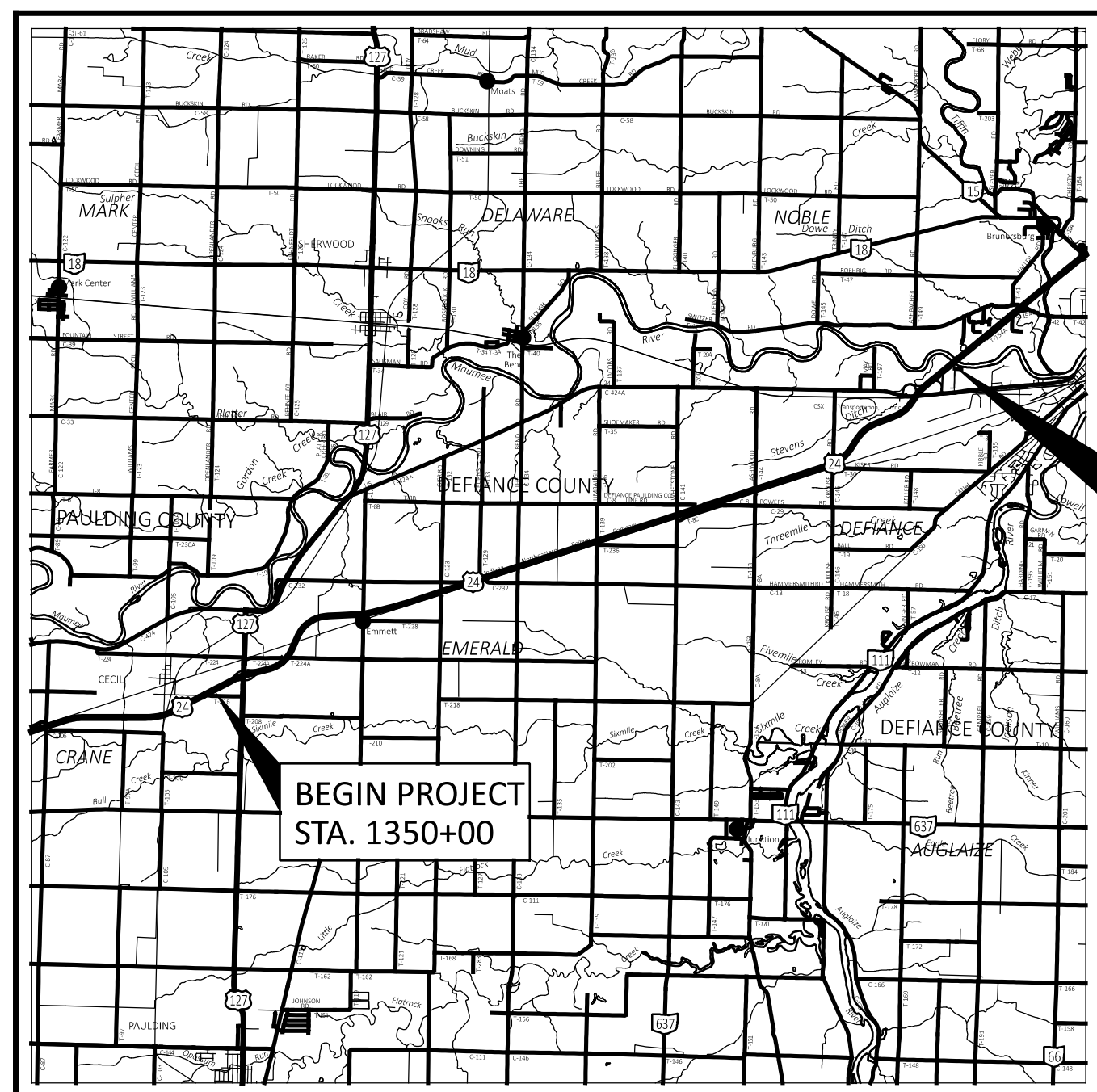


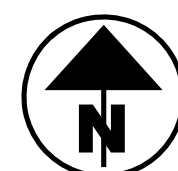
PAU/DEF-24-12.30/0.00

MODEL: Sheet PAPER: 34x22 (in.) DATE: 2/12/2024 TIME: 10:28:48 AM USER: mmueller
 pvc:\ohiodot-pw-bentley.com\ohiodot-pw-02\Documents\01 Active Projects\District 01\Paulding\117367\400-Engineering\Roadway\Sheets\117367_GT001.dgn



LOCATION MAP

LATITUDE: 41°14'44" N LONGITUDE: 84°29'55" W



PORTION TO BE IMPROVED	=====
INTERSTATE HIGHWAY	=====
FEDERAL ROUTES	=====
STATE ROUTES	=====
COUNTY & TOWNSHIP ROADS	=====
OTHER ROADS	=====

DESIGN DESIGNATION

CURRENT ADT (2024)	16,000
DESIGN YEAR ADT (2044)	26,000
DESIGN HOURLY VOLUME (2044)	2,600
DIRECTIONAL DISTRIBUTION	53%
TRUCKS (24 HOUR B&C)	41%
DESIGN SPEED	70 MPH
LEGAL SPEED	65 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	
02 OTHER FREEWAY AND EXPRESSWAY (RURAL)	
NHS PROJECT	YES

DESIGN EXCEPTIONS

NONE REQUIRED

ADA DESIGN WAIVERS

NONE REQUIRED

UNDERGROUND UTILITIES
 Contact Two Working Days
 Before You Dig

OHIO811, 8-1-1, or 1-800-362-2764
 (Non members must be called directly)

PLAN PREPARED BY:
 ODOT DISTRICT 1
 1885 N. MCCULLOUGH ST.
 LIMA, OH 45801

END PROJECT
 STA. 1902+53.75

BEGIN PROJECT
 STA. 1350+00

STATE OF OHIO

DEPARTMENT OF TRANSPORTATION

PAU/DEF-24-12.30/0.00

PART 1

CITY OF DEFIANCE

CRANE & EMERALD TOWNSHIPS

DELAWARE & DEFIANCE TOWNSHIPS

PAULDING & DEFIANCE COUNTIES

FOR PART 2, SEE PAU-24/127 - 13.55/15.98

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STANDARD CONSTRUCTION DRAWINGS										SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS	
BP-2.1	1/21/22	MGS-1.1	7/16/21	MT-95.30	7/19/19	MT-99.30	1/17/20	TC-41.50	10/18/13	800-2023	7/21/23		
BP-2.2	1/15/21	MGS-2.1	1/19/18	MT-95.40	7/21/23	MT-101.60	4/21/23	TC-42.10	10/18/13	808	1/18/19		
BP-3.1	1/21/22	MGS-3.1	1/19/18	MT-95.41	7/21/23	MT-101.70	4/21/23	TC-42.20	10/18/13	821	4/20/12		
BP-3.2	1/18/19	MGS-3.2	1/18/13	MT-95.50	7/21/17	MT-101.75	7/21/23	TC-51.11	1/15/16	832	7/21/23		
BP-5.1	7/15/22	MGS-4.2	7/19/13	MT-96.11	7/21/23	MT-101.90	7/17/20	TC-51.12	1/15/16	843	10/18/19		
BP-9.1	1/18/19	MGS-5.3	7/15/16	MT-96.20	7/21/23	MT-102.10	7/21/23	TC-52.10	10/18/13	846	4/17/15		
		MGS-6.1	1/19/18	MT-96.26	1/18/19	MT-102.20	4/19/19	TC-52.20	1/15/21	856	7/21/23		
CB-3A	7/16/21	MGS-6.2	7/19/19	MT-98.10	1/17/20	MT-102.30	10/16/15	TC-61.10	4/21/23	873	4/16/21		
		RM-1.1	1/20/23	MT-98.11	1/17/20	MT-104.10	4/21/23	TC-61.30	7/19/19	902	7/19/19		
DM-1.1	7/17/20	RM-3.1	7/20/18	MT-98.20	4/19/19	MT-105.10	1/17/20	TC-64.10	7/21/23	908	10/20/17		
DM-1.2	7/16/21	RM-4.2	4/17/20	MT-98.21	7/21/23			TC-65.10	1/17/14	921	4/20/12		
DM-4.1	7/17/20	HW-2.1	7/15/22	MT-98.22	1/17/20	TC-21.11	7/16/21	TC-65.11	7/15/22	961	4/17/20		
DM-4.3	1/15/16	PCB-91	7/17/20	MT-98.28	1/17/20	TC-21.21	1/20/23	TC-71.10	4/21/23				
DM-4.4	1/15/16	HL-30.11	7/21/23	MT-98.29	1/17/20	TC-41.10	7/19/13	TC-72.20	7/21/23				
		HL-30.21	4/17/20	MT-98.30	7/16/21	TC-41.20	10/18/13	TC-73.20	7/21/23				
F-2.1	7/20/18			MT-99.20	4/19/19	TC-41.30	4/21/23						

FEDERAL PROJECT NUMBER

E230 (890)

RAILROAD INVOLVEMENT

NAPOLEON, DEFIANCE & WESTERN RAILWAY
 CSX TRANSPORTATION

PROJECT DESCRIPTION

REHABILITATION OF 10.61 MILES OF U.S. 24 PAVEMENT AND THE RAMPS AT THE US-127 AND BALTIMORE ST. INTERCHANGES BY CRACKING AND SEATING THE EXISTING CONCRETE AND PLACING 7.25" OF ASPHALT CONCRETE PAVEMENT. THE PROJECT ALSO INCLUDES AREAS OF FULL DEPTH PAVEMENT REPLACEMENT TO TRANSITION TO MEET EXISTING PAVEMENT AT THE BEGINNING OF THE PROJECT AND AT THE END OF RAMPS, TO TRANSITION TO EXISTING AT-GRADE BRIDGE 3" ASPHALT OVERLAY AND TO MAINTAIN VERTICAL CLEARANCE UNDER THE US-127 OVERHEAD BRIDGE. INCIDENTAL WORK INCLUDES RE-GRADING, REPLACEMENT OF GUARDRAIL AND REPLACEMENT OF SIGNS.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	92 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	6 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	98 ACRES

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.

2023 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES 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 EXCEPT FOR THE SIDE ROADS AND RAMPS AS DESCRIBED ON SHEETS 26-29 AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

Christopher A. Hughes
 Christopher A. Hughes, P.E.
 District 01 Deputy Director

Jack Marchbanks
 Jack Marchbanks, PhD
 Director, Department of Transportation

ENGINEER'S SEAL
 ROADWAY

TITLE SHEET

DESIGN AGENCY	
DESIGNER	MJS
REVIEWER	MJM
PROJECT ID	10-13-23
SHEET	117367
TOTAL	258

CURVE US127A-1
 P.I. Sta = 1360+04.66
 D = 16° 15' 28" (LT)
 Dc = 4° 00' 00"
 R = 1,432.39'
 T = 204.60'
 L = 406.45'
 E = 14.54'
 eMAX = 0.080

CURVE US127A-2
 P.I. Sta = 1370+20.29
 D = 36° 55' 04" (RT)
 Dc = 7° 00' 00"
 R = 818.51'
 T = 273.22'
 L = 527.40'
 E = 44.40'
 eMAX = 0.069

CURVE US127C-1
 P.I. Sta = 1374+39.31
 D = 9° 13' 38" (RT)
 Dc = 7° 00' 00"
 R = 818.51'
 T = 66.05'
 L = 131.82'
 E = 2.66'
 eMAX = 0.059

CURVE US127C-2
 P.I. Sta = 1383+94.24
 D = 15° 15' 50" (LT)
 Dc = 1° 30' 00"
 R = 3,819.72'
 T = 511.83'
 L = 1,017.59'
 E = 34.14'
 eMAX = 0.041

CURVE US127B-1
 P.I. Sta = 1361+74.93
 D = 12° 00' 00" (RT)
 Dc = 1° 30' 00"
 R = 3,819.72'
 T = 401.47'
 L = 800.00'
 E = 21.04'
 eMAX = 0.041

