	614 WORK ZONE EDGE LINE, CLASS 1, 740.06, TYPE 1 (Yellow)	614 WORK ZONE EDGE LINE, CLASS 1, 740.06, TYPE 1 (White)	614 WORK ZONE CHANNELIZING LINE, CLASS 1, 740.06, TYPE 1		(615) PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN	615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B	622 PORTABLE CONCRETE BARRIER, 32"	622 PORTABLE CONCRETE BARRIER, 50", AS PER PLAN	622 PORTABLE CONCRETE BARRIER, 50', BRIDGE MOUNTED, AS PER PLAN	630 SIGN, FLAT SHEET	
							SQ YD	CU YD	CU YD	EACH	EACH	EACH	EACH	MILE	MILE	MILE	FT		SQ YD	SQ YD	FT	FT	FT	SQ FT	
CL5	71	CL	627+00	CL	630+00	LT											300								
CL6	72-73	CL	640+10	CL	645+10	LT											1000								
CL7	73	CL	654+50	CL	655+50	LT											200								
CL8	77	WB	696+00	WB	700+00	RT											570								
CL9	74A	CL	670+80	CL	689+00	RT											840								
EL6	71-72	CL	619+00	CL	632+80	LT										0.262									
EL7	71-74A	CL	619+00	CL	688+95	LT/RT									1.325										
EL8	73	CL	645+10	CL	645+60	LT									0.01										
EL9	73	CL	645+10	CL	654+50	LT										0.179									
EL10	73	46C	54+00	46C	66+00	RT									0.228										
EL11	73-80		75+70	WB	881+25	LT										1.515									
EL12	77-80	WB	700+00	WB	887+90	LT/RT									0.775										
EL13	77-78	680	100+00	680	111+00	RT										0.209									
EL14	74A-78	CL	689+00	680	113+10	RT									0.458										
EL15	75-76	CL	678+20	CL	689+00	RT									0.205										
IA4	78	680	109+86			RT				1															
IA5	74A	CL	679+90			RT				1															
LL3	71	CL	619+00	CL	627+00	LT								0.152											
LL4	72-77	CL	630+00	CL	696+00	LT/RT								1.25											
PA26	71	CL	619+00	CL	619+97	LT	245.4	13.7																	
PA27	71	CL	619+00	CL	619+85	LT													294.6						
PA28	71-72	CL	621+09	CL	630+60	LT	2415.8	134.3																	
PA29	71	CL	621+50	CL	629+99	LT													2278.8						
PA30	71-72	CL	626+70	CL	630+34	LT	174.7		9.8																
PA31	72-73	CL	632+12	CL	645+54	LT/RT													5385.2						
PA32	72	CL	632+27	CL	633+00	LT	75.2	4.2																	
PA33	72-73	CL	632+00	CL	645+54	LT	663.4		36.9																
PA34	72	CL	638+53	CL	642+14	LT	352.8	19.6																	
PA35	72-73	CL	641+63	CL	644+00	RT	111.1	6.2																	
PA36	73	CL	645+00	CL	647+85	RT	379.9	21.2																	
PA37	73	CL	645+10	CL	653+42	LT	988.7	55																	
PA38	73	CL	647+25	46C	64+57	RT	~~1346.9~~	~~74.9~~											1346.9						
PA39	73	46C	63+00	46C	65+00	RT	95.9	5.4																	
PA40	74	CL	657+09	CL	662+90	LT	596.3	33.2																	
PA41	74	CL	662+77	CL	667+40	LT/RT													748.4						
PA42	74	CL	664+60	CL	668+50	RT	171.1	9.6																	
PA43	74A-79	WB	680+00	WB	723+86	LT/CL	5066.3	281.5																	
PA44	77-78	680	100+00	680	111+10	LT	1878.7	104.4																	
PA45	77-78	680	106+50	680	113+60	RT	294.8	16.4																	
PA46	79-80	WB	725+45	WB	881+50	LT/CL	1058.6	58.9																	
PB3	71	CL	623+00	CL	628+16	LT							1												
PB4	74	CL	664+00	CL	666+00	LT														111.2					
PB5	74A	WB	673+00	WB	676+00	RT														133.4					
PCB12	71	CL	619+00	CL	620+10	LT					11											110			
PCB13	71	CL	620+10	CL	621+20	LT					7												110		
PCB14	71-72	CL	621+20	CL	630+40	LT					76											920			
PCB15	72	CL	630+40	CL	632+00	LT					9												160		
PCB16	72-74A	CL	632+00	CL	679+90	LT/RT					386											4790			
PCB17	72-74	CL	637+30	CL	668+60	RT					64	1									3130				
PCB19	77-79	WB	700+00	WB	727+00	RT					55	1									2700				
PCB20	74A-78	CL	691+00	680	109+86	RT					154											1900			
PCB21	75-76	CL	678+20	CL	691+00	RT					105											1280			
S1	74A	CL	669+00			LT																		72	
SUBTOTAL							14568.7	763.6	46.7	2	867	2	1	1.402	3.001	2.165	2910		10053.9	244.6	5830	9000	270	72	
TOTALS CARRIED TO SUBSUMMARY ON SHEET 59							14569	764	47	2	867	2	1	1.41	3.01	2.17	2910		10054	245	5830	9000	270	72	

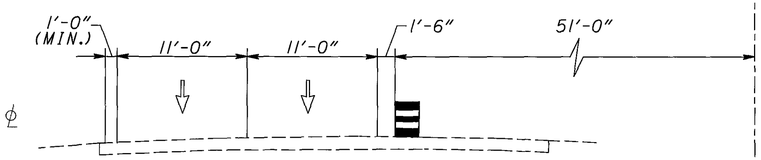
MAINTENANCE OF TRAFFIC QUANTITIES
STAGE 1 - STA. 619.00 TO END OF PROJECT

CALCULATED EFD
CHECKED JFM

MAH-80-0.97

NOTE:
1. STAGE I PHASE B TRAFFIC PATTERN SHALL BE USED TO MAINTAIN WESTBOUND IR-80 TRAFFIC BETWEEN STA 465+50 AND 671+00. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES, SEE PLAN SHEETS 60 TO 75.

℄ CONSTRUCTION IR-80



SECTION A-A
STA.473+00
NTS

* SIGNS PLACED IN STAGE I TO REMAIN

LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS, 50' C/C

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED

- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 2 PHASE A & B

MAH-80-0.97

82
1100

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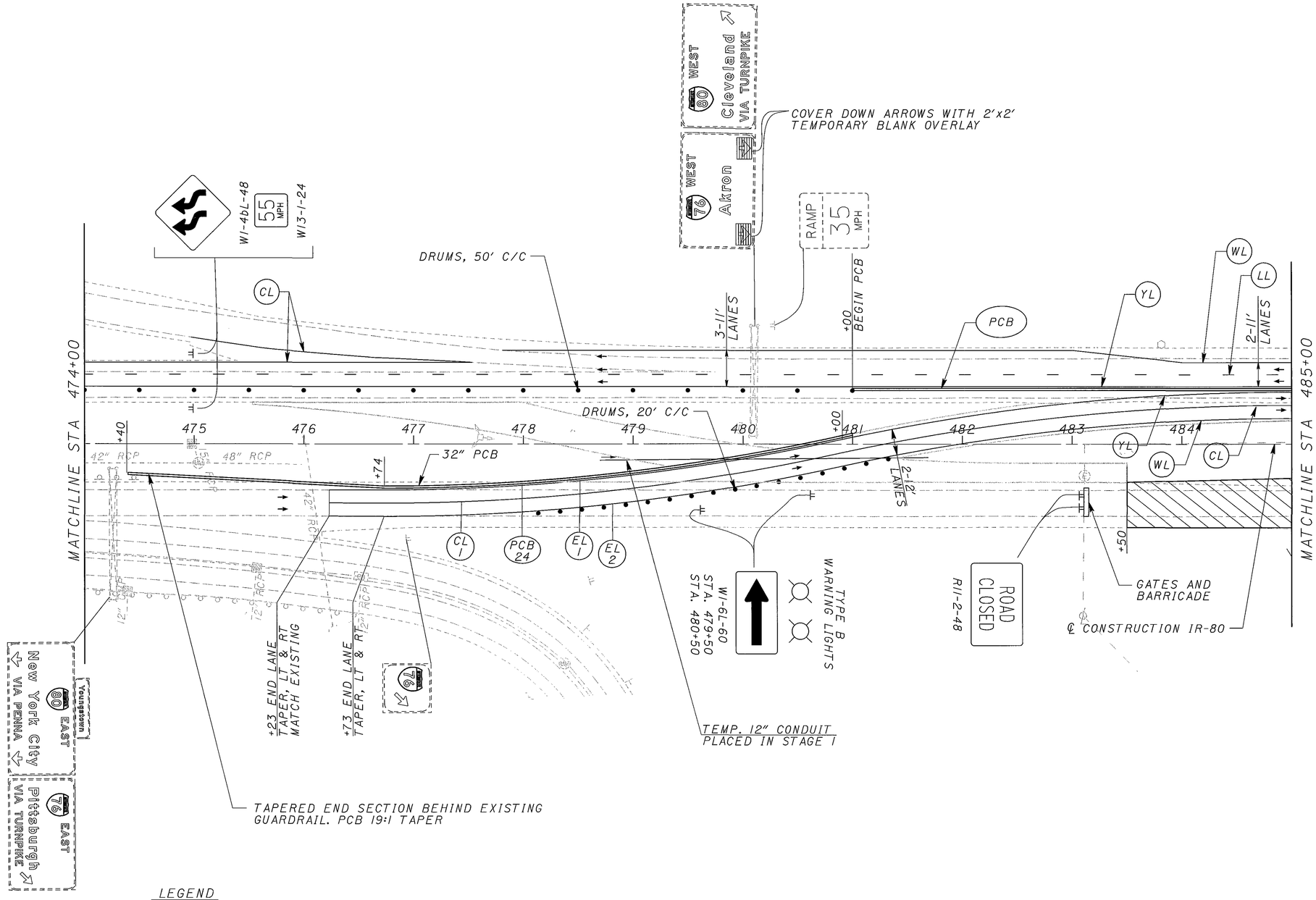

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- (WL) WHITE EDGE LINE, 6I4
- (CL) CHANNELIZING LINE, 6I4
- (LL) LANE LINE, 6I4
- (YL) YELLOW EDGE LINE, 6I4
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

NOTE:
1. STAGE 1 PHASE B TRAFFIC PATTERN SHALL BE USED TO MAINTAIN WESTBOUND IR-80 TRAFFIC BETWEEN STA 465+50 AND 671+00. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES, SEE PLAN SHEETS 60 TO 75.

FOR MOT QUANTITIES, SEE SHEET 94

FOR CROSSOVER PROFILE AND GEOMETRICS, SEE SHEET 49

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 2 PHASE A

MAH-80-0.97

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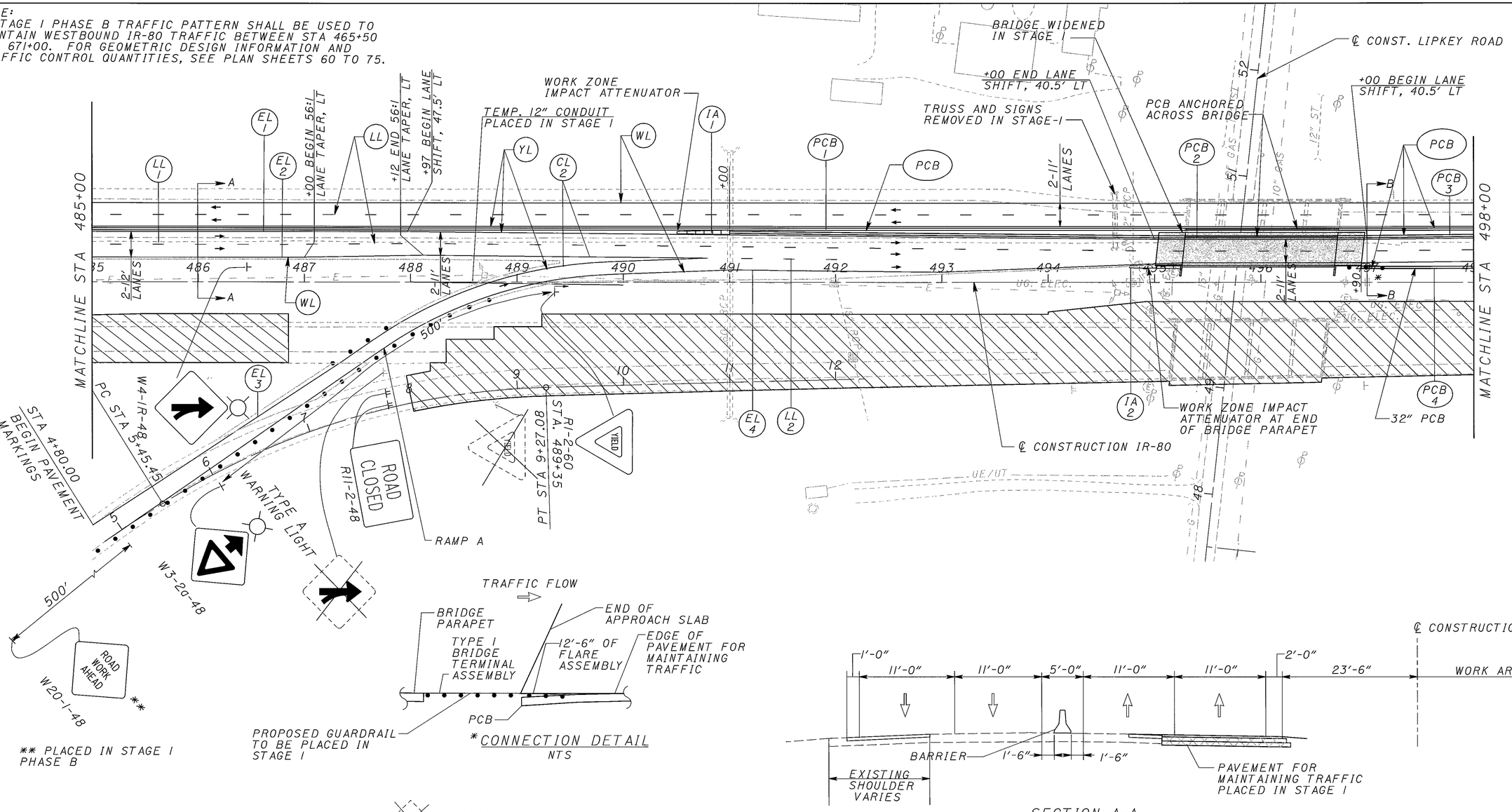
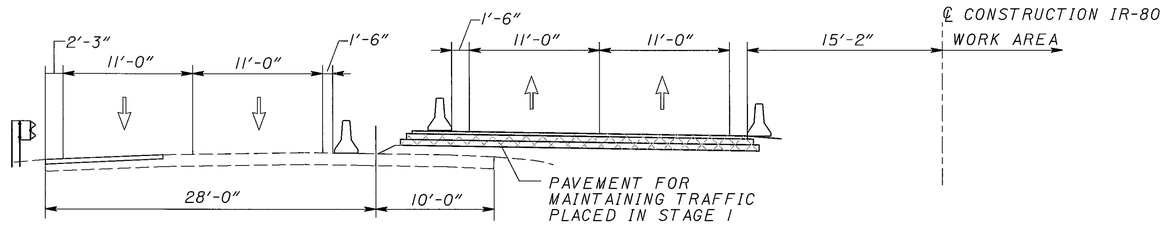
NOTE:
1. STAGE 1 PHASE B TRAFFIC PATTERN SHALL BE USED TO MAINTAIN WESTBOUND IR-80 TRAFFIC BETWEEN STA 465+50 AND 671+00. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES, SEE PLAN SHEETS 60 TO 75.



** PLACED IN STAGE 1 PHASE B

*CONNECTION DETAIL
NTS

SECTION A-A
STA. 486+00
NTS



SECTION B-B
STA. 497+00
NTS

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS, 20' C/C
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.82, MT-98.18, MT-100.00.

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

- (WL) WHITE EDGE LINE, 6I4
- (CL) CHANNELIZING LINE, 6I4
- (LL) LANE LINE, 6I4
- (YL) YELLOW EDGE LINE, 6I4
- (PCB) PORTABLE CONCRETE BARRIER

FOR MOT QUANTITIES, SEE SHEET 94
FOR CROSSOVER PROFILE AND GEOMETRICS, SEE SHEET 51

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 2 PHASE A

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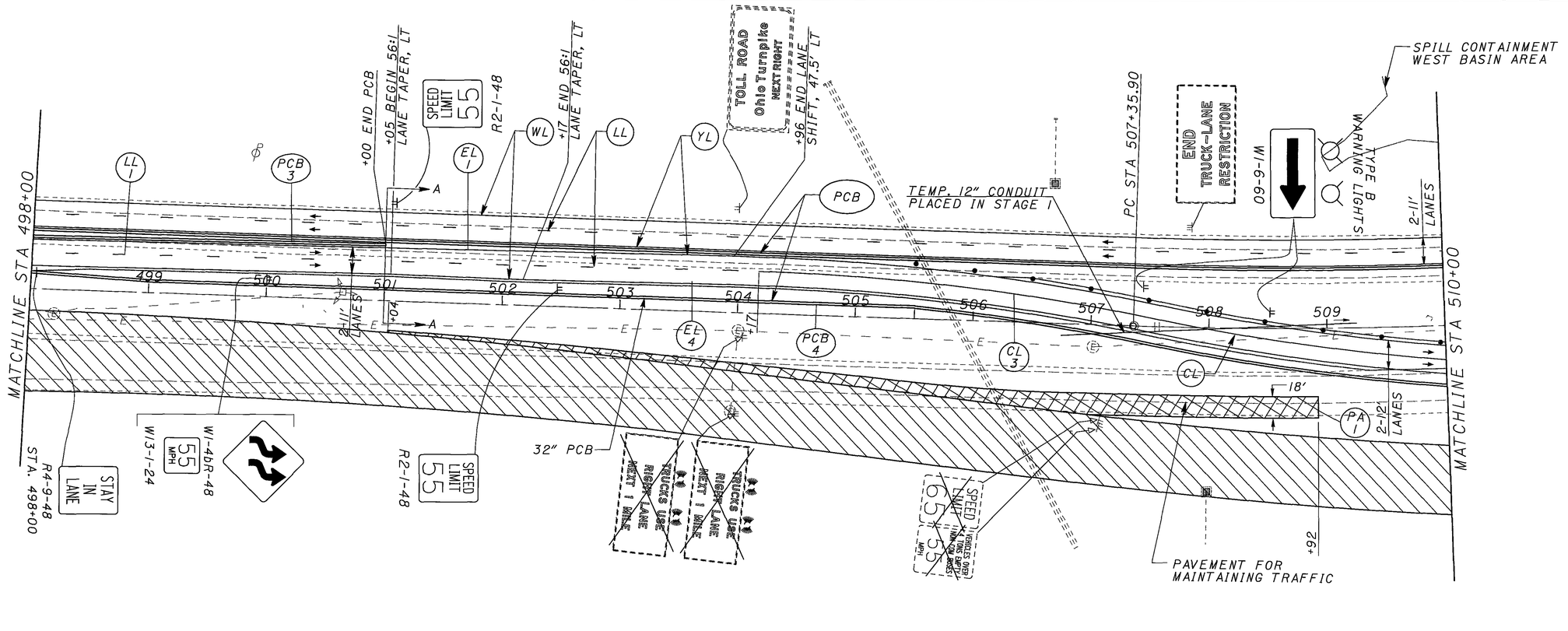

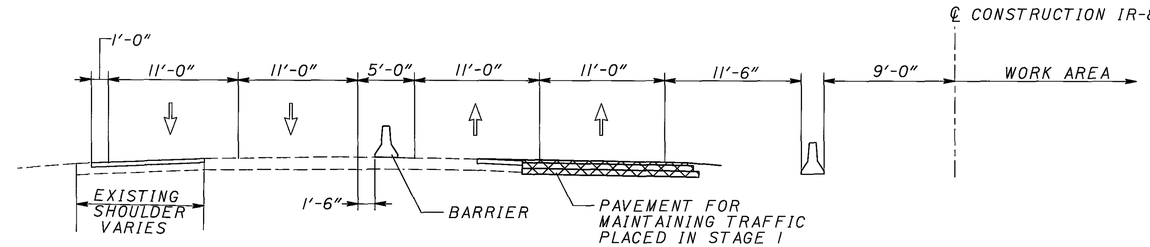

SECTION A-A
STA. 501+00

LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS, 50' C/C

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- (WL) WHITE EDGE LINE, 6I4
- (CL) CHANNELIZING LINE, 6I4
- (LL) LANE LINE, 6I4
- (YL) YELLOW EDGE LINE, 6I4
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

NOTE:
1. STAGE 1 PHASE B TRAFFIC PATTERN SHALL BE USED TO MAINTAIN WESTBOUND IR-80 TRAFFIC BETWEEN STA 465+50 AND 671+00. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES, SEE PLAN SHEETS 60 TO 75.

FOR MOT QUANTITIES, SEE SHEET 94
FOR CROSSOVER PROFILE AND GEOMETRICS, SEE SHEET 52

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 2 PHASE A

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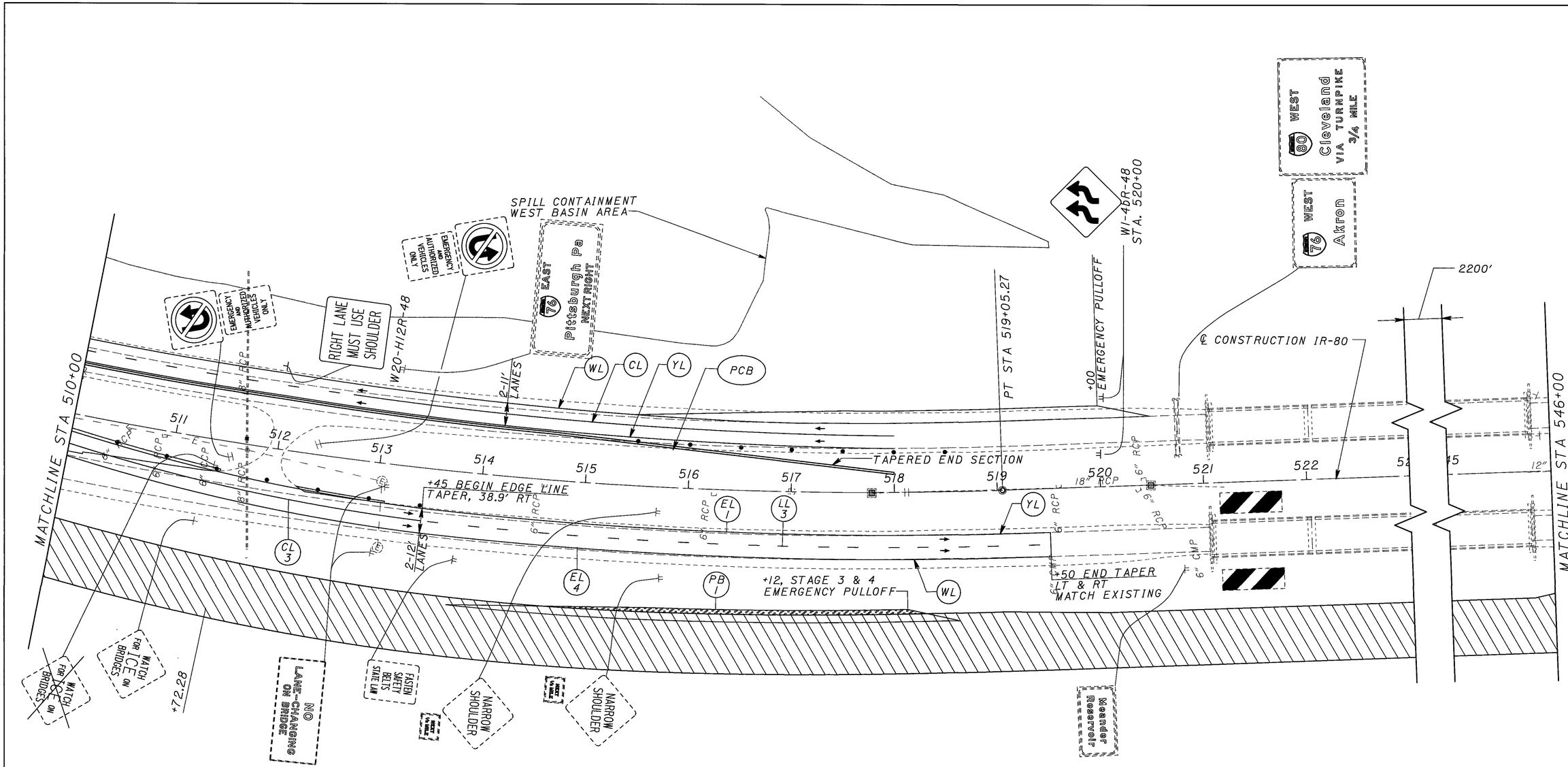

LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS, 50' C/C

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- (WL) WHITE EDGE LINE, 6I4
- (CL) CHANNELIZING LINE, 6I4
- (LL) LANE LINE, 6I4
- (YL) YELLOW EDGE LINE, 6I4
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

NOTE:
1. STAGE 1 PHASE B TRAFFIC PATTERN SHALL BE USED TO MAINTAIN WESTBOUND IR-80 TRAFFIC BETWEEN STA 465+50 AND 671+00. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES, SEE PLAN SHEETS 60 TO 75.

EMERGENCY PULLOFF DETAILS, SEE SHEET 45

FOR MOT QUANTITIES, SEE SHEET 94

FOR CROSSOVER PROFILE AND GEOMETRICS, SEE SHEET 52

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 2 PHASE A

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86
1100

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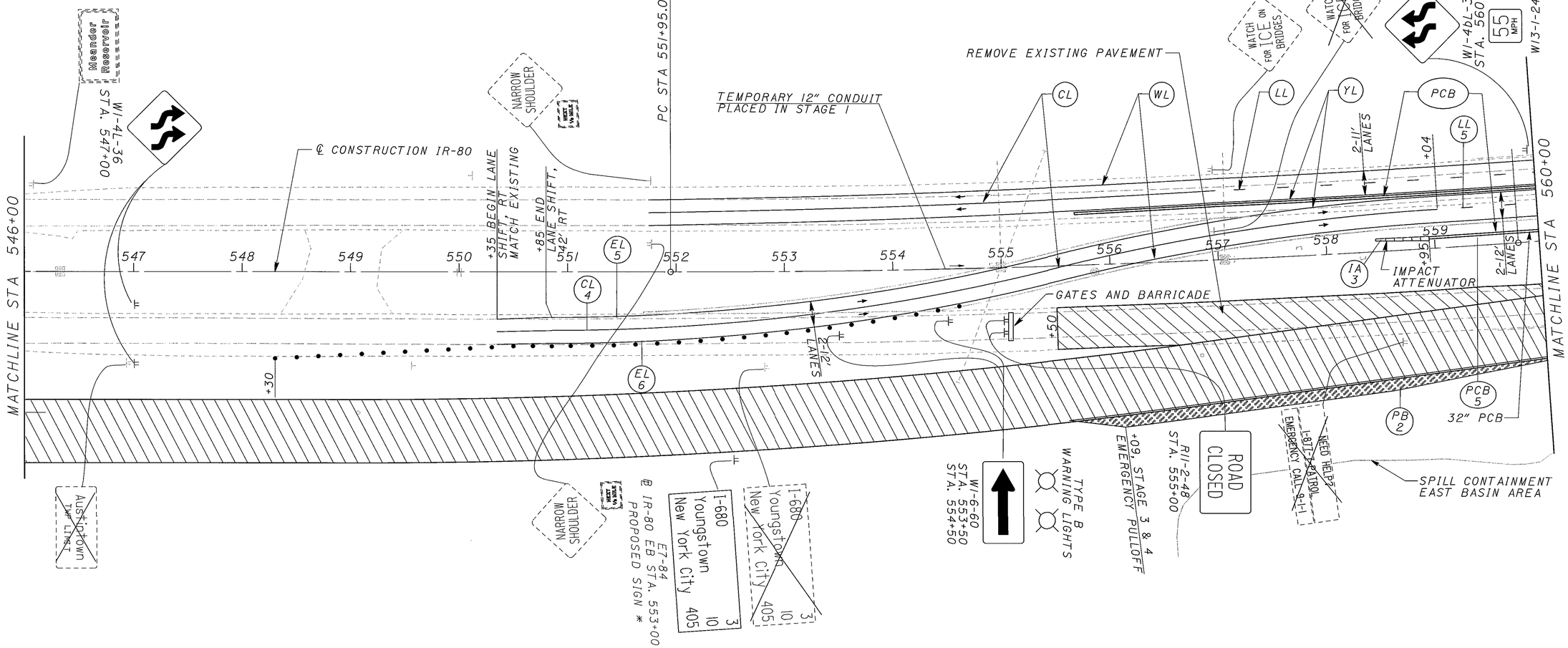

* PROPOSED SIGN AND SUPPORT TO BE ERECTED THIS PHASE. SEE TRAFFIC CONTROL PLANS FOR DETAILS.

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- PAVEMENT FOR MAINTAINING TRAFFIC CLASS B, AS PER PLAN
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS, 20' C/C

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

NOTE:
1. STAGE 1 PHASE B TRAFFIC PATTERN SHALL BE USED TO MAINTAIN WESTBOUND IR-80 TRAFFIC BETWEEN STA 465+50 AND 671+00. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES, SEE PLAN SHEETS 60 TO 75.

EMERGENCY PULLOFF DETAILS, SEE SHEET 45

FOR MOT QUANTITIES, SEE SHEET 94

FOR CROSSOVER PROFILE AND GEOMETRICS, SEE SHEET 53

MAINTENANCE OF TRAFFIC STAGE 2 PHASE A

CALCULATED AJP
CHECKED JFM

HORIZONTAL SCALE IN FEET
0 25 50 100

MAH-80-0.97

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1100

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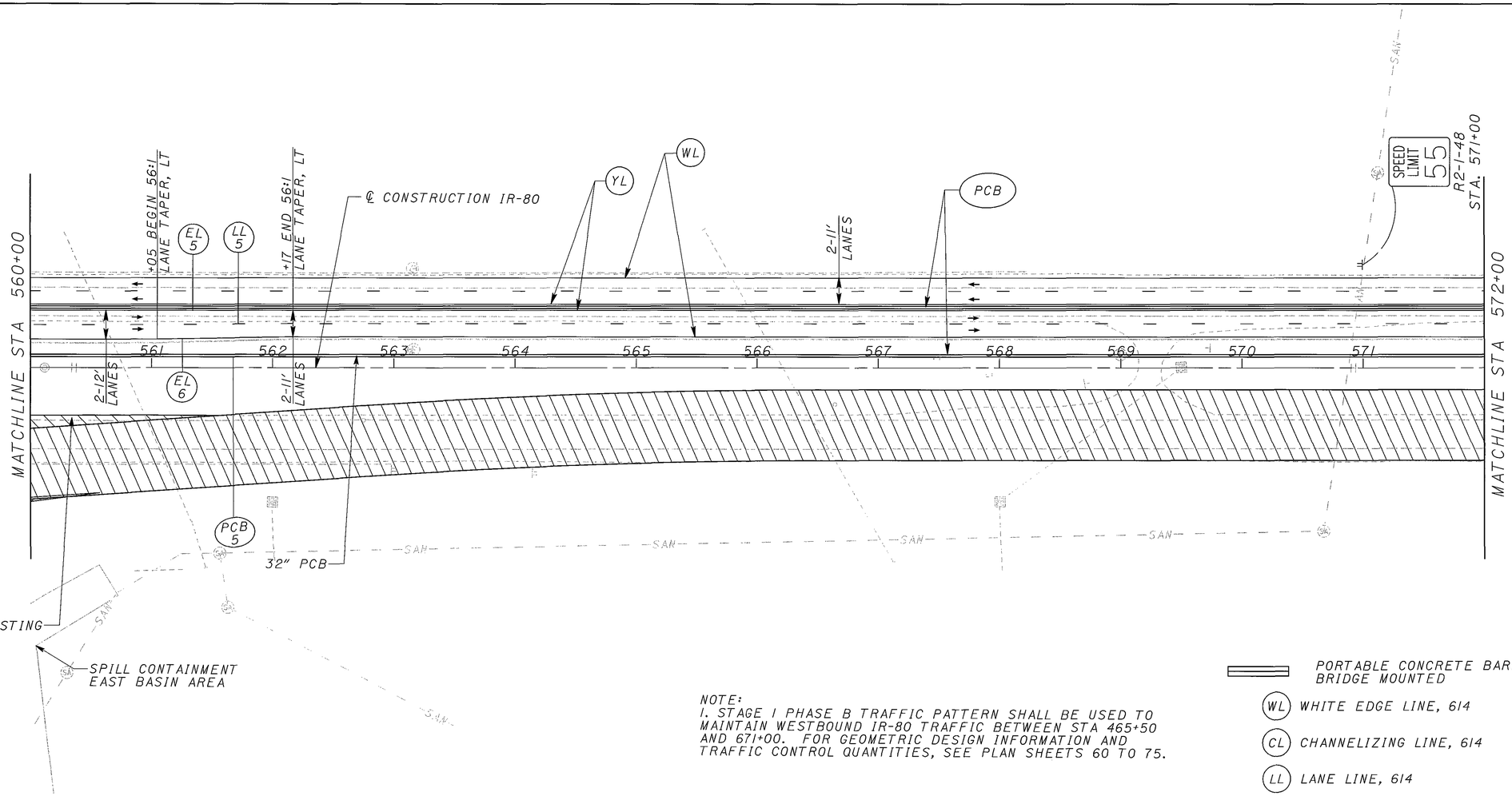

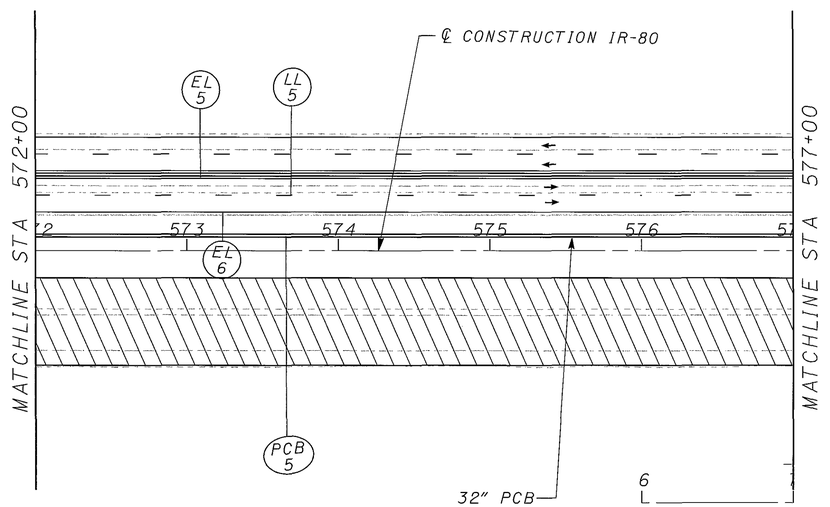

NOTE:
1. STAGE 1 PHASE B TRAFFIC PATTERN SHALL BE USED TO MAINTAIN WESTBOUND IR-80 TRAFFIC BETWEEN STA 465+50 AND 671+00. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES, SEE PLAN SHEETS 60 TO 75.

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- PAVEMENT FOR MAINTAINING TRAFFIC CLASS B, AS PER PLAN
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- • • DRUMS, 20' C/C

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- (WL) WHITE EDGE LINE, 6I4
- (CL) CHANNELIZING LINE, 6I4
- (LL) LANE LINE, 6I4
- (YL) YELLOW EDGE LINE, 6I4
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR MOT QUANTITIES, SEE SHEET 94

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 2 PHASE A

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87A
1100

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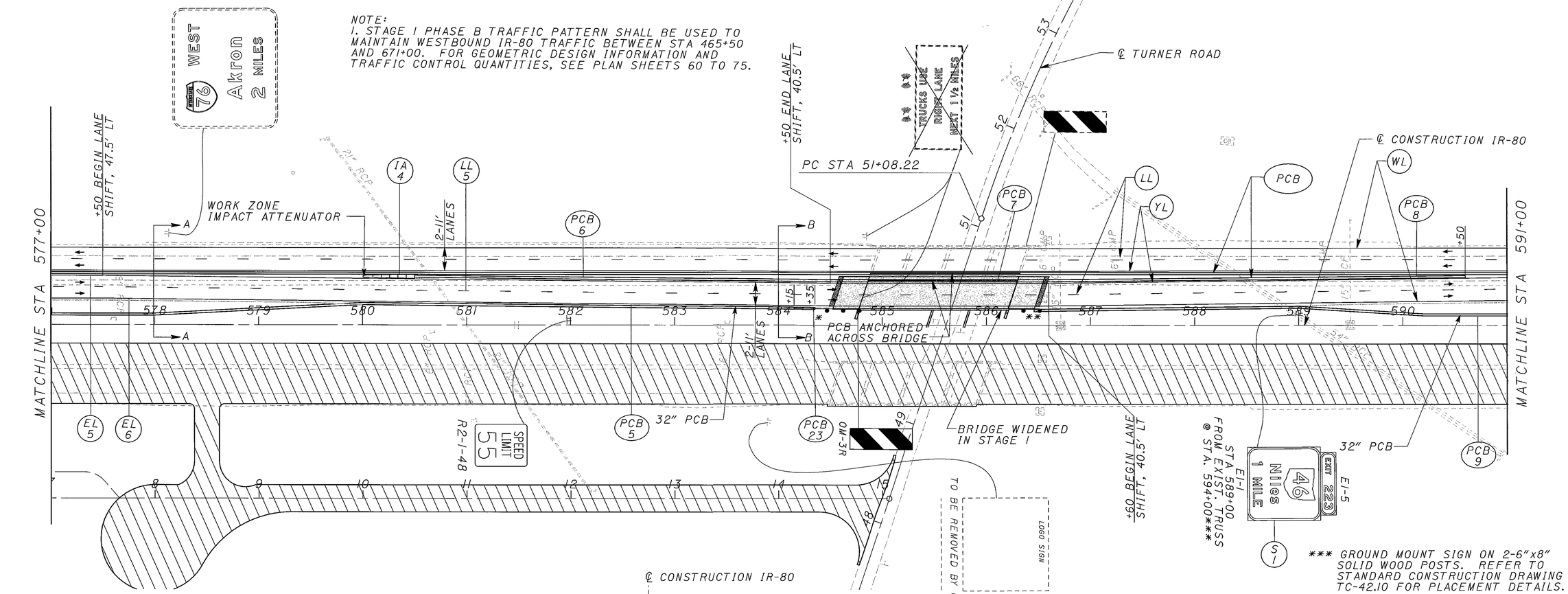
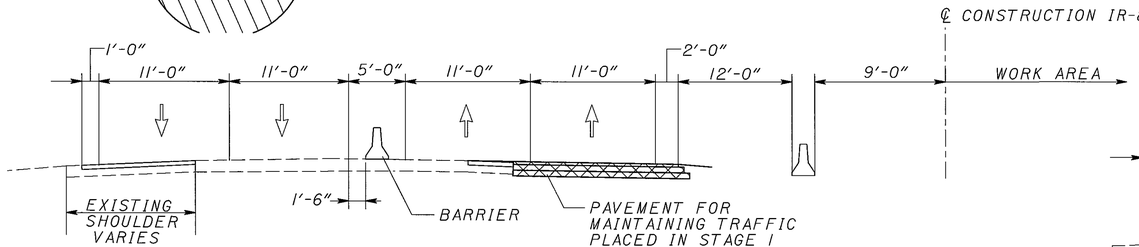
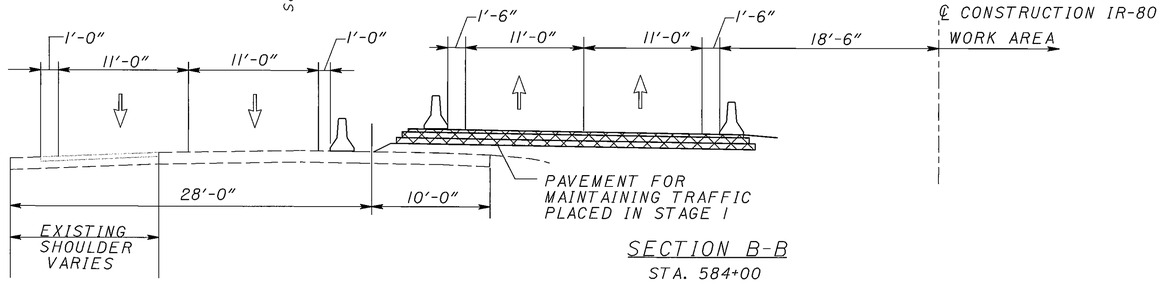
NOTE:
1. STAGE 1 PHASE B TRAFFIC PATTERN SHALL BE USED TO MAINTAIN WESTBOUND IR-80 TRAFFIC BETWEEN STA 465+50 AND 671+00. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES, SEE PLAN SHEETS 60 TO 75.





SECTION A-A
STA. 578+00



SECTION B-B
STA. 584+00
NTS

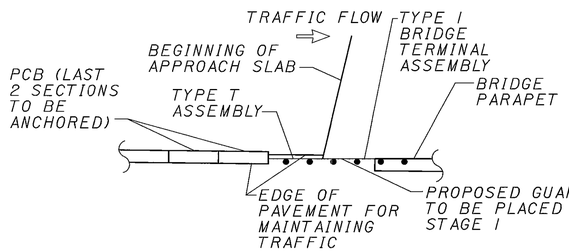
LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED

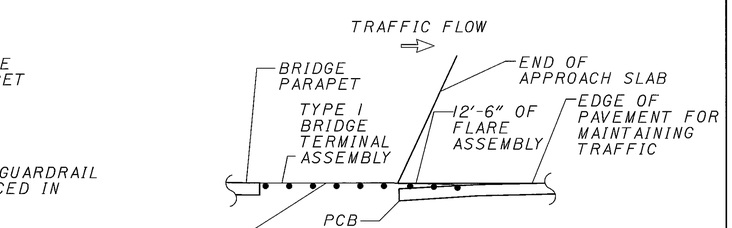
FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER
- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR MOT QUANTITIES, SEE SHEET 94



*CONNECTION DETAIL
WEST END
NTS



**CONNECTION DETAIL
EAST END
NTS

MAINTENANCE OF TRAFFIC
STAGE 2 PHASE A

CALCULATED AJP
CHECKED JFM

HORIZONTAL SCALE IN FEET
0 25 50 100

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1100

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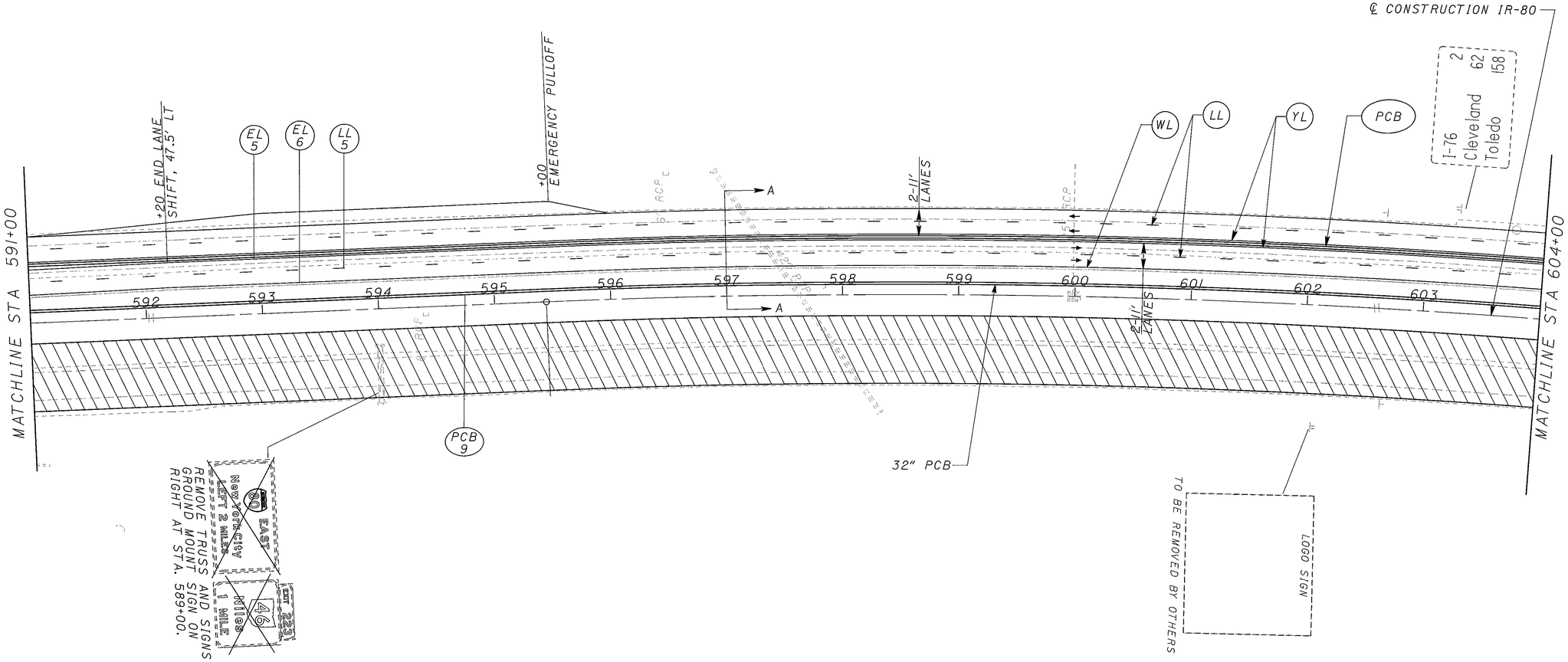

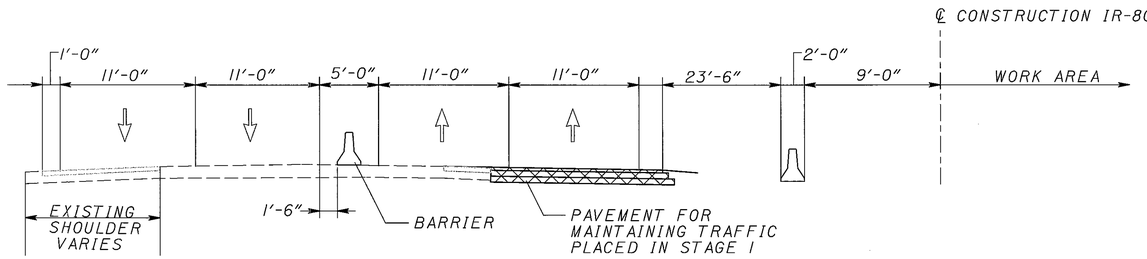

SECTION A-A
STA. 597+00
NTS

LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

NOTE:
1. STAGE I PHASE B TRAFFIC PATTERN SHALL BE USED TO MAINTAIN WESTBOUND IR-80 TRAFFIC BETWEEN STA 465+50 AND 671+00. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES, SEE PLAN SHEETS 60 TO 75.

EMERGENCY PULLOFF DETAILS, SEE SHEET 45
FOR MOT QUANTITIES, SEE SHEET 94

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 2 PHASE A

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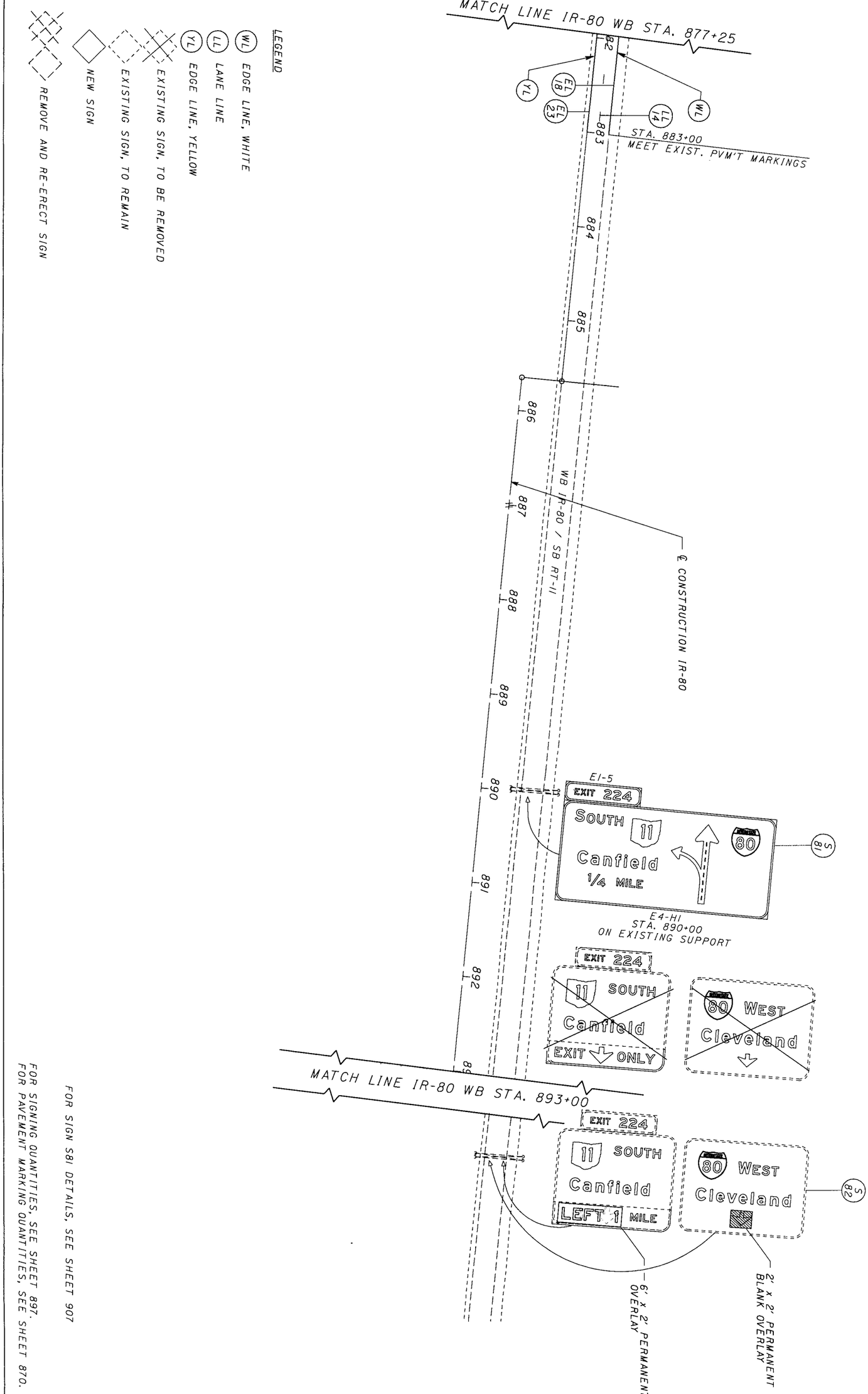
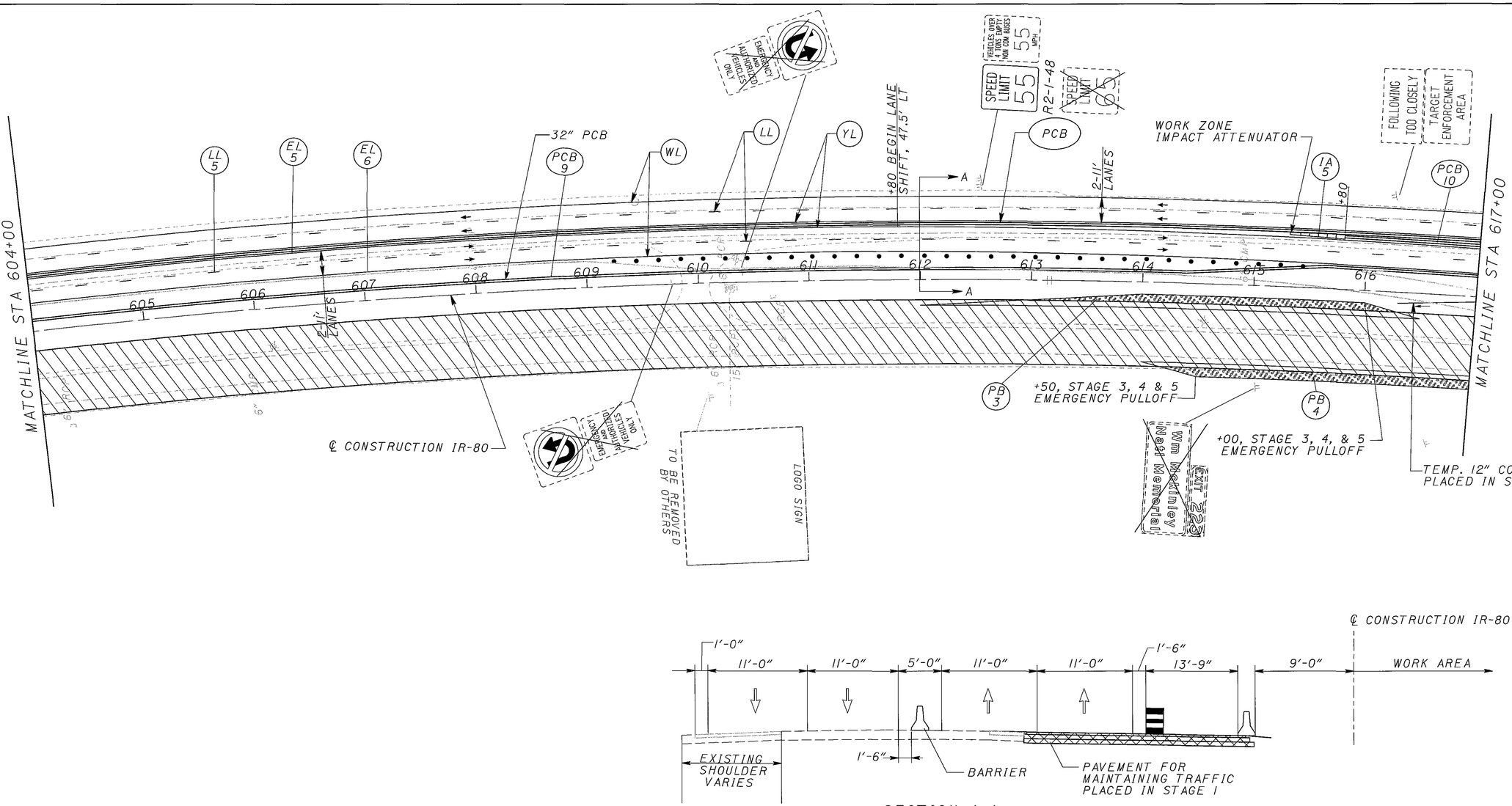


FOR SIGN S81 DETAILS, SEE SHEET 907

FOR SIGNING QUANTITIES, SEE SHEET 897.
FOR PAVEMENT MARKING QUANTITIES, SEE SHEET 870.

896 / 1100	MAH-80-0.97	SIGNING AND PAVEMENT MARKING PLAN STA 887+25 TO STA 893+00 (REVISED 12/7/05)	CALCULATED ATR / CHECKED JFM	0 50 25 100 HORIZONTAL SCALE IN FEET



SECTION A-A
STA. 612+00
NTS

LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A
- PAVEMENT FOR MAINTAINING TRAFFIC CLASS B, AS PER PLAN
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS, 20' C/C
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER
- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

NOTE:
1. STAGE I PHASE B TRAFFIC PATTERN SHALL BE USED TO MAINTAIN WESTBOUND IR-80 TRAFFIC BETWEEN STA 465+50 AND 671+00. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES, SEE PLAN SHEETS 60 TO 75.

EMERGENCY PULLOFF DETAILS, SEE SHEET 45
FOR MOT QUANTITIES, SEE SHEET 94

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 2 PHASE A

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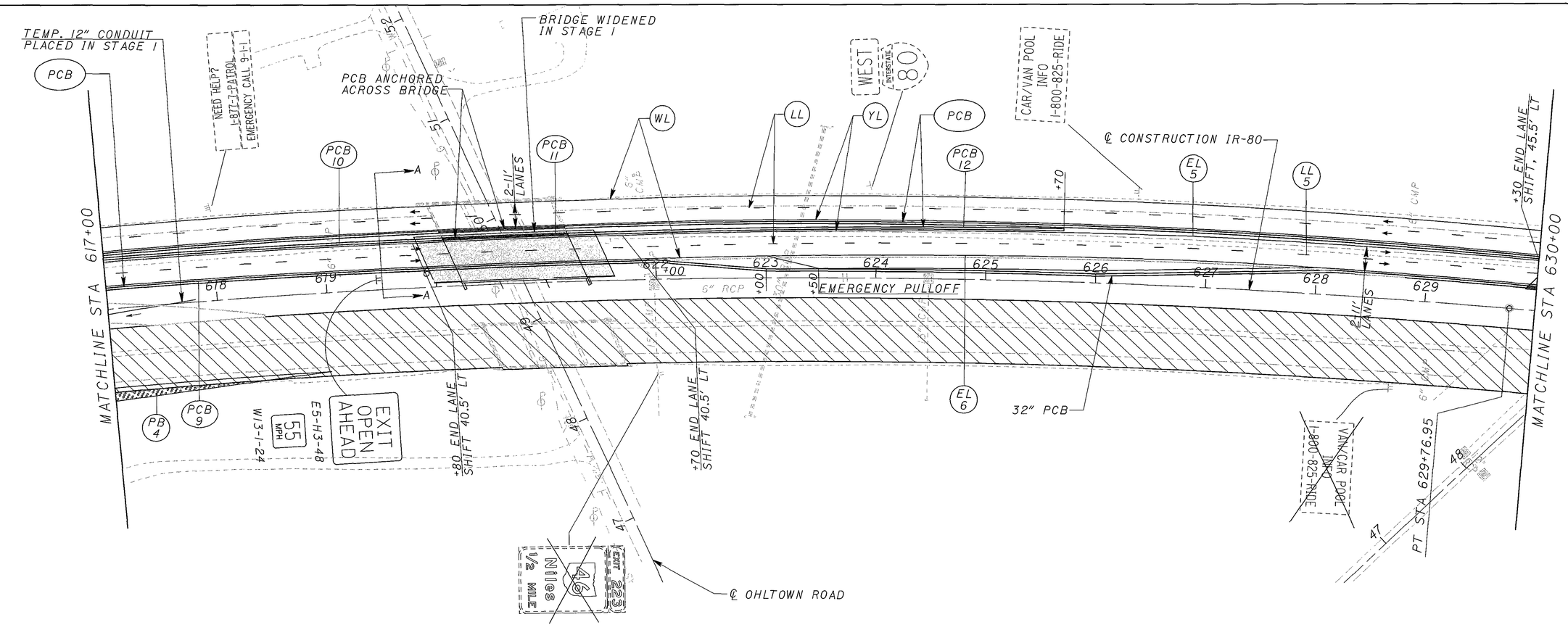

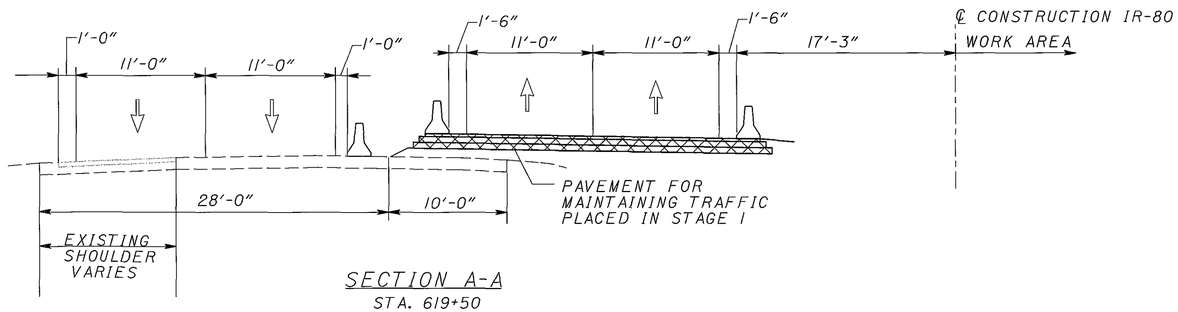

SECTION A-A
STA. 619+50
NTS

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- • • • DRUMS, 20' C/C
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER
- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

NOTE:
1. STAGE I PHASE B TRAFFIC PATTERN SHALL BE USED TO MAINTAIN WESTBOUND IR-80 TRAFFIC BETWEEN STA 465+50 AND 671+00. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES, SEE PLAN SHEETS 60 TO 75.

EMERGENCY PULLOFF DETAILS, SEE SHEET 45
FOR MOT QUANTITIES, SEE SHEET 94

CALCULATED AJP
CHECKED JFM

HORIZONTAL SCALE IN FEET
0 25 50 100

MAINTENANCE OF TRAFFIC STAGE 2 PHASE A

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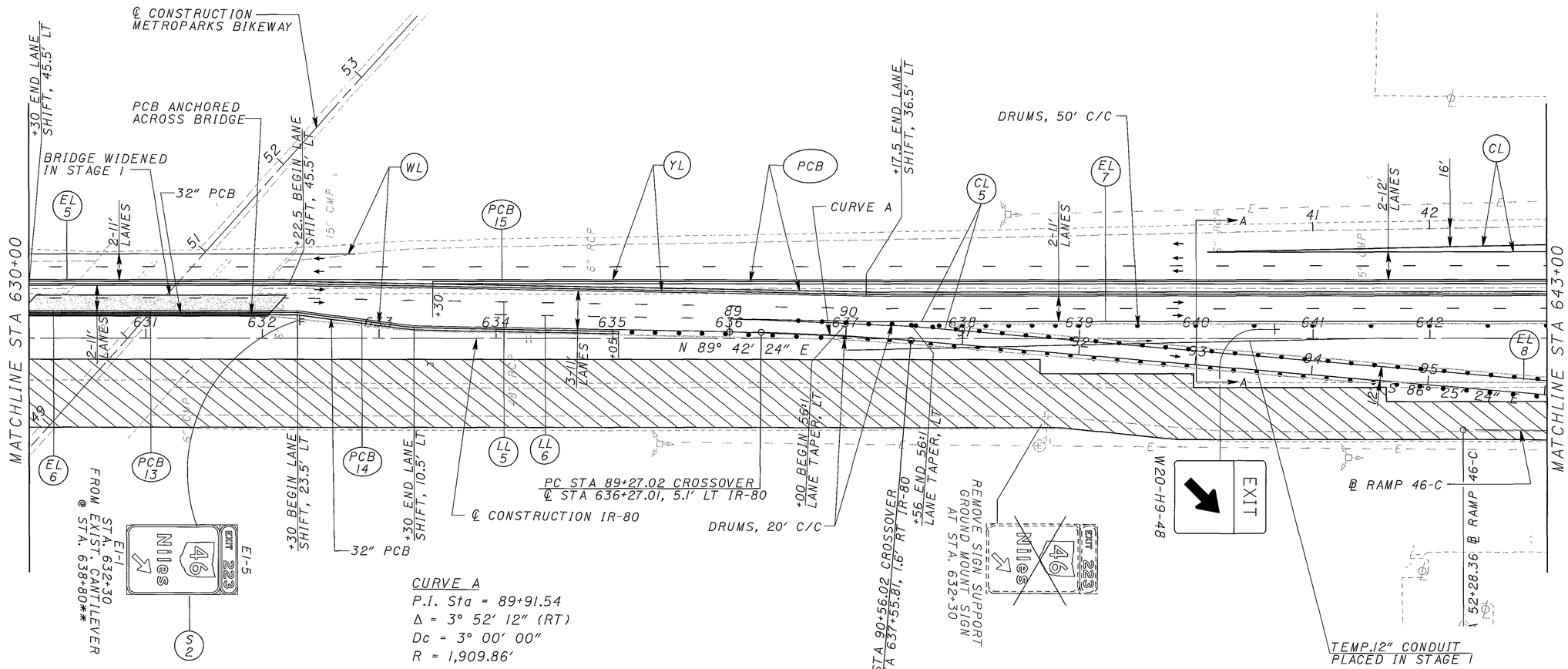
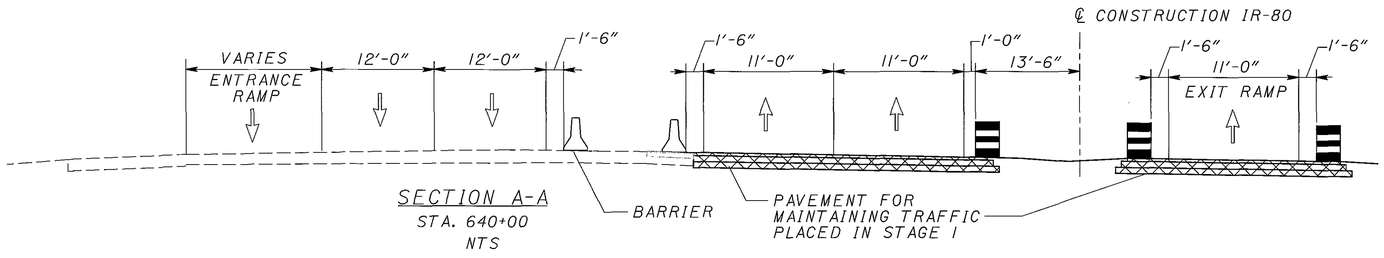


CURVE A
P.I. Sta = 89+91.54
Δ = 3° 52' 12" (RT)
Dc = 3° 00' 00"
R = 1,909.86'
T = 64.52'
L = 129.00'
E = 1.09'

** GROUND MOUNT SIGN ON 2-6"x8" SOLID WOOD POSTS. REFER TO STANDARD CONSTRUCTION DRAWING TC-42.10 FOR PLACEMENT DETAILS.



SECTION A-A
STA. 640+00
NTS

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- PORTABLE CONCRETE BARRIER, 32" BRIDGE MOUNTED
- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER
- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

NOTE:
1. STAGE I PHASE B TRAFFIC PATTERN SHALL BE USED TO MAINTAIN WESTBOUND IR-80 TRAFFIC BETWEEN STA 465+50 AND 671+00. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES, SEE PLAN SHEETS 60 TO 75.

FOR MOT QUANTITIES, SEE SHEET 94
FOR CROSSOVER PROFILE, SEE SHEET 54

HORIZONTAL SCALE IN FEET
0 25 50 100
CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 2 PHASE A

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LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN
- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER

NOTE:
1. STAGE I PHASE B TRAFFIC PATTERN SHALL BE USED TO MAINTAIN WESTBOUND IR-80 TRAFFIC BETWEEN STA 465+50 AND 671+00. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES, SEE PLAN SHEETS 60 TO 75.

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

W20-1-48 ROAD WORK AHEAD

RAMP 46-A

RAMP 46-E

END ROAD WORK G20-2A-48

EXIT 223

WORK ZONE IMPACT ATTENUATOR

DRUMS, 50' C/C

PROP. STORM SEWER PLACED IN STAGE I

MATCHLINE STA 643+00

MATCHLINE STA 656+00 SEE SHEET 104

WATER

2-12' LANES

2-11' LANES

644 645 646 647 648 649 650 651 652 653 654 655

EL 5, CL, PCB 15, IA 6, WL, PCB, LL, YL, LL 5, EL 7, EL 8

+30, +50

S 86° 25' 24" E

97 98 99 100 101 102 103 104 105 106

54 55 56 57 58 59 60 61 62 63 64 65 66

+74

CURVE B
P.I. Sta = 102+02.10
Δ = 14° 34' 30" (RT)
Dc = 3° 26' 47"
R = 1,662.52'
T = 212.61'
L = 422.92'
E = 13.54'

PCC STA 57+81.83

PC STA 99+89.50 CROSSOVER
℄ STA 56+84.11, 23.9' LT RAMP 46-C

PT STA 104+12.41 CROSSOVER
℄ STA 61+01.39, 25.5' LT RAMP 46-C

PC STA 63+61.68
POT Sta. 106+92.04

PT STA 66+22.35

S 71° 50' 54" E

+00 BEGIN 56:1 LANE TAPER, LT

+56 END 56:1 LANE TAPER, LT

DRUMS, 20' C/C

SIGN REMOVED IN STAGE I

SIGN REMOVED IN STAGE I

THIS PART OF SIGN TO BE COVERED WITH 18'x2' TEMPORARY BLANK OVERLAY

EXISTING TRUSS AND SIGNS TO REMAIN

REMOVE EXISTING TRUSS AND SIGNS

80 EAST 11 NORTH New York City

80 WEST 11 SOUTH Canfield 3/4 MILE EXIT 224A

46 Niles EXIT 223

80 EAST 11 NORTH New York City EXIT 224B

80 WEST 11 SOUTH Youngstown 1 MILE Canfield 1/2 MILE EXIT 224A

℄ CONSTRUCTION IR-80

℄ CONSTRUCTION RAMP 46-C

℄ CONSTRUCTION RAMP 46-C

END ROAD WORK G20-2A-48 STA. 66+00

32" PCB

PCB 16

YL

WL

EL 6

B

B

CB

CB

SECTION A-A
STA. 647+00
NTS

12'-0" 12'-0" 1'-6" 1'-6" 11'-0" 11'-0" 6'-6" 8'-0" WORK AREA

EXISTING SHOULDER VARIES

BARRIER

NEW PAVEMENT PLACED STAGE I

SECTION B-B
RAMP 46-C STA. 103+00
NTS

2'-0" 11'-0" 1'-6" 3'-6" 26'-0" WORK AREA 6'-0"

PAVEMENT FOR MAINTAINING TRAFFIC PLACED IN STAGE I

NEW PAVEMENT PLACED IN THIS STAGE

FOR MOT QUANTITIES, SEE SHEET 94

FOR CROSSOVER PROFILE, SEE SHEET 54

N

HORIZONTAL SCALE IN FEET 0 25 50 100

CALCULATED AJP CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 2 PHASE A

MAH-80-0.97

93 / 1100

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REF NO.	SHEET NO.	STATION FROM		STATION TO		SIDE	614 WORK ZONE IMPACT ATTENUATOR	614 BARRIER REFLECTOR, TYPE B	614 OBJECT MARKER, ONE WAY	614 MAINTAINING TRAFFIC, MISC.; EMERGENCY PULLOFFS	614 WORK ZONE LANE LINE, CLASS 1, 740.06, TYPE 1	614 WORK ZONE EDGE LINE, CLASS 1, 740.06, TYPE 1 (Yellow)	614 WORK ZONE EDGE LINE, CLASS 1, 740.06, TYPE 1 (White)	614 WORK ZONE CHANNELIZING LINE, CLASS 1, 740.06, TYPE 1		615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN		622 PORTABLE CONCRETE BARRIER, 32"	622 PORTABLE CONCRETE BARRIER, 50", AS PER PLAN	622 PORTABLE CONCRETE BARRIER, 32", BRIDGE MOUNTED	622 PORTABLE CONCRETE BARRIER, 50", BRIDGE MOUNTED, AS PER PLAN		630 REMOVAL OF OVERHEAD MOUNTED SIGN AND REERECTION		
							EACH	EACH	EACH	EACH	MILE	MILE	MILE	FT		SQ YD		FT	FT	FT	FT		EACH		
CL1	83	CL	476+23	CL	485+00	LT/RT								877											
CL2	84	CL	489+40	CL	491+00	LT								321											
CL3	85-86	CL	504+17	CL	513+45	LT/RT								928											
CL4	87	CL	550+35	CL	559+04	LT/RT								869											
CL5	92	CL	636+00	CL	637+85	LT								370											
EL1	83-86	CL	476+23	CL	519+50	LT/RT						0.81													
EL2	83-84	CL	476+23	CL	489+40	LT/RT							0.24												
EL3	84	A	4+80	CL	489+40	LT/RT						0.1													
EL4	84-86	A	4+80	CL	519+50	LT/RT							0.67												
EL5	87-93	CL	550+85	CL	656+00	LT/RT						1.99													
EL6	87-93	CL	550+85	680	106+92	LT/RT							1.97												
EL7	92-93	CL	637+85	CL	656+00	LT							0.34												
EL8	92-93	CL	637+85	46C	64+74	RT						0.36													
LL1	84-85	CL	485+00	CL	504+17	LT					0.36														
LL2	84	CL	491+00	CL	492+00	LT					0.02														
LL3	86	CL	513+45	CL	519+50	RT					0.11														
LL5	87-93	CL	559+04	CL	656+00	LT					1.84														
LL6	92	CL	634+00	CL	636+00	LT					0.04														
PCB1	84	CL	491+00	CL	495+30	LT		37											430						
PCB2	84	CL	495+30	CL	496+70	LT		8													140				
PCB3	84-85	CL	496+70	CL	501+00	LT		37											430						
PCB4	84-85	CL	496+90	CL	510+00	LT/RT		28	28									1310							
PCB5	87-88	CL	558+95	CL	584+15	LT		52	52									2520							
PCB6	88	CL	580+50	CL	584+80	LT		37											430						
PCB7	88	CL	584+80	CL	586+30	LT		8													150				
PCB8	88	CL	586+30	CL	590+50	LT		36											420						
PCB9	88-91	CL	586+45	CL	629+85	LT		88	88									4340							
PCB10	90-91	CL	615+80	CL	620+10	LT		37											430						
PCB11	91	CL	620+10	CL	621+20	LT		7													110				
PCB12	91	CL	621+20	CL	625+70	LT		38											450						
PCB13	92	CL	629+85	CL	632+05	LT		6	6											220					
PCB14	92	CL	632+05	CL	635+05	LT		7	7									300							
PCB15	92-93	CL	632+30	CL	656+00	LT		192											2370						
PCB16	93	CL	646+30	CL	656+00	LT		21	21									970							
PCB23	88	CL	584+15	CL	584+35	LT		2	2											20					
PCB24	83	CL	474+40	CL	481+00	LT/RT		15	15									660							
IA1	84	CL	491+00			LT	1																		
IA2	84	CL	495+20			LT	1																		
IA3	87	CL	558+95			LT	1																		
IA4	88	CL	580+50			LT	1																		
IA5	90	CL	615+80			LT	1																		
IA6	93	CL	646+30			LT	1																		
PA1	85	CL	501+04	CL	508+92	RT										923									
PB1	86	CL	514+67	CL	518+30	RT				1															
PB2	87	CL	555+64	CL	560+32	RT				1															
PB3	90	CL	612+95	CL	616+29	RT				1															
PB4	90-91	CL	614+16	CL	618+43	RT				1															
S1	88	CL	589+00			LT																	1		
S2	92	CL	632+30			LT																	1		
SUBTOTAL							6	656	219	4	2.37	3.26	3.22	3365		923		10100	4960	240	400		2		
TOTALS CARRIED TO SUBSUMMARY ON SHEET 59							6	656	219	4	2.37	3.26	3.22	3365		923		10100	4960	240	400		2		

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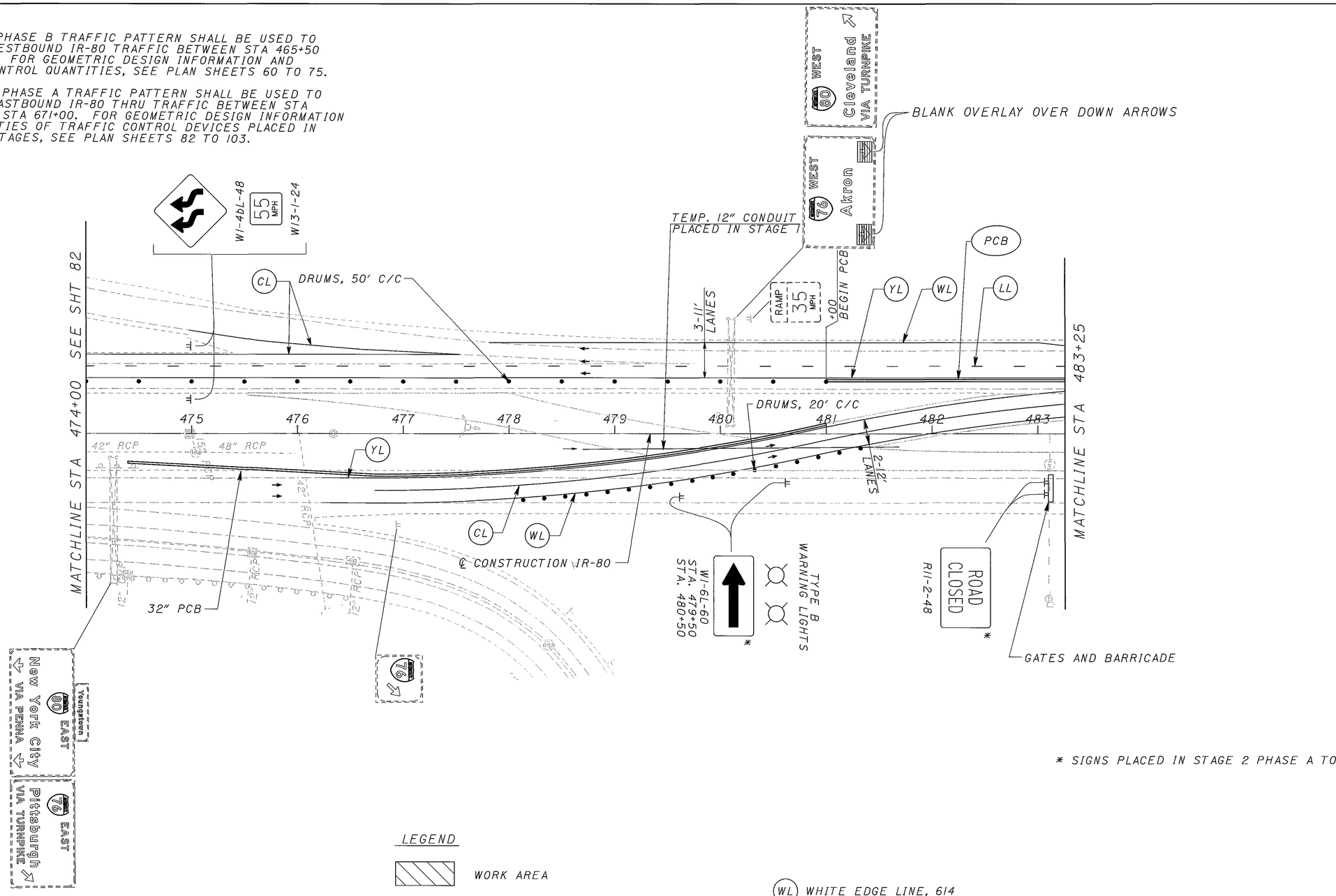
CALCULATED AJP CHECKED JFM

MAINTENANCE OF TRAFFIC QUANTITIES
STAGE 2, PHASE A - START OF PROJECT TO STA. 656+00

MAH-80-0.97

NOTE:
1. STAGE 1 PHASE B TRAFFIC PATTERN SHALL BE USED TO MAINTAIN WESTBOUND IR-80 TRAFFIC BETWEEN STA 465+50 AND 671+00. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES, SEE PLAN SHEETS 60 TO 75.

