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CUY-00090-08.100

CUY-00090-08.340

CUY-00090-08.490

CUY-00090-08.920

CUY-00090-09.090

CUY-00090-09.470 L/R

CUY-00090-09.700 L/R

CUY-00090-09.910 L/R

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DESIGN DESIGNATION

BEGIN MILE POST	END MILE POST	CURRENT ADT (2027)	DESIGN YEAR ADT (2047)	DESIGN HOURLY	DIRECTIONAL DISTRIBUTION	TRUCKS (24 HOUR B&C)
5.769	7.099	85,500	88,800	9,800	85%	7%
7.099	8.385	112,000	141,000	13,400	70%	3%
8.385	9.420	102,000	107,500	9,700	70%	6%
9.671	10.424	119,000	132,000	13,200	70%	6%
9.420	9.671	109,000	135,000	13,500	70%	5%
10.424	11.146	127,000	138,000	16,600	70%	6%
11.146	12.271	114000	125000	15,000	70%	6%
12.271	13.285	139000	156300	18,800	70%	6%
13.285	13.621	125000	143000	17,200	70%	6%
13.621	14.510	139000	155700	20,200	90%	6%
14.510	14.914	30500	41000	5,300	100%	8%

STANDARD CONSTRUCTION DRAWINGS

CITY OF CLEVELAND STANDARD
DRAWINGS & SPECIFICATIONS

SUPPLEMENTAL
SPECIFICATIONS

SPECIAL
PROVISIONS

STANDARD CONSTRUCTION DRAWINGS																				CITY OF CLEVELAND STANDARD DRAWINGS & SPECIFICATIONS			SUPPLEMENTAL SPECIFICATIONS				SPECIAL PROVISIONS	
BP-2.1	1/21/22	DM-2.1	1/18/13	MGS-5.3	7/15/16	AS-1-15	1/20/23	HL-10.11	7/21/23		MT-95.71	7/21/23	MT-101.80	1/17/20	TC-41.20	10/18/13	TC-72.20	1/17/25	CB-1	7/8/08		800	1/17/25	866	4/21/17			
BP-2.2	1/15/21	DM-4.1	7/17/20	MGS-6.1	1/19/18	AS-2-15	7/21/23	HL-10.12	7/21/23		MT-95.72	7/19/24	MT-101.90	7/17/20	TC-41.30	4/21/23	TC-73.20	1/17/25				807	1/17/25	873	4/16/21			
BP-2.4	7/19/13					BR-1-13	1/17/14	HL-10.13	1/20/23		MT-95.73	7/19/24	MT-102.10	7/21/23	TC-41.40	10/18/13	TC-74.10	7/21/23				808	7/19/24	878	1/21/22			
BP-3.1	1/19/24	I-2	7/19/24	MH-1	7/15/22	EXJ-4-87	1/19/24	HL-20.11	7/21/23	ITS-14.10	1/17/25	MT-95.82	7/19/13	MT-102.20	4/19/19	TC-41.41	7/19/19	TC-81.22	1/17/25				809	1/17/25	896	7/21/17		
BP-5.1	1/17/25	I-2A	7/19/24	MH-2	7/19/24	GSD-1-19	7/19/24	HL-20.13	1/17/25	ITS-14.11	1/17/25	MT-97.10	4/19/19	MT-102.30	10/16/15	TC-41.50	10/18/13	TC-82.10	1/17/25				816	10/18/19	904	7/15/22		
BP-6.1	7/19/13	I-3B, 3B1	1/17/25	MH-3	7/19/24	PCB-91	7/17/20	HL-20.14	4/17/20	ITS-14.50	1/17/25	MT-97.12	1/20/17	MT-103.10	1/21/22	TC-42.10	10/18/13	TC-83.10	1/17/20				821	4/20/12	907	10/18/19		
BP-7.1	1/17/25	I-3C, 3C1	1/17/25	MH-4	7/16/21	RB-1-55	7/19/24	HL-30.11	7/21/23	ITS-14.60	1/17/25	MT-98.10	1/17/20	MT-104.10	1/19/24	TC-42.20	10/18/13	TC-83.20	7/19/24				829	1/20/17	908	1/17/25		
BP-9.1	1/18/19	I-3D	7/19/24	MH-5	7/19/24	SBR-1-20	7/19/24	HL-30.21	4/17/20			MT-98.11	1/17/20	MT-105.10	1/17/20	TC-51.11	1/15/16	TC-84.20	1/19/24				832	7/19/24	909	1/17/25		
						SBR-2-20	7/19/24	HL-30.22	1/17/25			MT-98.22	1/17/20	MT-110.10	7/19/13	TC-51.12	1/15/16	TC-85.10	1/19/24				838	1/15/21	921	7/19/24		
CB-1	7/19/24	F-1.1	7/19/13	RM-3.1	7/20/18	SICD-1-21	1/19/24	HL-30.31	1/17/25			MT-98.28	1/17/20			TC-52.10	10/18/13	TC-85.20	4/21/23				840	1/17/25	929	7/21/23		
CB-2-2A, 2B, 2C	7/19/24	F-3.1	7/19/13	RM-4.1	1/17/20	SICD-2-14	1/15/21	HL-30.41	1/17/25	MT-95.30	7/19/19	MT-98.29	1/17/20	TC-12.31	4/15/22	TC-52.20	1/15/21						848	7/19/24	996	7/21/23		
CB-2-3, 2-4	7/19/24	F-3.3	7/19/13	RM-4.2	7/19/24	VPF-1-90	7/19/24	HL-40.20	1/17/25	MT-95.31	7/19/19	MT-98.30	7/16/21	TC-15.116	1/19/24	TC-61.10	4/21/23						850	7/21/23				
CB-3	7/19/24	F-3.4	7/19/13	RM-4.3	1/17/25			HL-50.21	7/15/22	MT-95.32	4/19/19	MT-99.20	4/19/19	TC-21.11	7/16/21	TC-61.30	7/19/24											
CB-3A	7/19/24			RM-4.4	1/17/25			HL-60.11	7/21/17	MT-95.40	7/21/23	MT-99.30	1/17/20	TC-21.21	1/20/23	TC-65.10	1/17/14											
CB-4	7/19/24	MGS-1.1	1/17/25	RM-4.5	1/17/25			HL-60.31	7/19/24	MT-95.41	7/21/23	MT-99.50	7/21/23	TC-21.50	1/17/25	TC-65.11	1/17/25											
CB-5	7/19/24	MGS-2.1	1/17/25	RM-4.5M	6/30/95					MT-95.45	7/21/23	MT-100.00	1/19/24	TC-22.10	1/17/25	TC-71.10	4/21/23											
		MGS-3.1	1/19/18	RM-4.6	7/19/24					MT-95.70	7/21/23	MT-101.60	1/17/25	TC-41.10	7/19/13													
DM-1.1	1/17/25	MGS-3.2	1/18/13	RM-5.2	7/21/23							MT-101.70	7/19/24															
DM-1.2	1/17/25	MGS-4.2	1/17/25									MT-101.75	7/21/23															

- A SC STA 779+57.77
@ CONST IR 90
- B CS STA 784+03.29
@ CONST IR 90
- C ST STA 788+03.29
@ CONST IR 90
- D PC STA 801+97.42
@ CONST IR 90
- E PT STA 815+07.23
@ CONST IR 90
- F POT STA 86+22.78
@ CONST RAMP 98-15
- G PT STA 90+45.97
@ CONST RAMP 98-15
- H PT STA 91+03.64
@ CONST RAMP 98-15
- I PT STA 94+01.69
@ CONST RAMP 98-15
- J PC STA 94+44.65
@ CONST RAMP 98-15
- K PT STA 96+25.79
@ CONST RAMP 98-15
- L PC STA 97+00.92
@ CONST RAMP 98-15

- M POT STA 84+62.55
@ CONST RAMP 98-16
- N PT STA 87+61.18
@ CONST RAMP 98-16
- O PC STA 91+96.61
@ CONST RAMP 98-16
- P PC STA 12+77.62
@ CONST RAMP LO-17
- Q CS STA 14+29.82
@ CONST RAMP LO-17
- R SC STA 15+79.82
@ CONST RAMP LO-17
- S PC STA 27+07.15
@ CONST RAMP LO-17

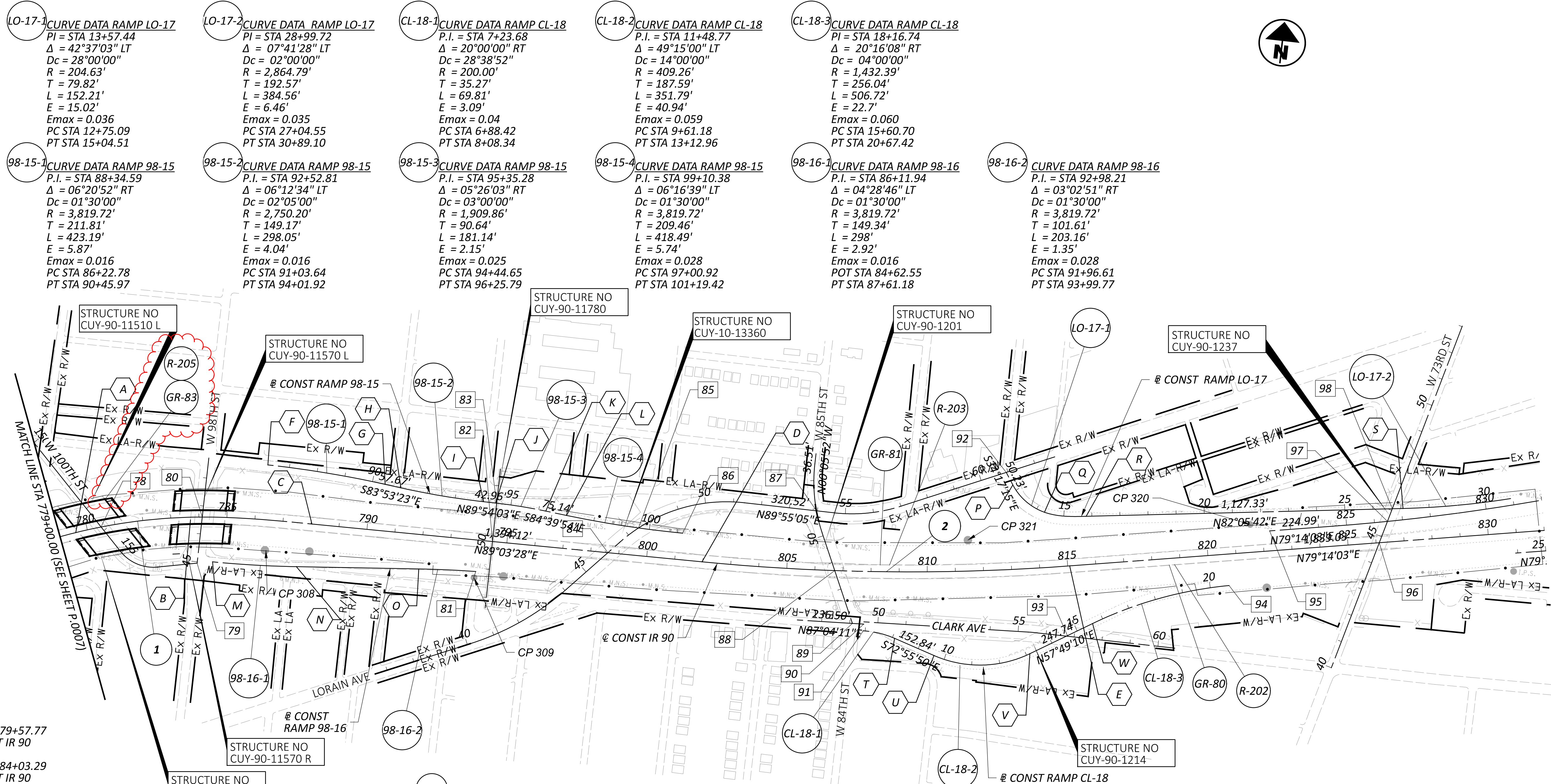
- T PT STA 8+08.34
@ CONST RAMP CL-18
- U PC STA 9+61.18
@ CONST RAMP CL-18
- V PT STA 13+12.96
@ CONST RAMP CL-18
- W PC STA 15+60.70
@ CONST RAMP CL-18

- 1 CURVE DATA IR 90
P.I. = STA 781+88.29
 $\Delta = 25^{\circ}21'57''$ RT
Dc = 03°00'00"
R = 1,909.86'
Ls = 400.00'
 $\theta_s = 06^{\circ}00'00''$
LT = 266.82'
ST = 133.47'
x1 = 399.56'
y1 = 13.95'
k1 = 199.93'
p1 = 3.49'
x2 = 398.83'
y2 = 27.89'
k2 = 199.93'
p2 = 3.49'
 $\Delta C = 13^{\circ}21'57''$ RT
Lc = 445.53'
Ts = 630.52'
Es = 51.34'
Emax = 0.053
C = 399.81'
T.S. = 775+57.77
S.C. = 779+57.77
C.S. = 784+03.29
S.T. = 788+03.29
C.B. = N65°41'30"E
C.B. = N87°03'28"E
- 2 CURVE DATA IR 90
P.I. = STA 808+53.93
 $\Delta = 09^{\circ}49'25''$ LT
Dc = 00°45'00"
R = 7,639.44'
L = 656.52'
T = 1,309.82'
E = 28.16'
Emax = 0.021
PC STA 801+97.42
PT STA 815+07.23

- 78 STA 153+83.99, @ CONST W 100TH ST =
STA 780+50.00, @ CONST IR 90
- 79 STA 44+95.19, @ CONST W 98TH ST =
STA 157+85.64, @ CONST W 100TH ST
- 80 STA 46+60.31, @ CONST W 98TH ST =
STA 784+12.23, @ CONST IR 90
- 81 STA 93+99.77, @ CONST RAMP 98-16 =
STA 793+99.77, 112.00 RT, @ CONST IR 90
- 82 STA 50+00.00, @ CONST W 93RD ST PED BRIDGE =
STA 794+48.63, @ CONST IR 90
- 83 STA 51+37.31, @ CONST W 93RD ST PED BRIDGE =
STA 94+48.63, @ CONST RAMP 98-15
- 84 STA 46+03.37, @ CONST LORAIN AVE =
STA 798+61.05, @ CONST IR 90

- 85 STA 47+43.76, @ CONST LORAIN AVE =
STA 99+61.02, @ CONST RAMP 98-15
- 86 STA 101+19.42, @ CONST RAMP 98-15 =
STA 801+19.42, 95.00' LT, @ CONST IR 90
- 87 STA 53+96.71, @ CONST LORAIN AVE =
STA 50+91.98, @ CONST W 85TH ST
- 88 STA 48+69.45, @ CONST W 85TH ST =
STA 806+70.81, @ CONST IR 90
- 89 STA 46+71.28, @ CONST W 85TH ST =
STA 49+09.62, @ CLARK AVE
- 90 STA 49+50.00, @ CONST CLARK AVE =
STA 49+50.00, 8.00' LT, @ CONST CLARK AVE
- 91 STA 6+88.71, @ CONST RAMP CL-18 =
STA 49+50.00, 24.00' RT, @ CONST CLARK AVE

- 92 STA 60+94.00, @ CONST LORAIN AVE =
STA 12+27.39, @ CONST RAMP LO-17
- 93 STA 56+72.43, @ CONST CLARK AVE =
STA 14+57.36, @ CONST RAMP CL-18
- 94 STA 20+67.42, @ CONST RAMP CL-18 =
STA 820+67.42, 112.00' RT, @ CONST IR 90
- 95 STA 822+25.75, @ CONST IR 90 WB =
STA 822+25.75, 71.00' LT, @ CONST IR 90
- 96 STA 44+76.51, @ CONST W 73RD ST =
STA 826+11.55, @ CONST IR 90
- 97 STA 45+57.79, @ CONST W 73RD ST =
STA 826+46.24, @ CONST IR 90 WB
- 98 STA 46+06.10, @ CONST W 73RD ST =
STA 26+69.21, @ CONST RAMP LO-17



GENERAL (CONTINUED)

BENCHING OF FOUNDATION SLOPES

ALTHOUGH CROSS-SECTIONS INDICATE SPECIFIC DIMENSIONS FOR PROPOSED BENCHING OF THE EMBANKMENT FOUNDATIONS IN CERTAIN AREAS, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. BENCH ALL OTHER SLOPED EMBANKMENT AREAS AS SET FORTH IN SECTION 203.05 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (C&MS). NO ADDITIONAL PAYMENT WILL BE MADE FOR BENCHING REQUIRED UNDER THE PROVISIONS OF SECTION 203.05.

ITEM 204 - PROOF ROLLING

THE FOLLOWING QUANTITY IS PROVIDED IN THE GENERAL SUMMARY TO ADDRESS LOCATIONS REQUIRING PROOF ROLLING.