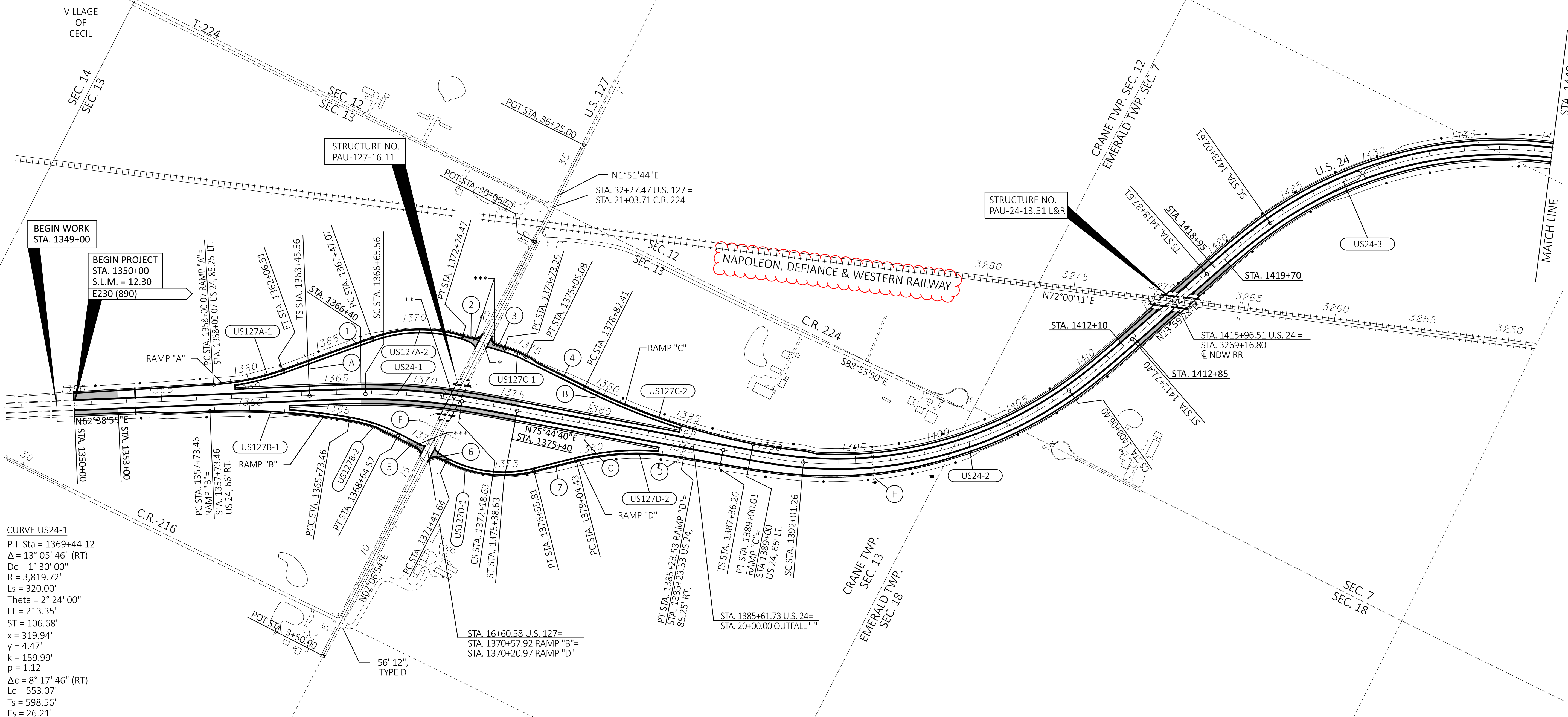
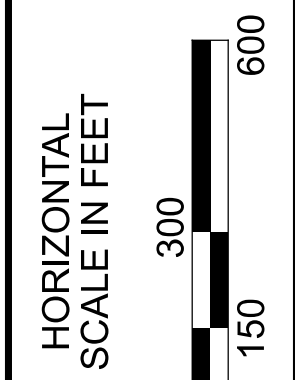
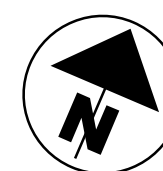
CURVE US127B-2
 P.I. Sta = 1367+20.15
 D = 17° 27' 59" (RT)
 Dc = 6° 00' 00"
 R = 954.93'
 T = 146.69'
 L = 291.11'
 E = 11.20'
 eMAX = 0.072

CURVE US127D-1
 P.I. Sta = 1374+10.37
 D = 41° 08' 03" (LT)
 Dc = 8° 00' 00"
 R = 716.20'
 T = 268.73'
 L = 514.18'
 E = 48.76'
 eMAX = 0.074

CURVE US127D-2
 P.I. Sta = 1382+18.89
 D = 24° 45' 49" (RT)
 Dc = 4° 00' 00"
 R = 1,432.39'
 T = 314.46'
 L = 619.09'
 E = 34.11'
 eMAX = 0.080

* STA. 23+60.58 U.S. 127 =
 STA. 1373+99.46 RAMP "A" =
 STA. 1372+48.26 RAMP "C" =
 ** STA. 1371+73.24 U.S. 24 =
 STA. 19+91.28 U.S. 127
 *** SEE RAMP PAVEMENT
 TRANSITION DETAIL

- ① N 45° 11' 50" E
- ② N 82° 06' 54" E
- ③ N 82° 06' 54" E
- ④ S 88° 39' 28" E
- ⑤ S 87° 53' 06" E
- ⑥ S 87° 53' 06" E
- ⑦ N 50° 58' 51" E
- ⑧ N 3° 41' 07" E



CURVE US24-1
 P.I. Sta = 1369+44.12
 Δ = 13° 05' 46" (RT)
 Dc = 1° 30' 00"
 R = 3,819.72'
 Ls = 320.00'
 Theta = 2° 24' 00"
 LT = 213.35'
 ST = 106.68'
 x = 319.94'
 y = 4.47'
 k = 159.99'
 p = 1.12'
 Δc = 8° 17' 46" (RT)
 Lc = 553.07'
 Ts = 598.56'
 Es = 26.21'
 eMAX = 0.052

CURVE US24-2
 P.I. Sta = 1400+82.29
 Δ = 51° 45' 13" (LT)
 Dc = 2° 30' 00"
 R = 2,291.83'
 Ls = 465.00'
 Theta = 5° 48' 45"
 LT = 310.17'
 ST = 155.15'
 x = 464.52'
 y = 15.71'
 k = 232.42'
 p = 3.93'
 Δc = 40° 07' 43" (LT)
 Lc = 1,605.14'
 Ts = 1,346.03'
 Es = 259.77'
 eMAX = 0.077

CURVE US24-3
 P.I. Sta = 1434+78.62
 Δ = 63° 03' 48" (RT)
 Dc = 2° 30' 00"
 R = 2,291.83'
 Ls = 465.00'
 Theta = 5° 48' 45"
 LT = 310.17'
 ST = 155.15'
 x = 464.52'
 y = 15.71'
 k = 232.42'
 p = 3.93'
 Δc = 51° 26' 18" (RT)
 Lc = 2,057.53'
 Ts = 1,641.01'
 Es = 401.61'
 eMAX = 0.077

- Ⓐ - EX. 24" x 88'
- Ⓑ - EX. 48" x 107'
- Ⓒ - EX. 42" x 185'
- Ⓓ - EX. 54" x 253'
- Ⓔ - EX. 30" x 144'
- Ⓕ - EX. 36" x 251'
- Ⓖ - EX. 8'x4' - 200', BOX

NOTE
 NOTE THAT ALL REFERENCES IN THESE PLANS TO "MAUMEE & WESTERN RR"
 SHALL ACTUALLY REFER TO "NAPOLEON, DEFIANCE, & WESTERN RAILWAY".

LEGEND
 - PAVEMENT REMOVAL AND REPLACEMENT

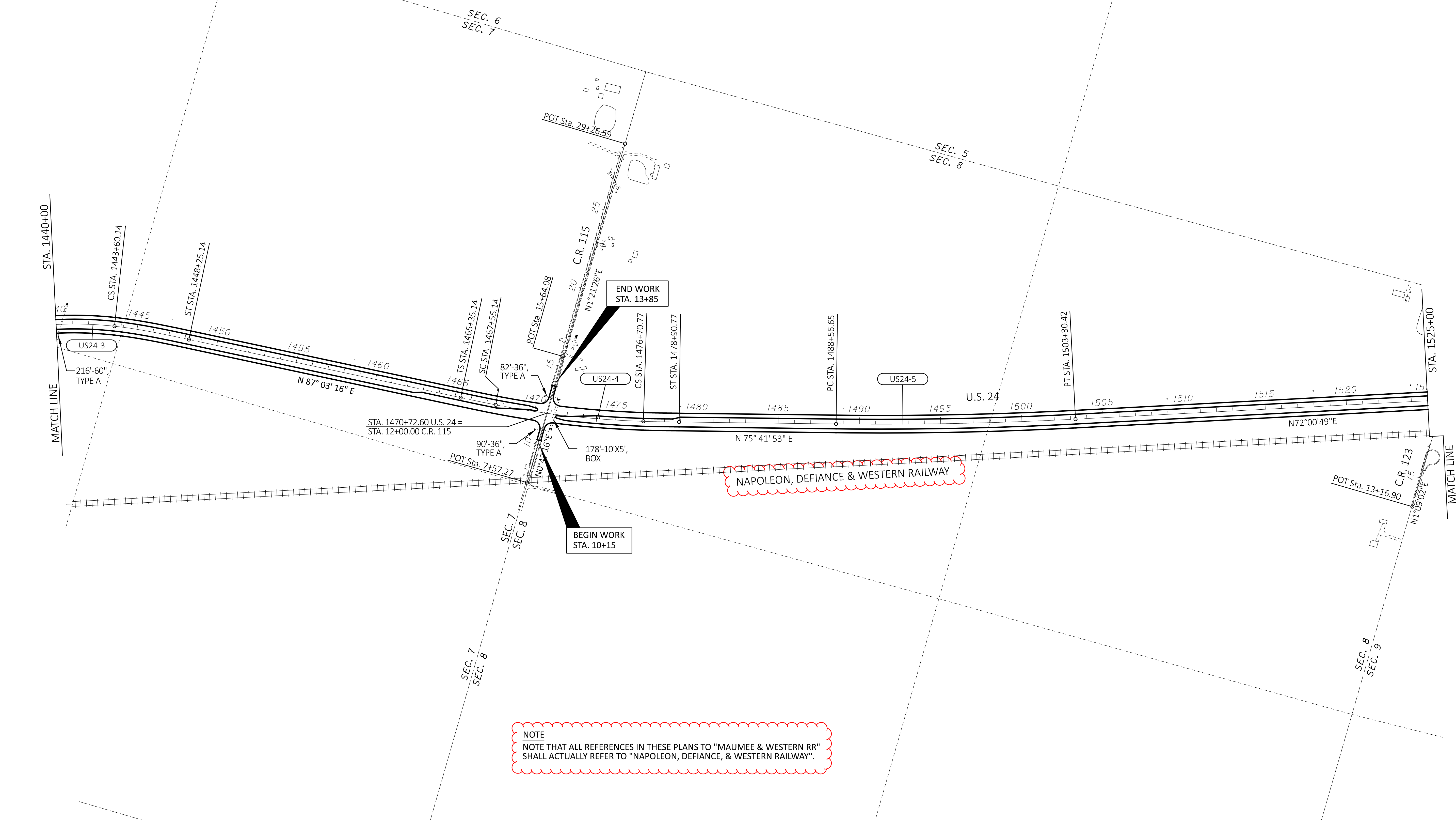
SCHEMATIC PLAN

DESIGN AGENCY	
DESIGNER	MJS
REVIEWER	MJM
PROJECT ID	10-13-23
SHEET	117367
TOTAL	258
P.2	

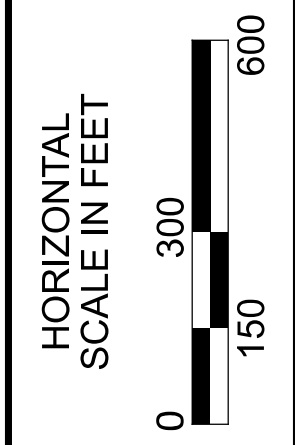
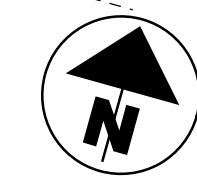
CURVE US24-3
 P.I. Sta = 1434+78.62
 $\Delta = 63^\circ 03' 48''$ (RT)
 $Dc = 2^\circ 30' 00''$
 $R = 2,291.83'$
 $Ls = 465.00'$
 $\text{Theta} = 5^\circ 48' 45''$
 $LT = 310.17'$
 $ST = 155.15'$
 $x = 464.52'$
 $y = 15.71'$
 $k = 232.42'$
 $p = 3.93'$
 $Dc = 51^\circ 26' 18''$ (RT)
 $Lc = 2,057.53'$
 $Ts = 1,641.01'$
 $Es = 401.61'$
 $eMAX = 0.077$

CURVE US24-4
 P.I. Sta = 1472+14.86
 $\Delta = 11^\circ 21' 23''$ (LT)
 $Dc = 1^\circ 00' 00''$
 $R = 5,729.58'$
 $Ls = 220.00'$
 $\text{Theta} = 1^\circ 06' 00''$
 $LT = 146.67'$
 $ST = 73.34'$
 $x = 219.99'$
 $y = 1.41'$
 $k = 110.00'$
 $p = 0.35'$
 $\Delta c = 9^\circ 09' 23''$ (LT)
 $Lc = 915.63'$
 $Ts = 679.72'$
 $Es = 28.61'$
 $eMAX = 0.036$

CURVE US24-5
 P.I. Sta = 1495+93.79
 $\Delta = 3^\circ 41' 04''$ (LT)
 $Dc = 0^\circ 15' 00''$
 $R = 22,918.31'$
 $T = 737.14'$
 $L = 1,473.77'$
 $E = 11.85'$
 $eMAX = NA$



NOTE
 NOTE THAT ALL REFERENCES IN THESE PLANS TO "MAUMEE & WESTERN RR"
 SHALL ACTUALLY REFER TO "NAPOLEON, DEFIANCE, & WESTERN RAILWAY".