2. STAGE 2 PHASE A TRAFFIC PATTERN SHALL BE USED TO MAINTAIN EASTBOUND IR-80 THRU TRAFFIC BETWEEN STA 476+25 AND STA 671+00. FOR GEOMETRIC DESIGN INFORMATION AND QUANTITIES OF TRAFFIC CONTROL DEVICES PLACED IN PREVIOUS STAGES, SEE PLAN SHEETS 82 TO 103.



* SIGNS PLACED IN STAGE 2 PHASE A TO REMAIN

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR CROSSOVER PROFILE AND GEOMETRICS, SEE SHEET 49

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 2 PHASE B

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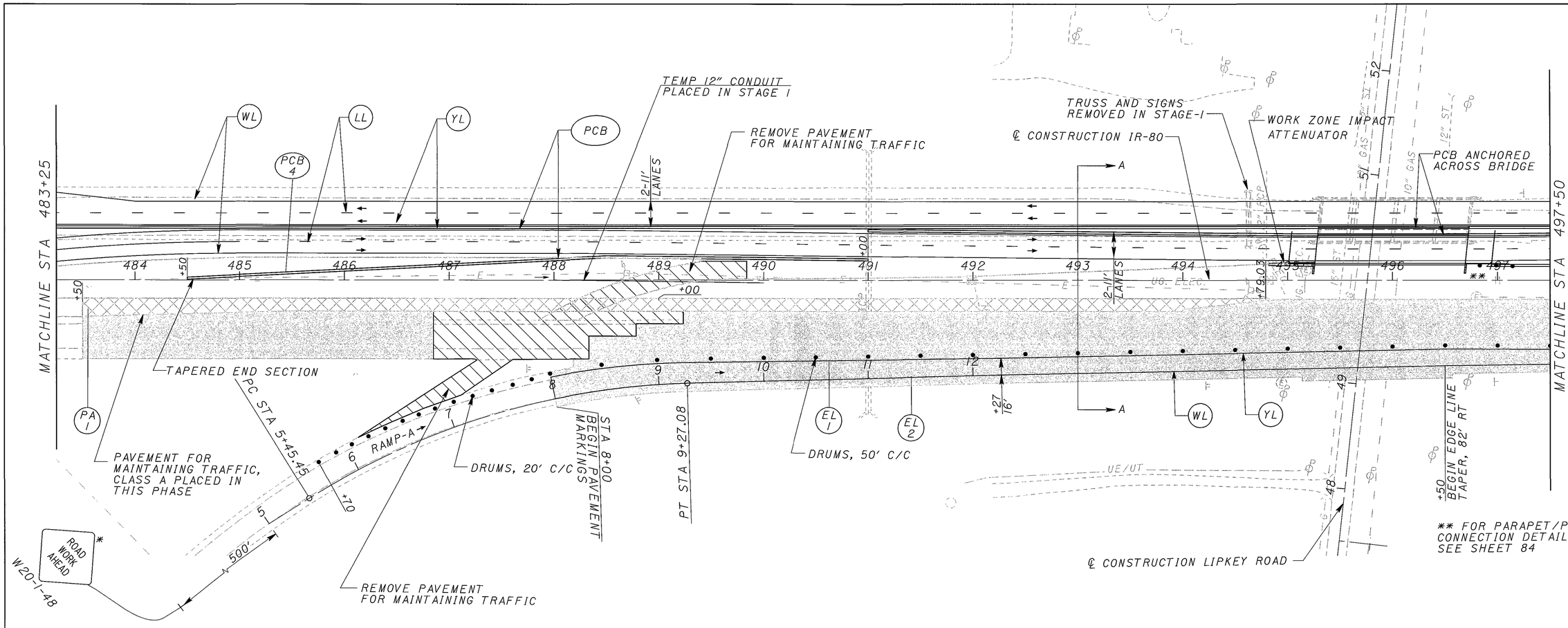

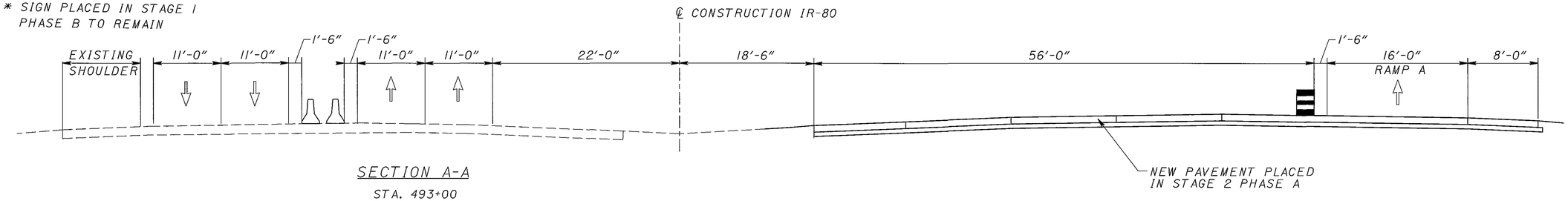

SECTION A-A

STA. 493+00

NTS

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A
- (WL) WHITE EDGE LINE, 6I4
- (CL) CHANNELIZING LINE, 6I4
- (LL) LANE LINE, 6I4
- (YL) YELLOW EDGE LINE, 6I4
- (PCB) PORTABLE CONCRETE BARRIER
- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

NOTE:
1. STAGE 1 PHASE B TRAFFIC PATTERN SHALL BE USED TO MAINTAIN WESTBOUND IR-80 TRAFFIC BETWEEN STA 465+50 AND 671+00. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES, SEE PLAN SHEETS 60 TO 75.

2. STAGE 2 PHASE A TRAFFIC PATTERN SHALL BE USED TO MAINTAIN EASTBOUND IR-80 THRU TRAFFIC BETWEEN STA 476+25 AND STA 671+00. FOR GEOMETRIC DESIGN INFORMATION AND QUANTITIES OF TRAFFIC CONTROL DEVICES PLACED IN PREVIOUS STAGES, SEE PLAN SHEETS 82 TO 103.

FOR MOT QUANTITIES, SEE SHEET 112

FOR BRIDGE CONNECTION DETAILS, SEE SHEET 84

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC
STAGE 2 PHASE B

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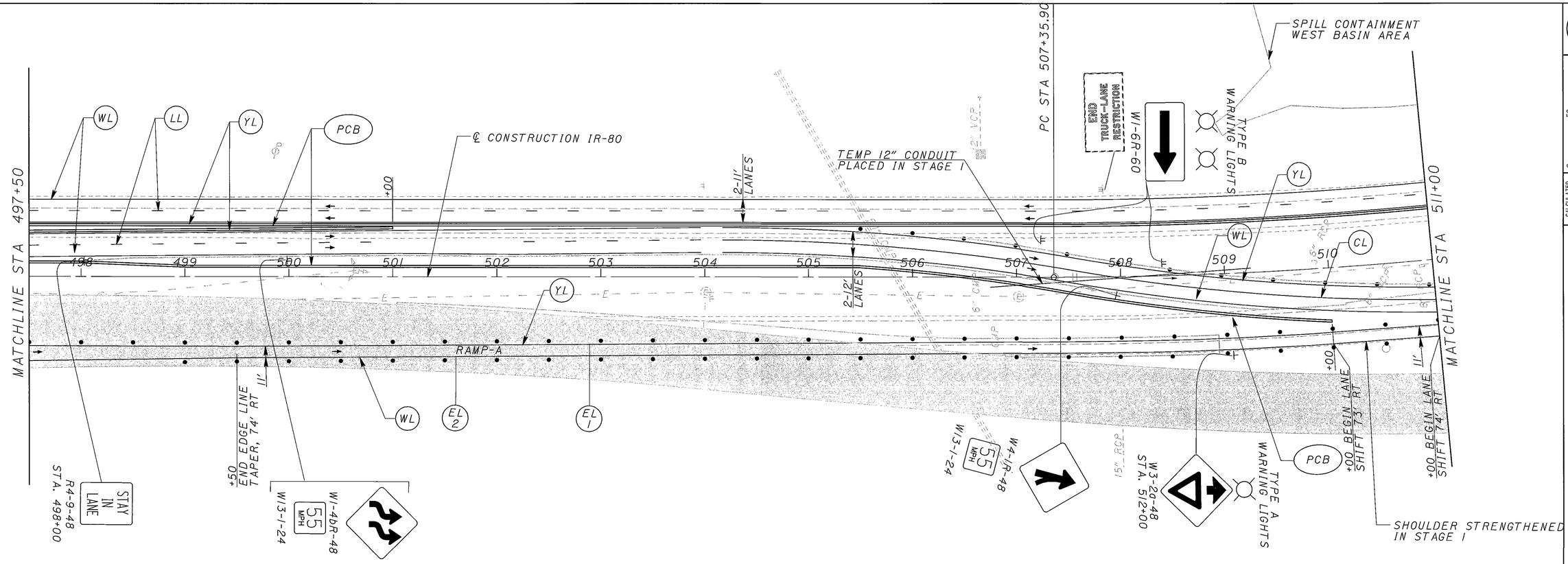

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS, 50' C/C
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A
- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

NOTE:
1. STAGE 1 PHASE B TRAFFIC PATTERN SHALL BE USED TO MAINTAIN WESTBOUND IR-80 TRAFFIC BETWEEN STA 465+50 AND 671+00. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES, SEE PLAN SHEETS 60 TO 75.

2. STAGE 2 PHASE A TRAFFIC PATTERN SHALL BE USED TO MAINTAIN EASTBOUND IR-80 THRU TRAFFIC BETWEEN STA 476+25 AND STA 671+00. FOR GEOMETRIC DESIGN INFORMATION AND QUANTITIES OF TRAFFIC CONTROL DEVICES PLACED IN PREVIOUS STAGES, SEE PLAN SHEETS 82 TO 103.

FOR MOT QUANTITIES, SEE SHEET 112
FOR CROSSOVER PROFILE AND GEOMETRICS, SEE SHEET 52

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC
STAGE 2 PHASE B

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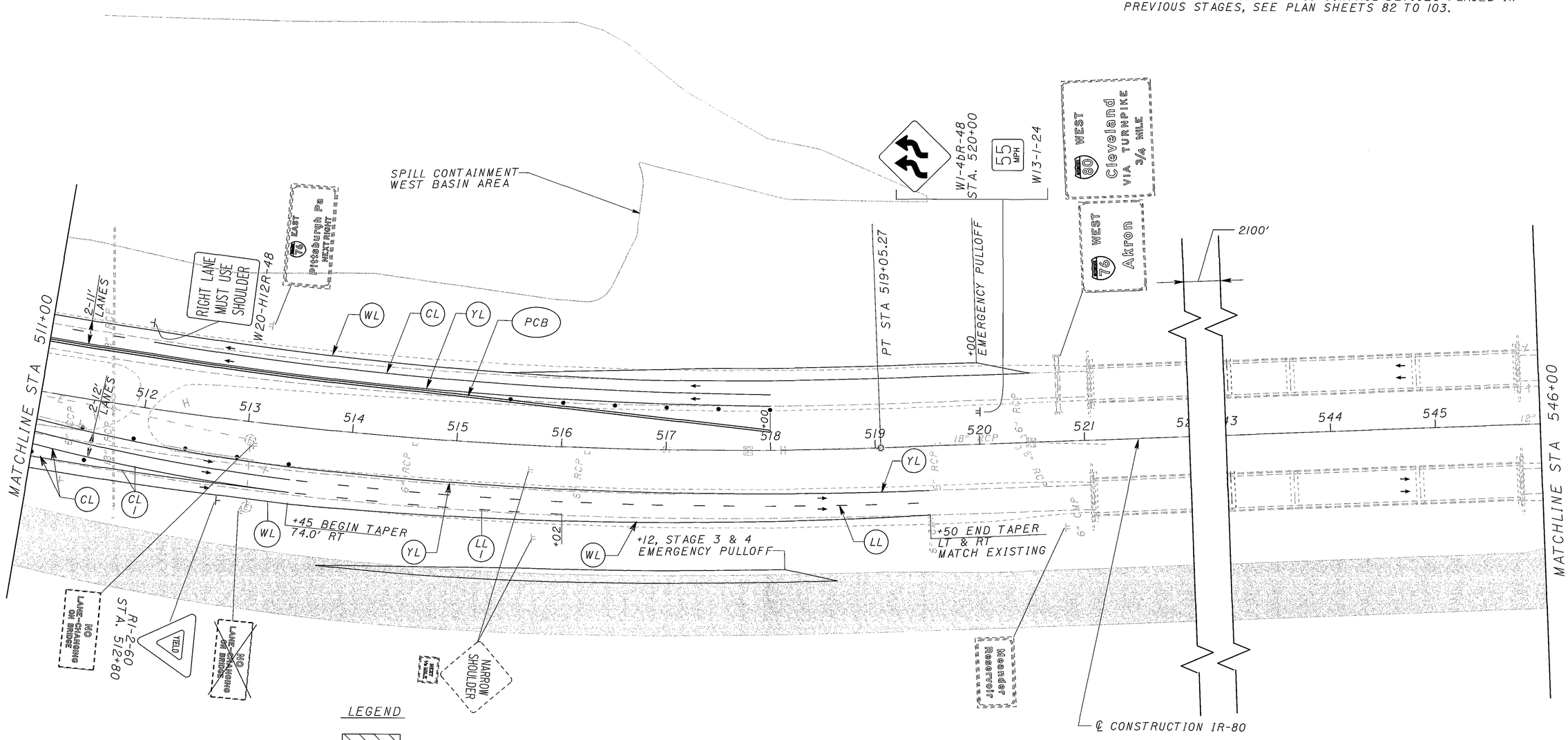
NOTE:
1. STAGE 1 PHASE B TRAFFIC PATTERN SHALL BE USED TO MAINTAIN WESTBOUND IR-80 TRAFFIC BETWEEN STA 465+50 AND 671+00. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES, SEE PLAN SHEETS 60 TO 75.

2. STAGE 2 PHASE A TRAFFIC PATTERN SHALL BE USED TO MAINTAIN EASTBOUND IR-80 THRU TRAFFIC BETWEEN STA 476+25 AND STA 671+00. FOR GEOMETRIC DESIGN INFORMATION AND QUANTITIES OF TRAFFIC CONTROL DEVICES PLACED IN PREVIOUS STAGES, SEE PLAN SHEETS 82 TO 103.



LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS, 50' C/C

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED

- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR MOT QUANTITIES, SEE SHEET 112
FOR CROSSOVER PROFILE AND GEOMETRICS, SEE SHEET 52
FOR EMERGENCY PULLOFF DETAILS SEE SHEET 45

CALCULATED AJP
CHECKED JFM

HORIZONTAL SCALE IN FEET
0 25 50 100

MAINTENANCE OF TRAFFIC STAGE 2 PHASE B

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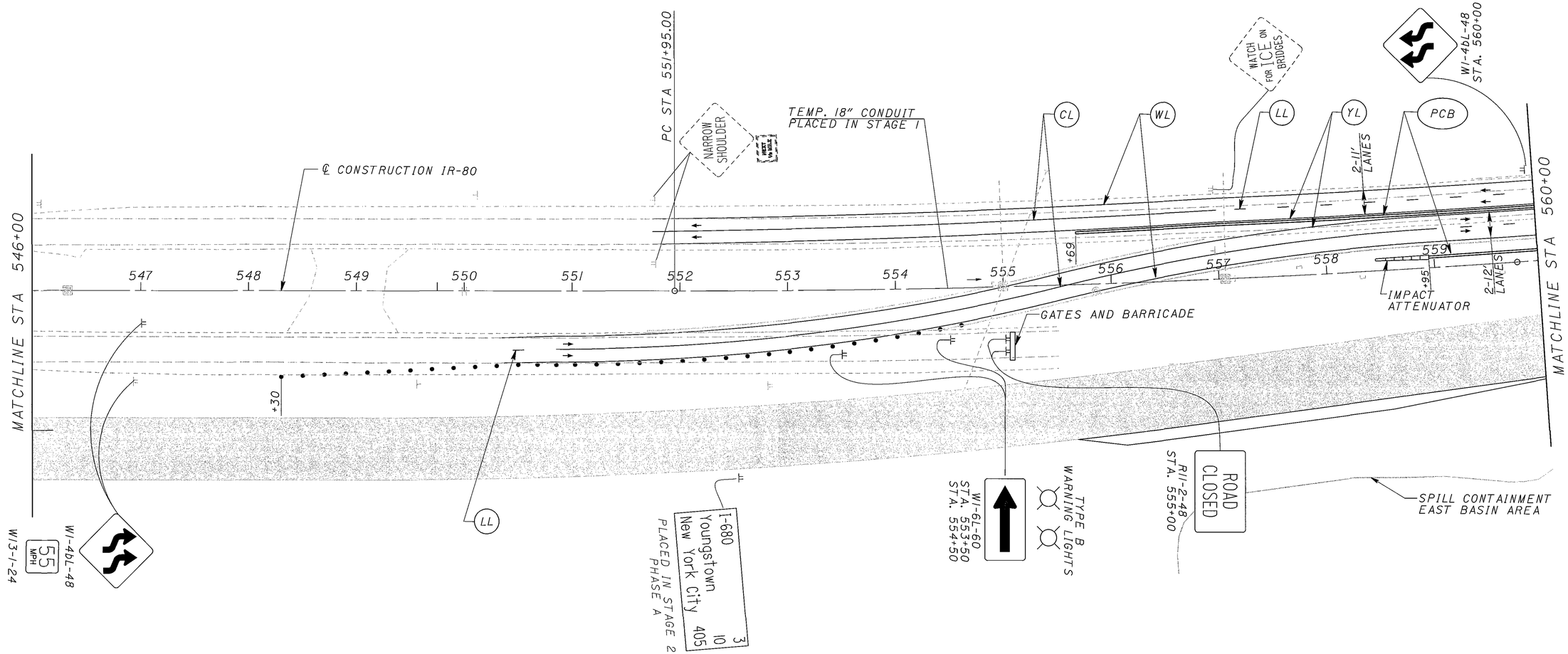

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS, 20' C/C

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

NOTE:
1. STAGE 1 PHASE B TRAFFIC PATTERN SHALL BE USED TO MAINTAIN WESTBOUND IR-80 TRAFFIC BETWEEN STA 465+50 AND 671+00. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES, SEE PLAN SHEETS 60 TO 75.

2. STAGE 2 PHASE A TRAFFIC PATTERN SHALL BE USED TO MAINTAIN EASTBOUND IR-80 THRU TRAFFIC BETWEEN STA 476+25 AND STA 671+00. FOR GEOMETRIC DESIGN INFORMATION AND QUANTITIES OF TRAFFIC CONTROL DEVICES PLACED IN PREVIOUS STAGES, SEE PLAN SHEETS 82 TO 103.

FOR EMERGENCY PULLOFF DETAILS SEE SHEET 45
FOR CROSSOVER PROFILE AND GEOMETRICS, SEE SHEET 53

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 2 PHASE B

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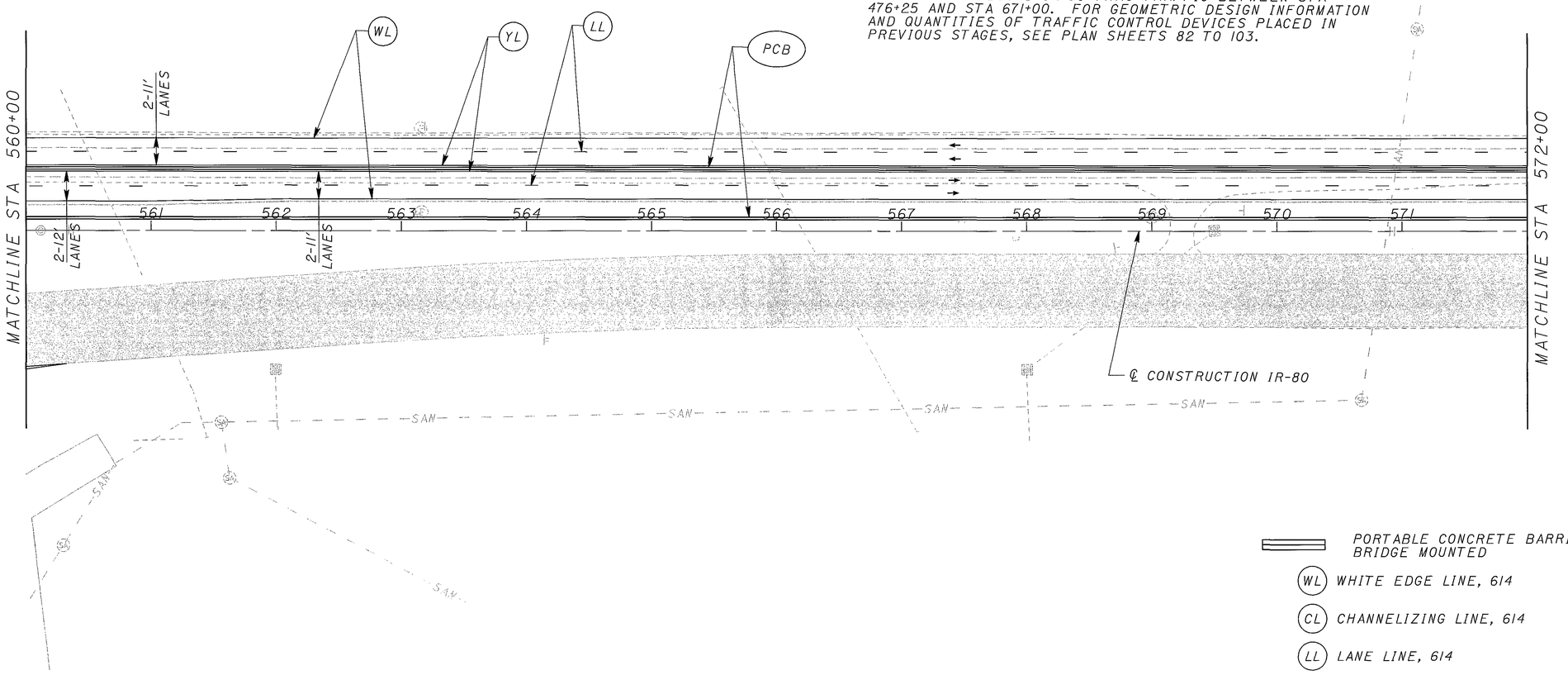
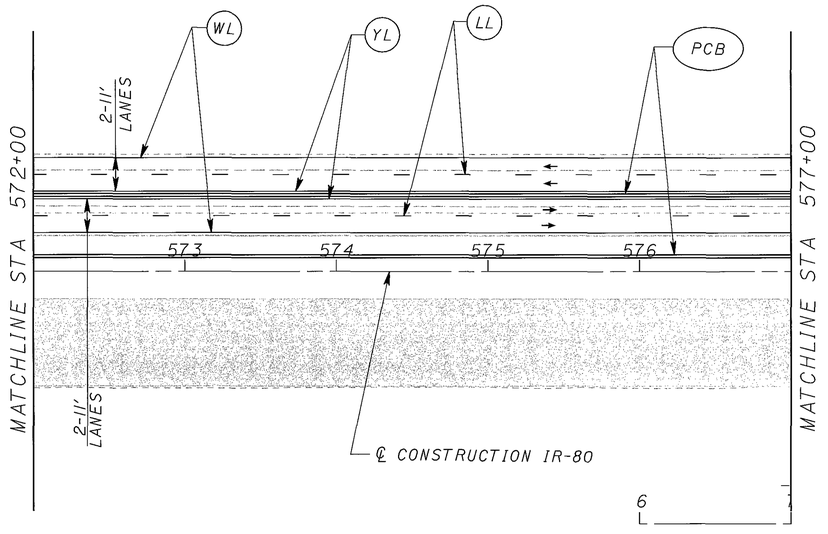
NOTE:
1. STAGE 1 PHASE B TRAFFIC PATTERN SHALL BE USED TO MAINTAIN WESTBOUND IR-80 TRAFFIC BETWEEN STA 465+50 AND 671+00. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES, SEE PLAN SHEETS 60 TO 75.

2. STAGE 2 PHASE A TRAFFIC PATTERN SHALL BE USED TO MAINTAIN EASTBOUND IR-80 THRU TRAFFIC BETWEEN STA 476+25 AND STA 671+00. FOR GEOMETRIC DESIGN INFORMATION AND QUANTITIES OF TRAFFIC CONTROL DEVICES PLACED IN PREVIOUS STAGES, SEE PLAN SHEETS 82 TO 103.





LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- PAVEMENT FOR MAINTAINING TRAFFIC CLASS B, AS PER PLAN
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- • • • DRUMS, 20' C/C

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

EMERGENCY PULLOFF DETAILS, SEE SHEET 45
FOR MOT QUANTITIES, SEE SHEET 94

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 2 PHASE B

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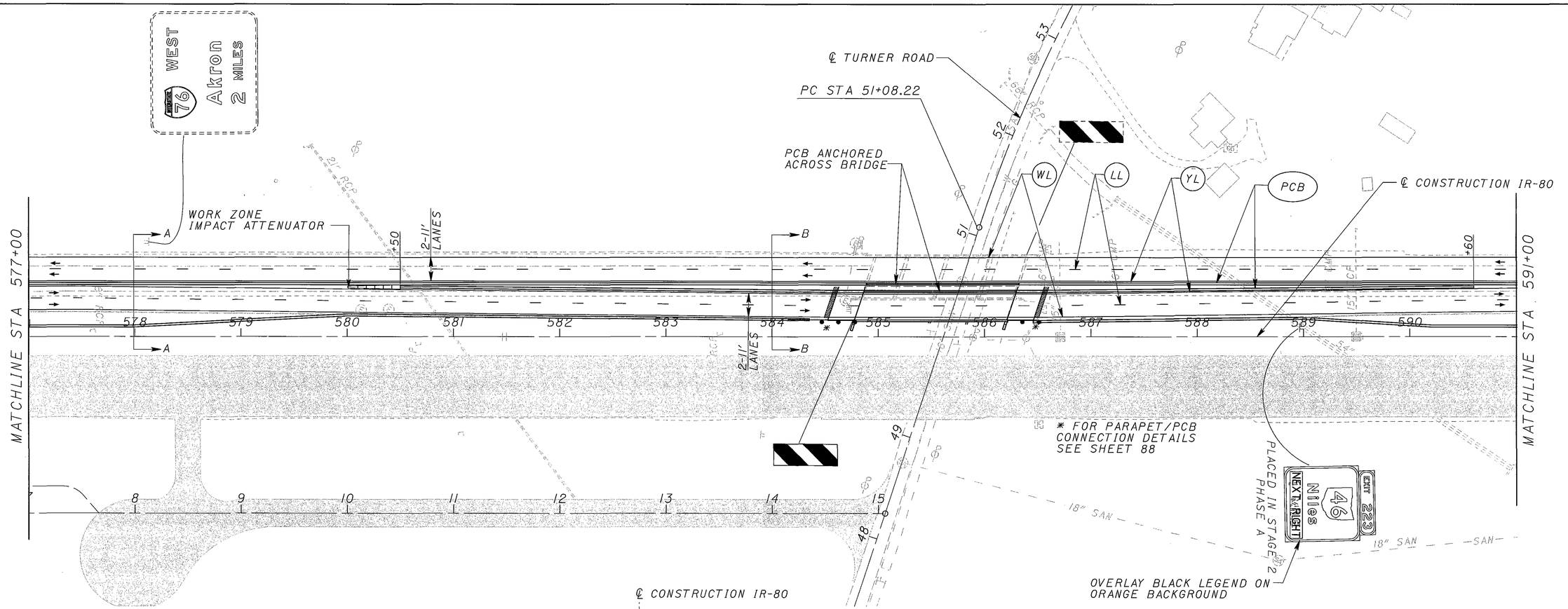
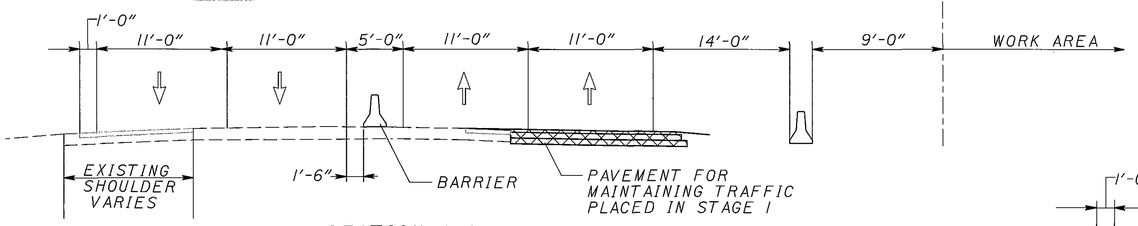
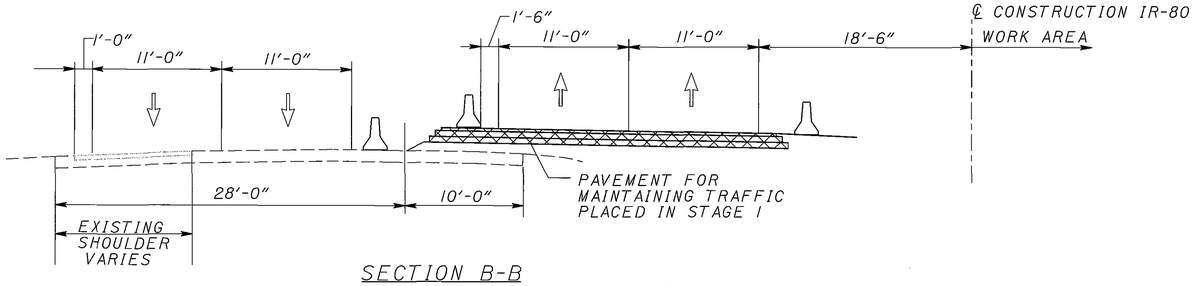




SECTION A-A
STA. 578+00



SECTION B-B
STA. 584+00
NTS

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

NOTE:
1. STAGE 1 PHASE B TRAFFIC PATTERN SHALL BE USED TO MAINTAIN WESTBOUND IR-80 TRAFFIC BETWEEN STA 465+50 AND 671+00. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES, SEE PLAN SHEETS 60 TO 75.

2. STAGE 2 PHASE A TRAFFIC PATTERN SHALL BE USED TO MAINTAIN EASTBOUND IR-80 THRU TRAFFIC BETWEEN STA 476+25 AND STA 671+00. FOR GEOMETRIC DESIGN INFORMATION AND QUANTITIES OF TRAFFIC CONTROL DEVICES PLACED IN PREVIOUS STAGES, SEE PLAN SHEETS 82 TO 103.

FOR MOT QUANTITIES, SEE SHEET 112
FOR BRIDGE CONNECTION DETAILS, SEE SHEET 88

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 2 PHASE B

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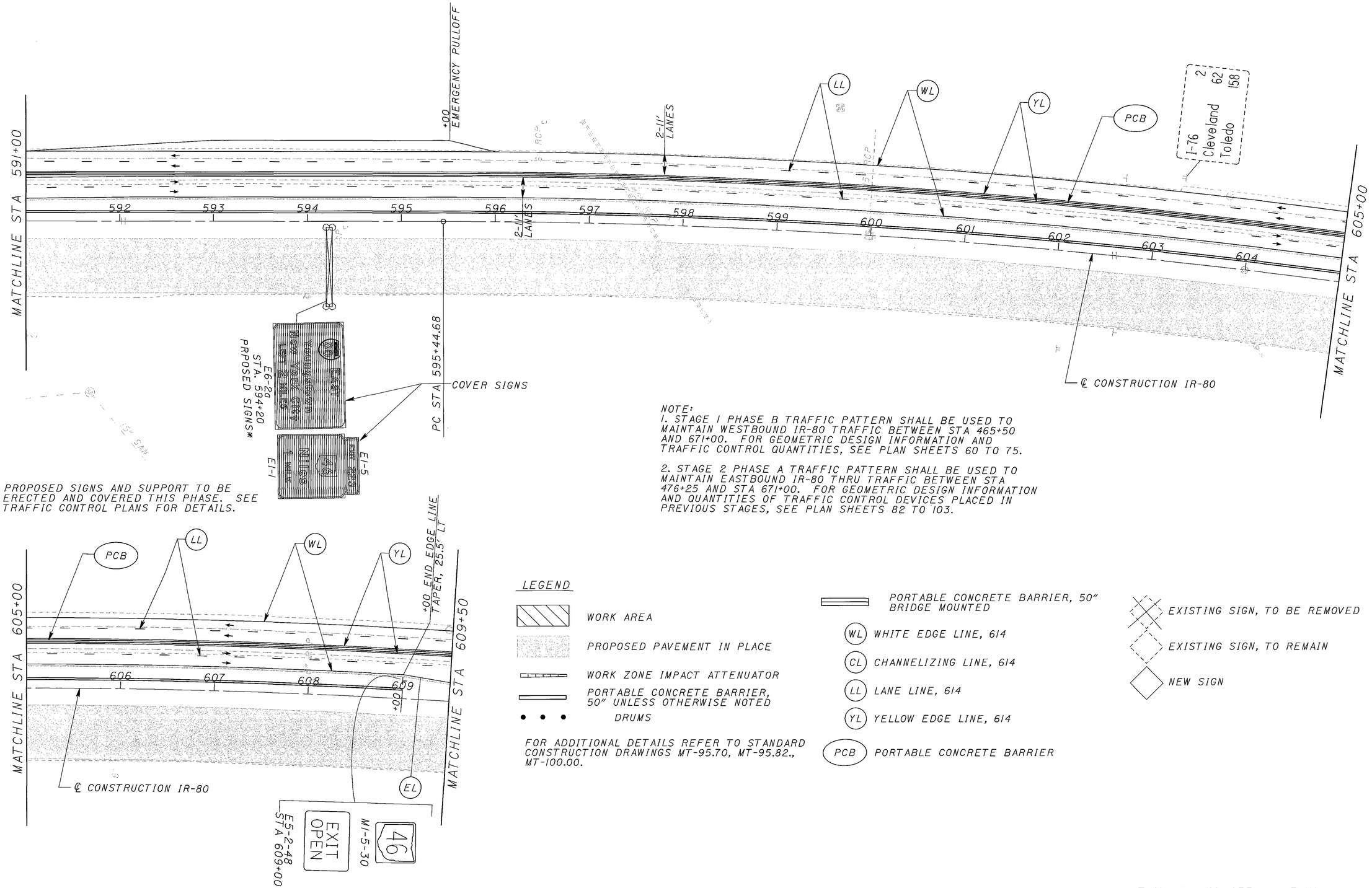

* PROPOSED SIGNS AND SUPPORT TO BE ERECTED AND COVERED THIS PHASE. SEE TRAFFIC CONTROL PLANS FOR DETAILS.

NOTE:
1. STAGE I PHASE B TRAFFIC PATTERN SHALL BE USED TO MAINTAIN WESTBOUND IR-80 TRAFFIC BETWEEN STA 465+50 AND 671+00. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES, SEE PLAN SHEETS 60 TO 75.

2. STAGE 2 PHASE A TRAFFIC PATTERN SHALL BE USED TO MAINTAIN EASTBOUND IR-80 THRU TRAFFIC BETWEEN STA 476+25 AND STA 671+00. FOR GEOMETRIC DESIGN INFORMATION AND QUANTITIES OF TRAFFIC CONTROL DEVICES PLACED IN PREVIOUS STAGES, SEE PLAN SHEETS 82 TO 103.

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER
- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

FOR MOT QUANTITIES, SEE SHEET 112
FOR BRIDGE CONNECTION DETAILS, SEE SHEET 88

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 2 PHASE B

MAH-80-0.97

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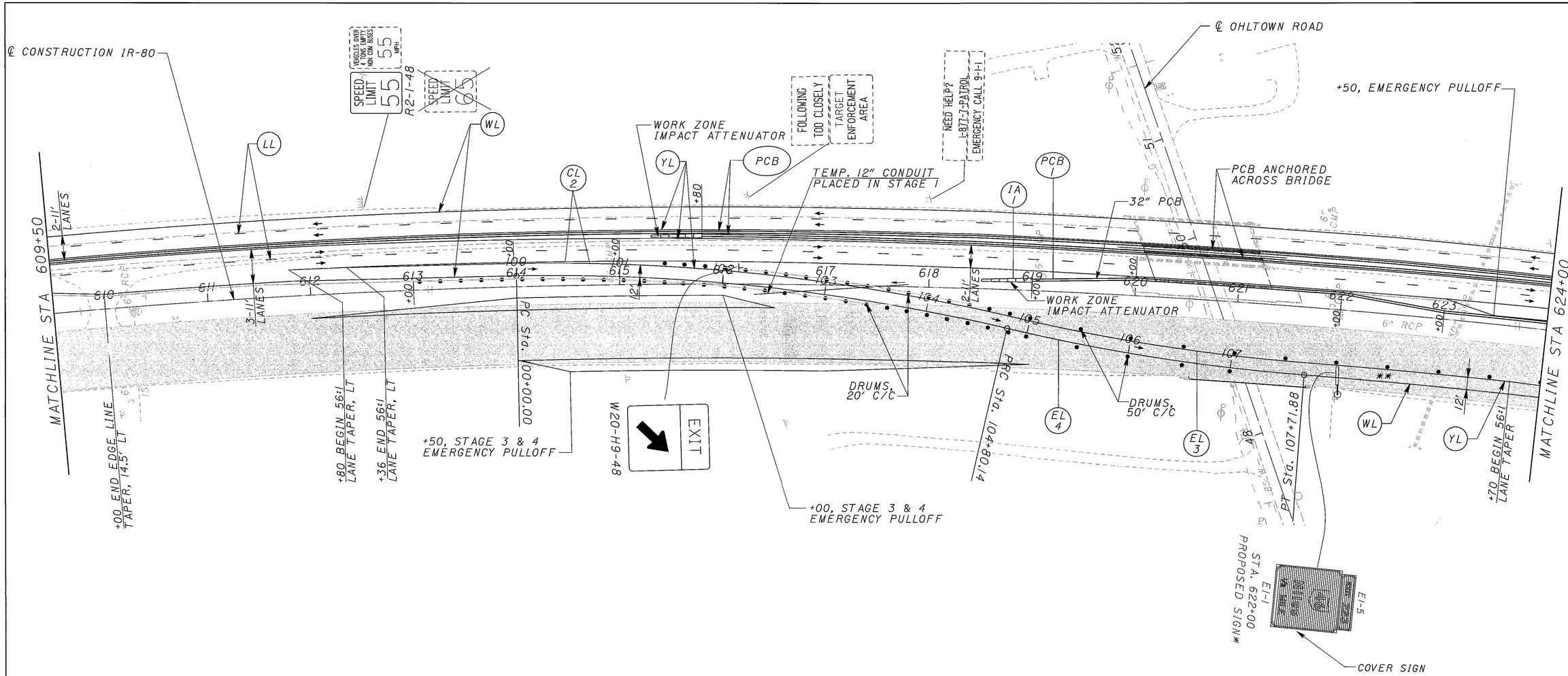

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- PAVEMENT FOR MAINTAINING TRAFFIC
- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

* PROPOSED SIGN AND SUPPORT TO BE ERECTED AND COVERED THIS PHASE. SEE TRAFFIC CONTROL PLANS FOR DETAILS.

** TRAVEL LANE FOR SR 46 RAMP C TRAFFIC TO BE RESTRICTED TO OUTSIDE LANE OF PROPOSED EASTBOUND PAVEMENT, WITH USE OF DRUMS, FROM STA 621+70, 66' RT (IR-80) TO 638+83, 66' RT (IR-80) AND FROM STA 55+34, 0' LT (RAMP 46C) TO STA 62+30, 0' LT (RAMP 46C). PAVEMENT MARKINGS ON PREVIOUSLY COMPLETED PAVEMENT THAT IS NOT THE FINAL TRAFFIC PATTERN SHALL BE TAPE.

NOTE:
1. STAGE 1 PHASE B TRAFFIC PATTERN SHALL BE USED TO MAINTAIN WESTBOUND IR-80 TRAFFIC BETWEEN STA 465+50 AND 671+00. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES, SEE PLAN SHEETS 60 TO 75.

2. STAGE 2 PHASE A TRAFFIC PATTERN SHALL BE USED TO MAINTAIN EASTBOUND IR-80 THRU TRAFFIC BETWEEN STA 476+25 AND STA 671+00. FOR GEOMETRIC DESIGN INFORMATION AND QUANTITIES OF TRAFFIC CONTROL DEVICES PLACED IN PREVIOUS STAGES, SEE PLAN SHEETS 82 TO 103.

EMERGENCY PULLOFF DETAILS, SEE SHEET 45
FOR MOT QUANTITIES, SEE SHEET 112
FOR CROSSOVER PROFILE AND GEOMETRICS, SEE SHEET 55

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 2 PHASE B

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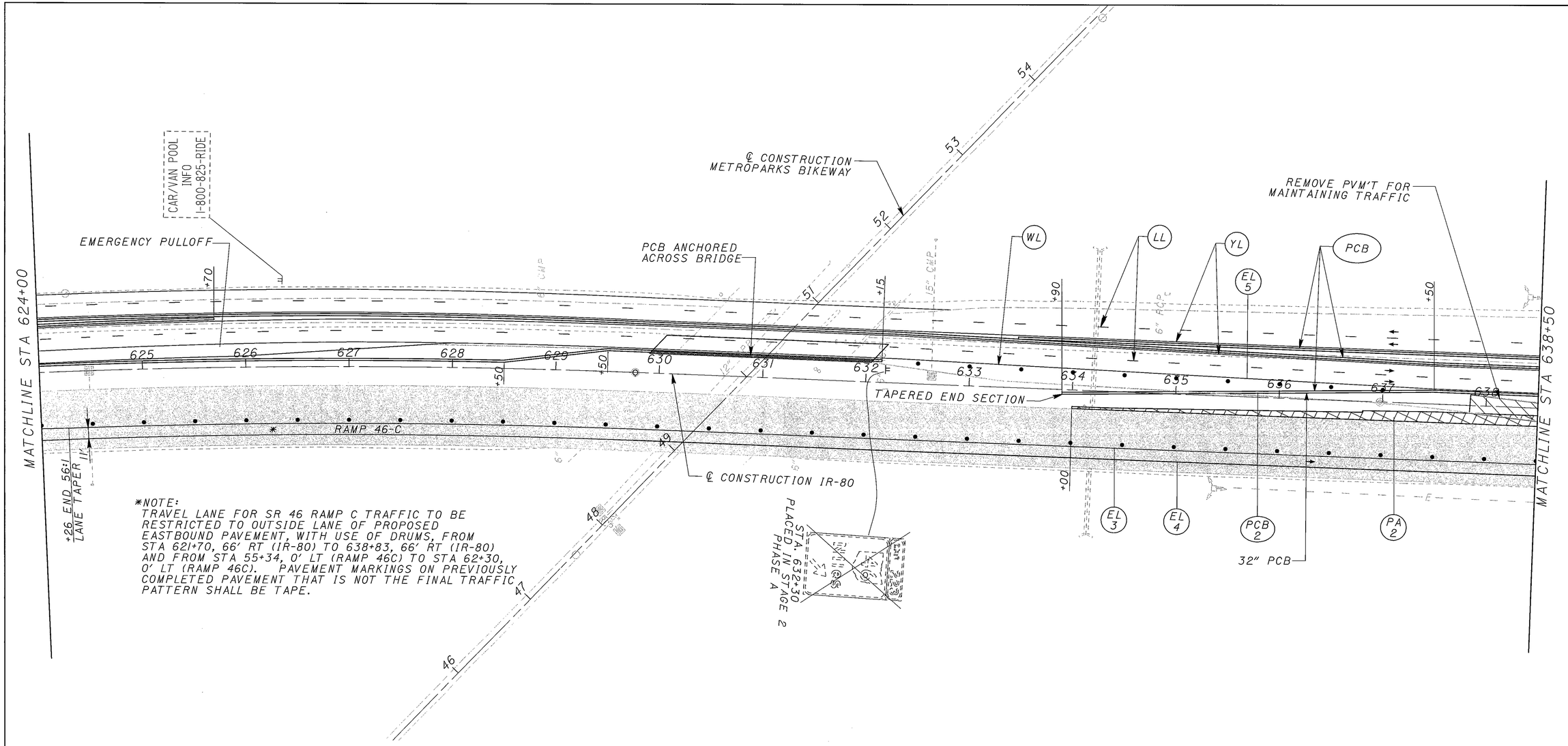

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS, 50' C/C
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- PAVEMENT FOR MAINTAINING TRAFFIC
- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

NOTE:
1. STAGE 1 PHASE B TRAFFIC PATTERN SHALL BE USED TO MAINTAIN WESTBOUND IR-80 TRAFFIC BETWEEN STA 465+50 AND 671+00. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES, SEE PLAN SHEETS 60 TO 75.

2. STAGE 2 PHASE A TRAFFIC PATTERN SHALL BE USED TO MAINTAIN EASTBOUND IR-80 THRU TRAFFIC BETWEEN STA 476+25 AND STA 671+00. FOR GEOMETRIC DESIGN INFORMATION AND QUANTITIES OF TRAFFIC CONTROL DEVICES PLACED IN PREVIOUS STAGES, SEE PLAN SHEETS 82 TO 103.

EMERGENCY PULLOFF DETAILS, SEE SHEET 45
FOR MOT QUANTITIES, SEE SHEET 112

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 2 PHASE B

MAH-80-0.97

102
1100

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NOTE:
1. STAGE 1 PHASE B TRAFFIC PATTERN SHALL BE USED TO MAINTAIN WESTBOUND IR-80 TRAFFIC BETWEEN STA 465+50 AND 671+00. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES, SEE PLAN SHEETS 60 TO 75.

2. STAGE 2 PHASE A TRAFFIC PATTERN SHALL BE USED TO MAINTAIN EASTBOUND IR-80 THRU TRAFFIC BETWEEN STA 476+25 AND STA 671+00. FOR GEOMETRIC DESIGN INFORMATION AND QUANTITIES OF TRAFFIC CONTROL DEVICES PLACED IN PREVIOUS STAGES, SEE PLAN SHEETS 82 TO 103.

MATCHLINE STA 638+50

MATCHLINE STA 652+00

REMOVE PVM'T FOR MAINTAINING TRAFFIC

TEMP. 12" CONDUIT PLACED IN STAGE 1

PVM'T FOR MAINTAINING TRAFFIC

TS STA 43+57.42

℄ CONSTRUCTION RAMP 46A

250' - 12" TYPE B CONDUIT

℄ CONSTRUCTION IR-80

ROAD WORK AHEAD W20-1-48

PAVEMENT FOR MAINTAINING TRAFFIC

2-12' LANES

2-11' LANES

REMOVE PAVEMENT FOR MAINTAINING TRAFFIC

300'-12" CONDUIT

32" PCB

MATCHLINE STA 652+00

+83 BEGIN LANE SHIFT, 66' RT (IR-80)

DRUMS, 50' C/C

WORKZONE IMPACT ATTENUATOR

32" PCB

250' - 12" CONDUIT

℄ CONSTRUCTION RAMP 46C

TRUSS AND SIGNS REMOVED IN STAGE 2 PHASE A

+34 END LANE SHIFT, 0' LT (RAMP 46C)

PLACE PLASTIC OVER PROP. CB AND CONNECT 12" INTO CB CONDUIT

END ROAD WORK G20-2A-48

SC STA 77+34.71

CS STA 75+37.86

EXIT 223

E1-H3 STA. 638+80 PROPOSED SIGN*

E1-5

COVER SIGN

* PROPOSED SIGNS AND SUPPORTS TO BE ERECTED AND COVERED AS SHOWN THIS PHASE. SEE TRAFFIC CONTROL PLANS FOR DETAILS.

E6-2a STA. 645+00 PROPOSED SIGN*

E1-1

E1-5

E1-H3

E5-1a STA. 647+50 PROPOSED SIGN*

EXIT 223

COVER SIGNS

MATCHLINE STA 656+00

THIS PART OF SIGN TO BE COVERED

EXISTING TRUSS AND SIGNS TO REMAIN

EAST 80 New York City 2 LANES NORTH

Youngstown 680 1 MILE EXIT 224B

Canfield 11 SOUTH 3/4 MILE EXIT 224A

Canfield 11 SOUTH 1/2 MILE EXIT 224A

Niles 46 EXIT 223

DRUMS, 20' C/C

+30 BEGIN EDGE LINE TAPER

+30 END EDGE LINE RT MATCH EXISTING

MATCHLINE STA 58+45 STA 60+70

PT STA 61+01.39

+30 END EDGE LINE RT

END ROAD WORK G20-2-48

** TRAVEL LANE FOR SR 46 RAMP C TRAFFIC TO BE RESTRICTED TO OUTSIDE LANE OF PROPOSED EASTBOUND PAVEMENT, WITH USE OF DRUMS, FROM STA 621+70, 66' RT (IR-80) TO 638+83, 66' RT (IR-80) AND FROM STA 55+34, 0' LT (RAMP 46C) TO STA 62+30, 0' LT (RAMP 46C). PAVEMENT MARKINGS ON PREVIOUSLY COMPLETED PAVEMENT THAT IS NO THE FINAL TRAFFIC PATTERN SHALL BE TAPE.

℄ CONSTRUCTION RAMP 46C

18'-6" WORK AREA | 7'-6" | 1'-6" | 11'-0" | 6'-0"

REMOVE REMAINING PAVEMENT FOR MAINTAINING TRAFFIC AND EXISTING SHOULDER

SECTION A-A
STA. 61+25
RAMP 46C
NTS

NEW PAVEMENT PLACED STAGE 1

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED

(WL) WHITE EDGE LINE, 614
(CL) CHANNELIZING LINE, 614
(LL) LANE LINE, 614
(YL) YELLOW EDGE LINE, 614
(PCB) PORTABLE CONCRETE BARRIER

EXISTING SIGN, TO BE REMOVED
EXISTING SIGN, TO REMAIN
NEW SIGN

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

PAVEMENT FOR MAINTAINING TRAFFIC

FOR MOT QUANTITIES, SEE SHEET 112
FOR MOT DRAINAGE QUANTITIES SEE SHEET 112
FOR CROSSOVER PROFILE AND GEOMETRICS, SEE SHEET 58

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 2 PHASE B

MAH-80-0.97

103
1100

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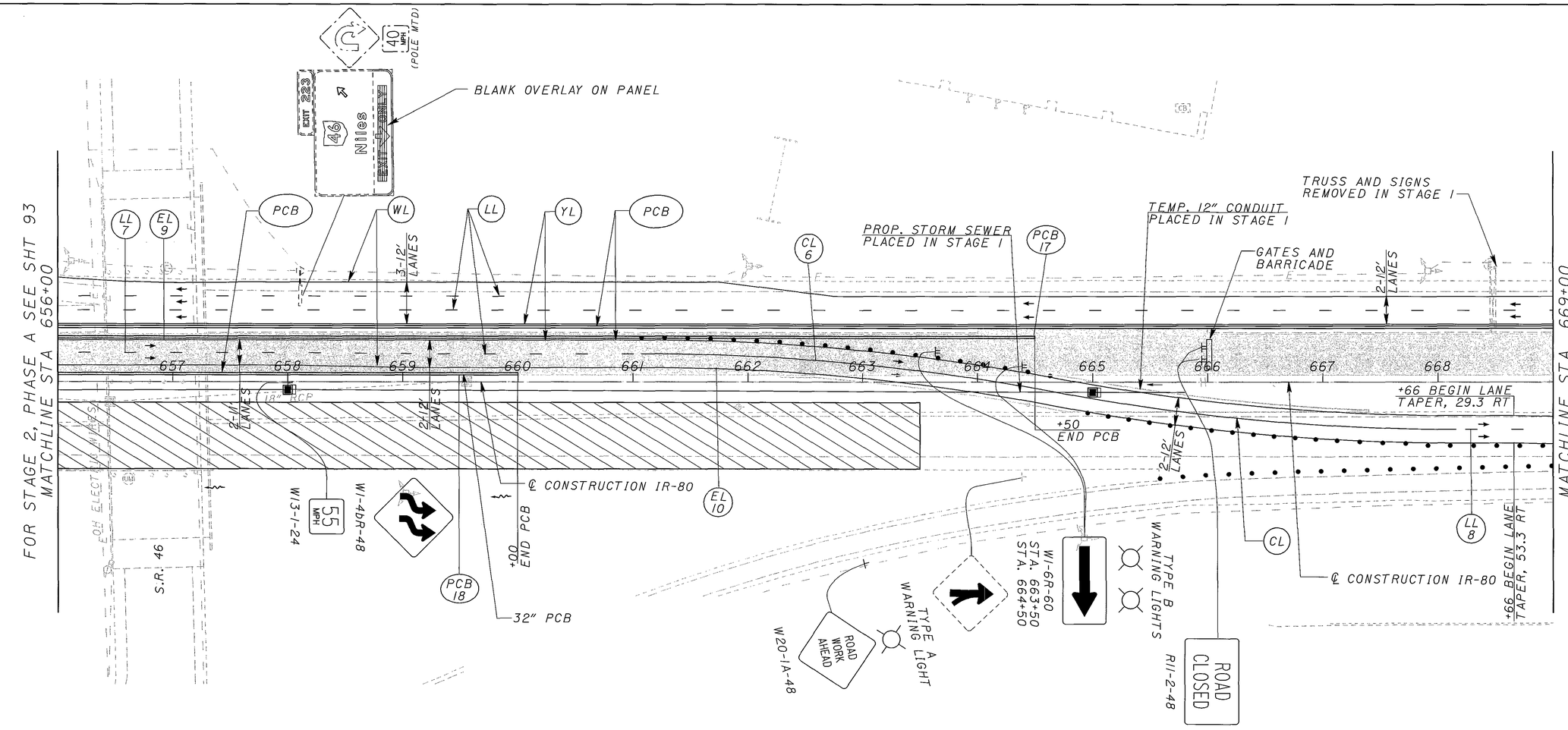

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS, 20' C/C
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- (WL) WHITE EDGE LINE, 6I4
- (CL) CHANNELIZING LINE, 6I4
- (LL) LANE LINE, 6I4
- (YL) YELLOW EDGE LINE, 6I4
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

NOTE:
1. STAGE I PHASE B TRAFFIC PATTERN SHALL BE USED TO MAINTAIN WESTBOUND IR-80 TRAFFIC BETWEEN STA 465+50 AND 67I+00. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES, SEE PLAN SHEETS 60 TO 75.

2. STAGE 2 PHASE A TRAFFIC PATTERN SHALL BE USED TO MAINTAIN EASTBOUND IR-80 THRU TRAFFIC BETWEEN STA 476+25 AND STA 67I+00. FOR GEOMETRIC DESIGN INFORMATION AND QUANTITIES OF TRAFFIC CONTROL DEVICES PLACED IN PREVIOUS STAGES, SEE PLAN SHEETS 82 TO 103.

FOR MOT QUANTITIES, SEE SHEET III
FOR CROSSOVER PROFILE AND GEOMETRICS, SEE SHEET 56

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC
STAGE 2 PHASES A & B

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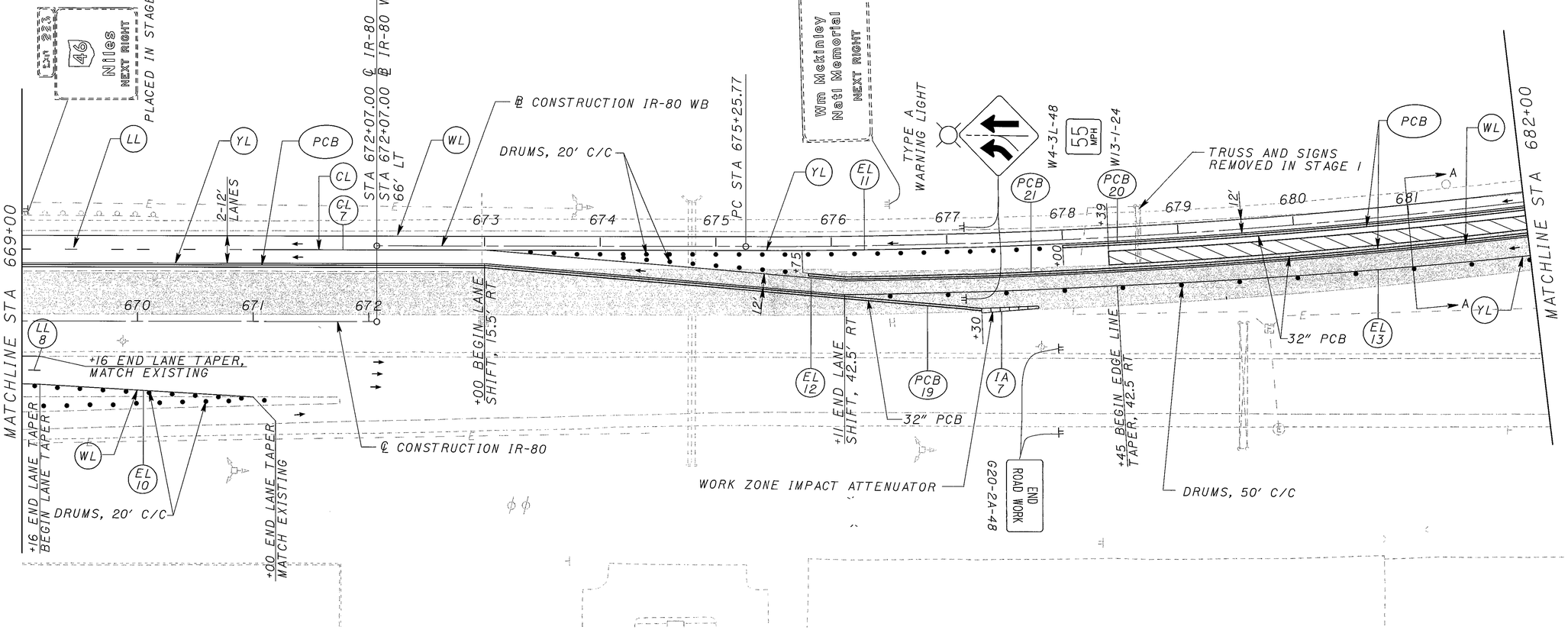

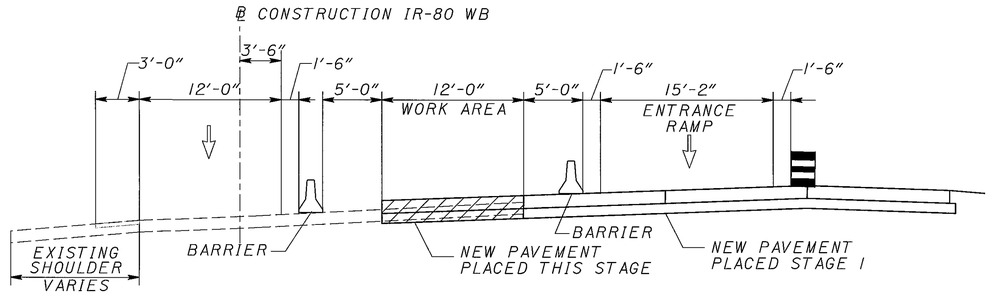

SECTION A-A
STA. 681+00
NTS

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- (WL) WHITE EDGE LINE, 6I4
- (CL) CHANNELIZING LINE, 6I4
- (LL) LANE LINE, 6I4
- (YL) YELLOW EDGE LINE, 6I4
- (PCB) PORTABLE CONCRETE BARRIER
- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR MOT QUANTITIES, SEE SHEET III

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HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 2 PHASES A & B

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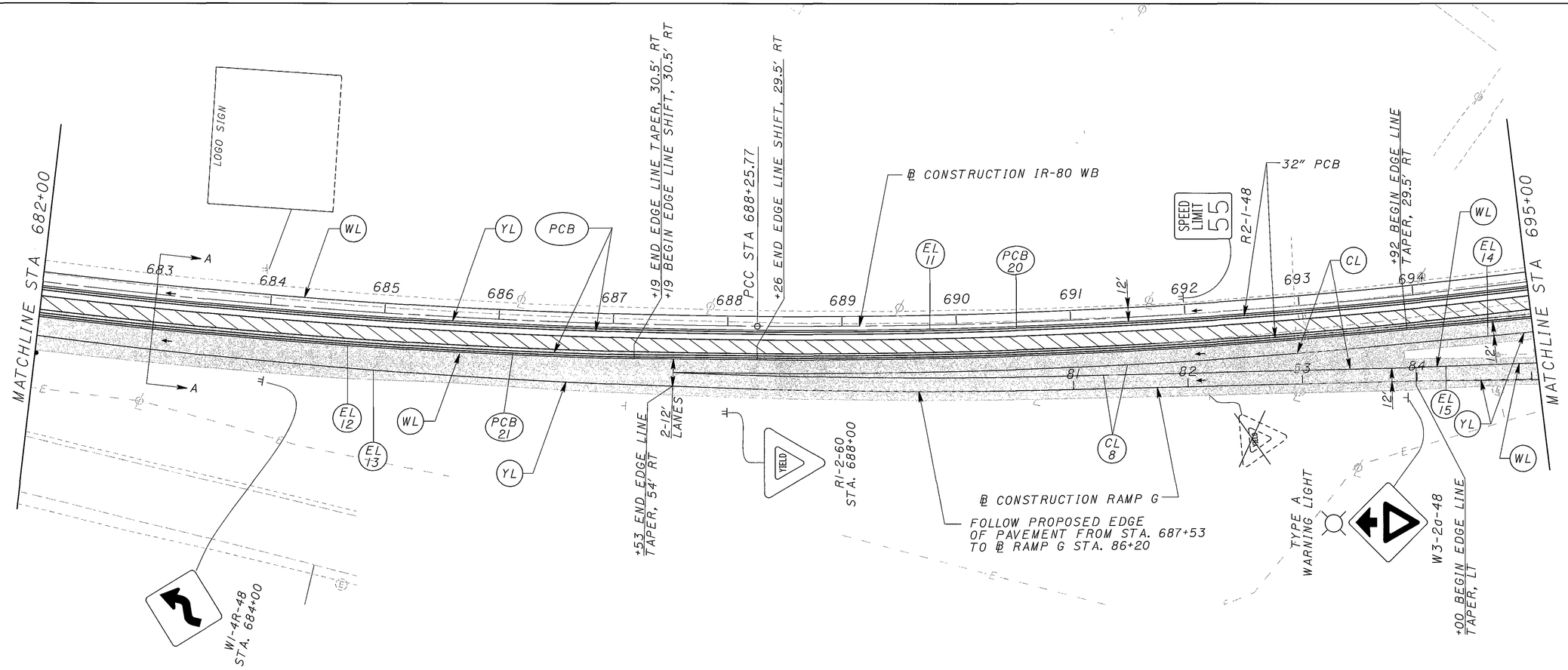

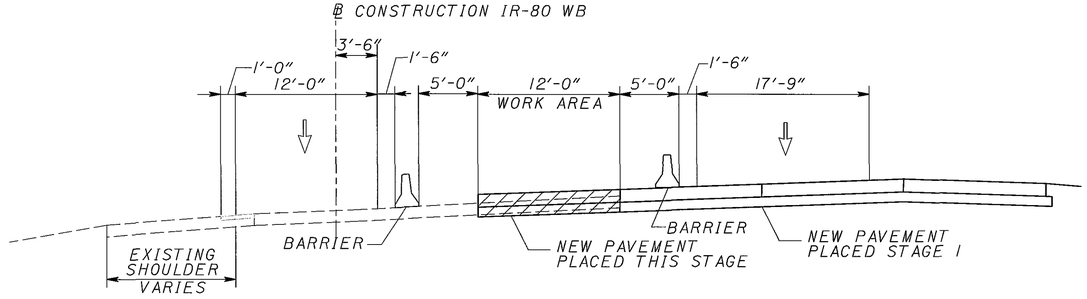

SECTION A-A
STA. 683+00
NTS

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR MOT QUANTITIES, SEE SHEET III

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 2 PHASES A & B

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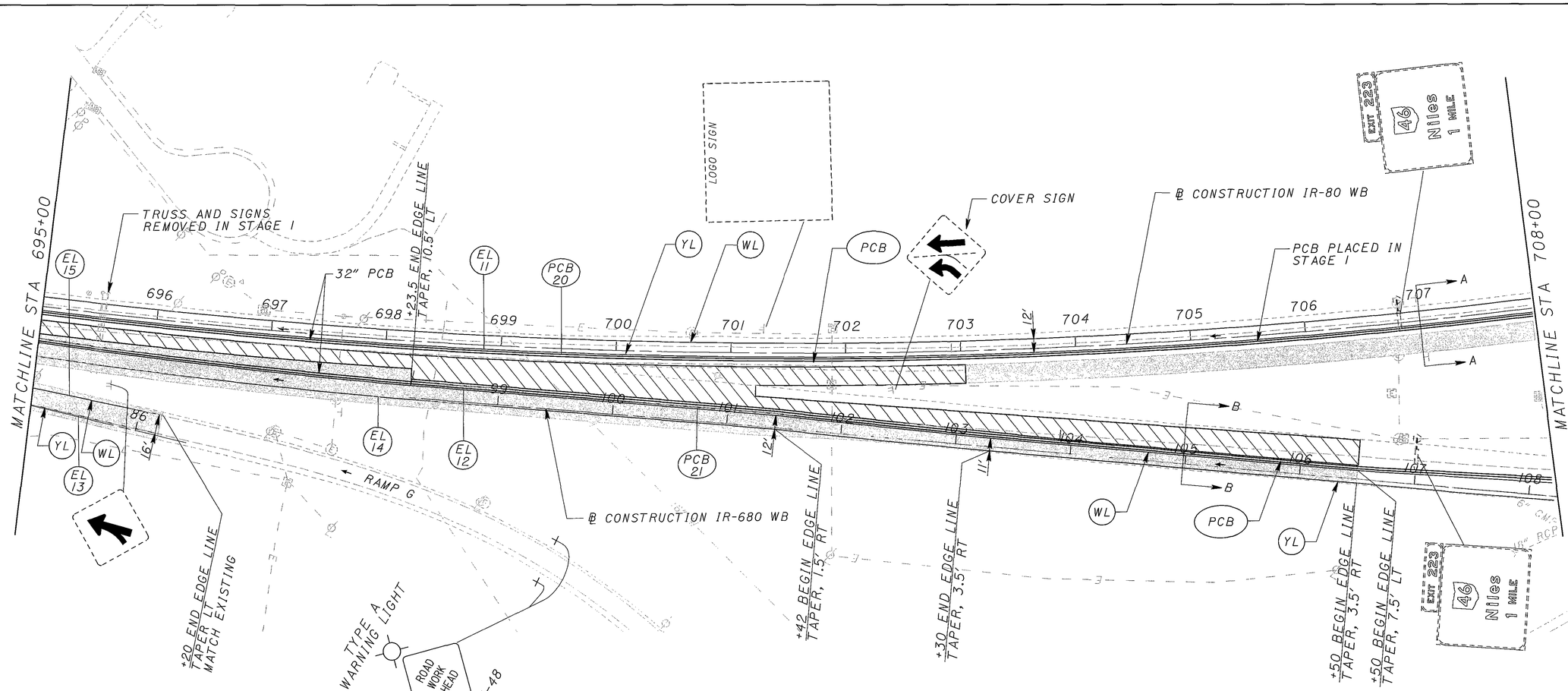
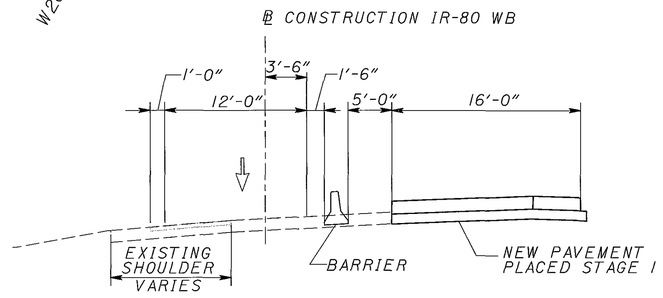
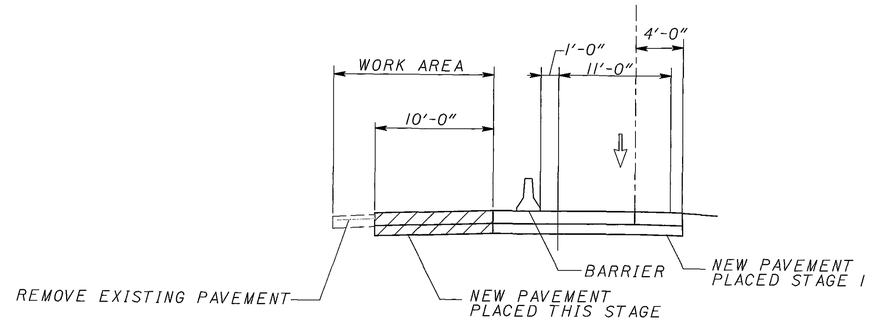




SECTION A-A
STA. 707+00
NTS



SECTION B-B
IR-680 WB STA. 105+00
NTS

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS, 50' C/C

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED

- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR MOT QUANTITIES, SEE SHEET III

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 2 PHASES A & B

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MAINTENANCE OF TRAFFIC STAGE 2 PHASES A & B

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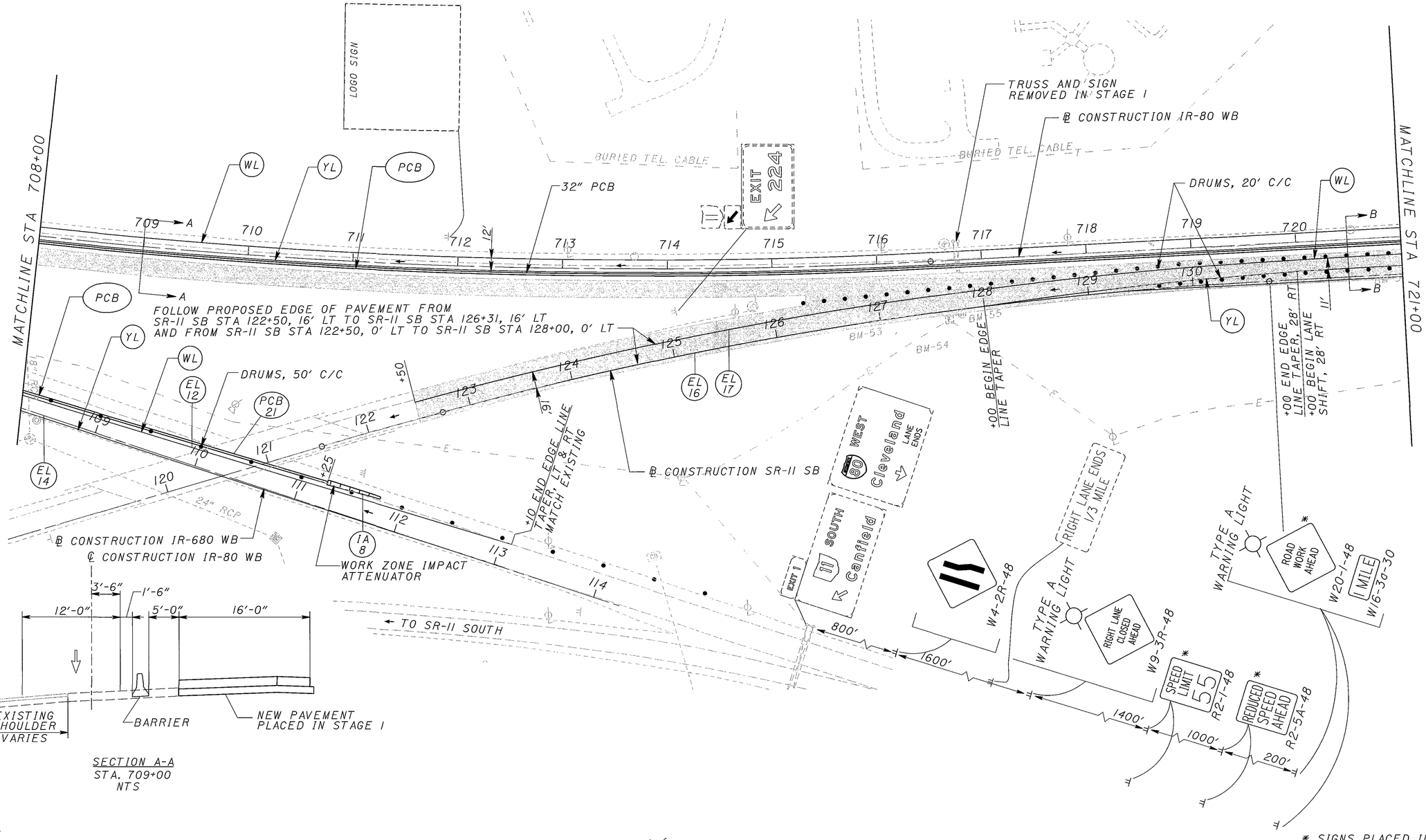
CALCULATED AJP CHECKED JFM

HORIZONTAL SCALE IN FEET 0 25 50 100



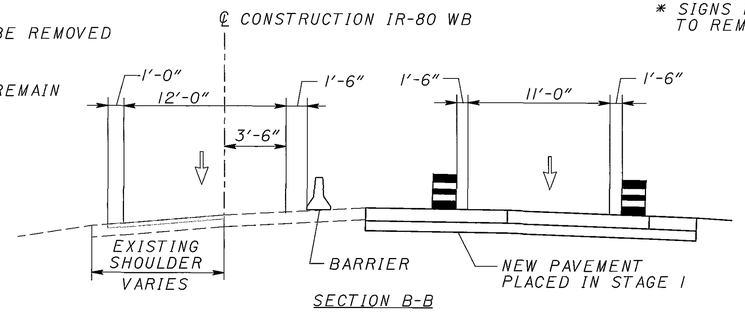
SECTION A-A
STA. 709+00
NTS

LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS
- PROPOSED PAVEMENT IN PLACE
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER
- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

* SIGNS PLACED IN STAGE I TO REMAIN.