ITEM 204 - PROOF ROLLING 71 HOUR

ROADWAY

ITEM 203 - EMBANKMENT, AS PER PLAN AND
ITEM 203 - EXCAVATION, AS PER PLAN

ALL PROVISIONS OF 203 APPLY EXCEPT THE METHOD OF MEASUREMENT. THE METHOD OF MEASUREMENT WILL USE THE EARTHWORK CALCULATIONS SHOWN IN THE PLANS INSTEAD OF THE AVERAGE END AREA METHOD. THE CALCULATIONS ARE BASED ON DIGITAL TERRAIN MODEL COMPARISONS BETWEEN EXISTING AND FINAL SURFACES EXCLUDING THE PAVEMENT.

CEMENT STABILIZATION

THIS PROJECT REQUIRES SUBGRADE IMPROVEMENTS USING CEMENT STABILIZATION PRIOR TO PAVEMENT CONSTRUCTION. CEMENT STABILIZATION SHALL BE PERFORMED TO A DEPTH OF 12 INCHES EXCEPT AREAS FOUND TO CONTAIN UNSUITABLE SOILS SHALL BE STABILIZED TO A DEPTH OF 14 INCHES PER THE TABLE BELOW.

STATION RANGES OF UNSUITABLE SOILS			
ALIGNMENT	BEGIN STATION	END STATION	LENGTH (FT)
IR 90	742+00.00	746+00.00	400.00
RAMP 117-11	35+50.00	42+52.49	702.49
RAMP 117-12	33+63.90	43+76.68	1,012.78

CHEMICALLY STABILIZE SUBGRADES TO 18 INCHES BEYOND THE EDGE OF THE SURFACE OF PAVEMENT, PAVED SHOULDERS, PAVED MEDIANS AND 18 INCHES BEHIND THE FACE OF NEW CURBS. WHERE CEMENT STABILIZATION IS PERFORMED, ITEM 204 - SUBGRADE COMPACTION SHALL NOT BE PERFORMED.

THE CONTRACTOR SHALL PERFORM THE MIXTURE DESIGN FOR CHEMICALLY STABILIZED SOILS ACCORDING TO 206 OF THE C&MS AND SUPPLEMENT 1120. PAYMENT FOR THE MIX DESIGN SHALL BE PER:

ITEM 206 - MIXTURE DESIGN FOR CHEMICALLY STABILIZED SOILS, LUMP

IN ACCORDANCE WITH SECTIONS 107.10 AND 107.16 OF THE C&MS, THE CONTRACTOR SHALL EXERCISE CAUTION WHEN PERFORMING CEMENT STABILIZATION IN THE VICINITY OF ALL EXISTING AND PROPOSED UTILITY CROSSINGS. THE UTILITY DEPTHS ARE NEAR THE MINIMUM COVER REQUIREMENTS. THE CONTRACTOR SHALL AVOID USING POWER DRIVEN ROTARY MIXERS DIRECTLY ON TOP OF THE UTILITY CROSSINGS.

SUBGRADE EXCAVATION

IN AREAS WHERE SHALLOW ROCK IS ENCOUNTERED IN THE PROPOSED SUBGRADE WITHIN 12 INCHES BELOW THE BOTTOM OF THE PROPOSED PAVEMENT BUILDUP, CEMENT STABILIZATION SHALL NOT BE PERFORMED. THE CONTRACTOR SHALL EXCAVATE TO A DEPTH 6 INCHES BELOW THE FINAL SUBGRADE ELEVATION. THE WIDTH OF THE UPPER 6 INCHES OF AGGREGATE BASE SHALL EXTEND 18 INCHES BEYOND PAVED SHOULDERS. THE ADDITIONAL 6 INCHES BELOW THE BOTTOM OF THE 6 INCH AGGREGATE BASE SHALL BE REPLACED WITH ITEM 304 AGGREGATE BASE AND SHALL EXTEND A MINIMUM OF 12 INCHES BEYOND PAVED SHOULDERS.

THE FOLLOWING LOCATIONS REPRESENT AREAS WHERE SHALLOW ROCK EXISTS BASED ON THE SUBSURFACE INVESTIGATION.

204 - EXCAVATION OF SUBGRADE, AS PER PLAN - SHALLOW ROCK				
ALIGNMENT	BEGIN STA	END STA	LENGTH (FT)	VOLUME (CU YD)
IR 90	563+00.00	659+00.00	9,801.82*	25,969
IR 90	674+00.00	682+00.00	800.00	2,075
IR 90	726+00.00	738+00.00	1,200.00	3,728
RAMP W1	36+39.23	42+13.75	574.52	341
RAMP W2	29+40.99	37+80.90	839.91	438
RAMP 117-5	27+06.36	31+00.00	393.64	197
RAMP 117-8	24+03.19	33+64.10	960.91	569
RAMP 117-9	30+57.77	39+69.36	911.59	431

*STATION EQUATION: STA. 617+61.82 BK R1 = STA. 615+60.00 AH R2

ADDITIONAL LOCATIONS WHERE EXCAVATION AND REPLACEMENT IS REQUIRED AS DESCRIBED ABOVE ARE AS FOLLOWS:

- WB MEDIAN SHOULDER FROM STA 539+50 TO STA 546+10 FOR THE AREA WITHIN THE MAINTENANCE OF TRAFFIC Crossover.
- FULL WIDTH OF THE EASTBOUND AND WESTBOUND PAVEMENT AND SHOULDERS FROM STA 696+30 TO STA 708+00.

204 - EXCAVATION OF SUBGRADE, AS PER PLAN - ADDITIONAL AREAS				
ALIGNMENT	BEGIN STA	END STA	LENGTH (FT)	VOLUME (CU YD)
IR 90	539+50.00	546+10.00	660.00	417
IR 90	696+30.00	708+00.00	1,170.00	3,001

A VOLUME OF ITEM 204 EXCAVATION OF SUBGRADE, AS PER PLAN HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK DESCRIBED ABOVE.

ITEM 304 AGGREGATE BASE IS NOT INCLUDED IN THE COST OF ITEM 204 ABOVE AND WILL BE PAID FOR SEPARATELY AS ITEMIZED IN THE GENERAL SUMMARY.

ITEM 622 - CONCRETE BARRIER END SECTION, TYPE D, AS PER PLAN

CONSTRUCT REFERENCE CB-106 PER STANDARD CONSTRUCTION DRAWING RM-4.5M DATED 6/30/95. IT IS NOT NECESSARY TO TRANSITION THE BACK SIDE OF THE BARRIER TO MATCH THE EXISTING TYPE B NEW JERSEY SHAPE.

TEST HOLES

WHERE PLANS PROVIDE FOR PROPOSED SUBGRADE STABILIZATION, UNDERCUTTING, UNDERDRAIN, LIGHTING CONDUIT OR ITS CONDUIT TO CROSS OVER OR UNDER AN EXISTING UNDERGROUND UTILITY AND THE UTILITY DEPTH IS NOT SHOWN ON THE PLAN, THE CONTRACTOR WILL BE REQUIRED TO PERFORM TEST HOLES TO DETERMINE THE DEPTH OF THE UTILITY AT THE DIRECTION OF THE ENGINEER.

THE CONTRACTOR SHALL HAVE THE UTILITY MARKED USING OHIO 811 AND/OR BY USE OF RADIO FREQUENCY LOCATORS OR OTHER APPROVED METHOD. ONCE LOCATED, THE CONTRACTOR SHALL CAREFULLY HAND AND/OR VACUUM EXCAVATE TO DETERMINE THE DEPTH OF THE EXISTING UTILITY AND PROVIDE THE SURVEYED COORDINATE AND ELEVATION INFORMATION TO THE ENGINEER.

TEST HOLES (CONTINUED)

IF IT IS DETERMINED THAT THE PROPOSED SUBGRADE STABILIZATION, LIGHTING CONDUIT OR ITS CONDUIT WILL BE IN CONFLICT WITH AN EXISTING UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, NOTIFY THE ENGINEER BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED WORK WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

THE FOLLOWING QUANTITY IS INCLUDED FOR USE AS DIRECTED BY THE ENGINEER FOR THE UTILITY LOCATION BY USE OF TEST HOLES AS DESCRIBED ABOVE:

ITEM 203 - ROADWAY, MISC.: TEST HOLE 24 EACH

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, BEAM SPLICE AS SHOWN IN AASHTO M 180-12, EXCEPT THE BEAM WASHERS ARE NOT TO BE USED. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

ITEM 606 - GUARDRAIL, TYPE MGS, AS PER PLAN
GUARDRAIL, TYPE MGS HALF POST SPACING, AS PER PLAN
GUARDRAIL, TYPE MGS QUARTER POST SPACING, AS PER PLAN

THE POSTS FOR THESE ITEMS SHALL BE STEEL PER 710.15. ALL OTHER PROVISIONS OF 606 SHALL APPLY.

ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ONE OF THE MASH 2016 GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

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

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 31 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, MGS TYPE E, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

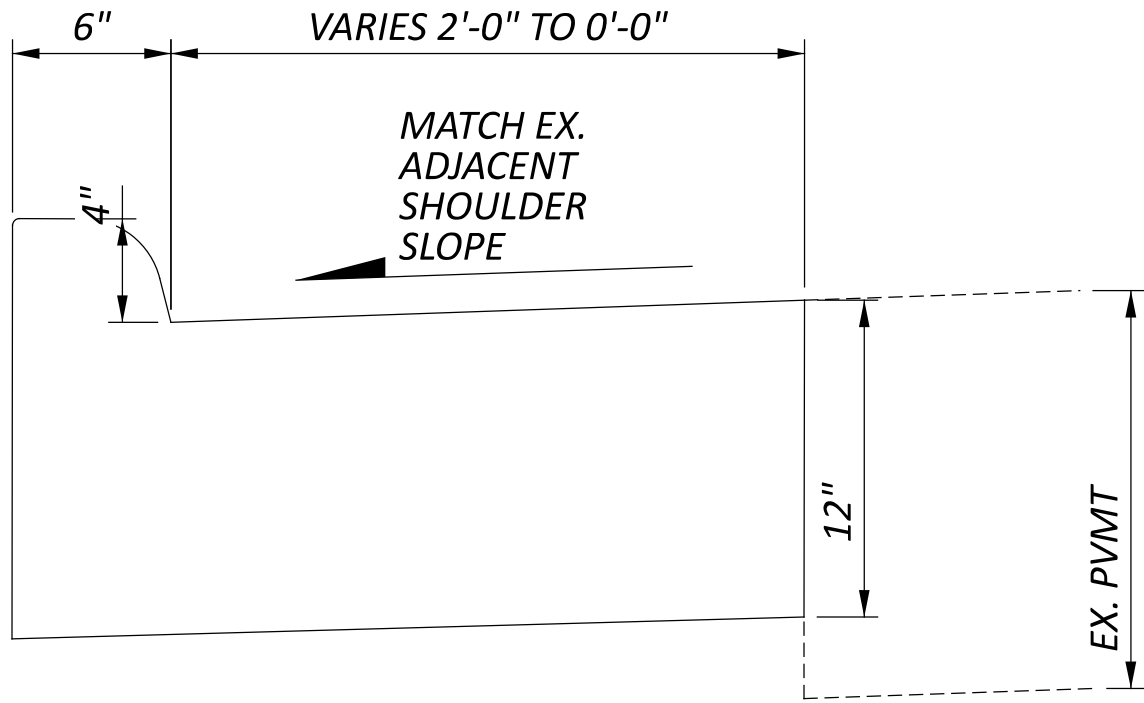
ITEM 202 - PAVEMENT REMOVED, AS PER PLAN

THIS ITEM INCLUDES THE REMOVAL OF EXISTING PAVEMENT TO THE MAXIMUM DEPTHS AS INDICATED ON THE TYPICAL SECTIONS OR TO A GREATER DEPTH IF THE EXISTING PAVEMENT IS THICKER. THIS INCLUDES THE REMOVAL OF ANY EXISTING EARTH OR SUBGRADE MATERIAL FOUND AT THIS DEPTH IF THE EXISTING PAVEMENT IS THINNER THAN SHOWN IN THE EXISTING TYPICAL SECTIONS.

ITEM 609 - COMBINATION CURB AND GUTTER, TYPE 4, AS PER PLAN

THE FOLLOWING VARIABLE WIDTH GUTTER DETAIL BELOW IS PROVIDED FOR THE LONG-TERM TEMPORARY TRANSITION FROM THE PROPOSED 12 FOOT INSIDE SHOULDER TO THE EXISTING 10 FOOT SHOULDER AT THE FOLLOWING LOCATION:

-STA. 768+85.00 TO STA. 769+18.60 EASTBOUND



THE CURB HEIGHT SHALL BE A UNIFORM 4 INCHES.

PAYMENT FOR ALL MATERIALS, TOOLS, EQUIPMENT AND LABOR REQUIRED TO COMPLETE THE WORK DESRIBED ABOVE SHALL BE MADE AT THE UNIT PRICE BID PER FOOT FOR:

ITEM 609 - COMBINATION CURB AND GUTTER, TYPE 4, AS PER PLAN

ITEM 622 - BARRIER, MISC.: PORTABLE BARRIER REMOVED AND RESET

THE CONTRACTOR SHALL REMOVE THE EXISTING PORTABLE CONCRETE BARRIER ON THE EAST SIDE OF W. 140TH ST. NORTH OF RAMP 140-3 TO ALLOW FOR THE RECONSTRUCTION OF THE CURB, CURB RAMP AND SIDEWALK. THE CONTRACTOR MAY STORE THE BARRIER EAST OF THE EXISTING SIDEWALK OR OTHER LOCATION APPROVED BY THE ENGINEER THAT DOES NOT ADVERSELY AFFECT THE SAFETY OF THE PUBLIC. AFTER WORK HAS BEEN COMPLETED IN THIS AREA INCLUDING NECESSARY CONCRETE CURING TIMES, THE CONTRACTOR SHALL RESET THE BARRIER IN ITS ORIGINAL LOCATION AND ORIENTATION.

ITEM 622 - CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE (B1, C1, D), AS PER PLAN

AT LOCATIONS WHERE THE ENTIRE 15 FOOT LENGTH OF END ANCHORAGES CANNOT BE ACHIEVED OR WHERE THERE IS INSUFFICIENT SPACE FOR TWO BACK-TO-BACK END ANCHORAGES REQUIRED PER THE STANDARD CONSTRUCTION DRAWINGS, THE FOLLOWING WILL BE REQUIRED. THE 6-INCH SPACING OF THE Y401 STEEL REINFORCING BARS SHALL BE MAINTAINED UNIFORMLY FOR THE ENTIRE LENGTH OF THE ANCHORAGE(S) EXCEPT AT EACH END WHERE THE FIRST AND LAST Y401 BAR SHALL BE 4 INCHES FROM THE END OF THE END ANCHORAGE OR EXPANSION JOINT.

THE UNIT PRICE BID FOR EACH AS PER PLAN END ANCHORAGE SHALL INCLUDE ALL LABOR, MATERIALS, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK DESCRIBED ABOVE AND WILL BE PAID FOR PER EACH FOR THE APPLICABLE ITEM LISTED BELOW:

ITEM 622 - CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE B1, AS PER PLAN
ITEM 622 - CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE C1, AS PER PLAN
ITEM 622 - CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D, AS PER PLAN

DESIGN AGENCY	
AMERICAN STRUCTUREPOINT	
DESIGNER	
BER	
REVIEWER	
VDK 08/09/23	
PROJECT ID	
76779	
SHEET	TOTAL
P.0046	P.1587

FLEXIBLE START WINDOW CONTRACT

THE FOLLOWING TABLE SHALL BE USED IN CONJUNCTION WITH THE FLEXIBLE START WINDOW CONTRACT PROPOSAL NOTE.

FOR RAMPS THAT LIST TWO SEPARATE CLOSURES, IF THE FIRST END PHASE IS PHASE 1, A SECOND CLOSURE IS INCLUDED FOR FINAL TIE-IN DURING A SUBSEQUENT PHASE. IF THE FIRST END PHASE AND THE SECOND END PHASE ARE THE SAME, THE FIRST CLOSURE FOR EACH INDIVIDUAL RAMP SHALL ONLY APPLY IF THE CONTRACTOR ELECTS TO COMPLETE ITS CONCRETE PAVEMENT IN AN EARLIER PHASE; OTHERWISE THE FIRST CLOSURE WILL NOT BE ALLOWED AND THE CONCRETE PAVING AND THE FINAL TIE-IN SHALL BE COMPLETED IN THE END PHASE.

FINAL TIE-IN MEANS COMPLETING THE ASPHALT PAVEMENT FOR THE FULL WIDTH AND LENGTH OF THE ACCELERATION OR DECELERATION LANE, ADJACENT OUTSIDE SHOULDER AND GORE AREA INCLUDING ALL COURSES EXCEPT THE FINAL SURFACE COURSE.