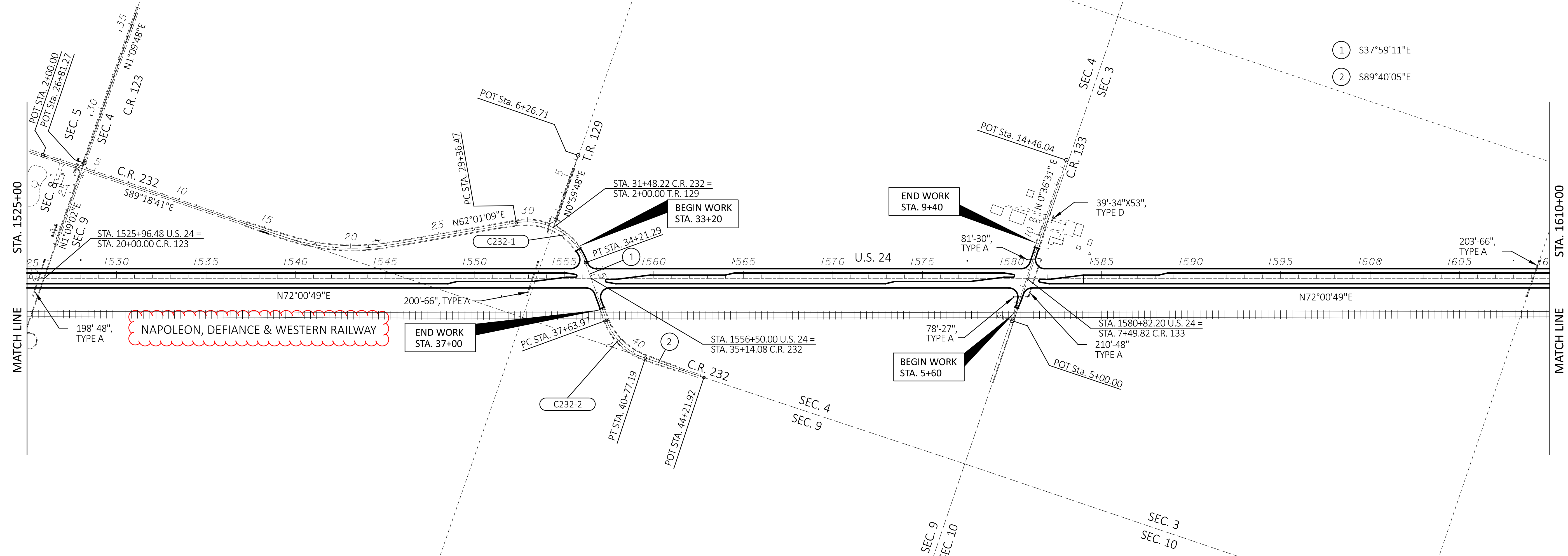


SCHEMATIC PLAN

DESIGN AGENCY	
DESIGNER	MJS
REVIEWER	MJM
PROJECT ID	10-13-23
SHEET	117367
TOTAL	258
P.3	

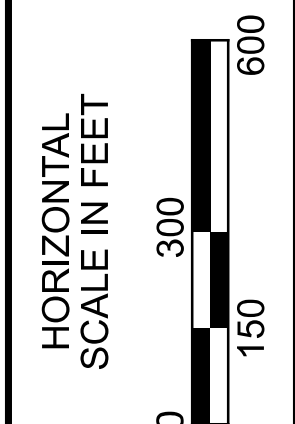
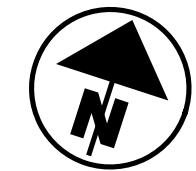
CURVE C232-1
 P.I. Sta = 32+27.82
 D = 79° 59' 40" (RT)
 Dc = 16° 30' 00"
 (NDC = 6° 00' 00" max)
 R = 347.25'
 T = 291.35'
 L = 484.82'
 E = 106.03'
 eMAX = 0.083
 NO SPIRAL
 (NDC 210' SPIRAL)

CURVE C232-2
 P.I. Sta = 39+32.14
 D = 51° 40' 54" (LT)
 Dc = 16° 30' 00"
 (NDC = 6° 00' 00" max)
 R = 347.25'
 T = 168.17'
 L = 313.22'
 E = 38.58'
 eMAX = 0.083
 NO SPIRAL
 (NDC 210' SPIRAL)



NOTE
 NOTE THAT ALL REFERENCES IN THESE PLANS TO "MAUMEE & WESTERN RR"
 SHALL ACTUALLY REFER TO "NAPOLEON, DEFIANCE, & WESTERN RAILWAY".

- ① S37°59'11"E
- ② S89°40'05"E



SCHEMATIC PLAN

DESIGN AGENCY

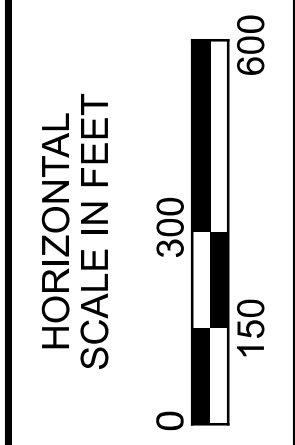
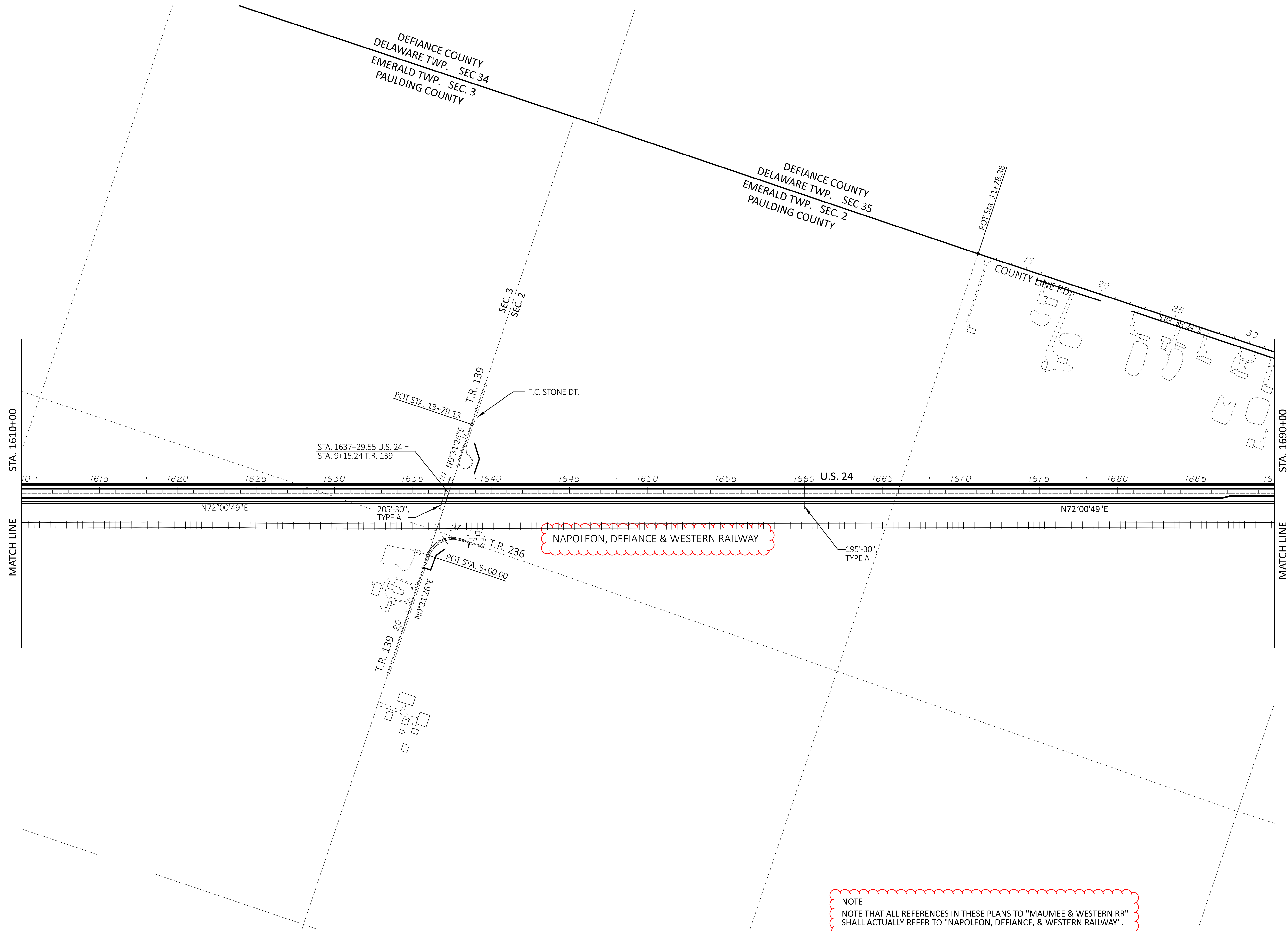


DESIGNER
MJS

REVIEWER
MJM 10-13-23

PROJECT ID
117367

SHEET TOTAL
 P.4 | 258



SCHEMATIC PLAN

DESIGN AGENCY



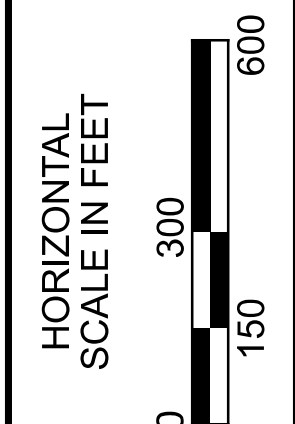
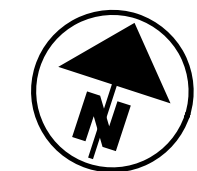
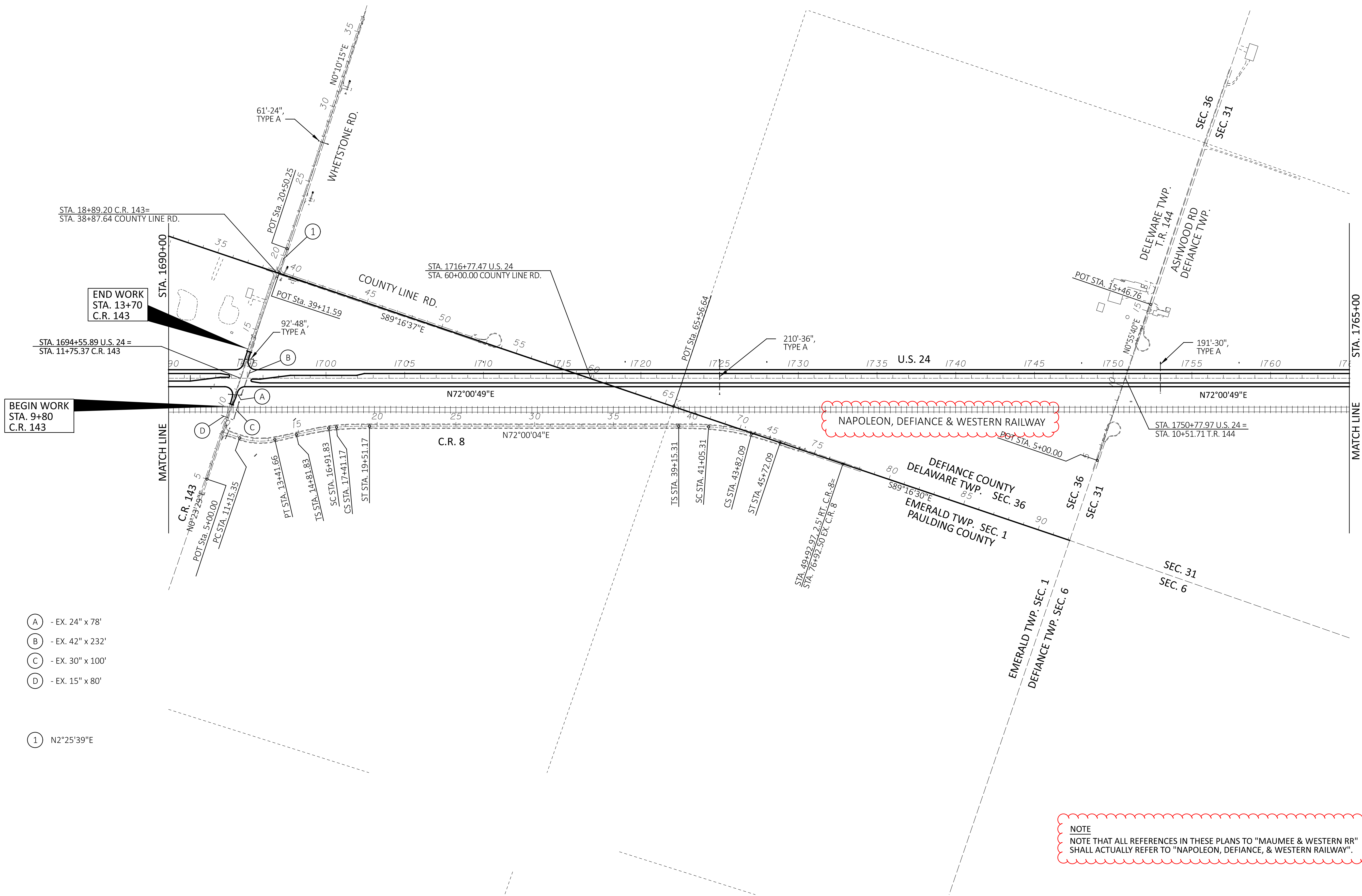
DESIGNER
MJS

REVIEWER
MJM

PROJECT ID
117367

SHEET	TOTAL
P.5	258

- (A) - EX. 24" x 78'
- (B) - EX. 42" x 232'
- (C) - EX. 30" x 100'
- (D) - EX. 15" x 80'
- (1) N2°25'39"E