SECTION B-B
STA.720+50
NTS

FOR MOT QUANTITIES, SEE SHEET III

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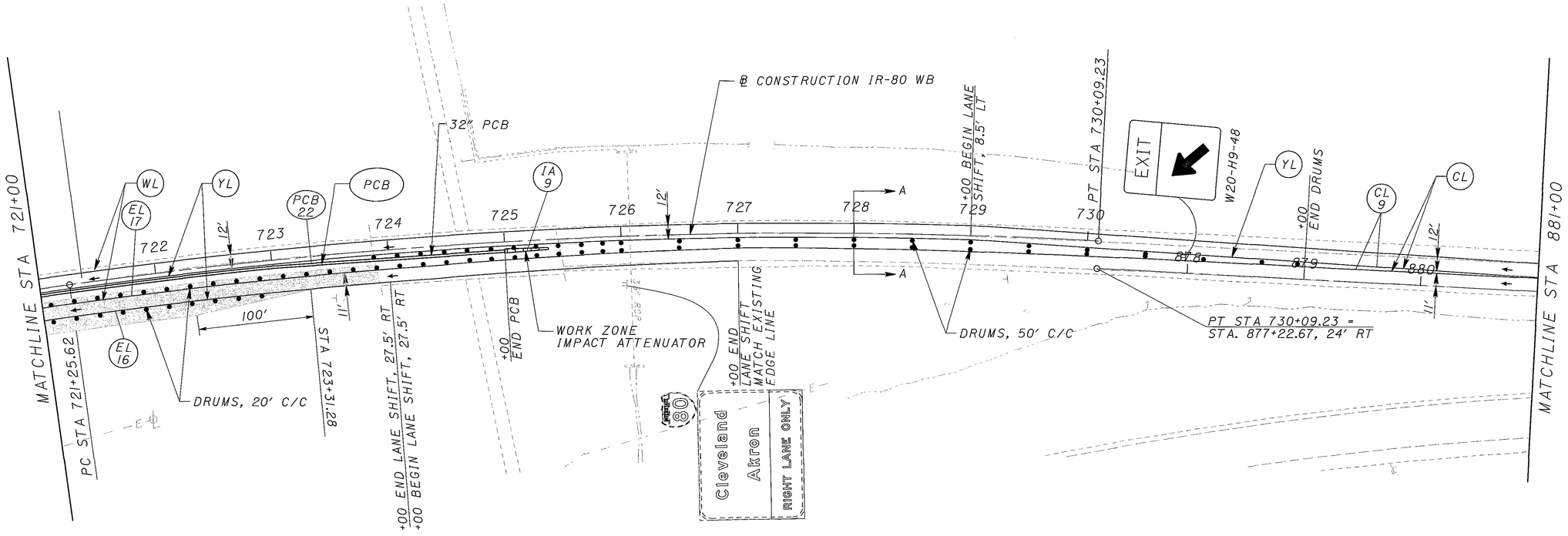

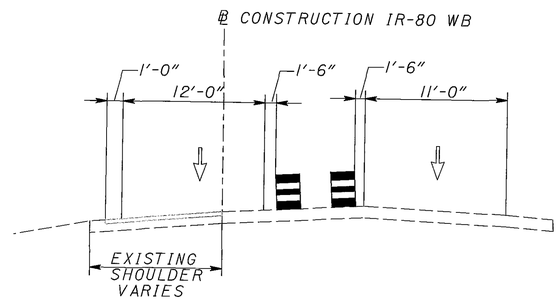

SECTION A-A
STA. 728+00
NTS

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- (WL) WHITE EDGE LINE, 6I4
- (CL) CHANNELIZING LINE, 6I4
- (LL) LANE LINE, 6I4
- (YL) YELLOW EDGE LINE, 6I4
- (PCB) PORTABLE CONCRETE BARRIER
- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

FOR MOT QUANTITIES, SEE SHEET III

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 2 PHASES A & B

MAH-80-0.97

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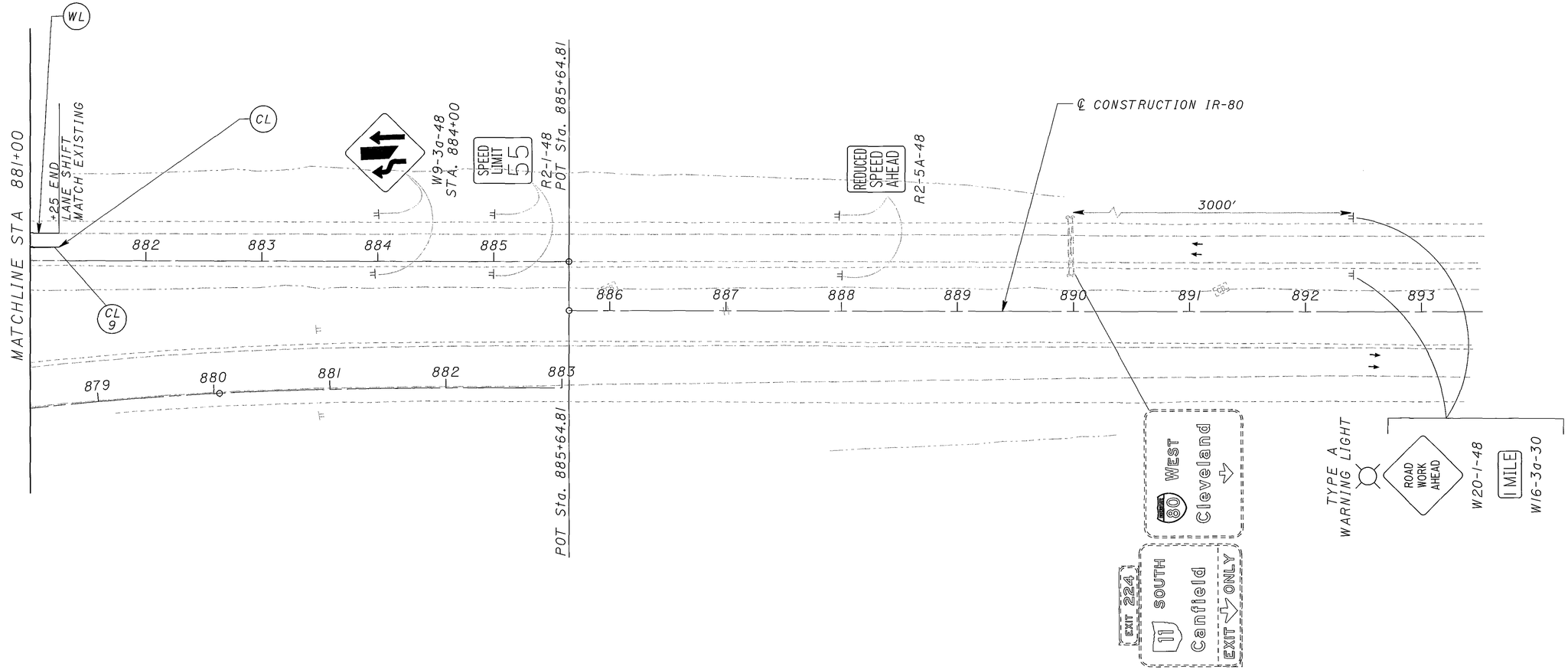

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR MOT QUANTITIES, SEE SHEET III

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 2 PHASES A & B

MAH-80-0.97

110
1100

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REF NO.	SHEET NO.	STATION FROM		STATION TO		SIDE	614 WORK ZONE IMPACT ATTENUATOR		614 BARRIER REFLECTOR, TYPE B	614 OBJECT MARKER, ONE WAY	614 WORK ZONE LANE LINE, CLASS 1, 740.06, TYPE 1	614 WORK ZONE EDGE LINE, CLASS 1, 740.06, TYPE 1 (Yellow)	614 WORK ZONE EDGE LINE, CLASS 1, 740.06, TYPE 1 (White)	614 WORK ZONE CHANNELIZING LINE, CLASS 1, 740.06, TYPE 1					622 PORTABLE CONCRETE BARRIER, 32"	622 PORTABLE CONCRETE BARRIER, 50", AS PER PLAN					
							EACH		EACH	EACH	MILE	MILE	MILE	FT					FT	FT					
CL6	104	CL	661+07	CL	668+16	LT/RT								712											
CL7	105	CL	671+00	WB	673+00	LT/RT								200											
CL8	106	WB	687+53	WB	693+90	RT								1274											
CL9	109-110	WB	879+00	WB	881+25	LT								225											
EL9	104	CL	656+00	CL	668+16	LT						0.23													
EL10	104-105	CL	656+00	CL	671+00	LT/RT							0.28												
EL11	105-107	WB	673+00	WB	698+27	LT/RT						0.48													
EL12	105-108	WB	673+00	680	113+10	RT							0.76												
EL13	105-107	WB	673+00	G	86+20	RT						0.44													
EL14	106-108	WB	687+53	680	113+10	RT						0.48													
EL15	106-107	WB	687+53	G	86+20	RT							0.16												
EL16	108-109	11	122+50	WB	727+00	RT																			
EL17	108-109	11	122+50	WB	879+00	RT							0.37												
LL7	104	CL	656+00	CL	661+07	LT					0.1														
LL8	104-105	CL	668+16	CL	671+00	RT					0.05														
PCB17	104	CL	656+00	CL	664+50	LT			70											850					
PCB18	104	CL	656+00	CL	660+00	LT			9	9									400						
PCB19	105	WB	673+00	WB	677+30	RT			8	8									330						
PCB20	105-107	WB	678+00	WB	700+00	RT			178											2200					
PCB21	105-108	WB	675+75	680	111+25	RT			286											3550					
PCB22	109	WB	723+00	WB	725+00	RT			18											200					
IA7	105	WB	677+28			RT	1																		
IA8	108	680	111+25			LT	1																		
IA9	109	WB	725+00			RT	1																		
SUBTOTAL							3		569	17	0.15	1.63	1.57	2411					730	6800					
TOTALS CARRIED TO SUBSUMMARY ON SHEET 59							3		569	17	0.15	1.63	1.57	2411					730	6800					

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CALCULATED AJP | CHECKED JFM

MAINTENANCE OF TRAFFIC QUANTITIES
STAGE 2, PHASE A & B - STA. 656+00 TO END OF PROJECT

MAH-80-0.97

REF NO.	SHEET NO.	STATION FROM		STATION TO		SIDE	614 WORK ZONE IMPACT ATTENUATOR	603 12" CONDUIT, TYPE B	614 BARRIER REFLECTOR, TYPE B	614 OBJECT MARKER, ONE WAY	614 WORK ZONE LANE LINE, CLASS 1, 740.06, TYPE 1	614 WORK ZONE EDGE LINE, CLASS 1, 740.06, TYPE 1 (Yellow)	614 WORK ZONE EDGE LINE, CLASS 1, 740.06, TYPE 1 (White)	614 WORK ZONE CHANNELIZING LINE, CLASS 1, 740.06, TYPE 1		615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN			622 PORTABLE CONCRETE BARRIER, 32"						
							EACH	FT	EACH	EACH	MILE	MILE	MILE	FT		SQ YD			FT						
STAGE 2, PHASE B QUANTITIES																								
CL1	98	CL	511+00	CL	513+45	RT								245										
CL2	101	CL	611+80	CL	615+00	LT								640										
EL1	96-97	A	8+00	CL	511+00	RT						0.44												
EL2	96-97	A	8+00	CL	519+50	RT							0.597											
EL3	101-103	CL	615+00	46C	63+30	LT/RT						0.732												
EL4	100A-103	CL	609+00	46C	62+30	LT/RT							0.82											
EL5	102	CL	632+00	CL	637+50	LT							0.105											
IA1	101	CL	619+00			LT	1																	
IA2	103	CL	641+00			RT	1																	
LL1	98	CL	513+45	CL	516+00	RT					0.05													
PA1	96	CL	483+50	CL	489+00	RT										1569								
PA2	102-103	CL	634+00	CL	643+00	RT										924.4								
PA3	103	CL	646+00	CL	652+00	LT/RT										812.6								
PCB1	101	CL	619+00	CL	620+00	LT			3	3									100					
PCB2	102-103	CL	633+90	CL	653+00	LT			40	40									1910					
PCB3	103	CL	641+00	46C	58+00	RT			15	15									700					
PCB4	96	CL	484+50	CL	491+00	LT			14	14									650					
MOT DRAINAGE QUANTITIES																								
D1	61	CL	478+70	CL	481+70	RT		300																
D2	62	CL	488+00	CL	490+00	CL		200																
D3	63	CL	506+75	CL	509+25	RT/LT		250																
D4	65	CL	554+30	CL	555+00	CL		70																
D5	69	CL	616+25	CL	617+75	RT/LT		150																
D6	72	CL	637+00	CL	641+47	CL		447																
D7	74	CL	665+00	CL	665+80	RT		80																
D8	103	CL	641+50	CL	644+00	RT		250																
D9	103	CL	647+00	CL	650+00	RT		300																
SUBTOTAL							2	2047	72	72	0.05	1.172	1.522	885		3306			3360					
TOTALS CARRIED TO SUBSUMMARY ON SHEET 59							2	2047	72	72	0.05	1.18	1.53	885		3306			3360					

CALCULATED EFD
CHECKED JFN

MAINTENANCE OF TRAFFIC QUANTITIES STAGE 2, PHASE B & DRAINAGE

MAH-80-0.97

112
1100

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MAINTENANCE OF TRAFFIC STAGE 3

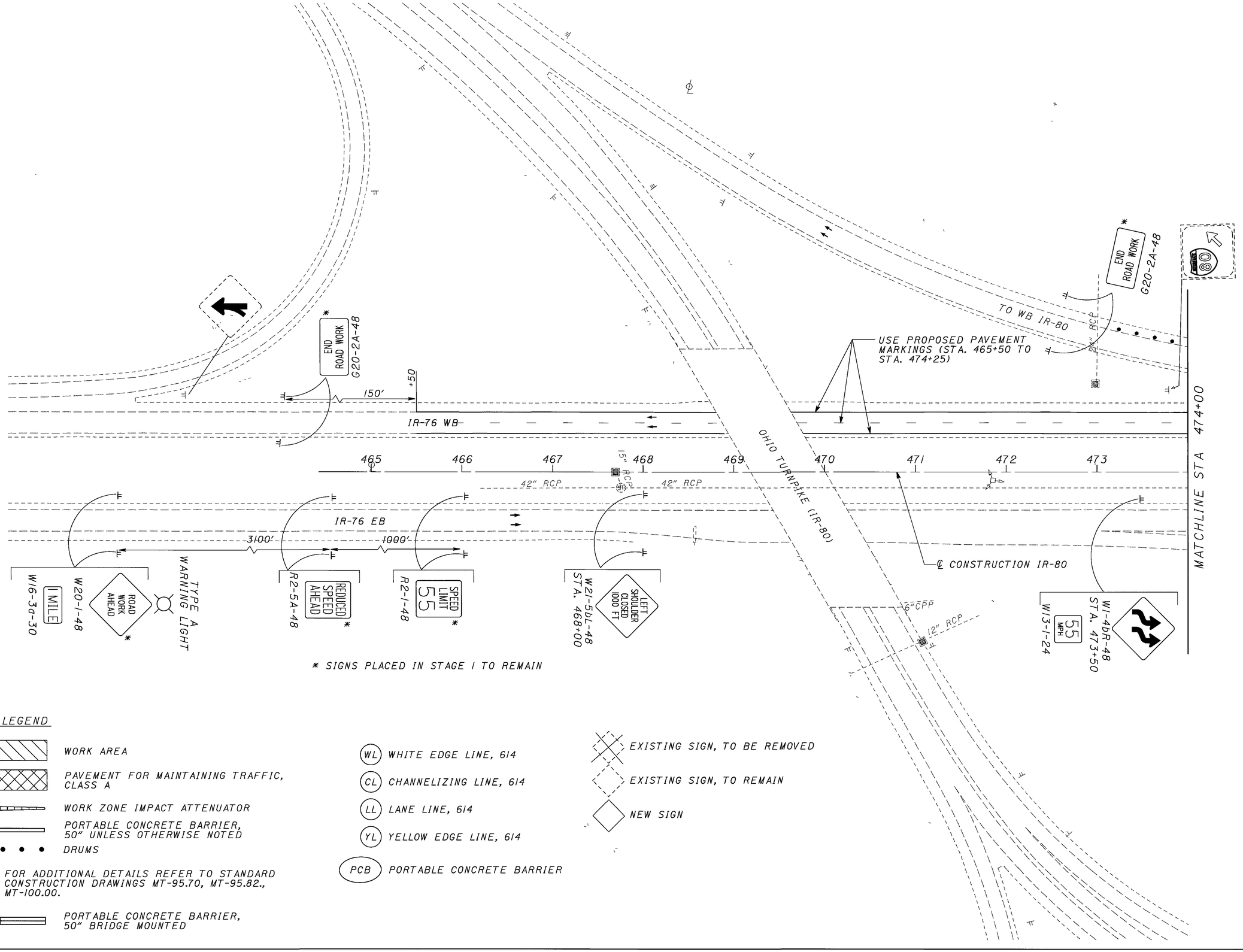
CALCULATED AJP
CHECKED JFM

HORIZONTAL SCALE IN FEET
0 25 50 100

N

MAH-80-0.97

113
1100



* SIGNS PLACED IN STAGE I TO REMAIN

LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED

- (WL) WHITE EDGE LINE, 6I4
- (CL) CHANNELIZING LINE, 6I4
- (LL) LANE LINE, 6I4
- (YL) YELLOW EDGE LINE, 6I4
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

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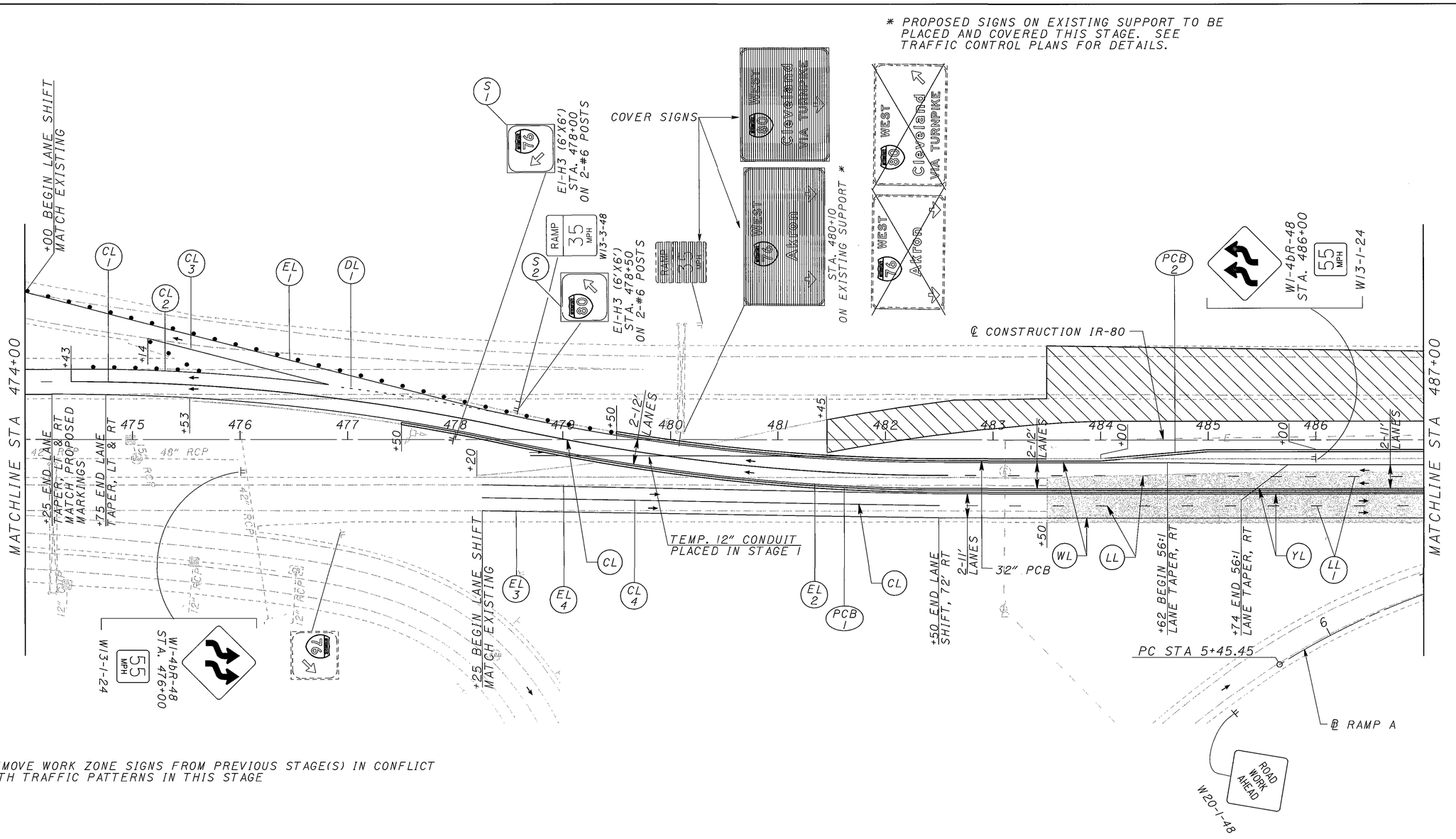

NOTE: REMOVE WORK ZONE SIGNS FROM PREVIOUS STAGE(S) IN CONFLICT WITH TRAFFIC PATTERNS IN THIS STAGE

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- • • DRUMS, 20' C/C

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED

- (DL) DOTTED LINE, 614
- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

NOTE: PAVEMENT MARKINGS ON PREVIOUSLY COMPLETED PAVEMENT SURFACE THAT IS NOT THE FINAL TRAFFIC PATTERN SHALL BE TAPE.

FOR MOT QUANTITIES, SEE SHEET 124

FOR CROSSOVER PROFILE AND GEOMETRICS, SEE SHEET 50

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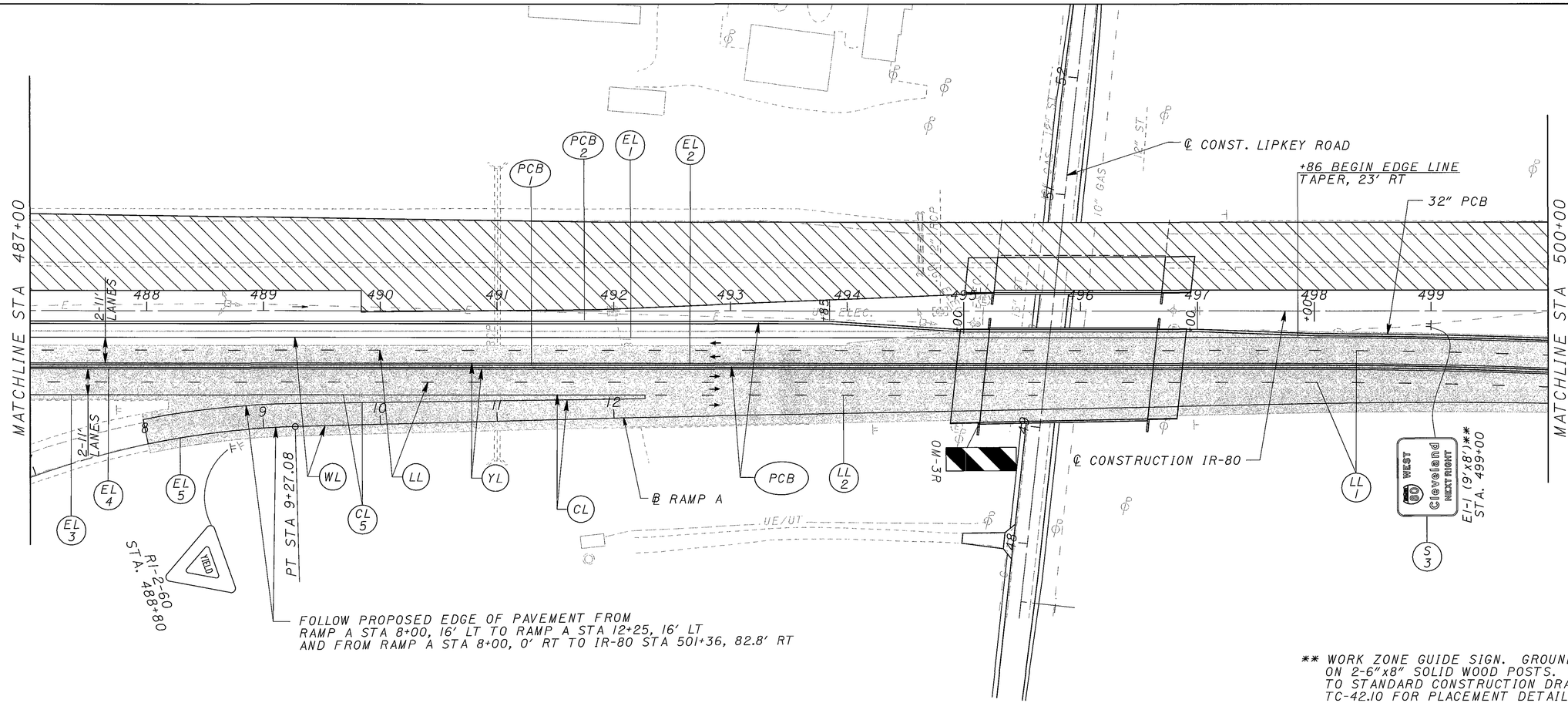
CALCULATED AJP CHECKED JFM

HORIZONTAL SCALE IN FEET 0 25 50 100

MAINTENANCE OF TRAFFIC STAGE 3

MAH-80-0.97



** WORK ZONE GUIDE SIGN. GROUND MOUNTED ON 2-6"x8" SOLID WOOD POSTS. REFER TO STANDARD CONSTRUCTION DRAWING TC-42.10 FOR PLACEMENT DETAILS.

NOTE: PAVEMENT MARKINGS ON PREVIOUSLY COMPLETED PAVEMENT SURFACE THAT IS NOT THE FINAL TRAFFIC PATTERN SHALL BE TAPE.

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED

- (WL) WHITE EDGE LINE, 6I4
- (CL) CHANNELIZING LINE, 6I4
- (LL) LANE LINE, 6I4
- (YL) YELLOW EDGE LINE, 6I4
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR MOT QUANTITIES, SEE SHEET 124

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 3

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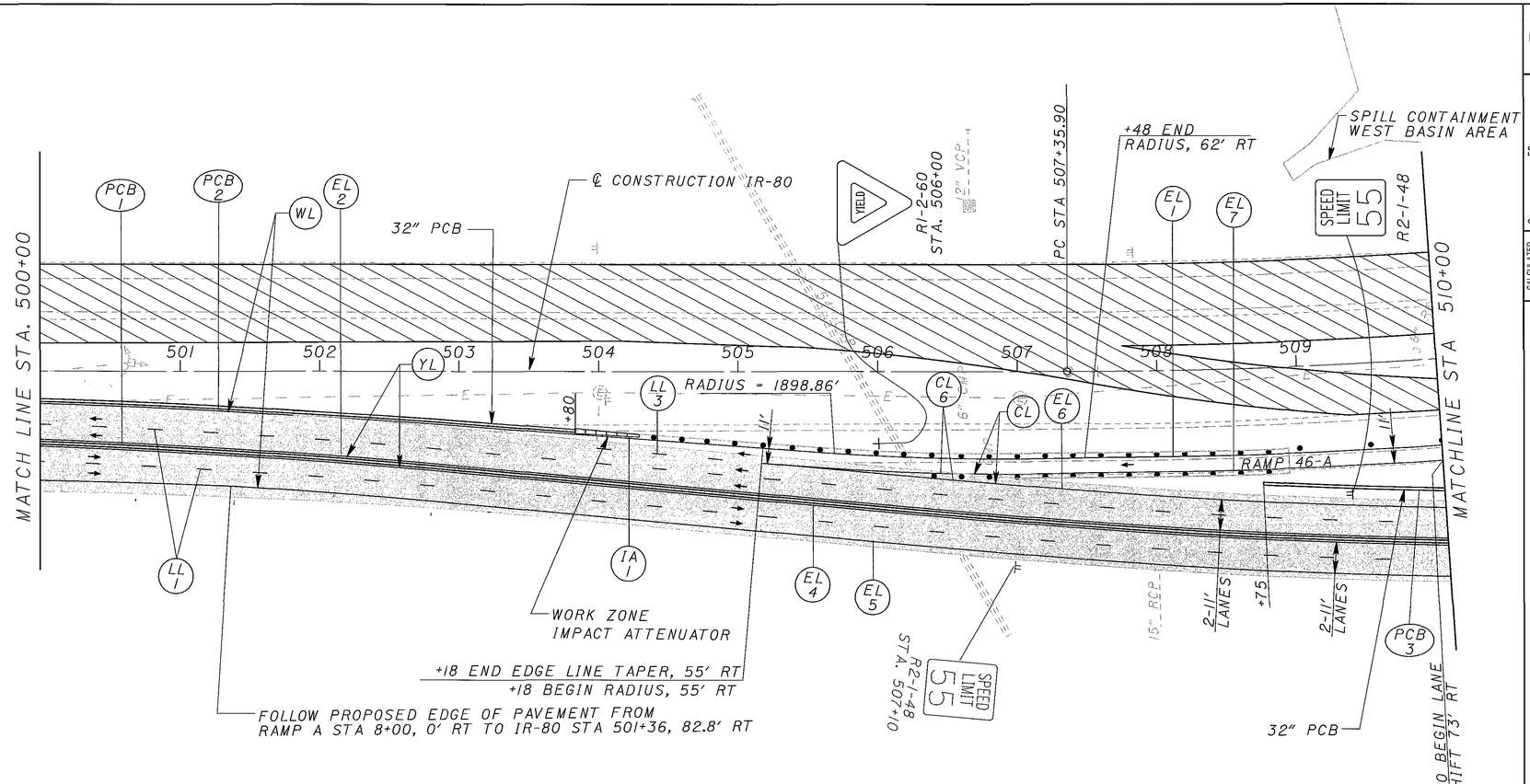

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS, 20' C/C

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A
- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER
- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

NOTE: PAVEMENT MARKINGS ON PREVIOUSLY COMPLETED PAVEMENT SURFACE THAT IS NOT THE FINAL TRAFFIC PATTERN SHALL BE TAPE.

FOR MOT QUANTITIES, SEE SHEET 124

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 3

MAH-80-0.97

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SPILL CONTAINMENT
EAST BASIN AREA

℄ CONSTRUCTION IR-80

PT STA 519+05.27

MATCHLINE STA 510+00

MATCHLINE STA 545+50

TYPE A WARNING LIGHTS

W3-2a-48 STA. 510+50

REMOVE SIGN SUPPORT AND RELOCATE SIGN TO STA. 513+00

EAST 76 Pittsburgh Pa NEXT RIGHT

WARROM SHOCKOR

WEST 80 Cleveland VIA TURNPIKE 3/4 MILE

WEST 76 Akron 3/4 MILE

REMOVE TRUSS AND LEFT SIGN RELOCATE RIGHT SIGN AT STA. 519+50

2200'

+45 BEGIN TAPER 73.0' RT

+50 END TAPER 65.6' RT

RAMP 46-A

+12, EMERGENCY PULLOFF

32" PCB

+00 BEGIN LANE SHIFT 73' RT

+00 BEGIN LANE SHIFT 74' RT

REMOVE PAVEMENT FOR MAINTAINING TRAFFIC

W4-1R-48

55 MPH

W13-1-24

STA. 513+00 GROUND MOUNT ON 2-6"x8" SOLID WOOD POSTS

STA. 519+50** FROM EXISTING TRUSS AT STA. 520+80

WEST 80 Cleveland VIA TURNPIKE 3/4 MILE

** GROUND MOUNT SIGN ON 2-W12x30 BEAMS. USE 2.5FT DIA. & 8.25FT DEEP FOUNDATIONS. INSIDE EDGE OF SIGN TO BE 4' FROM FACE OF PROPOSED GUARDRAIL.

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS, 50' C/C

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00, TC-42.10.

- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- (WL) WHITE EDGE LINE, 6I4
- (CL) CHANNELIZING LINE, 6I4
- (LL) LANE LINE, 6I4
- (YL) YELLOW EDGE LINE, 6I4
- (PCB) PORTABLE CONCRETE BARRIER
- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

℄ CONSTRUCTION IR-80

35'-0"

EXISTING BRIDGE

1'-6" 11'-0" 2'-6" RAMP 46-A 44'-6" 7'-6" 11'-0" 11'-0" 5'-0" 11'-0" 11'-0" 1'-6"

1'-6"

SECTION A-A
STA.521+00
NTS

PCB 25' TYPE 5 GUARDRAIL FLARE ASSEMBLY TYPE I BRIDGE TERMINAL ASSEMBLY BRIDGE PARAPET

FLARE ASSEMBLY

TRAFFIC FLOW

PROPOSED GUARDRAIL TO BE PLACED IN STAGE 2

BEGINNING OF APPROACH SLAB

* CONNECTION DETAIL
WEST END
NTS

FOR MOT QUANTITIES, SEE SHEET 124
EMERGENCY PULLOFF DETAILS, SEE SHEET 45

NOTE: PAVEMENT MARKINGS ON PREVIOUSLY COMPLETED PAVEMENT SURFACE THAT IS NOT THE FINAL TRAFFIC PATTERN SHALL BE TAPE.

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 3

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117
1100

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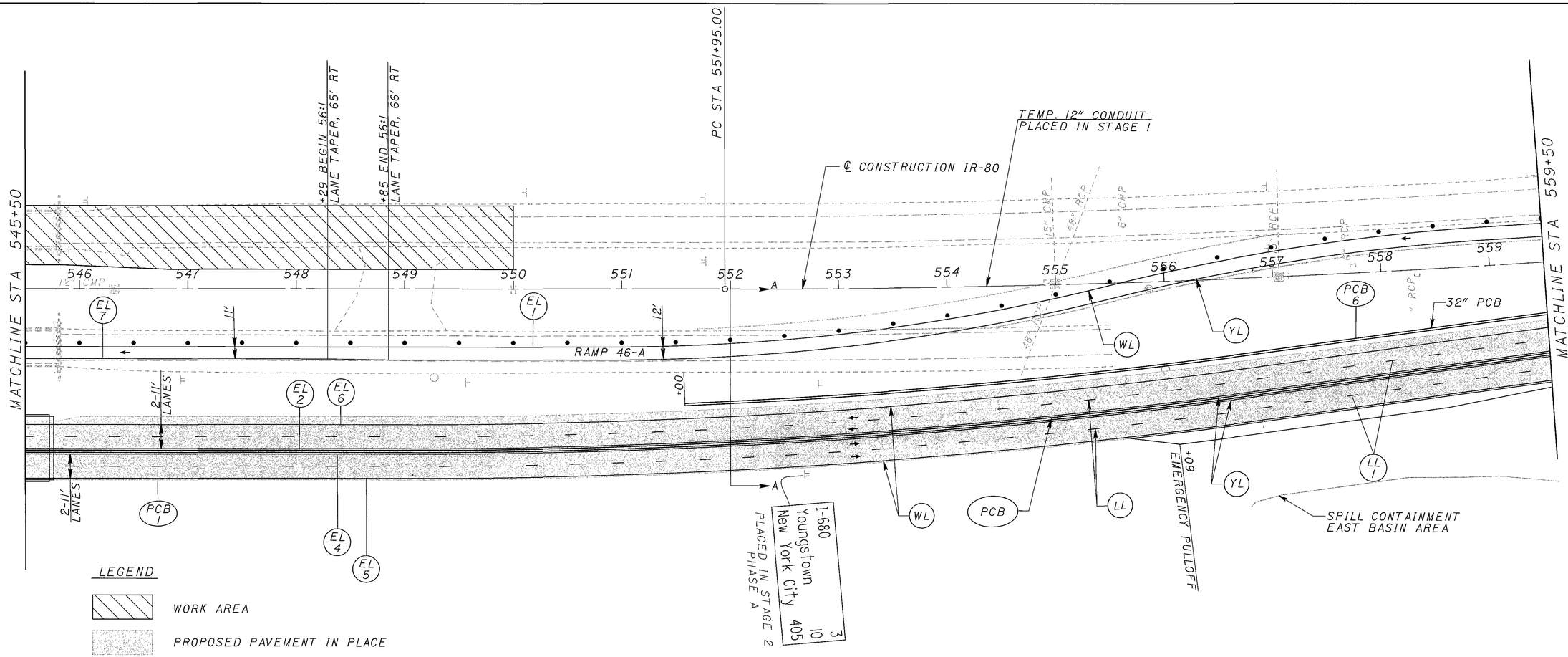
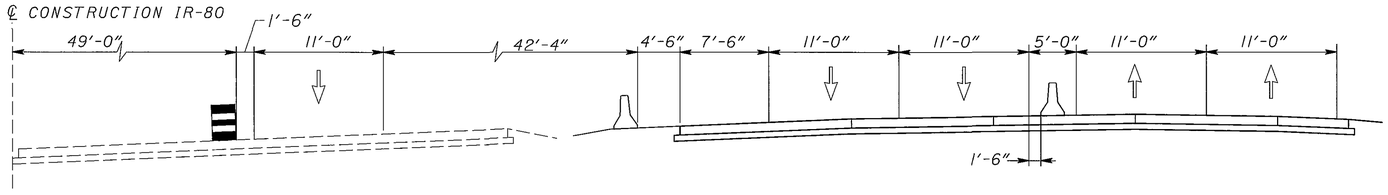


LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- • • • DRUMS, 50' c/c

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN
- (WL) WHITE EDGE LINE, 6I4
- (CL) CHANNELIZING LINE, 6I4
- (LL) LANE LINE, 6I4
- (YL) YELLOW EDGE LINE, 6I4
- (PCB) PORTABLE CONCRETE BARRIER



SECTION A-A
STA.552+00
NTS

NOTE: PAVEMENT MARKINGS ON PREVIOUSLY COMPLETED PAVEMENT SURFACE THAT IS NOT THE FINAL TRAFFIC PATTERN SHALL BE TAPE.

FOR MOT QUANTITIES, SEE SHEET 124

EMERGENCY PULLOFF DETAILS, SEE SHEET 45

FOR CROSSOVER PROFILE AND GEOMETRICS, SEE SHEET 53

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 3

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PT STA 559+76.66
EQUATION:
STA 559+76.66 BK =
STA 559+80.76 AH

WI-4L-48
STA. 562+00

+05 BEGIN 56:1 LANE TAPER, 23.5' LT

+17 END 56:1 LANE TAPER, 25.5' LT

℄ CONSTRUCTION IR-80

32" PCB

RAMP 46-A

MATCHLINE STA 559+50

MATCHLINE STA 573+50

560 561 562 563 564 565 566 567 568 569 570 571 572 573

EL 1 EL 2 EL 4 EL 5 EL 6 EL 7 PCB 1 PCB 6 WL YL LL PCB

SAN

SPILL CONTAINMENT
EAST BASIN AREA

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS, 50' c/c
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED

(WL) WHITE EDGE LINE, 6I4
(LL) LANE LINE, 6I4
(YL) YELLOW EDGE LINE, 6I4
(PCB) PORTABLE CONCRETE BARRIER

EXISTING SIGN, TO BE REMOVED
EXISTING SIGN, TO REMAIN
NEW SIGN

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

℄ CONSTRUCTION IR-80

+50 BEGIN LANE SHIFT, 36.5' LT

32" PCB

+50 END LANE SHIFT, 29.5' LT

℄ TURNER ROAD

OM-3R-12

+60 BEGIN LANE SHIFT, 29.5' LT

1A 8

RAMP 46-A

MATCHLINE STA 573+50

MATCHLINE STA 588+00

574 575 576 577 578 579 580 581 582 583 584 585 586 587

EL 1 EL 2 EL 4 EL 5 EL 6 PCB 1 PCB 6 WL YL LL PCB

WORK ZONE IMPACT ATTENUATOR

18" SAN

NOTE: PAVEMENT MARKINGS ON PREVIOUSLY COMPLETED PAVEMENT SURFACE THAT IS NOT THE FINAL TRAFFIC PATTERN SHALL BE TAPE.

FOR MOT QUANTITIES, SEE SHEET 124

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 3

MAH-80-0.97

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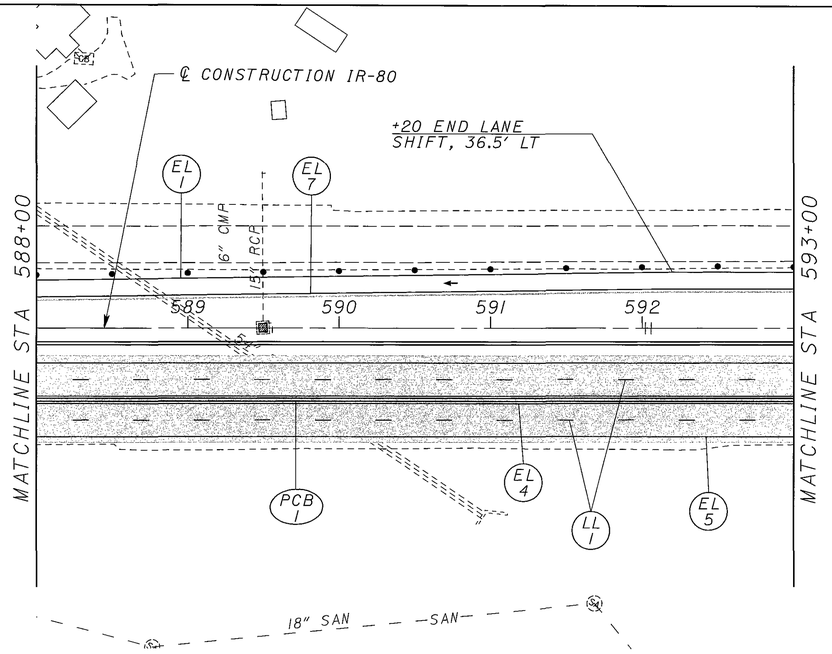


LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- • • • DRUMS, 50' C/C

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

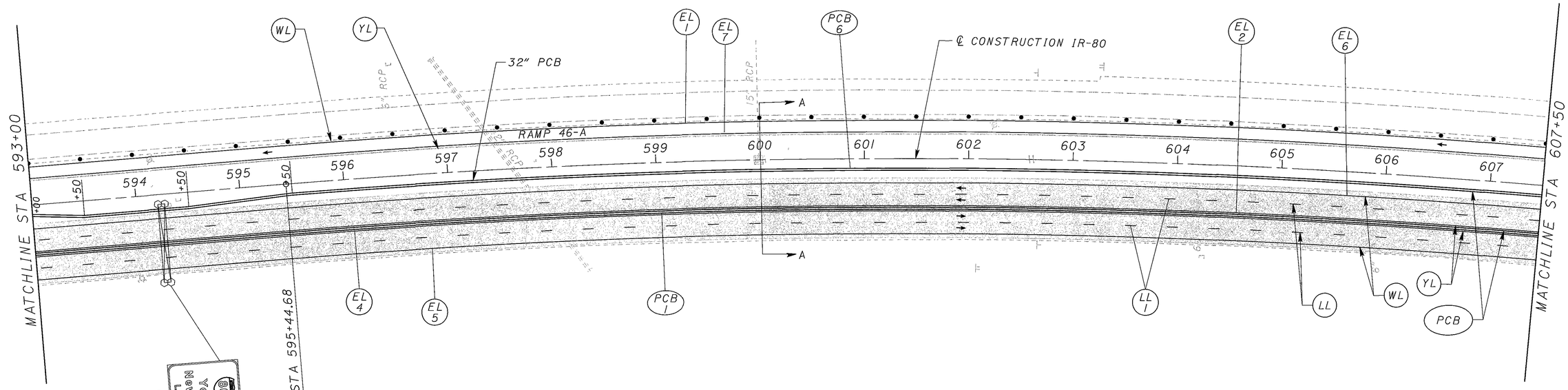
PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED

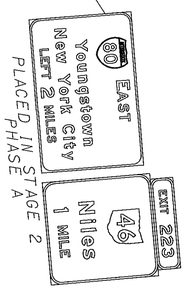
- (WL) WHITE EDGE LINE, 6I4
- (CL) CHANNELIZING LINE, 6I4
- (LL) LANE LINE, 6I4
- (YL) YELLOW EDGE LINE, 6I4
- (PCB) PORTABLE CONCRETE BARRIER

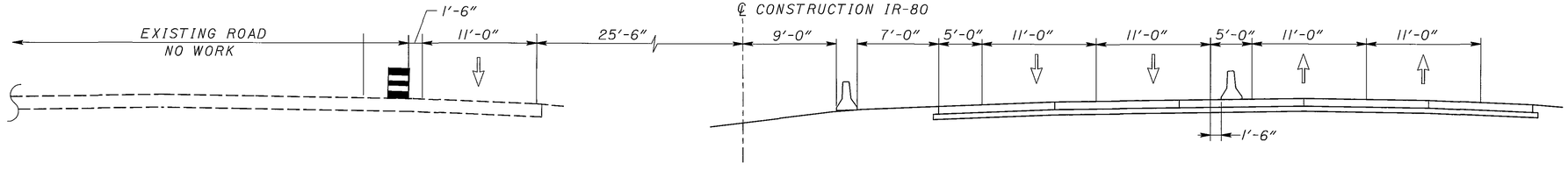
EXISTING SIGN, TO BE REMOVED

EXISTING SIGN, TO REMAIN

NEW SIGN







SECTION A-A
STA.600+00
NTS

NOTE: PAVEMENT MARKINGS ON PREVIOUSLY COMPLETED PAVEMENT SURFACE THAT IS NOT THE FINAL TRAFFIC PATTERN SHALL BE TAPE.

FOR MOT QUANTITIES, SEE SHEET 124

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 3

MAH-80-0.97

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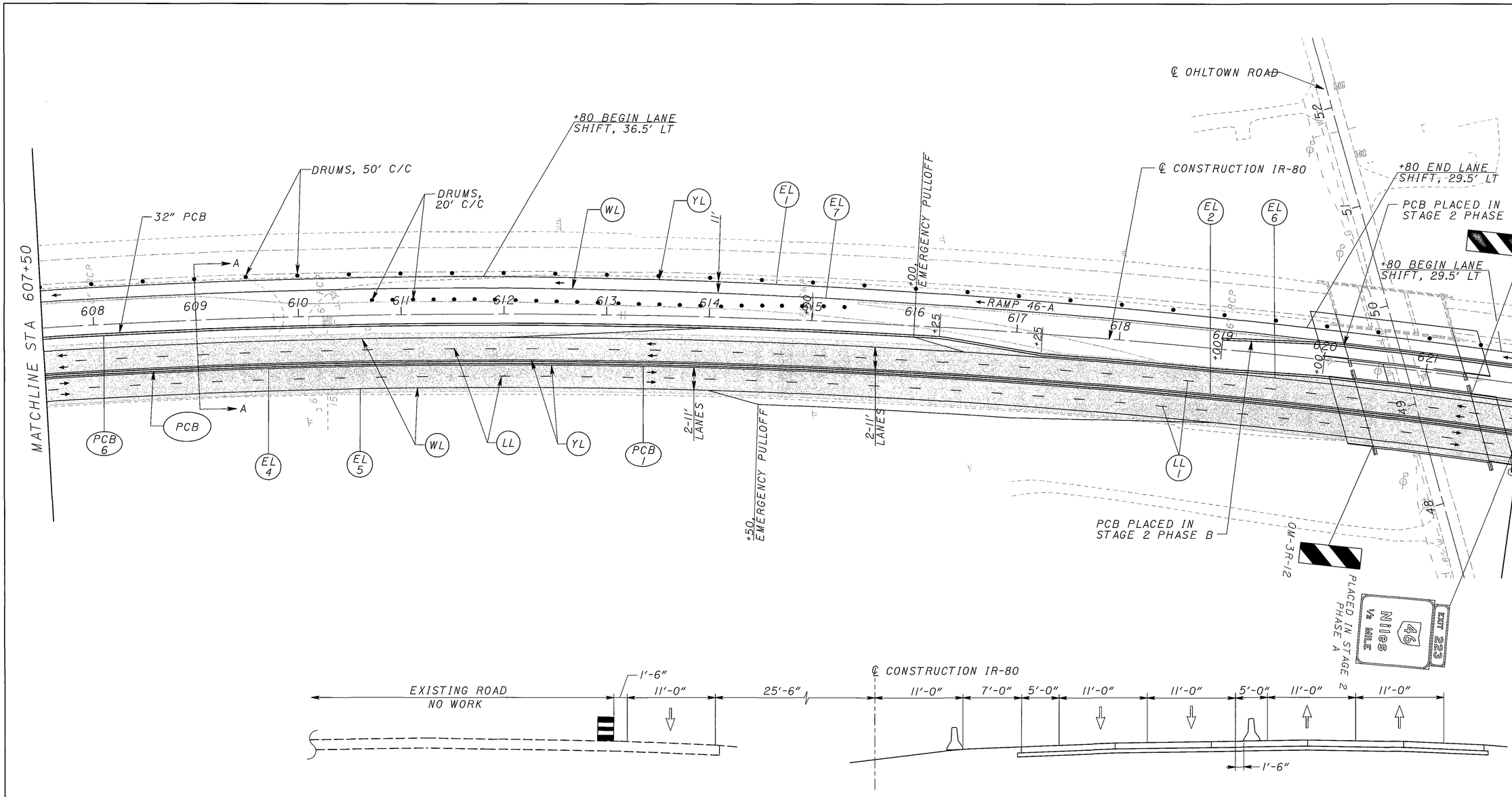

SECTION A-A
STA.609+00
NTS

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- • • • DRUMS

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED

- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

NOTE: PAVEMENT MARKINGS ON PREVIOUSLY COMPLETED PAVEMENT SURFACE THAT IS NOT THE FINAL TRAFFIC PATTERN SHALL BE TAPE.

FOR MOT QUANTITIES, SEE SHEET 124
EMERGENCY PULLOFF DETAILS, SEE SHEET 45

HORIZONTAL SCALE IN FEET
0 25 50 100
CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 3

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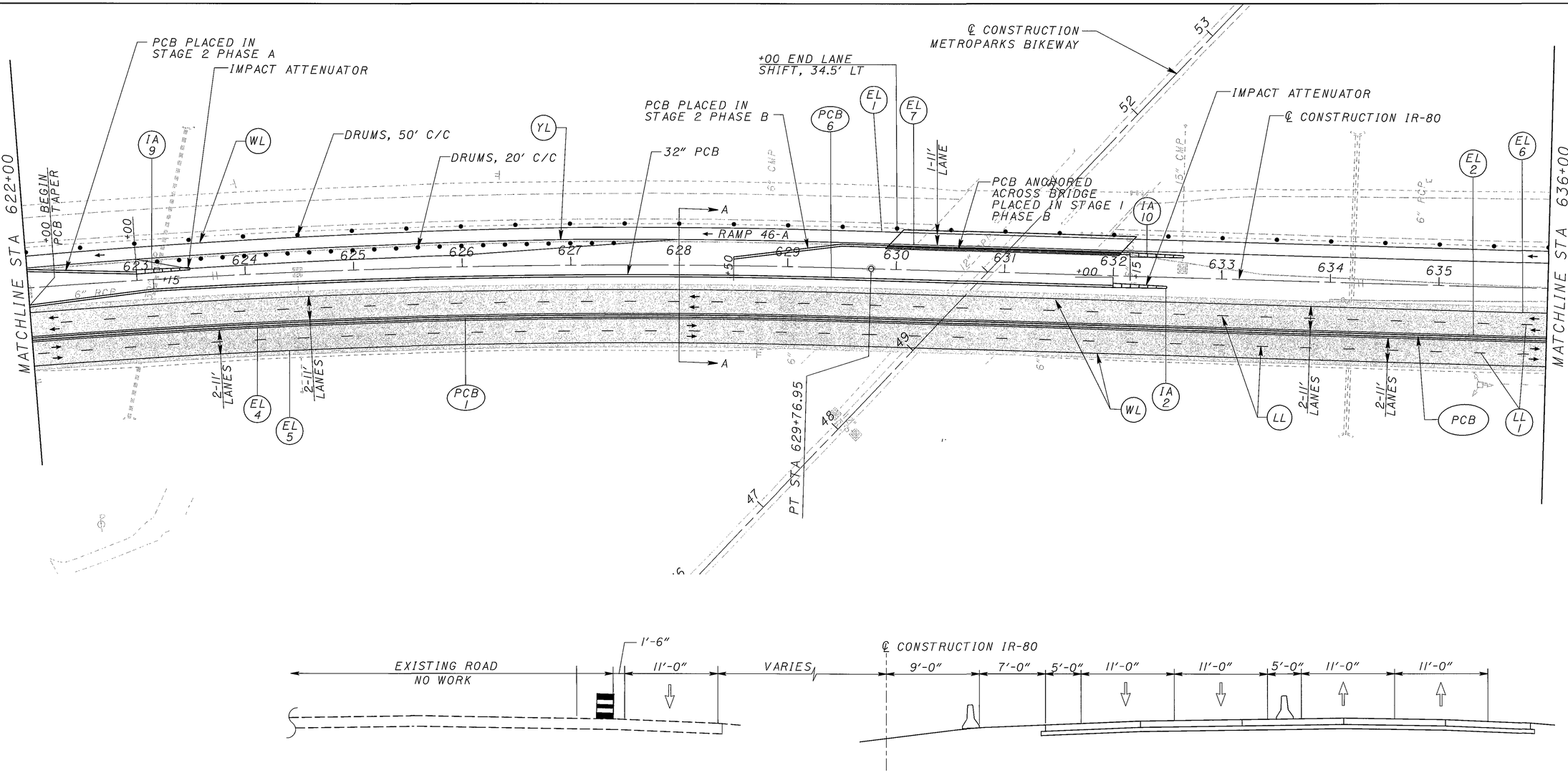

SECTION A-A
STA.628+00
NTS

LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC
- PAVEMENT FOR MAINTAINING TRAFFIC CLASS B, AS PER PLAN
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS

- (WL) WHITE EDGE LINE, 6I4
- (CL) CHANNELIZING LINE, 6I4
- (LL) LANE LINE, 6I4
- (YL) YELLOW EDGE LINE, 6I4
- (PCB) PORTABLE CONCRETE BARRIER
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

NOTE: PAVEMENT MARKINGS ON PREVIOUSLY COMPLETED PAVEMENT SURFACE THAT IS NOT THE FINAL TRAFFIC PATTERN SHALL BE TAPE.

FOR MOT QUANTITIES, SEE SHEET I24

EMERGENCY PULLOFF DETAILS, SEE SHEET 45

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 3

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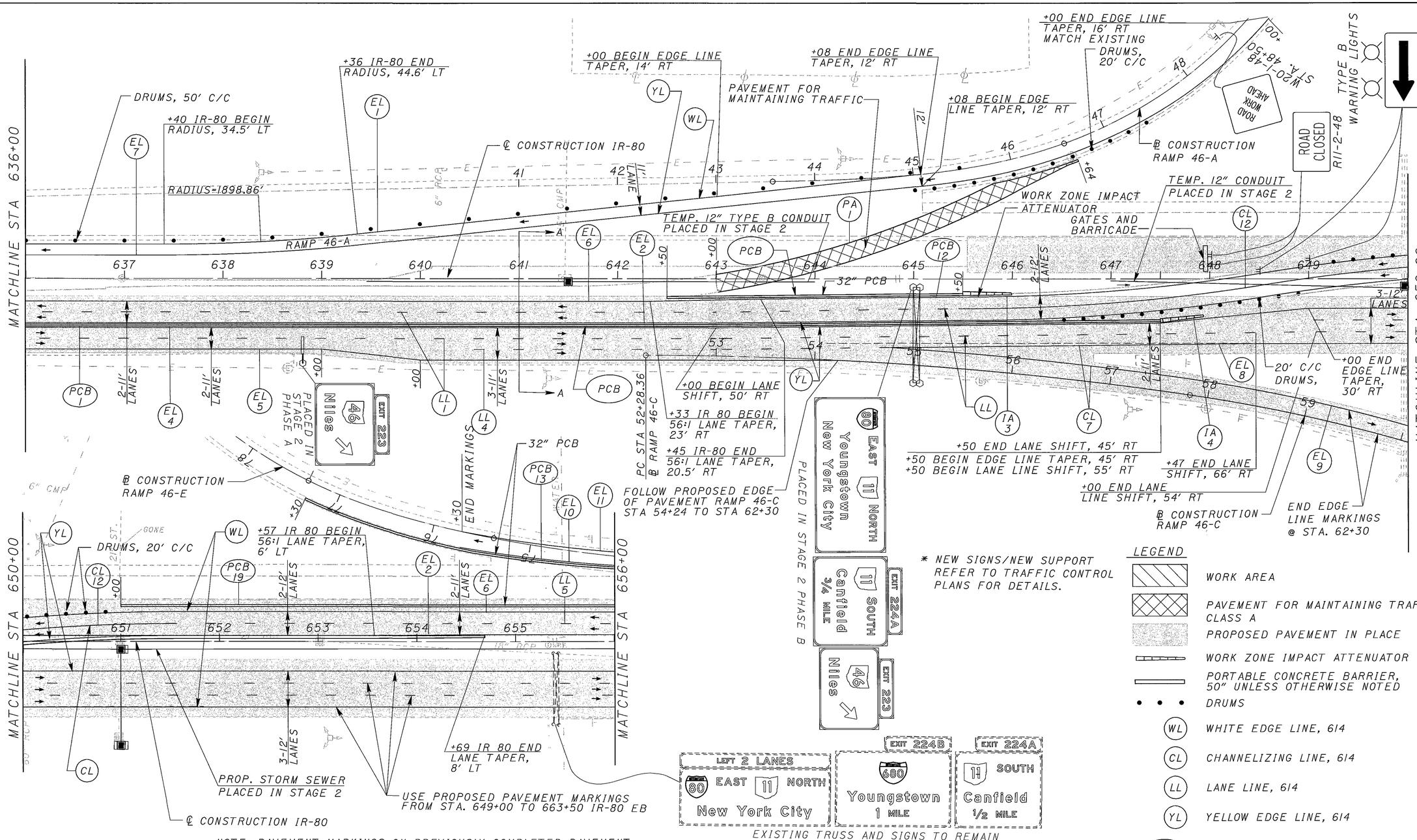
MATCHLINE STA 636+00
MATCHLINE STA. 650+00
MATCHLINE STA 650+00
MATCHLINE STA 656+00
DRUMS, 50' C/C
+40 IR-80 BEGIN RADIUS, 34.5' LT
RADIUS=1898.86'
+36 IR-80 END RADIUS, 44.6' LT
℄ CONSTRUCTION IR-80
RAMP 46-A
+00 BEGIN EDGE LINE TAPER, 14' RT
PAVEMENT FOR MAINTAINING TRAFFIC
+08 END EDGE LINE TAPER, 12' RT
+08 BEGIN EDGE LINE TAPER, 12' RT
+00 END EDGE LINE TAPER, 16' RT MATCH EXISTING
DRUMS, 20' C/C
STA. 20+00 TO STA. 48+50
ROAD WORK AHEAD
℄ CONSTRUCTION RAMP 46-A
TYPE B WARNING LIGHTS
ROAD CLOSED
RII-2-48
WI-6-60
STA 648+50
STA 649+00
TEMP. 12" TYPE B CONDUIT PLACED IN STAGE 2
TEMP. 12" CONDUIT PLACED IN STAGE 2
WORK ZONE IMPACT ATTENUATOR
GATES AND BARRICADE
32" PCB
2-11' LANES
3-12' LANES
PLACED IN STAGE 2 PHASE A
Niles 46 EXIT 223
+00 BEGIN LANE SHIFT, 50' RT
+33 IR 80 BEGIN 56:1 LANE TAPER, 23' RT
+45 IR-80 END 56:1 LANE TAPER, 20.5' RT
PC STA 52+28.36 ℄ RAMP 46-C
PLACED IN STAGE 2 PHASE B
80 EAST 11 NORTH New York City
11 NORTH Youngstown 1 MILE
11 SOUTH Canfield 3/4 MILE EXIT 224A
Niles 46 EXIT 223
+50 END LANE SHIFT, 45' RT
+50 BEGIN EDGE LINE TAPER, 45' RT
+50 BEGIN LANE LINE SHIFT, 55' RT
+47 END LANE SHIFT, 66' RT
+00 END LANE LINE SHIFT, 54' RT
℄ CONSTRUCTION RAMP 46-C
20' C/C DRUMS,
+00 END EDGE LINE TAPER, 30' RT
END EDGE LINE MARKINGS @ STA. 62+30
℄ CONSTRUCTION RAMP 46-E
DRUMS, 20' C/C
+57 IR 80 BEGIN 56:1 LANE TAPER, 6' LT
+69 IR 80 END LANE TAPER, 8' LT
PROP. STORM SEWER PLACED IN STAGE 2
℄ CONSTRUCTION IR-80
USE PROPOSED PAVEMENT MARKINGS FROM STA. 649+00 TO 663+50 IR-80 EB
FOLLOW PROPOSED EDGE OF PAVEMENT RAMP 46-C STA 54+24 TO STA 62+30
LEFT 2 LANES
80 EAST 11 NORTH New York City
EXIT 224B 680 Youngstown 1 MILE
EXIT 224A 11 SOUTH Canfield 1/2 MILE
EXISTING TRUSS AND SIGNS TO REMAIN
* NEW SIGNS/NEW SUPPORT REFER TO TRAFFIC CONTROL PLANS FOR DETAILS.
NOTE: PAVEMENT MARKINGS ON PREVIOUSLY COMPLETED PAVEMENT SURFACE THAT IS NOT THE FINAL TRAFFIC PATTERN SHALL BE TAPE.
EXISTING ROAD NO WORK
℄ CONSTRUCTION IR-80
7'-6" 10'-6" 6'-0" 11'-0" 11'-0" 5'-0" 11'-0" 11'-0" 11'-0" 3'-0"
1'-6"
PAVEMENT FOR MAINTAINING TRAFFIC PLACED IN STAGE 1
SECTION A-A
STA.641+00
NTS
FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.
FOR MOT QUANTITIES, SEE SHEET 124
FOR CROSSOVER PROFILE AND GEOMETRICS, SEE SHEET 57 AND 58
LEGEND
WORK AREA
PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A
PROPOSED PAVEMENT IN PLACE
WORK ZONE IMPACT ATTENUATOR
PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
DRUMS
WL WHITE EDGE LINE, 6I4
CL CHANNELIZING LINE, 6I4
LL LANE LINE, 6I4
YL YELLOW EDGE LINE, 6I4
PCB PORTABLE CONCRETE BARRIER
PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
EXISTING SIGN, TO BE REMOVED
EXISTING SIGN, TO REMAIN
NEW SIGN
N
0 25 50 100 HORIZONTAL SCALE IN FEET
CALCULATED AJP
CHECKED JFM
MAINTENANCE OF TRAFFIC STAGE 3
MAH-80-0.97
123
1100
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SUMMARY OF TRAFFIC QUANTITIES
MAINTENANCE OF PROJECT TO STA. 656+00
STAGE 3 - START

CALCULATED EFD | CHECKED JFM

REF NO.	SHEET NO.	STATION FROM		STATION TO		SIDE	614 WORK ZONE IMPACT ATTENUATOR	614 BARRIER REFLECTOR, TYPE B	614 OBJECT MARKER, ONE WAY	614 WORK ZONE LANE LINE, CLASS 1, 740.06, TYPE 1	614 WORK ZONE EDGE LINE, CLASS 1, 740.06, TYPE 1 (Yellow)	614 WORK ZONE EDGE LINE, CLASS 1, 740.06, TYPE 1 (White)	614 WORK ZONE CHANNELIZING LINE, CLASS 1, 740.06, TYPE 1	614 WORK ZONE DOTTED LINE, CLASS 1, 740.06, TYPE 1	615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN	622 PORTABLE CONCRETE BARRIER, 32"	622 PORTABLE CONCRETE BARRIER, 50", AS PER PLAN		630 GROUND MOUNTED SUPPORT, NO. 6 POST	630 GROUND MOUNTED SUPPORT, W12X30 BEAM	630 SIGN, FLAT SHEET	630 GROUND MOUNTED BEAM SUPPORT FOUNDATION	630 REMOVAL OF GROUND MOUNTED MAJOR SIGN AND REERECTION	630 REMOVAL OF OVERHEAD MOUNTED SIGN AND REERECTION	
							EACH	EACH	EACH	MILE	MILE	MILE	FT	FT	SQ YD	FT	FT		FT	FT	SQ FT	EACH	EACH	EACH	
CL1	114	CL	474+43	CL	482+61	LT/RT							824.5												
CL2	114	CL	474+25	CL	476+90	LT							265.8												
CL3	114	CL	475+14	CL	476+90	LT							181.3												
CL4	114	CL	478+25	CL	482+50	RT							425.1												
CL5	115	CL	488+00	CL	492+27	RT							857.7												
CL6	116	CL	505+18	CL	507+00	RT							364.5												
CL7	123	CL	644+77	CL	647+20	RT							486.7												
CL12	123	CL	645+46	CL	651+57	LT/RT							1222.7												
DL1	114	CL	476+90	CL	478+40	LT								150											
EL1	114-123	CL	474+00	CL	645+10	LT/RT						3.241													
EL2	114-123	CL	475+25	CL	656+00	LT/RT					3.424														
EL3	114-115	CL	478+25	CL	488+00	RT						0.185													
EL4	114-123	CL	478+25	CL	649+00	RT					3.234														
EL5	115-123	CL	488+00	CL	62+30	RT						3.115													
EL6	116-123	CL	507+00	CL	656+00	LT/RT						2.822													
EL7	116-123	CL	507+00	46A	49+00	LT/RT						2.746													
EL8	123	CL	647+20	CL	649+00	RT						0.035													
EL9	123	46C	57+00	46C	61+00	RT						0.076													
EL10	123	46E	74+00	46E	75+30	LT					0.025														
EL11	123	46E	74+00	46E	75+30	LT						0.025													
IA1	116	CL	503+80			RT	1																		
IA2	122	CL	632+00			RT	1																		
IA3	123	CL	645+50			RT	1																		
IA4	123	CL	647+50			RT	1																		
IA8	119	CL	586+64			RT	1																		
IA9	122	CL	623+00			RT	1																		
IA10	122	CL	632+15			RT	1																		
LL1	114-123	CL	482+75	CL	649+00	RT				6.298															
LL2	115	CL	492+27	CL	495+63	RT				0.064															
LL3	116	CL	504+00	CL	505+18	RT				0.023															
LL4	123	CL	640+49	CL	644+77	RT				0.082															
LL5	123	CL	649+00	CL	656+00	LT				0.133															
PA1	123	CL	643+00	46A	46+64	LT/RT									676.8										
PCB1	114-117	CL	477+50	CL	647+50	LT/RT		1362									17000								
PCB2	114-116	CL	479+50	CL	503+80	RT		50	50							2430									
PCB3	116-117	CL	508+75	CL	519+25	RT		22	22							1050									
PCB6	118-122	CL	552+00	CL	632+00	RT		161	161							8000									
PCB12	123	CL	642+50	CL	645+50	RT		7	7							300									
PCB12	123	CL	642+50	CL	645+50	RT		7	7							300									
PCB13	123	46E	77+30	CL	656+00	LT		8	8							320									
PCB19	123	CL	651+00	CL	656+00	LT		11	11							500									
S1	114	CL	478+00			CL													30		36				
S2	114	CL	478+50			LT													30		36				
S3	115	CL	499+00			RT															72				
S4	117	CL	513+00			RT																	1		
S5	115	CL	519+50			RT														56		2		1	
SUBTOTAL							7	1628	266	6.6	6.683	12.245	4628.3	150	676.8	12900	17000		60	56	144	2	1	1	
TOTALS CARRIED TO SUBSUMMARY ON SHEET 59							7	1628	266	6.6	6.69	12.25	4629	150	677	12900	17000		60	56	144	2	1	1	

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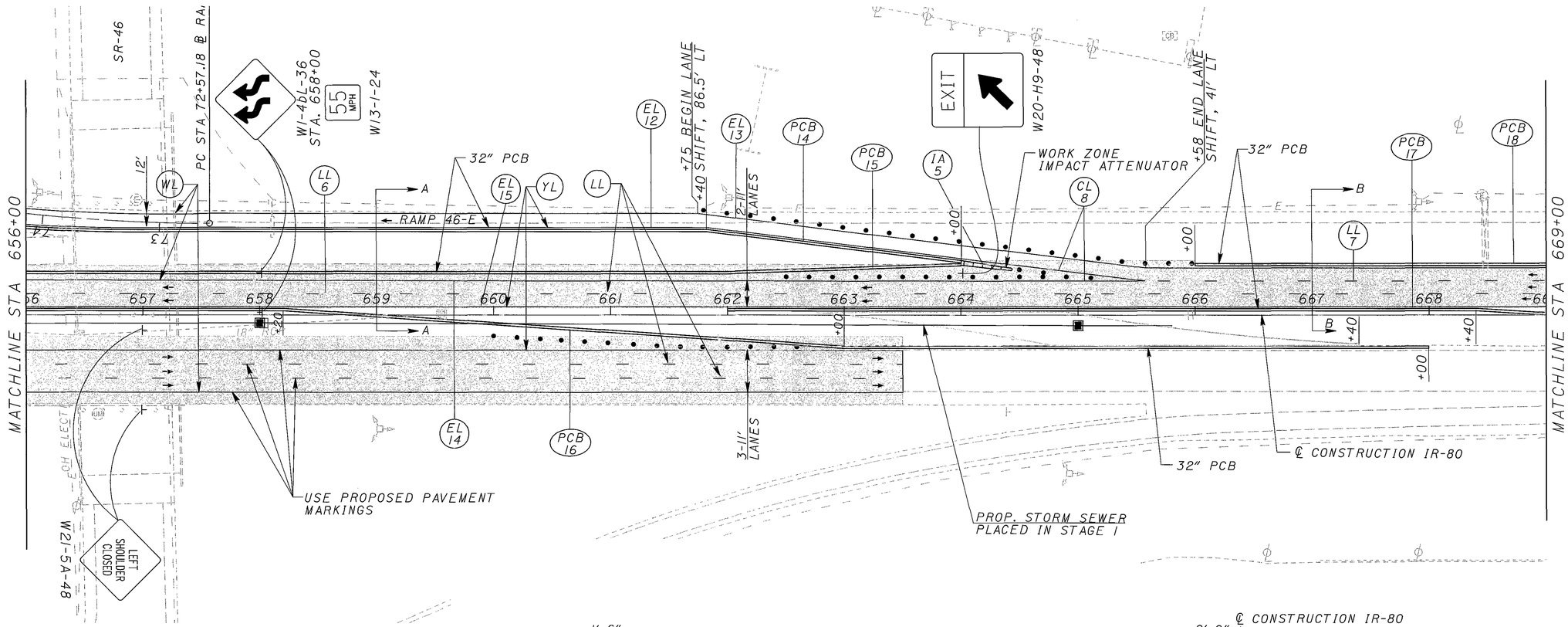
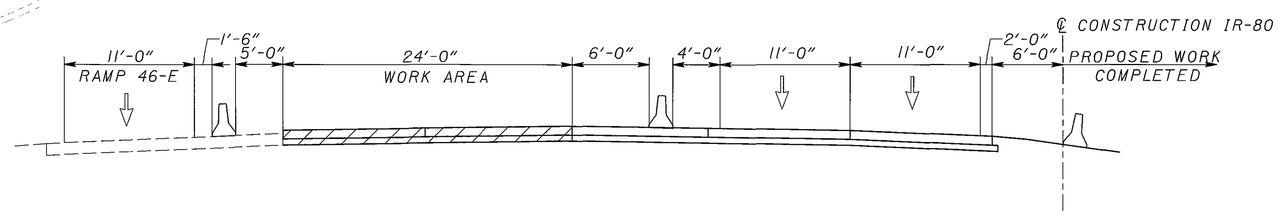
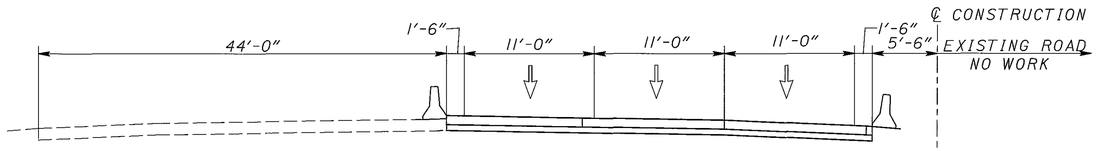




SECTION A-A
STA.659+00
NTS



SECTION B-B
STA.667+00
NTS

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- • • • DRUMS, 20' c/c

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

- (WL) WHITE EDGE LINE, 6I4
- (CL) CHANNELIZING LINE, 6I4
- (LL) LANE LINE, 6I4
- (YL) YELLOW EDGE LINE, 6I4
- (PCB) PORTABLE CONCRETE BARRIER

NOTE: PAVEMENT MARKINGS ON PREVIOUSLY COMPLETED PAVEMENT SURFACE THAT IS NOT THE FINAL TRAFFIC PATTERN SHALL BE TAPE.