DESCRIPTION OF CRITICAL WORK	CALENDAR DAYS TO COMPLETE	DISINCENTIVE \$ PER DAY	WORK WINDOW	
			START	END
RAMP HA CONCRETE PAVEMENT	60 DAYS	\$1,500	START OF PHASE 1	END OF PHASE 1
RAMP HA FINAL TIE-IN	45 DAYS	\$1,500	START OF PHASE 3	END OF PHASE 3
WESTBOUND SINGLE LANE CLOSURE FOR 66" CONDUIT, BORED OR JACKED	90 DAYS	\$10,000	START OF PHASE 1	END OF PHASE 1
RAMP MC CONCRETE PAVEMENT CONCURRENT WITH SINGLE LANE CLOSURE	90 DAYS	\$1,500	START OF PHASE 1	END OF PHASE 5
RAMP MC FINAL TIE-IN	45 DAYS	\$1,500	START OF PHASE 5	END OF PHASE 5
RAMP MD CONCRETE PAVEMENT AND FINAL TIE-IN	45 DAYS	\$1,500	START OF PHASE 3	END OF PHASE 3
RAMP ME CONCRETE PAVEMENT	45 DAYS	\$1,500	START OF PHASE 1	END OF PHASE 3
RAMP ME FINAL TIE-IN	45 DAYS	\$1,500	START OF PHASE 3	END OF PHASE 3
RAMP MF CONCRETE PAVEMENT AND FINAL TIE-IN	45 DAYS	\$1,500	START OF PHASE 5	END OF PHASE 5
RAMP W1 CONCRETE PAVEMENT	45 DAYS	\$1,500	START OF PHASE 1	END OF PHASE 5
RAMP W1 FINAL TIE-IN	45 DAYS	\$1,500	START OF PHASE 5	END OF PHASE 5
RAMP W2 CONCRETE PAVEMENT AND FINAL TIE-IN	60 DAYS	\$1,500	START OF PHASE 3	END OF PHASE 3
RAMP W1A CONCRETE PAVEMENT	45 DAYS	\$1,500	START OF PHASE 1	END OF PHASE 5
RAMP W1A FINAL TIE-IN	45 DAYS	\$1,500	START OF PHASE 5	END OF PHASE 5
RAMP W2A CONCRETE PAVEMENT AND FINAL TIE-IN	45 DAYS	\$1,500	START OF PHASE 3	END OF PHASE 3
RAMP 140-3 CONCRETE PAVEMENT AND FINAL TIE-IN	60 DAYS	\$1,500	START OF PHASE 5	END OF PHASE 5
RAMP 140-4 CONCRETE PAVEMENT	60 DAYS	\$1,500	START OF PHASE 1	END OF PHASE 3
RAMP 140-4 FINAL TIE-IN	45 DAYS	\$1,500	START OF PHASE 3	END OF PHASE 3
RAMP 117-5 CONCRETE PAVEMENT	45 DAYS	\$5,000	START OF PHASE 1	END OF PHASE 5
RAMP 117-5 FINAL TIE-IN	45 DAYS	\$5,000	START OF PHASE 5	END OF PHASE 5
RAMP 117-7 CONCRETE PAVEMENT AND FINAL TIE-IN	60 DAYS	\$5,000	START OF PHASE 3	END OF PHASE 3
RAMP 117-8 CONCRETE PAVEMENT AND FINAL TIE-IN	45 DAYS	\$5,000	START OF PHASE 3	END OF PHASE 3
RAMP 117-9 CONCRETE PAVEMENT	60 DAYS	\$5,000	START OF PHASE 1	END OF PHASE 3
RAMP 117-9 FINAL TIE-IN	45 DAYS	\$5,000	START OF PHASE 3	END OF PHASE 3
RAMP 117-11 CONCRETE PAVEMENT AND FINAL TIE-IN	60 DAYS	\$5,000	START OF PHASE 5	END OF PHASE 5
RAMP W13 CONCRETE PAVEMENT	60 DAYS	\$1,500	START OF PHASE 1	END OF PHASE 1
RAMP W13 FINAL TIE-IN	45 DAYS	\$1,500	START OF PHASE 5	END OF PHASE 5
RAMP W14 CONCRETE PAVEMENT AND FINAL TIE-IN	60 DAYS	\$1,500	START OF PHASE 3	END OF PHASE 3

NOTICE OF CLOSURE SIGNS

PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD OR RAMP CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW.

THE PCMS 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 CLOSURE	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	7 CALENDAR DAYS PRIOR TO CLOSURE
	< =12 HOURS	2 BUSINESS DAYS PRIOR TO CLOSURE

THE PCMS SHALL DISPLAY THE NAME OF THE ROAD OR RAMP AND THE DATE OF THE CLOSURE IN MMM-DD FORMAT.

ROAD CLOSED SIGN

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 SHOWN ON MAINTENANCE OF TRAFFIC PLANS DURING PERIODS IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC.

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.

PLACEMENT OF ASPHALT CONCRETE

TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT THAT ONE-WAY TRAFFIC WILL BE PERMITTED FOR MINIMUM PERIODS OF TIME CONSISTENT WITH THE REQUIREMENTS OF THE SPECIFICATIONS FOR PROTECTION OF COMPLETED ASPHALT CONCRETE COURSES.

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. PLACEMENT OF PROPOSED SUBBASE AND BASE MATERIAL SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND 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 APPROVAL OF THE ENGINEER.

TRAFFIC INCIDENT MANAGEMENT (TIM) DURING MOT (CONTINUED)

6. CONTRACTOR TIM CONTACTS SHALL PERFORM, AT A MINIMUM, THE FOLLOWING FUNCTIONS WHEN AN INCIDENT/CRASH OCCURS:
- A. IF OBSERVED OR PRESENT WHEN OCCURS, CALL 911 AND THEN NOTIFY THE TRAFFIC MANAGEMENT CENTER (TMC) TO PROVIDE THE FOLLOWING:

I. LOCATION, INCLUDING MILEPOST NUMBER AND DIRECTION OF TRAVEL

II. NUMBER AND TYPE OF VEHICLES INVOLVED, IF KNOWN

III. ESTIMATED EXTENT OF DAMAGE OR INJURY, IF KNOWN

IV. ESTIMATED NUMBER OF PATIENTS INVOLVED, IF KNOWN

V. ANY POTENTIAL HAZARDOUS CONDITIONS, IF KNOWN

VI. THE PLACARD NUMBER ON ANY HAZARDOUS MATERIALS PLACARD FROM A SAFE DISTANCE, IF APPLICABLE AND VISIBLE

B. FOLLOWING AN INCIDENT/CRASH:

I. INITIATE TRAFFIC MANAGEMENT/PROVIDE TEMPORARY TRAFFIC CONTROL AS INDICATED IN THE TIMP, AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH 109.05.

II. RECOMMEND ROADWAY REPAIR NEEDS.

III. PROVIDE REPAIR RESOURCES AND INITIATE REPAIRS, AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH 109.05.

IV. ATTEND AND PARTICIPATE IN AN AFTER ACTION REVIEW (AAR).

ALL COSTS, UNLESS OTHERWISE SPECIFIED, RESULTING FROM THE ABOVE REQUIREMENTS SHALL BE CONSIDERED TO BE INCLUDED IN THE LUMP SUM PRICE FOR ITEM 614, MAINTAINING TRAFFIC. FAILURE TO PERFORM THE REQUIREMENTS OF THIS PLAN NOTE WILL RESULT IN A DAILY FINE OF 2% OF ITEM 614, MAINTAINING TRAFFIC AND MAY RESULT IN ONE OR MORE CONTRACTOR TIM CONTACTS BEING REMOVED FROM THE LIST OF OHIO TIM TRAINED INDIVIDUALS (AT THE SOLE DISCRETION OF THE OHIO TIM EXECUTIVE COMMITTEE). IN THE EVENT AN INDIVIDUAL IS REMOVED FROM THE OHIO TIM TRAINED LIST, THE INDIVIDUAL WILL BE REMOVED FROM CONTRACTOR TIM CONTACT RESPONSIBILITIES ON ALL PROJECTS.

WHEN CALLED FOR IN THE PLANS , PLACE AREA PATROLLED BY AIRCRAFT (D12-H15A) BLACK-ON-FLUORESCENT ORANGE SIGNS IN THE ADVANCED WORK ZONE AREA BETWEEN THE FIRST AND SECOND SIGNS IN THE SERIES AND REPEATED AT EACH ENTRANCE RAMP WITHIN THE AIR SPEED CHECK ZONE. PAYMENT FOR AIR SPEED CHECK ZONE RELATED SIGNS IS INCLUDED IN THE LUMP SUM BID PRICE FOR MAINTAINING TRAFFIC.

ITEM 614, WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN

WORK ZONE RAISED PAVEMENT MARKERS, AS PER PLAN, AND THEIR INSTALLATION SHALL CONFORM TO C&MS 614 OR C&MS 621 AS SPECIFIED HEREIN.

RAISED PAVEMENT MARKERS IN USE DURING THE SNOW-PLOWING SEASON SHALL CONFORM TO 621.

RAISED PAVEMENT MARKERS IN USE DURING THE NON-SNOW-PLOW SEASON SHALL CONFORM TO EITHER 614 OR TO 621.

THE SNOW-PLOWING SEASON SHALL RUN FROM DECEMBER 1ST THROUGH MARCH 31ST.

IF PROJECT DELAYS, NOT THE FAULT OF ODOT, CAUSE THE WORK TO EXTEND INTO THE SNOW-PLOWING SEASON, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING WORK ZONE RAISED PAVEMENT MARKERS (WZRPMS) CONFORMING TO C&MS 614, WITH RAISED PAVEMENT MARKERS CONFORMING TO 621, AS DETERMINED BY THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

THIS ITEM SHALL INCLUDE PURCHASE, INSTALLATION AND REMOVAL OF ITEM 614 WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN, INCLUDING FILLING OF ANY DEPRESSIONS CREATED IN THE PAVEMENT AS PER C&MS 621.08.

RESURFACING OF THE TRANSITION AREAS SHALL BE PERFORMED AT THE TIME THAT THE SURFACE COURSE IS BEING APPLIED TO THE ENTIRE PROJECT. PRIOR TO APPLICATION OF THE SURFACE COURSE ON THE PROJECT, THE EXISTING PAVEMENT WITHING THE TRANSITION AREA SHALL BE REMOVED TO A DEPTH NECESSARY TO REACH THE LEVEL OF THE INTERMEDIATE COURSE OF THE PAVEMENT, AS DETERMINED BY THE ENGINEER.

ITEM 614, WORK ZONE RAISED PAVEMENT MARKERS ON PERMANENT CONCRETE SURFACES

RAISED PAVEMENT MARKERS IN WORK ZONES, INSTALLED ON PERMANENT CONCRETE SURFACES, SHALL BE ITEM 614 WORK ZONE RAISED PAVEMENT MARKERS. WZRPMS ARE INTENDED FOR USE ONLY DURING THE NON-SNOW-PLOWING SEASON. WZRPMS SHALL NOT BE PROVIDED DURING THE SNOW-PLOWING SEASON.

THE SNOW-PLOWING SEASON SHALL RUN FROM DECEMBER 1ST THROUGH MARCH 31ST.

WHERE A TEMPORARY ALIGNMENT WILL REMAIN IN USE THROUGH THE WINTER, THE WZRPMS SHALL BE REMOVED PRIOR TO THE BEGINNING OF THE SNOW-PLOWING SEASON AND REPLACED APPROXIMATELY APRIL 1, OR AS OTHERWISE DETERMINED BY THE ENGINEER.

THIS ITEM SHALL INCLUDE PURCHASE, INSTALLATION AND REMOVAL OF ITEM 614 WORK ZONE RAISED PAVEMENT MARKERS.

AN ESTIMATED QUANTITY OF ITEM 614 WORK ZONE RAISED PAVEMENT MARKER HAS BEEN PROVIDED IN MOT SUBSUMMARY AND CARRIED TO THE MOT GENERAL SUMMARY.

RAISED PAVEMENT MARKER REFLECTORS DURING SNOW-PLOW SEASON

ACCORDING TO C&MS 614.11.G.2, THE CONTRACTOR SHALL REMOVE REFLECTORS FROM ALL RAISED PAVEMENT MARKER CASTINGS IN CONFLICT WITH THE LOCATION OF PAVEMENT MARKINGS THAT WILL BE IN USE DURING THE SNOW-PLOW SEASON. THE COST OF THIS WORK IS INCIDENTAL TO ITEM 614, WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN.

FOR EXISTING RAISED PAVEMENT MARKER CASTINGS THAT WERE REMOVED DURING PREVIOUS MOT PHASES AND ARE NOT IN CONFLICT WITH THE LOCATION OF PAVEMENT MARKINGS DURING THE SNOW-PLOW SEASON, THE CONTRACTOR SHALL INSTALL REFLECTORS CONFORMING TO 721.02 PER 614.11.G.2. NO SEPARATE PAYMENT WILL BE MADE.

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 RAILINGS) 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.

INCREASED BARRIER DELINEATION, AS SPECIFIED HEREIN, SHALL BE INSTALLED ON ALL PB AND PERMANENT CONCRETE BARRIER LOCATED WITHIN 5 FEET OF THE EDGE OF THE TRAVELED LANE UNDER EITHER OF THE FOLLOWING CONDITIONS: ALONG TAPERS AND TRANSITION AREAS; OR ALONG CURVES (OUTSIDE ONLY) WITH DEGREE OF CURVATURE GREATER THAN OR EQUAL TO 3 DEGREES.

THE INCREASED BARRIER DELINEATION SHALL CONSIST OF EITHER DELINEATION PANELS OR THE TRIPLE STACKING OF WORK ZONE BARRIER REFLECTORS.

DELINEATION PANELS SHALL CONSIST OF PANELS OF DELINEATION, APPROXIMATELY 34 INCHES LONG AND 6 INCHES WIDE AND SHALL BE CRIMPED. PANELS SHALL BE INSTALLED AND SPACED PER TRAFFIC SCD MT-101.70.

TRIPLE-STACKED BARRIER REFLECTORS SHALL CONSIST OF ALIGNING THREE BARRIER REFLECTORS VERTICALLY, AT LOCATIONS WHERE A SINGLE BARRIER REFLECTOR WOULD OTHERWISE BE ATTACHED. THERE SHALL BE NO OPEN SPACE BETWEEN THE ADJACENT BARRIER REFLECTORS. THE TRIPLE-STACKED BARRIER REFLECTORS SHALL TO C&MS 626, EXCEPT THAT THEY SHALL BE SPACED AND ALIGNED PER TRAFFIC SCD MT-101.70.

ESTIMATED QUANTITIES FOR STANDARD DELINEATION HAVE BEEN INCLUDED IN MOT SUBSUMMARY AND CARRIED TO THE MOT GENERAL SUMMARY. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614 - INCREASED BARRIER DELINEATION

324,500 FEET

ALONG RUNS OF INCREASED BARRIER DELINEATION WHERE THIS ITEM IS PROVIDED, THE QUANTITY SHALL BE MEASURED AS THE ENTIRE LENGTH OF THE RUN OF INCREASED BARRIER DELINEATION, INCLUDING THE SPACES BETWEEN THE INDIVIDUAL DELINEATION PANELS OR STACKS OF BARRIER REFLECTORS.

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

DELINEATION OF TEMPORARY AND PERMANENT GUARDRAIL

BARRIER REFLECTORS SHALL BE INSTALLED ON ALL TEMPORARY GUARDRAIL USED FOR TRAFFIC CONTROL; AND, ON ALL PERMANENT GUARDRAIL LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE. BARRIER REFLECTORS SHALL CONFORM TO C&MS 626 AND THE SPACING SHALL BE APPROXIMATELY 50 FEET.

OBJECT MARKERS SHALL BE INSTALLED ON ALL TEMPORARY AND PERMANENT GUARDRAIL LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE. GUARDRAIL-MOUNTING OF OBJECT MARKERS SHALL BE MADE BY INSTALLING THE OBJECT MARKERS ON THE EXTENSION BLOCKS RATHER THAN DIRECTLY ONTO THE GUARDRAIL ITSELF. OBJECT MARKERS SHALL CONFORM TO C&MS 614.03 AND THE SPACING SHALL BE APPROXIMATELY 50 FEET WITH A 25 FOOT OFFSET FROM THE BARRIER REFELCTORS.

ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN MOT SUBSUMMARY AND CARRIED TO THE MOT GENERAL SUMMARY.

PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING THE ABOVE ITEM(S).

ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

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

DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC, OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).

IN ADDITION TO THE REQUIREMENT OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) MAY BE PROVIDED FOR THE FOLLOWING TRAFFIC TRAFFIC CONTROL TASKS AS APPROVED BY THE ENGINEER:

FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OF WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP).