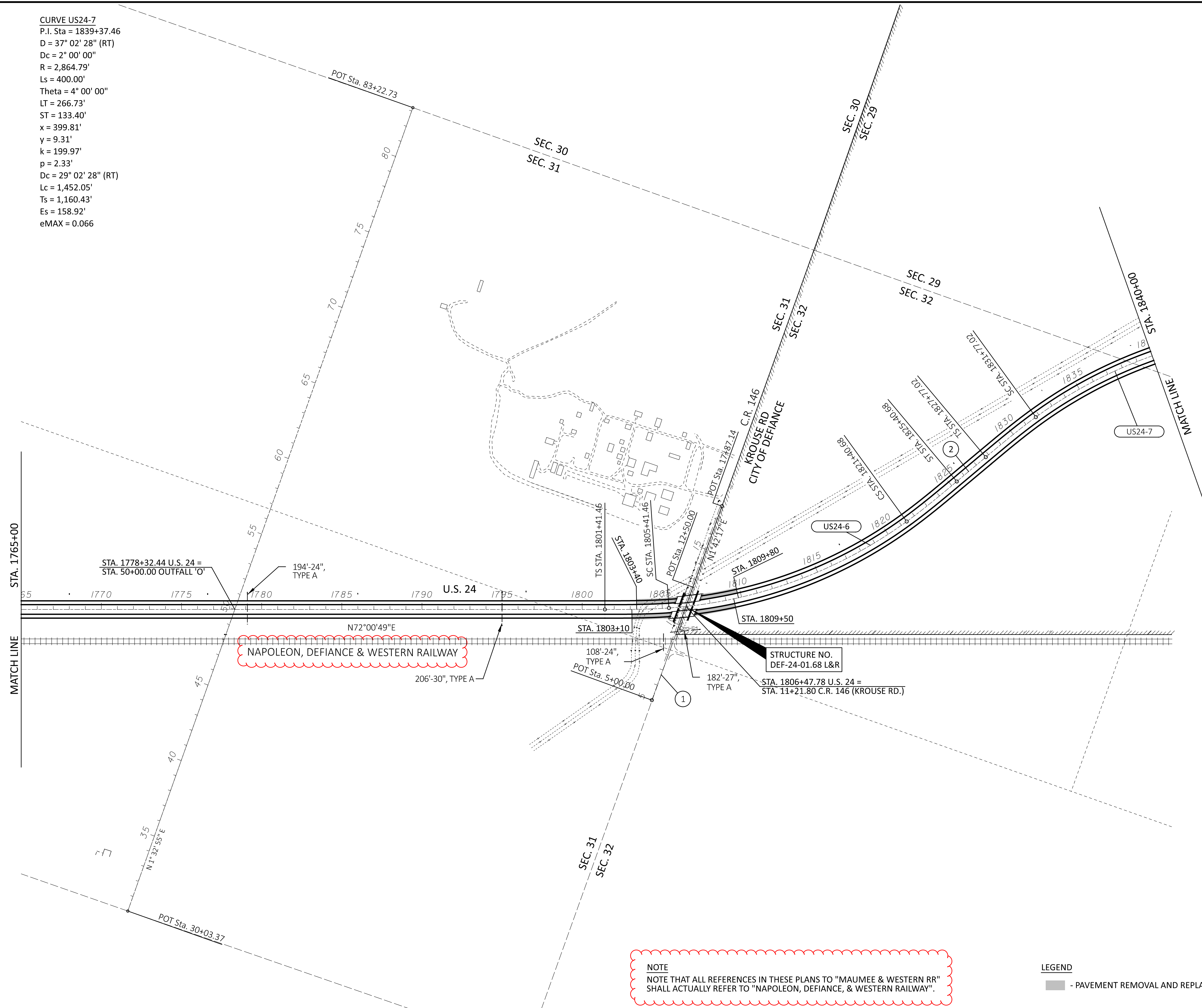
SCHEMATIC PLAN

DESIGN AGENCY	
DESIGNER	MJS
REVIEWER	MJM
PROJECT ID	10-13-23
SHEET	117367
TOTAL	258
P.6	

CURVE US24-6
 P.I. Sta = 1813+84.53
 D = 39° 59' 04" (LT)
 Dc = 2° 00' 00"
 R = 2,864.79'
 Ls = 400.00'
 Theta = 4° 00' 00"
 LT = 266.73'
 ST = 133.40'
 x = 399.81'
 y = 9.31'
 k = 199.97'
 p = 2.33'
 Dc = 31° 59' 04" (LT)
 Lc = 1,599.22'
 Ts = 1,243.07'
 Es = 186.18'
 eMAX = 0.066

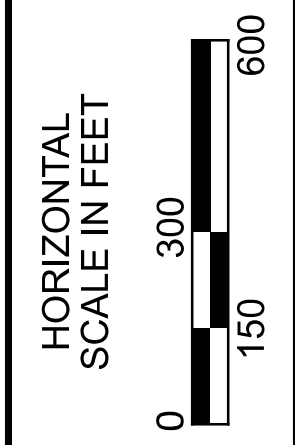
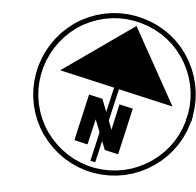
CURVE US24-7
 P.I. Sta = 1839+37.46
 D = 37° 02' 28" (RT)
 Dc = 2° 00' 00"
 R = 2,864.79'
 Ls = 400.00'
 Theta = 4° 00' 00"
 LT = 266.73'
 ST = 133.40'
 x = 399.81'
 y = 9.31'
 k = 199.97'
 p = 2.33'
 Dc = 29° 02' 28" (RT)
 Lc = 1,452.05'
 Ts = 1,160.43'
 Es = 158.92'
 eMAX = 0.066

- ① - N2°01'02"E
- ② - N32°01'45"E



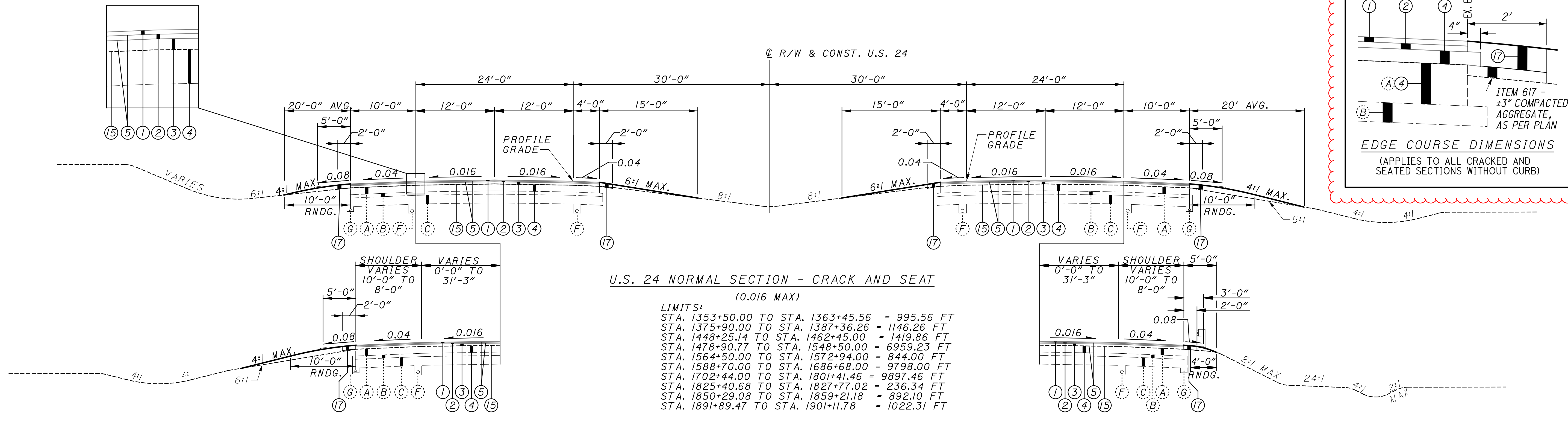
NOTE
 NOTE THAT ALL REFERENCES IN THESE PLANS TO "MAUMEE & WESTERN RR" SHALL ACTUALLY REFER TO "NAPOLEON, DEFIANCE, & WESTERN RAILWAY".

LEGEND
 ■ - PAVEMENT REMOVAL AND REPLACEMENT



SCHEMATIC PLAN

DESIGN AGENCY	
DESIGNER	MJS
REVIEWER	MJM
PROJECT ID	10-13-23
SHEET	117367
TOTAL	258
P.7	



U.S. 24 NORMAL SECTION - CRACK AND SEAT
(0.016 MAX)

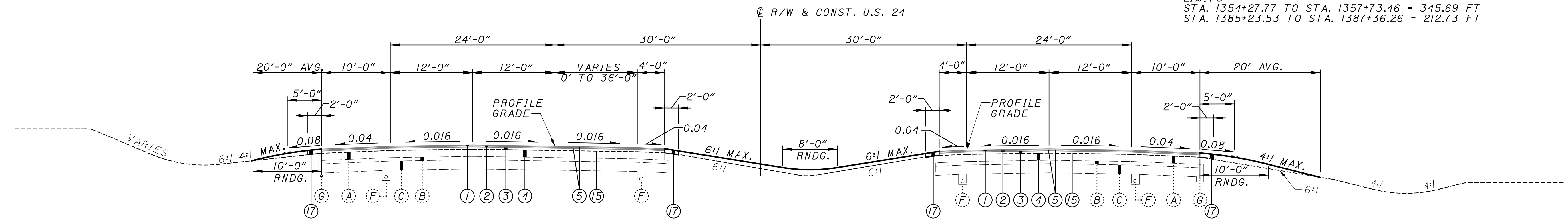
- LIMITS:
- STA. 1353+50.00 TO STA. 1363+45.56 = 995.56 FT
 - STA. 1375+90.00 TO STA. 1387+36.26 = 1146.26 FT
 - STA. 1448+25.14 TO STA. 1462+45.00 = 1419.86 FT
 - STA. 1478+90.77 TO STA. 1548+50.00 = 6959.23 FT
 - STA. 1564+50.00 TO STA. 1572+94.00 = 844.00 FT
 - STA. 1588+70.00 TO STA. 1686+68.00 = 9798.00 FT
 - STA. 1702+44.00 TO STA. 1801+41.46 = 9897.46 FT
 - STA. 1825+40.68 TO STA. 1827+77.02 = 236.34 FT
 - STA. 1850+29.08 TO STA. 1859+21.18 = 892.10 FT
 - STA. 1891+89.47 TO STA. 1901+11.78 = 1022.31 FT

ACCELERATION/DECELERATION LANE

- LIMITS:
- STA. 1353+50.00 TO STA. 1358+00.00 = 450.00 FT
 - STA. 1896+83.52 TO STA. 1900+29.21 = 345.69 FT

ACCELERATION/DECELERATION LANE

- LIMITS:
- STA. 1354+27.77 TO STA. 1357+73.46 = 345.69 FT
 - STA. 1385+23.53 TO STA. 1387+36.26 = 212.73 FT



U.S. 24 NORMAL SECTION WITH LEFT TURN LANE - CRACK AND SEAT
(0.016 MAX)

- LIMITS:
- STA. 1462+45.00 TO STA. 1465+35.14 (RT.) = 290.14 FT
 - STA. 1548+50.00 TO STA. 1556+50.00 (RT.) = 800.00 FT
 - STA. 1556+50.00 TO STA. 1564+50.00 (LT.) = 800.00 FT
 - STA. 1572+94.00 TO STA. 1580+82.20 (RT.) = 788.20 FT
 - STA. 1580+82.20 TO STA. 1588+70.00 (LT.) = 787.80 FT
 - STA. 1686+68.00 TO STA. 1694+55.89 (RT.) = 787.89 FT
 - STA. 1694+55.89 TO STA. 1702+44.00 (LT.) = 788.11 FT

PROPOSED PAVEMENT LEGEND

- ① ITEM 442 - 1.5" ASPHALT CONCRETE SURFACE COURSE, 12.5mm, TYPE A (447)
- ② ITEM 442 - 1.75" ASPHALT CONCRETE INTERMEDIATE COURSE, 12.5mm, TYPE A (446)
- ③ ITEM 302 - 4" ASPHALT CONCRETE BASE, PG64-22, (449)
- ④ ITEM 321 - 12.5" CRACKING AND SEATING NON-REINFORCED CONCRETE PAVEMENT
- ⑤ ITEM 407 - NON-TRACKING TACK COAT
- ⑥ ITEM 856 - 1.5" BRIDGE DECK WATERPROOFING ASPHALT CONCRETE
- ⑦ ITEM 609 - CURB, MISC.: TYPE 4-A RETROFIT
- ⑧ ITEM 609 - CURB, TYPE 4-C
- ⑨ ITEM 202 - CURB REMOVED
- ⑩ ITEM 609 - CONCRETE MEDIAN

- ⑪ ITEM 202 - CONCRETE MEDIAN REMOVED
- ⑫ ITEM 304 - 3" AGGREGATE BASE
- ⑬ ITEM 302 - 11" ASPHALT CONCRETE BASE COURSE, PG64-22, (449)
- ⑭ ITEM 304 - VARIABLE THICKNESS AGGREGATE BASE
- ⑮ ITEM 407 - TACK COAT, 702.13
- ⑯ ITEM 512 - SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN, AS PER PLAN
- ⑰ ITEM 304 - 7.25" AGGREGATE BASE

EXISTING PAVEMENT LEGEND

- Ⓐ 12½" PORTLAND CEMENT CONCRETE PAVEMENT
- Ⓑ 6" AGGREGATE BASE
- Ⓒ LIME STABILIZED SUBGRADE (T=16")
- Ⓓ 7" ASPHALT CONCRETE
- Ⓔ 8" ASPHALT CONCRETE
- Ⓕ 6" SHALLOW PIPE UNDERDRAIN
- Ⓖ 4" BASE PIPE UNDERDRAIN
- Ⓗ 8" AGGREGATE BASE
- Ⓘ REINFORCED CONCRETE APPROACH SLABS (T=17")
- Ⓝ AGGREGATE DRAINS
- Ⓚ CURB TYPE 4-C
- Ⓛ CURB TYPE 4-A

TYPICAL SECTIONS

DESIGN AGENCY

DESIGNER
MJS

REVIEWER
MJM

PROJECT ID
10-13-23

SHEET ID
117367

TOTAL SHEETS
258

PROJECT CONTROL TABLE

Table with columns: STATION/OFFSET, PROJECT COORDINATES (SEE SURVEY PARAMETERS), MONUMENT DESCRIPTION. Includes sub-sections for PAU-24-12.30 at St Rt 127, PAU-24-12.30 at Railroad Overpass through Turn Around, PAU-24-12.30 at Rd 115, PAU-24-12.30 at Rd 232 and Rd 133.