FOR MOT QUANTITIES, SEE SHEET 132

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 3

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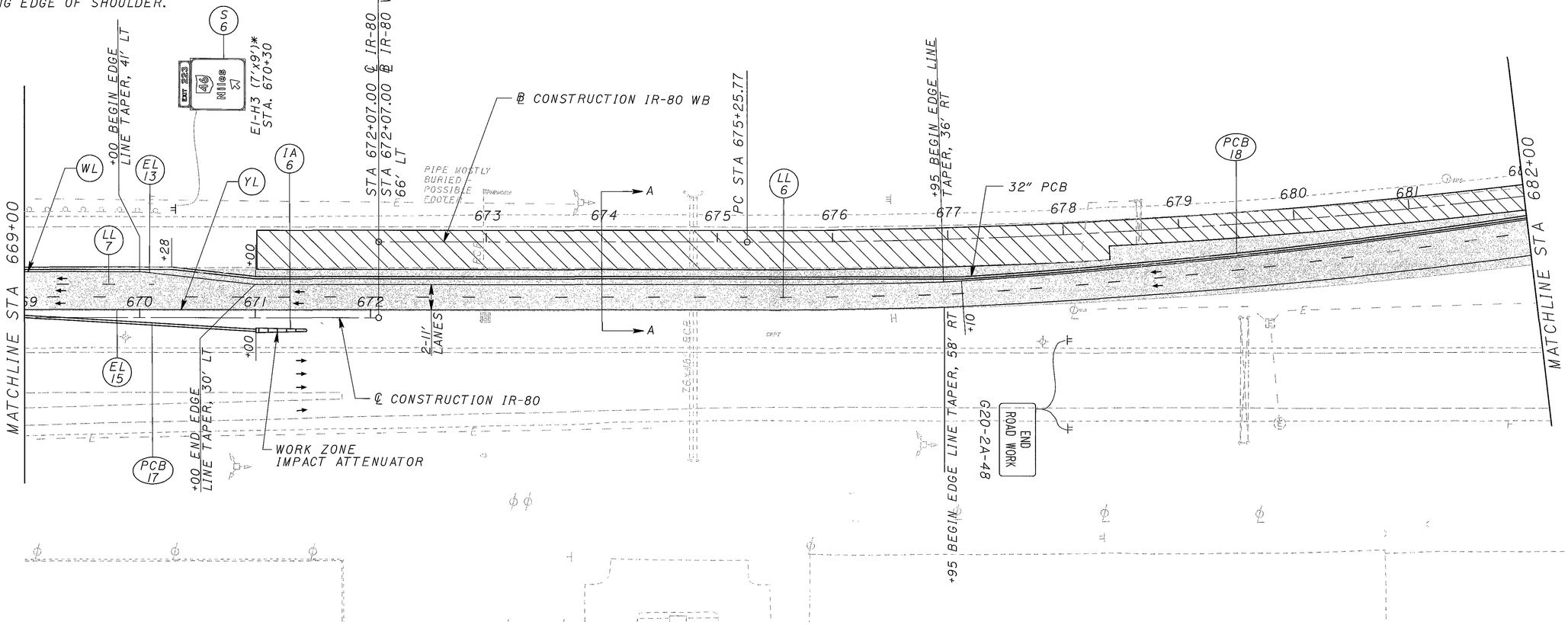
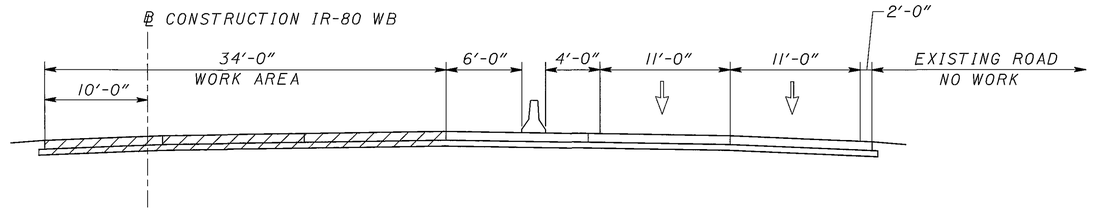
* WORK ZONE GUIDE SIGN: GROUND MOUNTED ON 2-6"x8" SOLID WOOD POSTS NEXT TO EXISTING EDGE OF SHOULDER.





SECTION A-A
STA.674+00
NTS

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED

- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

NOTE: PAVEMENT MARKINGS ON PREVIOUSLY COMPLETED PAVEMENT SURFACE THAT IS NOT THE FINAL TRAFFIC PATTERN SHALL BE TAPE.

FOR MOT QUANTITIES, SEE SHEET 132

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 3

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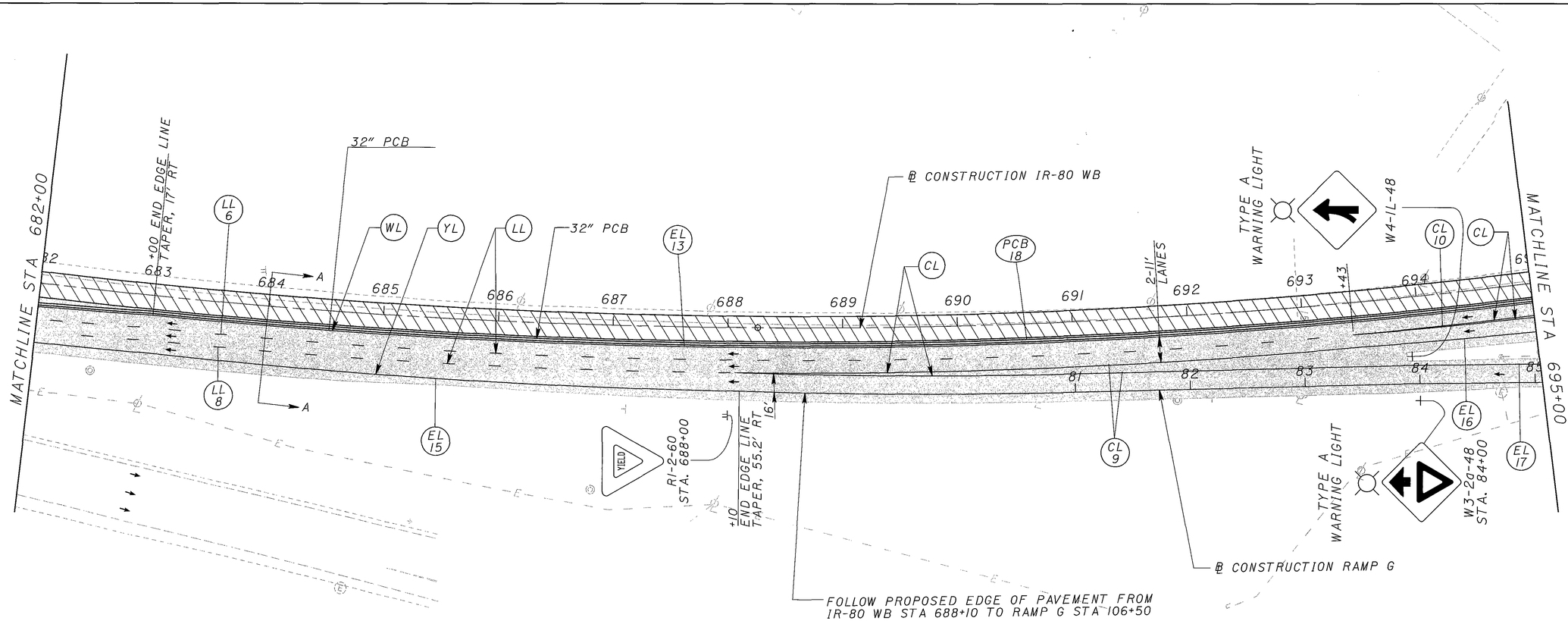

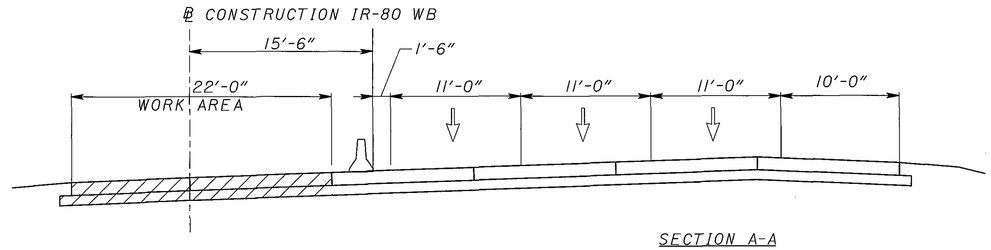

SECTION A-A
STA.684+00
NTS

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED

- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

NOTE: PAVEMENT MARKINGS ON PREVIOUSLY COMPLETED PAVEMENT SURFACE THAT IS NOT THE FINAL TRAFFIC PATTERN SHALL BE TAPE.

FOR MOT QUANTITIES, SEE SHEET 132

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 3

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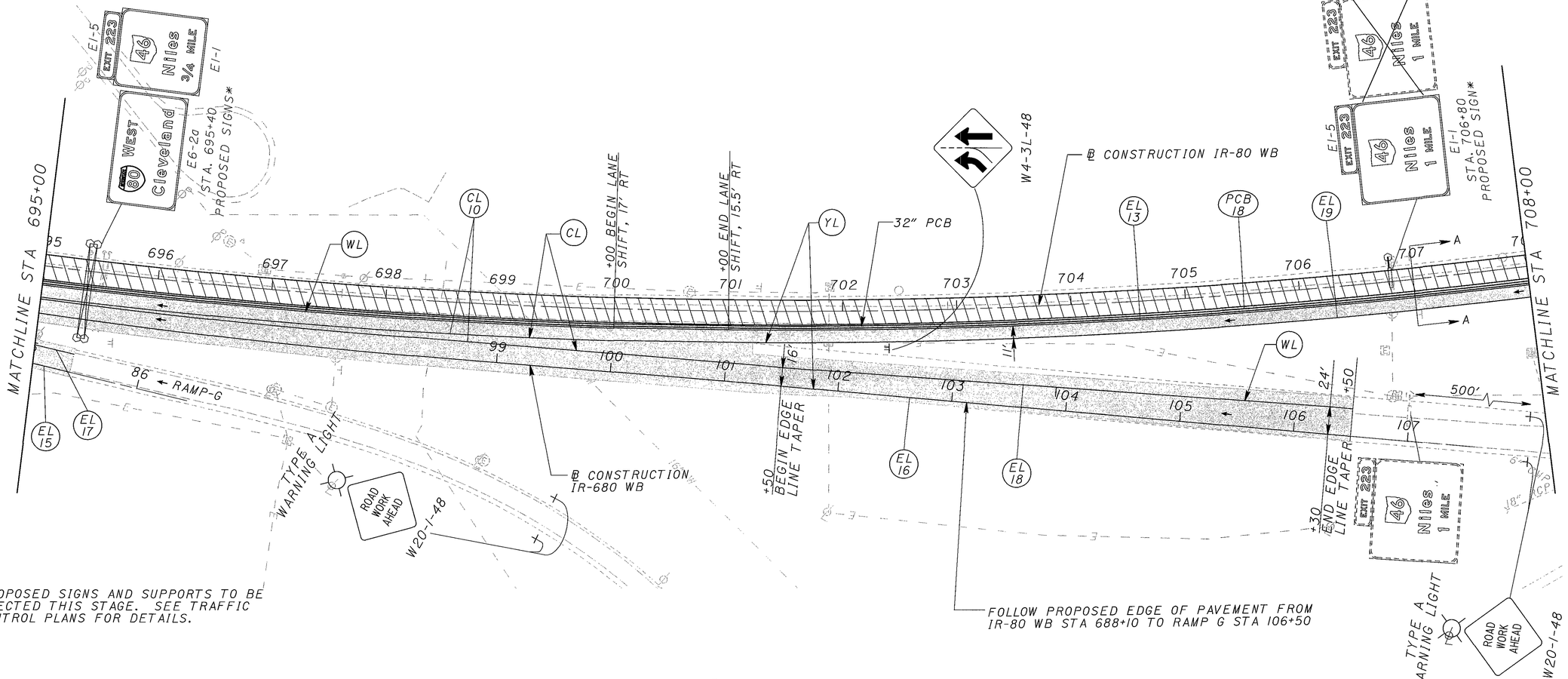
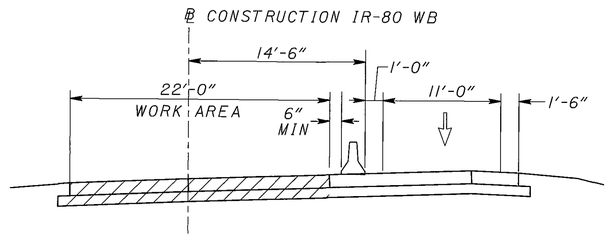


* PROPOSED SIGNS AND SUPPORTS TO BE ERECTED THIS STAGE. SEE TRAFFIC CONTROL PLANS FOR DETAILS.



SECTION A-A
STA.707+00
NTS

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- • • • DRUMS

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED

- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

NOTE: PAVEMENT MARKINGS ON PREVIOUSLY COMPLETED PAVEMENT SURFACE THAT IS NOT THE FINAL TRAFFIC PATTERN SHALL BE TAPE.

FOR MOT QUANTITIES, SEE SHEET 132

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 3

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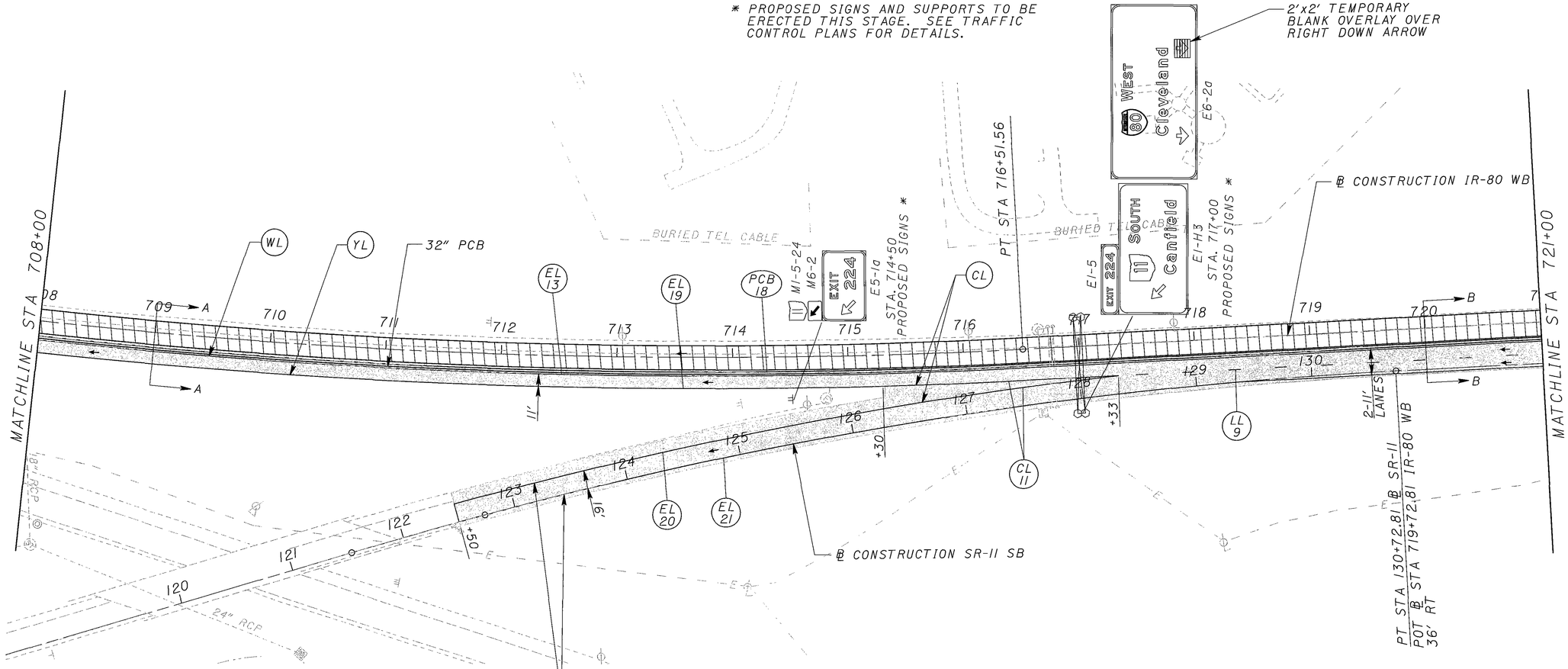
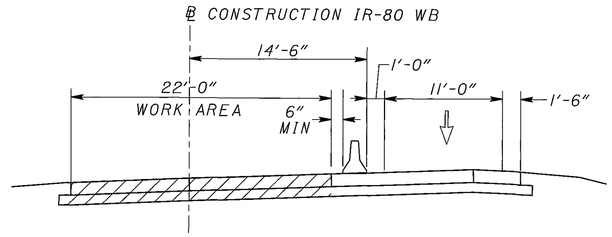
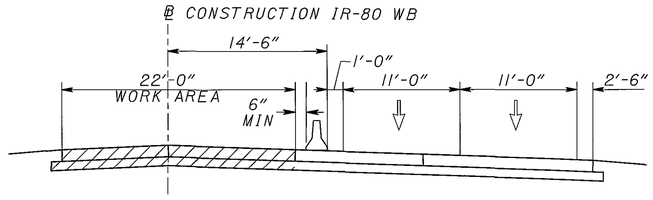
* PROPOSED SIGNS AND SUPPORTS TO BE ERECTED THIS STAGE. SEE TRAFFIC CONTROL PLANS FOR DETAILS.



FOLLOW PROPOSED EDGE OF PAVEMENT FROM SR-11 SB STA 122+50, 16' LT TO SR-11 SB STA 126+31, 16' LT AND FROM SR-11 SB STA 122+50, 0' LT TO SR-11 SB STA 129+35, 0' LT



SECTION A-A
STA.709+00
NTS



SECTION B-B
STA.720+00
NTS

LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER
- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

REFER TO STANDARD CONSTRUCTION DRAWING MT-95-40 FOR LANE CLOSURE DETAILS.

NOTE: PAVEMENT MARKINGS ON PREVIOUSLY COMPLETED PAVEMENT SURFACE THAT IS NOT THE FINAL TRAFFIC PATTERN SHALL BE TAPE.

FOR MOT QUANTITIES, SEE SHEET 132

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 3

MAH-80-0.97

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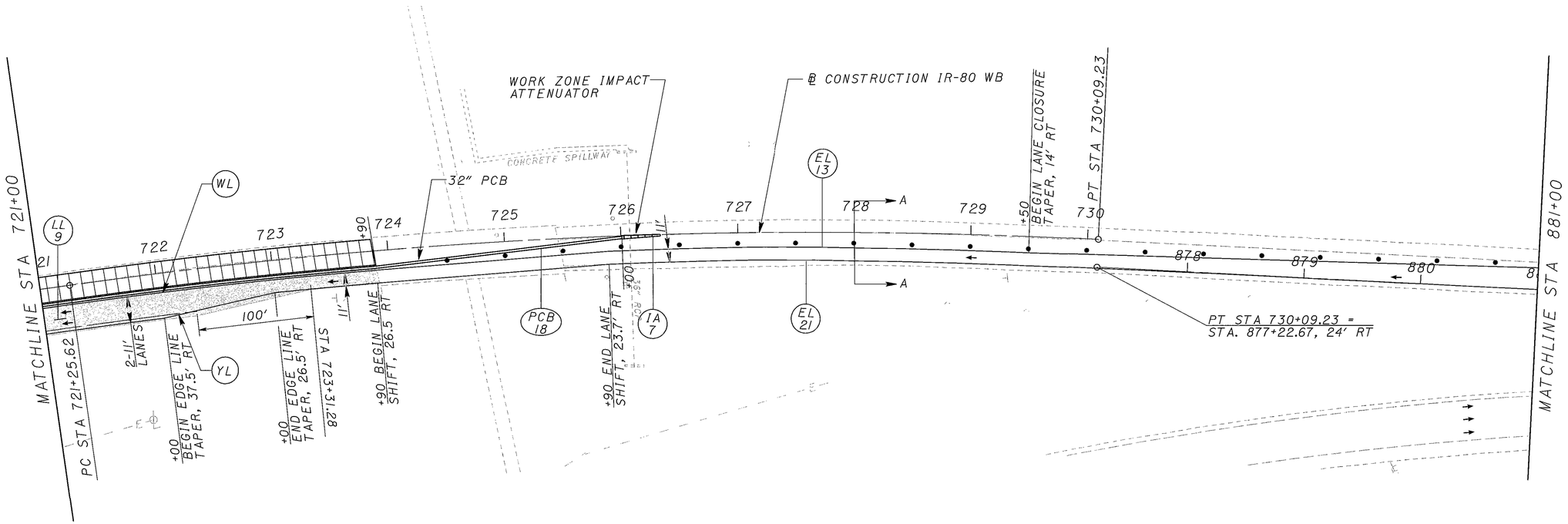
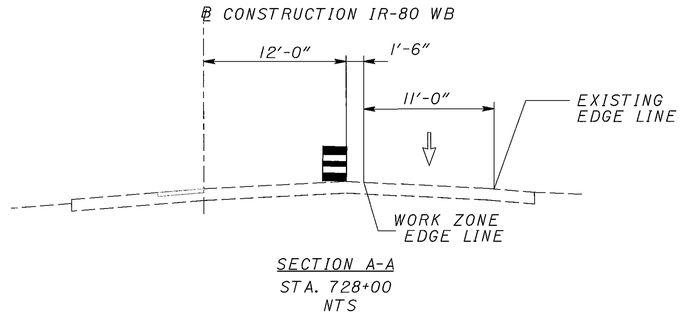




SECTION A-A
STA. 728+00
NTS

LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- • • • DRUMS, 50' C/C
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER
- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.40.

NOTES:
1. REFER TO STANDARD CONSTRUCTION DRAWING MT-95.40 FOR ADVANCE WARNING SIGNING AND SPACING.
2. FOR SIGN W21-5a-48 THE ADVISORY SPEED SHOULD BE 55 MPH.

NOTE: PAVEMENT MARKINGS ON PREVIOUSLY COMPLETED PAVEMENT SURFACE THAT IS NOT THE FINAL TRAFFIC PATTERN SHALL BE TAPE.

FOR MOT QUANTITIES, SEE SHEET 132

HORIZONTAL SCALE IN FEET
0 25 50 100

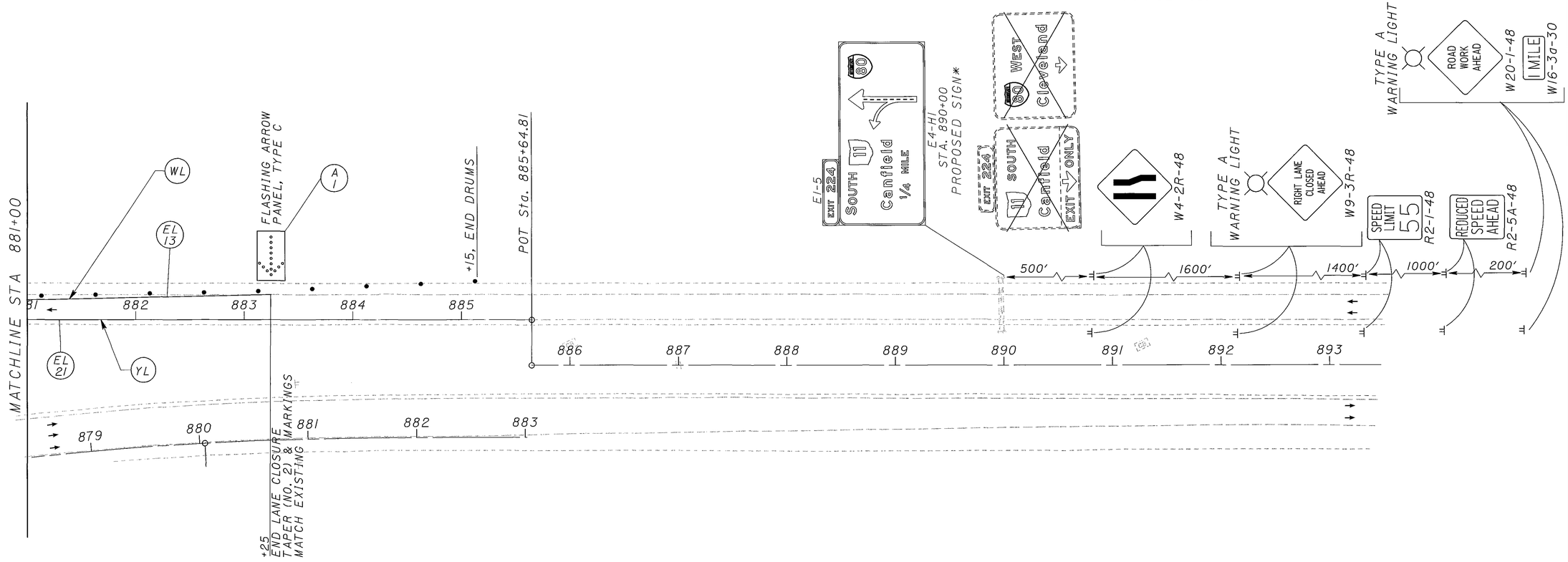
CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 3

MAH-80-0.97

7/21/2005 8:26:49 AM
st:\projects\37700\mot\stage3\mpl6_3.dgn

* NEW SIGN TO BE ERECTED ON EXISTING SUPPORT THIS STAGE. REFER TO TRAFFIC CONTROL PLANS FOR DETAILS.



LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS, 50' C/C
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER
- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.40.

FOR MOT QUANTITIES, SEE SHEET 132

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 3

MAH-80-0.97

7/21/2005 9:22:53 AM
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REF NO.	SHEET NO.	STATION FROM		STATION TO		SIDE	614 WORK ZONE IMPACT ATTENUATOR		614 BARRIER REFLECTOR, TYPE B	614 OBJECT MARKER, ONE WAY	614 WORK ZONE LANE LINE, CLASS 1, 740.06, TYPE 1	614 WORK ZONE EDGE LINE, CLASS 1, 740.06, TYPE 1 (Yellow)	614 WORK ZONE EDGE LINE, CLASS 1, 740.06, TYPE 1 (White)	614 WORK ZONE CHANNELIZING LINE, CLASS 1, 740.06, TYPE 1					622 PORTABLE CONCRETE BARRIER, 32"			630 SIGN, FLAT SHEET			
							EACH		EACH	EACH	MILE	MILE	MILE	FT					FT			SQ FT			
CL8	125	CL	664+00	CL	665+57	LT								315.6											
CL9	127	WB	688+06	WB	694+00	RT								1194											
CL10	127-128	WB	693+43	WB	701+50	RT								1622.1											
CL11	129	WB	715+30	WB	717+33	RT								408.1											
EL12	125	CL	656+00	CL	664+00	LT						0.154													
EL13	125-131	CL	656+00	WB	883+25	LT/RT							1.521												
EL14	125	CL	656+00	CL	664+00	LT							0.152												
EL15	125-128	CL	656+00	G	85+40	LT/RT						0.75													
EL16	127-128	WB	694+00	680	106+50	RT						0.238													
EL17	127-128	WB	694+00	G	85+40	RT							0.026												
EL18	128	WB	701+50	680	106+50	RT							0.095												
EL19	128-129	WB	701+50	WB	715+30	RT						0.262													
EL20	129	11	122+50	11	126+25	RT						0.466													
EL21	129-131	11	122+50	WB	883+25	RT																			
IA5	125	CL	664+00			LT	1																		
IA6	126	CL	671+00			RT	1																		
IA7	130	WB	726+00			RT	1																		
LL6	125-127	CL	656+00	WB	693+43	LT/RT					0.709														
LL7	125-126	CL	665+57	CL	670+12	LT					0.087														
LL8	127	WB	682+39	WB	688+06	RT					0.108														
LL9	129-130	WB	717+33	WB	721+26	RT					0.075														
PCB14	125	CL	656+00	CL	664+00	LT			17	17									800						
PCB15	125	CL	656+00	CL	664+00	LT			17	17									800						
PCB16	125	CL	656+00	CL	668+00	LT/RT			25	25									1200						
PCB17	125-126	CL	662+00	CL	671+00	LT/RT			19	19									900						
PCB18	125-130	CL	666+00	WB	726+00	LT/RT			121	121									6000						
S6	126	CL	670+30			LT																70			
SUBTOTAL							3		199	199	0.979	1.87	1.794	3539.8					9700			70			
TOTALS CARRIED TO SUBSUMMARY ON SHEET 59							3		199	199	0.98	1.87	1.8	3540					9700			70			

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC QUANTITIES
STAGE 3 - STA. 656+00 TO END OF PROJECT

MAH-80-0.97

8/8/2005 4:46:23 PM
s:\projects\37700\sheets\Quantities-MOT.dgn

MAINTENANCE OF TRAFFIC STAGE 4

CALCULATED AJP
CHECKED JFM

HORIZONTAL SCALE IN FEET
0 25 50 100

MAH-80-0.97

133
1100

IR-76 WB
IR-76 EB
OHIO TURNPIKE (IR-80)
TO WB IR-80
MATCHLINE STA 474+00
℄ CONSTRUCTION IR-80
USE PROPOSED PAVEMENT MARKINGS (STA. 465+50 TO STA. 474+25)
150'
+50
3100'
1000'
42" RCP
15" RCP
24" RCP
6"CPP
12" RCP
465 466 467 468 469 470 471 472 473

END ROAD WORK G20-2A-48 *
ROAD WORK AHEAD W20-1-48 *
1 MILE W16-3a-30
TYPE A WARNING LIGHT
REDUCED SPEED AHEAD R2-5A-48 *
SPEED LIMIT 55 R2-1-48 *
LEFT SHOULDER CLOSED 1000 FT W21-5bL-48 STA. 468+00 *
55 MPH W13-1-24
W1-4bR-48 STA. 473+50 *

* SIGNS PLACED IN PREVIOIUS STAGES TO REMAIN

LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED

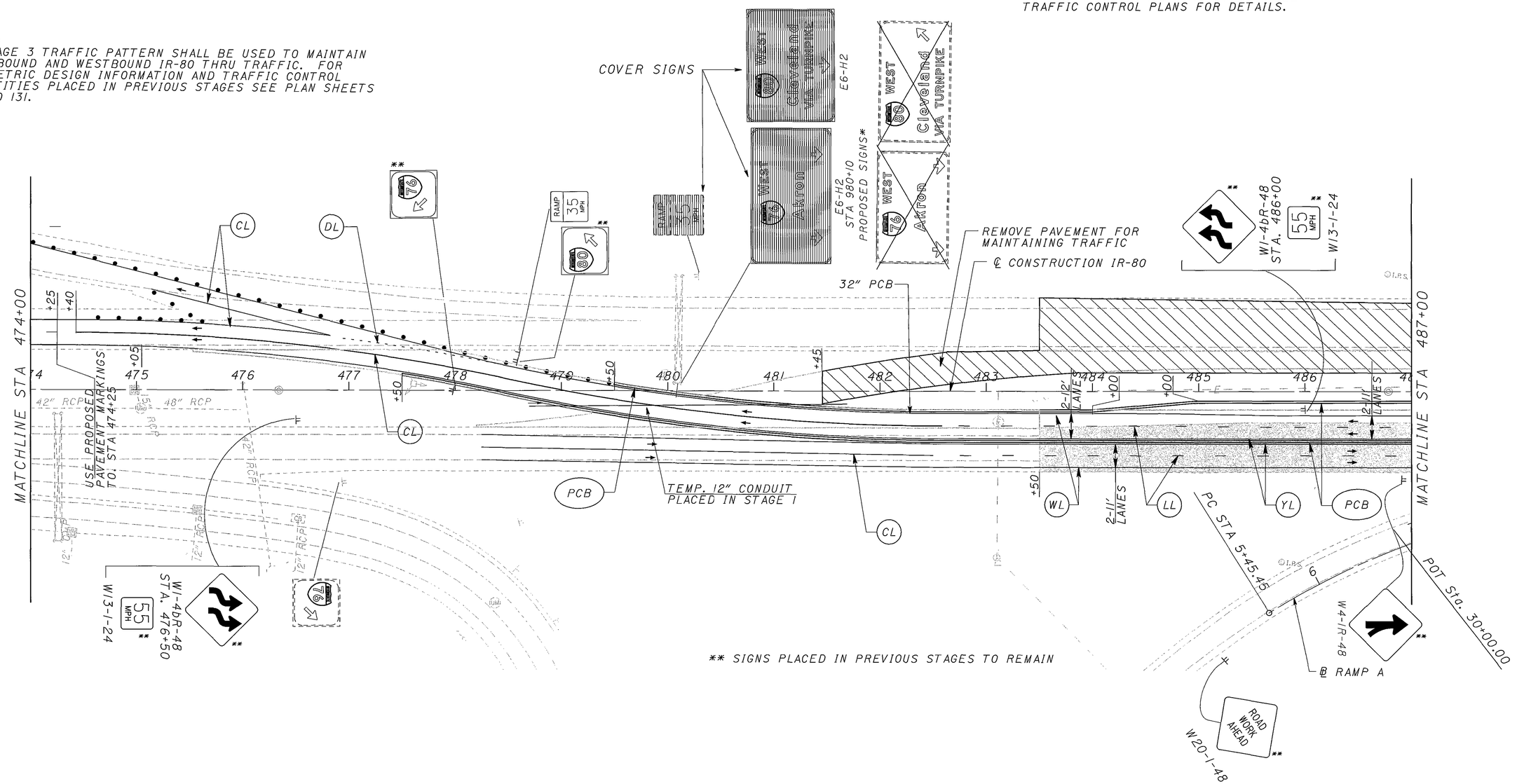
- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

7/21/2005 8:28:50 AM
s:\Projects\37700\mot\stage4\mpl00_4.dgn

NOTE:
1. STAGE 3 TRAFFIC PATTERN SHALL BE USED TO MAINTAIN EASTBOUND AND WESTBOUND IR-80 THRU TRAFFIC. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES PLACED IN PREVIOUS STAGES SEE PLAN SHEETS 113 TO 131.

* PROPOSED SIGNS ON EXISTING SUPPORT TO BE PLACED AND COVERED THIS STAGE. SEE TRAFFIC CONTROL PLANS FOR DETAILS.



** SIGNS PLACED IN PREVIOUS STAGES TO REMAIN

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- • • • DRUMS, 20' c/c

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED

- (DL) DOTTED LINE, 614
- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR CROSSOVER PROFILE AND GEOMETRICS, SEE SHEET 50

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

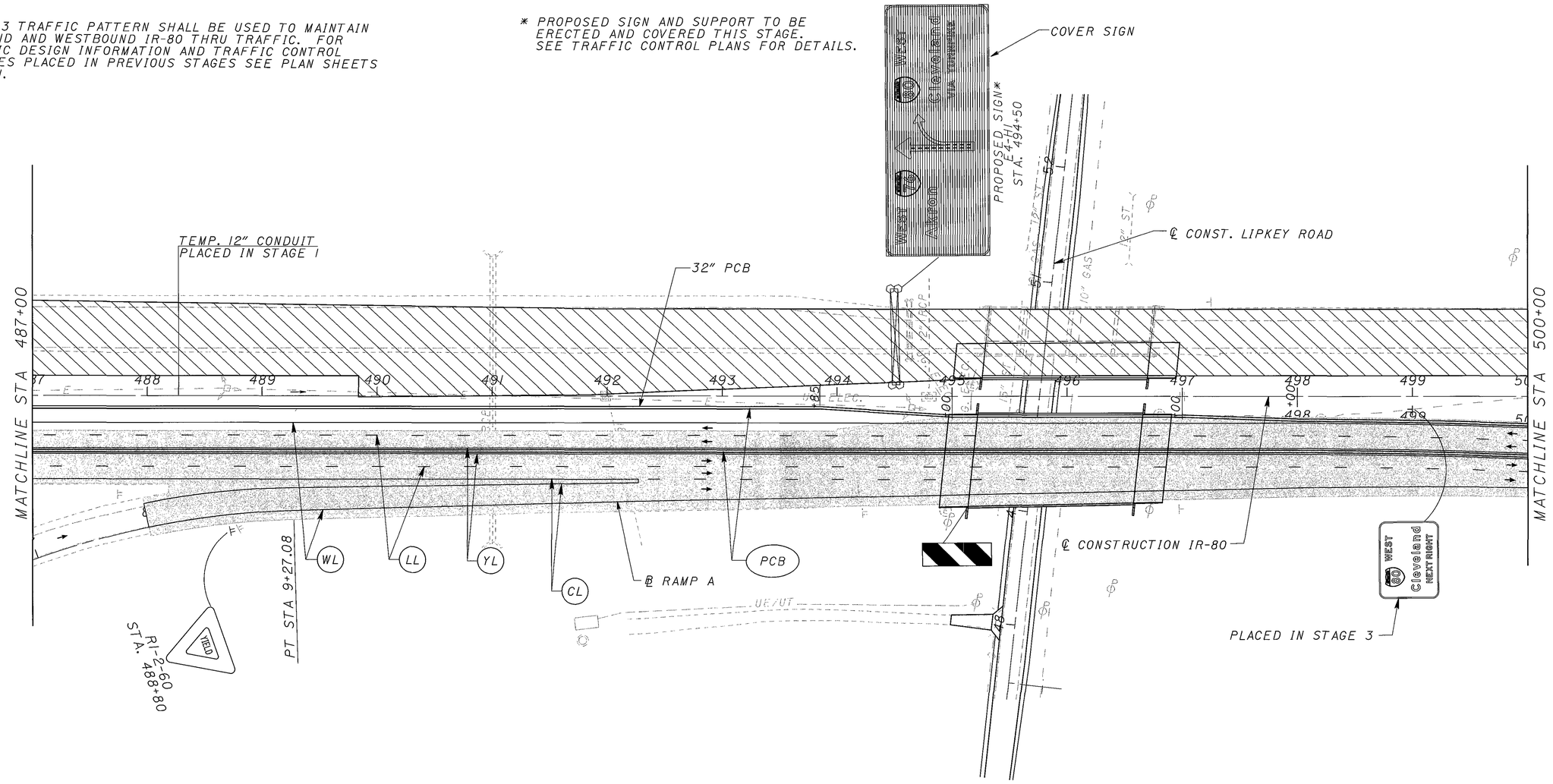
MAINTENANCE OF TRAFFIC STAGE 4

MAH-80-0.97

7/21/2005 8:30:33 AM
e:\prj\projects\37700\mot\stage4\mpi01_4.dgn

NOTE:
1. STAGE 3 TRAFFIC PATTERN SHALL BE USED TO MAINTAIN EASTBOUND AND WESTBOUND IR-80 THRU TRAFFIC. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES PLACED IN PREVIOUS STAGES SEE PLAN SHEETS 113 TO 131.

* PROPOSED SIGN AND SUPPORT TO BE ERECTED AND COVERED THIS STAGE. SEE TRAFFIC CONTROL PLANS FOR DETAILS.



LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- • • • DRUMS

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED

- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

HORIZONTAL SCALE IN FEET
0 25 50 100

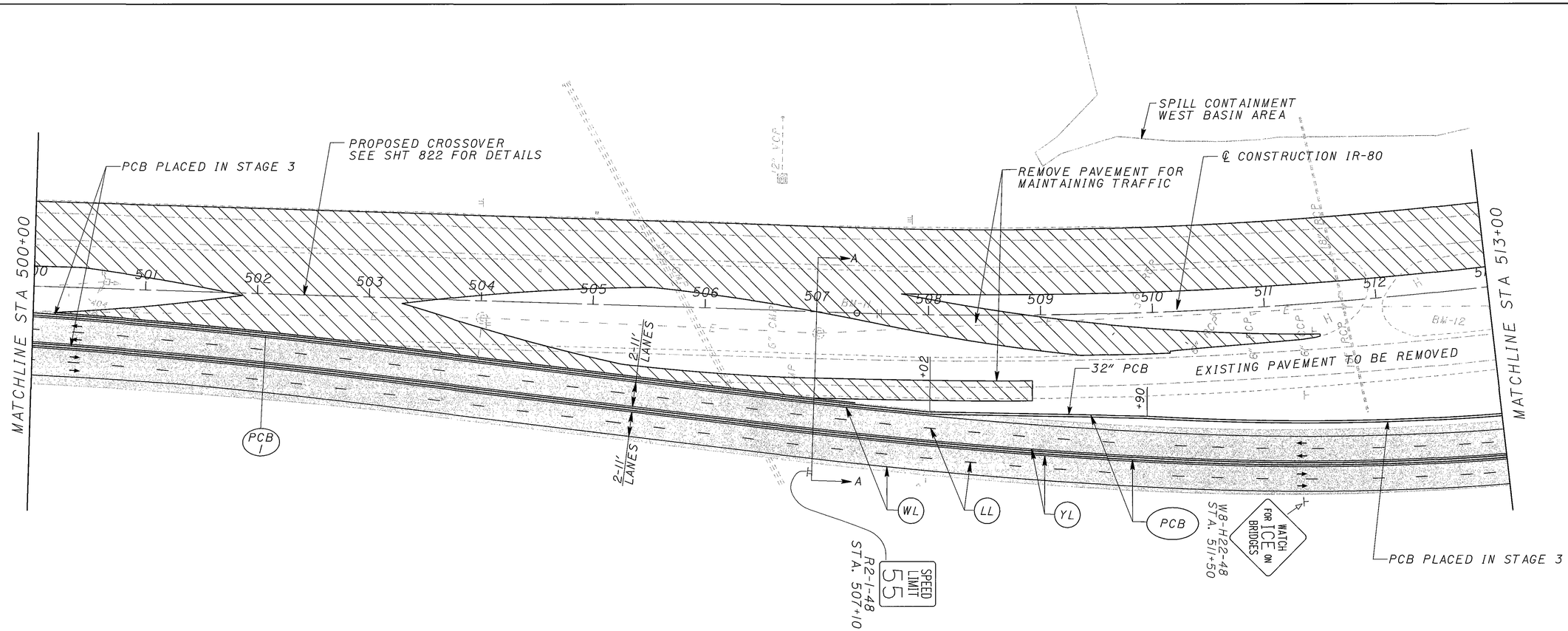
CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 4

MAH-80-0.97

135
1100

9/12/2005 2:46:07 PM
s:\pro\jobs\s37700\mot\stage4\mp02_4.dgn



NOTE:
1. STAGE 3 TRAFFIC PATTERN SHALL BE USED TO MAINTAIN EASTBOUND AND WESTBOUND IR-80 THRU TRAFFIC. RAMP 46-A WILL MERGE WITH WESTBOUND IR-80 TRAFFIC AT STA. 641+00. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES PLACED IN PREVIOUS STAGES SEE PLAN SHEETS 113 TO 131.

LEGEND

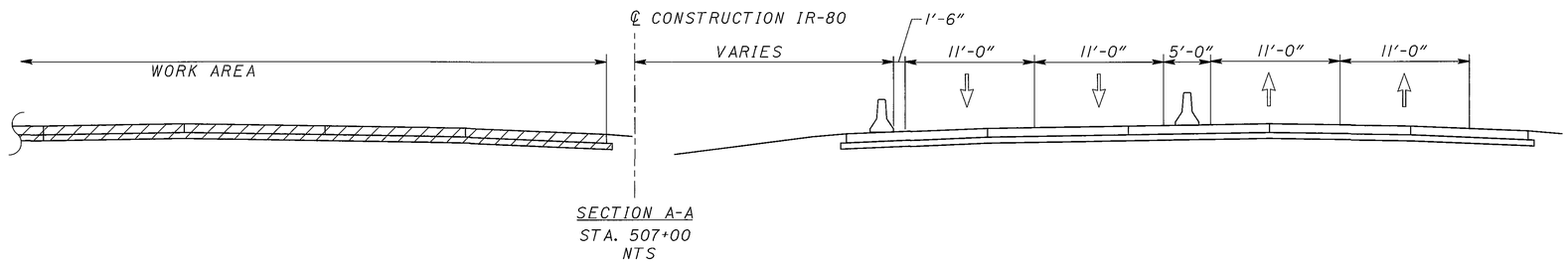
- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED

- (WL) WHITE EDGE LINE, 6I4
- (CL) CHANNELIZING LINE, 6I4
- (LL) LANE LINE, 6I4
- (YL) YELLOW EDGE LINE, 6I4
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN



SECTION A-A
STA. 507+00
NTS

FOR MOT QUANTITIES, SEE SHEET 151

MAINTENANCE OF TRAFFIC
STAGE 4

CALCULATED AJP
CHECKED JFM

HORIZONTAL SCALE IN FEET
0 25 50 100

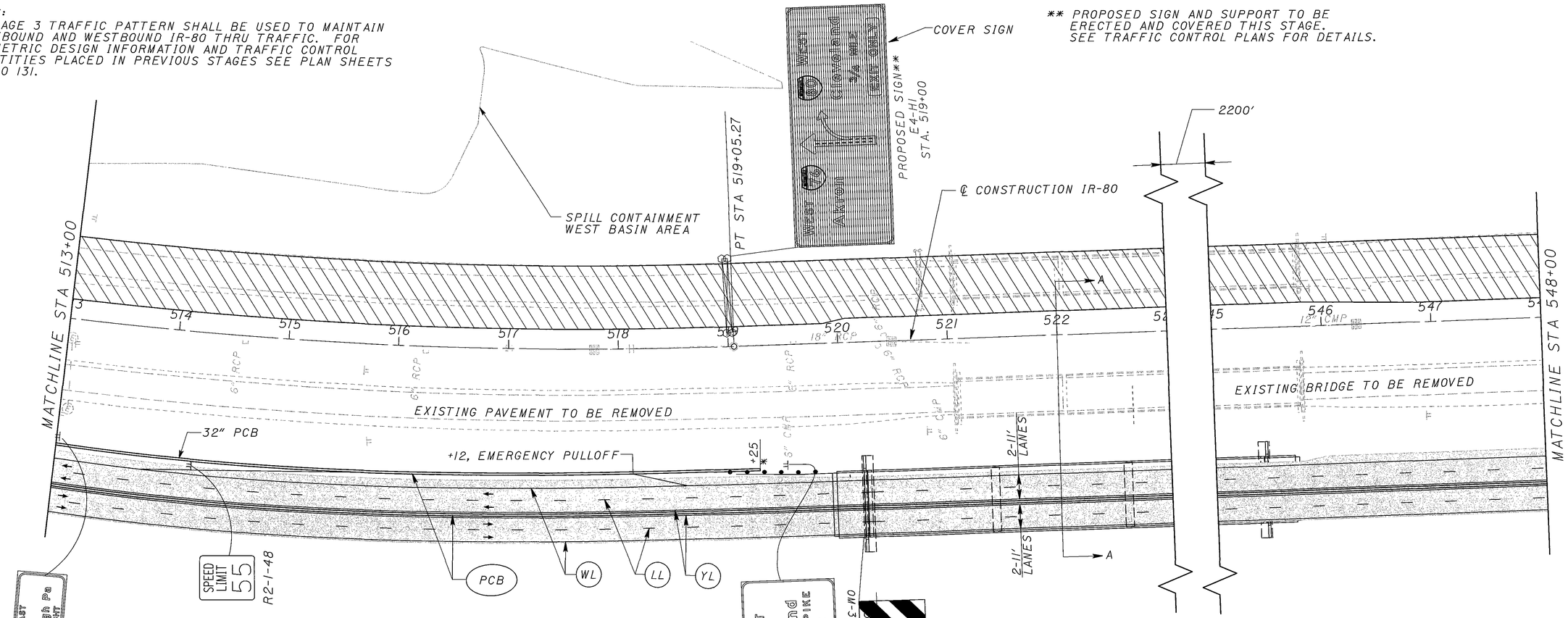
MAH-80-0.97

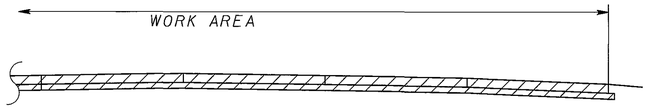
136
1100

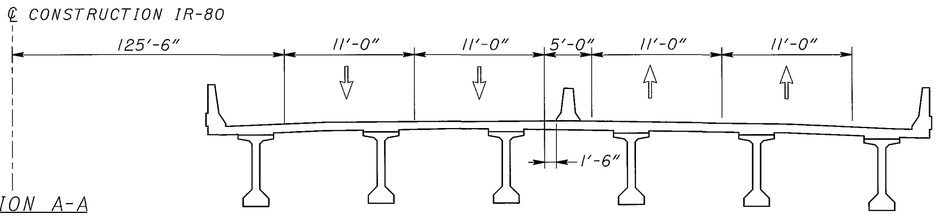
7/21/2005 8:34:44 AM
dgn:\or29sr\ra\37700\mot\ss1ss4vmp103_4.dgn

NOTE:
1. STAGE 3 TRAFFIC PATTERN SHALL BE USED TO MAINTAIN EASTBOUND AND WESTBOUND IR-80 THRU TRAFFIC. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES PLACED IN PREVIOUS STAGES SEE PLAN SHEETS 113 TO 131.

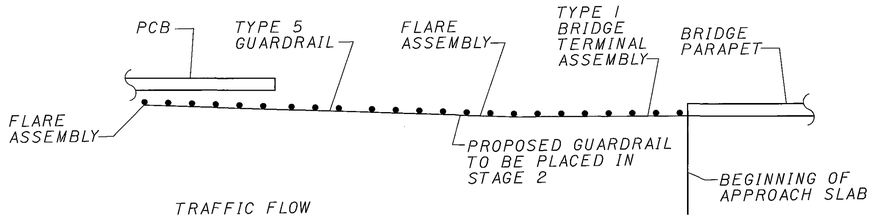
** PROPOSED SIGN AND SUPPORT TO BE ERECTED AND COVERED THIS STAGE. SEE TRAFFIC CONTROL PLANS FOR DETAILS.







SECTION A-A
STA.522+00
NTS



* CONNECTION DETAIL
WEST END
NTS

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS
- (PCB) PORTABLE CONCRETE BARRIER
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

EMERGENCY PULLOFF DETAILS, SEE SHEET 45

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 4

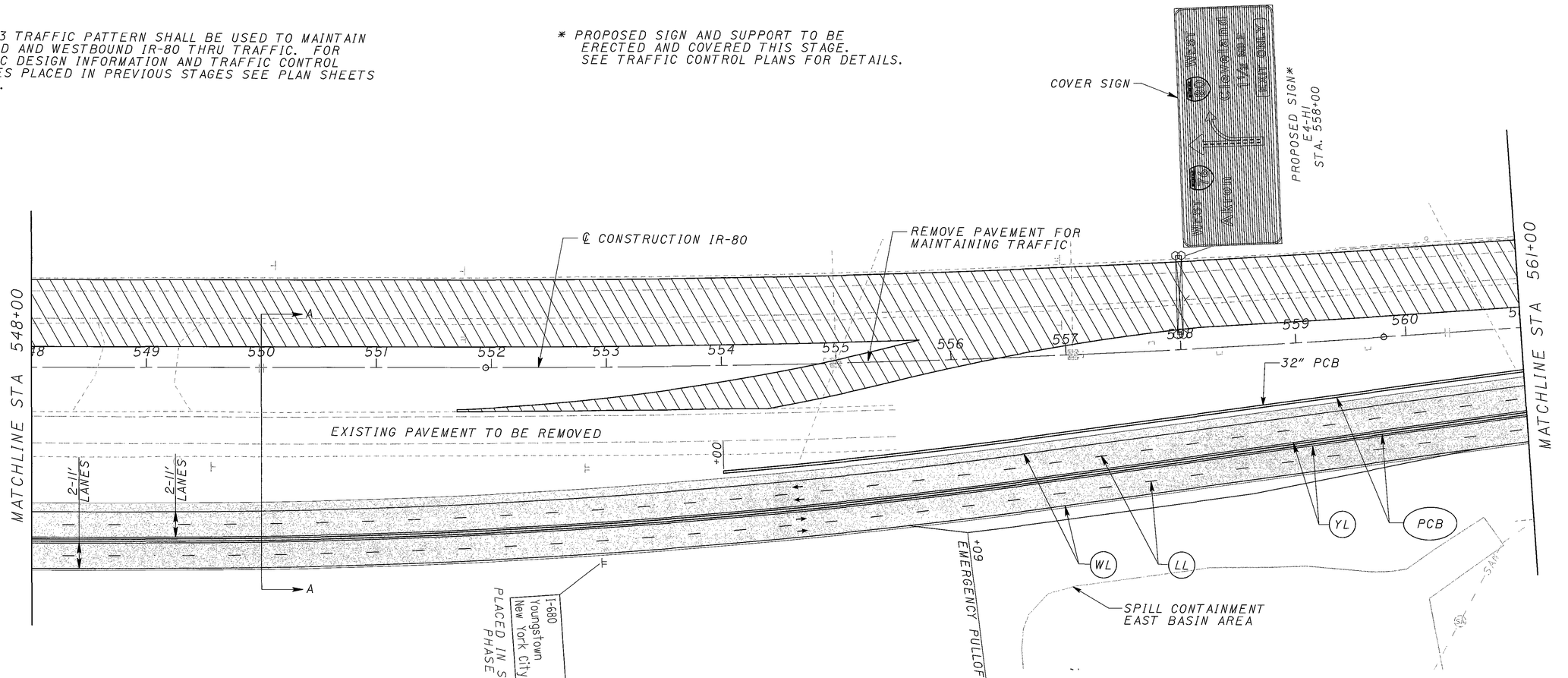
MAH-80-0.97

137
1100

7/21/2005 8:37:52 AM
S:\Project\37700\mot\stage4\mp104_4.dgn

NOTE:
1. STAGE 3 TRAFFIC PATTERN SHALL BE USED TO MAINTAIN EASTBOUND AND WESTBOUND IR-80 THRU TRAFFIC. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES PLACED IN PREVIOUS STAGES SEE PLAN SHEETS 113 TO 131.

* PROPOSED SIGN AND SUPPORT TO BE ERECTED AND COVERED THIS STAGE. SEE TRAFFIC CONTROL PLANS FOR DETAILS.



LEGEND

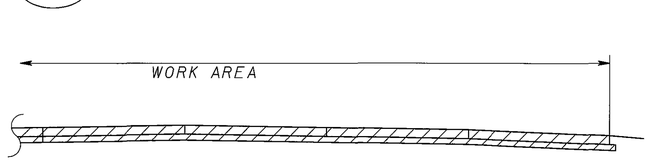
- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- • • • DRUMS

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

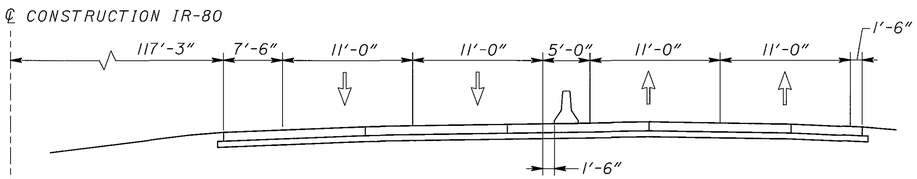
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED

- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN



SECTION A-A
STA. 550+00
NTS



EMERGENCY PULLOFF DETAILS, SEE SHEET 45

7/21/2005 8:40:12 AM
s:\projects\37100\mot\stage4\mp105_4.dgn

N

0 25 50 100 HORIZONTAL SCALE IN FEET

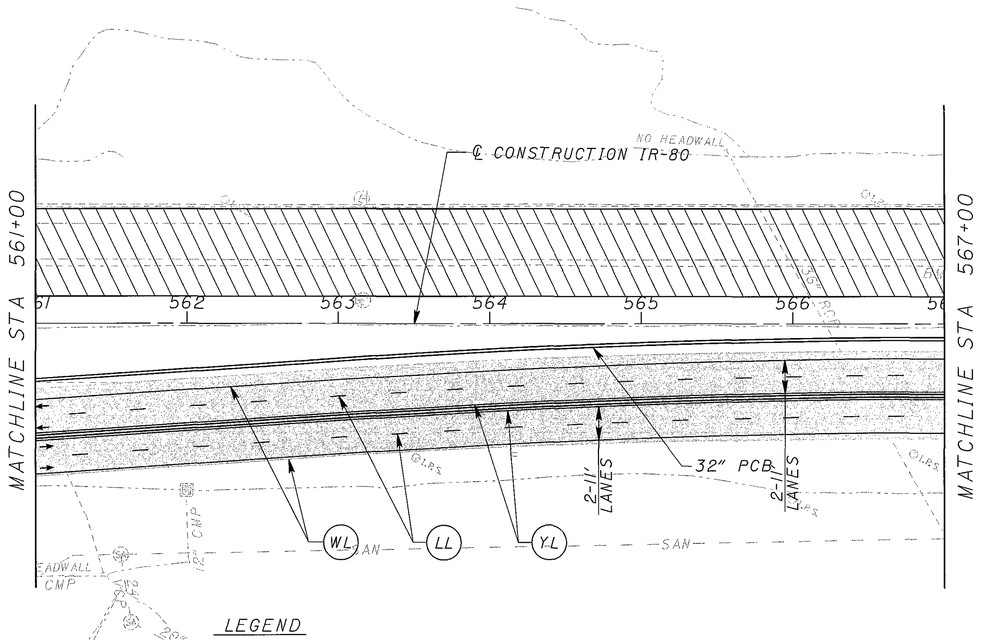
CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 4

MAH-80-0.97

138
1100

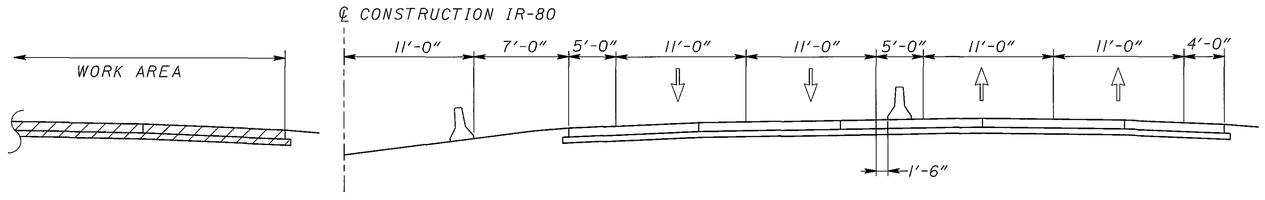
NOTE:
1. STAGE 3 TRAFFIC PATTERN SHALL BE USED TO MAINTAIN EASTBOUND AND WESTBOUND IR-80 THRU TRAFFIC. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES PLACED IN PREVIOUS STAGES SEE PLAN SHEETS 113 TO 131.



LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- (PCB) PORTABLE CONCRETE BARRIER

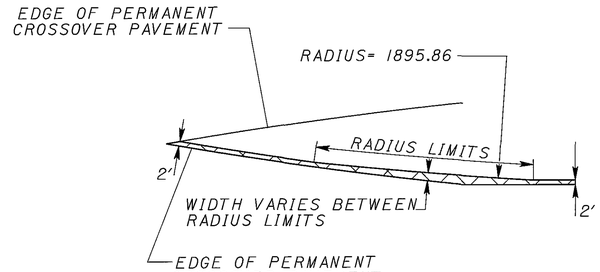
FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.



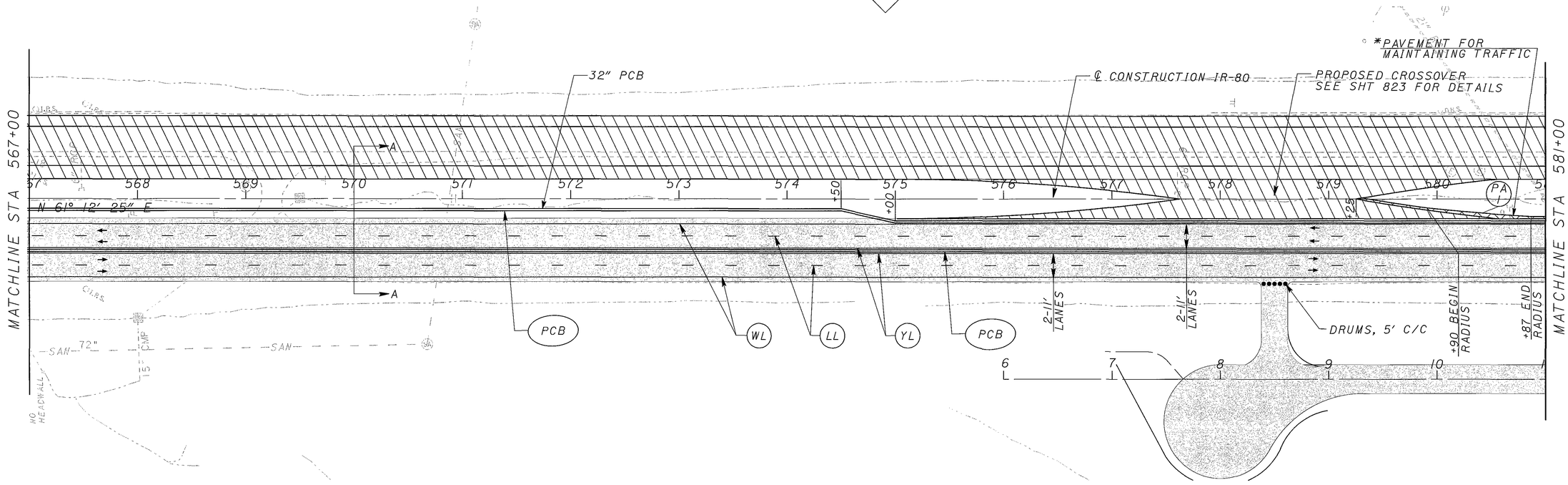
SECTION A-A
STA.570+00
NTS

- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN



*PAVEMENT WEDGE DETAIL
NTS



MAINTENANCE OF TRAFFIC
STAGE 4

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAH-80-0.97

139
1100

7/21/2005 8:41:10 AM
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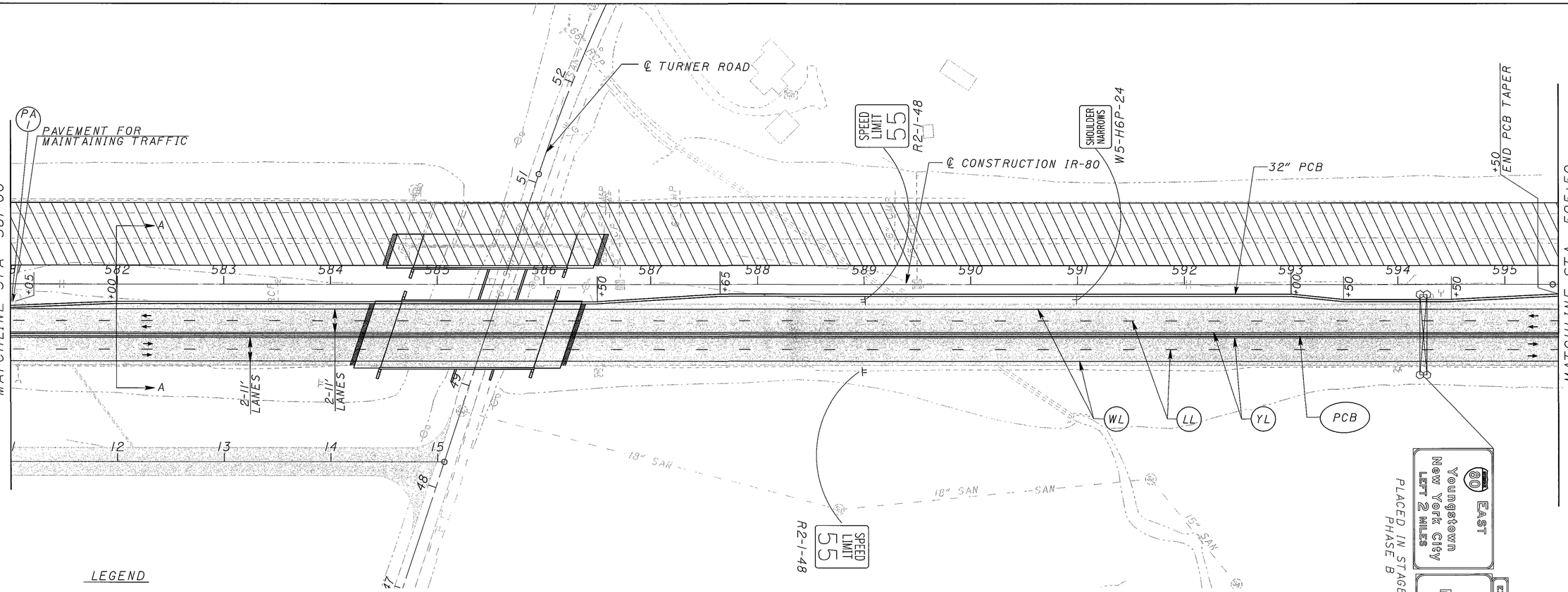
MAINTENANCE OF TRAFFIC STAGE 4

MAH-80-0.97

CALCULATED AJP
CHECKED JFM

HORIZONTAL SCALE IN FEET
0 25 50 100



LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS

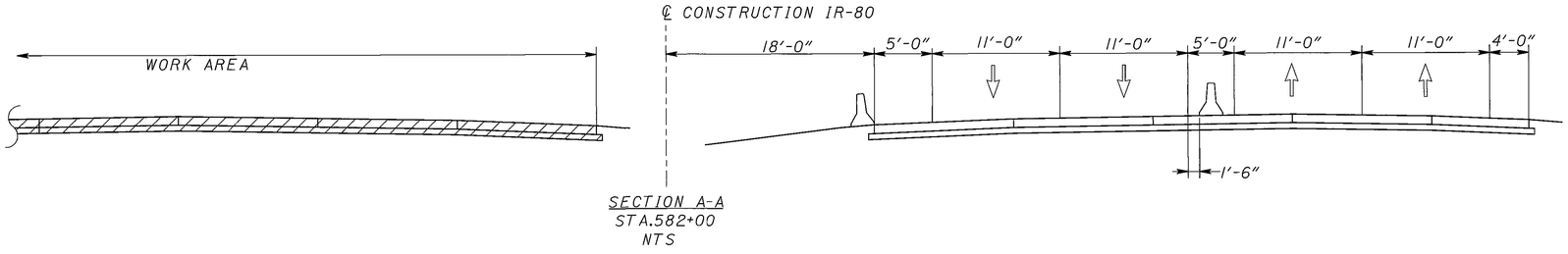
FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED

- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

NOTE:
1. STAGE 3 TRAFFIC PATTERN SHALL BE USED TO MAINTAIN EASTBOUND AND WESTBOUND IR-80 THRU TRAFFIC. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES PLACED IN PREVIOUS STAGES SEE PLAN SHEETS 113 TO 131.



SECTION A-A
STA.582+00
NTS

7/21/2005 8:42:22 AM
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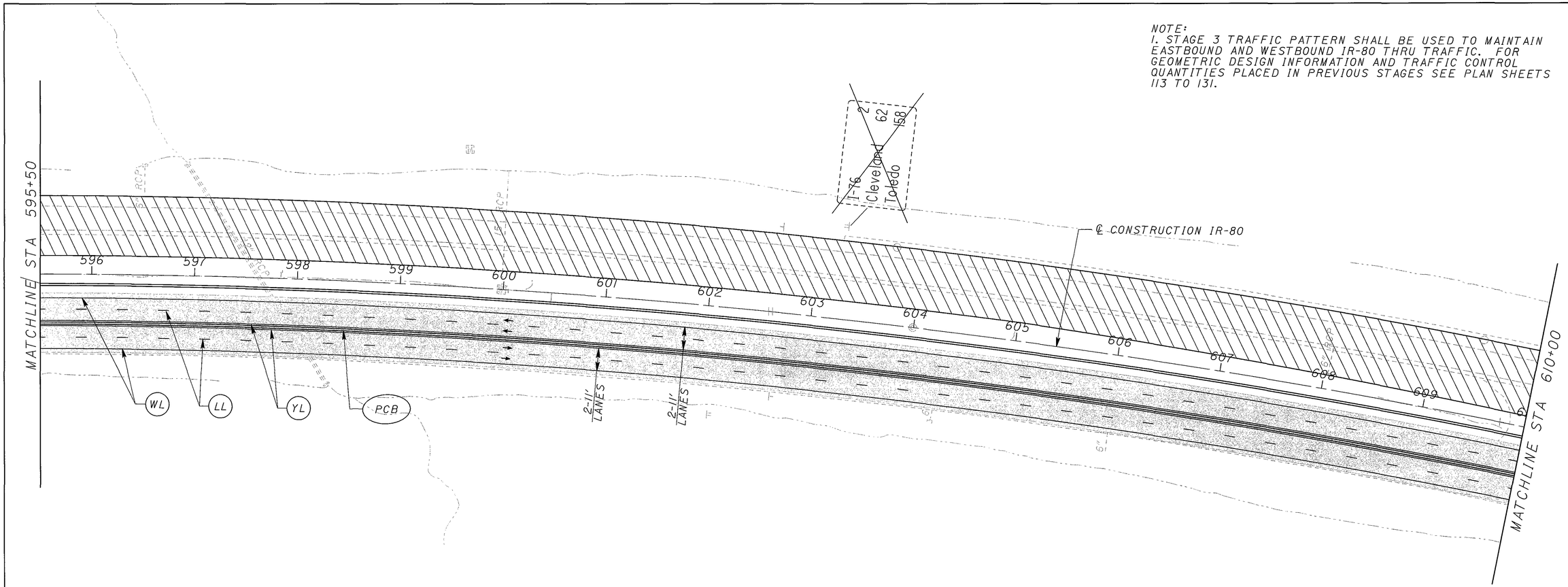
NOTE:
1. STAGE 3 TRAFFIC PATTERN SHALL BE USED TO MAINTAIN EASTBOUND AND WESTBOUND IR-80 THRU TRAFFIC. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES PLACED IN PREVIOUS STAGES SEE PLAN SHEETS 113 TO 131.



LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED

- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 4

MAH-80-0.97

140A
1100

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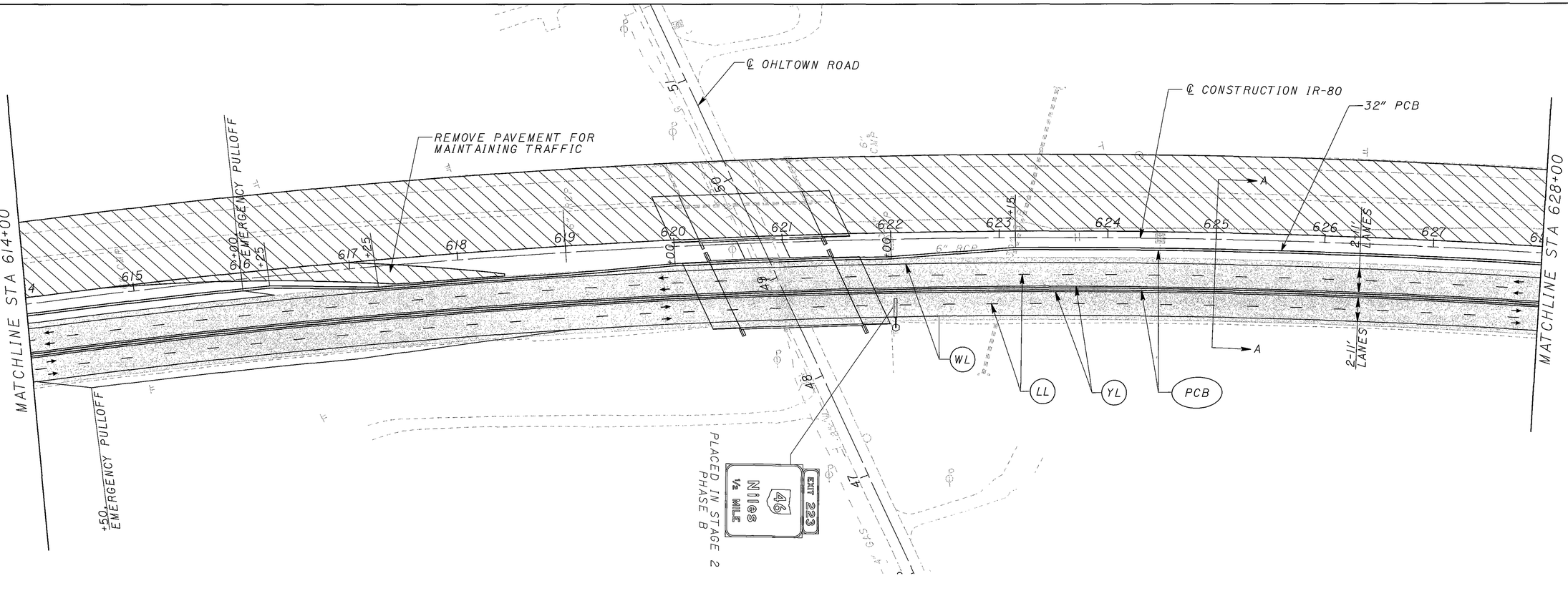

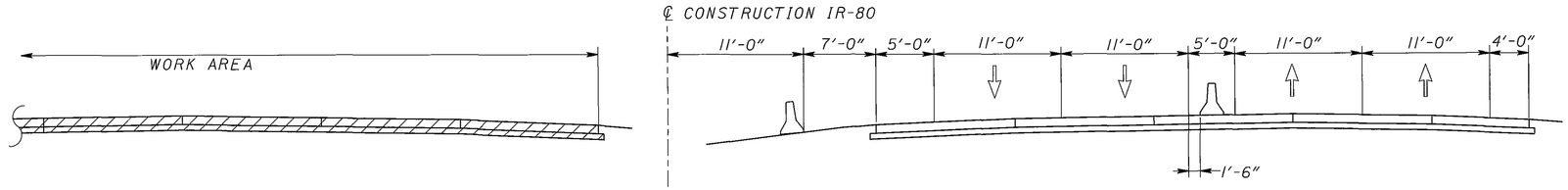

SECTION A-A
STA. 625+00
NTS

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- • • • DRUMS

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED

- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

NOTE:
1. STAGE 3 TRAFFIC PATTERN SHALL BE USED TO MAINTAIN EASTBOUND AND WESTBOUND IR-80 THRU TRAFFIC. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES PLACED IN PREVIOUS STAGES SEE PLAN SHEETS 113 TO 131.

EMERGENCY PULLOFF DETAILS, SEE SHEET 45

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 4

MAH-80-0.97

7/2/2005 8:45:39 AM
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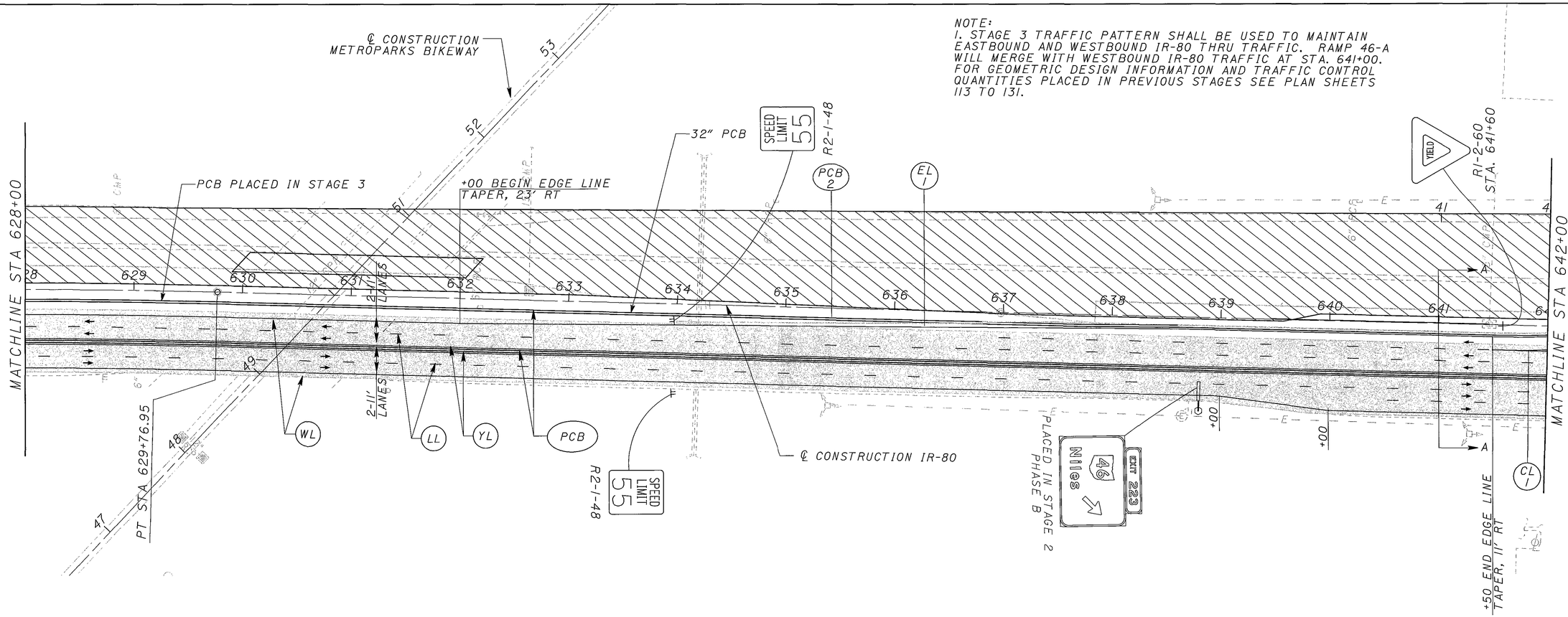
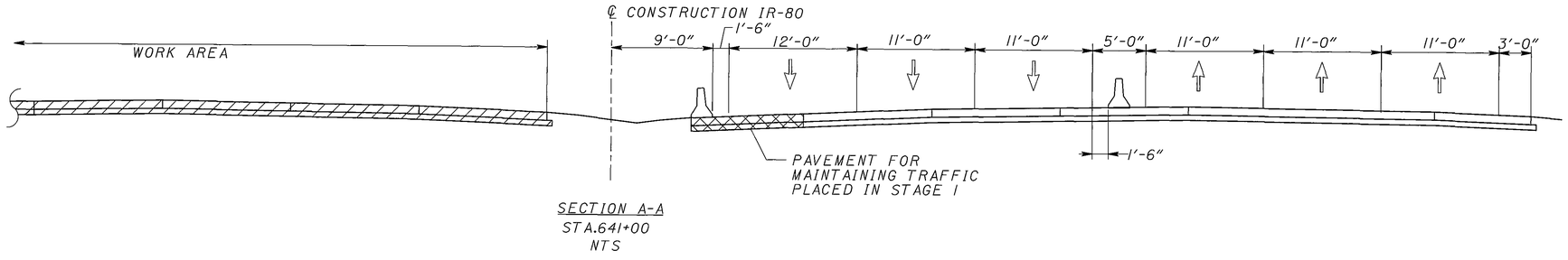
NOTE:
1. STAGE 3 TRAFFIC PATTERN SHALL BE USED TO MAINTAIN EASTBOUND AND WESTBOUND IR-80 THRU TRAFFIC. RAMP 46-A WILL MERGE WITH WESTBOUND IR-80 TRAFFIC AT STA. 641+00. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES PLACED IN PREVIOUS STAGES SEE PLAN SHEETS 113 TO 131.





SECTION A-A
STA.641+00
NTS

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- • • • DRUMS

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED

- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR MOT QUANTITIES, SEE SHEET 151
EMERGENCY PULLOFF DETAILS, SEE SHEET 45

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HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 4

MAH-80-0.97

MAINTENANCE OF TRAFFIC STAGE 4

MAH-80-0.97

143
1100

CALCULATED AJP
CHECKED JFM

HORIZONTAL SCALE IN FEET
0 25 50 100

N

℄ CONSTRUCTION RAMP 46-E
℄ CONSTRUCTION RAMP 46-A
℄ CONSTRUCTION RAMP 46-C
℄ CONSTRUCTION IR-80

W20-1-48 ROAD WORK AHEAD
W3-2c-48
TYPE A WARNING LIGHT
TYPE B WARNING LIGHTS
W4-1R-48
WI-6-60 STA 648+50 STA 649+00
END ROAD WORK G20-2A-48
PAVEMENT FOR MAINTAINING TRAFFIC
WORK ZONE IMPACT ATTENUATOR
TEMP. 12" CONDUIT PLACED IN STAGE 2
PROP. STORM SEWER PLACED IN STAGE 2
GATES AND BARRICADE
ROAD CLOSED R11-2-48
32" PCB
60" RCP
6" CMP
MATCHLINE STA 642+00
MATCHLINE STA 656+00
2-12' LANES
3-12' LANES
2-11' LANES
PLACED IN STAGE 2 PHASE B
W21-5A-48 STA. 652+00
SHOULDER WORK AHEAD
USE PROPOSED PAVEMENT MARKINGS
EXISTING TRUSS AND SIGNS TO REMAIN
G20-2A-48 STA. 66+00
END ROAD WORK

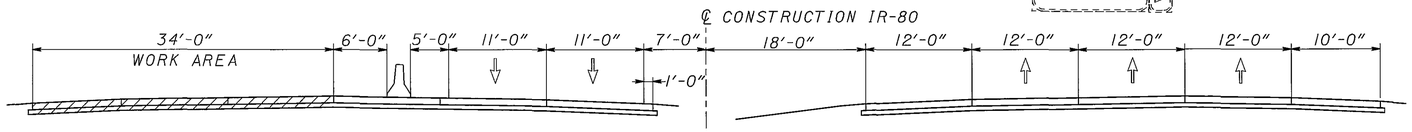
EXIT 223 ↘ Niles
EXIT 224A 80 EAST 11 NORTH Youngstown New York City
EXIT 224A 11 SOUTH Canfield ¾ MILE
EXIT 224B 680 Youngstown 1 MILE
EXIT 224A 11 SOUTH Canfield ½ MILE
LEFT 2 LANES

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS, 20' c/c
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- (WL) WHITE EDGE LINE, 6I4
- (CL) CHANNELIZING LINE, 6I4
- (LL) LANE LINE, 6I4
- (YL) YELLOW EDGE LINE, 6I4
- (PCB) PORTABLE CONCRETE BARRIER
- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

NOTE:
1. STAGE 3 TRAFFIC PATTERN SHALL BE USED TO MAINTAIN EASTBOUND AND WESTBOUND IR-80 THRU TRAFFIC. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES PLACED IN PREVIOUS STAGES SEE PLAN SHEETS 113 TO 131.

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.



SECTION A-A
STA.652+00
NTS

FOR MOT QUANTITIES, SEE SHEET 151

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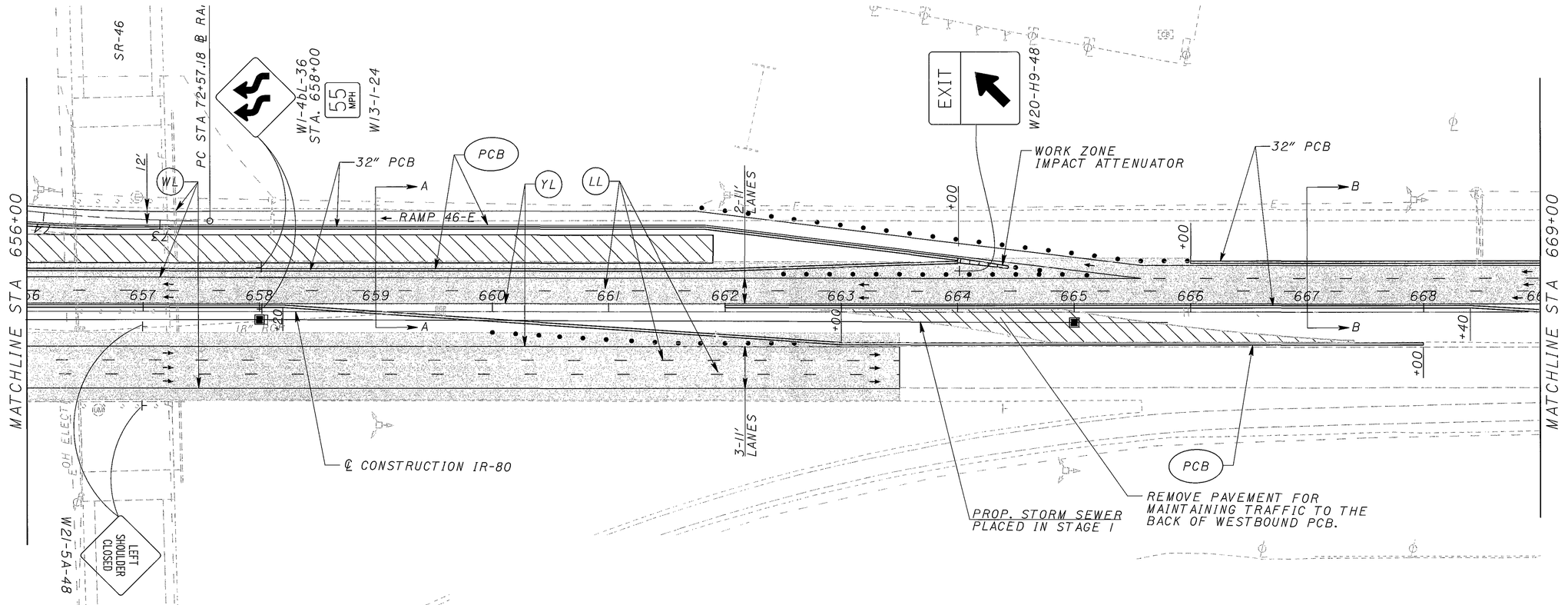
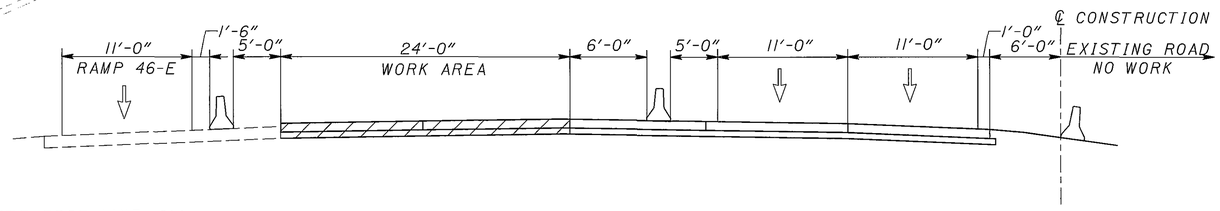
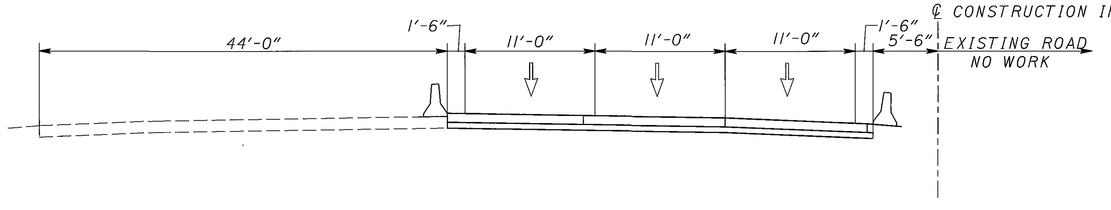




SECTION A-A
STA.659+00
NTS



SECTION B-B
STA.667+00
NTS

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- • • • DRUMS, 20' c/c

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

- (WL) WHITE EDGE LINE, 6I4
- (CL) CHANNELIZING LINE, 6I4
- (LL) LANE LINE, 6I4
- (YL) YELLOW EDGE LINE, 6I4
- (PCB) PORTABLE CONCRETE BARRIER

NOTE:
1. STAGE 3 TRAFFIC PATTERN SHALL BE USED TO MAINTAIN EASTBOUND AND WESTBOUND IR-80 THRU TRAFFIC. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES PLACED IN PREVIOUS STAGES SEE PLAN SHEETS 113 TO 131.

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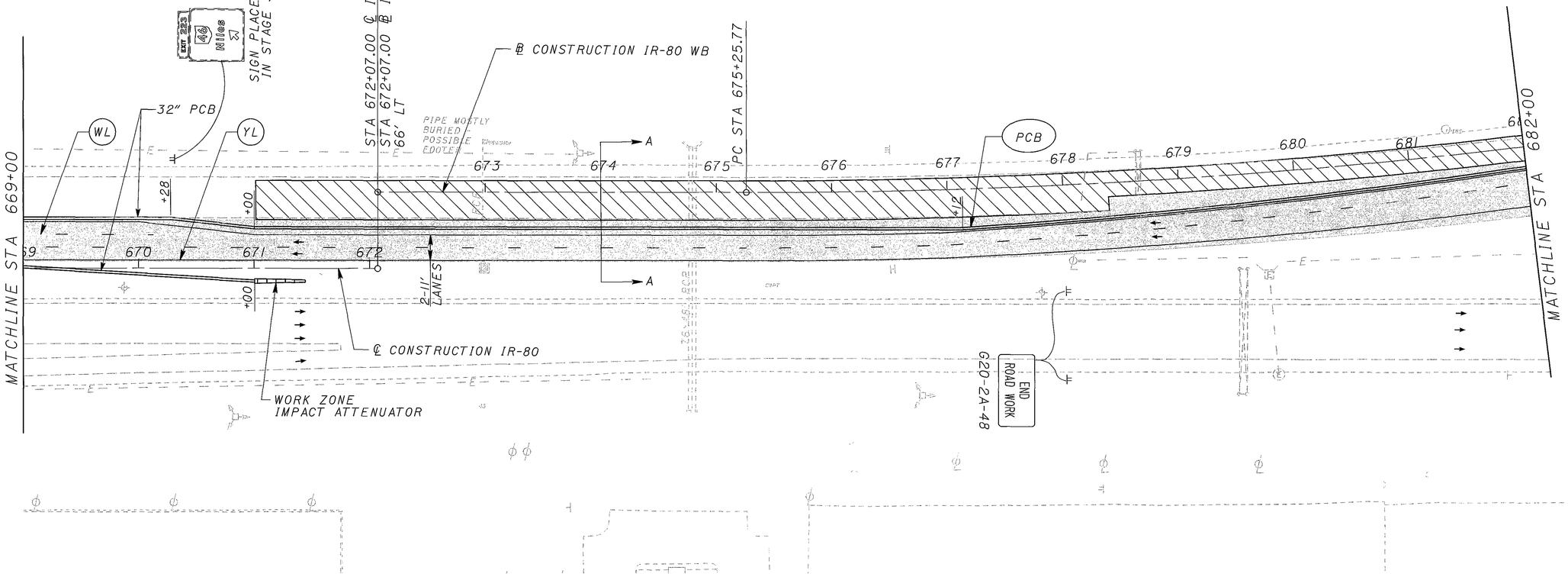
HORIZONTAL SCALE IN FEET
0 25 50 100

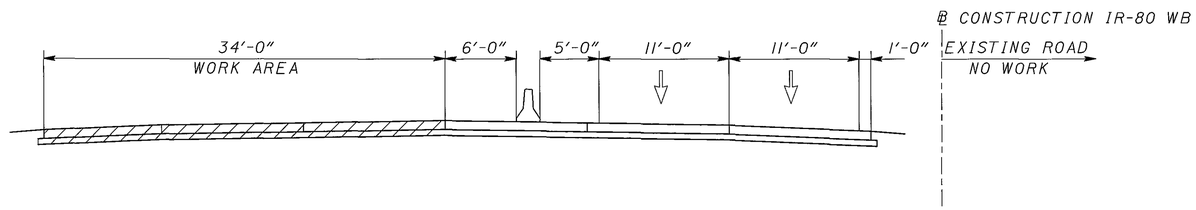
CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 4

MAH-80-0.97

144
1100





SECTION A-A
STA.674+00
NTS

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED

- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

NOTE:
1. STAGE 3 TRAFFIC PATTERN SHALL BE USED TO MAINTAIN EASTBOUND AND WESTBOUND IR-80 THRU TRAFFIC. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES PLACED IN PREVIOUS STAGES SEE PLAN SHEETS 113 TO 131.

N

0 25 50 100 HORIZONTAL SCALE IN FEET

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 4

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145
1100

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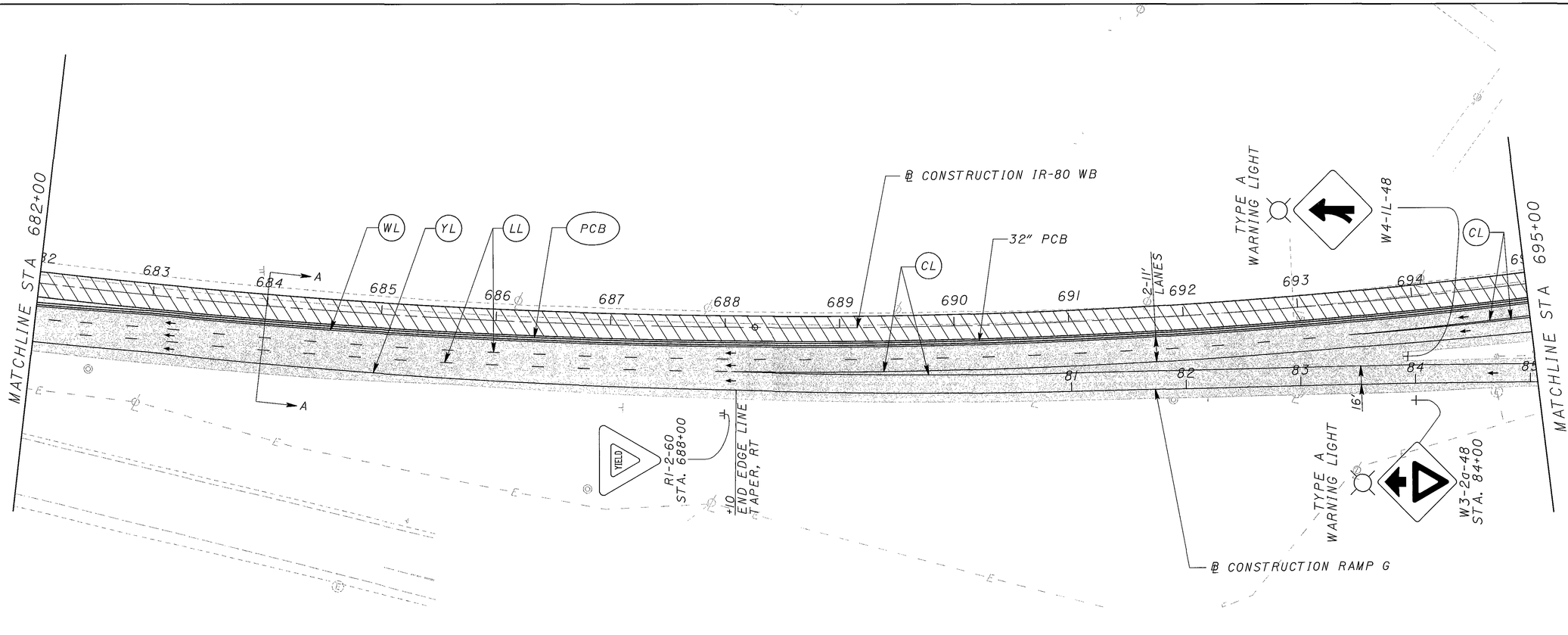

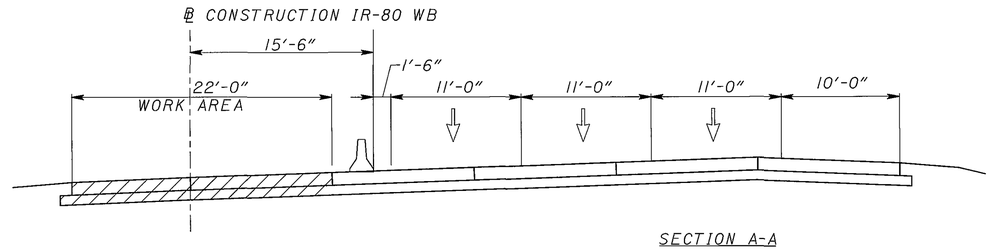

SECTION A-A
STA.684+00
NTS

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- • • • DRUMS

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER
- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

NOTE:
1. STAGE 3 TRAFFIC PATTERN SHALL BE USED TO MAINTAIN EASTBOUND AND WESTBOUND IR-80 THRU TRAFFIC. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES PLACED IN PREVIOUS STAGES SEE PLAN SHEETS 113 TO 131.

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 4

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146
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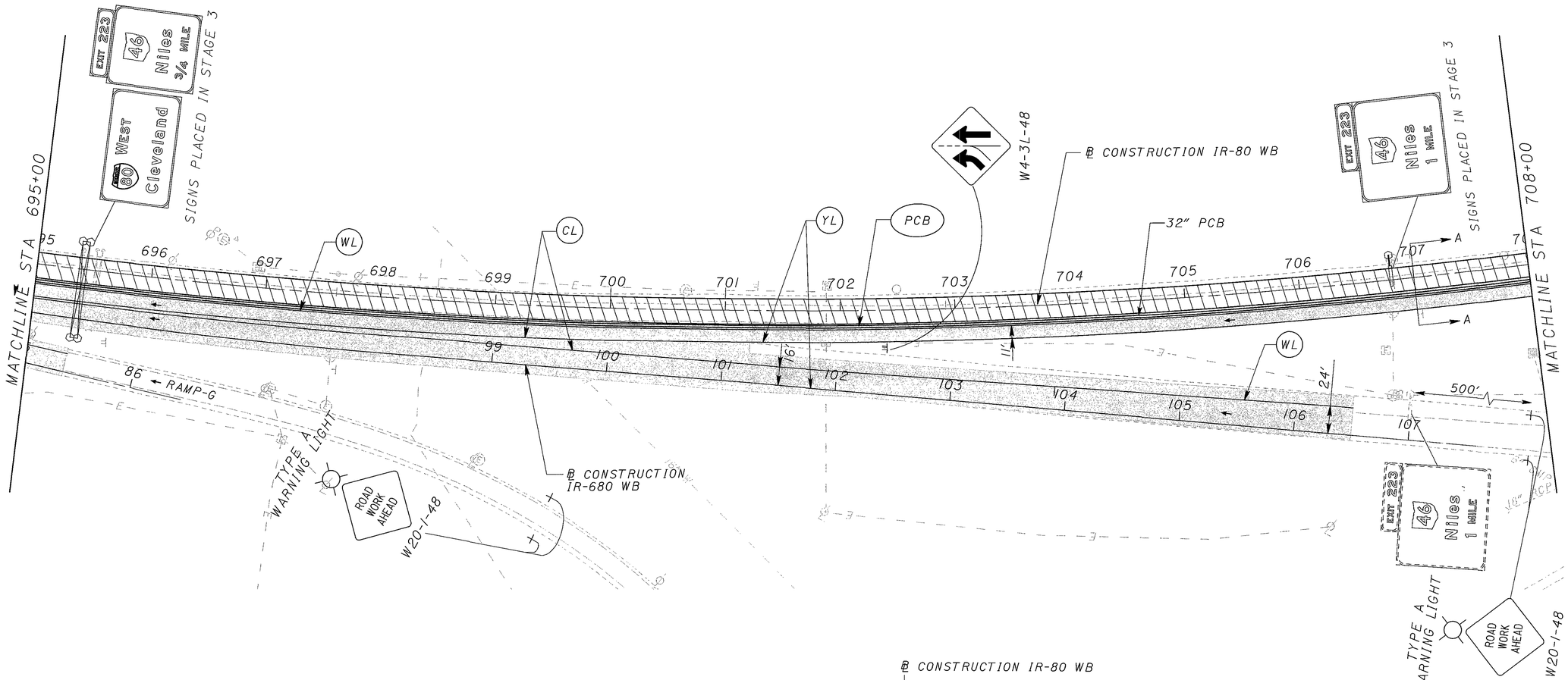

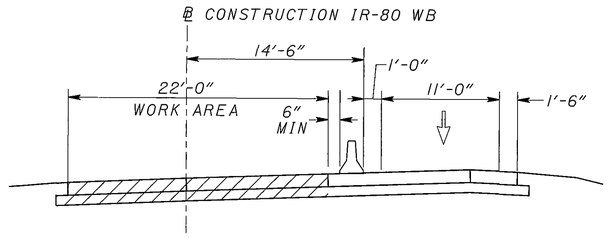

SECTION A-A
STA.707+00
NTS

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- • • • DRUMS

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED

- (WL) WHITE EDGE LINE, 6I4
- (CL) CHANNELIZING LINE, 6I4
- (LL) LANE LINE, 6I4
- (YL) YELLOW EDGE LINE, 6I4
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

NOTE:
1. STAGE 3 TRAFFIC PATTERN SHALL BE USED TO MAINTAIN EASTBOUND AND WESTBOUND IR-80 THRU TRAFFIC. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES PLACED IN PREVIOUS STAGES SEE PLAN SHEETS 113 TO 131.

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 4

MAH-80-0.97

147
1100

7/20/2005 8:59:45 AM
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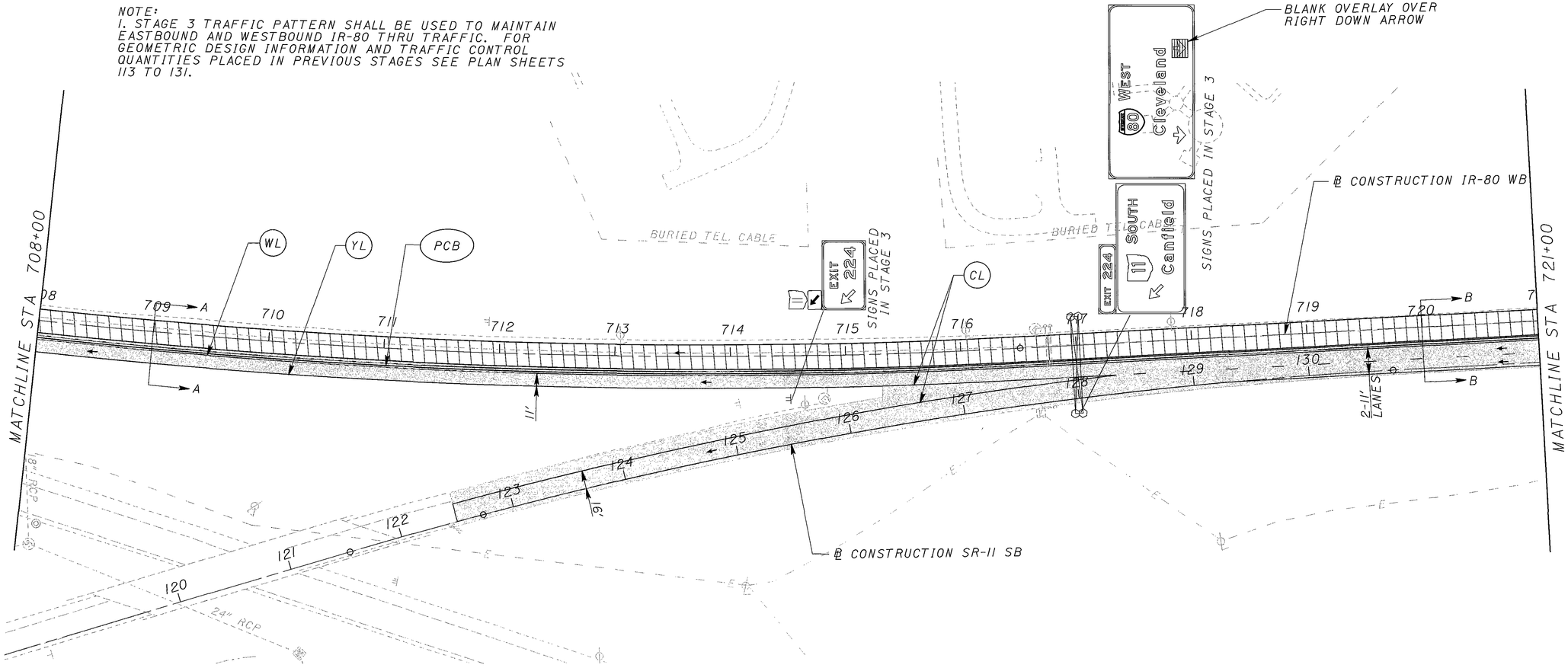
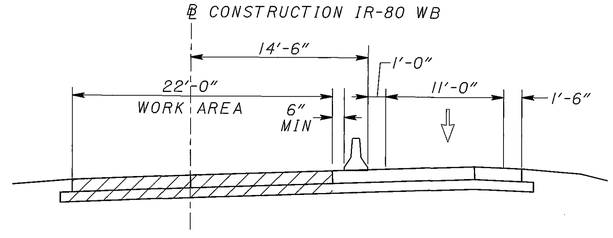
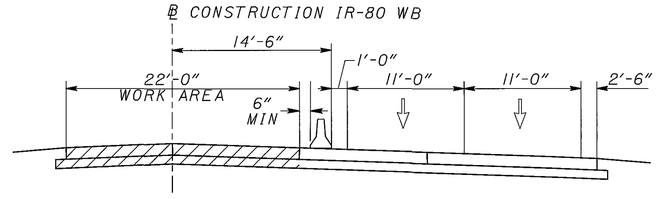
NOTE:
1. STAGE 3 TRAFFIC PATTERN SHALL BE USED TO MAINTAIN EASTBOUND AND WESTBOUND IR-80 THRU TRAFFIC. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES PLACED IN PREVIOUS STAGES SEE PLAN SHEETS 113 TO 131.





SECTION A-A
STA.709+00
NTS



SECTION B-B
STA.720+00
NTS

LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER
- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

REFER TO STANDARD CONSTRUCTION DRAWING MT-95-40 FOR LANE CLOSURE DETAILS.

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HORIZONTAL SCALE IN FEET
0 25 50 100

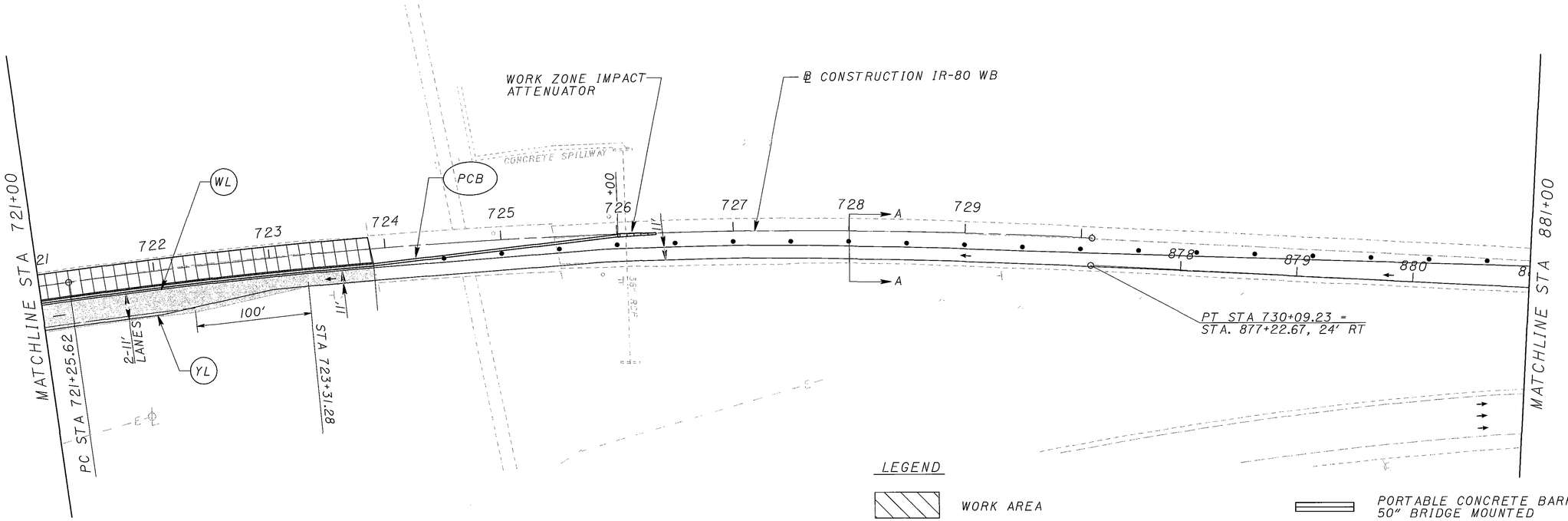
CALCULATED AJP
CHECKED JFM

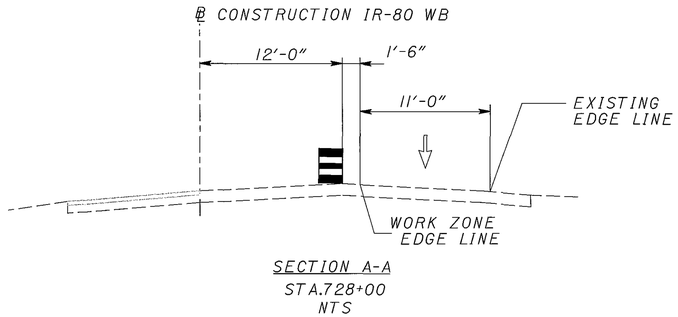
MAINTENANCE OF TRAFFIC STAGE 4

MAH-80-0.97

148
1100

NOTE:
1. STAGE 3 TRAFFIC PATTERN SHALL BE USED TO MAINTAIN EASTBOUND AND WESTBOUND IR-80 THRU TRAFFIC. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES PLACED IN PREVIOUS STAGES SEE PLAN SHEETS 113 TO 131.





SECTION A-A
STA.728+00
NTS

LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- • • DRUMS, 50' C/C
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- (WL) WHITE EDGE LINE, 6I4
- (CL) CHANNELIZING LINE, 6I4
- (LL) LANE LINE, 6I4
- (YL) YELLOW EDGE LINE, 6I4
- (PCB) PORTABLE CONCRETE BARRIER
- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.40.

NOTES:
1. REFER TO STANDARD CONSTRUCTION DRAWING MT-95.40 FOR ADVANCE WARNING SIGNING AND SPACING.
2. FOR SIGN W21-5a-48 THE ADVISORY SPEED SHOULD BE 55 MPH.

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 4

MAH-80-0.97

149
1100

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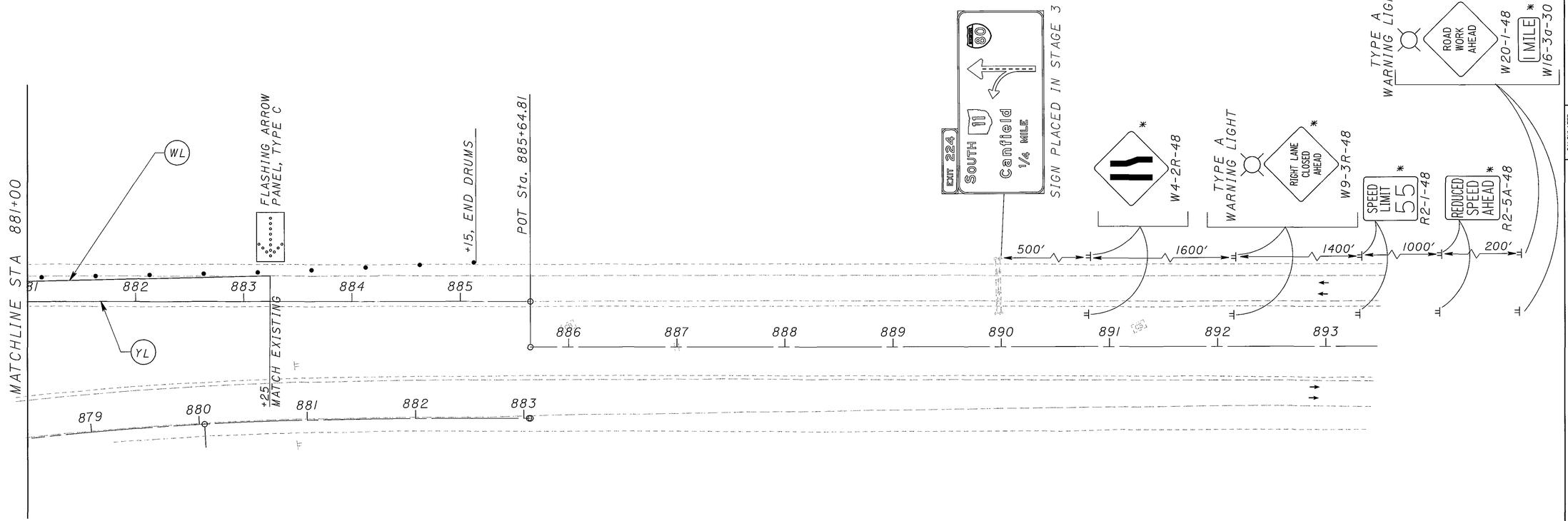
* SIGNS PLACED IN STAGE 3 TO REMAIN



LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS, 50' C/C
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- (WL) WHITE EDGE LINE, 6I4
- (CL) CHANNELIZING LINE, 6I4
- (LL) LANE LINE, 6I4
- (YL) YELLOW EDGE LINE, 6I4
- (PCB) PORTABLE CONCRETE BARRIER
- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.40.

NOTE:
1. STAGE 3 TRAFFIC PATTERN SHALL BE USED TO MAINTAIN EASTBOUND AND WESTBOUND IR-80 THRU TRAFFIC. FOR GEOMETRIC DESIGN INFORMATION AND TRAFFIC CONTROL QUANTITIES PLACED IN PREVIOUS STAGES SEE PLAN SHEETS 113 TO 131.

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 4

MAH-80-0.97

150
1100

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REF NO.	SHEET NO.	STATION FROM		STATION TO		SIDE	614 WORK ZONE IMPACT ATTENUATOR		614 BARRIER REFLECTOR, TYPE B	614 OBJECT MARKER, ONE WAY		614 WORK ZONE EDGE LINE, CLASS 1, 740.06, TYPE 1 (Yellow)	614 WORK ZONE EDGE LINE, CLASS 1, 740.06, TYPE 1 (White)	614 WORK ZONE CHANNELIZING LINE, CLASS 1, 740.06, TYPE 1		615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN			622 PORTABLE CONCRETE BARRIER, 32"						
							EACH		EACH	EACH		MILE	MILE	FT		SQ YD			FT							
STAGE 4 QUANTITIES																										
CL1	142-143	CL	641+50	CL	643+00	RT								150												
EL1	142-143	CL	632+00	46A	47+45	LT/RT							0.301													
EL2	142-143	CL	643+00	46A	47+30	LT/RT						0.298														
IA1	143	CL	645+80			LT	1																			
PA1	139-140	CL	579+25	CL	581+05	RT										50.1										
PA2	143	CL	652+95	CL	654+40	LT										183.4										
PCB1	136	CL	501+00	CL	509+90	RT			19	19									890							
PCB2	142-143	CL	632+00	CL	645+80	LT/RT			29	29									1380							
SUBTOTAL							1		48	48		0.298	0.301	150		233.5			2270							
TOTALS CARRIED TO SUBSUMMARY ON SHEET 59							1		48	48		0.3	0.31	150		234			2270							

CALCULATED EFD
CHECKED JFM

MAINTENANCE OF TRAFFIC QUANTITIES STAGE 4

MAH-80-0.97

151
1100

8/18/2005 4:16:31 PM
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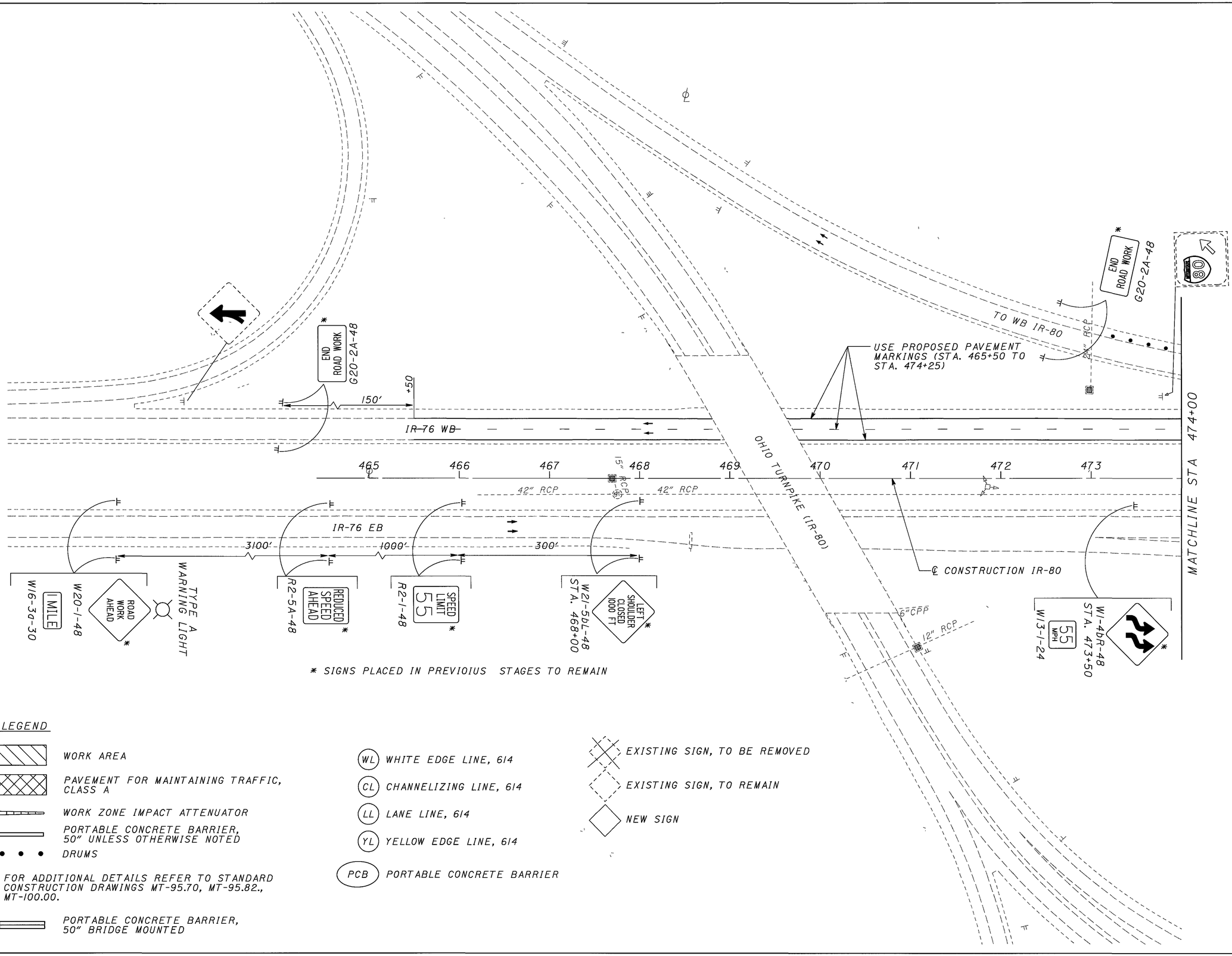


* SIGNS PLACED IN PREVIOIUS STAGES TO REMAIN

LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED

- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 5 PHASE A

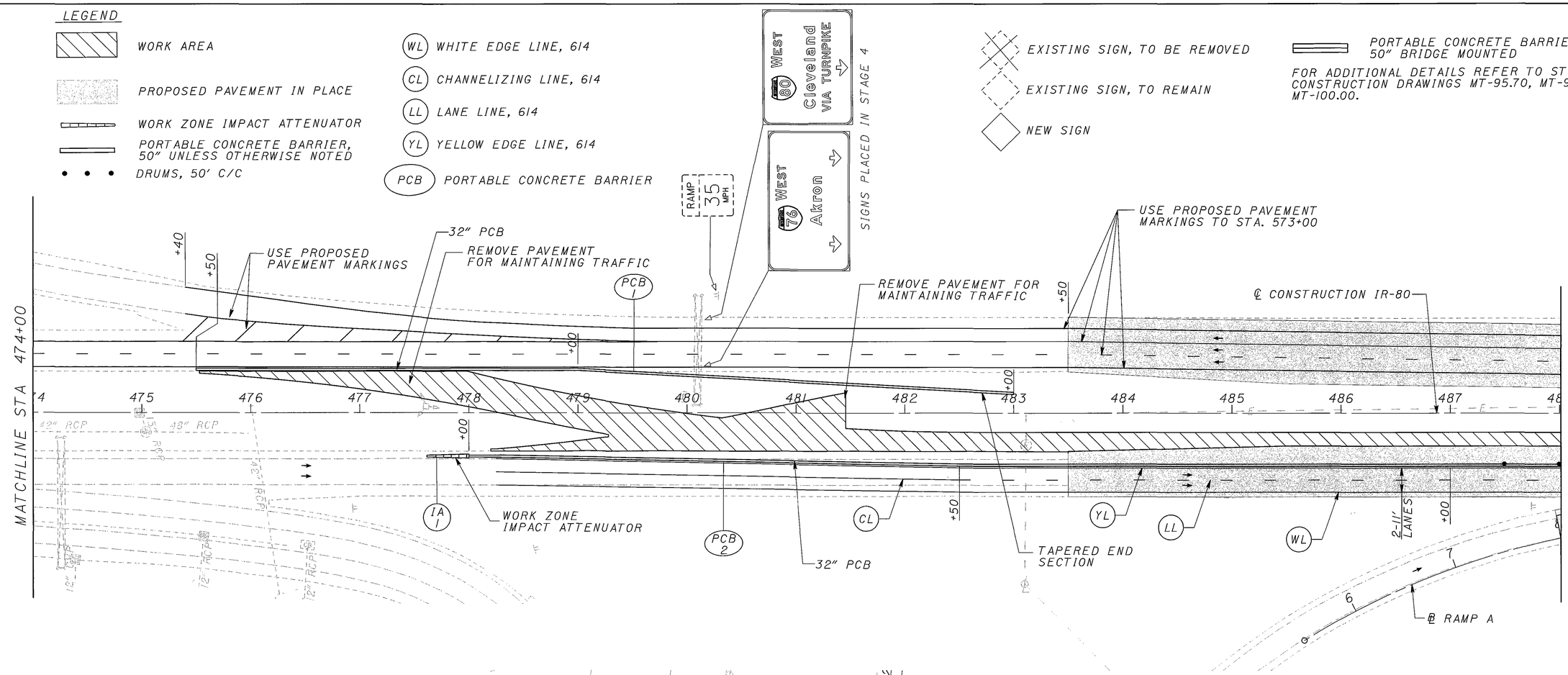
MAH-80-0.97

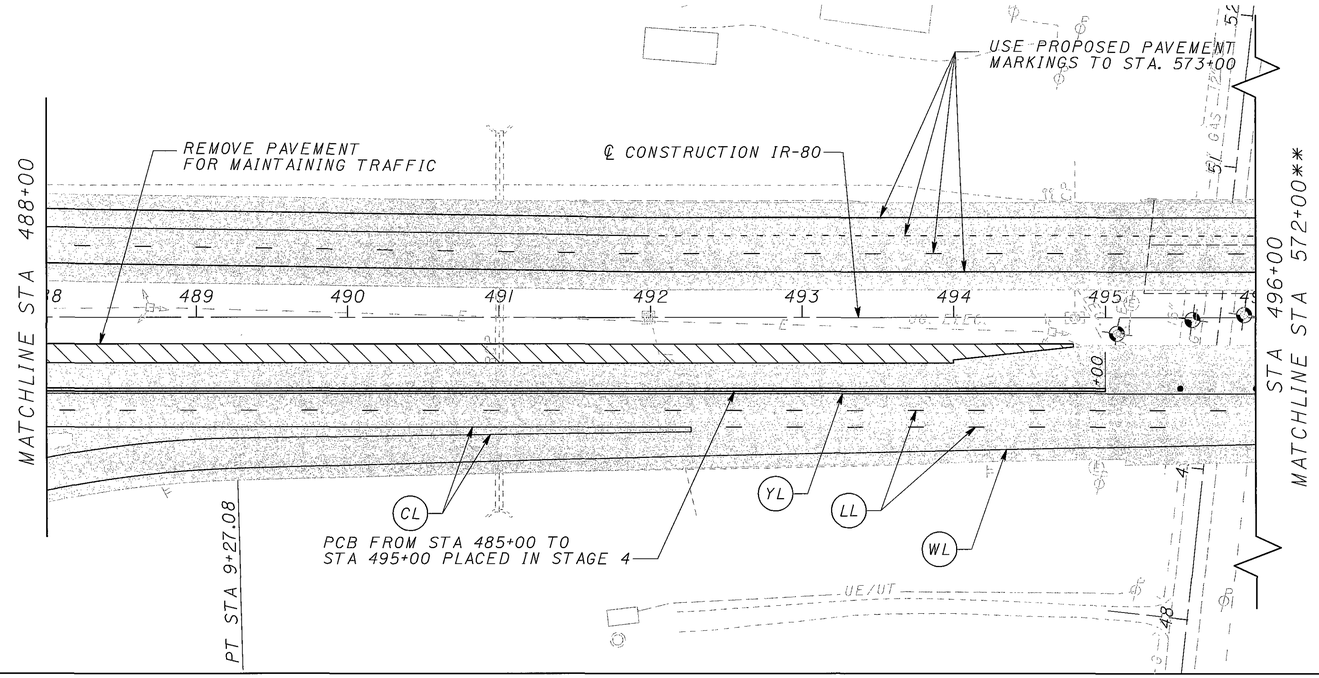
7/21/2005 9:29:51 AM
dgn: c:\projects\37700\mot\ms\stage5\mp100_5.dgn

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS, 50' C/C
- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER
- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.





** NOTE:
1. ALL PROPOSED SIGNS AND GUARDRAIL FOR WESTBOUND IR-80 BETWEEN STA. 496+00 AND STA. 572+00 SHALL BE IN PLACE AND FULLY FUNCTIONAL FOR THIS PHASE. SEE TRAFFIC CONTROL PLANS AND PLAN AND PROFILE FOR DETAILS.

2. STAGE 4 TRAFFIC PATTERN AND TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE USED FOR EASTBOUND IR-80 DURING THIS PHASE, BETWEEN STA. 496+00 AND STA. 572+00. REPLACE 50" PCB IN CENTER OF EASTBOUND ROADWAY WITH DRUMS (SPACED @ 50' C/C).

FOR MOT QUANTITIES, SEE SHEET 165

HORIZONTAL SCALE IN FEET 0 25 50 100

CALCULATED AJP CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 5 PHASE A

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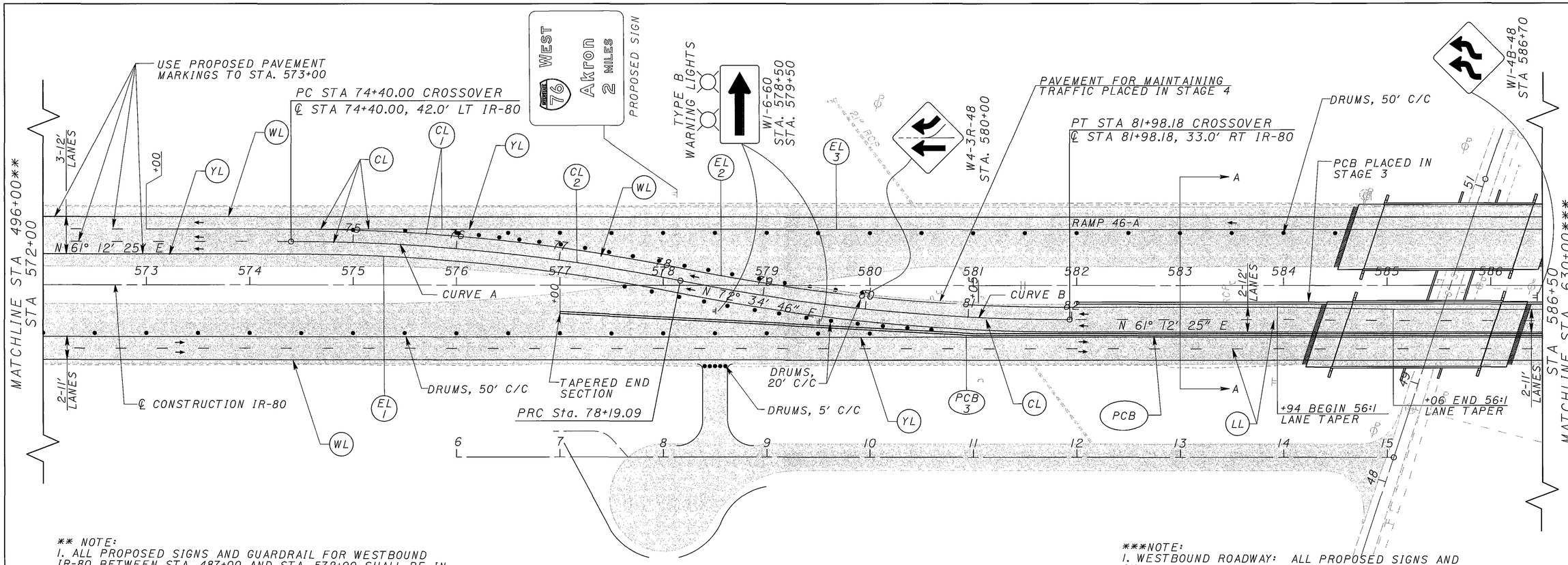


** NOTE:
1. ALL PROPOSED SIGNS AND GUARDRAIL FOR WESTBOUND IR-80 BETWEEN STA. 487+00 AND STA. 572+00 SHALL BE IN PLACE AND FULLY FUNCTIONAL FOR THIS PHASE. SEE TRAFFIC CONTROL PLANS AND PLAN AND PROFILE FOR DETAILS.

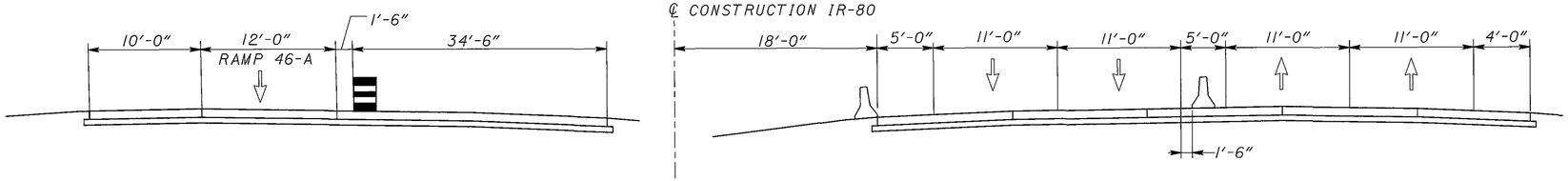
2. STAGE 4 TRAFFIC PATTERN AND TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE USED FOR EASTBOUND IR-80 TRAFFIC DURING THIS PHASE, BETWEEN STA. 487+00 AND STA. 572+00 EXCEPT REPLACE 50" PCB IN CENTER OF EASTBOUND ROADWAY WITH DRUMS (SPACED @ 50' C/C).

CURVE A
P.I. Sta = 76+30.17
Δ = 11° 22' 22" (RT)
Dc = 3° 00' 00"
R = 1,909.86'
T = 190.17'
L = 379.09'
E = 9.44'

CURVE B
P.I. Sta = 80+09.26
Δ = 11° 22' 22" (LT)
Dc = 3° 00' 00"
R = 1,909.86'
T = 190.17'
L = 379.09'
E = 9.44'

***NOTE:
1. WESTBOUND ROADWAY: ALL PROPOSED SIGNS AND GUARDRAIL BETWEEN STA. 586+50 AND STA. 630+00 SHALL BE IN PLACE AND FULLY FUNCTIONAL FOR THIS PHASE. SEE TRAFFIC CONTROL PLANS AND PLAN AND PROFILE FOR DETAILS. RAMP 46-A TRAFFIC WILL BE MAINTAINED ON THE RIGHT MOST LANE OF THE PROPOSED WESTBOUND ROADWAY WITH THE USE OF DRUMS.

2. EASTBOUND ROADWAY: STAGE 4 TRAFFIC PATTERN AND TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE USED TO MAINTAIN EASTBOUND AND WESTBOUND IR-80 TRAFFIC BETWEEN STA. 585+50 AND STA. 630+00. SEE SHT. 140-142.



SECTION A-A
STA.583+00
NTS

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS
- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

FOR MOT QUANTITIES, SEE SHEET 165

HORIZONTAL SCALE IN FEET
0 25 50 100
CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 5 PHASE A

MAH-80-0.97

154
1100

7/21/2005 9:34:39 AM
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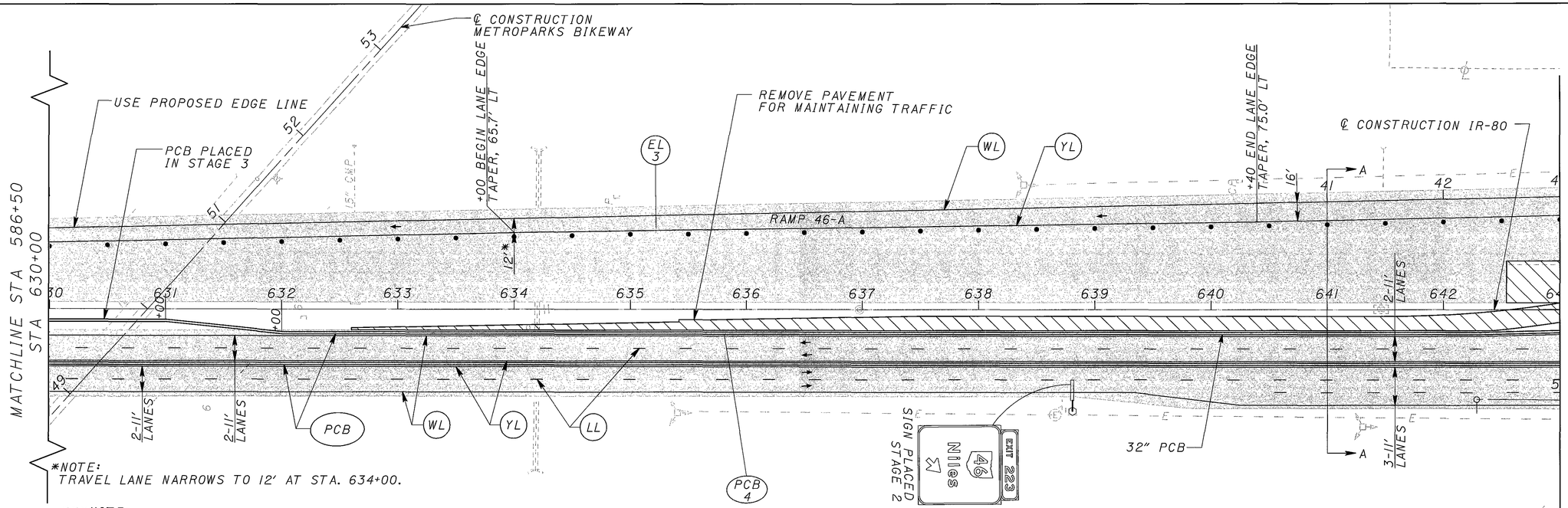
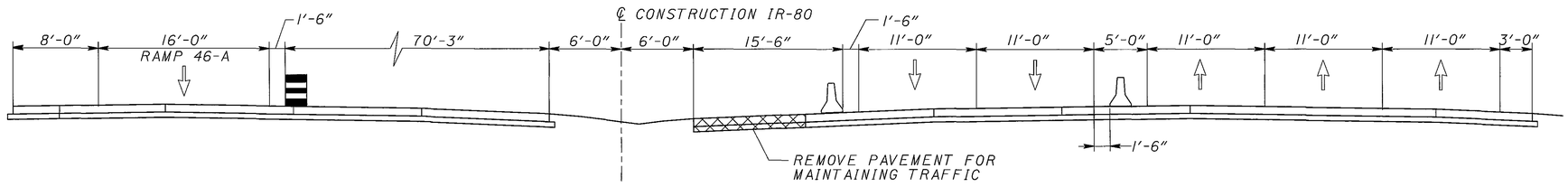


*NOTE:
TRAVEL LANE NARROWS TO 12' AT STA. 634+00.

***NOTE:
1. WESTBOUND ROADWAY: ALL PROPOSED SIGNS AND GUARDRAIL BETWEEN STA. 586+50 AND STA. 630+00 SHALL BE IN PLACE AND FULLY FUNCTIONAL FOR THIS PHASE. SEE TRAFFIC CONTROL PLANS AND PLAN AND PROFILE FOR DETAILS. RAMP 46-A TRAFFIC WILL BE MAINTAINED ON THE RIGHT MOST LANE OF THE PROPOSED WESTBOUND ROADWAY WITH THE USE OF DRUMS.

2. EASTBOUND ROADWAY: STAGE 4 TRAFFIC PATTERN AND TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE USED TO MAINTAIN EASTBOUND AND WESTBOUND IR-80 TRAFFIC BETWEEN STA. 585+50 AND STA. 630+00. SEE SHT. 140-142.