FOR OPERATIONS WITHOUT POSITIVE PROTECTION OCCURRING WITHIN 10 FEET OF AN OPEN TRAVELED LANE THAT MEET ALL OF THE FOLLOWING CRITERIA:

ON A MULTI-LANE DIVIDED INTERSTATE, OTHER FREEWAY OR EXPRESSWAY; AND AN AUTHORIZED SPEED LIMIT OF 45 MPH OR GREATER THAT IS IN EFFECT AT THE TIME OF THE OPERATION; AND, AADT OF 50,000 (OR AADT OF 30,000 WITH 25% OR HIGHER PERCENT TRUCKS)

DESIGN AGENCY

AMERICAN
STRUCTUREPOINT
INC.

DESIGNER

BER

REVIEWER

VDK 08/09/23

PROJECT ID

76779

SHEET

P.0060

TOTAL

P.1587

ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR)
FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS (CONTINUED)

"WITHOUT POSITIVE PROTECTION" MEANS USE OF DRUMS, CONES, SHADOW VEHICLE, ETC, WITHOUT PROTECTION FROM PORTABLE BARRIER OR OTHER RIGID BARRIER ALONG THE WORK AREA. THIS PHRASE DOES NOT APPLY TO CASES WHERE POSITIVE PROTECTION REQUIRED. MOBILE OPERATIONS ARE REGARDED AS "WITHOUT POSITIVE PROTECTION". FOR WORK ZONES USING A COMBINATION OF BARRIER AND TEMPORARY TRAFFIC CONTROL DEVICES (CONES, DRUMS, ETC), THE DESIGNATION SHALL BE BASED UPON THE TYPE OF DEVICES USED IN THE AREA THAT WORKERS ARE LOCATED.

IF MULTIPLE ACTIVE LOCALIZED QUALIFYING WORK AREAS OCCUR WITHOUT POSITIVE PROTECTION, PER MAINLINE TRAFFIC DIRECTION, PROVIDE A UNIFORMED LEO AND OFFICIAL PATROL CAR IN ADVANCE OF:
THE FIRST ACTIVE WORK AREA THAT DRIVERS WILL ENCOUNTER;
OR THE ACTIVE WORK AREA Laterally CLOSEST TO THE OPEN TRAVELED LANE; OR OTHER LOCATION AS APPROVED BY THE ENGINEER.
THE UNIFORMED LEO AND OFFICIAL PATROL CAR MAY RELOCATE AMONG THE LISTED LOCATIONS AS APPROPRIATE AS THE OPERATIONS PROCEED IN THE LOCALIZED QUALIFYING WORK AREAS.

IN GENERAL, LEOS SHOULD BE POSITIONED IN ADVANCE OF AND ON THE SAME SIDE AS THE LANE RESTRICTION (OR AT THE POINT OF ROAD CLOSURE), AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH SIGNALIZED INTERSECTIONS IN WORK ZONES.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

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

ENSURE PROVIDED LEOS HAVE BEEN TRAINED APPROPRIATE TO THE JOB DECISIONS THEY ARE REQUIRED TO MAKE WHILE ON THE PROJECT, IN ACCORDANCE WITH C&MS 614.03.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE THAT SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

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

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 2,000 HOURS

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

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF A LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

WORK ZONE QUEUE DETECTION WARNING SYSTEM

THE CONTRACTOR SHALL FURNISH, INSTALL, AND MAINTAIN AN APPROVED WORK ZONE QUEUE DETECTION WARNING SYSTEM (WZQDWS) AS PER SUPPLEMENTAL SPECIFICATION 896.

THE PROBABLE INITIAL LOCATIONS OF THE WZQDWS DEVICES ARE:
EASTBOUND
1. BETWEEN WOOSTER RD AND VALLEY VIEW DR
2. BETWEEN W. 159TH ST AND ALGER RD
3. BETWEEN BERE A RD AND W. 117TH ST
WESTBOUND
4. BETWEEN VALLEY VIEW DR AND HILLIARD MCKINLEY AVE
5. BETWEEN WARREN RD AND JOSLYN RD
6. BETWEEN W. 117TH ST AND WEST BLVD

IT IS EXPECTED THAT LOCATIONS SHOWN ABOVE WILL VARY BASED ON PLANNED OR UNPLANNED PHASE AND TRAFFIC PATTERN CHANGES. PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE DEVICES BY THE CONTRACTOR SHALL BE DIRECTED BY THE ENGINEER.

THE FOLLOWING TRAFFIC SENSOR THRESHOLDS AND PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) MESSAGES SHALL BE USED:
1. GREATER THAN OR EQUAL TO 50 MPH - USE FOUR CORNER FLASHING CAUTION MODE
2. BETWEEN 50 MPH AND 25 MPH - TRAFFIC AHEAD XX MPH / SLOW DOWN
3. BELOW OR EQUAL TO 25 MPH - TRAFFIC AHEAD XX MPH / PREPARE TO STOP

FOUR CORNER FLASHING CAUTION MODE SHALL CONSIST OF THE USE OF ONE ASTERISK IN EACH CORNER OF THE PCMS DISPLAY (4 TOTAL ASTERISKS).

XX SHALL BE ROUNDED UP TO THE NEAREST MULTIPLE OF 5 MPH MINUS 1. OCCUPANCY MAY BE DIRECTED TO BE USED BASED ON CERTAIN TRAFFIC CONDITIONS AND SCENARIOS. ODOT WILL DIRECT THE CONTRACTOR OF THE THRESHOLDS TO BE USED FOR THOSE AREAS WHERE OCCUPANCY IS DIRECTED TO BE USED.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 896, PORTABLE NON-INTRUSIVE TRAFFIC SENSOR, CLASS I 480 SNMT (ASSUMING 24 SENSORS FOR 20 MONTHS)

ITEM 896, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN 120 SNMT (ASSUMING 6 PCMS FOR 20 MONTHS)

NOTIFICATION OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE SPECIAL HAULING PERMITS SECTION (HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

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

ITEM	DURATION OF CLOSURE	NOTICE DUE TO OFFICE OF COMMUNICATION
RAMP & ROAD CLOSURES	>= 2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 12 HOURS	4 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 2 WEEKS	2 BUSINESS DAYS PRIOR TO CLOSURE
START OF CONSTRUCTION & TRAFFIC PATTERN	N/A	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION

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

WORK ZONE EGRESS WARNING SYSTEM

THE CONTRACTOR SHALL FURNISH, INSTALL, AND MAINTAIN AN APPROVED WORK ZONE EGRESS WARNING SYSTEM (WZEWS) AS PER SUPPLEMENTAL SPECIFICATION 829.

THE PROBABLE INITIAL LOCATIONS OF THE WZEWS DEVICES ARE SHOWN ON THE MOT PLAN. IT IS EXPECTED THAT THESE LOCATIONS WILL VARY BASED ON PLANNED OR UNPLANNED PHASE AND TRAFFIC PATTERN CHANGES. PLACEMENT, OPERATION, AND MAINTENANCE AND ALL ACTIVATION OF THE DEVICES BY THE CONTRACTOR SHALL BE DIRECTED BY THE ENGINEER.

ALL COSTS FOR RELOCATION OF PORTABLE BARRIER, INSTALLATION, REPAIR, REPLACEMENT, AND REMOVAL OF IMPACT ATTENUATORS, GRADING FOR ACCESS DRIVES AND RELATED COSTS SHALL BE INCLUDED IN THE LUMP FOR ITEM 614 MAINTAINING TRAFFIC

ITEM 829, WORK ZONE EGRESS WARNING SYSTEM 38 SNMT

CONSTRUCTION ACCESS POINTS

THE CONTRACTOR SHALL CONSTRUCT THE PERMANENT PAVEMENT WITHIN CONSTRUCTION ACCESS POINT AREAS WITHIN THE SAME PHASE THEY ARE UTILIZED.

ITEM 441 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), AS PER PLAN, PG64-22

THE COURSE VIRGIN AGGREGATE FOR THIS ITEM SHALL CONSIST OF A BLEND OF 60% MINIMUM AIR COOLED BLAST FURNACE SLAG (ACBFS) OR TRAP ROCK FROM ONTARIO WITH LIMETSONE COMPRISING REMAINING PERCENTAGE.

IN ADDITION TO THE JOINT SEALING REQUIREMENTS SPECIFIED IN 401.17, THE CONTRACTOR SHALL SEAL THE PREIMETER OF ALL RUMBLE STRIP PAVEMENT REPLACEMENT AREAS. THE MATERIAL USED SHALL BE A CERTIFIED 702.01 PG BINDER. THE WIDTH OF THE SEALER SHALL BE 2-3 INCHES.

PAYMENT FOR ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED TO PERFORM THE ABOVE WORK SHALL BE INCKUED IN THE CONTRACT PRICE FOR ITEM 441 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), AS PER PLAN, PG64-22.

PAVEMENT REPAIRS FOR LANES TO BE MAINTAINED

THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED FOR USE AS DIRECTED BY THE ENGINEER TO REPAIR PAVEMENT THAT IS USED FOR MAINTENANCE OF TRAFFIC.

REPAIR AREAS SHALL BE PLANED TO A DEPTH OF 3 INCHES AND REPLACED WITH TWO 1.5" SURFACE COURSE LIFTS.

ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, T=3" 6,000 SY	
ITEM 407 - TACK COAT	660 GAL
ITEM 441 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), AS PER PLAN, PG64-22	500 CY
ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A 4,000 SY	

RUMBLE STRIP REMOVAL

ALL EXISTING RUMBLE STRIPS THAT ARE IN CONFLICT WITH THE PROPOSED MOVEMENT OF TRAFFIC DURING THE MOT OPERATIONS SHALL BE REMOVED BY PAVEMENT PLANING. THE REMOVED RUMBLE STRIP AREAS SHALL BE FILLED WITH ASPHALT CONCRETE SURFACE COURSE. THE RUMBLE STRIP REMOVAL AREA SHALL BE 1.5 INCHES DEEP AND EXTEND A MINIMUM OF AN ADDITIONAL 2 INCHES ON EACH SIDE BEYOND THE EXISTING WIDTH. THE PAVEMENT PLANING AND PLACEMENT OF ASPHALT CONCRETE SURFACE COURSE SHOULD BE COMPLETED IN THE SAME OPERATION. QUANTITIES FOR THE WORK DESCRIBED ABOVE HAVE BEEN INCLUDED IN THE MOT SUBSUMMARY AND CARRIED TO THE GENERAL SUMMARY BASED ON AN ESTIMATED REMOVAL LENGTH OF 66,600 FEET.

MAINTAINING TRAFFIC PRIOR TO SURFACE COURSE PAVING

THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED FOR USE AS DIRECTED BY THE ENGINEER FOR RAMPING THE INTERMEDIATE COURSE AT RAMPS, BRIDGES AND THE PROJECT TERMINI TO MAINTAIN TRAFFIC.

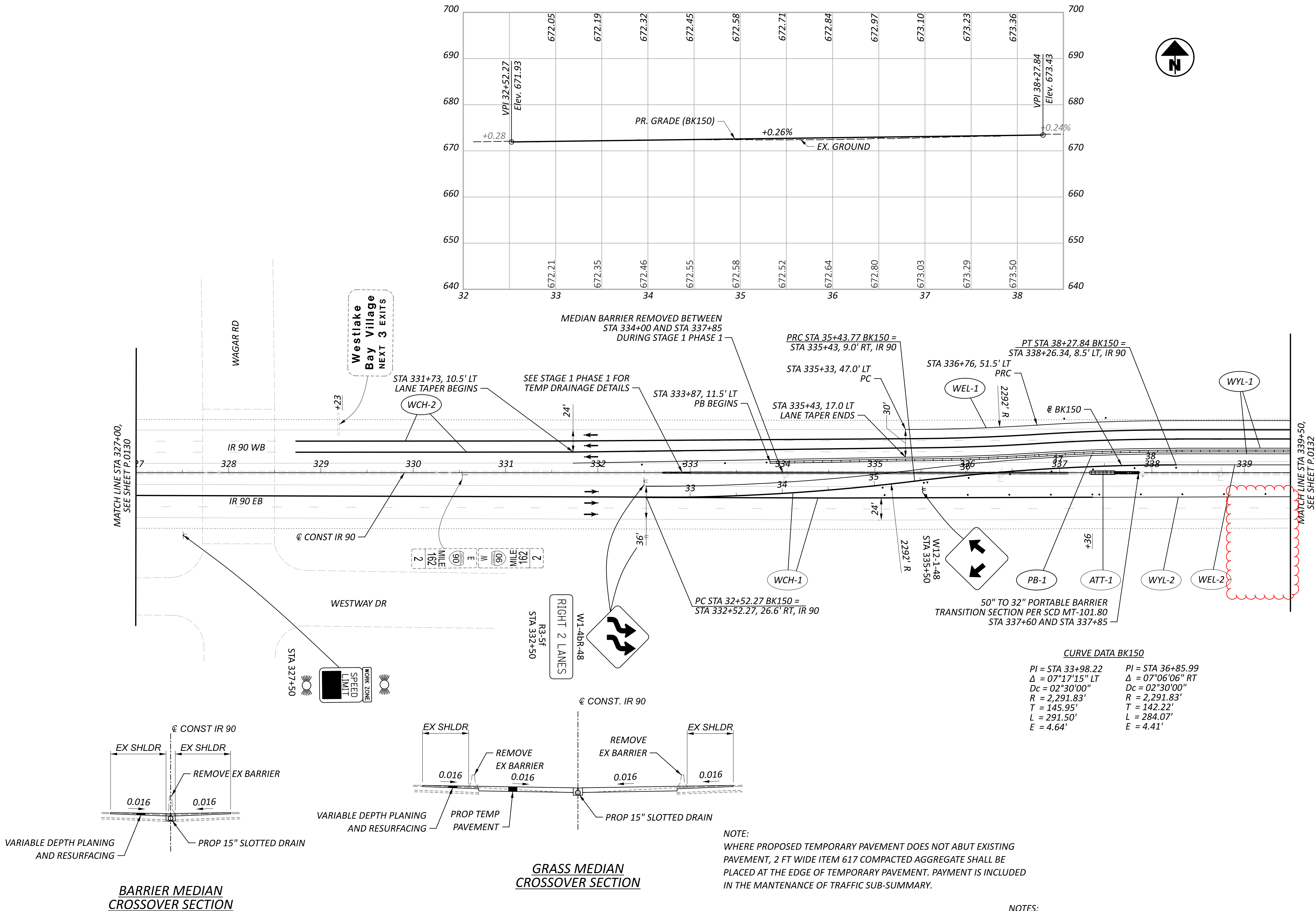
ITEM 614 - ASPHALT CONCRETE FOR MAINTAINING TRAFFIC 250 CY

DESIGN AGENCY AMERICAN STRUCTUREPOINT INC.	
DESIGNER BER	
REVIEWER VDK 08/09/23	
PROJECT ID 76779	
SHEET P.0061	TOTAL P.1587

MAINTENANCE OF TRAFFIC SUB-SUMMARY	
DESIGNER	BER
DESIGN AGENCY	 STRUCTUREPOINT <small>INC.</small>
REVIEWER	VDK 08/09/23
PROJECT ID	76779
SHEET	TOTAL
P.0066	P.1587