Table with columns: STATION/OFFSET, PROJECT COORDINATES (SEE SURVEY PARAMETERS), MONUMENT DESCRIPTION. Includes sub-sections for PAU-24-12.30 at Rd 143, DEF-24-1.63 at Krouse Rd, DEF-24-2.91 at Baltimore St.

Table with columns: STATION/OFFSET, PROJECT COORDINATES (SEE SURVEY PARAMETERS), MONUMENT DESCRIPTION. Includes sub-sections for PAU-24-12.30 at Rd 115, PAU-24-12.30 at Rd 232 and Rd 133.

*This elevation may be subject to seasonal changes. Confirm elevation against other primary vertical control and benchmarks just prior to the start of construction activities.
** The previous PAU/DEF-24-12.30/0.00 project (PID 24336 (R/W & Construction) & 18094(C/L Survey)) used NAD83(95) adjustment with a P.A.F. of 1.00008827 for establishment of control.

ITEM 617 - COMPACTED AGGREGATE, AS PER PLAN
THIS ITEM SHALL FOLLOW THE SPECIFICATIONS OF C&MS 617. A QUANTITY OF THIS ITEM IS PROVIDED TO BRING THE EXISTING BERM UP FLUSH WITH THE EXISTING CONCRETE SURFACE. SEE THE EDGE COURSE DIMENSIONS DETAIL ON SHEET 9. THE ESTIMATED QUANTITY IS BASED ON AN AVERAGE DEPTH OF 3" AND A WIDTH OF 2'. THE DEPTH WILL VARY THROUGHOUT THE PROJECT.
THIS WORK MUST BE COMPLETED PRIOR TO SHIFTING TRAFFIC ONTO A SHOULDER AND BEFORE PAVING ITEM 302 ON A SHOULDER.

PAU/DEF-24-12.30/0.00

MODEL: Sheet PAPER SIZE: 34x22 (in.) DATE: 2/18/2024 TIME: 11:00:00 AM USER: mnueller pwc:\ohio\dot-pw-bentley.com\ohio\dot-pw-02\Documents\01 Active Projects\District 01\PAU\117367\400-Engineering\Roadway\Sheets\117367_GN003.dgn

GENERAL NOTES

DESIGN AGENCY (Logo)
DESIGNER: MJS
REVIEWER: MJM
PROJECT ID: 117367
SHEET TOTAL: P.21A | 258

ITEM 614, MAINTAINING TRAFFIC

A MINIMUM OF ONE - 10' LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING PAVEMENT, THE COMPLETED PAVEMENT, ITEM 615 PAVEMENT FOR MAINTAINING TRAFFIC, AND TEMPORARY PAVEMENT AND IN ACCORDANCE WITH THE REQUIREMENTS OF SPEC. 614 AND THESE MAINTENANCE OF TRAFFIC NOTES AND DETAILS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ORGANIZE HIS/HER WORK IN SUCH A MANNER TO PROVIDE THE MOST SAFETY WITH THE LEAST INCONVENIENCE TO THE TRAVELING PUBLIC.

ALL EXISTING LANES, INCLUDING RAMPS, SHALL BE OPEN AND AVAILABLE TO TRAFFIC IN THE ORIGINAL ALIGNMENT BETWEEN NOVEMBER 1ST AND APRIL 1ST. ALL INTERMEDIATE COURSE, GUARDRAIL, AND THE NECESSARY BERM AND GRADING (UP TO THE INTERMEDIATE COURSE) SHALL BE IN PLACE PRIOR TO THE NOVEMBER 1ST DATE. SHOULD THE CONTRACTOR FAIL TO MEET THESE REQUIREMENTS, A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF \$10,000 PER CALENDAR DAY.

DUE TO THE TOTAL SOLAR ECLIPSE ALL LANES OF TRAFFIC SHALL BE OPEN TO TRAFFIC FROM 12:00N FRIDAY 4/5/2024 THROUGH 6:00 AM WEDNESDAY 4/10/2024. SHOULD THE CONTRACTOR FAIL TO MEET THIS REQUIREMENT, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE OF \$100 PER MINUTE FOR EACH MINUTE A LANE IS CLOSED DURING THIS TIMEFRAME.

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT OF 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.

THE ENTRANCE AND EXIT RAMPS AT THE US-127 INTERCHANGE AND THE ENTRANCE AND EXIT RAMPS AT THE BALTIMORE STREET INTERCHANGE ARE EACH PERMITTED TO BE CLOSED FOR A DURATION NOT TO EXCEED THIRTY (30) CONSECUTIVE CALENDAR DAYS PER RAMP. WHEN CLOSING A RAMP, THE CONTRACTOR MUST ENSURE THE RAMPS AT THAT INTERCHANGE AND THE RAMPS AT THE ADJACENT INTERCHANGE, THAT ARE NECESSARY FOR THE POSTED DETOUR, REMAIN OPEN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SCHEDULE THE RAMP WORK TO FIT THE DETOURS. THE RAMPS SHALL BE DETOURED AS SHOWN ON SHEET 29-32. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF \$5,000 PER DAY FOR EACH CALENDAR DAY A RAMP REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT. THE EXIT AND ENTRANCE RAMP CLOSURES SHALL BE ESTABLISHED, MAINTAINED AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR AS PER STANDARD CONSTRUCTION DRAWINGS MT-98.29 AND MT-98.30. THE DETOUR SIGNING SHALL BE ESTABLISHED, MAINTAINED AND SUBSEQUENTLY REMOVED BY THE STATE OF OHIO. THE CONTRACTOR SHALL NOTIFY ODOT PRIOR TO EACH CLOSURE/DETOUR ACCORDING TO THE NOTIFICATION OF TRAFFIC RESTRICTIONS NOTE.

THE FIRST DAY THAT A RAMP CLOSURE/DETOUR IS IN EFFECT SHALL BE CONSIDERED THE STARTING DATE OF THE 30 DAY DETOUR/CLOSURE LIMITATION. ON OR BEFORE THE 30TH DAY, THE RAMP SHALL BE OPENED TO THE SAFE AND CONVENIENT USE OF THE TRAVELING PUBLIC. IF THE ROADWAY IS NOT OPENED ON THE 30TH, DISINCENTIVES SHALL BE ASSESSED AS PER THE ABOVE SPECIFICATIONS.

IN ADDITION TO THE ALLOWABLE RAMP CLOSURES DESCRIBED ABOVE, THE CONTRACTOR WILL BE PERMITTED TO CLOSE RAMPS AT BOTH INTERCHANGES (U.S. 127 AND BALTIMORE ST.), IN ONE DIRECTION AT A TIME, FOR A SINGLE DURATION OF 2 CALENDAR DAYS. THE INTENTION OF THIS CLOSURE IS TO ALLOW FOR PAVEMENT TRANSITIONS AND/OR WEDGES TO BE CONSTRUCTED BETWEEN PHASE 1 AND PHASE 2 OF CONSTRUCTION. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF \$5,000 PER DAY FOR EACH CALENDAR DAY A RAMP REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT. THE EXIT AND ENTRANCE RAMP CLOSURES SHALL BE ESTABLISHED, MAINTAINED AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR AS PER STANDARD CONSTRUCTION DRAWINGS MT-98.29 AND MT-98.30. THE DETOUR SIGNING SHALL BE ESTABLISHED, MAINTAINED AND SUBSEQUENTLY REMOVED BY THE STATE OF OHIO. THE CONTRACTOR SHALL NOTIFY ODOT PRIOR TO EACH CLOSURE/DETOUR ACCORDING TO THE NOTIFICATION OF TRAFFIC RESTRICTIONS NOTE.

THE AT-GRADE INTERSECTIONS AT C.R. 115, C.R. 232, T.R. 133 AND C.R. 143 SHALL BE MAINTAINED AT ALL TIMES, EXCEPT AS NOTED BELOW. AFTER PAVING THE ASPHALT BASE COURSE ON THE MAINLINE AT AN INTERSECTION, THE CONTRACTOR MAY TEMPORARILY CLOSE THE INTERSECTION. THE CONTRACTOR SHALL RESTORE NORMAL INTERSECTION OPERATION BY PLACING PAVEMENT WEDGES AND/OR PAVING THE EXTRA INTERSECTION AREAS. NORMAL INTERSECTION OPERATION SHALL BE RESTORED WITHIN 7 DAYS OF THE MAINLINE BEING PAVED. SEE THE DETAIL ON SHEET 22 FOR APPROXIMATE WEDGE LOCATION. ALL COST TO CONSTRUCT AND SUBSEQUENTLY REMOVE THE WEDGE SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 - MAINTAINING TRAFFIC. DURING A CLOSURE OF AN AT-GRADE INTERSECTION, THE ADJACENT RAMPS AND/OR AT-GRADE INTERSECTION MUST REMAIN OPEN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SCHEDULE THE INTERSECTION WORK TO MEET THIS REQUIREMENT. ACCESS TO EMERGENCY VEHICLES MUST BE MAINTAINED AT ALL TIMES BY USE OF WEDGING THE PAVEMENT OR BY OTHER MEANS.

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN STANDARD 48 X 30 INCH ROAD CLOSED SIGNS, SIGN SUPPORTS, BARRICADES AND LIGHTS, AS DETAILED IN SCD MT-101.60 AT THE FOLLOWING LOCATION DURING PERIODS IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC.

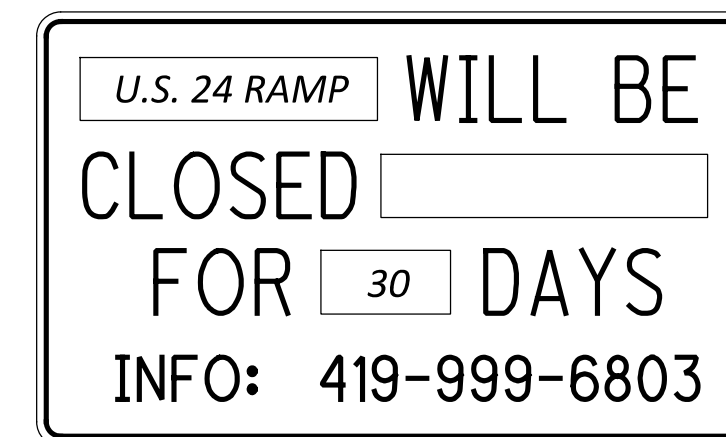
- C.R. 115 JUST SOUTH OF T.R. 22B
-TYPE 3 BARRICADES WITH R11-3a SIGN
- C.R. 115 JUST SOUTH OF C.R. 224/T.R. 224
-TYPE 3 BARRICADES WITH R11-3a SIGN
- C.R. 115 JUST NORTH OF C.R. 232
-TYPE 3 BARRICADES WITH R11-3a SIGN
- C.R. 232 JUST WEST OF T.R. 123
-TYPE 3 BARRICADES WITH R11-3a SIGN
- C.R. 232 JUST WEST OF T.R. 115
-TYPE 3 BARRICADES WITH R11-3a SIGN
- C.R. 232 JUST EAST OF T.R. 133
-TYPE BARRICADES WITH R11-3a SIGN
- C.R. 133 JUST SOUTH OF C.R. 232
-TYPE BARRICADES WITH R11-3a SIGN
- CR. 133 AT C.R. 8
-TYPE BARRICADES WITH R11-3a SIGN

NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD OR RAMP CLOSURES IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW. THE CONTRACTOR SHALL PROVIDE A PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS), AS DETAILED ON SHEET 25, PRIOR TO THE SCHEDULED EXIT RAMP CLOSURES TO NOTIFY THE TRAVELING PUBLIC OF THE UPCOMING CLOSURE. THE PORTABLE CHANGEABLE MESSAGE SIGNS SHALL PLACED ON THE RIGHT-HAND SIDE OF THE ROAD IN ADVANCE OF THE CLOSURE AND SO NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. THE PCMS SHALL BE IN PLACE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW.

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 ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT OR NEAR THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

NOTICE OF CLOSURE SIGN TIME TABLE		
ITEM	DURATION OF CLOSURE	SIGN DISPLAYED TO PUBLIC
RAMP & ROAD CLOSURES	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	7 CALENDAR DAYS PRIOR TO CLOSURE
	<= 12 HRS	2 BUSINESS DAYS PRIOR TO CLOSURE

THE SIGN SHALL DISPLAY THE DATE OF THE CLOSURE IN MM-DD FORMAT AND THE NUMBER OF DAYS OF THE CLOSURE. THE LAST LINE OF THE W20-H13 SIGN LISTS A PHONE NUMBER WHICH A MOTORIST MAY CALL FOR ADDITIONAL INFORMATION.



NOTE: THE CONTRACTOR IS TO SUPPLY THE DATE

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

ALTERNATE METHODS

IF THE CONTRACTOR SO ELECTS, THEY MAY SUBMIT ALTERNATE METHODS FOR MAINTENANCE OF TRAFFIC PROVIDED THE INTENT OF THE ABOVE PROVISIONS ARE FOLLOWED AND NO ADDITIONAL INCONVENIENCE TO THE TRAVELING PUBLIC RESULTS THERE FROM. NO ALTERNATE PLAN SHALL BE PLACED INTO EFFECT UNTIL APPROVAL HAS BEEN GRANTED, IN WRITING, BY THE DISTRICT CONSTRUCTION ENGINEER. ALLOW 2 WEEKS FOR REVIEW WITH NO DELAY TO THE PROJECT. NO ADDITIONAL MONEY WILL BE PAID FOR ALTERNATE METHODS.

LANE CLOSURES

THE CONTRACTOR SHALL PROVIDE AN ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGN IN ADVANCE WARNING OF ANY LANE CLOSURES. SEE NOTE ON SHEET 25.

DUST CONTROL

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

ITEM 616, WATER 137 M. GAL.