SECTION A-A
STA.641+00
NTS

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN
- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER

FOR MOT QUANTITIES, SEE SHEET 165

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 5 PHASE A

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MAINTENANCE OF TRAFFIC STAGE 5 PHASE A

MAH-80-0.97

156
1100

CALCULATED AJP
CHECKED JFM

HORIZONTAL SCALE IN FEET
0 25 50 100

N

MATCHLINE STA 643+00

MATCHLINE STA 656+00

REMOVE PAVEMENT FOR MAINTAINING TRAFFIC & FINISH PROPOSED PAVEMENT

USE PROPOSED EDGE LINE

DRUMS, 50' C/C

℄ CONSTRUCTION IR-80

WORK ZONE IMPACT ATTENUATOR

32" PCB

ROAD CLOSED

RII-2-48
STA. 647+50

TYPE B WARNING LIGHTS

WI-6-60
STA 648+20
STA 649+20

TEMP. 12" CONDUIT PLACED IN STAGE 2

℄ CONSTRUCTION RAMP 46-A

ROAD WORK AHEAD W20-1-48

℄ CONSTRUCTION RAMP 46-E

DRUMS, 20' C/C

END ROAD WORK G20-2A-48 STA 78+50

EXIT W20-H9-48

25 MPH

W13-1-24
STA. 654+00

PROP. STORM SEWER PLACED IN STAGE 2

2-12' LANES

3-12' LANES

TYPE 3 BARRICADE

PCB

CL

DRUMS, 20' C/C

USE PROPOSED PAVEMENT MARKINGS

WL

YL

LL

END ROAD WORK G20-2A-48 STA 653+00

WORK ZONE IMPACT ATTENUATOR

WORK ZONE IMPACT ATTENUATOR

SIGN PLACED IN STAGE 2 PHASE B

EXIT 223

℄ CONSTRUCTION RAMP 46-C

END ROAD WORK G20-2A-48 STA 653+00

16' WATER

SIGNS PLACED IN STAGE 2 PHASE B

80 EAST 11 NORTH New York City

80 EAST 11 NORTH New York City
LEFT 2 LANES

80 11 SOUTH Canfield 3/4 MILE EXIT 224A

80 Youngstown 1 MILE EXIT 224B

80 11 SOUTH Canfield 1/2 MILE EXIT 224A

80 46 Niles EXIT 223

USE PROPOSED PAVEMENT MARKINGS TO STA. 573+00

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS
- FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER
- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR MOT QUANTITIES, SEE SHEET 165

7/20/2005 9:43:03 AM
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REMOVE PAVEMENT FOR MAINTAINING TRAFFIC & FINISH PROPOSED PAVEMENT

55 MPH

WJ-46L-48
WJ-3-I-24
STA. 656+00

LL

WL

3-11' LANES

EI-5
EXIT 223
46
Niles

EI-H3
STA. 659+00
PROPOSED SIGN*

32" PCB

PCB 6

+00 BEGIN EDGE LINE TAPER, 41' LT

YL

+00 END EDGE LINE
2-11' TAPER, 30' LT
2-11' LANES

EL 4

EXIT OPEN

E5-2-48
STA. 663+00

PCB PLACED IN STAGE 3

MATCHLINE STA 656+00

656 657 658 659 660 661 662 663 664 665 666 667 668 669 670

+20 +60 +00 +40

A A

MATCH LINE STA 670+00

PROP. STORM SEWER PLACED IN STAGE I

TAPERED END SECTION

℄ CONSTRUCTION IR-80

USE PROPOSED PAVEMENT MARKINGS

3-12' LANES

OH ELECT

EXIT 223
46
Niles
NEXT RIGHT

WEST
80
Cleveland

STA. 668+00
PROPOSED SIGNS *

LEFT LANE ENDS
1 MILE

COVER SIGN

℄ CONSTRUCTION IR-80

34'-0" WORK AREA | 3'-0" | 7'-0" | 11'-0" | 11'-0" | 2'-0"

SECTION A-A
STA.684+00
NTS

* PROPOSED SIGNS & SIGN SUPPORT: TO BE ERECTED THIS STAGE. REFER TO TRAFFIC CONTROL PLANS FOR DETAILS

1. REMOVE EXITSING PAVEMENT ON WESTBOUND ROADWAY
2. PLACE SIGN FOUNDATION AND ERECT TRUSS AND SIGNS
3. FINISH PAVING

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER
- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR MOT QUANTITIES, SEE SHEET 165

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 5 PHASE A

MAH-80-0.97

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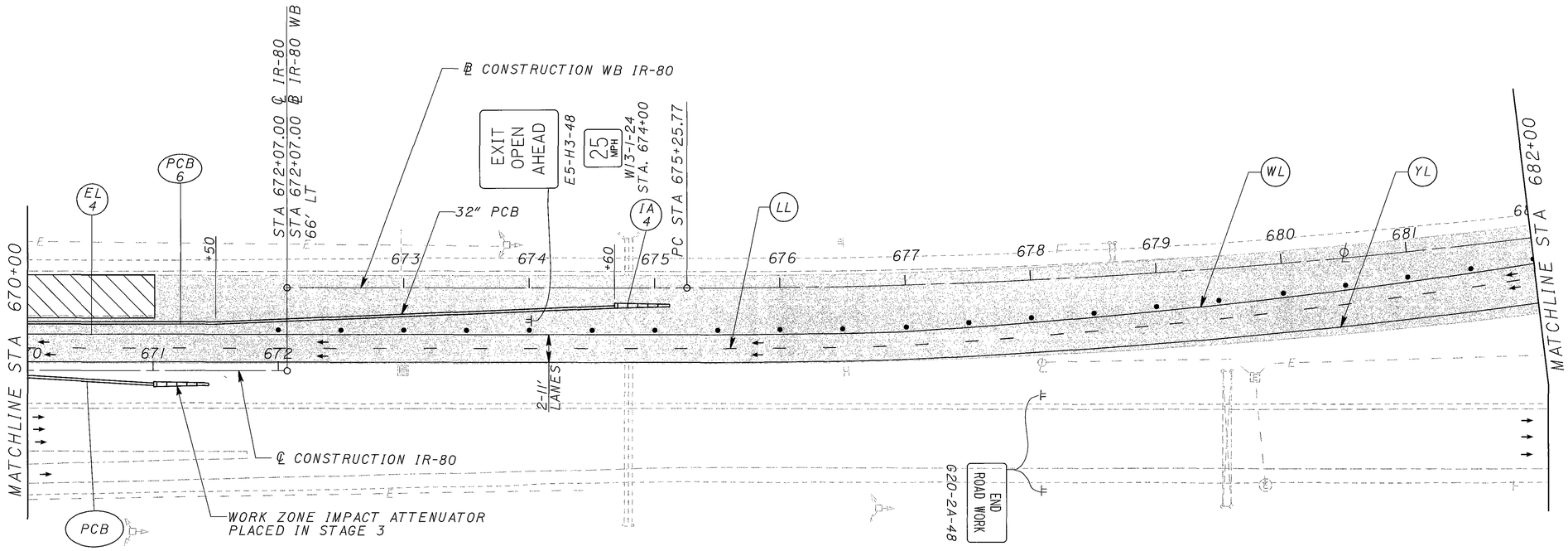

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- • • • DRUMS, 50' C/C

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED

- (WL) WHITE EDGE LINE, 6I4
- (CL) CHANNELIZING LINE, 6I4
- (LL) LANE LINE, 6I4
- (YL) YELLOW EDGE LINE, 6I4
- (PCB) PORTABLE CONCRETE BARRIER

- EXISTING SIGN, TO BE REMOVED
- EXISTING SIGN, TO REMAIN
- NEW SIGN

FOR MOT QUANTITIES, SEE SHEET 165

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 5 PHASE A

MAH-80-0.97

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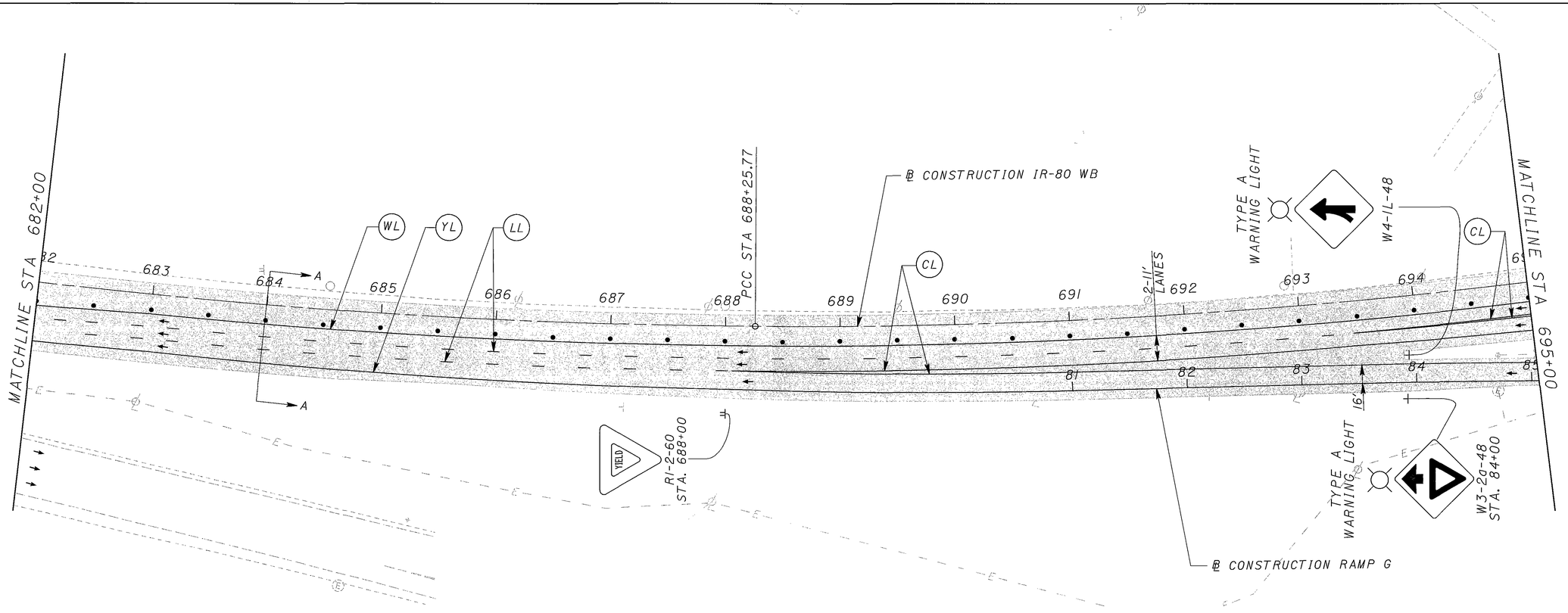

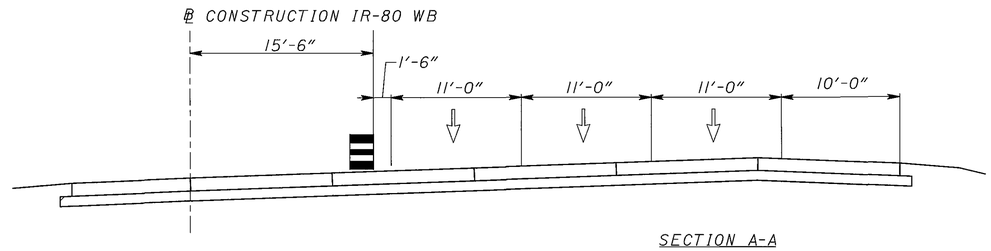

SECTION A-A
STA.684+00
NTS

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- • • • DRUMS, 50' C/C

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED

- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 5 PHASE A

MAH-80-0.97

159
1100

7/20/2005 11:18:24 AM
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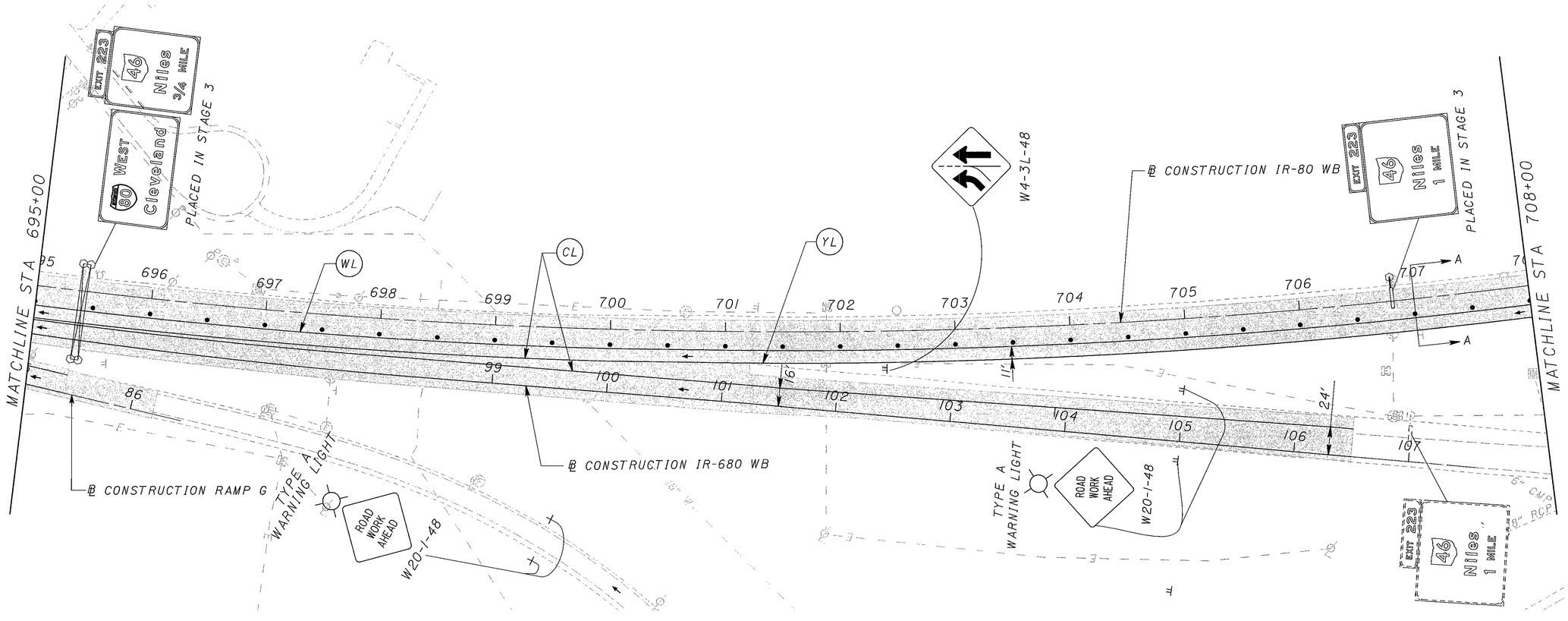

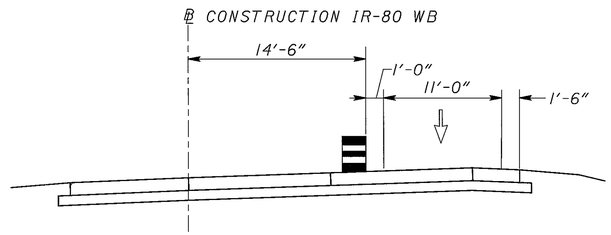

SECTION A-A
STA.707+00
NTS

LEGEND

- WORK AREA
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- • • • DRUMS, 50' C/C

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED

- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER

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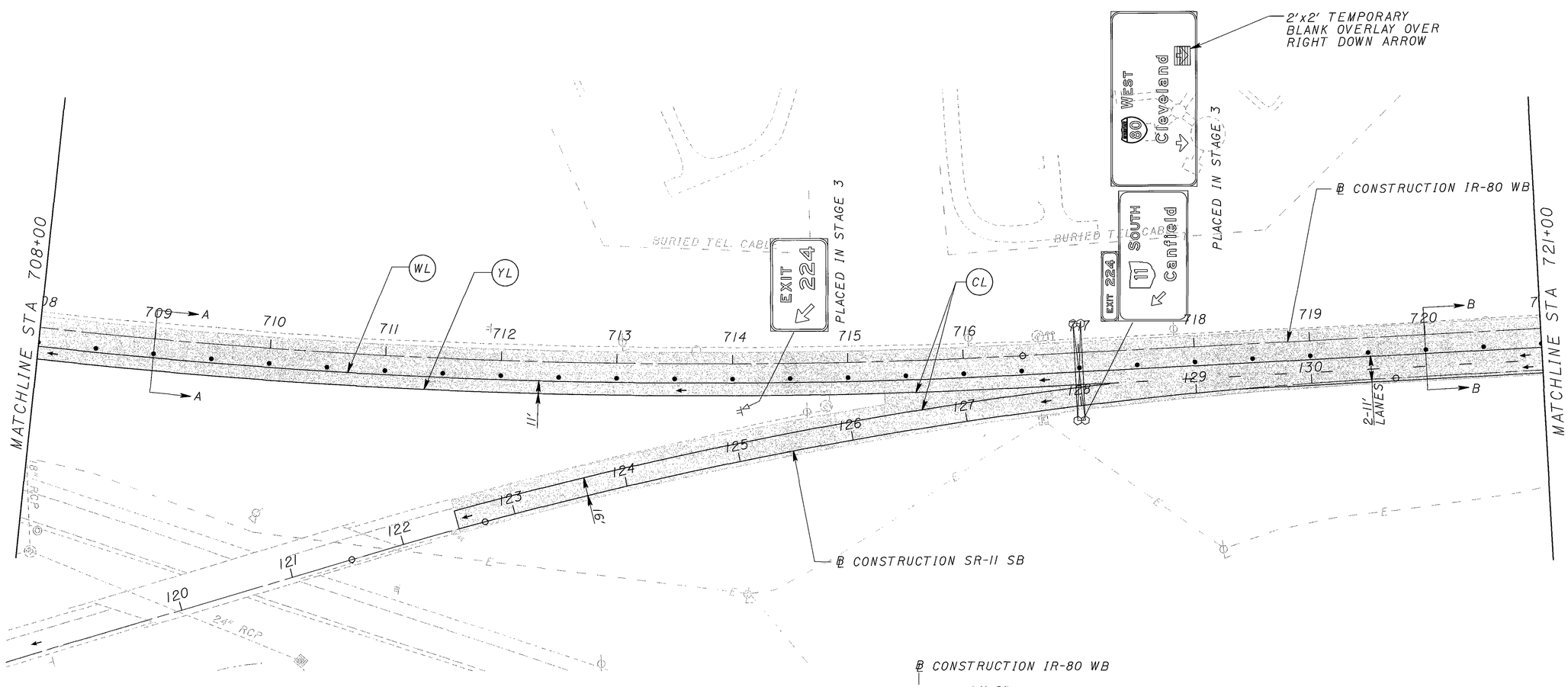
CALCULATED AJP
CHECKED JFM

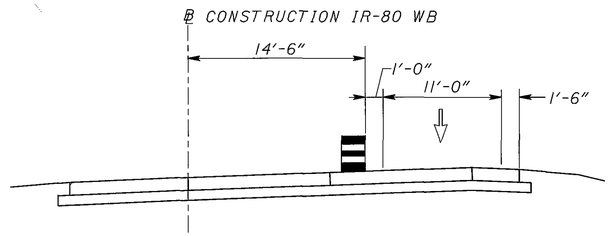
0 25 50 100
HORIZONTAL SCALE IN FEET

MAINTENANCE OF TRAFFIC STAGE 5 PHASE A

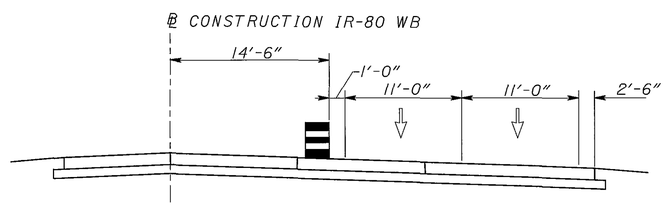
MAH-80-0.97

160
1100





SECTION A-A
STA.709+00
NTS



SECTION B-B
STA.720+00

LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS, 50' C/C
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- (WL) WHITE EDGE LINE, 6I4
- (CL) CHANNELIZING LINE, 6I4
- (LL) LANE LINE, 6I4
- (YL) YELLOW EDGE LINE, 6I4
- (PCB) PORTABLE CONCRETE BARRIER

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

REFER TO STANDARD CONSTRUCTION DRAWING MT-95-40 FOR LANE CLOSURE DETAILS.

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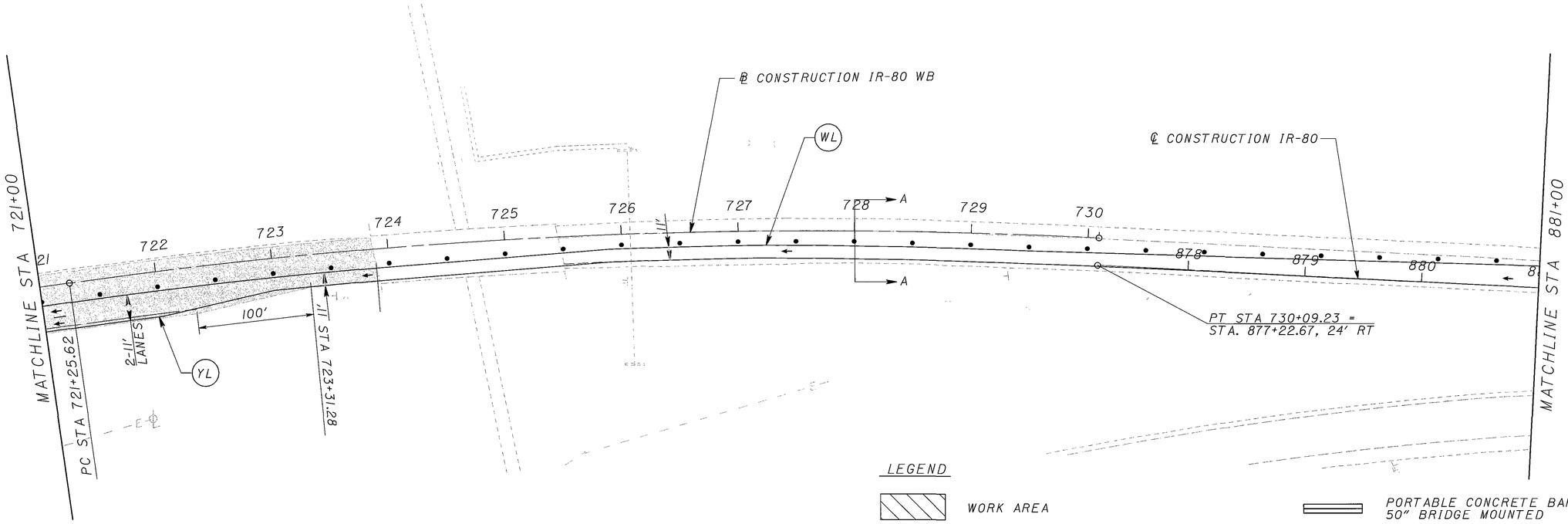
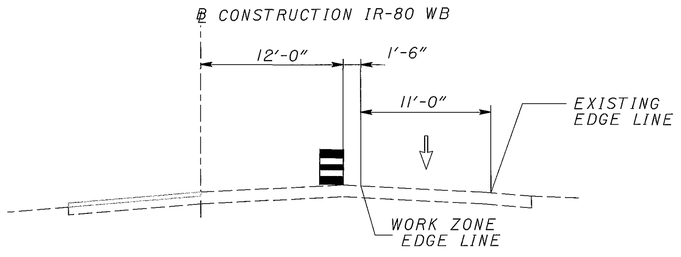
HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 5 PHASE A

MAH-80-0.97





SECTION A-A
STA.728+00
NTS

LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS, 50' C/C
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- (WL) WHITE EDGE LINE, 614
- (CL) CHANNELIZING LINE, 614
- (LL) LANE LINE, 614
- (YL) YELLOW EDGE LINE, 614
- (PCB) PORTABLE CONCRETE BARRIER

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

NOTES:
1. REFER TO STANDARD CONSTRUCTION DRAWING MT-95.40 FOR ADVANCE WARNING SIGNING AND SPACING.
2. FOR SIGN W21-5a-48 THE ADVISORY SPEED SHOULD BE 55 MPH.

HORIZONTAL SCALE IN FEET
0 25 50 100

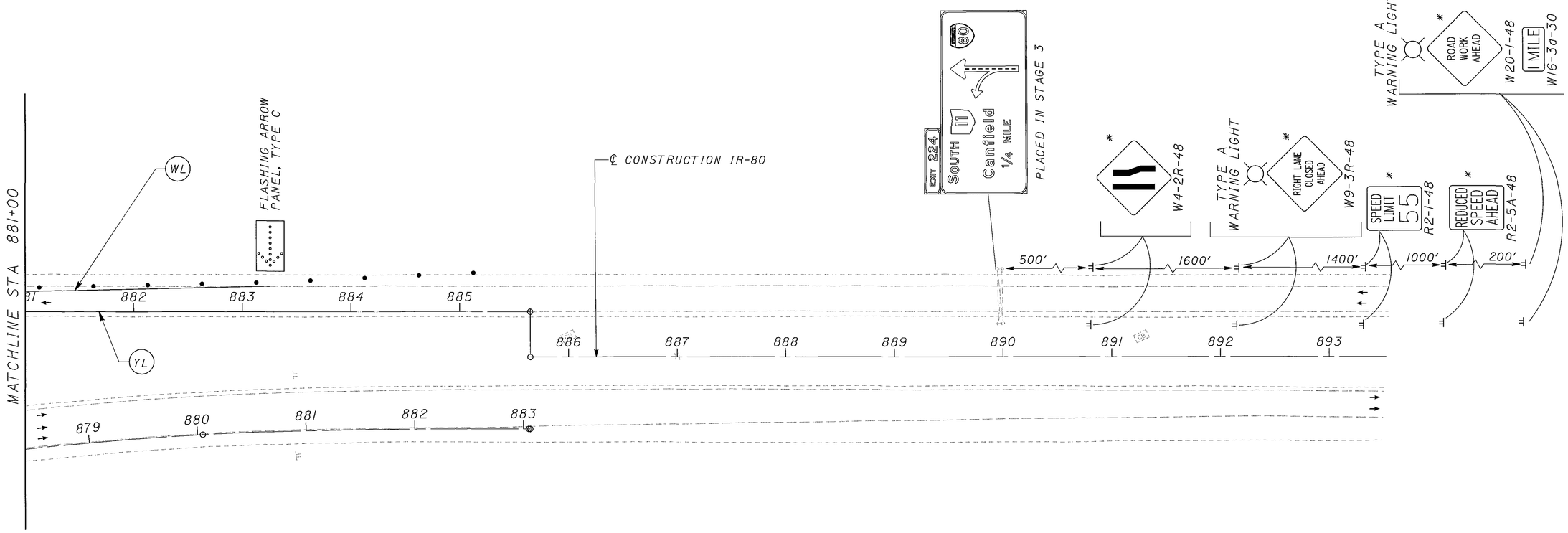
CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 5 PHASE A

MAH-80-0.97

162
1100

7/21/2005 11:20:56 AM
d:\projects\37700\mot\sheets\mpl10_5.dgn



* SIGNS PLACED IN STAGE 3 TO REMAIN

LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A
- PROPOSED PAVEMENT IN PLACE
- WORK ZONE IMPACT ATTENUATOR
- PORTABLE CONCRETE BARRIER, 50" UNLESS OTHERWISE NOTED
- DRUMS, 50' C/C
- PORTABLE CONCRETE BARRIER, 50" BRIDGE MOUNTED
- (WL) WHITE EDGE LINE, 6I4
- (CL) CHANNELIZING LINE, 6I4
- (LL) LANE LINE, 6I4
- (YL) YELLOW EDGE LINE, 6I4
- (PCB) PORTABLE CONCRETE BARRIER

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC STAGE 5 PHASE A

MAH-80-0.97

163
1100

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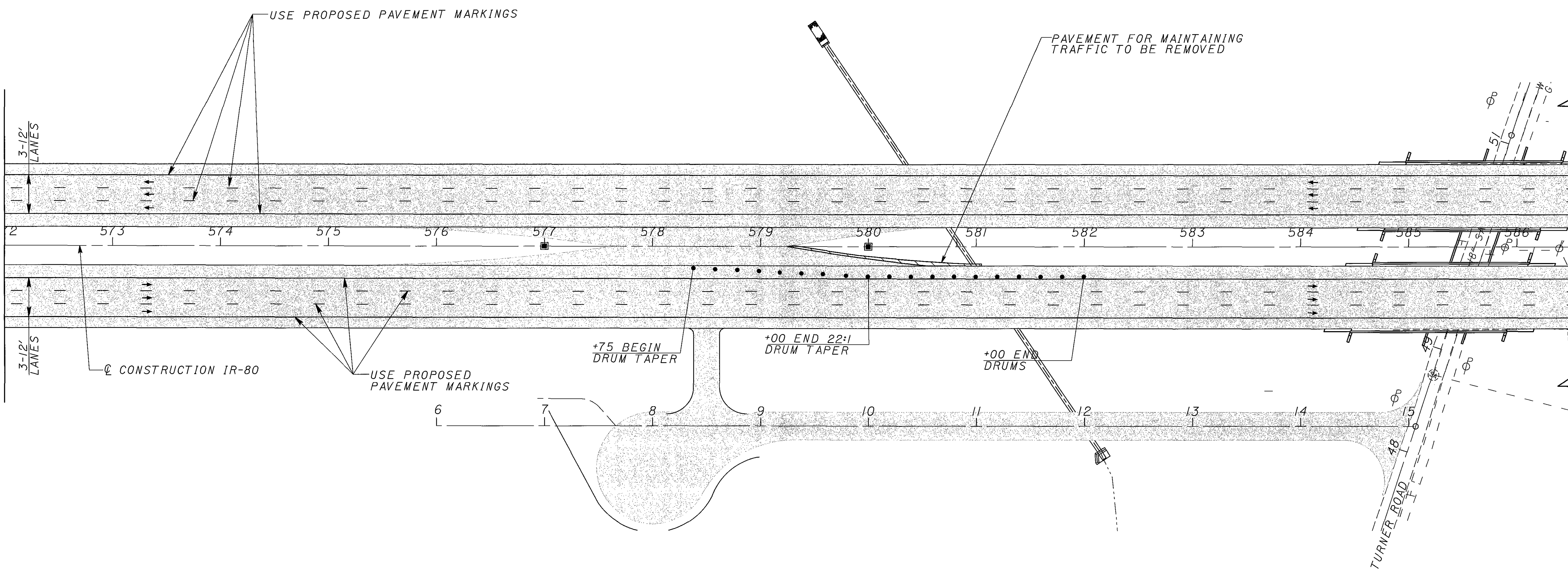

LEGEND

WORK AREA

PROPOSED PAVEMENT IN PLACE

• • • DRUMS, 20' C/C

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWINGS MT-95.70, MT-95.82., MT-100.00.

** FINAL TRAFFIC PATTERN SHALL BE USED FOR THIS PHASE. ALL PROPOSED TRAFFIC CONTROL DEVICES, SIGNS, AND PAVEMENT MARKINGS SHALL BE IN PLACE AND FULLY FUNCTIONAL.

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWING MT-102.10.

0 25 50 100
HORIZONTAL SCALE IN FEET

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC
STAGE 5 PHASE B

MAH-80-0.97

163A
1100

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LEGEND

WORK AREA

PROPOSED PAVEMENT IN PLACE

WORK ZONE IMPACT ATTENUATOR

PORTABLE CONCRETE BARRIER, 32" UNLESS OTHERWISE NOTED

DRUMS

PCB — PORTABLE CONCRETE BARRIER

EXISTING SIGN, TO REMAIN

NEW SIGN

MATCHLINE STA 586+50
STA 643+00 **

TS STA 43+57.41

SC STA 46+56.61

RAMP 46-A

END ROAD WORK
G20-2A-48
STA 78+50

℄ CONSTRUCTION IR-80

PROPOSED GUARDRAIL IN PLACE

USE PROPOSED PAVEMENT MARKINGS

PCB 1

PCB 2

PCB 3

PCB 4

+00 BEGIN DRUMS

BEGIN DRUMS

+90 BEGIN PCB

+41 END PCB TAPER

REMOVE PAVEMENT FOR MAINTAINING TRAFFIC

USE PROPOSED PAVEMENT MARKINGS

+10 END PCB

MATCHLINE STA 652+50

1500′ 500′ 500′

W20-1-48 ROAD WORK AHEAD

W21-5bL-48 LEFT SHOULDER CLOSED 1000 FT

W21-5dL-48 STA. 640+00 LEFT SHOULDER CLOSED

EXIT 223

RAMP 46-C

PCC STA 57+81.83

WORK ZONE IMPACT ATTENUATOR

98.5′

CS STA 75+37.86

PC STA 72+57.18 ℄ RAMP 46-E

+30 BEGIN PCB

MINIMUM 1′ OFFSET FOR PCB FROM EOP

REMOVE PAVEMENT FOR MAINTAINING TRAFFIC

+00 BEGIN PCB TAPER

+00 END PCB TAPER

+50 BEGIN PCB

+00 BEGIN PCB TAPER

+55 END PCB TAPER

WORK ZONE IMPACT ATTENUATOR

℄ CONSTRUCTION IR-80

16′ WATER

EOH ELECT

+7.5 BEGIN PCB TAPER

5′

PROPOSED GUARDRAIL

PCB

TRAFFIC FLOW

TYPE T ASSEMBLY

* CONNECTION DETAIL
NTS

TYPE A WARNING LIGHT

W20-1-48 ROAD WORK AHEAD

W21-5bR-48 STA. 665+75 RIGHT SHOULDER CLOSED 1000 FT

W21-5bL-48 LEFT SHOULDER CLOSED 1000 FT

DRUMS, 50′ C/C

DRUMS, 20′ C/C

1000′ 1500′

+00 BEGIN 22:1 DRUM TAPER

+75 END DRUM TAPER

REMOVE REMAINING PAVEMENT FOR MAINTAINING TRAFFIC

MATCHLINE STA 652+50

STA 666+00 **

** FINAL TRAFFIC PATTERN SHALL BE USED FOR THIS PHASE. ALL PROPOSED TRAFFIC CONTROL DEVICES, SIGNS, AND PAVEMENT MARKINGS SHALL BE IN PLACE AND FULLY FUNCTIONAL.

FOR ADDITIONAL DETAILS REFER TO STANDARD CONSTRUCTION DRAWING MT-102.10.

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AJP
CHECKED JFM

MAINTENANCE OF TRAFFIC
STAGE 5 PHASE B

MAH-80-0.97

164
1100

7/20/2005 lit23:49 AM
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REF NO.	SHEET NO.	STATION FROM		STATION TO		SIDE			614 WORK ZONE IMPACT ATTENUATOR EACH	614 BARRIER REFLECTOR, TYPE B EACH	614 OBJECT MARKER, ONE WAY EACH	614 WORK ZONE LANE LINE, CLASS 1, 740.06, TYPE 1 MILE	614 WORK ZONE EDGE LINE, CLASS 1, 740.06, TYPE 1 (Yellow) MILE	614 WORK ZONE EDGE LINE, CLASS 1, 740.06, TYPE 1 (White) MILE	614 WORK ZONE CHANNELIZING LINE, CLASS 1, 740.06, TYPE 1 FT					622 PORTABLE CONCRETE BARRIER, 32" FT	622 PORTABLE CONCRETE BARRIER, 50", AS PER PLAN FT				
STAGE 5 PHASE A																										
CL1	154	CL	573+00	CL	575+00	LT									400											
CL2	154	CL	574+40	CL	581+98	LT/RT									758											
CL3	156	CL	654+00	CL	654+90	LT									180											
EL1	154	CL	573+00	CL	583+00	RT							0.19													
EL2	154	CL	573+00	CL	583+00	LT/RT								0.19												
EL3	154-156	CL	575+00		45+50	LT								1.336												
EL4	156-158		77+70	CL	671+00	LT/RT								0.351												
EL5	156		77+00	CL	654+00	LT							0.031													
IA1	153		478+00			RT			1																	
IA3	156		47+00			LT			1																	
IA4	158		674+60			RT			1																	
LL1	156-157	CL	654+90	CL	659+00	LT						0.078														
PCB1	153	CL	475+50	CL	483+00	LT				16	16												750			
PCB2	153	CL	478+00	CL	485+00	RT				15	15												700			
PCB3	154	CL	577+00	CL	581+00	RT				34														400		
PCB4	155-156	CL	631+00	CL	644+50	RT				28	28												1350			
PCB5	156	46A	45+00	46A	47+00	LT				5	5												200			
PCB6	156-158	46E	75+88	WB	674+60	LT/RT				42	42												2040			
STAGE 5 PHASE B																										
IA1	164	CL	655+10			LT			1																	
IA2	164	CL	654+60			CL			1																	
PCB1	164	CL	645+90	CL	654+60	LT				19	19												870			
PCB2	164	CL	645+10	CL	652+10	RT				15	15												700			
PCB3	164	46E	77+30	46E	75+00	LT				6	6												230			
PCB4	164	CL	653+50	CL	655+10	LT				5	5												160			
SUBTOTAL									5	185	151	0.078	0.221	1.877	1338								7000	400		
TOTALS CARRIED TO SUBSUMMARY ON SHEET 59									5	185	151	0.08	0.23	1.88	1338								7000	400		

CALCULATED EFD
CHECKED JFM

MAINTENANCE OF TRAFFIC QUANTITIES STAGE 5

MAH-80-0.97

SHEET NUMBER																		FUNDING		ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
26	27	28	59	171	176A	178	188	779	788	849	860	862	871	915	1059	1063	1086	IM	NHS						
																								ROADWAY	
LUMP																		LUMP		201	11000	LUMP		CLEARING AND GRUBBING	26
							1					5						6		202	20010	6	EACH	HEADWALL REMOVED	
				178025														178025		202	23000	178025	SQ YD	PAVEMENT REMOVED	
							2359											2359		202	30700	2359	FT	CONCRETE BARRIER REMOVED	
							2761					208						2969		202	35100	2969	FT	PIPE REMOVED, 24" AND UNDER	
							121					465						586		202	35200	586	FT	PIPE REMOVED, OVER 24"	
							16731											16731		202	38000	16731	FT	GUARDRAIL REMOVED	
													425					425		202	54000	425	EACH	RAISED PAVEMENT MARKER REMOVED	
							14											14		202	58100	14	EACH	CATCH BASIN REMOVED	
							17											17		202	58500	17	EACH	CATCH BASIN ABANDONED	
							1661					930						2591		SPECIAL	20270000	2591	FT	FILL AND PLUG EXISTING CONDUIT	28B
							229											229		SPECIAL	20270100	229	FT	PIPE CLEANOUT	26
																36459		36459		202	75000	36459	FT	FENCE REMOVED	
													16					16		202	75801	16	EACH	DISCONNECT EXISTING CIRCUIT, AS PER PLAN	915
													LUMP					LUMP		202	98000	LUMP		REMOVAL MISC.: AUTOMATIC TRAFFIC RECORDER	870
												25						25		202	98400	25	SQ FT	REMOVAL MISC.: EROSION PROTECTION FABRIC	863
										18256								18256		SPECIAL	20302000	18256	CU YD	ENGINEERED FILL	849
											452735							301824	150911	SPECIAL	20307504	452735	FT	WICK DRAIN	28A
		2500						109005	2308	70880		950						123762	61881	203	10000	185643	CU YD	EXCAVATION	
		500						376007	72	11147								258484	129242	203	20000	387726	CU YD	EMBANKMENT	
								12621										8414	4207	203	20001	12621	CU YD	EMBANKMENT, AS PER PLAN	232
		2000						16609										12406	6203	203	35131	18609	CU YD	GRANULAR MATERIAL, TYPE D, AS PER PLAN	232
											9							6	3	SPECIAL	20365000	9	EACH	SETTLEMENT PLATFORM	28B
										18256								18256		203	98000	18256	CU YD	ROADWAY, MISC.: ENGINEERED SOIL IMPERVIOUS LINER	853
				6636														6636		204	10000	6636	SQ YD	SUBGRADE COMPACTION	
								14074										9383	4691	204	13000	14074	CU YD	EXCAVATION OF SUBGRADE	
	4																	4		204	45000	4	HOUR	PROOF ROLLING	
		4.89																4.89		209	60501	4.89	MILE	LINEAR GRADING, AS PER PLAN	28
																	5	5		604	38500	5	EACH	MONUMENT ASSEMBLY	
							24168.75											24168.75		606	13000	24168.75	FT	GUARDRAIL, TYPE 5	
							213											213		606	15500	213	FT	GUARDRAIL, BARRIER DESIGN, TYPE 5	
							8											8		606	22000	8	EACH	ANCHOR ASSEMBLY, TYPE B-98	
							39											39		606	22010	39	EACH	ANCHOR ASSEMBLY, TYPE E-98	
							41											41		606	26500	41	EACH	ANCHOR ASSEMBLY, TYPE T	
							40											40		606	35000	40	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 1	
							17											17		606	35100	17	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 2	
							2											2		606	60010	2	EACH	IMPACT ATTENUATOR, TYPE 1-98 (BIDIRECTIONAL)	
					9629													9629		606	98000	9629	FT	GUARDRAIL, MISC.: TENSIONED CABLE WITH CONCRETE FOUNDATION LINE POST (SOCKETED)	
					14													14		606	98100	14	EACH	GUARDRAIL, MISC.: TENSIONED CABLE ANCHOR TERMINAL	
					4													4		606	98100	4	EACH	GUARDRAIL, MISC.: W-BEAM TRANSITION	
																22063		22063		607	15000	22063	FT	FENCE, TYPE 47	
																14456		14456		607	20001	14456	FT	FENCE, TYPE CL, AS PER PLAN	1063
																3		3		607	50901	3	EACH	GATE, TYPE CL, AS PER PLAN	1063
							8794											8794		622	10160	8794	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D	
							22											22		622	25000	22	EACH	CONCRETE BARRIER END SECTION, TYPE D	
		360																360		622	40021	360	FT	PORTABLE CONCRETE BARRIER, 32", AS PER PLAN	28
																								EROSION CONTROL	
							40											40		601	10000	40	SQ YD	RIPRAP	
												59						59		601	11000	59	SQ YD	RIPRAP USING 6" REINFORCED CONCRETE SLAB	
								52251										52251		601	25000	52251	CU YD	DUMPED ROCK FILL, TYPE A	
								18317										18317		601	27000	18317	CU YD	DUMPED ROCK FILL, TYPE C	
										383		230						613		601	32000	613	CU YD	ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	
								6961										6961		601	32004	6961	CU YD	ROCK CHANNEL PROTECTION, TYPE A WITH FABRIC FILTER	
												68						68		601	32100	68	CU YD	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER	
							164			41		502						707		601	32200	707	CU YD	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	
5																		5		659	00100	5	EACH	SOIL ANALYSIS TEST	
48917																		48917		659	00300	48917	CU YD	TOPSOIL	
								401272	3453	19296								424021		659	10000	424021	SQ YD	SEEDING AND MULCHING	
										16670								16670		659	10001	16670	SQ YD	SEEDING AND MULCHING, AS PER PLAN	849
22035																		22035		659	14000	22035	SQ YD	REPAIR SEEDING AND MULCHING	
22035																		22035		659	15000	22035	SQ YD	INTER-SEEDING	
61.5																		61.5		659	20000	61.5	TON	COMMERCIAL FERTILIZER	

CALCULATED EFD
CHECKED PRS

GENERAL SUMMARY

MAH-80-0.97

166
1100

1/13/2006 11:26:42 PM
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SHEET NUMBER																		FUNDING		ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
26	27	28	59	171	176	178	188	779	788	849	860	862	871	915	1059	1063	1086	IM	NHS						
																								EROSION CONTROL - CONTINUED FROM PREVIOUS PAGE	
91																		91		659	31000	91	ACRE	LIME	
2440																		2440		659	35000	2440	M GAL	WATER	
992																		992		659	40000	992	M SQ FT	MOWING	
										569								569		660	20000	569	SQ YD	SODDING REINFORCED	
							19783			4239								24022		670	00700	24022	SQ YD	DITCH EROSION PROTECTION	
						1												1		832	10000	1	EACH	STORM WATER POLLUTION PREVENTION PLAN	
						170000												170000		832	30000	170000	EACH	EROSION CONTROL	
										288								288		836	10020	288	SQ YD	SEEDING AND EROSION CONTROL WITH TURF REINFORCING MAT, TYPE 2	
																								DRAINAGE	
							17.5			2.0		24.5						44.0		602	20000	44.0	CU YD	CONCRETE MASONRY	
										264.0								264.0		602	20001	264.0	CU YD	CONCRETE MASONRY, AS PER PLAN "A"	849
												1.4						1.4		602	20001	1.4	CU YD	CONCRETE MASONRY, AS PER PLAN "B"	868
													80		160			240		603	00400	240	FT	4" CONDUIT, TYPE E	
					3277													3277		603	00510	3277	FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	
					943													943		603	00900	943	FT	6" CONDUIT, TYPE B, 707.33 OR 707.41	
							442											442		603	04400	442	FT	12" CONDUIT, TYPE B	
							38											38		603	04400	38	FT	12" CONDUIT, TYPE B , 706.02	
							58											58		603	04900	58	FT	12" CONDUIT, TYPE D	
							72											72		603	04900	72	FT	12" CONDUIT, TYPE D , 706.02	
							925											925		603	05900	925	FT	15" CONDUIT, TYPE B	
							238											238		603	06100	238	FT	15" CONDUIT, TYPE C	
							24											24		603	06400	24	FT	15" CONDUIT, TYPE D , 706.02	
							168											168		603	06700	168	FT	15" CONDUIT, TYPE F, 707.05 TYPE C	
							239											239		603	07400	239	FT	18" CONDUIT, TYPE B	
							160											160		603	07400	160	FT	18" CONDUIT, TYPE B , 706.02	
							240											240		603	07400	240	FT	18" CONDUIT, TYPE B , 706.02 OR 707.42	
							700											700		603	07600	700	FT	18" CONDUIT, TYPE C	
							700											700		603	09100	700	FT	21" CONDUIT, TYPE C	
							98											98		603	10400	98	FT	24" CONDUIT, TYPE B	
							565											565		603	10400	565	FT	24" CONDUIT, TYPE B , 706.02	
							337											337		603	10400	337	FT	24" CONDUIT, TYPE B , 706.02 OR 707.42	
							399											399		603	10600	399	FT	24" CONDUIT, TYPE C , 706.02 OR 707.42	
							103											103		603	12100	103	FT	27" CONDUIT, TYPE C	
							273											273		603	13400	273	FT	30" CONDUIT, TYPE B , 706.02	
							64											64		603	16600	64	FT	36" CONDUIT, TYPE C , 706.02	
							72											72		603	19600	72	FT	42" CONDUIT, TYPE C , 706.02 OR 707.42	
												245						245		603	20700	245	FT	48" CONDUIT, TYPE A , 706.02	
												380						380		603	22200	380	FT	54" CONDUIT, TYPE A , 706.02	
												428						428		603	23600	428	FT	60" CONDUIT, TYPE A , 706.02	
							18											18		603	23800	18	FT	60" CONDUIT, TYPE B , 706.02	
												107						107		603	25000	107	FT	66" CONDUIT, TYPE A , 706.02	
												225						225		603	96600	225	FT	CONDUIT, BORED OR JACKED: 48", TYPE A, 706.02	
												321						321		603	96600	321	FT	CONDUIT, BORED OR JACKED: 66", TYPE A, 706.02	
							8											8		604	00400	8	EACH	CATCH BASIN, NO. 3	
							2											2		604	00800	2	EACH	CATCH BASIN, NO. 3A	
							12											12		604	01200	12	EACH	CATCH BASIN, NO. 4	
							7											7		604	02800	7	EACH	CATCH BASIN, NO. 8	
							1											1		604	02906	1	EACH	CATCH BASIN, NO. 8A	
							2											2		604	04100	2	EACH	CATCH BASIN, NO. 2-2A	
							1											1		604	20530	1	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE D	
							6					1						7		604	31500	7	EACH	MANHOLE, NO. 3	
							1											1		604	35500	1	EACH	MANHOLE RECONSTRUCTED TO GRADE	
					66													66		604	36600	66	EACH	PRECAST REINFORCED CONCRETE OUTLET	
										LUMP								LUMP		604	98200	LUMP		DRAINAGE STRUCTURE, MISC.: SHUT-OFF VALVE CONTROL CHAMBER	858
					264													264		605	13300	264	FT	6" UNCLASSIFIED PIPE UNDERDRAINS	
					11389													11389		605	13500	11389	FT	6" ROCK CUT UNDERDRAINS	
					132265													132265		605	14000	132265	FT	6" BASE PIPE UNDERDRAINS	
505																		505		605	31100	505	FT	AGGREGATE DRAINS	

CALCULATED EFD
CHECKED PRS

GENERAL SUMMARY

MAH-80-0.97

9/2/2005 3:00:32 PM
s:\projects\37700\sheets\Quantities-General Summary.dgn

SHEET NUMBER																	FUNDING		ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
26	27	28	59	171	177	178	188	779	788	849	860	862	871	915	1059	1063	1086	IM	NHS						
																								PAVEMENT	
					7924													5283	2641	206	10500	7924	TON	CEMENT	
				266782														177855	88927	206	15000	266782	SQ YD	CEMENT STABILIZED SUBGRADE , 12 INCHES DEEP	
					LUMP													LUMP		206	30000	LUMP		CONTRACTOR DESIGNED CHEMICALLY STABILIZED SUBGRADE	
							106											106		254	01000	106	SQ YD	PAVEMENT PLANING, ASPHALT CONCRETE	
				786														786		301	46000	786	CU YD	ASPHALT CONCRETE BASE, PG64-22	
				1152						72								1224		304	20000	1224	CU YD	AGGREGATE BASE	
				74111														49408	24703	304	20001	74111	CU YD	AGGREGATE BASE, AS PER PLAN	26
				397														397		407	14000	397	GALLON	TACK COAT FOR INTERMEDIATE COURSE	
				2137														2137		408	10000	2137	GALLON	PRIME COAT	
	4080																	4080		408	10001	4080	GALLON	PRIME COAT, AS PER PLAN	27
				116														116		411	10000	116	CU YD	STABILIZED CRUSHED AGGREGATE	
				260														260		448	46020	260	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG64-22	
							763											763		448	46061	763	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, UNDER GUARDRAIL, PG64-22, AS PER PLAN	28
				186			6											192		448	47020	192	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22	
				1022														682	340	SPECIAL	45130000	1022	FT	PRESSURE RELIEF JOINT, TYPE A	170
				141														94	47	SPECIAL	45132000	141	FT	PRESSURE RELIEF JOINT, TYPE C	170
							309											309		609	14000	309	FT	CURB, TYPE 2-A	
							42											42		609	23000	42	FT	COMBINATION CURB AND GUTTER, TYPE 4	
284																		284		617	10101	284	CU YD	COMPACTED AGGREGATE, AS PER PLAN	26
71604																		71604		618	40200	71604	FT	RUMBLE STRIPS, (CONCRETE)	
				255132														170088	85044	884	10250	255132	SQ YD	13" PORTLAND CEMENT CONCRETE PAVEMENT (7 YEAR WARRANTY)	
																								WATER WORK	
										300								300		SPECIAL	63870060	300	FT	24" DUCTILE IRON PIPE AND FITTINGS (DAYTON 901)	849
																								LIGHTING	
													1					1		625	02890	1	EACH	LIGHT POLE, DESIGN ATON15	
													1					1		625	14000	1	EACH	LIGHT POLE FOUNDATION, 24" X 6' DEEP	
															3333			3333		625	23000	3333	FT	NO. 4 AWG 600 VOLT DISTRIBUTION CABLE	
															1050			1050		625	23306	1050	FT	NO. 10 AWG 600 VOLT DISTRIBUTION CABLE	
													80					80		625	25101	80	FT	CONDUIT, 1", 725.04, AS PER PLAN	913
															287.5			287.5		625	25201	287.5	LIN FT	CONDUIT, 1-1/4", 725.04, AS PER PLAN	1060
															816			816		625	25402	816	FT	CONDUIT, 2", 725.05	
													170					170		625	25503	170	FT	CONDUIT, 3", 725.05, AS PER PLAN	913
													170					170		625	25900	170	FT	CONDUIT, JACKED OR DRILLED UNDER PAVEMENT	
															7			7		625	27600	7	EACH	LUMINAIRE, MISC.: TUNNEL LIGHTING	1060
													90		816			906		625	29000	906	FT	TRENCH	
															7			7		625	29901	7	EACH	JUNCTION BOX, AS PER PLAN	1060
													3		4			7		625	30700	7	EACH	PULL BOX, 725.08, 18"	
													1					1		625	30706	1	EACH	PULL BOX, 725.08, 24"	
													15		2			17		625	32000	17	EACH	GROUND ROD	
															2			2		625	34001	2	EACH	POWER SERVICE, AS PER PLAN	1060
															816			816		SPECIAL	62536000	816	FT	PLASTIC CAUTION TAPE	1060
															LUMP			LUMP		625	38000	LUMP		HIGH VOLTAGE TEST	1060
														LUMP				LUMP		SPECIAL	62540000	LUMP		MAINTAIN EXISTING LIGHTING	915
														20				20		SPECIAL	62540010	20	EACH	REPLACEMENT OF EXISTING LIGHTING UNIT	915
															1			1		631	93300	1	EACH	TIMER WITH ENCLOSURE	
																								TRAFFIC CONTROL	
													1088					1088		621	00100	1088	EACH	RPM	
													1234					1234		621	00300	1234	EACH	RPM REFLECTOR	
							400											400		626	00100	400	EACH	BARRIER REFLECTOR, TYPE A	
							121											121		626	00200	121	EACH	BARRIER REFLECTOR, TYPE B	
													308					308		630	02100	308	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
													562					562		630	03100	562	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
													112					112		630	04100	112	FT	GROUND MOUNTED SUPPORT, NO. 4 POST	
													84					84		630	06100	84	FT	GROUND MOUNTED SUPPORT, NO. 6 POST	
													96					96		630	06500	96	FT	GROUND MOUNTED SUPPORT, W6X9 BEAM	
													140					140		630	07000	140	FT	GROUND MOUNTED SUPPORT, W8X18 BEAM	
													119					119		630	07600	119	FT	GROUND MOUNTED SUPPORT, W10X12 BEAM	
													59					59		630	08000	59	FT	GROUND MOUNTED SUPPORT, W12X30 BEAM	

CALCULATED EFD CHECKED PRS

GENERAL SUMMARY

MAH-80-0.97

168
1100

10/19/05 11:55:17 PM
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◈ITEM REVISED ⓃNEW ITEM ◈◈ITEM REVISED 01/23/06

SHEET NUMBER																		FUNDING		ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION		SEE SHEET NO.
26	27	28	59	171	176	178	188	779	788	849	860	862	871	915	1059	1063	1086	IM	NHS							
																								TRAFFIC CONTROL - CONTINUED FROM PREVIOUS PAGE		
													6					6		630	20600	6	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN 6		
													7					7		630	45500	7	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-7.65, DESIGN 8		
													672					672		630	80100	672	SQ FT	SIGN, FLAT SHEET	◈	
													16					16		630	80400	16	SQ FT	SIGN, PERMANENT OVERLAY	Ⓝ	
													4239					4239		630	80224	4239	SQ FT	SIGN, OVERHEAD EXTRUSHEET	Ⓝ	
													817					817		630	80200	817	SQ FT	SIGN, GROUND MOUNTED EXTRUSHEET	Ⓝ	
													20					20		630	09000	20	EACH	BREAKAWAY BEAM CONNECTION	Ⓝ	
													16					16		630	75000	16	EACH	SIGN ATTACHMENT ASSEMBLY	Ⓝ	
													20					20		630	84500	20	EACH	GROUND MOUNTED BEAM SUPPORT FOUNDATION		
													22					22		630	84510	22	EACH	RIGID OVERHEAD SIGN SUPPORT FOUNDATION		
													74					74		630	84900	74	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL		
													37					37		630	85000	37	EACH	REMOVAL OF GROUND MOUNTED SIGN AND STORAGE		
													37					37		630	85100	37	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION		
													17					17		630	85400	17	EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL		
													95					95		630	86002	95	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL		
													21					21		630	86006	21	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND STORAGE		
													21					21		630	86010	21	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND REERECTION		
													31					31		630	86102	31	EACH	REMOVAL OF GROUND MOUNTED BEAM SUPPORT AND DISPOSAL		
													37					37		630	87400	37	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL		
													3					3		630	89706	3	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-12.30		
													10					10		630	89802	10	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-7.65		
													46					46		631	94200	46	EACH	REMOVAL OF LUMINAIRE AND DISPOSAL		
													12					12		631	94304	12	EACH	REMOVAL OF DISCONNECT SWITCH AND DISPOSAL		
													45					45		631	94404	45	EACH	REMOVAL OF BALLAST AND DISPOSAL		
													22					22		631	94408	22	EACH	REMOVAL OF SIGN WIRING AND DISPOSAL		
													18					18		631	94412	18	EACH	REMOVAL OF SIGN SERVICE AND DISPOSAL		
													16					16		631	94420	16	EACH	REMOVAL MISC.: FLASHING WARNING LIGHT		915
													0.4					0.4		642	00100	0.4	MILE	EDGE LINE, TYPE 1		
													0.14					0.14		642	00200	0.14	MILE	LANE LINE, TYPE 1		
													0.14					0.14		642	00300	0.14	MILE	CENTER LINE, TYPE 1		
													19.12					10	9.12	646	10000	19.12	MILE	EDGE LINE		
													20.29					20.29		646	10100	20.29	MILE	LANE LINE		
													6011					6011		646	10300	6011	FT	CHANNELIZING LINE		
													135					135		646	10600	135	FT	TRANSVERSE/DIAGONAL LINE		
													2500					2500		646	20500	2500	FT	DOTTED LINE		
																								TRAFFIC SIGNALS		
													12					8	4	632	26501	12	EACH	DETECTOR LOOP, AS PER PLAN		913
													1062					708	354	632	65200	1062	FT	LOOP DETECTOR LEAD-IN CABLE		
													6					4	2	632	90400	6	EACH	SIGNALIZATION, MISC.: PIEZOCABLE AXLE SENSOR CLASS 1 (11' IN LENGTH TYPICAL)		913
													1					1		633	65001	1	EACH	CABINET WITHOUT CONTROLLER, AS PER PLAN		914
													1					1		633	67200	1	EACH	CONTROLLER WORK PAD		
													1					1		633	68500	1	EACH	TELEPHONE SERVICE		
													1					1		633	99000	1	EACH	CONTROLLER ITEM, MISC.: SOLAR PANEL		913
																								STRUCTURES (OVER 20')		
																								MAH-80-0076 L/R OVER LIPKEY ROAD. - SEE SHEET 920		
																								MAH-80-0123 L/R OVER MEANDER CREEK RESERVOIR - SEE SHEET 952		
																								MAH-80-0245 L/R OVER TURNER ROAD - SEE SHEET 989		
																								MAH-80-0313 L/R OVER OHLTOWN ROAD - SEE SHEET 1008		
																								MAH-80-0332 L/R OVER METROPARKS BIKEWAY (CULVERT) - SEE SHEET 1031		
																								MAINTENANCE OF TRAFFIC		
			1500															1500		251	01000	1500	SQ YD	PARTIAL DEPTH PAVEMENT REPAIR		
			1500															1500		252	01000	1500	SQ YD	FULL DEPTH RIGID PAVEMENT REMOVAL AND FLEXIBLE REPLACEMENT		
			4500															4500		252	01500	4500	FT	FULL DEPTH PAVEMENT SAWING		
			45697															45697		254	01000	45697	SQ YD	PAVEMENT PLANING, ASPHALT CONCRETE	◈◈	
			284															284		411	10000	284	CU YD	STABILIZED CRUSHED AGGREGATE		
			6000															6000		SPECIAL	53000800	6000	SQ YD	STRUCTURE, MISC.: PATCHING BRIDGE DECKS WITH ASPHALT		33
			2047															2047		603	04400	2047	FT	12" CONDUIT, TYPE B		
			300															300		614	11100	300	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR		
			13540															13540		614	11600	13540	FT	TRANSITION AREA DELINEATION		
			31															31		614	12350	31	EACH	WORK ZONE IMPACT ATTENUATOR		
			22															22		614	12470	22	EACH	WORK ZONE SPEED LIMIT SIGN		
			12															12		614	12484	12	EACH	WORK ZONE INCREASED PENALTIES SIGN		
			4															4		614	12740	4	EACH	WORK ZONE LIGHTING SYSTEM		

CALCULATED EFD CHECKED PRS

GENERAL SUMMARY (REVISED 01/23/06)

MAH-80-0.97

◈◈ ITEM REVISED 01/23/06

SHEET NUMBER																		FUNDING		ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
26	27	28	59	171	176	178	188	779	788	849	860	862	871	915	1059	1063	1086	IM	NHS						
																								MAINTENANCE OF TRAFFIC - CONTINUED FROM PREVIOUS PAGE	
			7															7		614	12756	7	EACH	WORK ZONE CROSSOVER LIGHTING SYSTEM	
			3053															3053		614	13000	3053	CU YD	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC ◈◈	
			5154															5154		614	13300	5154	EACH	BARRIER REFLECTOR, TYPE B	
			1054															1054		614	13350	1054	EACH	OBJECT MARKER, ONE WAY	
			7															7		614	18000	7	EACH	MAINTAINING TRAFFIC, MISC.: EMERGENCY PULLOFFS	35
			73															73		614	18601	73	SIGN MNTH	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	35
			13.56															13.56		614	20200	13.56	MILE	WORK ZONE LANE LINE, CLASS I, 740.06, TYPE I	
			47.44															47.44		614	22200	47.44	MILE	WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE I	
			21619															21619		614	23400	21619	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 740.06, TYPE I	
			150															150		614	24400	150	FT	WORK ZONE DOTTED LINE, CLASS I, 740.06, TYPE I	
			LUMP															LUMP		615	10000	LUMP		ROADS FOR MAINTAINING TRAFFIC	34
			41722															41722		615	20001	41722	SQ YD	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN ◈◈	34
			245															245		615	25000	245	SQ YD	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B	
			181															181		616	10000	181	M GAL	WATER	
			500															500		618	40100	500	FT	RUMBLE STRIPS, (ASPHALT CONCRETE)	
			55570															55570		622	40020	55570	FT	PORTABLE CONCRETE BARRIER, 32"	
			48460															48460		622	40031	48460	FT	PORTABLE CONCRETE BARRIER, 50", AS PER PLAN	34
			240															240		622	40040	240	FT	PORTABLE CONCRETE BARRIER, 32", BRIDGE MOUNTED	
			960															960		622	40047	960	FT	PORTABLE CONCRETE BARRIER, 50", BRIDGE MOUNTED, AS PER PLAN	34
			60															60		630	06100	60	FT	GROUND MOUNTED SUPPORT, NO. 6 POST	
			56															56		630	08000	56	FT	GROUND MOUNTED SUPPORT, W12X30 BEAM	
			286															286		630	80100	286	SQ FT	SIGN, FLAT SHEET	
			2															2		630	84500	2	EACH	GROUND MOUNTED BEAM SUPPORT FOUNDATION	
			1															1		630	85600	1	EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND REERECTION	
			3															3		630	87100	3	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND REERECTION	
																		LUMP		SPECIAL	10810000	LUMP		CPM PROGRESS SCHEDULE	
																		LUMP		614	11000	LUMP		MAINTAINING TRAFFIC	
																		42		619	16020	42	MONTH	FIELD OFFICE, TYPE C	
																		LUMP		623	10000	LUMP		CONSTRUCTION LAYOUT STAKES	
																		LUMP		624	10000	LUMP		MOBILIZATION	

CALCULATED EFD | CHECKED PRS

GENERAL SUMMARY (REVISED 01/23/06)

MAH-80-0.97

169A / 1100

1/24/2006 9:08:52 AM
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STATION FROM	STATION TO	WIDTH (FT) FROM	WIDTH (FT) TO	SIDE	LENGTH	AVERAGE WIDTH	SURFACE AREA	204 SUBGRADE COMPACTION	206 T=12.00" CEMENT STABILIZED SUBGRADE 12 INCHES DEEP	304 T=10.00" AGGREGATE BASE, AS PER PLAN	451 SPECIAL - PRESSURE RELIEF JOINT, TYPE A	451 SPECIAL - PRESSURE RELIEF JOINT, TYPE C	884 T=13.00" 13" PORTLAND CEMENT CONCRETE PAVEMENT (7 YEAR WARRANTY)
					FT	FT	SF	SQ YD	SQ YD	CU YD	FT	FT	SQ YD
WB IR-80													
483+50.00	483+51.00	50	50	LT	1.00	50.00	50.0					50	
483+51.00	485+50.00	50	58	LT	199.00	54.00	10746.0		1238.3	344			1194
485+50.00	494+98.46	58	58	LT	948.46	58.00	55010.7		6323.1	1756.5			6112.3
494+98.46	495+02.46	58	58	LT							58		
495+02.46	495+27.46	63	63	LT	25.00	63.00	1575.0		180.6	50.2			
496+70.89	496+95.89	63	63	LT	25.00	63.00	1575.0		180.6	50.2			
496+95.89	496+99.89	58	58	LT							58		
496+99.89	519+90.92	58	58	LT	2291.03	58.00	132879.8		15273.6	4242.7			14764.5
519+90.92	519+94.92	58	58	LT							58		
519+94.92	520+19.92	61	61	LT	25.00	61.00	1525.0		175	48.7			
545+47.08	545+72.08	61	61	LT	25.00	61.00	1525.0		175	48.7			
545+72.08	545+76.08	58	58	LT							58		
545+76.08	584+53.12	58	58	LT	3877.04	58.00	224868.4		25847	7179.8			24985.4
584+53.12	584+57.12	58	58	LT							58		
584+57.12	584+82.12	63	63	LT	25.00	63.00	1575.0		180.6	50.2			
586+25.73	586+50.73	63	63	LT	25.00	63.00	1575.0		180.6	50.2			
586+50.73	586+54.73	58	58	LT							58		
586+54.73	605+00.00	58	58	LT	1845.27	58.00	107025.7		12301.8	3417.2			11891.8
605+00.00	613+40.00	58	70	LT	840.00	64.00	53760.0		6160	1711.2			5973.4
613+40.00	619+83.90	70	70	LT	643.90	70.00	45073.0		5151.2	1430.9			5008.2
619+83.90	619+87.90	70	70	LT							70		
619+87.90	620+12.90	75	75	LT	25.00	75.00	1875.0		213.9	59.5			
621+25.99	621+50.99	75	75	LT	25.00	75.00	1875.0		213.9	59.5			
621+50.99	621+54.99	70	70	LT							70		
621+54.99	628+39.59	70	70	LT	684.60	70.00	47922.0		5476.8	1521.4			5324.7
628+39.59	645+09.19	60	60	LT	1669.60	60.00	100176.0		11316.2	3143.4			11130.7
645+09.19	654+74.58	70	70	LT	965.39	70.00	67577.3		7723.2	2145.4			7508.6
654+74.58	662+74.58	60	60	LT	800.00	60.00	48000.0		5422.3	1506.2			5333.4
662+74.58	684+66.43	70	70	LT	2191.85	70.00	153429.5		17534.8	4870.8			17047.8
684+66.43	691+99.46	46	46	LT	733.03	46.00	33719.4		3828.1	1063.4			3746.6
691+99.46	701+21.33	34	34	LT	921.87	34.00	31343.6		3585.1	995.9			3482.7
701+21.33	715+31.28	38	38	LT	1409.95	38.00	53578.1		6266.5	1740.7			5953.2
715+31.28	723+57.84	34	34	LT	826.56	34.00	28103.1		3214.4	892.9			3122.6
723+57.84	723+61.84	38	38	LT/RT							38		
EB IR-80													
483+50.00	483+51.00	41	41	RT	1.00	41.00	41.0					41	
483+51.00	485+50.00	41	46	RT	199.00	43.50	8656.5		1006.1	279.5			961.9
485+50.00	488+18.32	46	46	RT	268.32	46.00	12342.8		1431.1	397.6			1371.5
488+18.32	494+00.00	36	36	RT	581.68	36.00	20940.5		2391.4	664.3			2326.8
494+00.00	494+91.68	38	48	RT	91.68	43.00	3942.3		448.3	124.6			438.1
494+91.68	494+95.68	76	76	RT							76		
494+95.68	495+20.68	80	80	RT	25.00	80.00	2000.0		227.8	63.3			
496+64.13	496+89.13	77	77	RT	25.00	77.00	1925.0		219.5	61			
496+89.13	496+93.13	72	72	RT							72		
496+93.13	504+27.08	48	48	RT	733.95	48.00	35229.6		3996	1110			3914.4
504+27.08	520+31.92	58	58	RT	1604.84	58.00	93080.8		10699	2971.9			10342.4
520+31.92	520+35.92	58	58	RT							58		
520+35.92	520+60.92	61	61	RT	25.00	61.00	1525.0		175	48.7			
545+88.08	546+13.08	61	61	RT	25.00	61.00	1525.0		175	48.7			
546+13.08	546+17.08	58	58	RT							58		
SUBTOTAL									158931.8	44149.2	790	91	151935
PAVEMENT TOTALS ADDED TO GRAND TOTAL ON NEXT SHEET									158932	44150	790	91	151935

STATION FROM	STATION TO	WIDTH (FT) FROM	WIDTH (FT) TO	SIDE	LENGTH	AVERAGE WIDTH	SURFACE AREA	204 SUBGRADE COMPACTION	206 T=12.00" CEMENT STABILIZED SUBGRADE 12 INCHES DEEP	304 T=10.00" AGGREGATE BASE, AS PER PLAN	451 SPECIAL - PRESSURE RELIEF JOINT, TYPE A	451 SPECIAL - PRESSURE RELIEF JOINT, TYPE C	884 T=13.00" 13" PORTLAND CEMENT CONCRETE PAVEMENT (7 YEAR WARRANTY)
					FT	FT	SF	SQ YD	SQ YD	CU YD	FT	FT	SQ YD
546+17.08	584+33.49	58	58	RT	3816.41	58.00	221351.8		25442.8	7067.5			24594.7
584+33.49	584+37.49	58	58	RT							58		
584+37.49	584+62.49	63	63	RT	25.00	63.00	1575.0		180.6	50.2			
586+05.97	586+30.97	63	63	RT	25.00	63.00	1575.0		180.6	50.2			
586+30.97	586+34.97	58	58	RT							58		
586+34.97	620+08.58	58	58	RT	3373.61	58.00	195669.4		22490.8	6247.5			21741.1
620+08.58	620+12.58	58	58	RT							58		
620+12.58	620+37.58	63	63	RT	25.00	63.00	1575.0		180.6	50.2			
621+51.74	621+76.74	63	63	RT	25.00	63.00	1575.0		180.6	50.2			
621+76.74	621+80.74	58	58	RT							58		
621+80.74	638+82.65	58	58	RT	1701.91	58.00	98710.8		11346.1	3151.7			10967.9
638+82.65	646+82.65	48	48	RT	800.00	48.00	38400.0		4444.5	1234.6			4266.7
646+82.65	661+50.00	58	58	RT	1467.35	58.00	85106.3		9782.4	2717.4			9456.3
661+50.00	663+49.00	58	50	RT	199.00	54.00	10746.0		1238.3	344			1194
663+49.00	663+50.00	50	50	RT	1.00	50.00	50.0					50	
WB IR-80 RAMPS													
628+39.59	629+35.59	10	10	LT	96.00	10.00	960.0		117.4	32.6			106.7
629+35.59	640+39.59	10	33	LT	1104.00	21.50	23736.0		2760	766.7			2637.4
657+57.18	661+74.58	20	20	LT	417.40	20.00	8348.0		974	270.6			927.6
661+74.58	662+74.58	20	10	LT	100.00	15.00	1500.0		177.8	49.4			166.7
684+66.43	685+66.43	24	22.1	LT	100.00	23.05	2305.0		267.3	74.3			256.2
685+66.43	690+90.43	22.1	33	LT	524.00	27.55	14436.2		1662.3	461.8			1604.1
691+99.46	693+87.52	12	15.9	LT	188.06	13.95	2623.5		291.5	81			291.5
693+87.52	698+23.46	23.9	33	LT	435.94	28.45	12402.5		1426.5	396.3			1378.1
719+72.81	722+31.28	16	16	LT	258.47	16.00	4135.6		488.3	135.7			459.6
722+31.28	723+31.28	16	4	LT	100.00	10.00	1000.0		122.3	34			111.2
723+31.28	723+60.91	4	4	RT	29.63	4.00	118.6		16.5	4.6			13.2
EB IR-80 RAMPS													
492+27.08	494+95.68	33	27.4	RT	268.60	30.20	8111.8		931.2	258.7			901.4
496+89.13	503+31.08	23.37	10	RT	641.95	16.69	10714.2		1261.8	350.5			1190.5
503+31.08	504+27.08	10	10	RT	96.00	10.00	960.0		117.4	32.6			106.7
638+82.65	639+82.65	10	20	RT	100.00	15.00	1500.0		177.8	49.4			166.7
639+82.65	642+28.36	20	20	RT	245.71	20.00	4914.2		573.4	159.3			546.1
RAMP A													
8+00.00	8+21.23	32	34	RT	21.23	33.00	700.6		82.6	23			77.9
8+21.23	12+27.08	52	33	RT	405.85	42.50	17248.7		1961.7	544.9			1916.6
RAMP 46 A													
40+39.59	45+07.83	25	39	RT	468.24	32.00	14983.7		1664.9	462.5			1664.9
45+07.83	45+60.00	26	26	RT	52.17	26.00	1356.5		162.4	45.1			150.8
40+39.59	43+57.41	8	8	LT	317.82	8.00	2542.6		317.9	88.3			282.6
43+57.41	44+07.41	8	6	LT	50.00	7.00	350.0		44.5	12.4			38.9
44+07.41	45+07.83	6	6	LT	100.42	6.00	602.6		78.2	21.7			67
RAMP 46 C													
52+28.36	56+81.82	20	47	LT&RT	453.46	33.50	15191.0		1738.3	482.9			1687.9
56+81.82	57+31.82	28	26	LT&RT	50.00	27.00	1350.0		161.2	44.8			150
57+31.82	62+30.00	26	26	LT&RT	498.18	26.00	12952.7		1549.9	430.6			1439.2
RAMP 46 E													
72+57.18	75+38.45	20	47	LT&RT	281.27	33.50	9422.6		1078.3	299.6			1047
75+38.45	75+70.00	28	26	LT&RT	31.55	27.00	851.9		101.7	28.3			94.7
SUBTOTAL									95774.4	26605.1	232	50	91701.9
PAVEMENT TOTALS ADDED TO GRAND TOTAL ON NEXT SHEET									95775	26606	232	50	91702

CALCULATED SK
CHECKED AJP

PAVEMENT QUANTITIES

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STATION FROM	STATION TO	WIDTH (FT) FROM	WIDTH (FT) TO	SIDE	LENGTH	AVERAGE WIDTH	SURFACE AREA	204 SUBGRADE COMPACTION	206 T=12.00" CEMENT STABILIZED SUBGRADE, 12 INCHES DEEP	301 T=6.00" ASPHALT CONCRETE BASE, PG64-22	304 T=6.00" AGGREGATE BASE	304 T=8.00" AGGREGATE BASE	304 T=10.00" AGGREGATE BASE, AS PER PLAN	407 0.04 G/SY TACK COAT FOR INTERMEDIATE COURSE	411 T=8.00" STABILIZED CRUSHED AGGREGATE	448 T=1.75" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG64-22	448 T=1.25" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22	451 SPECIAL - PRESSURE RELIEF JOINT, TYPE A	451 SPECIAL - PRESSURE RELIEF JOINT, TYPE C	884 T=13.00' 13" PORTLAND CEMENT CONCRETE PAVEMENT (7 YEAR WARRANTY)	408 0.4 G/SY PRIME COAT
									T=12.00"	T=6.00"	T=6.00"	T=8.00"	T=10.00"	0.04 G/SY	T=8.00"	T=1.75"	T=1.25"			T=13.00'	0.4 G/SY
FROM	TO	FROM	TO		FT	FT	SF	SQ YD	SQ YD	CU YD	CU YD	CU YD	CU YD	GALLON	CU YD	CU YD	CU YD	FT	FT	SQ YD	GALLON
RAMP G																					
80+90.43	83+90.43	33	47	LT&RT	300.00	40.00	12000.0		1366.7				379.7							1333.4	
83+90.43	84+90.43	28	24	LT&RT	100.00	26.00	2600.0		311.2				86.5							288.9	
84+90.43	86+20.00	24	24	LT&RT	129.57	24.00	3109.7		374.4				104							345.6	
IR 680 WB																					
98+23.46	101+23.46	33	47	LT	300.00	40.00	12000.0		1366.7				379.7							1333.4	
101+23.46	101+50.00	26	26	LT	26.54	26.00	690.1		79.7				22.2							76.7	
101+50.00	106+30.00	26	34	LT	480.00	30.00	14400.0		1653.4				459.3							1600	
106+30.00	106+50.00	34	34	LT	20.00	34.00	680.0		77.8				21.7							75.6	
101+23.46	102+23.46	8	4	RT	100.00	6.00	600.0		77.8				21.7							66.7	
102+23.46	106+50.00	4	4	RT	426.54	4.00	1706.2		237				65.9							189.6	
SR -11 SB																					
122+50.00	126+31.09	30	30	LT&RT	381.09	30.00	11432.7		1355				376.4							1270.3	
126+31.09	130+72.81	43	16	LT&RT	441.72	29.50	13030.8		1497				415.9							1447.9	
LIPKEY ROAD																					
46+00.00	46+66.50	10.67	12	LT	66.50	11.30	751.5	94.6		14.6	15.2			6.7		4.1	2.9				33.4
46+00.00	47+69.50	8.61	12	RT	169.50	10.30	1745.9	222.3		33.9	35.5			15.6		9.5	6.8				77.6
46+66.50	51+76.50	12	12	LT	510.00	12.00	6120.0	765		118.1	122.8			54.4		33.1	23.6				272
47+69.50	51+76.50	12	12	RT	407.00	12.00	4884.0	610.5		94.3	98			43.5		26.4	18.9				217.1
51+76.50	53+00.00	24	19	LT&RT	123.50	21.60	2667.6	337.6		51.7	54			23.8		14.4	10.3				118.6
46+00.00	46+66.50	2	4	LT	66.50	3.00	199.5					5									
46+66.50	51+76.50	4	4	LT	510.00	4.00	2040.0					50.4									
51+76.50	53+00.00	4	2	LT	123.50	3.00	370.5					9.2									
46+00.00	47+69.50	2	4	RT	169.50	3.00	508.5					12.6									
47+69.50	51+76.50	4	4	RT	407.00	4.00	1628.0					40.2									
51+76.50	53+00.00	4	2	RT	123.50	3.00	370.5					9.2									
SERVICE ROAD																					
7+50.00	9+31.59			LT&RT	CADD		11230.7	1308.4		211.4	214.8			99.9		60.6	43.3				499.2
9+31.59	14+39.41	22	22	LT&RT	507.82	22.00	11172.1	1410.7		216.3	225.7			99.4		60.3	43.1				496.6
14+39.41	14+99.20			LT&RT	CADD		2167.7	260.8		41.3	42.4			19.3		11.7	8.4				96.4
7+50.00	9+31.59			LT&RT	CADD		783.1				14.6										
9+31.59	14+39.41	4	4	LT&RT	507.82	4.00	2031.3				37.7										
14+39.41	14+99.20			LT&RT	CADD		320.6				6										
ROAD BETWEEN SERVICE ROAD AND IR-80																					
578+13.00	578+87.00			RT	CADD		2306.0	280.9							57						
PERMANENT CROSSOVERS																					
500+18.80	507+36.71			LT&RT	CADD		19341.2		2236.4				621.2							2149.1	
575+01.77	580+55.54			LT&RT	CADD		11131.9		1350.3				375.1							1236.9	
610+00.00				LT&RT	CADD		720.3		91.6				25.5							80.1	
METROPARKS BIKEWAY																					
48+00.00	48+54.00			LT&RT	CADD		655.1	91			14.2			3		3.6	2.6				29.2
48+54.00	51+46.00	20	20	LT&RT	292.00	20.00	5840.0	746.3			113.6			26		31.6	22.6				259.6
51+46.00	52+00.00			LT&RT	CADD		659.6	91.5			14.3			3		3.6	2.6				29.4
DRIVEWAY - LIPKEY ROAD																					
47+50.00	DRIVE			RT	CADD		187.4	20.9				4.7									
48+00	APRON			LT	CADD		175.2	19.5		3.5	3.3			1.6		1	0.7				7.8
48+00	DRIVE			LT	CADD		403.4	44.9			7.5										
ACCESS RAMP A																					
0+24.18	2+31.95			LT&RT	CADD		2350.0	330.4							58.1						
SUBTOTAL								6635.3	12075	785.1	1019.6	131.3	3354.8	396.2	115.1	259.9	185.8			11494.2	2136.9
PAVEMENT TOTALS ADDED TO GRAND TOTAL ON NEXT LINE								6636	12075	786	1020	132	3355	397	116	260	186			11495	2137
GRAND TOTALS CARRIED TO GENERAL SUMMARY								6636	266782	786	1152		74111	397	116	260	186	1022	141	255132	2137