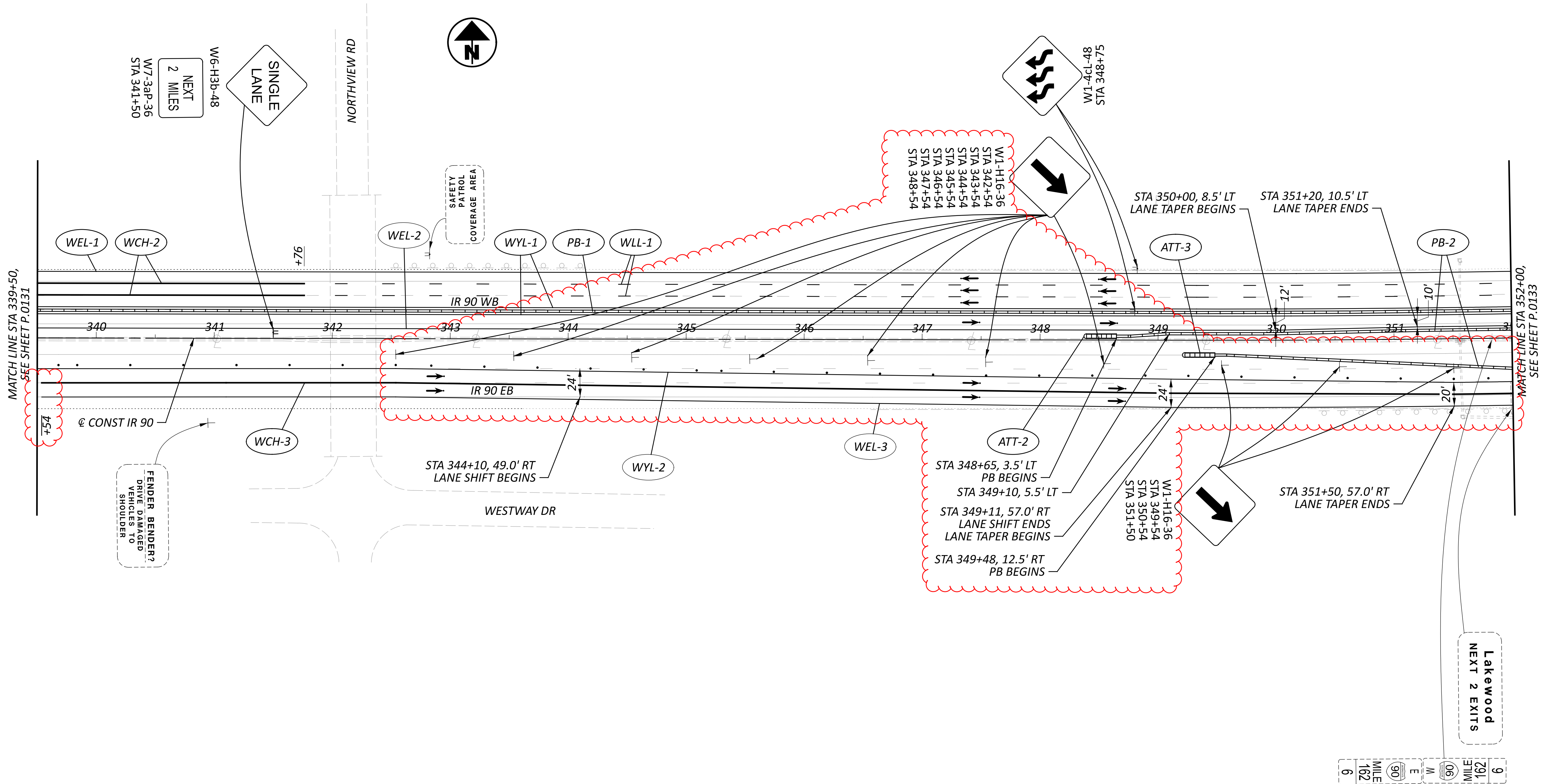
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SHEET NO.	REFERENCE NO.	LOCATION	STATION		SIDE	PHASE	STEP	611	614	614	614	614	614	614	614	614	614	615	622	622	622	622			
			FROM	TO				SLOTTED DRAIN, TYPE 2	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	BARRIER REFLECTOR, TYPE 1	OBJECT MARKER, ONE WAY	MAINTAINING TRAFFIC, MISC.: TROUGH	WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT	WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT (WHITE)	WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT (YELLOW)	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807 PAINT	WORK ZONE DOTTED LINE, CLASS I, 6", 807 PAINT	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS I	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	PORTABLE BARRIER, 50", AS PER PLAN	DUAL PORTABLE BARRIER TRANSITION/TERMINATION	PORTABLE BARRIER, UNANCHORED	PORTABLE BARRIER, ANCHORED, AS PER PLAN	
																									FT
	WCH-1	IR 90	323+50.00	338+76.00	RT-LT	2	A			101							2010								
	WCH-2	IR 90	329+23.00	341+76.00	LT	2	A			125							2506								
	WYL-1	IR 90	332+23.00	821+14.00	LT-RT	2	A			60					11.94										
	PB-1	IR 90	334+37.00	816+83.00	LT	2	A				1241	1241							31030						
	WEL-1	IR 90	335+83.00	543+00.00	LT	2	A			30					0.62										
	ATT-1	IR 90	337+86.00		CL	2	A		1																
	WEL-2	IR 90	338+76.00	636+75.00	LT	2	A								2.40										
	WYL-2	IR 90	337+86.00	632+83.00	RT	2	A									2.33									
	WCH-3	IR 90	339+54.00	352+10.00	RT	2	A			88 64 264							1256								
	WLL-1	IR 90	341+76.00	630+11.00	LT	2	A						5.99												
	WEL-3	IR 90	339+54.00	539+90.00	RT	2	A			64				0.54											
	ATT-2	IR 90	348+65.00		LT	2	A		1																
	PB-2	IR 90	348+65.00	636+60.00	LT-RT	2	A				464	464										21601	1600		
	WLL-2	IR 90	352+10.00	538+10.00	RT	2	A			10			0.22												
	WYL-3	RAMP HA	36+61.00	40+70.00	LT	2	A								0.08										
	ATT-3	IR 90	349+48.00		RT	2	A		1																
	WCH-4	IR 90	538+10.00	548+61.00	RT	2	A			96							1910								
	WEL-4	RAMP HA - RAMP MD	39+12.00	89+87.00	RT	2	A								0.96										
	WCH-5	IR 90	543+00.00	545+10.00	LT	2	A			11							210								
	WLL-3	IR 90	548+61.00	624+65.00	RT	2	A			65			1.47												
	WDL-1	IR 90	544+61.00	557+40.00	RT	2	A											1279							
	WEL-5	IR 90	548+23.00	590+26.00	LT	2	A									0.80									
	WDL-2	IR 90	583+00.00	593+52.00	LT	2	A											1052							
	WDL-3	IR 90	584+36.00	589+41.00	RT	2	A											497							
	WCH-6	IR 90	589+41.00	590+19.00	RT	2	A			4							77								
	WEL-6	IR 90	590+19.00	608+95.00	RT	2	A							0.35											
	WCH-7	IR 91	593+52.00	595+47.00	LT	2	A			10							199								
	WEL-7	IR 90	595+47.00	612+88.00	LT	2	A								0.33										
	WCH-8	IR 90	608+95.00	612+06.00	RT	2	A			16							311								
	WDL-4	IR 90	612+06.00	627+92.00	RT	2	A											1788							
	WCH-9	IR 90	612+88.00	614+11.00	LT	2	A			6							123								
	WDL-5	IR 90	614+11.00	629+09.00	LT	2	A											1700							
	WEL-8	IR 90	614+49.00	627+06.00	LT	2	A																		
	WEL-9	IR 90	615+00.00	628+02.00	LT	2	A								0.28										
	WCH-10	IR 90	627+92.00	628+70.00	RT	2	A			4							78								
	WEL-10	IR 90 - BK 151	628+70.00	35+50.00	RT	2	A								0.13										
	WYL-5	RAMP 140-4	74+35.00	80+00.00	LT	2	A									0.11									
	PB-4	RAMP 140-4	74+62.00	78+31.00	LT	2	A		1		7	7										369.00			
	PB-5	RAMP 140-3	77+00.00	80+00.00	RT	2	A		1		6	6										300.00			
	WCH-11	IR 90	630+11.00	643+00.00	LT	2	A			226							4512								
	WCH-12	IR 90	624+65.00	643+29.00	RT-LT	2	A			131							2627								
	WGM-	IR 90	634+66.00	637+56.00	RT	2	A																		
	ATT-4	IR 90	637+19.00		RT	2	A		1																
	PB-3	IR 90	637+19.00	771+80.00	RT-LT	2	A				274	274										1	13715		
	ATT-5	IR 90	660+80.00		LT	2	A		1																
	TP-1	IR 90	639+00.00	670+22.00	LT	2	A											2073							
	WYL-4	IR 90 EB - IR 90	37+56.00	817+04.00	RT	2	A									3.46									
	WLL-4	IR 90	643+00.00	809+96.00	LT	2	A						12.83												
	WCH-13	IR 90	666+00.00	666+76.00	LT	2	A			565 4							76								
	WEL-12	IR 90 EB - IR 90	70+80.00	682+80.00	RT	2	A								0.22										
	WEL-11	IR 90	636+75.00	666+00.00	L	2	A								0.55										
	WDL-6	IR 90	666+76.00	670+36.00	LT-RT	2	A											360							
	WEL-13	IR 90	670+36.00	681+75.00	LT	2	A								0.22										
	WCH-14	IR 90	681+75.00	682+90.00	LT	2	A			6							115								
	WEL-14	RAMP 140-3 - RAMP 117-5	82+74.00	30+00.00	LT	2	A								0.88										
	WDL-7	IR 90	682+90.00	689+69.00	LT	2	A											684							
	WEL-25	IR 90	637+56.00	817+04.00		2									3.4										
TOTALS CARRIED TO SHEET P.0066									7	1946	1993	1993			20.51	10.83	19.05	16010	7360	212	2073	31030	1	35985	1600



NOTE:
WHERE PROPOSED TEMPORARY PAVEMENT DOES NOT ABUT EXISTING PAVEMENT, 2 FT WIDE ITEM 617 COMPACTED AGGREGATE SHALL BE PLACED AT THE EDGE OF TEMPORARY PAVEMENT. PAYMENT IS INCLUDED IN THE MAINTENANCE OF TRAFFIC SUB-SUMMARY.

- NOTES:
- FOR ADDITIONAL MOT LEGEND ITEMS, SEE SHEET P.0103.
 - ALL STATIONING TAKEN FROM CL IR 90, UNLESS OTHERWISE NOTED.

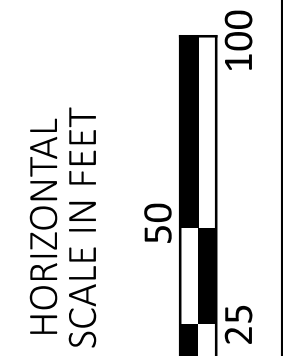


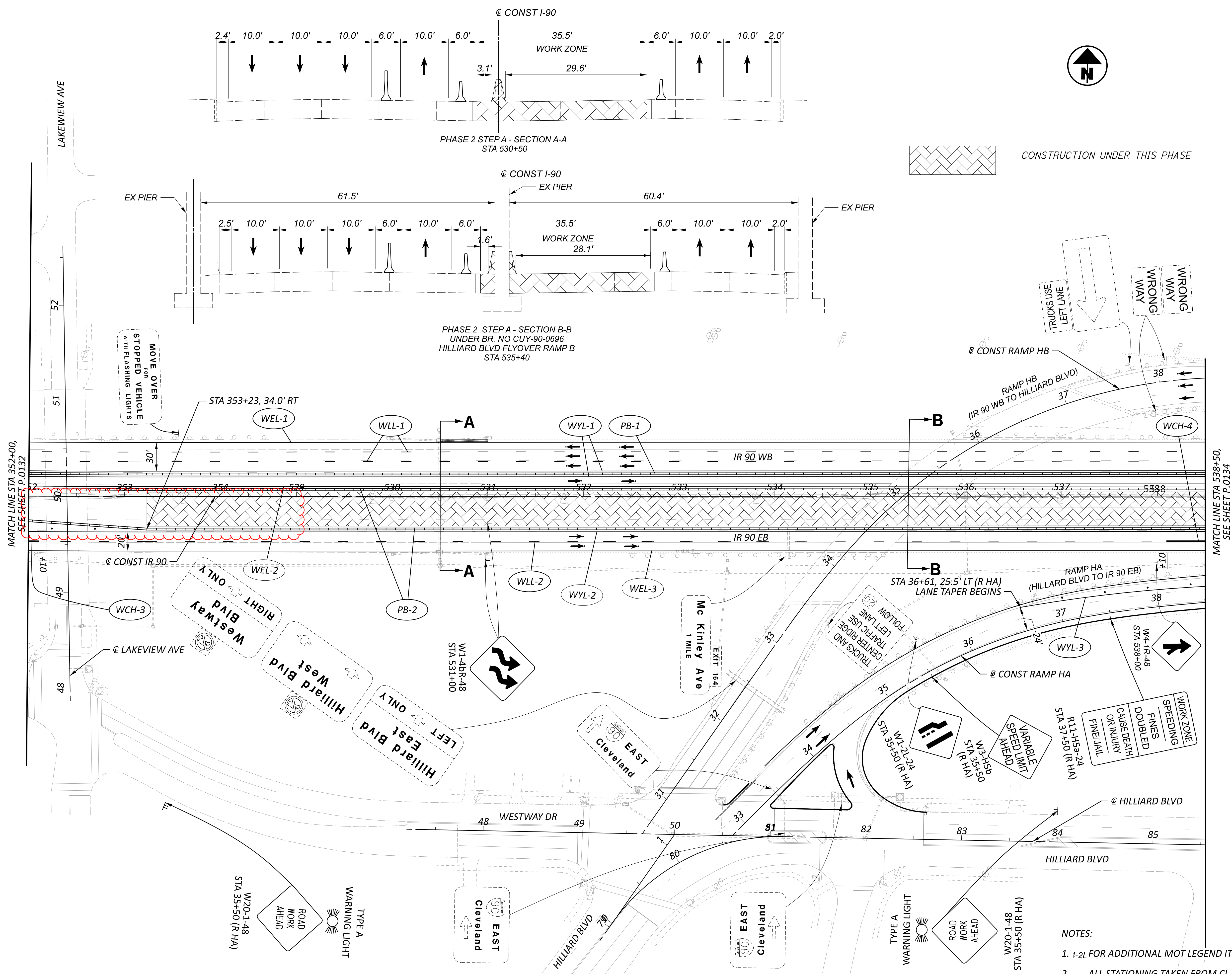
NOTES:

- FOR MOT LEGEND, SEE SHEET P.0103.
- ALL STATIONING TAKEN FROM CL IR 90, UNLESS OTHERWISE NOTED.

DESIGN AGENCY	
STRUCTUREPOINT INC.	
DESIGNER	
DMS	
REVIEWER	
RDC 04/14/23	
PROJECT ID	
76779	
SHEET	
P.0132	TOTAL
P.0132	P.1587

MAINTENANCE OF TRAFFIC PHASE 2A, 2B
STA 339+50 TO STA 352+00





- NOTES:
- 1-2L FOR ADDITIONAL MOT LEGEND ITEMS, SEE SHEET P.0103.
 2. ALL STATIONING TAKEN FROM CL IR 90, UNLESS OTHERWISE NOTED.

SHEET NUM.											PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
OFFICE CALCS	45	46	48	332	337	338	340	341	346		01/IMS/0 4	02/IMS/1 3	03/IMS/1 3						
																		ROADWAY	
	LS										LS			201	11000	LS	R2	CLEARING AND GRUBBING	
				420,404		6,343					420,404			202	23001	420,404	SY	PAVEMENT REMOVED, AS PER PLAN	P.0046
				37,701							6,343			202	30000	6,343	SF	WALK REMOVED	
				2,234							37,701			202	30700	37,701	FT	CONCRETE BARRIER REMOVED	
				54,446							2,234			202	30800	2,234	SY	TRAFFIC ISLAND REMOVED	
											54,446			202	32000	54,446	FT	CURB REMOVED	
				204							204			202	32800	204	SY	CONCRETE SLOPE PROTECTION REMOVED	
									8,260		8,260			202	35100	8,260	FT	PIPE REMOVED, 24" AND UNDER	
									9,500		9,500			202	35200	9,500	FT	PIPE REMOVED, OVER 24"	
				13,026.5							13,026.5			202	38000	13,026.5	FT	GUARDRAIL REMOVED	
				39							39			202	42010	39	EACH	ANCHOR ASSEMBLY REMOVED, TYPE E	
				25							25			202	42040	25	EACH	ANCHOR ASSEMBLY REMOVED, TYPE T	
				34							34			202	47000	34	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED	
				2							2			202	47800	2	EACH	IMPACT ATTENUATOR REMOVED	
									37		37			202	58000	37	EACH	MANHOLE REMOVED	
									101		101			202	58100	101	EACH	CATCH BASIN REMOVED	
									150		150			202	58200	150	EACH	INLET REMOVED	
									5,033		5,033			SPECIAL	20270000	5,033	FT	FILL AND PLUG EXISTING CONDUIT, 15"	P.0048
									950		950			SPECIAL	20270000	950	FT	FILL AND PLUG EXISTING CONDUIT, 18"	P.0048
									906		906			SPECIAL	20270000	906	FT	FILL AND PLUG EXISTING CONDUIT, 21"	P.0048
									1,058		1,058			SPECIAL	20270000	1,058	FT	FILL AND PLUG EXISTING CONDUIT, 24"	P.0048
									247		247			SPECIAL	20270000	247	FT	FILL AND PLUG EXISTING CONDUIT, 30"	P.0048
									575		575			SPECIAL	20270000	575	FT	FILL AND PLUG EXISTING CONDUIT, 36"	P.0048
									670		670			SPECIAL	20270000	670	FT	FILL AND PLUG EXISTING CONDUIT, 42"	P.0048
									773		773			SPECIAL	20270000	773	FT	FILL AND PLUG EXISTING CONDUIT, 48"	P.0048
									2,278		2,278			SPECIAL	20270000	2,278	FT	FILL AND PLUG EXISTING CONDUIT, 54"	P.0048
									2,744		2,744			SPECIAL	20270000	2,744	FT	FILL AND PLUG EXISTING CONDUIT, 60"	P.0048
			500						145		645			SPECIAL	20270110	645	FT	PIPE CLEANOUT, 24" AND UNDER	P.0048
			500						190		690			SPECIAL	20270120	690	FT	PIPE CLEANOUT, 27" TO 48"	P.0048
			500								500			SPECIAL	20270130	500	FT	PIPE CLEANOUT OVER 48"	P.0048
							41,942				41,942			202	75000	41,942	FT	FENCE REMOVED	
											LS			202	98000	LS		REMOVAL MISC.:TRAFFIC MONITORING EQUIPMENT	P.1268
								252,249			252,249			203	10001	252,249	CY	EXCAVATION, AS PER PLAN	P.0046
								9,830			9,830			203	20001	9,830	CY	EMBANKMENT, AS PER PLAN	P.0046
		24									24			203	98600	24	EACH	ROADWAY, MISC.:TEST HOLE	P.0046
37,166											37,166			204	13001	37,166	CY	EXCAVATION OF SUBGRADE, AS PER PLAN	P.0046
		71									71			204	45000	71	HOUR	PROOF ROLLING	
5,786											5,786			206	10500	5,786	TON	CEMENT	
221,079											221,079			206	11000	221,079	SY	CURING COAT	
204,209											204,209			206	15010	204,209	SY	CEMENT STABILIZED SUBGRADE, 12 INCHES DEEP	
16,870											16,870			206	15020	16,870	SY	CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP	
		LS									LS			206	30000	LS		MIXTURE DESIGN FOR CHEMICALLY STABILIZED SOILS	
					0.25						0.25			209	15051	0.25	MILE	RESHAPING UNDER GUARDRAIL, AS PER PLAN	P.0050
				20,271							20,271			606	15051	20,271	FT	GUARDRAIL, TYPE MGS, AS PER PLAN	P.0046
				125							125			606	15151	125	FT	GUARDRAIL, TYPE MGS HALF POST SPACING, AS PER PLAN	P.0046
				62.5							62.5			606	15251	62.5	FT	GUARDRAIL, TYPE MGS QUARTER POST SPACING, AS PER PLAN	P.0046
				57							57			606	26150	57	EACH	ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)	
				35							35			606	26550	35	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
				43							43			606	35002	43	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
				20							20			606	35102	20	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	
							41,913				41,913			607	23000	41,913	FT	FENCE, TYPE CLT	
							41,913				41,913			607	70000	41,913	FT	FENCELINE SEEDING AND MULCHING	

GENERAL SUMMARY

DESIGN AGENCY

AMERICAN
STRUCTUREPOINT
INC.