MAINTAINING TRAFFIC AT CRACK AND SEAT PAVED AREAS

THE CONTRACTOR SHALL ARRANGE OPERATIONS SO THAT TRAFFIC IS RETURNED TO AN AREA WHEN THE INTERMEDIATE COURSE IS COMPLETE. NO U.S. 24 TRAFFIC SHALL BE ALLOWED TO OPERATE ON A CRACK AND SEAT OR BASE COURSE SURFACE. TRAFFIC ENTERING AND EXITING US-24 AT THE AT-GRADE INTERSECTIONS IS PERMITTED TO CROSS A CRACKED AND SEATED SECTION OF CONCRETE OR ASPHALT BASE BEFORE THE INTERMEDIATE COURSE IS IN PLACE. THE CONTRACTOR SHALL MAINTAIN THESE AREAS IN A CONDITION WHICH IS REASONABLY SMOOTH AND FREE FROM HOLES, BUMPS, AND DEBRIS. ALL REQUIRED WORK ZONE PAVEMENT MARKING SHALL BE PLACED PRIOR TO OPENING THE AREA TO TRAFFIC.

WORK ZONE MARKINGS AND SIGNS

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AT LOCATIONS IDENTIFIED BY THE ENGINEER FOR WORK ZONE PAVEMENT MARKINGS AND SIGNS PER THE REQUIREMENTS OF C&MS 614.04 AND 614.11.

ITEM 614 - WORK ZONE EDGE LINE, CLASS 1, 6" = 84.88 MILES 642 PAINT

SEE THE MAINTENANCE OF TRAFFIC SUBSUMMARY ON SHEET 28 FOR ADDITIONAL WORK ZONE MARKING QUANTITIES.

REMOVAL OF PAVEMENT MARKINGS

THE CONTRACTOR SHALL REMOVE ALL CONFLICTING PAVEMENT MARKINGS ALONG THE WORK ZONE. THE CONTRACTOR SHALL ORGANIZE HIS WORK TO REQUIRE ONLY THE REMOVAL OF CONFLICTING PAVEMENT MARKINGS ALONG ONE LANE IN EACH DIRECTION OF THE ROADWAY. THE LANE TYPE MAY VARY THROUGHOUT THE ZONE. PAYMENT TO REMOVE THESE MARKINGS AND ANY OTHER CONFLICTING MARKINGS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

ITEM 614, REPLACEMENT SIGN

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

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

AN ESTIMATED QUANTITY OF 10 EACH HAS BEEN PROVIDED IN THE GENERAL SUMMARY.



DELINEATION OF PORTABLE AND PERMANENT BARRIER

BARRIER REFLECTORS AND OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE BARRIER (PB) USED FOR TRAFFIC CONTROL; AND, ON PERMANENT CONCRETE BARRIER (INCLUDING BRIDGE PARAPETS) LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE.

BARRIER REFLECTORS SHALL CONFORM TO C&MS 626, EXCEPT THAT THE SPACING SHALL BE AS PER TRAFFIC SCD MT-101.70. OBJECT MARKERS AND THEIR INSTALLATION SHALL CONFORM TO C&MS 614.03 AND SCD MT-101.70. WHEN THE PB CONTAINS GLARE SCREEN, ONE SET OF THREE VERTICAL STRIPES OF SHEETING SHALL BE CONSIDERED EQUIVALENT TO AN OBJECT MARKER, ONE-WAY.

ESTIMATED QUANTITIES FOR BARRIER REFLECTORS AND OBJECT MARKERS ARE INCLUDED IN THE MAINTENANCE OF TRAFFIC SUBSUMMARY.

PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING EACH OF THE ABOVE ITEMS.

MAINTAINING TRAFFIC NEAR RUMBLE STRIPS

TRAFFIC IS NOT PERMITTED TO RUN ON OR CROSS OVER ANY RUMBLE STRIPS AT ANY TIME. RUMBLE STRIPS MUST BE FILLED WHEN THEY CONFLICT WITH THE MAINTENANCE OF TRAFFIC LANE CONFIGURATION. THIS INCLUDES LOCATIONS OF LANE SHIFTS ENTERING AND EXITING A WORK ZONE, AS WELL AS, CONFLICTING RUMBLE STRIPS AT THE ENTRANCE AND EXIT RAMPS. THE RUMBLE STRIPS SHALL BE FILLED OR ELIMINATED BY PLANING AND PAVING TO PROVIDE A SMOOTH RIDE TO THE SATISFACTION OF THE PROJECT ENGINEER. ONCE TRAFFIC IS RETURNED TO THE FINAL LANE CONFIGURATION, RUMBLE STRIPS THAT WERE REMOVED IN ANY EXISTING PAVEMENT NOT BEING RECONSTRUCTED OR RESURFACED, SHALL BE RESTORED TO THE PRE-CONSTRUCTION CONDITION TO THE SATISFACTION OF THE ENGINEER.

THE FOLLOWING ARE ESTIMATED LOCATIONS OF RUMBLE STRIP REMOVAL AND REPLACEMENT. THE ACTUAL LIMITS MAY VARY.

PHASE 1: EASTBOUND OUTSIDE SHOULDER
STA. 1337+50 TO 1342+50 = 500 FT
U.S. 127 RAMP B = 100 FT
U.S. 127 RAMP D = 350 FT
BALTIMORE ST. RAMP C = 100 FT
STA. 1911+00 TO 1916+00 = 500 FT

PHASE 1: WESTBOUND OUTSIDE SHOULDER
STA. 1917+50 TO 1922+50 = 500 FT
BALTIMORE ST. RAMP B = 100 FT
BALTIMORE ST. RAMP A = 350 FT
U.S. 127 RAMP C = 100 FT
U.S. 127 RAMP A = 350 FT
STA. 1344+00 TO 1349+00 = 500 FT

FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AT LOCATIONS THAT REQUIRE RUMBLE STRIP REMOVAL AND REPLACEMENT. THE QUANTITIES ARE BASED ON AN AVERAGE WIDTH OF 3 FEET.

ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, 1 1/2" = 1150 SY
ITEM 407 - NON-TRACKING TACK COAT = 81 GAL
ITEM 441 - ASPHALT CONCRETE SURFACE, COURSE TYPE 1, (448), PG64-22 = 1150 SY

EARTHWORK FOR MAINTAINING TRAFFIC

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

EXCAVATION FOR MAINTAINING TRAFFIC 763 CU. YD.
EMBANKMENT FOR MAINTAINING TRAFFIC 600 CU. YD.

WHEN UNDERCUTS ARE NECESSARY FOR MAINLINE PAVEMENT OR EMBANKMENT CONSTRUCTION, EVALUATE THE NEED FOR TEMPORARY ROAD UNDERCUTS IF WITHIN A CLOSE PROXIMITY TO THE MAINLINE UNDERCUTS. A GEOTECHNICAL EVALUATION SHOULD BE CONSIDERED TO DETERMINE IF THE EXISTING SOIL CONDITIONS ARE ADEQUATE TO SUPPORT THE TEMPORARY ROAD. ADDITIONAL SOIL BORINGS ALONG THE TEMPORARY ROAD ARE NOT NORMALLY REQUIRED.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE OFFICE OF MATERIALS MANAGEMENT WEB PAGE. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 800 FEET AND 650 FEET, RESPECTIVELY.

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. THE PCMS SHALL BE DELINEATED IN ACCORDANCE WITH C&MS 614.03.

THE PROBABLE PCMS LOCATIONS SHALL BE IN ADVANCE OF LANE CLOSURES AND EXIT RAMP CLOSURES. 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 CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED AWAY FROM ALL TRAFFIC.

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

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT RECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE.

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

THE PCMS SHALL CONTAIN A CELLULAR TELEPHONE DATA LINK WHICH WILL (IN ACTIVE CELLULAR PHONE AREAS) ALLOW REMOTE SIGN ACTIVATION, MESSAGE CHANGES, MESSAGE ADDITIONS AND REVISIONS TO TIME OF DAY PROGRAMS. THE SYSTEM SHALL ALSO PERMIT VERIFICATION OF CURRENT AND PROGRAMMED MESSAGES. ONE REMOTE DATA INPUT DEVICE (LAPTOP COMPUTER PLUS MODEM OR EQUIVALENT) SHALL BE FURNISHED FOR USE BY THE DISTRICT TRAFFIC ENGINEER, OR EQUIVALENT, AND SHALL BE INSURED AGAINST THEFT. THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF C&MS 614.07. 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. THE ENTIRE COST TO CONTROL TRAFFIC, ACCRUED BY THE DEPARTMENT DUE TO THE CONTRACTOR'S NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24-HOUR-PER-DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT 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 56 SNMT

ESTIMATING 4 PCMS FOR 13 MONTHS (LANE CLOSURES)
4 PCMS FOR 1 MONTH (EXIT RAMP CLOSURES)

ITEM 441 - ASPHALT CONCRETE, MISC.: PAVEMENT FOR MOT TRANSITIONS

THIS ITEM IS PROVIDED TO BUILD PAVEMENT TRANSITIONS AND/OR WEDGES FOR MAINTENANCE OF TRAFFIC. THESE TRANSITIONS AND/OR WEDGES ARE TO MAINTAIN TRAFFIC TO AND FROM THE INTERCHANGE RAMPS DURING PHASE 2 OF CONSTRUCTION. THE INTENT OF THESE TRANSITIONS IS TO PROVIDE A PAVEMENT TRANSITION FROM FINISHED INTERMEDIATE COURSE TO THE EXISTING CONCRETE SURFACES.

THE WORK CONSISTS OF PROVIDING, MAINTAINING, AND SUBSEQUENTLY REMOVING THE PAVEMENT FOR MOT TRANSITIONS. THE ASPHALT MATERIAL USED CAN BE ANY OF THE ASPHALT CONCRETE PAVEMENTS SPECIFIED IN THESE PLANS EXCEPT FOR ITEM 302 - ASPHALT CONCRETE BASE, PG64-22. THE PAVEMENT SLOPE FOR THE TRANSITIONS SHALL NOT EXCEED 4% IN ANY DIRECTION.

PAYMENT FOR THE ABOVE-MENTIONED WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 441 - ASPHALT CONCRETE, MISC.: PAVEMENT FOR MOT TRANSITIONS, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT, AND MATERIALS, INCLUDING TACK COAT AND SEALING OF JOINTS.

AN ESTIMATED QUANTITY OF 350 CY HAS BEEN PROVIDED IN THE GENERAL SUMMARY. THIS ESTIMATE QUANTITY IS BASED ON AN ESTIMATED AREA OF 1,200' X 16' FOR 2 RAMP TRANSITIONS.

SEQUENCE OF CONSTRUCTION

PART WIDTH CONSTRUCTION WILL BE REQUIRED TO COMPLETE THE PAVEMENT WORK ON THIS PROJECT. SEE THE MAINTENANCE OF TRAFFIC TYPICAL SECTION ON SHEET 22 FOR DETAILS. IT IS NECESSARY TO ADD ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A ALONG THE MEDIAN SHOULDER IN AREAS OF PAVEMENT REMOVAL AND REPLACEMENT IN ORDER TO MAINTAIN ONE (1) - TEN (10) FOOT LANE WITH TWO (2) FOOT SHOULDERS WHILE THE DRIVING LANE AND OUTSIDE SHOULDERS ARE CONSTRUCTED.

PRIOR TO PHASE 1, THE RUMBLE STRIPS IN THE OUTSIDE SHOULDER THAT WILL CONFLICT WITH TRAFFIC IN PHASE 1 SHALL BE REMOVED BY MILLING AND FILLING. ALSO, PRIOR TO SHIFTING TRAFFIC TO THE OUTSIDE SHOULDER, THE EXISTING BERM SHALL BE BROUGHT UP FLUSH WITH THE EXISTING CONCRETE SURFACE.

PHASE 1:

CLOSE THE LEFT LANE IN BOTH EASTBOUND AND WESTBOUND DIRECTIONS OF U.S. 24 PER MT-95.30/MT-95.40.

SHIFT TRAFFIC 6' ONTO THE OUTSIDE SHOULDER PER MT-102.10. AFTER SHIFTING, TRAFFIC WILL STRADDLE THE RUMBLE STRIPS ON THE OUTSIDE SHOULDER.

COMPLETE WORK UP TO THE INTERMEDIATE COURSE ON THE LEFT LANE AND MEDIAN SHOULDER IN BOTH EASTBOUND AND WESTBOUND DIRECTIONS OF U.S. 24.

PLACE ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A NECESSARY FOR PHASE 2.

PHASE 2:

CLOSE THE RIGHT LANES IN BOTH EASTBOUND AND WESTBOUND DIRECTIONS OF U.S. 24 PER MT-95.30/MT-95.40.

SHIFT TRAFFIC 4' ONTO THE INSIDE SHOULDER AND ITEM - 615 PAVEMENT, PER MT-102.10.

COMPLETE WORK UP TO THE INTERMEDIATE COURSE ON THE RIGHT LANE, OUTSIDE SHOULDER AND RAMPS TO AND FROM U.S. 127 AND BALTIMORE STREET.

PHASE 3:

PLACE SURFACE COURSE, FINAL PAVEMENT MARKINGS, AND RUMBLE STRIPS.



ITEM 614, WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (UNIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING A NON-GATING IMPACT ATTENUATOR. FURNISH AN IMPACT ATTENUATOR FROM THE OFFICE OF ROADWAY ENGINEERING'S APPROVED LIST FOR WORK ZONE IMPACT ATTENUATORS, FROM THE ROADWAY STANDARDS APPROVED PRODUCTS WEB PAGE.

INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

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

WHEN BIDIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS.

WHEN GATING IMPACT ATTENUATORS ARE DESIRED, THE CONTRACTOR SHALL SUBMIT DOCUMENTATION TO THE ENGINEER FOR ACCEPTANCE.