PAVEMENT REMOVAL QUANTITIES

STATION FROM	STATION TO	SIDE	LENGTH	SURFACE AREA		202 PAVEMENT REMOVED
FROM	TO		FT	SF		SQ YD
PAVEMENT REMOVAL						
483+50.00	495+02.00	LT	CADD	56201.9		6244.7
483+50.00	494+96.00	RT	CADD	60979		6775.5
46+00.00	53+00.00	LT&RT	CADD	13434		1492.7
496+76.00	520+81.00	LT	CADD	94572		10508.0
496+89.00	520+81.00	RT	CADD	95333.8		10592.7
546+05.00	584+60.00	LT	CADD	153512.6		17057.0
546+05.00	584+37.00	RT	CADD	149858.7		16651.0
586+51.00	619+83.00	LT	CADD	132451.9		14716.9
586+27.00	620+14.00	RT	CADD	131557.2		14617.5
621+49.00	630+00.00	LT	CADD	34136.2		3793.0
621+79.00	629+29.00	RT	CADD	28492.9		3165.9
632+25.00	723+60.00	LT	CADD	492429.9		54714.5
631+43.00	663+50.00	RT	CADD	159255.4		17695.1
SUBTOTAL						178024.5
TOTALS CARRIED TO GENERAL SUMMARY						178025

CALCULATED SK
CHECKED AJP

PAVEMENT QUANTITIES

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UNDERDRAIN QUANTITIES

CALCULATED AJP | CHECKED WXYZ

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REF NO.	SHEET NO.	UNDERDRAIN LOCATION					BEGIN ELEVATION	END ELEVATION	603	603		604		605	605	605		FOR INFORMATION ONLY								OUTLET NO. 1 STATION	OUTLET NO. 1 INVERT ELEVATION	OUTLET NO. 1 OFFSET	OUTLET NO. 2 STATION	OUTLET NO. 2 INVERT ELEVATION	OUTLET NO. 2 OFFSET
		BEGIN STATION		END STATION		NORMAL OFFSET (FT)			6" CONDUIT, TYPE B, 707.33 OR 707.41	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS		PRECAST REINFORCED CONCRETE OUTLET		6" BASE PIPE UNDERDRAINS	6" UNCLASSIFIED PIPE UNDERDRAINS	6" ROCK CUT UNDERDRAINS		OUTLET INTO CATCH BASIN	OUTLET ANGLE	6" END CAP	6" TEE CONNECTION	6" 90° ELL CONNECTION	6" 45° ELL CONNECTION	6" 22.5° ELL CONNECTION	6" 45° WYE CONNECTION						
									FT	FT		EACH		FT	FT	FT		EACH	DEG	EACH	EACH	EACH	EACH	EACH	EACH			FT			FT
U-1	189,190	CL	483+60	CL	487+90	VARIES	958.95	956.46		33		1		430					90	1	1					487+90	955.00	114 LT			
U-2	189,190	CL	483+60	CL	487+90	VARIES	959.37	956.88		10				430						1		1									
U-3	189,190	CL	483+60	CL	487+90	VARIES	959.56	956.87		12				430						1		1									
U-4	189,190	CL	484+20	CL	487+90	VARIES	958.90	956.37		23				370				1	90	1	1					488+00	954.65	0			
U-5	189,190	CL	484+20	CL	488+00	VARIES	958.84	956.41		30				380				1	90	1	1					488+00	954.65	0			
U-6	189,190	CL	483+60	CL	488+00	41.5 RT	959.56	956.91		13				440						1	1										
U-7	189,190	CL	483+60	CL	488+00	66.5 RT	959.59	956.91	25					440						1	1										
U-8	189,190	CL	483+60	CL	488+00	76.5 RT	959.14	956.49		10				440						1		1									
U-9	190	CL	487+95	CL	495+00	VARIES	956.43	947.87		27		1		705					90	1	1					495+00	946.70	103 LT			
U-10	190	CL	487+95	CL	495+00	VARIES	956.85	948.29		10				705						1		1									
U-11	190	CL	487+95	CL	494+75	VARIES	956.84	948.88		12				680						1		1									
U-12	190	CL	487+95	CL	494+75	VARIES	956.34	948.38		17				680				1	90	1	1					484+80	947.45	0			
U-13	190	CL	488+05	CL	494+80	29.5 RT	956.38	948.30		17				675				1	90	1	1					484+80	947.45	0			
U-14	190	CL	488+05	CL	494+80	41.5 RT	956.88	948.80		12				675						1		1									
U-15	190	CL	488+05	CL	492+25	66.5 RT	956.88	952.86	26					420						1		1									
U-16	190	A	8+00	CL	492+25	0.5 RT	953.98	952.47		8				425						1	1										
U-17	190	A	8+21	CL	492+25	8.5 RT	953.48	952.12		16		1		404					90	1	1					492+25	951.40	116 RT			
U-18	190	CL	492+30	CL	494+80	VARIES	952.40	948.68		8				250						1		1									
U-19	190	CL	492+30	CL	494+80	VARIES	952.06	948.33		29		1		250					90	1	1					494+80	948.00	123 RT			
U-20	190	CL	494+75	CL	494+98	29.5 LT	948.88	949.01							23					1			1		1						
U-21	190	CL	494+75	CL	494+97	17.5 LT	948.38	948.52							22					1			1		1						
U-22	190	CL	494+80	CL	494+93	17.5 RT	948.30	948.59							13					1			1		1						
U-23	190	CL	494+80	CL	494+92	29.5 RT	948.80	949.11							12					1			1		1						
U-24 THROUGH U-56 NOT USED																														
U-300	190	CL	497+05	CL	500+00	76.5 LT	944.92	940.13		23		1		295					90	1	1					500+00	939.90	99 LT			
U-301	190	CL	497+04	CL	500+00	66.5 LT	945.35	940.55		10				296						1		1									
U-302	190	CL	497+00	CL	500+95	29.5 LT	945.23	938.81		12				395						1		1									
U-303	190	CL	496+99	CL	500+95	17.5 LT	944.74	938.31		18				396				1	90	1	1					501+00	937.97	0			
U-304	190	CL	496+95	BL	501+00	VARIES	944.81	938.23		26				405				1	90	1	1					501+00	937.97	0			
U-305	190	CL	496+94	BL	501+00	VARIES	945.33	938.73		12				406						1		1									
U-306	190	CL	496+88	BL	500+00	VARIES	944.71	938.74		8				312					90	1		1									
U-307	190	CL	496+87	BL	500+00	VARIES	944.40	938.41		24		1		313					90	1	1					500+00	937.90	77 RT			
U-308	190,192	CL	500+05	CL	506+95	76.5 LT	940.05	927.59		25		1		690						1	1					506+95	927.30	101 LT			
U-309	190,192	CL	500+05	CL	506+95	66.5 LT	940.47	928.01		10				690						1		1									
U-310	190,192	CL	500+00	CL	506+95	29.5 LT	940.36	929.07		12				695						1		1									
U-311	190,192	CL	500+00	CL	506+95	17.5 LT	939.86	928.57		48				695				1	90	1	1					506+97	927.00	30 RT			
U-312	190,192	BL	501+05	BL	507+00	12.5 LT	938.23	928.49		47				595				1	90	1	1					506+97	927.00	59 LT			
U-313	190,192	BL	501+05	BL	507+00	0.5 LT	938.65	928.99		12				595						1		1									
U-314	190,192	BL	500+05	BL	507+00	36.5 RT	938.66	929.87		10				695						1		1									
U-315	190,192	BL	500+05	BL	507+00	46.5 RT	938.33	929.54		23		1		695					90	1	1					507+00	929.30	69 RT			
U-316	192	CL	507+00	CL	512+00	76.5 LT	927.49	918.54		23		1		500					90	1	1					512+00	918.30	99 LT			
U-317	192	CL	507+00	CL	512+00	66.5 LT	927.91	919.04		10				500						1	1										
U-318	192	CL	507+00	CL	512+00	29.5 LT	928.99	920.87	37					500						1	1										
U-319	192	CL	507+00	CL	512+00	17.5 LT	928.59	920.68		12				500						1		1									
U-320	192	BL	507+05	BL	512+00	12.5 LT	928.41	919.95		32		1		495					90	1	1					512+00	920.00	45 LT			
U-321	192	BL	507+05	BL	512+00	0.5 LT	928.91	920.87		12				495						1		1									
U-322	192	BL	507+05	BL	512+00	36.5 RT	929.81	923.64		10				495						1		1									
U-323	192	BL	507+05	BL	512+00	46.5 RT	929.39	923.75		23		1		495					90	1	1					512+00	923.50	69 RT			
U-324	192,195	CL	512+05	CL	516+50	76.5 LT	918.45	914.20		23		1		445					90	1			1		1	516+50	914.00	99 LT			
TOTALS CARRIED TO GRAND TOTAL ON PAGE 176									88	752		12		21822	70			- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -

UNDERDRAIN QUANTITIES

CALCULATED AJP
CHECKED WXYZ

REF NO.	SHEET NO.	UNDERDRAIN LOCATION					BEGIN ELEVATION	END ELEVATION	603	603		604		605	605	605		FOR INFORMATION ONLY												
		BEGIN STATION		END STATION		NORMAL OFFSET (FT)			6" CONDUIT, TYPE B, 707.33 OR 707.41	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS		PRECAST REINFORCED CONCRETE OUTLET		6" BASE PIPE UNDERDRAINS	6" UNCLASSIFIED PIPE UNDERDRAINS	6" ROCK CUT UNDERDRAINS		OUTLET INTO CATCH BASIN	OUTLET ANGLE	6" END CAP	6" TEE CONNECTION	6" 90° ELL CONNECTION	6" 45° ELL CONNECTION	6" 22.5° ELL CONNECTION	6" 45° WYE CONNECTION	OUTLET NO. 1 STATION	OUTLET NO. 1 INVERT ELEVATION	OUTLET NO. 1 OFFSET	OUTLET NO. 2 STATION	OUTLET NO. 2 INVERT ELEVATION	OUTLET NO. 2 OFFSET
									FT	FT		EACH		FT	FT	FT		EACH	DEG	EACH	EACH	EACH	EACH	EACH	EACH			FT			FT
U-325	192,195	CL	512+05	CL	516+50	66.5 LT	918.96	914.71		10				445						1			1		1					
U-326	192,195	CL	512+05	CL	516+50	29.5 LT	920.79	916.55		12				445						1			1		1					
U-327	192,195	CL	512+05	CL	516+50	17.5 LT	920.56	916.32		55		1		445					90	1			1		1	516+50	915.80	95 LT			
U-328	192,195	BL	512+05	BL	516+67	12.5 LT	919.87	915.80		48		1		452					90	1			1		1	516+67	915.30	61 LT			
U-329	192,195	BL	512+05	BL	516+67	0.5 LT	920.79	916.39		12				452						1			1		1					
U-330	192,195	BL	512+05	BL	516+67	36.5 RT	923.56	918.16		10				452						1			1		1					
U-331	192,195	BL	512+05	BL	516+67	46.5 RT	923.67	917.94		23		1		452					90	1			1		1	516+67	917.80	69 RT			
U-332	195	CL	516+50	CL	519+75	76.5 LT	914.20	916.48		5				325						1	1									
U-333	195	CL	516+50	CL	519+75	66.5 LT	914.71	916.90		5				325						1	1									
U-334	195	CL	516+50	CL	519+75	29.5 LT	916.55	917.84	5					325						1	1									
U-335	195	CL	516+50	CL	519+75	17.5 LT	916.32	917.34		13				325						1	1									
U-336	195	BL	516+67	BL	520+15	12.5 LT	915.80	917.33		5				348						1	1									
U-337	195	BL	516+67	BL	520+15	0.5 LT	916.39	917.83		12				348						1	1									
U-338	195	BL	516+67	BL	520+15	36.5 LT	918.16	918.22		11				348						1	1									
U-339	195	BL	516+67	BL	520+15	46.5 LT	917.94	917.80		5				348						1	1									
U-340	199	CL	545+90	CL	552+00	76.5 LT	917.96	914.90		23		1		610					90	1	1					552+00	914.60	100 LT			
U-341	199	CL	545+90	CL	552+00	66.5 LT	918.38	915.32		10				610						1	1									
U-342	199	CL	545+90	CL	552+00	29.5 LT	918.57	915.90	37					610						1	1									
U-343	199	CL	545+90	CL	552+00	17.5 LT	918.07	915.40		10				610						1		1								
U-344	199	BL	546+30	BL	552+50	12.5 LT	918.06	915.40		10				620						1		1								
U-345	199	BL	546+30	BL	552+50	0.5 LT	918.56	915.90	37					620						1	1									
U-346	199	BL	546+30	BL	552+50	36.5 RT	918.37	917.19		12				620						1	1									
U-347	199	BL	546+30	BL	552+50	46.5 RT	917.95	916.85		29		1		620					90	1	1					552+50	914.50	76 RT			
U-348	199,202	CL	552+05	CL	558+28	76.5 LT	914.90	913.16		23		1		623					90	1	1					558+28	912.90	100 LT			
U-349	199,202	CL	552+05	CL	558+28	66.5 LT	915.32	913.58		10				623						1	1									
U-350	199,202	CL	552+05	CL	558+28	29.5 LT	915.89	914.27		12				623						1	1									
U-351	199,202	CL	552+05	CL	558+28	17.5 LT	915.39	913.77		35		1		623					90	1	1					558+28	913.50	8 RT			
U-352	199,202	BL	552+55	BL	558+80	12.5 LT	915.47	913.77		29		1		625					90	1	1					558+80	913.50	39 LT			
U-353	199,202	BL	552+55	BL	558+80	0.5 LT	915.89	914.27		12				625						1	1									
U-354	199,202	BL	552+55	BL	558+80	36.5 RT	917.18	914.53		10				625						1	1									
U-355	199,202	BL	552+55	BL	558+80	46.5 RT	916.84	914.11		23		1		625					90	1	1					558+80	913.90	70 RT			
U-356	202,204	CL	558+28	CL	567+00	76.5 LT	913.16	917.56						872						1			1		1					
U-357	202204	CL	558+28	CL	567+00	66.5 LT	913.58	917.98						872						1			1		1					
U-358	202,204	CL	558+28	CL	567+00	29.5 LT	914.27	918.17						872						1			1		1					
U-359	202,204	CL	558+28	CL	567+00	17.5 LT	913.77	917.67						872						1			1		1					
U-360	202,204	BL	558+80	CL	567+00	12.5 LT	913.77	917.67						820						1			1		1					
U-361	202,204	BL	558+80	CL	567+00	0.5 LT	914.27	918.17						820						1			1		1					
U-362	202,204	BL	558+80	CL	567+00	36.5 LT	914.53	917.44						820						1			1		1					
U-363	202,204	BL	558+80	CL	567+00	46.5 LT	914.11	917.02						820						1			1		1					
U-364	204	CL	567+05	CL	573+95	76.5 LT	917.60	926.38		22		1		690					90	1	1					567+05	917.80	99 LT			
U-365	204	CL	567+05	CL	573+95	66.5 LT	918.02	926.80		10				690						1		1								
U-366	204	CL	567+05	CL	573+95	29.5 LT	918.21	926.99		12				690						1		1								
U-367	204	CL	567+05	CL	573+95	17.5 LT	917.71	926.49		18				690				1	90	1	1					567+00	917.00	0			
U-368	204	CL	567+05	CL	573+95	17.5 RT	917.71	926.49		18				690				1	90	1	1					567+00	917.00	0			
U-369	204	CL	567+05	CL	573+95	29.5 RT	918.21	926.99		12				690						1		1								
U-370	204	CL	567+05	CL	573+95	66.5 RT	917.51	926.80		10				690						1		1								
U-371	204	CL	567+05	CL	573+95	76.5 RT	917.09	926.38		23		1		690					90	1	1					567+05	916.90	100 RT			
U-372	204,206	CL	574+00	CL	579+95	76.5 LT	926.46	936.82		25		1		595					90	1	1					574+00	925.70	101 LT			
U-373	204,206	CL	574+00	CL	579+95	66.5 LT	926.88	937.24		10				595						1	1									
U-374	204,206	CL	574+00	CL	579+95	29.5 LT	927.07	937.43	37					595						1	1									
TOTALS CARRIED TO GRAND TOTAL ON PAGE 176									116	634		12		29820				- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -

MAH-80-0.97

UNDERDRAIN QUANTITIES

CALCULATED AJP | CHECKED WXYZ

REF NO.	SHEET NO.	UNDERDRAIN LOCATION					BEGIN ELEVATION	END ELEVATION	603	603		604		605	605	605		FOR INFORMATION ONLY								OUTLET NO. 1 STATION	OUTLET NO. 1 INVERT ELEVATION	OUTLET NO. 1 OFFSET	OUTLET NO. 2 STATION	OUTLET NO. 2 INVERT ELEVATION	OUTLET NO. 2 OFFSET
		BEGIN STATION		END STATION		NORMAL OFFSET (FT)			6" CONDUIT, TYPE B, 707.33 OR 707.41	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS		PRECAST REINFORCED CONCRETE OUTLET		6" BASE PIPE UNDERDRAINS	6" UNCLASSIFIED PIPE UNDERDRAINS	6" ROCK CUT UNDERDRAINS		OUTLET INTO CATCH BASIN	OUTLET ANGLE	6" END CAP	6" TEE CONNECTION	6" 90° ELL CONNECTION	6" 45° ELL CONNECTION	6" 22.5° ELL CONNECTION	6" 45° WYE CONNECTION						
									FT	FT		EACH		FT	FT	FT		EACH	DEG	EACH	EACH	EACH	EACH	EACH	EACH			FT			FT
U-375	204,206	CL	574+00	CL	579+95	17.5 LT	926.57	936.93		12				595						1		1					574+00	925.70	101 RT			
U-376	204,206	CL	574+00	CL	580+00	17.5 RT	926.57	937.01		12				600						1		1										
U-377	204206	CL	574+00	CL	580+00	29.5 RT	927.07	937.51	37					600						1	1											
U-378	204,206	CL	574+00	CL	580+00	66.5 RT	926.88	937.32		10				600						1	1											
U-379	204,206	CL	574+00	CL	580+00	76.5 RT	926.46	936.90		25		1		600					90	1	1						574+00	925.70	101 RT			
U-380	206	CL	580+00	CL	584+67	76.5 LT	936.90	945.08		23		1		467					90	1	1						580+00	936.70	100 LT			
U-381	206	CL	580+00	CL	584+65	66.5 LT	937.32	945.46		10				465						1		1										
U-382	206	CL	580+00	CL	584+52	29.5 LT	937.51	945.43		12				452						1		1										
U-383	206	CL	580+00	CL	584+49	17.5 LT	937.01	944.87		18				449				1	90	1	1						580+00	936.84	0			
U-384	206	CL	580+05	CL	584+36	17.5 RT	937.10	944.65		18				436				1	90	1	1						580+00	936.84	0			
U-385	206	CL	580+05	CL	584+33	29.5 RT	937.60	945.09		12				428						1		1										
U-386	206	CL	580+05	CL	584+21	66.5 RT	937.41	944.69		10				416						1		1										
U-387	206	CL	580+05	CL	584+18	76.5 RT	936.99	944.22		23		1		413					90	1	1						580+00	936.80	99 RT			
U-24 THROUGH U-56 NOT USED																																
U-57	206	CL	586+55	CL	593+95	17.5 LT	948.48	961.43		18				740				1	45	1	1						586+70	948.10	0			
U-58	206	CL	586+39	CL	586+70	17.5 RT	948.80	948.74							31					1			1		1							
U-59	206	CL	586+36	CL	586+70	29.5 RT	949.30	949.24							34					1			1		1							
U-60	206,208	CL	586+75	CL	593+95	76.5 LT	948.72	961.32		11		1		720						1	1						586+75	948.60	86 LT			
U-61	206,208	CL	586+75	CL	593+95	66.5 LT	949.14	961.74		10				720						1		1										
U-62	206,208	CL	586+55	CL	593+95	29.5 LT	948.98	961.93		12				740						1		1										
U-63 NOT USED																																
U-64	206,208	CL	586+70	CL	593+95	17.5 RT	948.74	961.43		18				725				1	90	1	1						586+70	948.10	0			
U-65	206,208	CL	586+70	CL	593+95	29.5 RT	949.24	961.93		10				725						1		1										
U-66	206,208	CL	586+24	CL	593+95	66.5 RT	948.25	961.74		10				771						1		1										
U-67	206,208	CL	586+24	CL	593+95	76.5 RT	947.83	961.32		20		1		771					90	1	1						586+24	947.60	96 RT			
U-68	208	CL	594+00	CL	600+00	76.5 LT	961.74	977.22		25		1		600					90	1	1						594+00	960.70	102 LT			
U-69	208	CL	594+00	CL	600+00	66.5 LT	962.16	977.64		10				600						1	1											
U-70	208	CL	594+00	CL	600+00	29.5 LT	962.02	976.56	37					600						1	1											
U-71	208	CL	594+00	CL	600+00	17.5 LT	961.52	976.06		12				600						1		1										
U-72	208	CL	594+00	CL	599+95	17.5 RT	961.52	975.93		12				595						1		1										
U-73	208	CL	594+00	CL	599+95	29.5 RT	962.02	976.41	37					595						1	1											
U-74	208	CL	594+00	CL	599+95	66.5 RT	961.84	975.33		10				595						1	1											
U-75	208	CL	594+00	CL	599+95	76.5 RT	961.42	974.91		25		1		595					90	1	1						594+00	960.70	101 RT			
U-76	208,209	CL	600+05	CL	604+95	76.5 LT	977.39	991.84		22		1		490					90	1	1						600+05	977.20	99 LT			
U-77	208,209	CL	600+05	CL	604+95	66.5 LT	977.79	992.24		10				490						1		1										
U-78	208,209	CL	600+05	CL	604+95	29.5 LT	976.71	991.16		12				490						1		1										
U-79	208,209	CL	600+05	CL	604+95	17.5 LT	976.21	990.66		18				490				1	90	1	1						600+00	975.50	0			
U-80	208,209	CL	600+00	CL	604+95	17.5 RT	976.08	990.68		18				495				1	90	1	1						600+00	975.50	0			
U-81	208,209	CL	600+00	CL	604+95	29.5 RT	976.56	991.16		12				495						1		1										
U-82	208,209	CL	600+00	CL	604+95	66.5 RT	975.48	990.08		10				495						1		1										
U-83	208,209	CL	600+00	CL	604+95	76.5 RT	975.06	989.66		23		1		495					90	1	1						600+00	974.80	100 RT			
U-84	209	CL	605+00	CL	610+20	76.5 LT	991.99	1007.33		15		1		520					90	1	1						605+00	990.20	92 LT			
U-85	209	CL	605+00	CL	610+20	66.5 LT	992.39	1007.73		10				520						1	1											
U-86	209	CL	605+00	CL	610+20	VARIES	991.31	1006.43	37					520						1	1											
U-87	209	CL	605+00	CL	610+20	VARIES	990.81	1005.93		12				520						1		1										
U-88	209	CL	605+00	CL	610+20	17.5 RT	990.83	1006.17		12				520						1		1										
U-89	209	CL	605+00	CL	610+20	29.5 RT	991.31	1006.65	37					520						1	1											
U-90	209	CL	605+00	CL	610+20	66.5 RT	990.23	1005.57		10				520						1	1											
TOTALS CARRIED TO GRAND TOTAL ON PAGE 176									185	572		10		24793	65			---	---	---	---	---	---	---	---		---	---	---	---	---	---

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MAH-80-0.97

UNDERDRAIN QUANTITIES

CALCULATED AJP | CHECKED WXYZ

REF NO.	SHEET NO.	UNDERDRAIN LOCATION					BEGIN ELEVATION	END ELEVATION	603	603		604		605	605	605		FOR INFORMATION ONLY								OUTLET NO. 1 STATION	OUTLET NO. 1 INVERT ELEVATION	OUTLET NO. 1 OFFSET	OUTLET NO. 2 STATION	OUTLET NO. 2 INVERT ELEVATION	OUTLET NO. 2 OFFSET
		BEGIN STATION		END STATION		NORMAL OFFSET (FT)			6" CONDUIT, TYPE B, 707.33 OR 707.41	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS		PRECAST REINFORCED CONCRETE OUTLET		6" BASE PIPE UNDERDRAINS	6" UNCLASSIFIED PIPE UNDERDRAINS	6" ROCK CUT UNDERDRAINS		OUTLET INTO CATCH BASIN	OUTLET ANGLE	6" END CAP	6" TEE CONNECTION	6" 90° ELL CONNECTION	6" 45° ELL CONNECTION	6" 22.5° ELL CONNECTION	6" 45° WYE CONNECTION						
									FT	FT		EACH		FT	FT	FT		EACH	DEG	EACH	EACH	EACH	EACH	EACH	EACH			FT			FT
U-91	209	CL	605+00	CL	610+20	76.5 RT	989.81	1005.15		22		1		520					90	1	1					605+00	989.40	100 RT			
U-92	209	CL	610+25	CL	614+95	76.5 LT	1007.48	1021.34		12		1		470					90	1	1					610+25	1007.40	89 LT			
U-93	209	CL	610+25	CL	614+95	66.5 LT	1007.88	1021.74		10				470						1		1									
U-94	209	CL	610+25	CL	614+95	VARIES	1006.57	1020.30		12				470						1		1									
U-95	209	CL	610+25	CL	614+95	VARIES	1006.07	1019.80		12				470				1	90	1	1					610+28	1006.00	2 RT			
U-96	209	CL	610+33	CL	614+95	12.5 RT	1006.56	1020.18		16				462				1	90	1	1					610+28	1006.00	2 RT			
U-97	209	CL	610+33	CL	614+95	29.5 RT	1007.04	1020.66		12				462						1		1									
U-98	209	CL	610+33	CL	614+95	66.5 RT	1005.96	1019.58		10				462						1		1									
U-99	209	CL	610+33	CL	614+95	76.5 RT	1005.54	1019.16		13		1		462					90	1	1					610+33	1005.40	89 RT			
U-100	209,211	CL	615+00	CL	619+65	76.5 LT	1021.49	1034.35		30		1		465					90	1	1					615+00	1018.90	106 LT			
U-101	209,211	CL	615+00	CL	619+69	66.5 LT	1021.89	1034.84		10				469						1	1										
U-102	209,211	CL	615+00	CL	619+88	17.5 LT	1020.45	1033.84	49					488						1	1										
U-103	209,211	CL	615+00	CL	619+93	5.5 LT	1019.95	1033.16		12				493						1		1									
U-104	209,211	CL	615+00	CL	619+95	17.5 RT	1020.33	1032.73		12				495						1		1									
U-105	209,211	CL	615+00	CL	620+00	29.5 RT	1020.81	1033.31	37					500						1	1										
U-106	209,211	CL	615+00	CL	620+15	66.5 RT	1019.73	1032.54		10				515						1	1										
U-107	209,211	CL	615+00	CL	620+10	76.5 RT	1019.31	1032.02		14		1		510					90	1	1					615+00	1019.00	90 RT			
U-108	211	CL	621+60	CL	622+05	17.5 LT	1038.39	1038.33							45					1			1		1					
U-109	211	CL	621+66	CL	622+05	5.5 LT	1037.92	1037.83							39					1			1		1					
U-110	211	CL	621+75	CL	622+00	17.5 RT	1036.70	1036.66							25					1			1		1					
U-111	211	CL	621+80	CL	622+00	29.5 RT	1037.20	1037.14							20					1			1		1					
U-112	211	CL	621+40	CL	627+50	76.5 LT	1038.13	1046.27		11		1		610					90	1	1					621+40	1038.00	88 LT			
U-113	211	CL	621+40	CL	627+50	66.5 LT	1038.53	1046.67		12				610						1		1									
U-114	211	CL	622+05	CL	627+50	17.5 LT	1038.33	1044.87		10				545						1		1									
U-115	211	CL	622+05	CL	627+50	5.5 LT	1037.83	1044.37		11				545				1	90	1	1					622+00	1037.56	7 RT			
U-116	211	CL	622+00	CL	627+45	17.5 RT	1036.66	1043.72		11				545				1	90	1	1					622+00	1037.56	7 RT			
U-117	211	CL	622+00	CL	627+45	29.5 RT	1037.14	1044.20		12				545						1		1									
U-118	211	CL	622+00	CL	627+45	66.5 RT	1036.06	1043.12		10				545						1		1									
U-119	211	CL	622+00	CL	627+45	76.5 RT	1035.64	1042.70		11		1		545					90	1	1					622+00	1035.60	87 RT			
U-120	211,214	CL	627+55	CL	636+00	VARIES	1046.30	1043.05		22		2		845					90		2					627+55	1046.20	87 LT	636+00	1042.10	103 LT
U-121	211,214	CL	627+55	CL	636+00	VARIES	1046.70	1043.38		20				845							1	1									
U-122	211,214	CL	627+55	CL	636+00	17.5 LT	1045.26	1043.62	64	12				845							1	1									
U-123	211,214	CL	627+55	CL	636+00	5.5 LT	1044.76	1043.12		25				845				1	90		1	1				627+50	1043.67	7.5 RT			
U-124	211,214	CL	627+50	CL	636+00	17.5 RT	1043.77	1044.81		22				850				1	90		1	1				627+50	1043.67	7.5 RT			
U-125	211,214	CL	627+50	CL	636+00	29.5 RT	1044.25	1045.31	37	12				850							1	1									
U-126	211,214	CL	627+50	CL	636+00	66.5 RT	1043.17	1045.50		20				850							1	1									
U-127	211,214	CL	627+50	CL	636+00	76.5 RT	1042.77	1045.08		26		2		850					90		2					627+50	1042.60	89 RT	636+00	1044.10	89 RT
U-128	214	CL	636+05	CL	641+45	17.5 LT	1043.56	1036.73		12				540						1		1									
U-129	214	CL	636+05	CL	641+45	5.5 LT	1043.06	1036.23		9				540				1	90	1	1					641+50	1036.15	3 RT			
U-130	214	CL	636+05	CL	641+50	17.5 RT	1044.78	1039.07		15				550				1	90	1	1					641+50	1036.15	3 RT			
U-131	214	CL	636+05	CL	641+50	29.5 RT	1045.28	1039.57		12				550						1		1									
U-132	214	CL	636+05	CL	641+50	VARIES	1045.09	1039.57		8				550								1									
U-133	214	CL	636+05	CL	641+50	VARIES	1044.59	1039.24		11		1		550							1					641+50	1039.10	97 RT			
U-134	214,216	CL	636+05	46A	43+60	VARIES	1043.31	1033.03		11		1		755					90	1	1					643+60	1032.90	117 LT			
U-135	214,216	CL	636+05	46A	43+60	VARIES	1042.98	1033.36		8				755						1		1									
U-136	214,216	CL	640+40	CL	643+60	66.5 LT	1038.07	1033.98	32					320						1		1									
U-137	214,216	CL	641+50	CL	651+00	17.5 LT	1036.67	1027.08		12				950						1		1									
U-138	214,216	CL	641+50	CL	651+00	5.5 LT	1036.17	1026.58		13				950				1	90	1	1					651+00	1024.90	7 RT			
U-139	214,216	CL	641+55	CL	650+95	17.5 RT	1039.00	1025.39		11				940				1	90	1	1					651+00	1024.90	7 RT			
U-140	214,216	CL	641+55	CL	650+95	29.5 RT	1039.50	1025.89		12				940						1		1									
TOTALS CARRIED TO GRAND TOTAL ON PAGE 176									219	588		13		28343	129			---	---	---	---	---	---	---	---	---	---	---	---	---	---

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UNDERDRAIN QUANTITIES

CALCULATED AJP | CHECKED WXYZ

REF NO.	SHEET NO.	UNDERDRAIN LOCATION					BEGIN ELEVATION	END ELEVATION	603	603		604		605	605	605		FOR INFORMATION ONLY								OUTLET NO. 1 STATION	OUTLET NO. 1 INVERT ELEVATION	OUTLET NO. 1 OFFSET	OUTLET NO. 2 STATION	OUTLET NO. 2 INVERT ELEVATION	OUTLET NO. 2 OFFSET
		BEGIN STATION		END STATION		NORMAL OFFSET (FT)			6" CONDUIT, TYPE B, 707.33 OR 707.41	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS		PRECAST REINFORCED CONCRETE OUTLET		6" BASE PIPE UNDERDRAINS	6" UNCLASSIFIED PIPE UNDERDRAINS	6" ROCK CUT UNDERDRAINS		OUTLET INTO CATCH BASIN	OUTLET ANGLE	6" END CAP	6" TEE CONNECTION	6" 90° ELL CONNECTION	6" 45° ELL CONNECTION	6" 22.5° ELL CONNECTION	6" 45° WYE CONNECTION							
									FT	FT		EACH		FT	FT	FT		EACH	DEG	EACH	EACH	EACH	EACH	EACH	EACH			FT			FT
U-141	214,216	CL	641+55	46C	56+81	VARIES	1039.50	1030.03		8				355						1		1									
U-142	214,216	CL	641+55	46C	56+81	VARIES	1039.17	1029.70		15		1		355					90	1	1						56+81	1029.50	21 RT			
U-143	216	CL	643+65	CL	650+95	66.5 LT	1032.92	1027.10		10				730						1		1									
U-144	216	CL	645+10	CL	650+95	76.5 LT	1031.90	1026.68		23		1		585					90	1	1						651+00	1026.50	99 LT			
U-145	216	CL	646+83	CL	650+95	66.5 RT	1031.49	1026.07		10				412						1		1									
U-146	216	CL	646+83	CL	650+95	76.5 RT	1031.07	1025.65		29				412				1	90	1	1						651+00	1022.70	105 RT			
U-147	216	46C	56+85	46C	58+50	20.5 LT	1030.61	1029.83		21				165						1		1									
U-148	216	46C	56+85	46C	58+50	0.5 RT	1029.95	1028.61		20		1		165					90	1	1						58+50	1028.40	20 RT			
U-149	216	46C	58+50	46C	62+30	20.5 LT	1029.83	1037.88						380						1			1		1						
U-150	216	46C	58+50	46C	62+30	0.5 RT	1028.61	1037.64		5				380						1			1		1						
U-151	216	CL	650+95	CL	654+74	76.5 LT	1026.68	1026.98						105		274				1			1		1						
U-152	216	CL	650+95	CL	654+75	66.5 LT	1027.10	1027.40						105		275				1			1		1						
U-153	216,218	CL	651+00	CL	657+95	17.5 LT	1027.08	1029.86						100		595				1			1		1						
U-154	216,218	CL	651+00	CL	657+95	5.5 LT	1026.58	1029.36						100		595				1			1		1						
U-155	216,218	CL	651+00	CL	657+95	17.5 RT	1025.39	1029.55						100		595				1			1		1						
U-156	216,218	CL	651+00	CL	657+95	29.5 RT	1025.89	1030.05						100		595				1			1		1						
U-157	216,218	CL	650+95	CL	657+95	66.5 RT	1026.07	1030.23						105		595				1			1		1						
U-158	216,218	CL	650+95	CL	657+95	76.5 RT	1025.65	1029.81						105		595				1			1		1						
U-159	216,218	46E	75+38	CL	657+95	VARIES	1025.55	1029.30								195				1											
U-160	216,218	46E	75+38	CL	657+95	VARIES	1025.95	1029.63		8						195				1			1		1		75+38	1025.55	8.5			
U-161	218	CL	658+00	CL	664+95	VARIES	1029.38	1036.93		8						695				1		1									
U-162	218	CL	658+00	CL	664+95	VARIES	1029.71	1037.35	61							695				1	1										
U-163	218	CL	658+00	CL	664+95	17.5 LT	1029.91	1037.35		12						695				1	1										
U-164	218	CL	658+00	CL	664+95	5.5 LT	1029.41	1036.85		13						695		1	90	1	1						658+00	1028.45	7 RT			
U-165	218	CL	658+00	CL	662+50	VARIES	1029.61	1034.59		11						450		1	90	1	1						658+00	1028.45	7 RT			
U-166	218	CL	658+00	CL	663+50	29.5 RT	1030.11	1035.99		12						550				1	1										
U-167	218	CL	658+00	CL	663+50	66.5 RT	1030.29	1036.17	37							550				1	1										
U-168	218	CL	658+00	CL	663+50	76.0 RT	1029.87	1035.75		12						550				1		1									
U-169	218,221	CL	665+00	WB	674+00	VARIES	1036.98	1046.60		10				400		500				1		1									
U-170	218,221	CL	665+00	WB	674+00	VARIES	1037.40	1047.02	49					400		500				1	1										
U-171	218,221	CL	665+00	WB	674+00	VARIES	1037.40	1047.66		12				400		500				1	1										
U-172	218,221	CL	665+00	WB	674+00	VARIES	1036.90	1047.16		15				400		500		1	90	1	1						665+00	1036.13	9 RT			
U-173	221	WB	674+05	WB	679+95	10.5 LT	1046.65	1052.97		26		1		590					90	1	1						674+05	1046.40	38 LT			
U-174	221	WB	674+05	WB	679+95	0.5 LT	1047.07	1053.39		10				590						1		1									
U-175	221	WB	674+05	WB	679+95	48.5 RT	1047.73	1055.11		12				590						1		1									
U-176	221	WB	674+05	WB	679+95	60.5 RT	1047.23	1054.70		14				590				1	90	1	1						674+00	1046.40	75 RT			
U-177	221,222	WB	680+00	WB	685+95	10.5 LT	1053.02	1059.39		17		1		595					90	1	1						680+00	1052.80	28 LT			
U-178	221,222	WB	680+00	WB	685+95	0.5 LT	1053.44	1059.81		10				595						1		1									
U-179	221,222	WB	680+00	WB	685+95	VARIES	1055.16	1061.63		12				595						1		1									
U-180	221,222	WB	680+00	WB	685+95	VARIES	1054.75	1061.36		14		1		595					90	1	1						680+00	1054.60	74 RT			
U-181	222,223	WB	686+00	WB	696+00	10.5 LT	1059.44	1060.01		38		2		1000					90		2						686+00	1059.20	33 LT	696+00	1059.60	25 LT
U-182	222,223	WB	686+00	WB	696+00	0.5 LT	1059.86	1060.43		20				1000							1	1									
U-183	222,223	WB	686+00	G	83+75	VARIES	1061.68	1064.92		8				780								1									
U-184	222,223	WB	686+00	G	83+75	VARIES	1061.41	1064.59		8		1		780					90		1						686+00	1061.20	81 RT			
U-185	222,223	WB	691+25	WB	696+00	VARIES	1064.35	1062.16	46					475						1	1										
U-186	222,223	WB	693+87	WB	696+00	VARIES	1063.47	1061.91		8				213						1		1									
U-187	222,223	G	84+03	G	85+40	16.5 LT	1064.89	1068.60						137				1	0	1							84+03	1064.89	19 LT			
U-188	222,223	G	83+75	G	86+00	VARIES	1064.92	1068.31		7				225						1			1		1						
U-189	222,223	G	83+75	G	83+90	8.5 RT	1064.59	1064.70		17		1		15					90	1			1		1		83+75	1064.40	27 RT			
U-190	223	WB	696+05	WB	701+00	10.5 LT	1059.95	1053.26		16		1		495					90	1	1						701+00	1052.70	26 LT			
TOTALS CARRIED TO GRAND TOTAL ON PAGE 176									193	491		11		16219		11389		- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -		- - -	- - -	- - -	- - -	- - -	- - -

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REF NO.	SHEET NO.	UNDERDRAIN LOCATION					BEGIN ELEVATION	END ELEVATION	603	603		604		605	605	605		FOR INFORMATION ONLY									OUTLET NO. 1	OUTLET NO. 1	OUTLET NO. 1	OUTLET NO. 2	OUTLET NO. 2	OUTLET NO. 2
		BEGIN STATION		END STATION		NORMAL OFFSET (FT)			6" CONDUIT, TYPE B, 707.33 OR 707.41	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS		PRECAST REINFORCED CONCRETE OUTLET		6" BASE PIPE UNDERDRAINS	6" UNCLASSIFIED PIPE UNDERDRAINS	6" ROCK CUT UNDERDRAINS		OUTLET INTO CATCH BASIN	OUTLET ANGLE	6" END CAP	6" TEE CONNECTION	6" 90° ELL CONNECTION	6" 45° ELL CONNECTION	6" 22.5° ELL CONNECTION	6" 45° WYE CONNECTION		STATION	INVERT ELEVATION	OFFSET	STATION	INVERT ELEVATION	OFFSET
									FT	FT		EACH		FT	FT	FT		EACH	DEG	EACH	EACH	EACH	EACH	EACH	EACH				FT			FT
U-191	223	WB	696+05	WB	701+00	0.5 LT	1060.37	1053.68		10				500						1	1											
U-192	223	WB	696+05	680	101+23	VARIES	1062.11	1054.10		8				523						1		1										
U-193	223	WB	696+05	680	101+23	VARIES	1061.86	1053.77		22		1		523					90	1	1						101+23	1053.60	31 RT			
U-194	223	WB	698+23	WB	701+00	24.5 RT	1058.50	1054.62	25					277						1		1										
U-195	223	WB	701+05	WB	704+10	10.5 LT	1053.19	1050.73		10		1		305					90	1	1						704+10	1051.10	26 LT			
U-196	223	WB	701+05	WB	704+10	0.5 LT	1053.61	1051.15		13				305						1	1											
U-197	223	WB	701+05	WB	704+10	24.5 RT	1054.55	1052.09	25					305						1	1											
U-198	223	680	101+23	680	106+50	VARIES	1053.93	1044.36		10				527						1		1										
U-199	223	680	101+23	680	106+50	VARIES	1054.35	1044.78	25					527						1	1											
U-200	223	680	101+23	680	106+50	0.5 RT	1054.00	1044.78		25		1		527					90	1	1						106+50	1043.80	26 RT			
U-201	223	WB	704+10	WB	706+95	10.5 LT	1050.73	1052.81		5				285						1			1		1							
U-202	223	WB	704+10	WB	706+95	0.5 LT	1051.15	1053.23		5				285						1			1		1							
U-203	223	WB	704+10	WB	706+95	24.5 RT	1052.09	1054.17	25					285						1												
U-204	225	11	122+50	11	126+32	26.5 LT	1059.40	1055.87		10				382						1	1											
U-205	225	11	122+50	11	126+30	16.5 LT	1059.78	1056.15	17			1		380						1	1											
U-206	225	11	122+50	11	126+30	0.5 RT	1059.27	1055.49		40		1		380					90	1	1						715+30	1054.80	24 RT			
U-207	225	WB	707+00	WB	717+50	10.5 LT	1052.87	1052.43		22		2		1050					90		2						707+00	1052.40	22 LT	717+50	1052.30	21 LT
U-208	225	WB	707+00	WB	717+50	0.5 LT	1053.29	1052.85		20				1050							2											
U-209	225	WB	707+00	WB	715+30	24.5 RT	1054.23	1055.98		12				830								2										
U-210	225,226	WB	717+55	WB	723+55	10.5 LT	1052.37	1044.87		10				600						1		1										
U-211	225,226	WB	717+55	WB	723+55	0.5 LT	1052.79	1045.29	25					600						1	1											
U-212	225,226	11	126+35	WB	723+55	VARIES	1055.45	1044.33		18		1		822					90	1	1						723+55	1044.0	43 RT			
U-213 THROUGH U-299 NOT USED																																
TOTALS CARRIED TO GRAND TOTAL ON NEXT LINE									142	240		8		11268				---	---	---	---	---	---	---	---		---	---	---	---	---	---
GRAND TOTALS CARRIED TO GENERAL SUMMARY									943	3277		66		132265	264	11389		---	---	---	---	---	---	---	---		---	---	---	---	---	---

CALCULATED AJP
CHECKED WXYZ

UNDERDRAIN QUANTITIES

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CABLE GUARDRAIL QUANTITIES

CALCULATED TKB
CHECKED MDC

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176A
1100

STATION TO STATION	SIDE	606 GUARDRAIL, MISC.; TENSIONED CABLE WITH CONCRETE FOUNDATION LINE POST (SOCKETED) FT	606 GUARDRAIL, MISC.; TENSIONED CABLE ANCHOR TERMINAL EACH	606 GUARDRAIL, MISC.; W-BEAM TRANSITION EACH
I.R. 80				
Sta. 559+12.50 to Sta. 559+76.66 (BK)	Lt.	64.16	1	
Sta. 559+80.76 (AH) to Sta. 575+50	Lt.	1569.24	1	
Sta. 580+50 to Sta. 584+00	Rt.	350	1	1
Sta. 587+00 to Sta. 609+75	Lt.	2275	1	1
Sta. 613+62.5 to Sta. 619+75	Rt.	612.5	1	1
Sta. 622+50 to Sta. 639+90	Lt.	1740	1	1
Sta. 639+62.5 to Sta. 643+87.5	Rt.	425	2	
Sta. 644+62.5 to Sta. 654+55.5	Rt.	993	2	
Sta. 659+75 to Sta. 668+37.5	Lt.	862.5	2	
Sta. 669+12.5 to Sta. 676+50	Lt.	737.5	2	
TOTALS CARRIED TO GENERAL SUMMARY		9,629	14	4

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PERMANENT EROSION CONTROL CALCULATIONS

ITEM 659 - SEEDING AND MUCLHING
FROM CROSS SECTION QUANTITIES (SHEET 779) = 401272 SQ YD
FROM SPILL CONTAINMENT WEST BASIN (SHEET 849) = 13112 SQ YD
FROM SPILL CONTAINMENT EAST BASIN (SHEET 849) = 6184 SQ YD
FROM LIPKEY ROAD (SHEET 788) = 3453 SQ YD
ITEM 659 SEEDING AND MULCHING, AS PER PLAN
FROM SPILL CONTAINMENT WEST BASIN (SHEET 849) = 8215 SQ YD
FROM SPILL CONTAINMNET EAST BASIN (SHEET 849) = 8455 SQ YD
TOTAL SEEDING AND MULCHING = 440691 SQ YD

ITEM 659 - TOPSOIL
440691 x 111/1000 = 48917 CU YD

ITEM 659 - SOIL ANALYSIS TEST
48917 / 10000 = 5 EACH

ITEM 659 - REPAIR SEEDING AND MULCHING
440691 x 0.05 = 22035 SQ YD

ITEM 659 - INTER-SEEDING
440691 x 0.05 = 22035 SQ YD

ITEM 659 - COMMERCIAL FERTILIZER
440691 x 1/7410 = 59.47 TON
22035 x 1/11115 = 1.98 TON
61.45 TON

ITEM 659 - LIME
440691 x 9 /43560 = 91.05 ACRES

ITEM 659 - WATER
440691 x 27/10000 x 2 = 2379.7 M GAL
22035 x 27/10000 = 59.5 M GAL
2439.2 M GAL

ITEM 659 - MOWING
440691 x 9 x 0.25 = 991.6 M SQ FT

PERMANENT EROSION CONTROL QUANTITIES CARRIED TO GENERAL NOTES ON SHEET 26

PAVEMENT CALCULATIONS

ITEM 204 - PROOF ROLLING
6636 / 2000 = 4 HOUR

PAVEMENT QUANTITIES CARRIED TO GENERAL NOTES ON SHEET 27

CEMENT STABILIZED SUBGRADE

ITEM 206 - CONTRACTOR DESIGNED CHEMICALLY STABILIZED SUBGRADE
LUMP SUM

ITEM 206 - CEMENT
266782 x 0.75 x 12 x 110 x 0.06 / 2000 = 7924 TON

CEMENT STABILIZED SUBGRADE QUANTITIES CARRIED TO GENERAL SUMMARY ON SHEET 168

CALCULATED PRS
CHECKED SSC

CALCULATIONS

MAH-80-0.97

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PROJECT DESCRIPTION

RECONSTRUCTION AND WIDENING OF 4.55 MILES OF IR 80. INCLUDING PARTIAL RECONSTRUCTION OF SEVEN INTERCHANGE RAMPS, THE REHABILITATION OF SIX BRIDGES, THE REPLACEMENT OF THE MEANDER CREEK RESERVOIR BRIDGES, AND THE CONSTRUCTION OF A 20′ X 14′ 3-SIDED CULVERT TO REPLACE EXISTING BRIDGES.

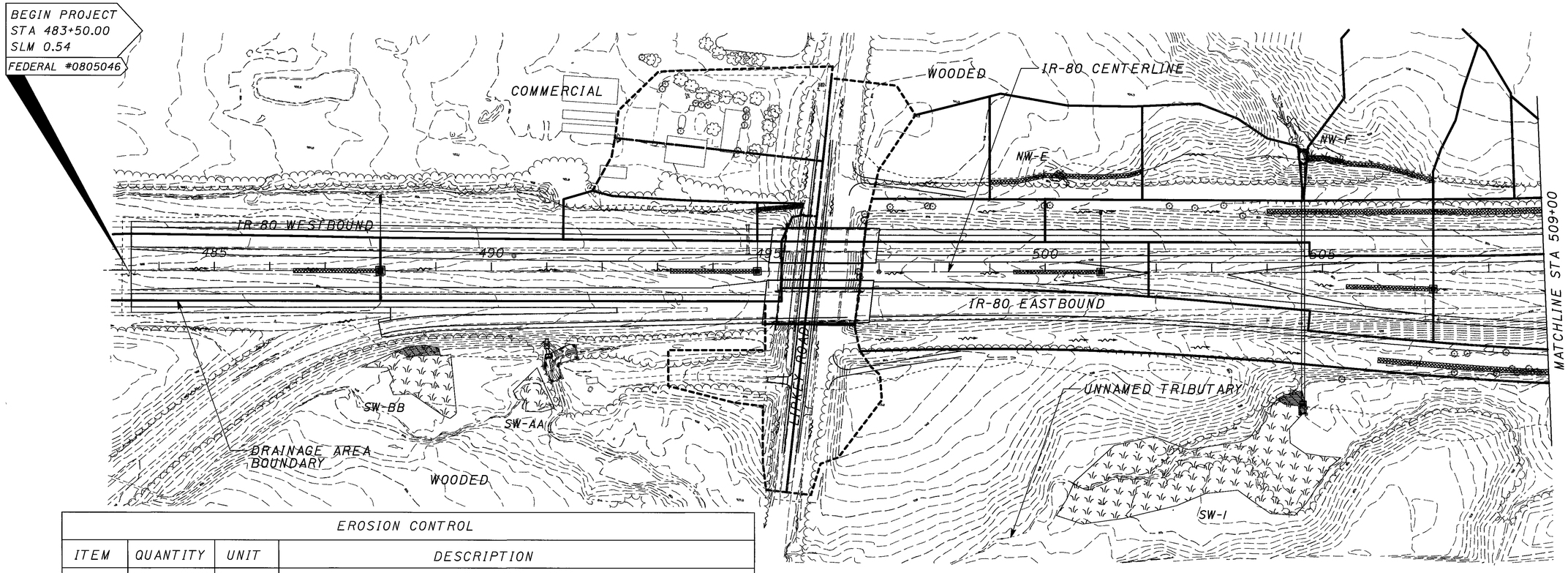
USGS QUADRANT(S)

CANFIELD, OHIO 4866 III SE
GIRARD, OHIO 4866 II NW
WARREN, OHIO 4866 III NE
YOUNGSTOWN, OHIO 4866 II SW

LATITUDE: N 41° 07′ 05″
LONGITUDE: W 80° 47′ 35″
LATITUDE AND LONGITUDE TO APPROXIMATE MIDDLE OF PROJECT

WETLANDS
WETLANDS TO BE IMPACTED
ROCK CHANNEL PROTECTION
DITCH EROSION PROTECTION
TURF REINFORCING MAT, TYPE I

PROJECT DATA	
TOTAL AREA (RIGHT-OF-WAY)	190 ACRES
PROJECT EARTH DISTURBED AREA	162 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA	188 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA	197.4 ACRES
RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION SITE	0.58
RUNOFF COEFFICIENT FOR POST-CONSTRUCTION SITE	0.63
IMPERVIOUS AREA FOR PRE-CONSTRUCTION	38 ACRES
IMPERVIOUS AREA FOR POST-CONSTRUCTION	63 ACRES
SOIL DATA	SOIL SURVEY OF MAHONING COUNTY, SHEETS 4 - 6
IMMEDIATE RECEIVING WATERS	MEANDER CR. RESERVOIR & UNNAMED TRIBS.
SUBSEQUENT RECEIVING WATERS (WITHIN 200′ OF ROW)	NONE
RECEIVING WATERS UNDER TOTAL MAXIMUM DAILY LOAD (TMDL) REGULATIONS	NONE



EROSION CONTROL			
ITEM	QUANTITY	UNIT	DESCRIPTION
832	1	EACH	STORM WATER POLLUTION PREVENTION PLAN
832	170,000	EACH	EROSION CONTROL
QUANTITIES CARRIED TO GENERAL SUMMARY			

NOTE:
1. SEE "WETLAND IMPACTS" NOTE ON SHEET 28A FOR AREAS AND STATIONING OF WETLANDS TO BE IMPACTED
2. SEE "WETLAND AVOIDANCE" NOTE ON SHEET 28A FOR AREAS AND STATIONING OF WETLANDS TO BE AVOIDED

N

HORIZONTAL SCALE IN FEET
0 100 200

CALCULATED MAK
CHECKED TLW

PROJECT SITE PLAN
STA. 483+50.00 TO STA 509+00.00

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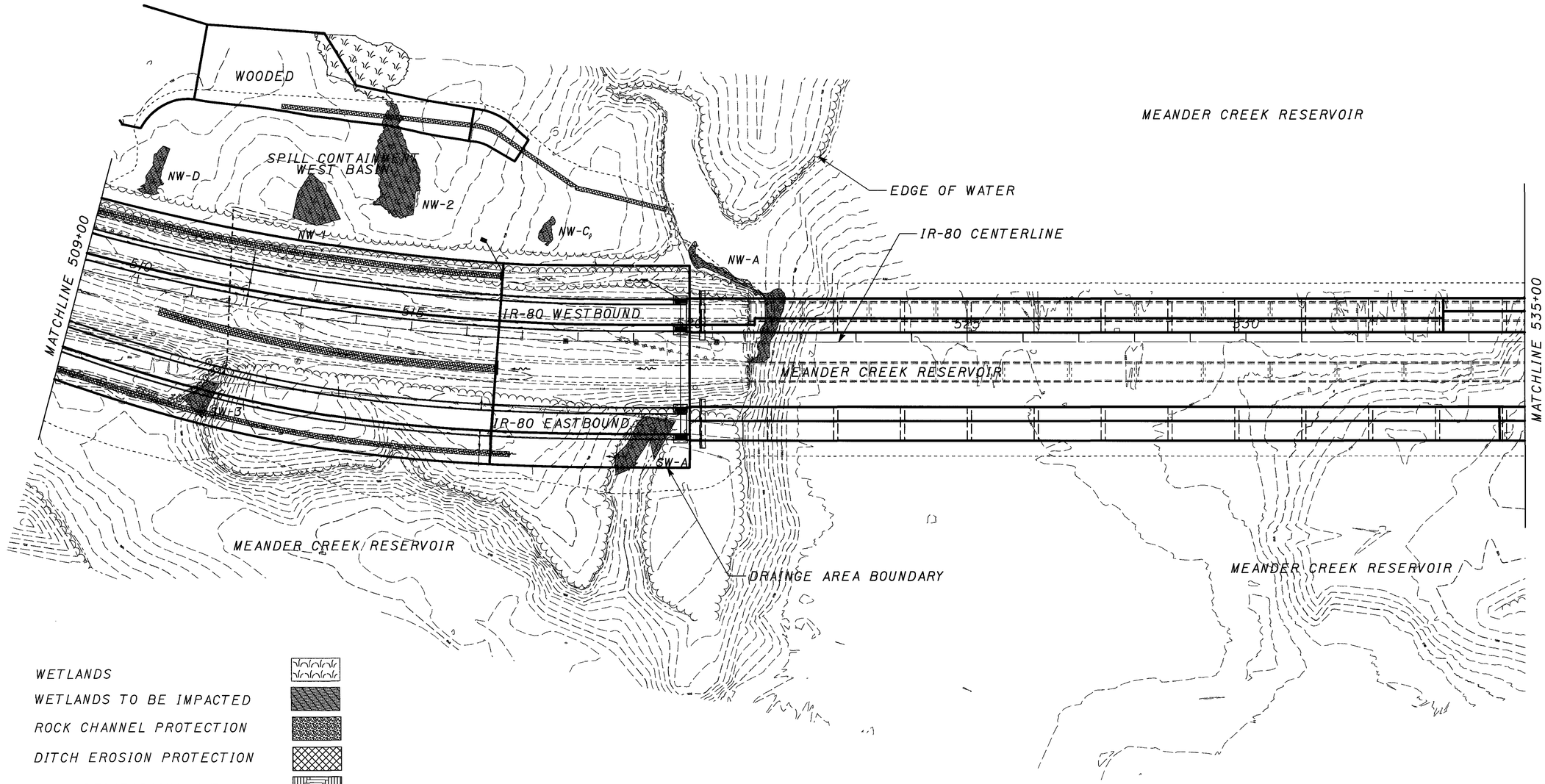

NOTE:
1. SEE "WETLAND IMPACTS" NOTE ON SHEET 28A FOR AREAS AND STATIONING OF WETLANDS TO BE IMPACTED
2. SEE "WETLAND AVOIDANCE" NOTE ON SHEET 28A FOR AREAS AND STATIONING OF WETLANDS TO BE AVOIDED

HORIZONTAL SCALE IN FEET
0 100 200

CALCULATED MAK
CHECKED TLW

PROJECT SITE PLAN
STA. 509+00.00 TO STA. 535+00.00

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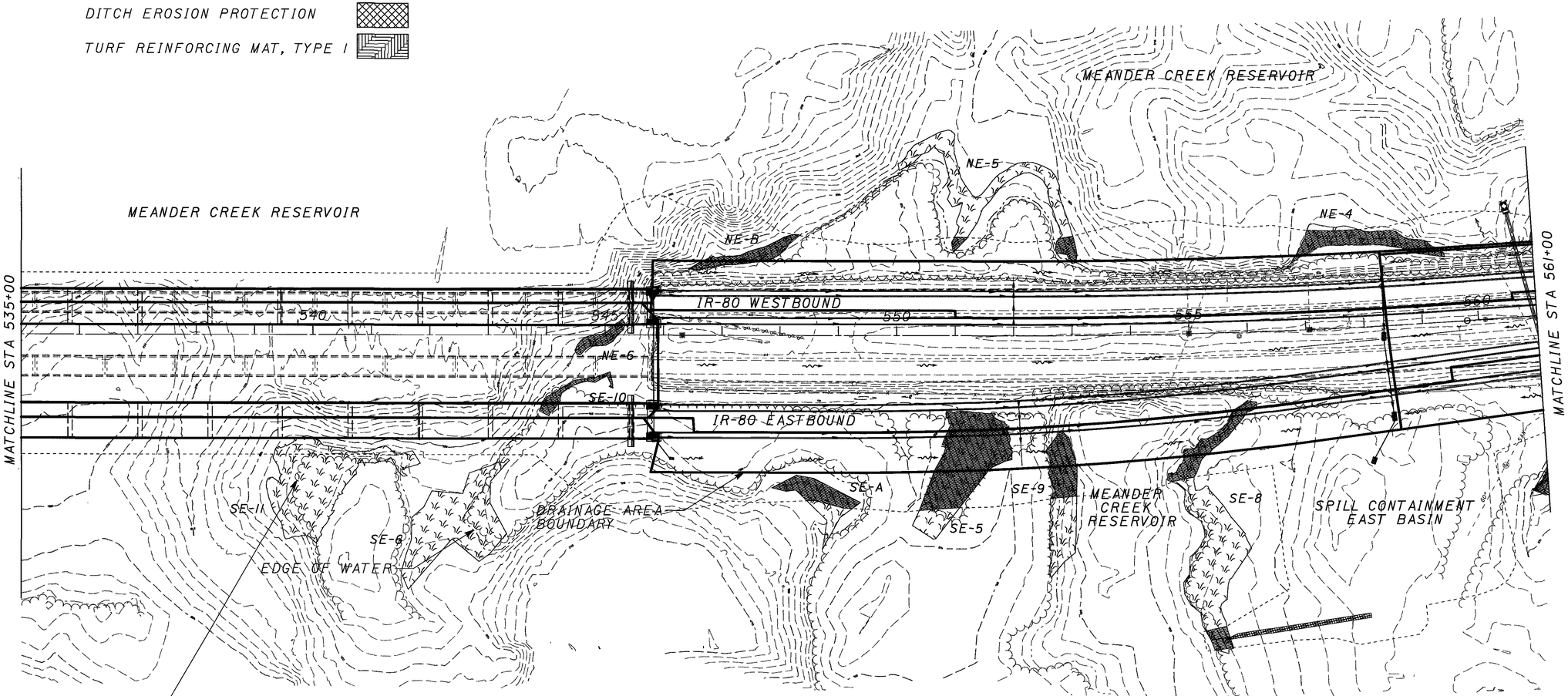
WETLANDS

WETLANDS TO BE IMPACTED

ROCK CHANNEL PROTECTION

DITCH EROSION PROTECTION

TURF REINFORCING MAT, TYPE I



THE CONTRACTOR SHALL AVOID ANY DISTURBANCE TO THIS EXISTING WETLAND AREA

NOTE:

1. SEE "WETLAND IMPACTS" NOTE ON SHEET 28A FOR AREAS AND STATIONING OF WETLANDS TO BE IMPACTED
2. SEE "WETLAND AVOIDANCE" NOTE ON SHEET 28A FOR AREAS AND STATIONING OF WETLANDS TO BE AVOIDED

HORIZONTAL SCALE IN FEET
0 100 200

CALCULATED MAK
CHECKED TLW

PROJECT SITE PLAN
STA. 535+00.00 TO STA. 561+00.00

MAH-80-0.97

180
1100

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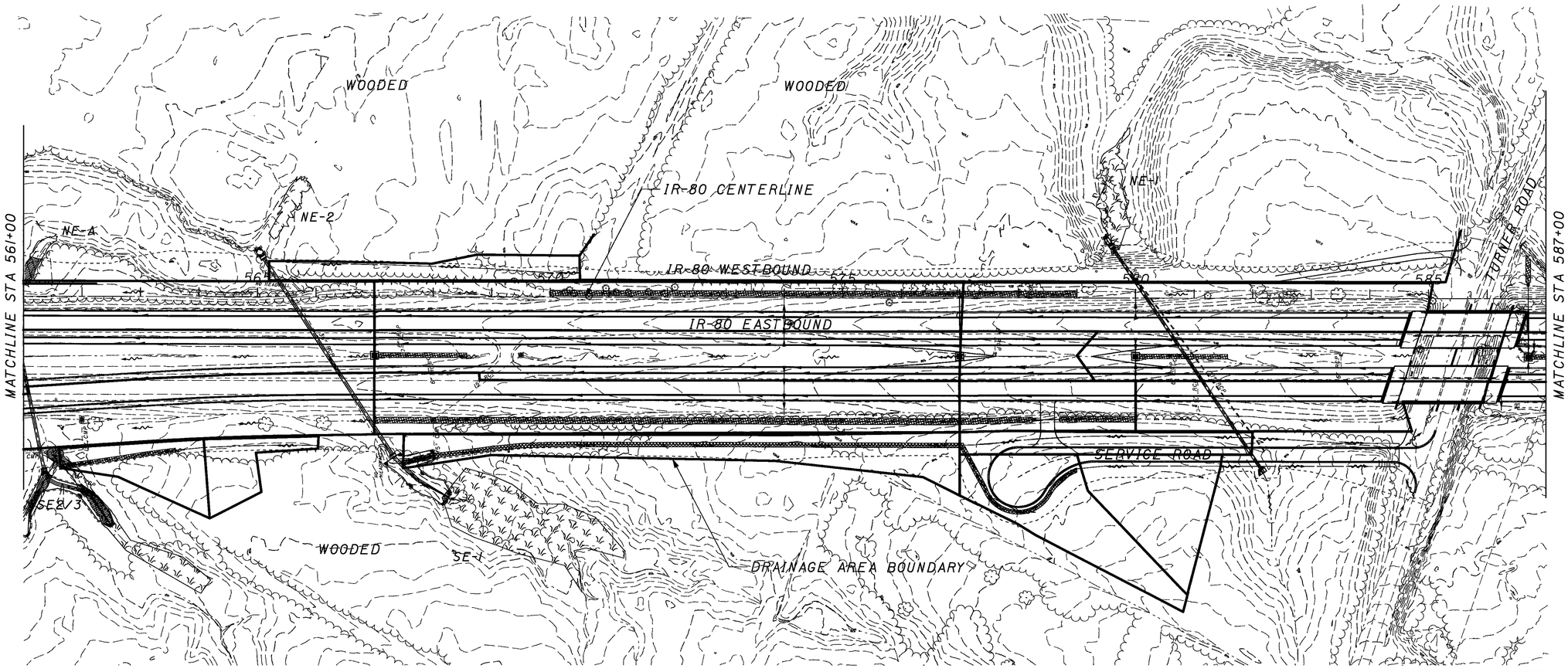

NOTE:
1. SEE "WETLAND IMPACTS" NOTE ON SHEET 28A FOR AREAS AND STATIONING OF WETLANDS TO BE IMPACTED
2. SEE "WETLAND AVOIDANCE" NOTE ON SHEET 28A FOR AREAS AND STATIONING OF WETLANDS TO BE AVOIDED

HORIZONTAL SCALE IN FEET
0 100 200

CALCULATED MAK
CHECKED TLW

PROJECT SITE PLAN
STA. 561+00.00 TO STA. 587+00.00

MAH-80-0.97

181
1100

7/25/2005 8:53:13 AM
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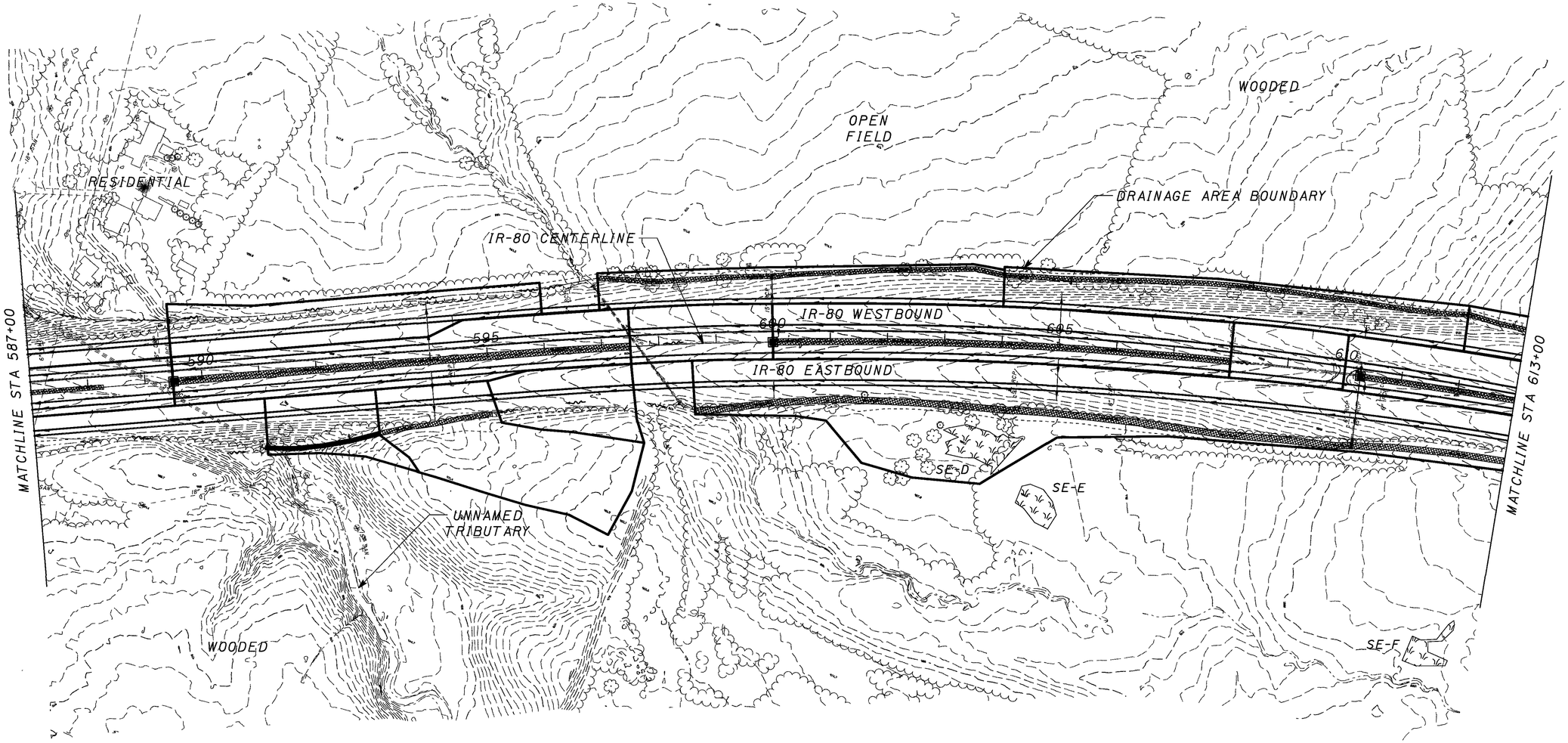

WETLANDS

WETLANDS TO BE IMPACTED

ROCK CHANNEL PROTECTION

DITCH EROSION PROTECTION

TURF REINFORCING MAT, TYPE I

NOTE:
1. SEE "WETLAND IMPACTS" NOTE ON SHEET 28A FOR AREAS AND STATIONING OF WETLANDS TO BE IMPACTED
2. SEE "WETLAND AVOIDANCE" NOTE ON SHEET 28A FOR AREAS AND STATIONING OF WETLANDS TO BE AVOIDED

HORIZONTAL SCALE IN FEET
0 100 200

CALCULATED MAK
CHECKED TLW

PROJECT SITE PLAN
STA. 587+00.00 TO STA. 613+00.00

MAH-80-0.97

182
1100

7/25/2005 8:54:21 AM
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THE CONTRACTOR SHALL AVOID ANY DISTURBANCE TO THIS EXISTING WETLAND AREA

RESIDENTIAL

NE-7

WOODED

DRAINAGE AREA BOUNDARY

IR-80 CENTERLINE

GATEWAY

NE-8

BRETOWN ROAD

IR-80 WESTBOUND

IR-80 EASTBOUND

620

625

630

635

MATCHLINE STA 613+00

MATCHLINE STA 639+00

SE-H

WOODED

B

METROPARKS

RESIDENTIAL

OPEN FIELD

SE-G

WETLANDS

WETLANDS TO BE IMPACTED

ROCK CHANNEL PROTECTION

DITCH EROSION PROTECTION

TURF REINFORCING MAT, TYPE I

NOTE:
1. SEE "WETLAND IMPACTS" NOTE ON SHEET 28A FOR AREAS AND STATIONING OF WETLANDS TO BE IMPACTED
2. SEE "WETLAND AVOIDANCE" NOTE ON SHEET 28A FOR AREAS AND STATIONING OF WETLANDS TO BE AVOIDED