DESIGNER

BER

REVIEWER

VDK 08/09/23

PROJECT ID


76779


SHEET

TOTAL

P.0316

P.1587

GENERAL SUMMARY	
DESIGNER AGENCY	
	
DESIGNER	BER
REVIEWER	VDK 08/09/23
PROJECT ID	76779
SHEET	TOTAL
P.0318	P.1587

GENERAL SUMMARY	
DESIGNER AGENCY	
	
DESIGNER	BER
REVIEWER	VDK
PROJECT ID	08/09/23
	76779
SHEET	TOTAL
P.0320	P.1587

GENERAL SUMMARY

SHEET NUM.									PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
51	1153	1353	1357	1361					01/IMS/04	02/IMS/13	03/IMS/13						
																TRAFFIC SIGNALS	
10									10			632	26501	10	EACH	DETECTOR LOOP, AS PER PLAN	P.0051
	LS									LS		202	11201	LS		PORTIONS OF STRUCTURE REMOVED, AS PER PLAN	P.1348
	39,845								39,845			509	10000	39,845	LB	EPOXY COATED STEEL REINFORCEMENT	
	21,388								21,388			509	30020	21,388	FT	NO. 4 DEFORMED GFRP REINFORCEMENT	
	2,152								2,152			510	10000	2,152	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	
	324								324			511	34450	324	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)	
	1,578								1,578			512	10100	1,578	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
	279								279			516	13600	279	SF	1" PREFORMED EXPANSION JOINT FILLER	
																STRUCTURE OVER 20 FOOT SPAN (CUY-00020-08.470)	
		106							106			512	10100	106	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
		89							89			512	10600	89	FT	CONCRETE REPAIR BY EPOXY INJECTION	
		40							40			SPECIAL	51271500	40	SY	URETHANE TOP COAT SEALER	P.1349
		50							50			514	20001	50	SF	FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN	P.1353
		LS							LS			518	63300	LS		STRUCTURE DRAINAGE, MISC.: CLEAN OUT EXISTING DRAINAGE SYSTEM	P.1349
		358							358			SPECIAL	51900100	358	SF	COMPOSITE FIBER WRAP SYSTEM	P.1350
		944							944			519	11101	944	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN	P.1350
		4							4			SPECIAL	53000400	4	EACH	STRUCTURES: DRILLING ENDS OF CRACKS IN STRUCTURAL STEEL	P.1353
		10							10			SPECIAL	53000500	10	HOURL	STRUCTURES: REPAIRING DAMAGED MEMBERS BY GRINDING	P.1353
																STRUCTURE OVER 20 FOOT SPAN (CUY-00090-07.540)	
			24						24			512	10100	24	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
			12						12			512	10600	12	FT	CONCRETE REPAIR BY EPOXY INJECTION	
			68						68			SPECIAL	51271500	68	SY	URETHANE TOP COAT SEALER	P.1349
			607						607			SPECIAL	51900100	607	SF	COMPOSITE FIBER WRAP SYSTEM	P.1350
			576						576			519	11101	576	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN	P.1350
			559						559			607	35001	559	FT	FENCE REMOVED AND REBUILT, AS PER PLAN	P.1350
			1						1			625	33001	1	EACH	STRUCTURE GROUNDING SYSTEM, AS PER PLAN	P.1350
																STRUCTURE OVER 20 FOOT SPAN (CUY-00090-07.580)	
				LS						LS		202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	P.1348
				427						427		202	22900	427	SY	APPROACH SLAB REMOVED	
				11,995						11,995		202	23500	11,995	SY	WEARING COURSE REMOVED	
				174						174		503	21100	174	CY	UNCLASSIFIED EXCAVATION	
				82,313						82,313		509	10000	82,313	LB	EPOXY COATED STEEL REINFORCEMENT	
				800						800		509	20001	800	LB	CONCRETE REINFORCEMENT, REPLACEMENT OF EXISTING CONCRETE REINFORCEMENT, AS PER PLAN	P.1348
				192						192		510	10000	192	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	
				56						56		511	34412	56	CY	CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE	
				76						76		511	34450	76	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)	
				24						24		511	44112	24	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING	
				218						218		511	53012	218	CY	CLASS QC2 CONCRETE, MISC.:ABUTMENT SLABS	
				13,311						13,311		512	10050	13,311	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	
				4,036						4,036		512	10100	4,036	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
				927						927		512	10300	927	SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN	

GENERAL SUMMARY

DESIGN AGENCY

AMERICAN
STRUCTUREPOINT
INC.

DESIGNER

BER

REVIEWER

VDK 08/09/23

PROJECT ID

76779


SHEET

P.0323

TOTAL

P.1587

GENERAL SUMMARY	
DESIGNER AGENCY	AMERICAN STRUCTUREPOINT INC.
DESIGNER	BER
REVIEWER	VDK 08/09/23
PROJECT ID	76779
SHEET	TOTAL
P.0327d	P.1587

		<h1>GENERAL SUMMARY</h1>	
DESIGN AGENCY			
CONTRACTOR STRUCTUREPOINT INC.			
DESIGNER BER			
REVIEWER VDK 08/09/23			
PROJECT ID 76779			
SHEET P.03270	TOTAL P.1587		

SHEET NO.	REFERENCE NO.	LOCATION	STATION		SIDE	202	202	202	202	202	202	202	202	202							
						PAVEMENT REMOVED, AS PER PLAN	CONCRETE BARRIER REMOVED	TRAFFIC ISLAND REMOVED	CURB REMOVED	CONCRETE SLOPE PROTECTION REMOVED	GUARDRAIL REMOVED	ANCHOR ASSEMBLY REMOVED, TYPE E	ANCHOR ASSEMBLY REMOVED, TYPE T	BRIDGE TERMINAL ASSEMBLY REMOVED	IMPACT ATTENUATOR REMOVED						
			SY	FT												SY	FT	SY	FT	EACH	EACH
448	R-171	RAMP 140-4	74+29.17	74+55.28	RT			40.00													
448	R-172	RAMP 140-4	74+21.52	81+02.83	LT				690.00												
448	R-173	RAMP 140-4	74+46.27	75+06.84	RT				100.00												
448	R-174	RAMP 140-4	75+90.66	84+21.62	RT						762.50	1.00		1.00							
452	R-175	RAMP 117-5	27+06.36	35+38.38	LT				833.00												
453	R-176	RAMP 117-5	33+01.30	33+94.36	RT				94.00												
454	R-177	RAMP 117-7	22+90.62	24+84.55	RT				194.00												
454	R-178	RAMP 117-7	23+83.90	24+35.44	LT				95.00												
454	R-179	RAMP 117-7	24+02.02	25+34.71	LT			650.00													
456	R-180	RAMP 117-8	23+99.06	33+64.25	RT				990.00												
456	R-181	RAMP 117-8	24+21.97	24+64.99	LT				44.00												
457	R-182	RAMP 117-8	30+06.11	31+46.24	RT						87.50	1.00	1.00								
459	R-183	RAMP 117-9	30+57.77	39+90.64	RT				930.00												
459	R-184	RAMP 117-9	31+65.86	32+64.74	LT				117.00												
461	R-185	RAMP 117-11	38+42.89	38+96.08	RT				54.00												
461	R-186	RAMP 117-11	38+96.08	41+53.89	RT			450.00													
462	R-187	RAMP 117-11	41+53.89	42+52.48	RT				99.00												
463	R-188	RAMP 117-12	33+65.55	33+69.46	RT				70.00												
463	R-189	RAMP 117-12	33+66.17	34+39.64	LT				102.00												
463	R-190	RAMP 117-12	34+39.64	36+62.72	LT		224.00														
463	R-191	RAMP 117-12	36+62.72	43+46.99	LT				685.00												
463	R-192	RAMP 117-12	36+62.72	38+76.36	LT						137.50	1.00		1.00							
463	R-193	RAMP 117-12	36+75.86	37+71.06	RT				96.00												
465	R-194	RAMP 117-12	43+46.99	43+70.97	LT		24.00														
466	R-195	RAMP W13	65+40.82	71+43.31	LT				617.00												
466	R-196	RAMP W13	65+40.82	71+16.63	RT				582.00												
468	R-197	RAMP W14	62+84.52	69+90.30	RT				745.00												
469	R-198	RAMP W14	69+89.19	70+13.43	LT				29.00												
405	R-199	IR 90 EB	62+88.40	64+64.18	RT			122.00													
425	R-200	RAMP HA	32+98.33	33+08.08	LT			8.00													
385	R-201	IR 90	334+50.00	337+85.00	CL		335.00														
8	R-202	IR 90	807+50.00	819+50.00	RT		1200.00														
8	R-203	IR 90	808+05.00	819+50.00	LT		1145.00														
423	R-204	RAMP W14	69+63.48	70+05.76	LT/RT	54.00			178.00												
8	R-205	IR 90	780+66.47	781+30.87	LT						37.50			1.00							
TOTALS THIS SHEET						54.00	2928.00	1,270.00	7,344.00		1025.00	3.00	1.00	3.00							
TOTALS CARRIED FROM SHEET 328						419,957.00	11,099.00	89.00	8,171.00		1,565.50	6.00	3.00	9.00							
TOTALS CARRIED FROM SHEET 329						393.00	6,065.00	227.00	14,064.00	188.00	1,950.00	12.00	6.00	10.00	2.00						
TOTALS CARRIED FROM SHEET 330							17,081.00	175.00	14,213.00	16.00	3,510.50	10.00	6.00	7.00							
TOTALS CARRIED FROM SHEET 331							528.00	473.00	10,654.00		4,975.00	8.00	9.00	5.00							
TOTALS CARRIED TO GENERAL SUMMARY						420,404	37,701	2,234	54,446	204	13,026.50	39	25	34	2						

REMOVAL ESTIMATED QUANTITIES

DESIGN AGENCY
AMERICAN
STRUCTUREPOINT
INC.