THE COST FOR THE ADDITIONAL BARRIER REQUIRED FOR A GATING IMPACT ATTENUATOR SHALL BE INCLUDED IN THE COST OF THE GATING IMPACT ATTENUATOR.

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

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.

CSX TRANSPORTATION COORDINATION NOTES

1. REFER TO THE CSX TRANSPORTATION PUBLIC PROJECT INFORMATION MANUAL FOR ADDITIONAL REQUIREMENTS NEEDED FOR WORKING ON/ABOVE/ADJACENT TO CSXT. SPECIFIC SECTIONS THAT PERTAIN TO THIS PROJECT ARE SPECIAL PROVISIONS FOR CONSTRUCTION NEAR CSXT PROPERTY, OVERHEAD BRIDGE CRITERIA, CONSTRUCTION SUBMISSION CRITERIA, AND INSURANCE REQUIREMENTS FOR PUBLIC PROJECTS.

2. CONTRACTOR ACCESS WILL BE LIMITED TO THE IMMEDIATE PROJECT AREA ONLY. THE CSXT RIGHT-OF-WAY OUTSIDE THE PROJECT AREA MAY NOT BE USED FOR CONTRACTOR ACCESS TO THE PROJECT SITE AND NO TEMPORARY AT-GRADE CROSSINGS WILL BE ALLOWED.

3. THE CONTRACTOR WILL BE REQUIRED TO ABIDE BY THE PROVISIONS OF THE AGENCY/CSXT CONSTRUCTION AGREEMENT. PERIODICALLY, THROUGHOUT THE PROJECT DURATION, THE CONTRACTOR MAY BE REQUIRED TO MEET, DISCUSS AND, IF NECESSARY, TAKE IMMEDIATE ACTION AT THE DISCRETION OF CSXT PERSONNEL AND/OR THEIR AUTHORIZED REPRESENTATIVE, TO COMPLY WITH PROVISIONS OF THAT AGREEMENT AND THESE SPECIFICATIONS.

4. IT IS THE RESPONSIBILITY OF THE INDIVIDUAL OWNERS OF WIRELINES, PIPELINES, UTILITIES, ETC. TO COORDINATE DIRECTLY WITH CSXT REAL ESTATE AND FACILITIES MANAGEMENT (REFM) GROUP. THIS INCLUDES ALL NEW INSTALLATIONS AND THE ADJUSTMENT, MODIFICATION, REMOVAL OR RETIREMENT IN PLACE OF ALL EXISTING FACILITIES.

5. THE CONTRACTOR MAY NOT USE CSXT RIGHT-OF-WAY FOR STORAGE OF MATERIALS OR EQUIPMENT DURING CONSTRUCTION WITHOUT PRIOR CSXT APPROVAL. THE CSXT RIGHT-OF-WAY MUST ALWAYS REMAIN CLEAR FOR RAILROAD USE. EQUIPMENT MAY NOT BE POSITIONED TO BLOCK THE RAILROAD ACCESS ROAD, TRACK AREA OR ANY PART OF THE CSXT RIGHT-OF-WAY WITHOUT PRIOR CSXT APPROVAL. ALL MOVEMENTS OF EQUIPMENT WITHIN RAILROAD RIGHT-OF-WAY MUST BE COORDINATED WITH THE RAILROAD FLAGGER.

6. THE ROADWAY AUTHORITY, OR DESIGNATED CONTRACTOR, SHALL COORDINATE WITH THE RAILROAD WHENEVER THE CONTRACTOR'S WORK ACTIVITIES ARE LOCATED OVER, UNDER OR WITHIN THE RAILROAD'S RIGHT-OF-WAY.

7. ANY DAMAGE CAUSED BY THE PROJECT WORK TO THE TRACK OR RAILROAD PROPERTY WILL REQUIRE REPAIR IMMEDIATELY UPON NOTIFICATION FROM THE RAILROAD OR THEIR DESIGNATED REPRESENTATIVE. IF THE DAMAGE AFFECTS THE TRACK, TRACK STRUCTURE, RAILROAD FACILITIES, OR TRAIN OPERATIONS AS DETERMINED BY THE RAILROAD, THE REPAIRS WILL BE PERFORMED BY THE RAILROAD AT THE CONTRACTOR'S EXPENSE INCLUDING ALL ASSOCIATED COSTS OF DELAYS TO THE RAILROAD.

8. DURING TRAIN MOVEMENTS THROUGH THE PROJECT LOCATION, VEHICLES, EQUIPMENT, AND PERSONNEL WILL NOT BE ALLOWED TO OPERATE WITHIN TWENTY-FIVE (25) FEET OF THE TRACK.

9. CSXT SHALL BE NOTIFIED AT LEAST FIVE (5) DAYS IN ADVANCE OF THE PRE-CONSTRUCTION MEETING.

10. THE CONTRACTOR SHALL COORDINATE ALL WORK ON, OVER OR ADJACENT TO THE RAILROADS WITHIN THE PROJECT'S LIMITS. THE CONTRACTOR SHALL CONTACT CSX RAILROAD AT LEAST THIRTY (30) DAYS IN ADVANCE IN ORDER TO COORDINATE THE NECESSARY WORK. UNDER NO CIRCUMSTANCES SHALL THERE BE ANY WORK WITHIN THE RAILROAD RIGHT-OF-WAY WITHOUT THE PROPER AUTHORIZATION AND/OR FLAG PROTECTION FROM THE RAILROAD.

11. THE USE OF ACETYLENE GAS IS PROHIBITED FOR USE ON OR OVER CSX PROPERTY. TORCH CUTTING SHALL BE PERFORMED UTILIZING OTHER MATERIALS SUCH AS PROPANE.

12. CSXT REQUIRES THAT THE CONTRACTOR SUBMIT AND RECEIVE ACCEPTANCE OF A COMPREHENSIVE MEANS & METHODS SUBMITTAL (CSXT CONSTRUCTION SUBMISSION CRITERIA, ISSUED MAY 2023) DETAILING SCOPE WORK WITHIN CSXT TRACKS OR RIGHT-OF-WAY, OR OTHER WORK WHICH PRESENTS THE POTENTIAL TO AFFECT CSXT PROPERTY OR OPERATIONS TO UNDERTAKING THE WORK.

13. ALL LIFTING EQUIPMENT AND CONNECTION DEVICES SHALL HAVE A CAPACITY FOR 150% OF THE ACTUAL LIFTING LOAD. THE FACTOR OF SAFETY PROVIDED BY THE MANUFACTURER IN THE LIFTING CAPACITY DATA SHALL NOT BE CONSIDERED IN THE 150% REQUIREMENT.

14. TEMPORARY CONSTRUCTION CLEARANCES (HORIZONTAL & VERTICAL) PROPOSED - FOR EXISTING OR LESS THAN STANDARD CONDITIONS - SHALL BE SUBJECT TO APPROVAL BY CSXT. TYPICALLY REDUCTION IN CONSTRUCTION CLEARANCES ARE NOT PERMITTED.

15. DURING AND AFTER COMPLETION OF CONSTRUCTION, THE OUTSIDE PARTY OR ITS CONTRACTOR SHALL CLEAR CSXT'S DRAINAGE DITCHES OF ALL DEBRIS TO THE SATISFACTION OF CSXT'S CONSTRUCTION MONITORING REPRESENTATIVE.

16. A WORK SITE SAFETY PLAN THAT INCLUDES A RECOGNITION TO KEEP ALL PERSONNEL FROM FOULING CSXT RAIL OPERATIONS, A FALL PROTECTION PLAN DESCRIBING THE MEASURES TO BE TAKEN WHEN REQUIRED, AND A FIRE PROTECTION PLAN SHALL BE PRESENTED AND ACCEPTED BY CSXT FOR WORK ON, OVER OR ADJACENT CSXT PROPERTY.

17. ALL WASTE MATERIALS GENERATED BY THIS PROJECT, INCLUDING WASHING WITH CLEANING SOLVENTS, BLASTING, SCRAPING, BRUSHING AND/OR PAINTING OPERATIONS, SHALL BE THE RESPONSIBILITY OF THE AGENCY OR ITS CONTRACTOR, AND SHALL BE CONTAINED, COLLECTED AND PROPERLY DISPOSED OF BY THE STATE OR ITS CONTRACTOR. THE STATE AND ITS CONTRACTOR AGREE TO FULLY COMPLY WITH ALL FEDERAL, STATE, AND LOCAL ENVIRONMENTAL LAWS, REGULATIONS, STATUTES AND ORDINANCES AT ALL TIMES.

18. CSXT MAY REQUIRE FULL TIME RAILROAD FLAGGING FOR ANY PROJECT TASKS THAT MAY HAVE THE POTENTIAL TO FOUL THE TRACK OR CAUSE A HAZARD TO TRAIN MOVEMENTS.

19. CSXT HAS SOLE AUTHORITY TO DETERMINE THE NEED FOR TRACK PROTECTION REQUIRED TO PROTECT ITS OPERATIONS AND PROPERTY. IN GENERAL, TRACK PROTECTION WILL BE REQUIRED WHENEVER CONTRACTOR OR EQUIPMENT ARE, OR ARE LIKELY TO BE, WORKING WITHIN FIFTY (50) FEET OF TRACK OR OTHER TRACK CLEARANCES AS SPECIFIED BY CSXT.

20. UPON COMPLETION OF THE WORK ON CSXT PROPERTY, THE CONTRACTOR SHALL REQUEST THE OWNER TO ARRANGE A FINAL INSPECTION OF THE PROJECT WITH THE RAILROAD'S PROJECT ENGINEER OR THEIR AUTHORIZED REPRESENTATIVE.

21. CSXT SHALL BE FURNISHED AS-BUILT DRAWINGS SHOWING ACTUAL OPERATING CLEARANCES AS CONSTRUCTED PRIOR TO PROJECT COMPLETION AND CLOSEOUT.

DESIGN AGENCY



DESIGNER

MJS

REVIEWER

MJM 10-13-23

PROJECT ID

117367

SHEET TOTAL


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SHEET NUM.																PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.	
21	23	24	25	26	28A	38	40	41	41A	188	189	195	248	252	256	01/NHS/04	EXT	TOTAL					
																						PAVEMENT	
						195										195	441	70300	195	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449)		
						25,355										25,355	442	10080	25,355	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 12.5 MM, TYPE A (446)		
						21,850										21,850	442	10300	21,850	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447)		
									2,933							2,933	609	24510	2,933	FT	CURB, TYPE 4-C		
						160										160	609	72100	160	CY	CONCRETE MEDIAN		
									857							857	609	98000	857	FT	CURB, MISC.: (TYPE 4-A RETROFIT APPROACH SLABS)	176	
									747							747	609	98000	747	FT	CURB, MISC.: (TYPE 4-A RETROFIT CRACK AND SEAT)	176	
						4,093										4,093	617	10101	4,093	CY	COMPACTED AGGREGATE, AS PER PLAN	21A	
						208,791										208,791	618	40100	208,791	FT	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)		
500																500	SPECIAL	69098700	500	CY	PATCHING CRACKED AND SEATED SURFACE	21	
																						TRAFFIC CONTROL	
																159	620	00500	159	EACH	DELINEATOR, POST GROUND MOUNTED		
												159				159	620	31200	159	EACH	REMOVAL OF DELINEATOR		
										1,945						1,945	621	00100	1,945	EACH	RPM		
										1,922						1,922	621	54000	1,922	EACH	RAISED PAVEMENT MARKER REMOVED		
												4,012				4,012	630	03100	4,012	FT	GROUND MOUNTED SUPPORT, NO. 3 POST		
													202			202	630	08004	202	FT	ONE WAY SUPPORT, NO. 3 POST		
													172			172	630	08600	172	EACH	SIGN POST REFLECTOR		
												2,093				2,093	630	81101	2,093	SF	SIGN ERECTED, FLAT SHEET, AS PER PLAN	177	
												266				266	630	84900	266	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL		
												334				334	630	86002	334	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL		
							0.3									0.3	642	00104	0.3	MILE	EDGE LINE, 6", TYPE 1		
							0.54									0.54	642	00300	0.54	MILE	CENTER LINE, TYPE 1		
							458									458	644	00400	458	FT	CHANNELIZING LINE, 8"		
							1,047									1,047	644	00404	1,047	FT	CHANNELIZING LINE, 12"		
							298									298	644	00500	298	FT	STOP LINE		
												1,140				1,140	644	00700	1,140	FT	TRANSVERSE/DIAGONAL LINE		
												21				21	644	01000	21	EACH	RAILROAD SYMBOL MARKING		
												36				36	644	01300	36	EACH	LANE ARROW		
												95				95	807	14010	95	MILE	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6"		
												21.21				21.21	807	14110	21.21	MILE	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, LANE LINE, 6"		
							14,506									14,506	807	14310	14,506	FT	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CHANNELIZING LINE, 12"		
							4,346									4,346	807	14410	4,346	FT	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, DOTTED LINE, 6"		
							66.58									66.58	850	10010	66.58	MILE	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)		
							2.15									2.15	850	10030	2.15	MILE	GROOVING FOR 12" RECESSED PAVEMENT MARKING, (ASPHALT)		
																						STRUCTURE OVER 20 FOOT SPAN (PAU-24-13.51 L & R)	
												84				84	407	13900	84	GAL	TACK COAT, 702.13		
												84				84	407	20000	84	GAL	NON-TRACKING TACK COAT		
												168				168	512	10100	168	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)		
												1,394				1,394	512	10301	1,394	SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN, AS PER PLAN	248	
												40				40	512	10600	40	FT	CONCRETE REPAIR BY EPOXY INJECTION		
												168				168	512	74000	168	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES		
												896				896	512	74500	896	FT	REMOVAL OF EXISTING PAVEMENT MARKING		
												20				20	843	50000	20	SF	PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR		
												94				94	846	00110	94	CF	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM		
												116				116	856	10000	116	CY	BRIDGE DECK WATERPROOFING ASPHALT CONCRETE		
																						STRUCTURE OVER 20 FOOT SPAN (DEF-24-1.68 L & R)	
																86	407	13900	86	GAL	TACK COAT, 702.13		
																86	407	20000	86	GAL	NON-TRACKING TACK COAT		
																174	512	10100	174	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)		
																1,439	512	10301	1,439	SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN, AS PER PLAN	252	
																40	512	10600	40	FT	CONCRETE REPAIR BY EPOXY INJECTION		