HORIZONTAL SCALE IN FEET
0 100 200

CALCULATED MAK
CHECKED TLW

PROJECT SITE PLAN
STA. 613+00.00 TO STA. 639+00.00

MAH-80-0.97

183
1100

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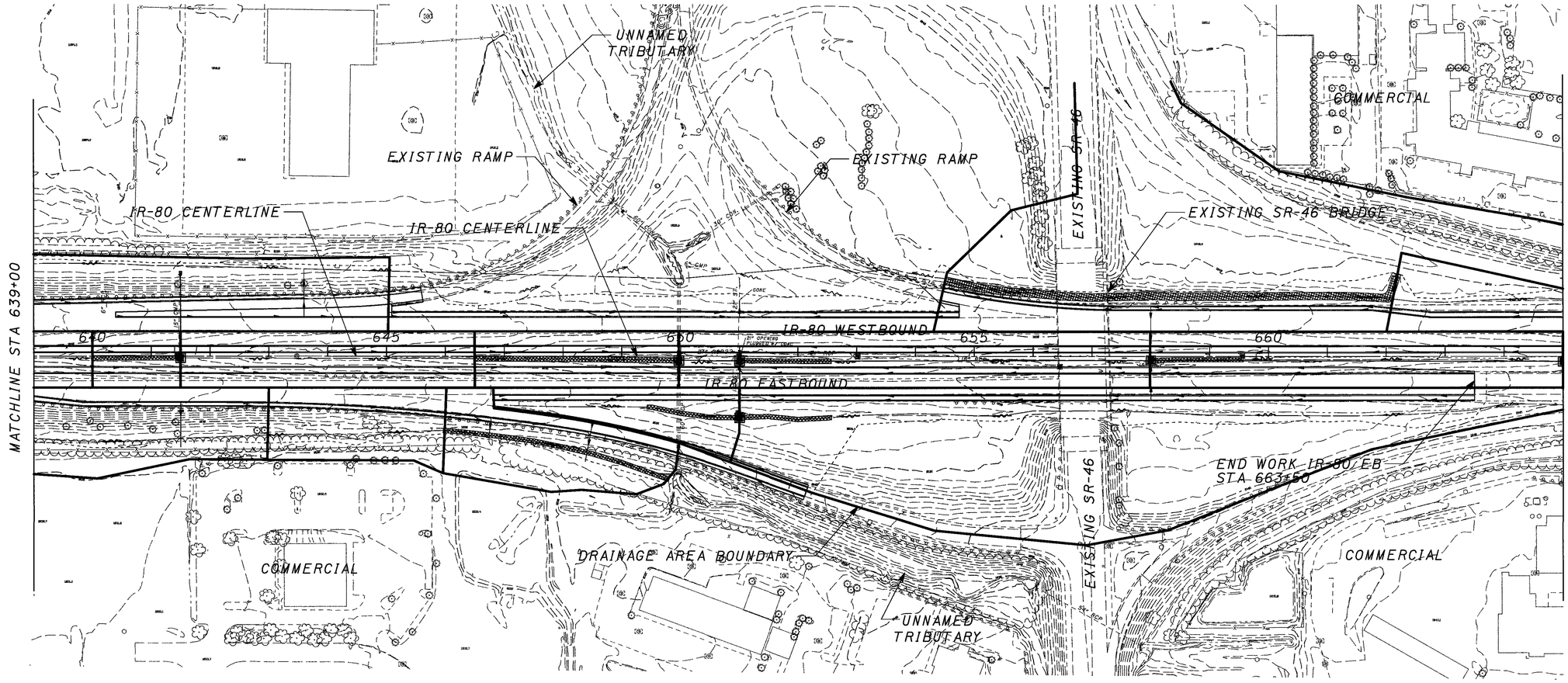

WETLANDS

WETLANDS TO BE IMPACTED

ROCK CHANNEL PROTECTION

DITCH EROSION PROTECTION

TURF REINFORCING MAT, TYPE I

NOTE:
1. SEE "WETLAND IMPACTS" NOTE ON SHEET 28A FOR AREAS AND STATIONING OF WETLANDS TO BE IMPACTED
2. SEE "WETLAND AVOIDANCE" NOTE ON SHEET 28A FOR AREAS AND STATIONING OF WETLANDS TO BE AVOIDED

HORIZONTAL SCALE IN FEET
0 100 200

CALCULATED MAK
CHECKED TLW

PROJECT SITE PLAN
STA. 639+00.00 TO STA. 665+00.00

MAH-80-0.97

184
1100

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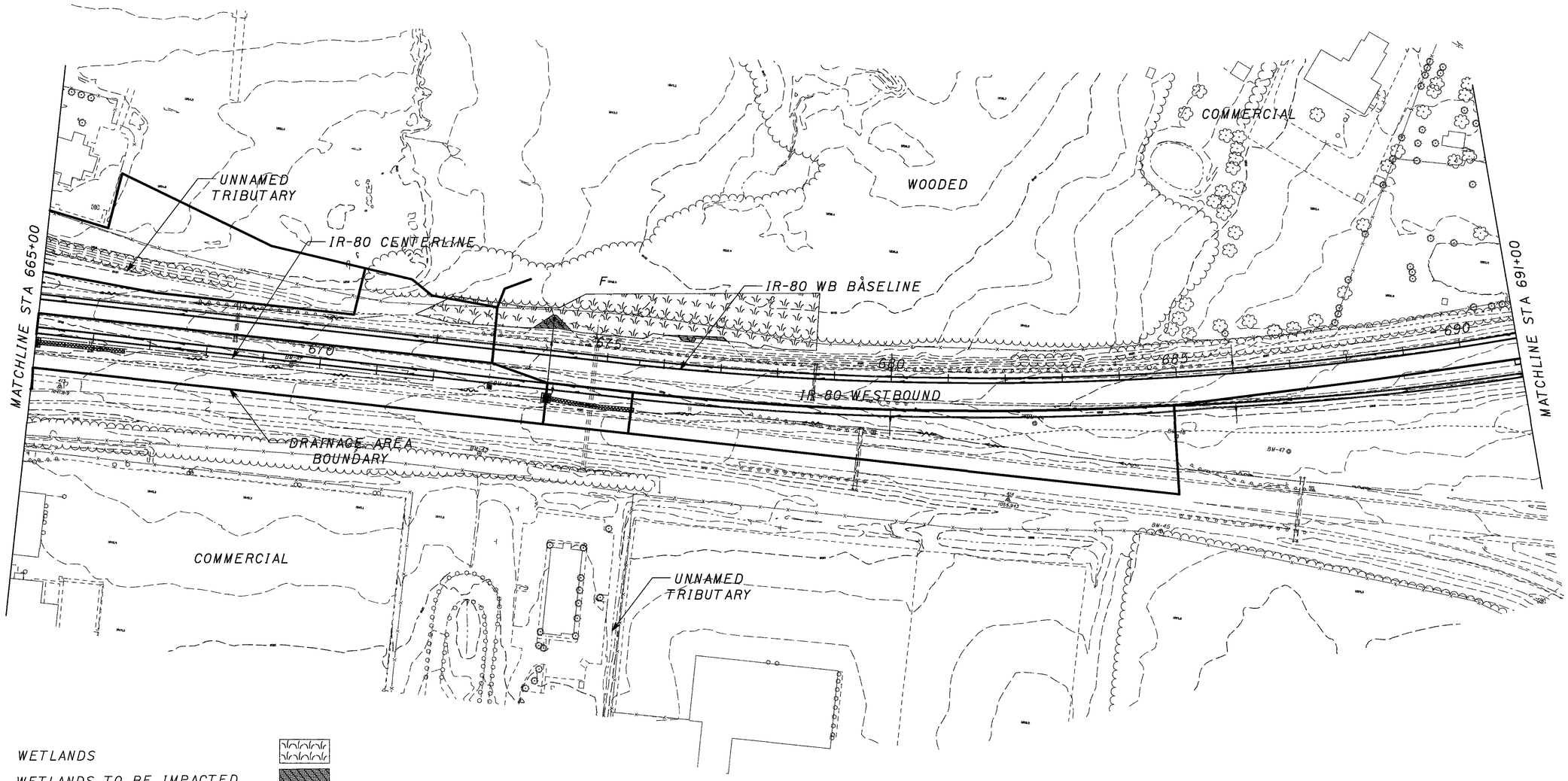

NOTE:
1. SEE "WETLAND IMPACTS" NOTE ON SHEET 28A FOR AREAS AND STATIONING OF WETLANDS TO BE IMPACTED
2. SEE "WETLAND AVOIDANCE" NOTE ON SHEET 28A FOR AREAS AND STATIONING OF WETLANDS TO BE AVOIDED

HORIZONTAL SCALE IN FEET
0 100 200

CALCULATED MAK
CHECKED TLW

PROJECT SITE PLAN
STA. 665+00.00 TO STA. 691+00.00

MAH-80-0.97

185
1100

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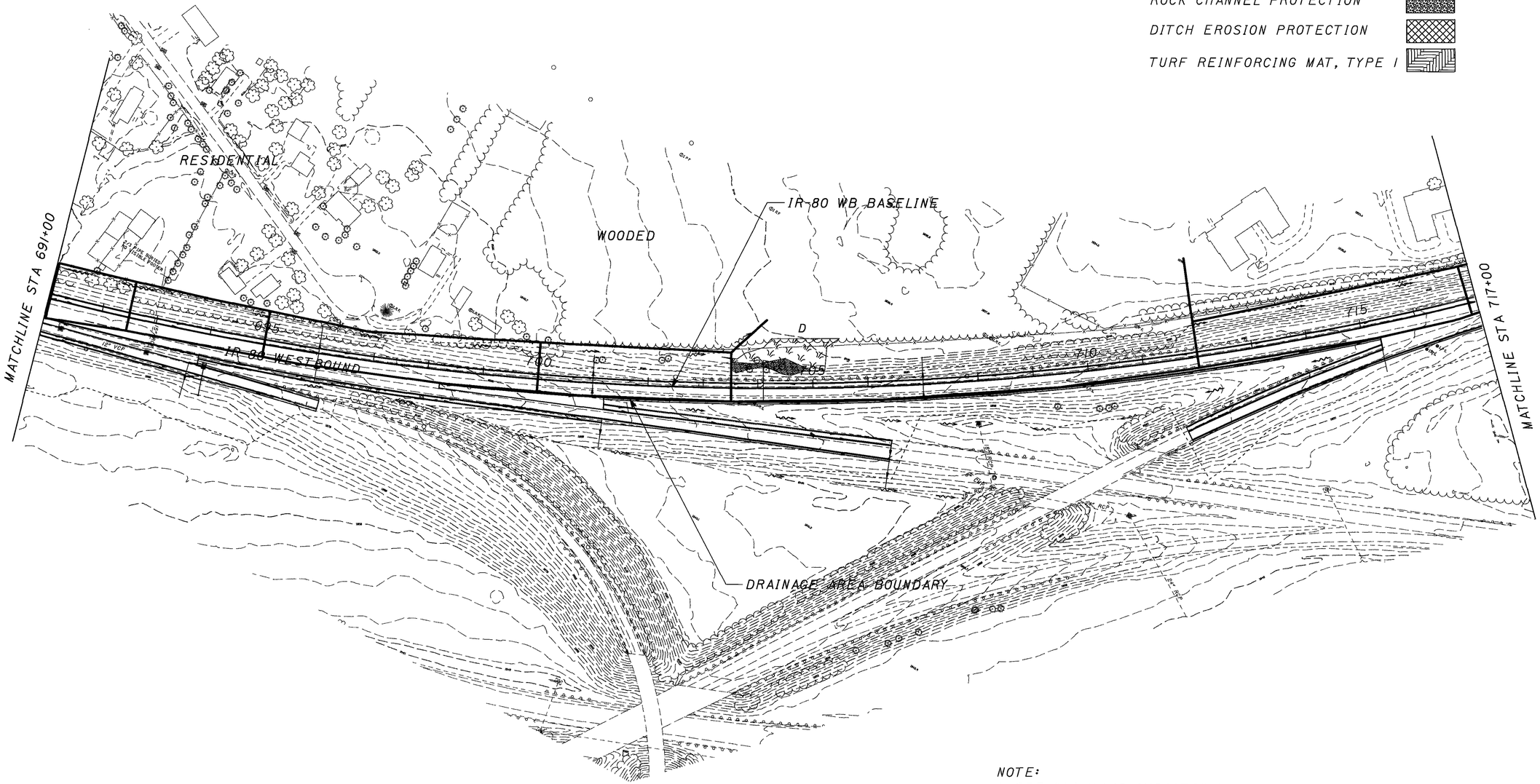
WETLANDS

WETLANDS TO BE IMPACTED

ROCK CHANNEL PROTECTION

DITCH EROSION PROTECTION

TURF REINFORCING MAT, TYPE I



NOTE:
1. SEE "WETLAND IMPACTS" NOTE ON SHEET 28A FOR AREAS AND STATIONING OF WETLANDS TO BE IMPACTED
2. SEE "WETLAND AVOIDANCE" NOTE ON SHEET 28A FOR AREAS AND STATIONING OF WETLANDS TO BE AVOIDED

HORIZONTAL SCALE IN FEET
0 100 200

CALCULATED MAK
CHECKED TLW

PROJECT SITE PLAN
STA. 691+00.00 TO STA. 717+00.00

MAH-80-0.97

186
1100

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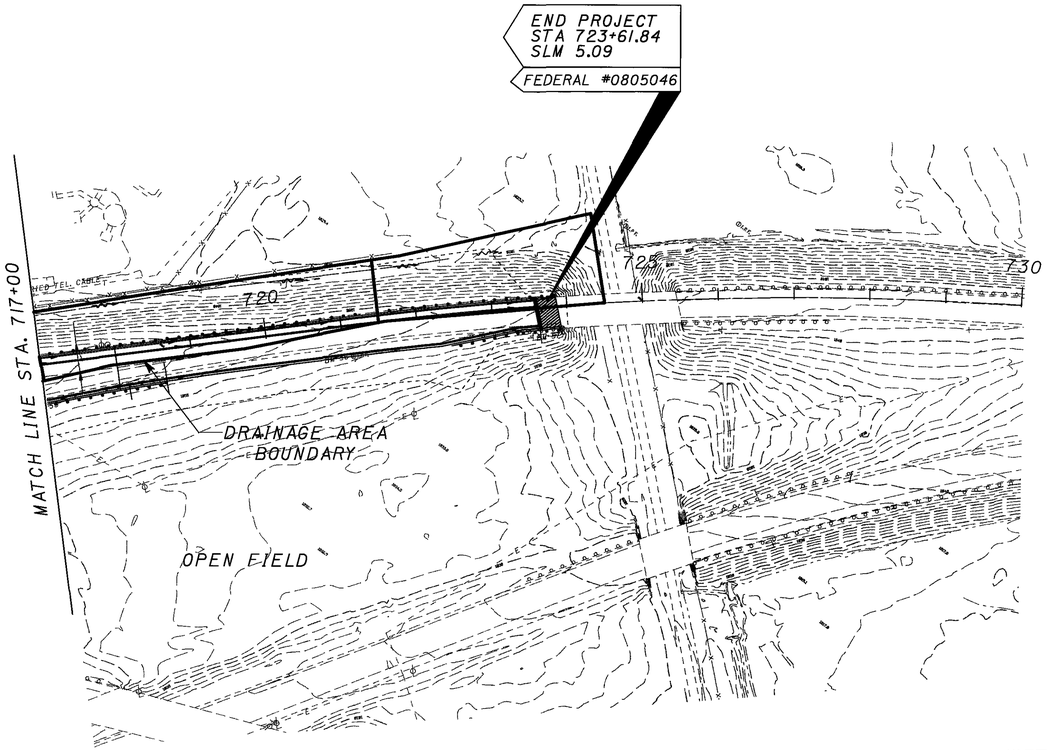

WETLANDS

WETLANDS TO BE IMPACTED

ROCK CHANNEL PROTECTION

DITCH EROSION PROTECTION

TURF REINFORCING MAT, TYPE I

NOTE:
1. SEE "WETLAND IMPACTS" NOTE ON SHEET 28A FOR AREAS AND STATIONING OF WETLANDS TO BE IMPACTED
2. SEE "WETLAND AVOIDANCE" NOTE ON SHEET 28A FOR AREAS AND STATIONING OF WETLANDS TO BE AVOIDED

N

0 100 200
HORIZONTAL SCALE IN FEET

CALCULATED MAK
CHECKED TLW

PROJECT SITE PLAN
STA. 717+00.00 TO STA. 723+87.12

MAH-80-0.97

187
1100

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SHEET NUMBER											ITEM	TOTAL	UNIT	DESCRIPTION
194	201	207	207A	213	213A	220	220A	224	227	793				
										1	202	1	EACH	HEADWALL REMOVED
				282		206		516	1355		202	2359	FT	CONCRETE BARRIER REMOVED
372		240		221		1090		159		679	202	2761	FT	PIPE REMOVED, 24" AND UNDER
						121					202	121	FT	PIPE REMOVED, OVER 24"
3068	453	1077		3655		4323		2247	984	924	202	16731	FT	GUARDRAIL REMOVED
2				3		5		2		2	202	14	EACH	CATCH BASIN REMOVED
4	3	7		1		1		1			202	17	EACH	CATCH BASIN ABANDONED
233	344	488		234		134		228			202	1661	FT	SPECIAL - FILL AND PLUG EXISTING CONDUIT
								229			202	229	FT	SPECIAL - PIPE CLEANOUT
									106		254	106	SQ YD	PAVEMENT PLANING, ASPHALT CONCRETE
54	49		61		155		195	144	105		448	763	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I, UNDER GUARDRAIL, PG64-22, AS PER PLAN
									6		448	6	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE I, PG64-22
	22	18									601	40	SQ YD	RIPRAP
41	6	13		16	84	2		2			601	164	CU YD	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER
1.5	4.5	7.5		1.5		0.3		0.7		1.5	602	17.5	CU YD	CONCRETE MASONRY
										442	603	442	FT	12" CONDUIT, TYPE B
										38	603	38	FT	12" CONDUIT, TYPE B , 706.02
										58	603	58	FT	12" CONDUIT, TYPE D
										72	603	72	FT	12" CONDUIT, TYPE D , 706.02
109		180		472		108		56			603	925	FT	15" CONDUIT, TYPE B
				13						225	603	238	FT	15" CONDUIT, TYPE C
										24	603	24	FT	15" CONDUIT, TYPE D , 706.02
		47		87		34					603	168	FT	15" CONDUIT, TYPE F, 707.05 TYPE C
123								116			603	239	FT	18" CONDUIT, TYPE B
		160									603	160	FT	18" CONDUIT, TYPE B , 706.02
240											603	240	FT	18" CONDUIT, TYPE B , 706.02 OR 707.42
						700					603	700	FT	18" CONDUIT, TYPE C
						700					603	700	FT	21" CONDUIT, TYPE C
						98					603	98	FT	24" CONDUIT, TYPE B
	143	422									603	565	FT	24" CONDUIT, TYPE B , 706.02
	232	105									603	337	FT	24" CONDUIT, TYPE B , 706.02 OR 707.42
	399										603	399	FT	24" CONDUIT, TYPE C , 706.02 OR 707.42
						103					603	103	FT	27" CONDUIT, TYPE C
	147	126									603	273	FT	30" CONDUIT, TYPE B , 706.02
	64										603	64	FT	36" CONDUIT, TYPE C , 706.02
		72									603	72	FT	42" CONDUIT, TYPE C , 706.02 OR 707.42
						18					603	18	FT	60" CONDUIT, TYPE B , 706.02
	8										604	8	EACH	CATCH BASIN, NO. 3
				2							604	2	EACH	CATCH BASIN, NO. 3A
3		2		4		2		1			604	12	EACH	CATCH BASIN, NO. 4
1		3				3					604	7	EACH	CATCH BASIN, NO. 8
						1					604	1	EACH	CATCH BASIN, NO. 8A
										2	604	2	EACH	CATCH BASIN, NO. 2-2A
								1			604	1	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE D
						4				2	604	6	EACH	MANHOLE, NO. 3
		1									604	1	EACH	MANHOLE RECONSTRUCTED TO GRADE
1750	1650		1756.25		4637.5		5818.75	4206.25	3193.75	1156.25	606	24168.75	FT	GUARDRAIL, TYPE 5
					213						606	213	FT	GUARDRAIL, BARRIER DESIGN, TYPE 5
2	4		2								606	8	EACH	ANCHOR ASSEMBLY, TYPE B-98
2	4		6		5		8	7	3	4	606	39	EACH	ANCHOR ASSEMBLY, TYPE E-98
6	3		5		7		6	7	1	6	606	41	EACH	ANCHOR ASSEMBLY, TYPE T
5	6		5		5		4	3		12	606	40	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE I
3	2		3		4		3		2		606	17	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 2
					2						606	2	EACH	IMPACT ATTENUATOR, TYPE I-98 (BIDIRECTIONAL)
	309										609	309	FT	CURB, TYPE 2-A
				42							609	42	FT	COMBINATION CURB AND GUTTER, TYPE 4
2000	2609	2550		20		298		315		1002	622	8794	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D
				1		7		2		12	622	22	EACH	CONCRETE BARRIER END SECTION, TYPE D
40	32		42		72		82	58	39	35	626	400	EACH	BARRIER REFLECTOR, TYPE A
22	32	28		3		12		6		18	626	121	EACH	BARRIER REFLECTOR, TYPE B
3284	1013		3907		7669		2826	417	667		670	19783	SQ YD	DITCH EROSION PROTECTION

QUANTITIES CARRIED TO GENERAL SUMMARY

CALCULATED SSC CHECKED AJP

ROADWAY SUBSUMMARY

MAH-80-0.97

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BEGIN WORK
STA. 465+50.00

BEGIN PROJECT
℄ IR-80
STA. 483+50.00

EX LA-R/W

EX IR-80 WB

EX IR-80 EB

℄ CONSTRUCTION IR-80

N 82° 15′ 57″ E

FELIX TESNER AND
LOUISE TESNER, CO-TRUSTEES

BEGIN LANE/SHOULDER TAPER
MATCH EX PAVEMENT
10′ +50 42′ LT & RT

CONST LIMITS

END SHOULDER TAPER
+50

70:1 TAPER

MATCH LINE STA 487+50

+20

+43

7.5′

36′ 12′ 4′ 42′ 7′ 12′ 24′ 10′

U1 U2 U3 U4 U5 U6 U7 U8 E1

475 476 477 478 479 480 481 482 483 484 485 486 487

CURVE 11 (℄ RAMP A)
P.I. Sta = 7+40.91
Δ = 30° 31′ 51″ (RT)
Dc = 8° 00′ 00″
R = 716.20′
T = 195.46′
L = 381.63′
E = 26.19′
e_{max} = 0.083

PC STA 5+45.45

℄ RAMP A

CURVE 11

RAMP A

EX LA-R/W

DITCH EROSION PROTECTION

TURF REINFORCING MAT, TYPE I

ROCK CHANNEL PROTECTION

FOR UNDERDRAIN QUANTITIES, SEE SHEET 172
FOR ESTIMATED QUANTITIES, SEE SHEET 194

980 970 960 950 940 930 920

EX GROUND AT WB PGL

PROFILE GRADE

-0.50 %

-0.60 %

+50
MATCH EX PAVEMENT

963.04 962.74 962.44 962.14 961.84 961.54 961.24 960.93 960.53

966.45 968.15 967.96 967.62 967.41 966.82 966.37 966.21 965.68 965.56 965.31 965.04 964.59 964.00 963.65 963.64 963.35 963.04 962.76 962.60 962.58 962.18 961.42 961.10 960.56 960.44

475 476 477 478 479 480 481 482 483 484 485 486 487

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PLAN AND PROFILE
STA 483+50 TO STA 487+50

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED PRS
CHECKED SSC

MAH-80-0.97

189
1100

FELIX TESNER AND
LOUISE TESNER, CO-TRUSTEES

FELIX TESNER AND
LOUISE TESNER
CO-TRUSTEES

EX LA-R/W

℄ CONSTRUCTION IR-80

END LANE TAPER

70:1 TAPER

BRIDGE TERMINAL
ASSEMBLY, TYPE 2

ROCK CHANNEL PROTECTION
TYPE C, W/FILTER
76'X7.5'X1.5'

TYPE T
ANCHOR
ASSEMBLY

EX R/W

℄ CONST. LIPKEY ROAD

TYPE E-98 THE MAHONING VALLEY
ANCHOR SANITARY DISTRICT
ASSEMBLY

TYPE B-98
ANCHOR
ASSEMBLY

ACCESS
RAMP A

LA-R/W

NW-E

CONST LIMITS

EX. FENCE

EX LA-R/W

MATCH LINE STA 487+50

MATCH LINE STA 501+00

N 82°15'57" E

N 80°43'44" E

N 1° 27' 36" W

48:1 TAPER

CURVE I

℄ RAMP A

EX. FENCE

GUARDRAIL
SPLICE

SW-BB

SW-AA

CONST LIMITS

EX LA-R/W

UE/UT

BEGIN WORK
℄ RAMP A
STA. 7+75.00

CURVE II

℄ STA 488+18.32 IR-80, 89' RT
℄ STA 8+21.23 RAMP A, 21' LT
BEGIN RAMP TAPER

℄ STA 492+27.08 IR-80, 91' RT.
℄ STA 12+27.08 RAMP A
END/BEGIN RAMP TAPER

TYPE B-98
ANCHOR
ASSEMBLY
℄

BRIDGE TERMINAL
ASSEMBLY, TYPE 1
(UNLESS OTHERWISE
NOTED)

℄ STA 495+76.04 IR-80
℄ STA 50+00.00 LIPKEY ROAD

CHRISTOPHER D. SMITH

ACCESS
RAMP B

BRIDGE TERMINAL
ASSEMBLY, TYPE 2

TYPE T
ANCHOR
ASSEMBLY

PC ℄ EB STA 497+85.96
℄ IR-80 STA 497+85.96
30' RT

℄ CONST. IR-80 EB

LA-R/W

BEGIN BARRIER
+00, 105' RT.

TYPE D BARRIER

EX. FENCE

EX LA-R/W

EX R/W

CB4

CB8

CB

UG. ELEC.

E.P.S.

I.R.S.

CURVE II (℄ RAMP A)
P.I. Sta = 7+40.91
Δ = 30° 31' 51" (RT)
Dc = 8° 00' 00"
R = 716.20'
T = 195.46'
L = 381.63'
E = 26.19'
e_{max} = 0.083

CURVE I (℄ IR-80 EB)
P.I. Sta = 500+48.20
Δ = 5° 14' 28" (RT)
Dc = 1° 00' 00"
R = 5,729.58'
T = 262.24'
L = 524.12'
E = 6.00'
e_{max} = 0.036

DITCH EROSION PROTECTION

TURF REINFORCING MAT, TYPE I

ROCK CHANNEL PROTECTION

WETLANDS TO BE IMPACTED

WETLANDS

FOR LIPKEY ROAD DETAILS, SEE SHEET 780
FOR RAMP DETAILS, SEE SHEET 815
FOR BRIDGE DETAILS, SEE SHEETS 916 TO 937
FOR RAMP PROFILE, SEE SHEET 228
FOR CROSSOVER DETAIL, SEE SHEETS 822 AND 824
FOR CULVERT DETAIL, SEE SHEET 863
FOR DRAINAGE DETAILS, SEE SHEETS 246, 254, 260, 270
FOR UNDERDRAIN QUANTITIES, SEE SHEET 172
FOR PROFILE, SEE SHEET 191
FOR ESTIMATED QUANTITIES, SEE SHEET 194
FOR ACCESS RAMP DETAILS, SEE SHEET 231A

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HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED PRS
CHECKED SSC

PLAN
STA 487+50 TO STA 501+00

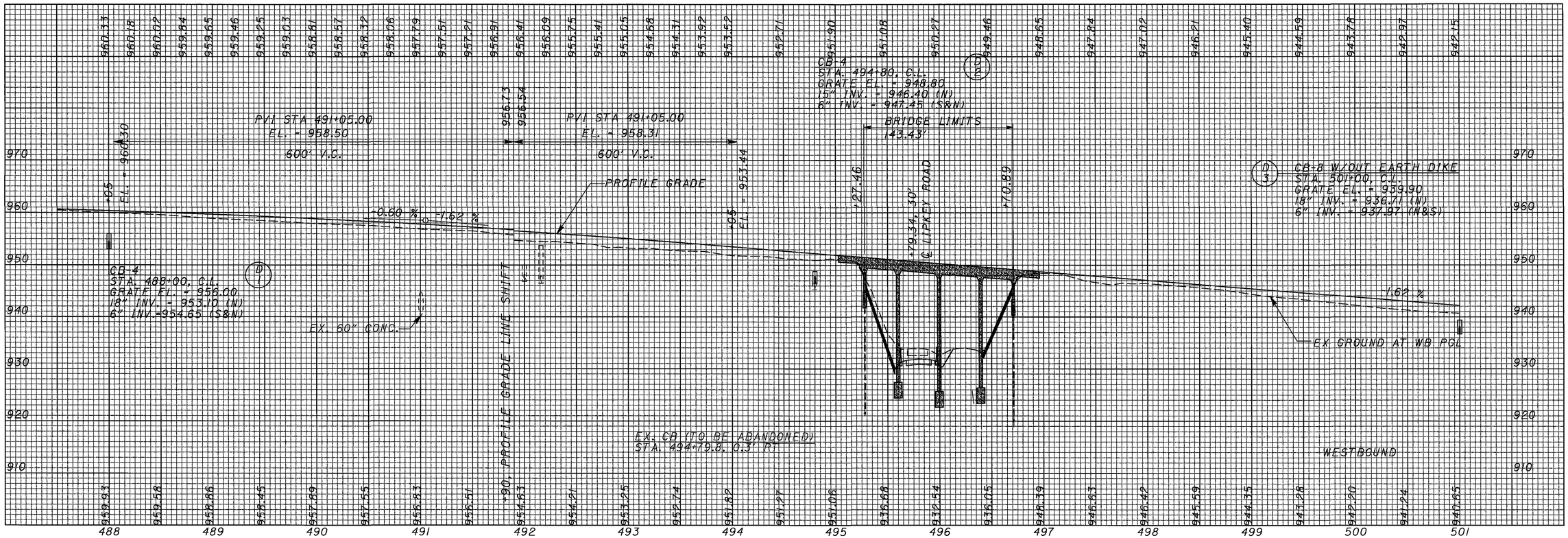
MAH-80-0.97

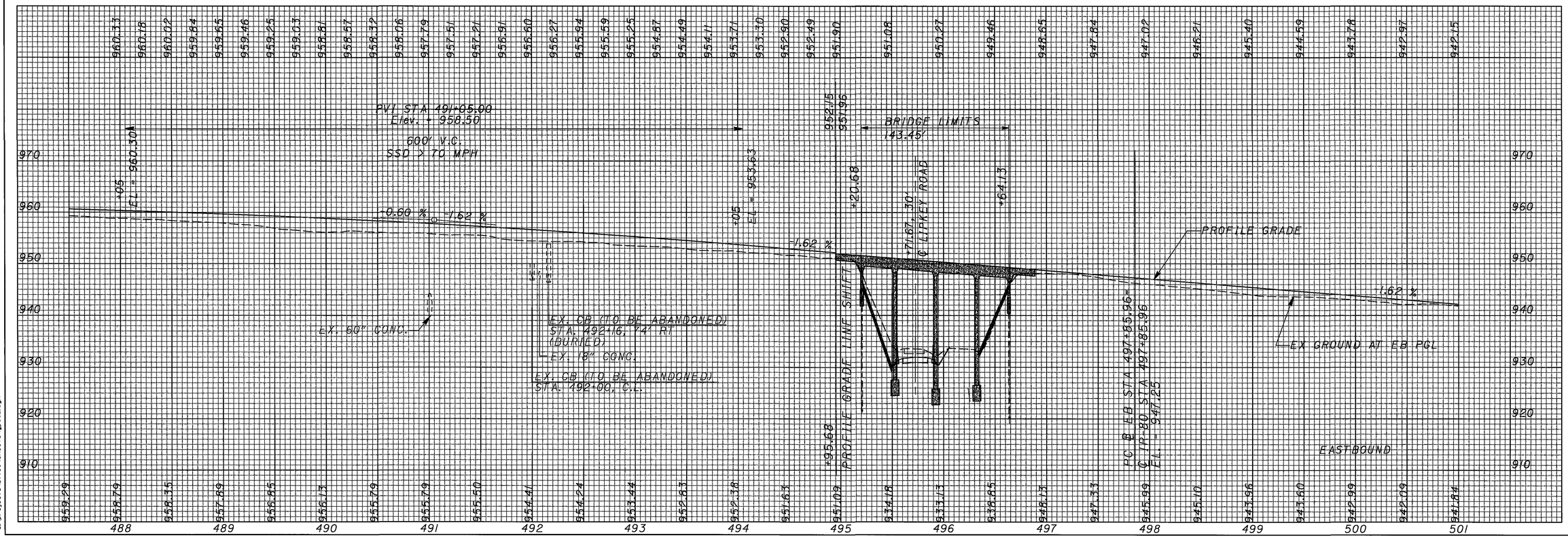
190
1100

PROFILE
STA 487+50 TO STA 501+00
MAH-80-0.97

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED PRS
CHECKED SSC





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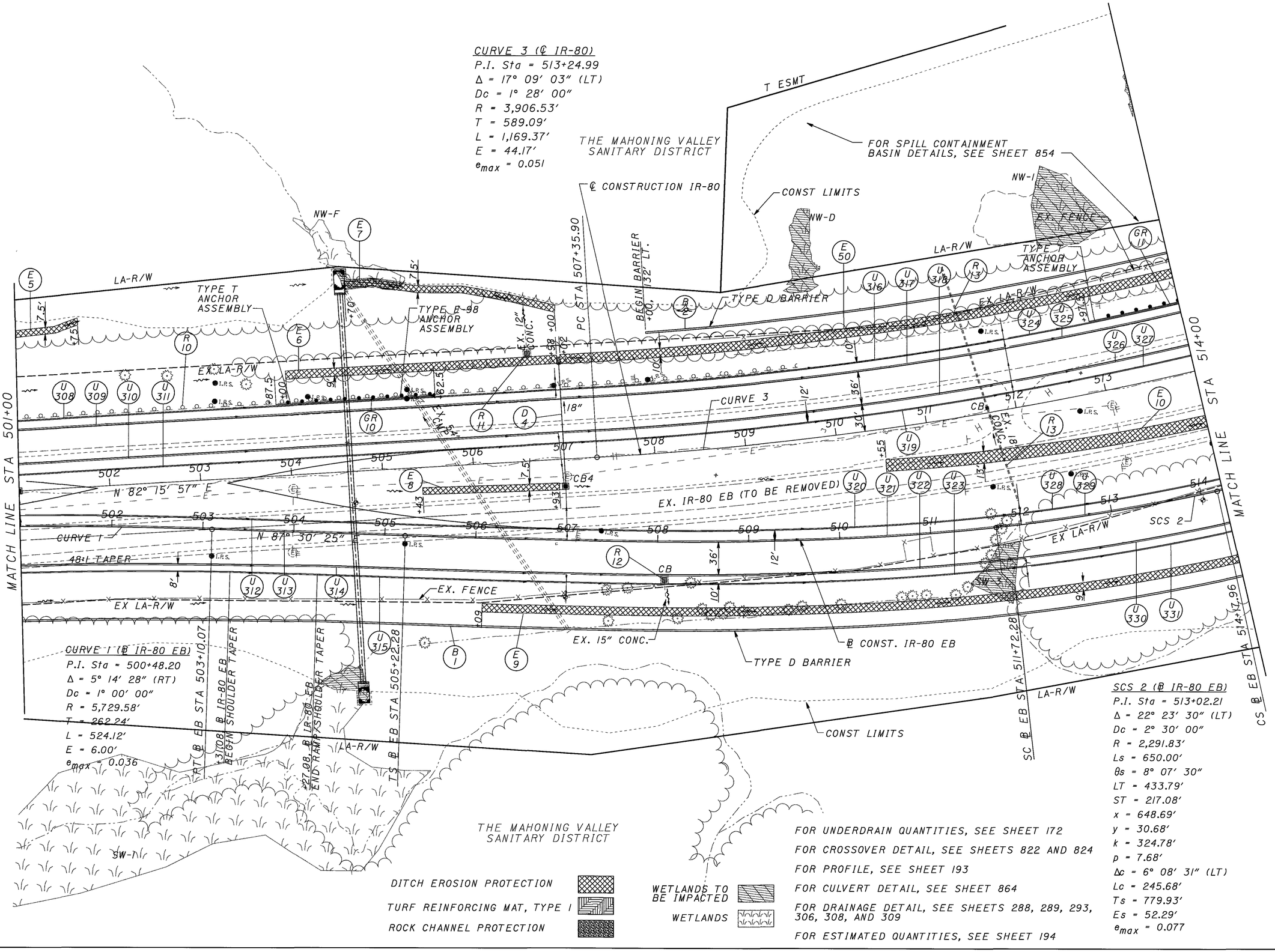
191
1100


CURVE 3 (℄ IR-80)
P.I. Sta = 513+24.99
Δ = 17° 09′ 03″ (LT)
Dc = 1° 28′ 00″
R = 3,906.53′
T = 589.09′
L = 1,169.37′
E = 44.17′
emax = 0.051
THE MAHONING VALLEY SANITARY DISTRICT
T ESMT
FOR SPILL CONTAINMENT BASIN DETAILS, SEE SHEET 854
℄ CONSTRUCTION IR-80
CONST LIMITS
NW-I
NW-D
NW-F
EX. FENCE
LA-R/W
TYPE T ANCHOR ASSEMBLY
TYPE B-98 ANCHOR ASSEMBLY
TYPE I ANCHOR ASSEMBLY
TYPE D BARRIER
EX LA-R/W
PC STA 507+35.90
BEGIN BARRIER 32′ LT. +00.
EX. 15" CONC.
EX. 18" CONC.
CURVE 3
CURVE 1
48:1 TAPER
N 82° 15′ 57" E
N 87° 30′ 25" E
EX. IR-80 EB (TO BE REMOVED)
℄ CONST. IR-80 EB
EX. 15" CONC.
TYPE D BARRIER
CONST LIMITS
EX LA-R/W
SCS 2
CB
CB4
I.R.S.
MATCH LINE STA 501+00
MATCH LINE STA 514+00
CURVE 1 (℄ IR-80 EB)
P.I. Sta = 500+48.20
Δ = 5° 14′ 28" (RT)
Dc = 1° 00′ 00"
R = 5,729.58′
T = 262.24′
L = 524.12′
E = 6.00′
emax = 0.036
℄ EB STA 503+10.07
3108 ℄ IR-80 EB BEGIN SHOULDER TAPER
2708 ℄ IR-80 EB END RAMP SHOULDER TAPER
℄ EB STA 505+22.28
SC ℄ EB STA 511+72.28
CS ℄ EB STA 514+16.96
SCS 2 (℄ IR-80 EB)
P.I. Sta = 513+02.21
Δ = 22° 23′ 30" (LT)
Dc = 2° 30′ 00"
R = 2,291.83′
Ls = 650.00′
θs = 8° 07′ 30"
LT = 433.79′
ST = 217.08′
x = 648.69′
y = 30.68′
k = 324.78′
p = 7.68′
Δc = 6° 08′ 31" (LT)
Lc = 245.68′
Ts = 779.93′
Es = 52.29′
emax = 0.077
THE MAHONING VALLEY SANITARY DISTRICT
DITCH EROSION PROTECTION
TURF REINFORCING MAT, TYPE I
ROCK CHANNEL PROTECTION
WETLANDS TO BE IMPACTED
WETLANDS
FOR UNDERDRAIN QUANTITIES, SEE SHEET 172
FOR CROSSOVER DETAIL, SEE SHEETS 822 AND 824
FOR PROFILE, SEE SHEET 193
FOR CULVERT DETAIL, SEE SHEET 864
FOR DRAINAGE DETAIL, SEE SHEETS 288, 289, 293, 306, 308, AND 309
FOR ESTIMATED QUANTITIES, SEE SHEET 194
HORIZONTAL SCALE IN FEET
0 25 50 100
CALCULATED PRS
CHECKED SSC
PLAN
501+00 TO STA 514+00
MAH-80-0.97
192
1100
7/26/2005 9:06:35 AM
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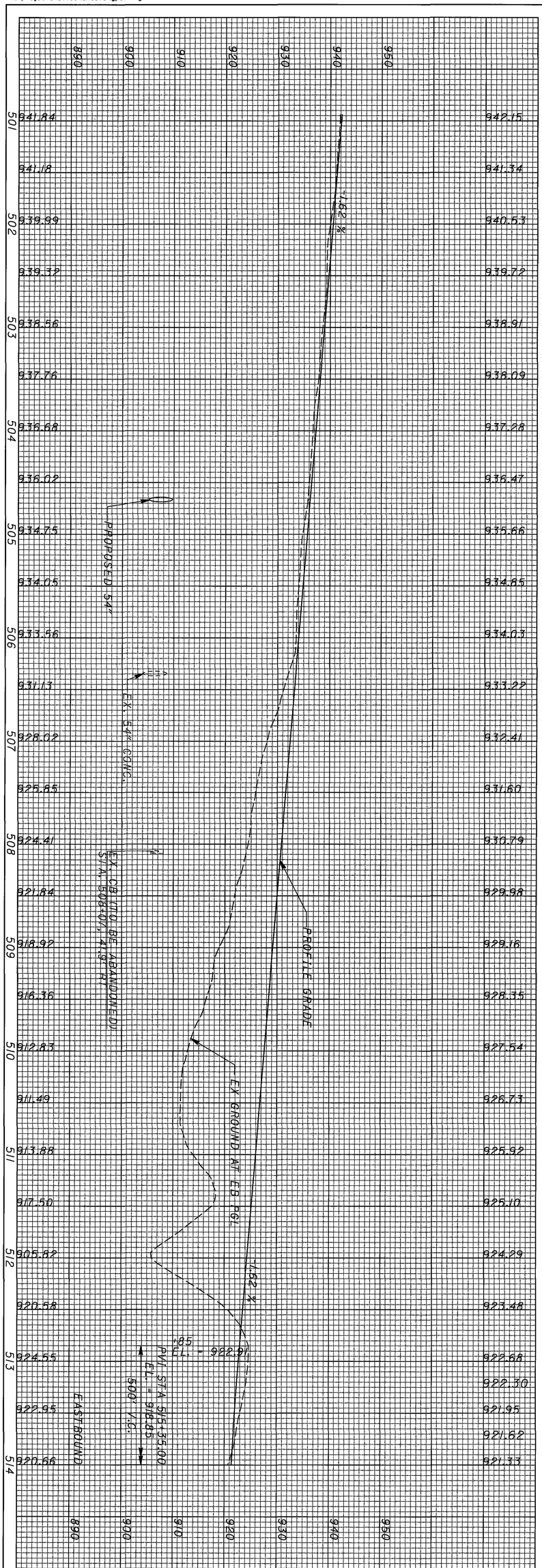

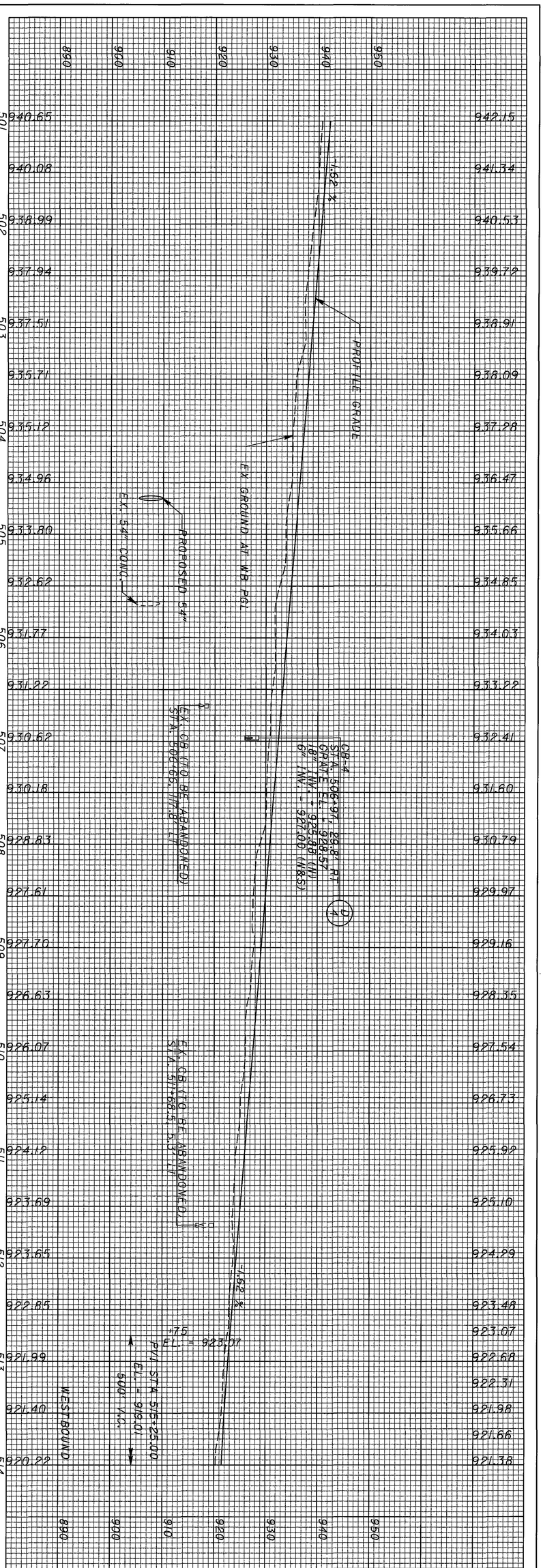

1100 / 193	MAH-80-0.97	PROFILE STA 501+00 TO STA 514+00	CALCULATED PRS CHECKED SSC	0 50 25 100 HORIZONTAL SCALE IN FEET

REF NO.	SHEET NO.	STATION FROM		STATION TO		SIDE	202 PIPE REMOVED, 24" AND UNDER	202 GUARDRAIL REMOVED	202 CATCH BASIN REMOVED	202 CATCH BASIN ABANDONED	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT	448 2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I, UNDER GUARDRAIL, PG64-22, AS PER PLAN	601 ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	602 CONCRETE MASONRY	603 15" CONDUIT, TYPE B	603 18" CONDUIT, TYPE B	603 18" CONDUIT, TYPE B, 706.02 OR 707.42	604 CATCH BASIN, NO. 4	604 CATCH BASIN, NO. 8	606 GUARDRAIL, TYPE 5	606 ANCHOR ASSEMBLY, TYPE B-98	606 ANCHOR ASSEMBLY, TYPE E-98	606 ANCHOR ASSEMBLY, TYPE T	606 BRIDGE TERMINAL ASSEMBLY, TYPE I	606 BRIDGE TERMINAL ASSEMBLY, TYPE 2		622 CONCRETE BARRIER, SINGLE SLOPE, TYPE D	626 BARRIER REFLECTOR, TYPE A	626 BARRIER REFLECTOR, TYPE B	670 DITCH EROSION PROTECTION
							FT	FT	EACH	EACH	FT	CU YD	CU YD	CU YD	FT	FT	FT	EACH	EACH	FT	EACH	EACH	EACH	EACH	EACH		FT	EACH	EACH	SQ YD
B1	190,192	BL	500+00.00	BL	514+00.00	RT																					1400		15	
B2	192	CL	508+00.00	CL	514+00.00	LT																					600		7	
D1	190	CL	488+00.00			CL/LT							3.2	0.4		123		1												
D2	190	CL	494+80.00			CL/LT							1.4	0.3	109			1												
D3	190	CL	501+00.00			CL/LT							1.8	0.4			105		1											
D4	192	CL	507+00.00			CL/LT							1.8	0.4			135	1												
E1	189,190	CL	486+43.00	CL	487+93.00	CL																								125
E2	190	CL	493+23.00	CL	494+73.00	CL																								125
E3	190	CL	494+82.00	CL	495+60.00	LT							32.5																	
E4	190	CL	499+43.00	CL	500+93.00	CL																								125
E5	190,192	CL	499+00.00	CL	501+75.00	LT																								229.2
E6	192	CL	504+00.00	CL	506+98.00	LT																								298
E7	192	CL	504+70.00	CL	507+00.00	LT																								191.7
E8	192	CL	505+43.00	CL	506+93.00	CL																								125
E9	192	BL	506+09.00	BL	514+00.00	RT																								791
E10	192	CL	510+55.00	CL	514+00.00	CL																								498.4
E50	192	CL	507+02.00	CL	514+00.00	LT																								775.6
GR1	NOT		USED																											
GR2	190	CL	494+34.70	CL	495+34.70	LT						3.1								87.5			1		1			3		
GR3	190	CL	488+00.00	CL	495+15.80	RT						22.1								718.75				1				9		
GR4	190	CL	493+18.10	CL	495+24.30	CL						2.5								168.75	1			1				4		
GR5	190	CL	494+34.30	CL	495+28.10	CL						2.9								81.25			1	1				3		
GR6	190	CL	496+73.90	CL	499+92.70	LT						9.8								268.75		1		1				5		
GR7	190	CL	496+67.30	CL	498+73.60	CL						2.4								168.75	1			1				4		
GR8	190	CL	496+63.70	CL	497+01.20	CL						1								25			1		1			3		
GR9	190	CL	496+55.30	CL	496+92.80	RT						1								25			1		1			3		
GR10	192	CL	503+87.50	CL	505+62.50	LT						5.4								112.5		1	1					3		
GR11	192	CL	512+97.50	CL	514+00.00	LT						3.2								93.75			1					3		
R1	190	CL	490+50.00	CL	495+35.00	LT		485																						
R2	190	CL	488+00.00	CL	495+16.00	RT		716																						
R3	190	CL	492+00.00	CL	492+16.00	CL				1	72																			
R4	190	CL	492+16.00	CL	492+30.00	CL				1	62																			
R5	190	CL	492+75.00	CL	495+24.00	CL		249																						
R6	190	CL	494+49.00	CL	495+28.00	CL		79																						
R7	190	CL	496+74.00	CL	501+00.00	LT		426																						
R8	190	CL	496+67.00	CL	499+14.00	CL		247																						
R9	190	CL	494+80.00			CL/LT	103		1																					
R10	192	CL	501+00.00	CL	509+66.00	LT		866																						
R11	192	CL	506+66.00			LT				1	55																			
R12	192	BL	508+07.00	BL	508+11.00	RT				1	44																			
R13	192	CL	511+42.70	CL	512+00.00	CL/LT	269		1																					
SUBTOTAL							372	3068	2	4	233	53.4	40.7	1.5	109	123	240	3	1	1750	2	2	6	5	3		2000	40	22	3283.9
TOTALS CARRIED TO SUBSUMMARY ON SHEET 188							372	3068	2	4	233	54	41	1.5	109	123	240	3	1	1750	2	2	6	5	3		2000	40	22	3284

MAINLINE QUANTITIES
STA. 483+50 TO 514+00

CALCULATED SSC
CHECKED AJP

MAH-80-0.97

194
1100

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MEANDER CREEK RESERVOIR

FOR SPILL CONTAINMENT BASIN DETAILS, SEE SHEET 854

NW-2

THE MAHONING VALLEY SANITARY DISTRICT

CONST. LIMITS

TYPE D BARRIER

TYPE T ANCHOR ASSEMBLY

BRIDGE TERMINAL ASSEMBLY, TYPE 2

℄ CONSTRUCTION IR-80

CONST LIMITS

NW-C

NW-A

EX LA-R/W

R/W

EX AERIAL

TYPE E-98 ANCHOR ASSEMBLY

BEGIN CURB +57.13 LT

BEGIN CURB +20.92, LT

END CURB +9.92, LT

PT STA 519+05.27

CB3

CB EX. 18" CONC.

EX. 18" CONC.

CB

TYPE B-98 ANCHOR ASSEMBLY

~~EX. IR-80 EB (TO BE REMOVED)~~

BEGIN CURB +59.82, RT

BEGIN CURB +00.92, LT

END CURB +35.92, LT

CURVE 3

SCS 2

EX LA-R/W

TYPE E-98 ANCHOR ASSEMBLY

SW-A

TYPE D BARRIER

BEGIN CURB +08.92, RT

END BARRIER +42.96 RT.

ST ℄ EB STA 520+67.96

℄ CONST. IR-80 EB

LA-R/W

BRIDGE TERMINAL ASSEMBLY, TYPE 1 W/ DOUBLE BLOCKOUT AT CB3 INLETS (TYP UNLESS OTHERWISE NOTED)

N 65° 06′ 55″ E

CONST LIMITS

R/W

THE MAHONING VALLEY SANITARY DISTRICT

MEANDER CREEK RESERVOIR

MATCH LINE STA 514+00

MATCH LINE STA 527+00

SCS 2 (℄ IR-80 EB)

P.I. Sta = 513+02.21
Δ = 22° 23′ 30″ (LT)
Dc = 2° 30′ 00″
R = 2,291.83′
Ls = 650.00′
θs = 8° 07′ 30″
LT = 433.79′
ST = 217.08′
x = 648.69′
y = 30.68′
k = 324.78′
p = 7.68′
Δc = 6° 08′ 31″ (LT)
Lc = 245.68′
Ts = 779.93′
Es = 52.29′
e_{max} = 0.077

CURVE 3 (℄ IR-80)

P.I. Sta = 513+24.99
Δ = 17° 09′ 03″ (LT)
Dc = 1° 28′ 00″
R = 3,906.53′
T = 589.09′
L = 1,169.37′
E = 44.17′
e_{max} = 0.051

MEANDER CREEK RESERVOIR

DITCH EROSION PROTECTION
TURF REINFORCING MAT, TYPE 1
ROCK CHANNEL PROTECTION

WETLANDS TO BE IMPACTED
WETLANDS

FOR BRIDGE DETAILS, SEE SHEETS 938 TO 986

FOR DRAINAGE DETAILS, SEE SHEETS 326, 327, 332, 336, 338, 340, AND 341

FOR UNDERDRAIN QUANTITIES, SEE SHEETS 172 AND 173

FOR PROFILE, SEE SHEET 196

FOR ESTIMATED QUANTITIES, SEE SHEET 201

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED PRS
CHECKED SSC

PLAN
STA 514+00 TO STA 527+00

MAH-80-0.97

195
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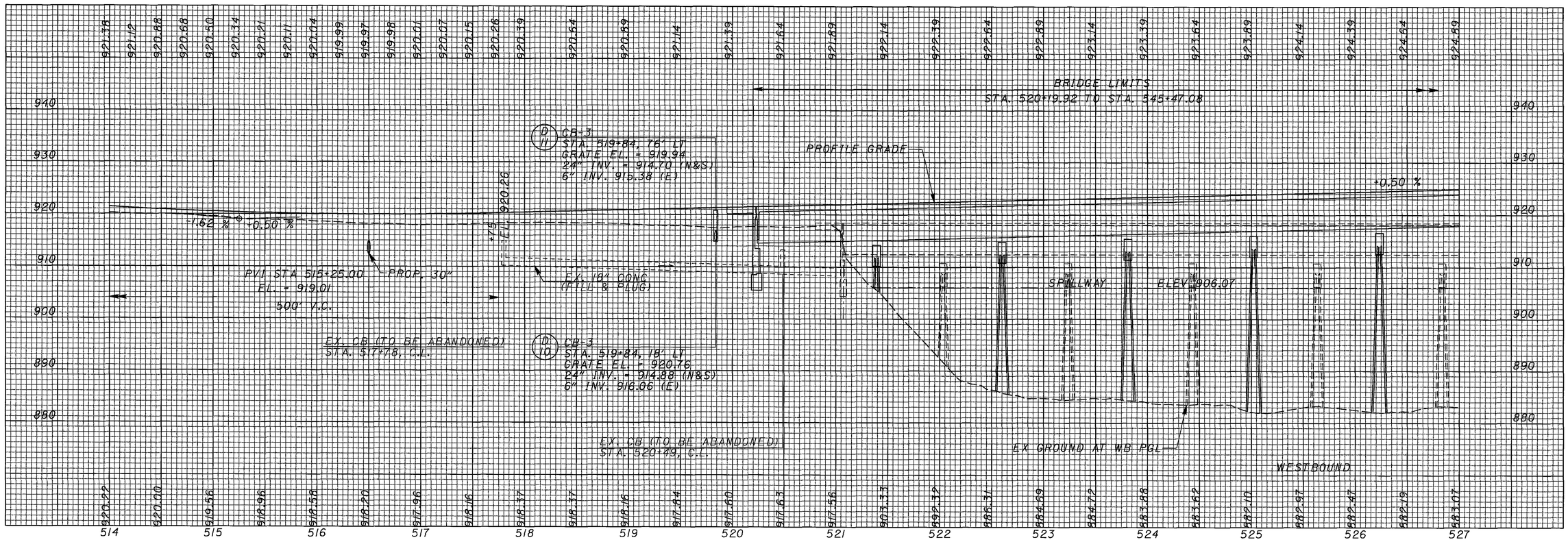
BRIDGE LIMITS
STA. 520+19.92 TO STA. 545+47.08
PROFILE GRADE
+0.50 %
-1.62 %
+0.50 %
PVI STA 515+25.00
EL. = 919.01
500' V.C.
PROP. 30"
EX. 18" CONC (FILL & PLUG)
EX. CB (TO BE ABANDONED)
STA. 517+78, C.L.
EX. CB (TO BE ABANDONED)
STA. 520+19, C.L.
CB-3
STA. 519+84, 76' LT
GRATE EL. = 919.94
24" INV. = 914.70 (N&S)
6" INV. 915.38 (E)
CB-3
STA. 519+84, 18' LT
GRATE EL. = 920.76
24" INV. = 914.88 (N&S)
6" INV. 916.06 (E)
SPILLWAY
ELEV 906.07
EX GROUND AT WB PGL
WESTBOUND
BRIDGE LIMITS
STA. 520+60.92 TO STA. 545+88.08
PROFILE GRADE
+0.50 %
-1.62 %
+0.50 %
PVI STA 515+35.00
EL. = 918.85
500' V.C.
PROP. 24"
CB-3
STA. 520+25, 12' LT
GRATE EL. = 920.76
24" INV. = 915.28 (N&S)
6" INV. 916.05 (E)
CB-3
STA. 520+25, 46' RT
GRATE EL. = 921.19
24" INV. = 915.46 (N&S)
6" INV. 916.34 (E)
SPILLWAY
ELEV 906.07
EX GROUND AT EB PGL
EASTBOUND
HORIZONTAL SCALE IN FEET
0 25 50 100
CALCULATED
CHECKED SSC
PROFILE
STA 514+00 TO STA 527+00
MAH-80-0.97
196
1100
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THE MAHONING VALLEY SANITARY DISTRICT

CONST LIMITS

℄ R/W & CONSTRUCTION IR-80

R/W

R/W

EX AERIAL

EX AERIAL

MATCH LINE STA 527+00

MATCH LINE STA 540+00

528 529 530 531 532 533 534 535 536 537 538 539

N 65°06'55" E

130'

EX IR-80 EB (TO BE REMOVED)

EX AERIAL

EX AERIAL

528 529 530 531 532 533 534 535 536 537 538 539 540

N 65°06'55" E

℄ CONST. IR-80 EB

R/W

R/W

CONST LIMITS

THE CONTRACTOR SHALL AVOID ANY DISTURBANCE TO THIS EXISTING WETLAND AREA

SEE 11

THE MAHONING VALLEY SANITARY DISTRICT

MEANDER CREEK RESERVOIR

WETLANDS

FOR PROFILE, SEE SHEET 198

FOR BRIDGE DETAILS, SEE SHEETS 938 TO 986

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED PRS
CHECKED SSC

PLAN
STA 527+00 TO STA 540+00

MAH-80-0.97

197
1100

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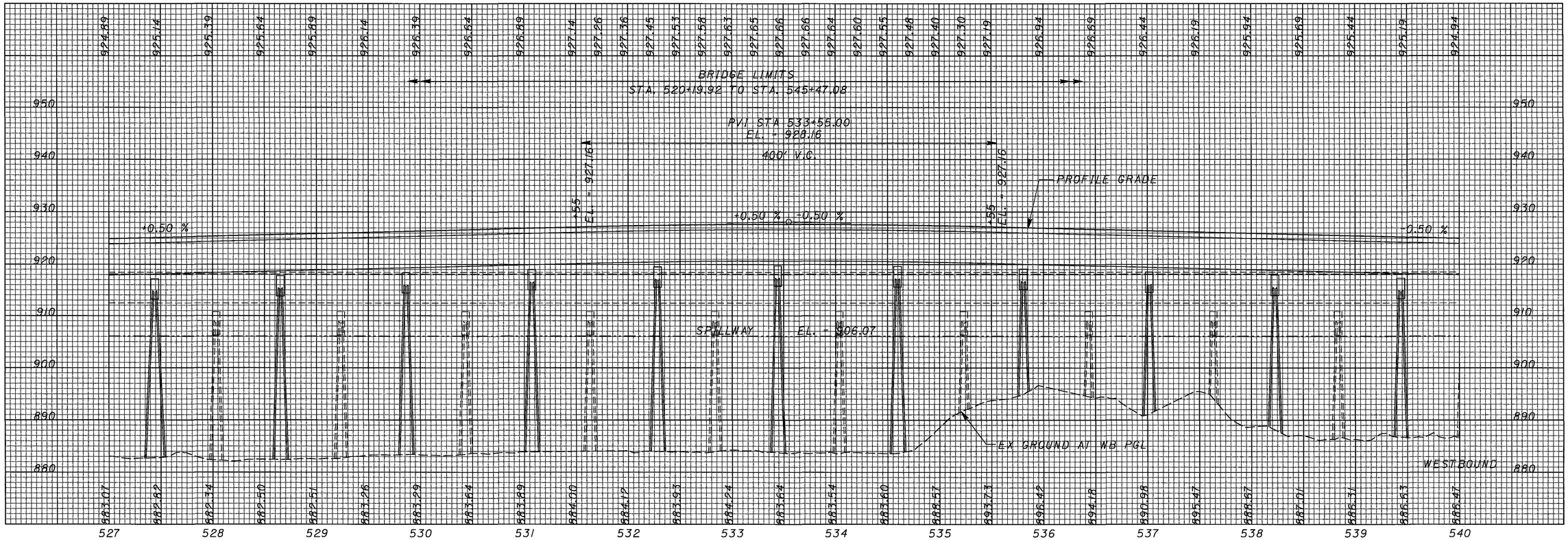

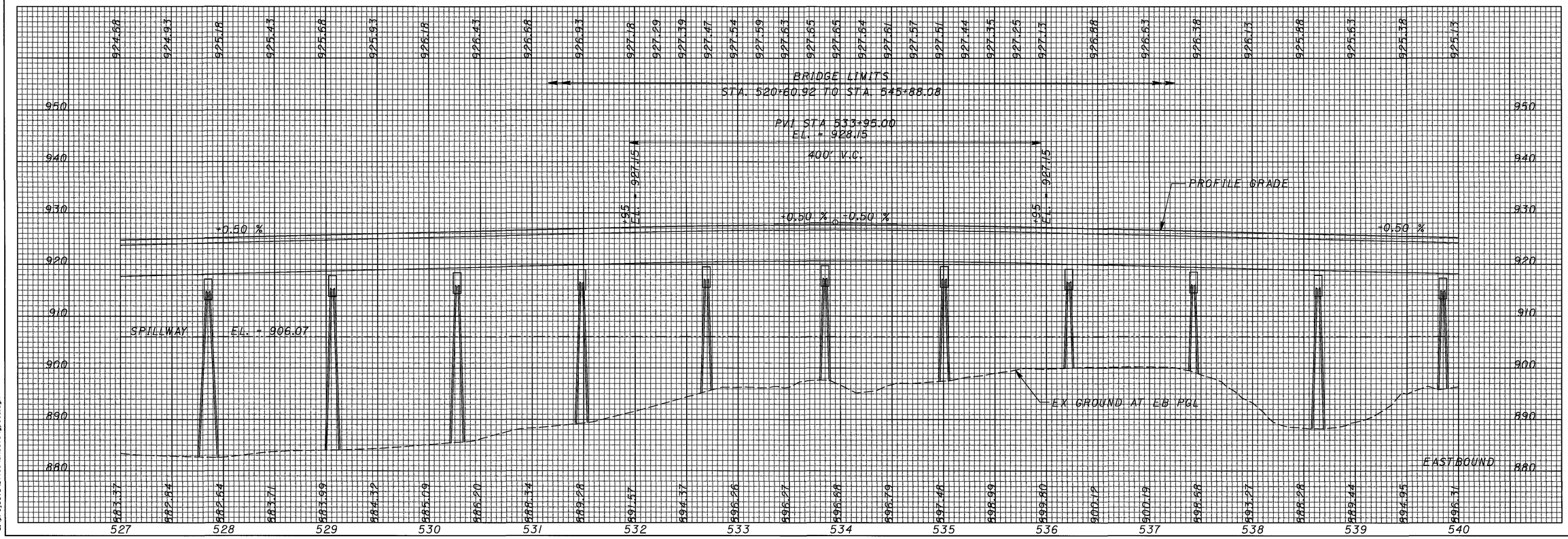

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED PHS
CHECKED SSC

PROFILE
STA 527+00 TO STA 540+00

MAH-80-0.97

198
1100

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THE MAHONING VALLEY SANITARY DISTRICT

MEANDER CREEK RESERVOIR

BRIDGE TERMINAL ASSEMBLY, TYPE 1 W/ DOUBLE BLOCKOUT AT CB3 INLETS (TYP UNLESS OTHERWISE NOTED)

CONST LIMITS

LA-R/W

TYPE E-98 ANCHOR ASSEMBLY

TYPE D BARRIER

EX LA-R/W

BEGIN BARRIER +71.126' LT.

℄ CONSTRUCTION IR-80

R/W

EX AERIAL

EX. IR-80 EB (TO BE REMOVED)

EX. 12" CMP

EX. FENCE

TYPE B-98 ANCHOR ASSEMBLY

TYPE T ANCHOR ASSEMBLY

CURVE 5

CURVE 4

PC STA 551+95.00

PT STA 549+47.97

N 65° 06' 55" E

MATCH LINE STA 540+00

MATCH LINE STA 553+00

BEGIN CURB +13.08, LT & RT

END CURB +56.08, RT

BEGIN CURB & RT +72.08, LT & RT

END CURB +45.08 LT

THE CONTRACTOR SHALL AVOID ANY DISTURBANCE TO THIS EXISTING WETLAND AREA

CONST LIMITS

BRIDGE TERMINAL ASSEMBLY, TYPE 2

BEGIN BARRIER +19.105' RT.

END CURB +56.08, RT

℄ CONST. IR-80 EB

SE-A

LA-R/W

MEANDER CREEK RESERVOIR

THE MAHONING VALLEY SANITARY DISTRICT

WETLANDS TO BE IMPACTED

WETLANDS

MEANDER CREEK RESERVOIR

CURVE 5 (℄ IR-80)
P.I. Sta = 555+85.98
Δ = 3° 54' 30" (LT)
Dc = 0° 30' 00"
R = 11,459.16'
T = 390.98'
L = 781.66'
E = 6.67'
e_{max} = 0.019

CURVE 4 (℄ IR-80 EB)
P.I. Sta = 553+38.67
Δ = 7° 48' 07" (LT)
Dc = 1° 00' 00"
R = 5,729.58'
T = 390.70'
L = 780.20'
E = 13.31'
e_{max} = 0.036

FOR ESTIMATED QUANTITIES, SEE SHEET 201
FOR BRIDGE DETAILS, SEE SHEETS 938 TO 986
FOR DRAINAGE DETAILS, SEE SHEETS 346, 347, AND 349
FOR UNDERDRAIN QUANTITIES, SEE SHEET 173
FOR PROFILE, SEE SHEET 200

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED PRS
CHECKED SSC

PLAN
STA 540+00 TO STA 553+00

MAH-80-0.97

199
1100

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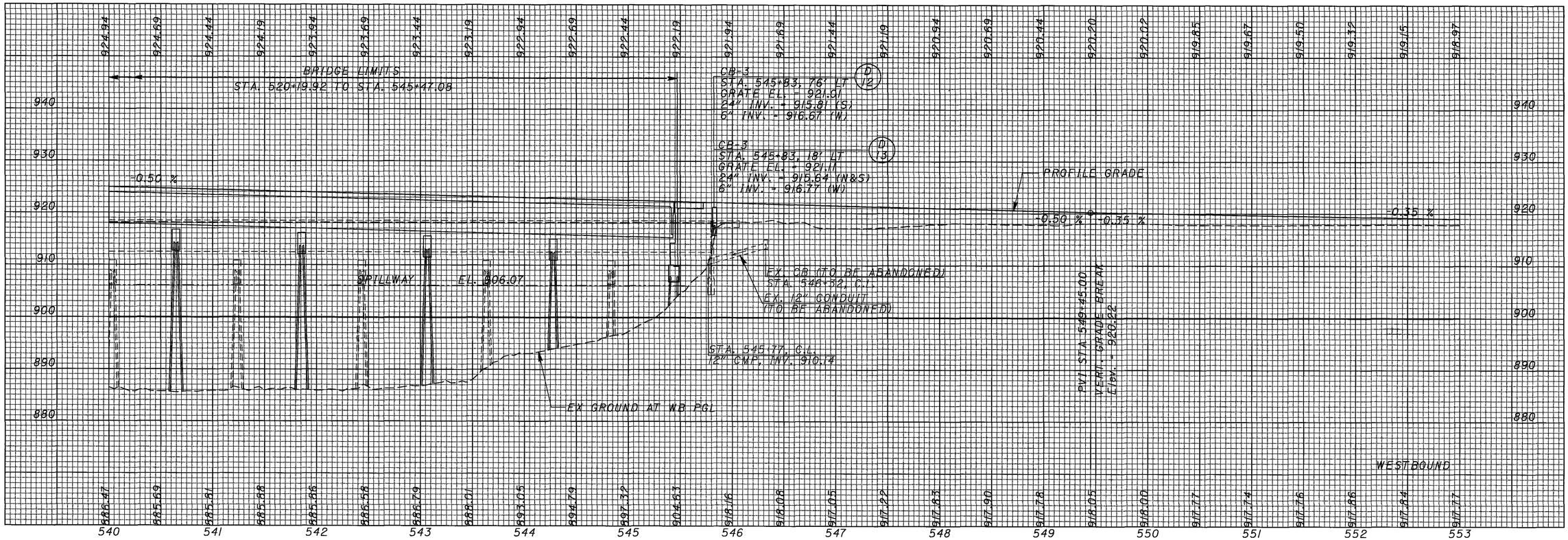

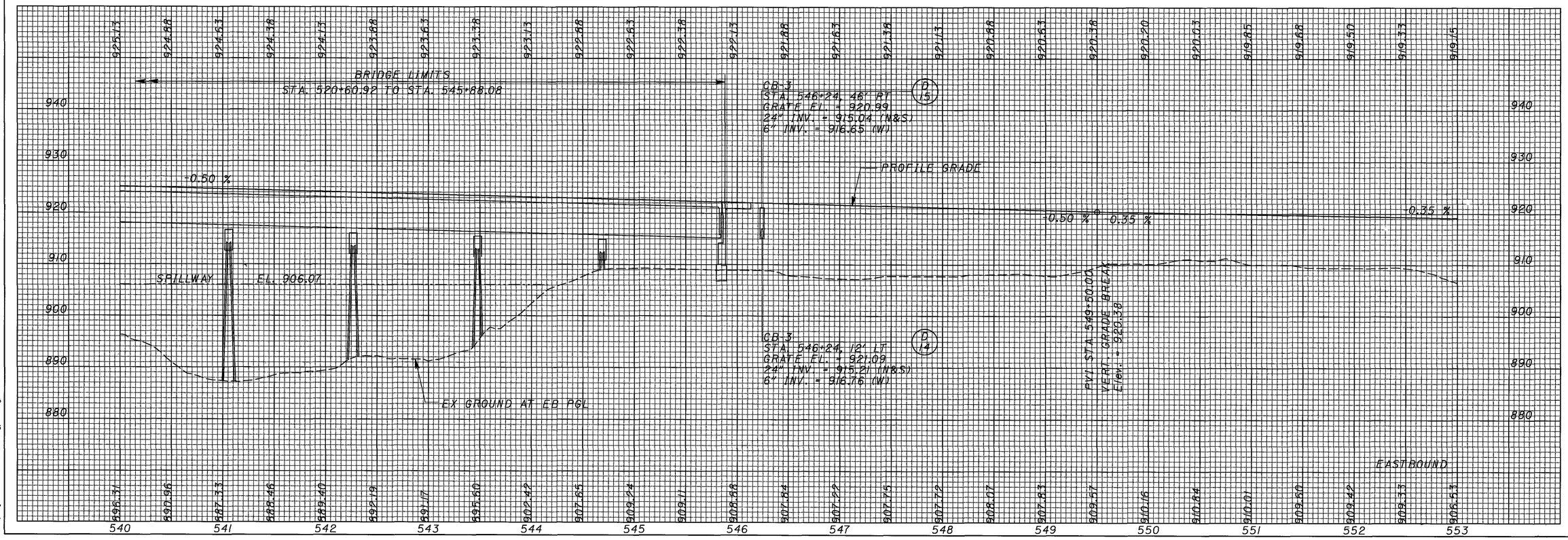

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED

CHECKED SSC

PROFILE
STA 540+00 TO STA 553+00

MAH-80-0.97

200
1100

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