DESIGNER
BER

REVIEWER
VDK 08/09/23

PROJECT ID
76779

SHEET
P.0332

TOTAL
P.1587

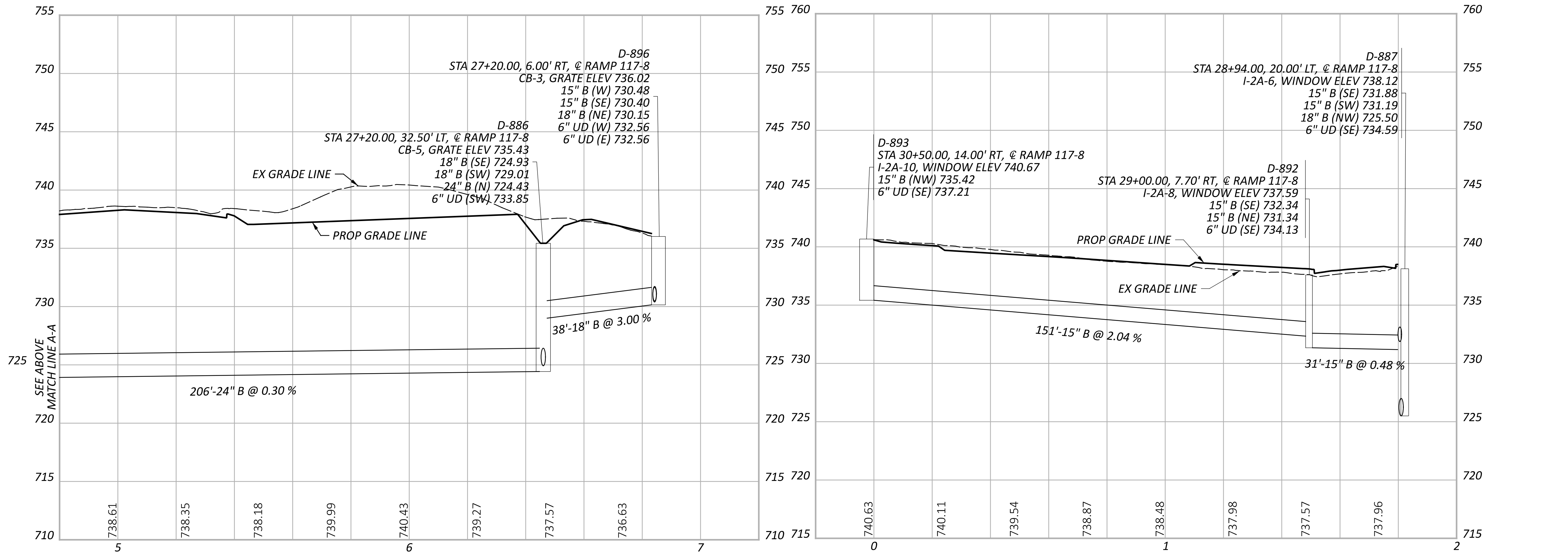
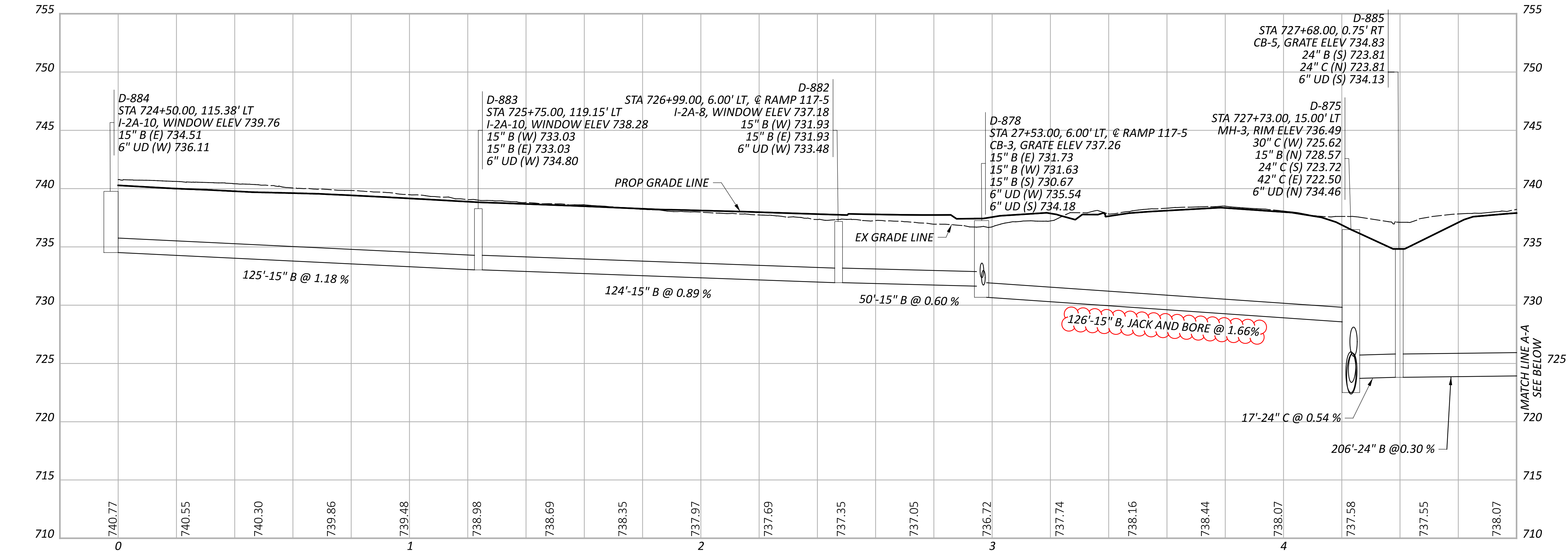
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SHEET NO.	REFERENCE NO.	LOCATION	STATION		SIDE	441	606	606	606	606	606	606	606	626	626		209					
			ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449), (UNDER GUARDRAIL), AS PER PLAN, 3"	GUARDRAIL, TYPE MGS, AS PER PLAN		GUARDRAIL, TYPE MGS HALF POST SPACING, AS PER PLAN	GUARDRAIL, TYPE MGS QUARTER POST SPACING, AS PER PLAN	ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)	ANCHOR ASSEMBLY, MGS TYPE T	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	BARRIER REFLECTOR, TYPE 1, ONE WAY	BARRIER REFLECTOR, TYPE 5, ONE WAY		RESHAPING UNDER GUARDRAIL, AS PER PLAN							
			FROM	TO		CY	FT	FT	FT		EACH	EACH	EACH	EACH	EACH		MILE					
419	GR-51	IR 90 EB	742+18.00	743+10.50	RT	3.75	12.50			1		1			2							
419	GR-52	RAMP 117-12/IR 90 WB	43+89.10	749+06.60	LT	11.33	437.50			1		1			7							
419	GR-53	IR 90 WB	744+00.50	748+55.50	LT	20.07	375.00			1		1			6							
419	GR-54	IR 90 EB	747+36.00	749+53.50	RT	4.76	137.50			1		1			4							
421	GR-55	IR 90 EB	748+98.50	750+03.50	RT	4.31	25.00			1		1			3							
421	GR-56	IR 90 WB	750+71.50	751+89.00	LT	4.87	37.50			1		1			3							
421	GR-57	IR 90 EB	757+24.50	758+29.50	RT	4.31	25.00			1		1			3							
421	GR-58	IR 90 WB	758+98.50	760+03.50	LT	4.31	25.00			1		1			3							
421	GR-59	IR 90 WB	759+28.37	761+70.87	LT	5.31	162.50			1		1			4							
423	GR-60	IR 90 EB	766+69.40	768+85.00	RT	9.71	162.50			1					4							
423	GR-61	IR 90 WB	767+47.50	768+85.00	LT	3.01	125.00				1				3							
423	GR-62	IR 90 EB	767+76.06	769+18.56	RT	5.64	62.50			1		1			3							
425	GR-63	Ramp HA	33+99.27	39+14.60	LT	4.77	452.83			1	1				11							
425	GR-64	Ramp HA	35+00.00	36+00.00	RT	0.93	37.5			1	1				2							
427	GR-65	Ramp HB	32+28.50	33+15.40	LT	0.80	74.4				1		1		1							
427	GR-66	Ramp HB	31+68.32	33+55.77	RT	1.74	250				1			1	5							
428	GR-67	Ramp HB	37+25.00	38+73.80	LT	1.38	71.9			1		1			3							
428	GR-68	Ramp HB	37+84.00	42+61.56	RT	4.42	400.66			1		1			5							
430	GR-69	Ramp MC	96+24.40	100+23.52	RT	3.70	386.62				1				4							
432	GR-70	Ramp MD	93+47.19	97+75.29	LT	3.96	378.1			1					5							
435	GR-71	Ramp ME	5+30.69	8+80.00	LT	3.23	299.31			1					4							
436	GR-72	Ramp MF	5+21.90	12+00.02	RT	6.28	628.12			1					7							
438	GR-73	Ramp W1	39+94.40	43+35.00	RT	3.15	278.1			1	1				4							
441	GR-74	Ramp W2	31+46.19	38+00.90	LT	6.06	604.71			1					7							
447	GR-75	Ramp W2A	58+74.00	60+62.50	LT	1.75	176				1				2							
448	GR-76	Ramp 140-3	73+35.17	84+45.67	LT	10.28	1098				1		1		12							
450	GR-77	Ramp 140-4	75+61.41	84+21.77	RT	7.97	810.36			1			1		9							
457	GR-78	RAMP 117-8	30+76.40	31+54.50	RT	3.52	12.50			1	1				3							
463	GR-79	RAMP 117-12	36+60.10	39+52.60	LT	13.17	212.50			1		1			7							
8	GR-80	IR 90 EB	807+50.00	819+50.00	RT	54.05	1173.10					1	1		25							
8	GR-81	IR 90 WB	808+05.00	819+50.00	LT	51.57	1118.10					1	1		24		0.22					
415	GR-82	IR 90 EB	727+52.50	729+52.50	RT	9.01	134.40			1	1				5		0.03					
8	GR-83	IR 90 WB	780+78.97	781+30.87	LT	2.34	25.00					1		1	1							
TOTALS THIS SHEET						275.47	10209.71			24.00	11.00	16.00	6.00	1.00	191.00		0.25					
TOTALS CARRIED FROM SHEET 336						450.04	10060.94	125.00	62.50	33.00	24.00	27.00	14.00		205.00							
TOTALS CARRIED TO GENERAL SUMMARY						726.00	20,271.00	125.00	62.50	57.00	35.00	43.00	20.00	1.00	396.00		0.25					

ESTIMATED QUANTITIES																		
Sheet 348	Sheet 349	Sheet 350	Sheet 351	Sheet 352	Sheet 353	Sheet 354	Sheet 355	Sheet 356	Sheet 357	Sheet 358	Sheet 359	Sheet 368	ITEM	EXTENSION	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET
2328	3666	2266											202	35100	8,260	FT	PIPE REMOVED, 24" AND UNDER	
2157	4276	3067											202	35200	9,500	FT	PIPE REMOVED, OVER 24"	
17	11	9											202	58000	37	EACH	MANHOLE REMOVED	
40	30	31											202	58100	101	EACH	CATCH BASIN REMOVED	
33	65	52											202	58200	150	EACH	INLET REMOVED	
761	1950	2322											202	70000	5,033	FT	SPECIAL - FILL AND PLUG EXISTING CONDUIT, 15"	P.0048
208	411	331											202	70000	950	FT	SPECIAL - FILL AND PLUG EXISTING CONDUIT, 18"	P.0048
217	301	388											202	70000	906	FT	SPECIAL - FILL AND PLUG EXISTING CONDUIT, 21"	P.0048
321	68	669											202	70000	1,058	FT	SPECIAL - FILL AND PLUG EXISTING CONDUIT, 24"	P.0048
247													202	70000	247	FT	SPECIAL - FILL AND PLUG EXISTING CONDUIT, 30"	P.0048
	300	275											202	70000	575	FT	SPECIAL - FILL AND PLUG EXISTING CONDUIT, 36"	P.0048
73	310	287											202	70000	670	FT	SPECIAL - FILL AND PLUG EXISTING CONDUIT, 42"	P.0048
		773											202	70000	773	FT	SPECIAL - FILL AND PLUG EXISTING CONDUIT, 48"	P.0048
738	643	897											202	70000	2,278	FT	SPECIAL - FILL AND PLUG EXISTING CONDUIT, 54"	P.0048
1701		1043											202	70000	2,744	FT	SPECIAL - FILL AND PLUG EXISTING CONDUIT, 60"	P.0048
				145									202	70110	145	FT	SPECIAL - PIPE CLEANOUT, 24" AND UNDER	
				190									202	70120	190	FT	SPECIAL - PIPE CLEANOUT, 27" TO 48"	
												7.12	601	21050	7.12	SY	TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT	
												124329	605	11110	124,329	FT	6" SHALLOW PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	
												102604	605	14021	102,604	FT	6" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC, AS PER PLAN	P.0048
												5889	611	00510	5,889	FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	
												4	611	99710	4	EACH	PRECAST REINFORCED CONCRETE OUTLET	
			46	11							11		611	04400	68	FT	12" CONDUIT, TYPE B	
											68		611	04600	68	FT	12" CONDUIT, TYPE C	
			976	73					1534	940	996		611	05900	4,519	FT	15" CONDUIT, TYPE B	
													611	06100	2,108	FT	15" CONDUIT, TYPE C	
			261	226				615	28	595	383		611	06700	73	FT	15" CONDUIT, TYPE F	
								73					611	07400	420	FT	18" CONDUIT, TYPE B	
								218	202				611	07600	40	FT	18" CONDUIT, TYPE C	
				194				6		34			611	07600	40	FT	18" CONDUIT, TYPE C	
									77				611	10400	271	FT	24" CONDUIT, TYPE B	
													611	10600	1,315	FT	24" CONDUIT, TYPE C	
			332					966	17				611	13600	244	FT	30" CONDUIT, TYPE C	
								244					611	16600	761	FT	36" CONDUIT, TYPE C	
			753	8									611	19400	101	FT	42" CONDUIT, TYPE B	
			101										611	19600	493	FT	42" CONDUIT, TYPE C	
			493										611	19600	493	FT	42" CONDUIT, TYPE C	
													611	22600	2,514	FT	54" CONDUIT, TYPE C	
								640	1874				611	23800	472	FT	60" CONDUIT, TYPE B	
			472										611	96600	3,417	FT	CONDUIT, BORED OR JACKED, 15", TYPE B	
			143	369	657	131		171	1102	512	332		611	96600	975	FT	CONDUIT, BORED OR JACKED, 18", TYPE B	
			126	84		85	417	136	127				611	96600	975	FT	CONDUIT, BORED OR JACKED, 18", TYPE B	
			235	273	138	253	181		206	385			611	96600	1,671	FT	CONDUIT, BORED OR JACKED, 24", TYPE B	
				63						114			611	96600	177	FT	CONDUIT, BORED OR JACKED, 30", TYPE B	
					256								611	96600	256	FT	CONDUIT, BORED OR JACKED, 30", TYPE C	
								92					611	96600	150	FT	CONDUIT, BORED OR JACKED, 36", TYPE B	
			58										611	96600	170	FT	CONDUIT, BORED OR JACKED, 36", TYPE C	
			170										611	96600	170	FT	CONDUIT, BORED OR JACKED, 36", TYPE C	
			146					143					611	96600	289	FT	CONDUIT, BORED OR JACKED, 42", TYPE B	
								211					611	96600	211	FT	CONDUIT, BORED OR JACKED, 42", TYPE C	
				156		102							611	96600	258	FT	CONDUIT, BORED OR JACKED, 48", TYPE B	
					181								611	96600	181	FT	CONDUIT, BORED OR JACKED, 48", TYPE C	
									147				611	96600	147	FT	CONDUIT, BORED OR JACKED, 54", TYPE B	
									310				611	96600	310	FT	CONDUIT, BORED OR JACKED, 54", TYPE C	
													611	96600	155	FT	CONDUIT, BORED OR JACKED, 60", TYPE B	
				155									611	96600	444	FT	CONDUIT, BORED OR JACKED, 66", TYPE B	
				444									611	97400	24	FT	CONDUIT, MISC.: 12" CONDUIT, TYPE B, ROCK CUT	P.0049
						24												

DRAINAGE SUB-SUMMARY		
DESIGN AGENCY		
AMERICAN STRUCTUREPOINT INC.		
DESIGNER		
BER		
REVIEWER		
VDK 08/09/23		
PROJECT ID		
76779		
SHEET TOTAL		
P.0346	P.1587	

SHEET NO.	REFERENCE NO.	LOCATION	STATION		SIDE	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	
			CONDUIT, BORED OR JACKED, 15", TYPE B	CONDUIT, BORED OR JACKED, 18", TYPE B		CONDUIT, BORED OR JACKED, 24", TYPE B	CONDUIT, BORED OR JACKED, 48", TYPE B	CONDUIT, MISC.: 12" CONDUIT, TYPE B, ROCK CUT	CONDUIT, MISC.: 12" CONDUIT, TYPE C, ROCK CUT	CONDUIT, MISC.: 15" CONDUIT, TYPE B, ROCK CUT	CONDUIT, MISC.: 15" CONDUIT, TYPE C, ROCK CUT	CONDUIT, MISC.: 18" CONDUIT, TYPE B, ROCK CUT	CONDUIT, MISC.: 24" CONDUIT, TYPE B, ROCK CUT	CONDUIT, MISC.: 30" CONDUIT, TYPE B, ROCK CUT	CONDUIT, MISC.: 36" CONDUIT, TYPE B, ROCK CUT	CATCH BASIN, NO. 3	CATCH BASIN, NO. 3A	CATCH BASIN, NO. 5	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE B1	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE C1	INLET, NO. 3D	INLET, NO. 2-A-6	INLET, NO. 2-A-8	INLET, NO. 2-A-10	INLET, NO. 2-A-14	MANHOLE, NO. 3		
																											FROM	TO
OUTFALL D CONTINUED						FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	
1053/1097	D178	IR 90	602+26.00	603+01.00	LT							75						1										
1053/1097	D180	IR 90	603+01.00	603+78.00	LT							77						1										
1053/1097	D181	IR 90	603+78.00	605+01.00	LT							120																
1053/1097	D182	IR 90	605+01.00	604+99.00	LT							6																
1054/1098	D187	RAMP ME	9+34.00	608+58.00	LT	65																						
1054/1098	D191	IR 90	610+95.00	912+00.00	LT							100																
1054/1098	D189	IR 90	611+75.00	611+75.00	RT									15														
1054/1098	D190	IR 90	611+75.00	612+00.00	LT/RT		85													1								
1054/1098	D192	IR 90	612+00.00	612+45.00	LT							47																
1054/1098	D193	IR 90	612+45.00	612+67.00	LT							43																
1054/1098	D194	IR 90	612+67.00	631+96.00	LT							126																
1055/1099	D206	IR 90	616+25.00	616+36.00	LT							14																
1055/1099	D204	IR 90	616+36.00	616+36.00	LT/RT			85																				
1055/1099	D201	IR 90	616+36.00	616+36.00	RT										15													
1055/1099	D197	IR 90	616+36.00	616+36.00	RT	66																						
1055/1099	D205	IR 90	615+30.00	615+56.00	LT							92																
1055/1099	D207	IR 90	617+28.00	617+10.00	LT							88																
1055/1099	D208	IR 90	617+10.00	616+00.00	LT							90																
1055/1099	D209	IR 90	616+00.00	617+01.00	LT					6		99																
1055/1099	D202	IR 90	615+56.00	615+50.00	RT									12							1							
1055/1100	D203	IR 90	617+25.00	617+28.00	RT										13							1						
1055/1099	D198	IR 90	615+70.00	615+50.00	RT							75																
1055/1100	D199	IR 90	616+36.00	617+03.00	RT					6		80																
1055/1101	D213	IR 90	618+13.00	618+15.00	LT					102																		
1055/1101	D214	IR 90	618+15.00	619+37.00	LT																							
1055/1101	D215	IR 90	619+37.00	620+63.00	LT																							
1055/1102	D241	IR 90	628+01.00	626+50.00	LT					6		151																
1055/1102	D240	IR 90	626+50.00	624+75.00	LT							175																
1055/1102	D238	IR 90	624+75.00	623+00.00	LT					6		172																
1055/1102	D237	IR 90	623+00.00	621+59.00	LT							142																
1055/1102	D234	IR 90	621+59.00	621+56.00	LT/RT					6																		
1055/1102	D220	IR 90	621+56.00	621+46.00	RT																							
1055/1102	D225	IR 90	621+46.00	622+75.00	RT										131													
1055/1103	D226	IR 90	622+75.00	624+25.00	RT										151													
1055/1103	D227	IR 90	624+25.00	625+50.00	RT										128													
1055/1103	D228	IR 90	625+50.00	626+50.00	RT							99																
1055/1103	D229	IR 90	626+50.00	627+50.00	RT							100																
1055/1103	D230	IR 90	627+50.00	628+50.00	RT							101																
1055/1103	D231	IR 90	628+50.00	629+36.00	RT							87																
1055/1104	D223	IR 90	619+01.00	619+35.00	RT								36													1		
1055/1104	D222	IR 90	619+35.00	620+72.00	RT							137																
1055/1104	D221	IR 90	620+72.00	621+46.00	RT							69																
1055/1104	D233	IR 90	621+86.00	621+56.00	RT							33																
1055/1105	D273	IR 90	639+25.00	638+00.00	LT							125																
1055/1105	D272	IR 90	638+00.00	636+50.00	LT							144																
TOTALS CARRIED TO SHEETS 346 & 347						131	85	253	102	24	6	2667	36	450	15	6	248	4	3	4	1	4	1	18	7	1	1	1