DESIGN AGENCY	
DESIGNER	MJS
REVIEWER	MJM
PROJECT ID	10-13-23
PROJECT ID	117367
SHEET	TOTAL
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LOCATION	PAVEMENT						202		302		304			321	407		441		442		609	617	618			
	STATION		SIDE	DISTANCE (D) FT	AVERAGE WIDTH (W) FT	SURFACE AREA (A) A=DxW/9 SY	CADD GENERATED AREA SY	PAVEMENT REMOVED SY	CONCRETE MEDIAN REMOVED SY	ASPHALT CONCRETE BASE, PG64-22, (449) CY	ASPHALT CONCRETE BASE, PG64-22, (449) CY	AGGREGATE BASE CY	AGGREGATE BASE CY	AGGREGATE BASE CY	CRACKING AND SEATING NON-REINFORCED CONCRETE PAVEMENT, AS PER PLAN SY	TACK COAT, 702.13 0.06 GAL/SY GAL	NON-TRACKING TACK COAT 0.06 GAL/SY GAL	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449) CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449) CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447) CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 12.5 MM, TYPE A (446) CY	CONCRETE MEDIAN CY	COMPACTED AGGREGATE, AS PER PLAN CY	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE) FT		
	FROM	TO																								
COUNTY ROAD AT-GRADE INTERSECTIONS WITH U.S.24	COUNTY ROAD 115 1470+72.60					3546.64			394.07					74.15	3546.64	212.80	425.60			147.78	172.41					
						345.25											31.07	13.31	10.58	14.39						
						350.94											31.58	13.53	10.76	14.62						
	COUNTY ROAD 232 1556+50.00					3666.86			407.43					69.67	3666.86	220.01	440.02			152.79	178.25					
						349.12											31.42	13.46	10.70	14.55						
						434.06											39.07	16.73	13.30	18.09						
	COUNTY ROAD 133 1580+82.20					3530.68			392.30					69.67	3530.68	211.84	423.68			147.11	171.63					
						315.09											28.36	12.15	9.66	13.13						
						350.80											31.57	13.52	10.75	14.62						
	COUNTY ROAD 143 1694+55.89					3527.91			391.99					69.67	3527.91	211.67	423.35			147.00	171.50					
						324.89											29.24	12.53	9.96	13.54						
						346.88											31.22	13.37	10.63	14.45						
SUBTOTALS FROM THIS SHEET									1585.79				283.17	14272.09	856.33	1966.18	108.61	86.35	712.05	693.78						
SUBTOTALS FROM SHEET 37							5017.86	561.00	4634.59	1577.14	46.75	538.34	1196.68	40677.62	2440.66	5784.53					1903.98	2221.31	159.73	302.82		
SUBTOTALS FROM SHEET 36							29504.47		48847.88	9275.76		2668.18	9138.40	432112.19	25926.73	57164.27						19234.03	22439.70		3790.46	208790.78
TOTALS CARRIED TO THE GENERAL SUMMARY							34522	561	65921			13872		487062	29224	64915		195		21850	25355	160	4093	208791		

PAVEMENT CALCULATIONS - AT-GRADE INTERSECTIONS

DESIGN AGENCY

 DESIGNER
 MJS
 REVIEWER
 MJM 10-13-23
 PROJECT ID
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 SHEET TOTAL
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FIELD REVIEW AND SIGN VERIFICATION

PROSPECTIVE BIDDERS ARE EXPECTED TO FIELD REVIEW THE SIGN SUPPORT LOCATIONS PER CONSTRUCTION AND MATERIAL SPECIFICATIONS (CMS) 102.05. THIS WILL PROPERLY ORIENT THE BIDDERS TO THE PROJECT. THE AWARDED CONTRACTOR SHALL CONDUCT A FIELD REVIEW OF ALL THE SIGN SUPPORT LOCATIONS TO DOCUMENT THE WORK NECESSARY AND NEEDED AS NOTED IN THE PLANS.

VERIFICATION OF EXTRUSHEET SIGN SIZES, SIGN LOCATIONS SIGN POST, I-BEAMS, BREAKAWAY SUPPORTS AND ELEVATIONS SHALL BE DONE BY THE CONTRACTOR PRIOR TO ORDERING MATERIALS.

SIGNS WERE DESIGNED USING DISTRICT ONE SURVEY DATA AND EXISTING PLANS LOCATED AT THE DISTRICT ONE OFFICE.

SIGN POSITION

UNLESS OTHERWISE DIRECTED BY THE ENGINEER, THE FOLLOWING CONDITIONS SHALL APPLY:

GROUND MOUNTED SIGNS SHOULD HAVE THE CORRECT LATERAL AND VERTICAL CLEARANCE WITH REGARDS TO THE EDGE OF PAVEMENT IN ACCORDANCE WITH THE STANDARD CONSTRUCTION DRAWINGS AND OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OUMTCD) WHERE PHYSICAL CONDITIONS PERMIT.

SIGNS ERECTED OR RE-ERECTED ON NEW POST SUPPORTS SHALL BE LOCATED LONGITUDINALLY TO THE ROADWAY IN THE SAME POSITION AS THE EXISTING SIGNS.

THE PLANS ARE APPROXIMATED TO SHOW THE ORDER OF SIGNS IN RELATIONSHIP TO EACH OTHER AND ARE NOT TO BE CONSIDERED EXACT LOCATIONS.

IF THERE IS A CONFLICT WITH ANY OF THE PROPOSED LOCATIONS, THE CONTRACTOR SHOULD GET THE APPROVAL OF THE PROJECT ENGINEER FIRST BEFORE INSTALLING THE NEW SIGN(S) AND SUPPORT(S).

EXISTING SIGNS NOT SHOWN ON THE SUMMARY OF WORK LOCATIONS SHALL NOT BE DISTURBED, UNLESS DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL USE A VEHICLE DISTANCE MEASURING DEVICE TO DETERMINE SIGN LOCATIONS ON THE PLAN.

AT-GRADE INTERSECTIONS AND MEDIANS

THERE ARE 4 AT-GRADE INTERSECTIONS WITHIN THIS PROJECT. QUANTITIES HAVE BEEN INCLUDED FOR REPLACEMENT OF FLAT SHEET SIGNS AND SIGN POST REFLECTORS IN THE SUBSUMMARY FOR A TYPICAL AT-GRADE INTERSECTION.

THERE ARE 2 MEDIAN CROSSOVERS WITHIN THIS PROJECT. QUANTITIES HAVE BEEN INCLUDED FOR REPLACEMENT OF FLAT SHEET SIGNS AND SIGN POST REFLECTORS IN THE SUBSUMMARY FOR A TYPICAL MEDIAN CROSSOVER.

ITEM 630 - GROUNDED MOUNTED SUPPORT, NO. 3 POST, AS PER PLAN

WHERE GROUND MOUNTED POST SUPPORTS ARE TO BE INSTALLED WITHIN THE LIMITS OF THE PROPOSED CONCRETE MEDIAN ISLANDS, THE CONTRACTOR SHALL CONSTRUCT A CORE HOLE AS DESCRIBED AN STANDARD CONSTRUCTION DRAWING TC-42.20. EXCEPT THE CORE HOLE SHALL BE 12" IN DIAMETER INSTEAD OF 8".

THE HOLE SHALL BE BACKFILLED WITH SAND AND ASPHALT AS DETAILED IN THE STANDARD CONSTRUCTION DRAWING.

ALL OTHER PERTINENT ASPECTS OF ITEM 630 - GROUND MOUNTED SUPPORT, NO. 3 POST, INCLUDING THE FURNISHMENT AND INSTALLATION OF THE GROUND POST SHALL APPLY.

THE CONTRACTOR SHALL FURNISH ALL THE LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO COMPLETE THE WORK. PAYMENT FOR ALL WORK WILL BE INCLUDED IN THE PRICE BID PER ITEM 630 - GROUND MOUNTED SUPPORT, NO. 3 POST, AS PER PLAN.

ITEM 630 - GROUND MOUNTED SUPPORT, NO. 3 POST, AS PER PLAN. = 36 FT

ITEM 630 - SIGN ERECTED, FLAT SHEET, AS PER PLAN

THIS ITEM INCLUDES ERECTING SIGNS PER C&MS 630. THE SIGNS ARE FURNISHED BY ODOT AND WILL BE AVAILABLE FOR PICK UP AT THE ODOT DEFIANCE COUNTY GARAGE: 2340 BALTIMORE ROAD, DEFIANCE, OH 43512. THE CONTRACTOR SHALL LET THE PROJECT ENGINEER KNOW 7 DAYS PRIOR TO THE PROPOSED DATE OF PICKUP TO ALLOW FOR COORDINATION WITH THE DEFIANCE COUNTY GARAGE. ALL COSTS ASSOCIATED WITH PICKING UP THE SIGNS AND TRANSPORTING THE SIGNS TO THE PROJECT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 630 SIGN ERECTED, FLAT SHEET, AS PER PLAN.

DESIGN AGENCY



DESIGNER

MJS

REVIEWER

MJM 10-13-23

PROJECT ID


117367

SHEET TOTAL

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SHEET NO.	REFERENCE NO.	OLD REFERENCE	LOGPOINT	STATION	CODE	SIZE INCHES	SIDE	630 SIGN ERRECTED, FLAT SHEET, AS PER PLAN SF	630 GROUND MOUNTED SUPPORT, NO. 3 POST FT	630 ONE WAY SUPPORT, NO. 3 POST FT	630 SIGN POST REFLECTOR EACH	630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL EACH	
243														
244	278	999		37+30	R6-1R-54	54x18	RMP B	6.8	12	12		1	2	
					R6-1L-54	54x18		6.8				1		
	279	998		1870+95	R1-1-36	36x36	RMP B	9	13.5	13.5	2	1	2	
					R5-1-36	36x36		9			2	1		
	281	990		1870+95	R1-1-36	36x36	RMP AB	9	14.5		1	1	1	
					M3-2-24	24x12		2				1		
					M1-4-24-2	24x24		4			1	1		
					M6-2a-21	21x15		2.2				1		
	281A	990		1870+95	M3-2-24	24x12	RMP A	2	14.5		1	1	1	
					M1-4-24-2	24x24		4				1		
					M6-2a-21	21x15		2.2				1		
	282			38+50		144X108								
	284	991		1898+92	W1-11R-36	36x36	RMP B	9	15.1	15.1	2	1	2	
					W13-1P-30	30x30		5				1		
	284A	997		1873+45	R3-H8bd-30	30x24	RMP B	5	15.1	15.1	2	1	2	
					R5-1A-30	30x18		3.75			2	1		
	284B	997		1873+45	R3-H8bd-30	30x24	RMP AB	5	15.1	15.1	2	1	2	
					R5-1A-30	30x18		3.75			2	1		
	314	996		1875+00	W3-1-36	36x36	RMP B	9	15	15	2	1	2	
					R5-1A-36	36x24		6			2	1		
	315	995		1896+96	W13-3-36	36x48	RMP A	12	14.8	15.2	2	1	2	
	316	996		1875+00	W3-1-36	36x36	RMP B	9	15	15	2	1	2	
					R5-1A-36	36x24		6			2	1		
245	321	993		1888+00	W8-13-48	48x48	RMP A	9	13	13	2	1	2	
	321A			1886+86	W8-13-48	48x48	RMP B	9	13	13	2	1	2	
246	302	108		64+60	R6-1R-54	54x18		6.8	12	12		1	2	
					R6-1L-54	54x19		6.8				1		
	303	107		1909+00	R1-1-36	36x36	RMP C	9	13.5	13.5	2	1	2	
					R5-1-36	36x36		9			2	1		
	305	997		1909+00	R1-1-36	36x36	RMP CD	9	13.5		1	1	1	
					M3-2-24	24x12		2				1		
					M1-4-24-2	24x24		4			1	1		
					M6-2a-21	21x15		2.2				1		
	305A			1891+60	M3-2-24	24x12	RMP D	2	13		1	1	1	
					M1-4-24-2	24x24		4				1		
					M6-2a-21	21x15		2.2				1		
	305B	1006		1906+50	R3-H8bd-30	30x24	RMP C	5	13	13		1	2	
					R5-1A-30	30x18		3.75			2	1		
	305C	1006			R3-H8bd-30	30x24	RMP CD	5	13	13		1	2	
					R5-1A-30	30x18		3.75			2	1		
	324	1005		1903+00	W3-1-36	36x36	RMP C	9	15	15	2	1	2	
					R5-1A-36	36x24		6				1		
	325	1005		1903+00	W3-1-36	36x36	RMP C	9	15	15	2	1	2	
					R5-1A-36	36x24		6				1		
											50	43	36	
								394	272.2	206	12	16	34	68
								374	460.8	346	66	26	46	61
								406	435.9	375	66	34	51	64
								373	452.3	368	46	22	48	64
								293	336.9	269.1		24	44	41
								253	278.5	211.5	12	50	43	36
								2093	4012	202	172	266	334	

DESIGN AGENCY



DESIGNER
TAB

REVIEWER
MJM 10-13-23

PROJECT ID
117367

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SIGNS
SUBSUMMARY