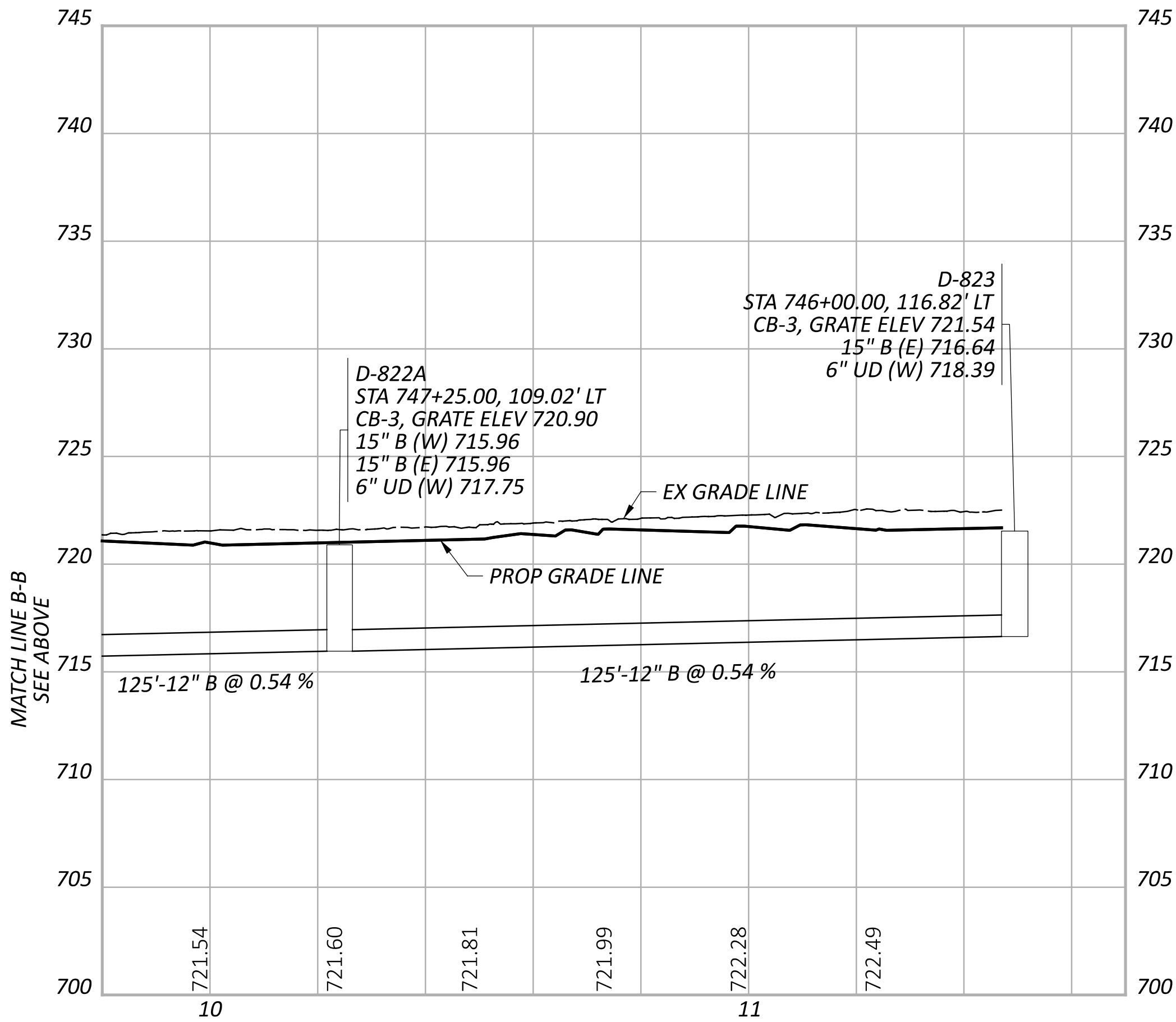
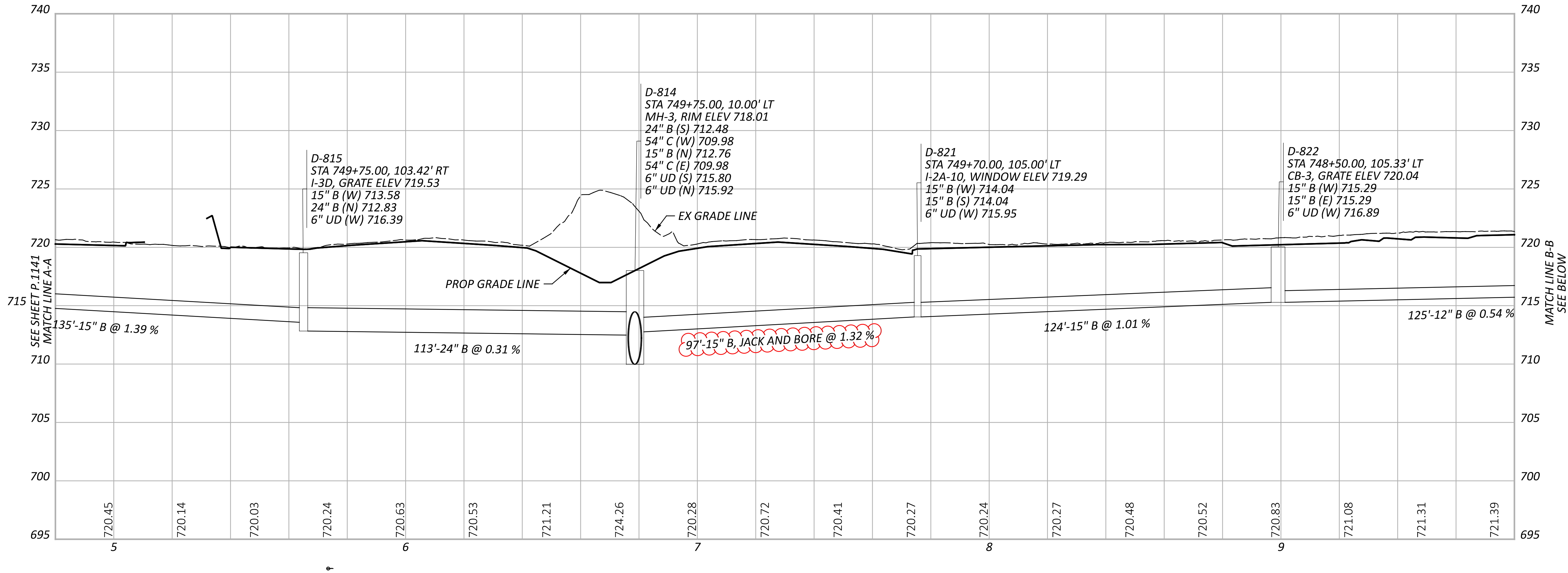


STORM SEWER PROFILES
OUTFALL M

DESIGN AGENCY	STRUCTUREPOINT
DESIGNER	AJO
REVIEWER	KEM
PROJECT ID	76779
SHEET	P.1134
TOTAL	P.1587

NOTES:

1. ALL STATIONING TAKEN FROM @ CONST IR 90 UNLESS OTHERWISE NOTED
2. FOR DRAINAGE PLAN SHEETS, SEE SHEET P.1047 - P.1067
3. ALL EXISTING CONNECTIONS TO BE CORED IN THE FIELD
4. ALL PROPOSED PIPES TO BE CONNECTED TO EXISTING SHALL BE FITTED WITH A MASONRY COLLAR PER SCD DM-1.1. COST INCLUDED IN THE UNIT BID PRICE FOR THE PERTINENT CONDUIT ITEM



STORM SEWER PROFILES
OUTFALL M

DESIGN AGENCY	
AMERICAN STRUCTUREPOINT INC.	
DESIGNER	
AJO	
REVIEWER	
KEM 08/09/23	
PROJECT ID	
76779	
SHEET	TOTAL
P.1142	P.1587

PROPOSED WORK

REFER TO THE PROJECT TITLE SHEET AND SCHEMATIC PLANS FOR GENERAL INFORMATION AND LIMITS OF WORK.

EXISTING LIGHTING ITEMS, SIGNS, CONDUIT, CABLE AND POWER CENTERS

THE LOCATIONS OF EXISTING LIGHTING ITEMS, SIGNS, CONDUIT, CABLE, AND POWER CENTERS SHOWN ON THE PLANS AND DESCRIBED BY NOTATION HAVE BEEN OBTAINED BY FIELD CHECKS AND INFORMATION FROM EXISTING LIGHTING PLANS PROVIDED BY ODOT. IT IS BELIEVED THAT THE INFORMATION IS ESSENTIALLY CORRECT; HOWEVER, ODOT CANNOT GUARANTEE THE ACCURACY OR COMPLETENESS. NOT ALL EXISTING LIGHTING EQUIPMENT WITHIN THE PROJECT LIMITS IS SHOWN. THE CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS.

CONFLICTS WITH EXISTING UTILITIES

PRIOR TO INSTALLING ANY OF THE PROPOSED LIGHTING EQUIPMENT, PULLBOXES, CONDUIT, AND CONDUIT DUCTBANKS, THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATION AS TO TYPE AND LOCATION OF ALL UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID ANY DAMAGE. ALL REPAIRS TO ANY DAMAGE TO EXISTING UTILITIES CAUSED BY THE FAILURE TO COORDINATE WITH THE RESPECTIVE UTILITY COMPANIES AND EXCAVATING APPROPRIATE UTILITY TEST HOLES, WILL BE PAID FOR BY THE CONTRACTOR.

THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UNDERGROUND PIPE LINES, DRAINAGE, ELECTRICAL CONDUIT AND DUCT BANKS, WATERLINES, COMMUNICATION DUCTS, AND OTHER STRUCTURES BY CONTACTING OWNERS OF UNDERGROUND UTILITIES AND BY EXCAVATING APPROPRIATE UTILITY TEST HOLES. REFER TO PROJECT GENERAL NOTES FOR A LISTING OF KNOWN UTILITY COMPANIES WITH SERVICES IN THE PROJECT AREA.

THE CONTRACTOR SHALL COORDINATE THE LIGHTING PLANS WITH THE ROADWAY CONSTRUCTION PLANS AND CROSS-SECTIONS. ALL LIGHTING EQUIPMENT SYMBOLS SHOWN ON THE LIGHTING PLANS ARE NOT DRAWN TO SCALE, ARE SHOWN DIAGRAMMATICALLY AND MAY NOT BE IN THE EXACT LOCATION REQUIRED. THE CONTRACTOR SHALL COORDINATE LOCATIONS AND VARIOUS NOTES ON EACH LIGHTING PLAN AND DETAIL SHEET.

THE CONTRACTOR SHALL COORDINATE WITH THE PROJECT ENGINEER AND ODOT IN ADVANCE OF ANY WORK, IF THE LOCATION OF ANY LIGHT TOWER OR LIGHT POLE NEEDS TO BE ADJUSTED GREATER THAN TWO FEET FROM THEIR INTENDED LOCATION.

THE CONTRACTOR SHALL MAINTAIN PROPER CLEARANCE FROM ALL OVERHEAD AND UNDERGROUND UTILITIES AND SHALL CONTACT EACH UTILITY FOR SPECIFIC REQUIREMENTS.

FIELD CONDITION REQUIREMENTS

UNLESS OTHERWISE INDICATED, ALL EXISTING CONDUIT, CABLE, AND DUCT CABLE WILL BE ABANDONED IN PLACE. TRENCHING FOR NEW CONDUIT / CABLE RUNS IN AREAS WHERE EXISTING CIRCUITS HAVE BEEN ABANDONED, MAY RESULT IN DISTURBING THE EXISTING CONDUIT. CONDUIT MAY REMAIN IN PLACE UNLESS IT BECOMES AN OBSTACLE TO THE INSTALLATION OF THE NEW CONDUITS / DUCT CABLE. REMOVAL OF ANY CONDUIT WILL BE INCIDENTAL TO THE APPROPRIATE PAY ITEM 625, "TRENCH".

EXISTING LIGHTING CIRCUITS

PRIOR TO BEGINNING ANY WORK ON THE REMOVAL OR MODIFICATION ON ANY OF THE EXISTING LIGHTING SYSTEM CIRCUITRY, FIELD VERIFY ALL EXISTING LIGHTING CIRCUITRY. CONTACT ODOT FOR ASSISTANCE IN THE COORDINATION OF THE EXISTING LIGHTING CIRCUITRY AND TO CONFIRM ALL REMOVAL OR MODIFICATION WORK TO BE PERFORMED ON THE EXISTING LIGHTING SYSTEM.

THE CONTRACTOR SHALL FIELD VERIFY THE CONDITION OF EXISTING LIGHTING SYSTEM CIRCUITRY TO REMAIN AND REPLACE ANY COMPONENTS OF THE EXISTING LIGHTING CIRCUITRY THAT IS IN POOR CONDITION TO COMPLETE THE MODIFICATIONS PROPOSED IN THE PLANS. THE FOLLOWING ESTIMATED CONTINGENCY QUANTITIES HAVE BEEN CARRIED TO THE LIGHTING GENERAL SUMMARY FOR THE WORK DESCRIBED ABOVE:

ITEM 625 - 1-1/2" DUCT CABLE WITH THREE NO. 4 AWG 2400 VOLT CABLES	400 FT
ITEM 625 - PULL BOX, 725.08, 18"	11 EACH

REMOVAL OF LIGHTING ITEMS

EXISTING LIGHTING FOUNDATIONS, PULL BOXES, AND MISCELLANEOUS ITEMS NO LONGER IN SERVICE SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR, EXCEPT FOR EXISTING DUCTS AND CONDUITS, WHICH CAN BE ABANDONED IN PLACE. PRIOR TO REMOVAL, THE CONTRACTOR SHALL CONTACT ODOT TO CONFIRM REMOVAL. EXISTING LIGHT TOWERS AND LIGHT POLES, LUMINAIRES, AND CONDUCTORS REMOVED ON THE PROJECT SHALL BE RETURNED TO ODOT. THE CONTRACTOR SHALL NOTIFY ODOT AND STORE THE MATERIALS ON SITE, SUITABLY PROTECTED, AT A DESIGNATED LOCATION FOR PICK UP BY ODOT STAFF WITHIN 30 WORKDAYS OF NOTIFICATION BY THE CONTRACTOR. THE CONTRACTOR MAY DISPOSE OF MATERIALS NOT PICKED UP WITHIN THE 30 WORKDAY TIMEFRAME. ALL OTHER EQUIPMENT AND MATERIALS NO LONGER IN SERVICE SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.

ITEM 625 - PULL BOX CLEANED

THIS ITEM OF WORK SHALL CONSIST OF CLEANING AN EXISTING PULL BOX BY REMOVING ANY EXISTING CABLES NOT BEING RECONNECTED, AND DEBRIS SO THAT NEW CABLES CAN BE INSTALLED. ANY UNUSED OPENINGS SHALL BE CLOSED. DISTURBED AREAS NEAR THE PULL BOX SHALL BE CLEARED OF WEEDS OR DEBRIS AND SHALL BE FULLY RESTORED. MATERIAL REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF OFF OF THE PROJECT SITE.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 625, "PULL BOX CLEANED" FOR EACH PULL BOX CLEANED WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

ITEM 625 - CONDUIT CLEANED AND CABLES REMOVED

THIS ITEM SHALL CONSIST OF CLEANING AN EXISTING CONDUIT BY REMOVING EXISTING CABLES, MUD, AND DEBRIS SO THAT NEW CABLE CAN BE INSTALLED. INCIDENTAL TO THE CLEANING IS THE INSTALLATION OF BUSHINGS AND/OR COUPLINGS ON THE ENDS OF EXISTING CONDUIT AS REQUIRED. MATERIALS REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR FOR PROPER DISPOSAL OFF OF THE PROJECT SITE. DISTURBED AREAS SHALL BE PROPERLY RESTORED.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 625, "CONDUIT CLEANED AND CABLES REMOVED" PER FOOT OF CONDUIT CLEANED WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

ITEM 625 - LIGHT POLE ANCHOR BOLTS ON STRUCTURES

WHEN A LIGHT POLE IS MOUNTED ON A PILASTER ON A BRIDGE PARAPET OR ON A RETAINING WALL, THE REQUIRED ANCHOR BOLTS MAY DIFFER IN LENGTH AND/OR SHAPE FROM THOSE REQUIRED WHEN THE POLE IS MOUNTED ON A CAST-IN-PLACE DRILLED SHAFT FOUNDATION. THE COST DIFFERENTIAL FOR FURNISHING SUCH BOLTS IS INCLUDED HEREIN.

IN ADDITION, THERE IS NO FOUNDATION CONSTRUCTION ITEM IN WHICH TO INCLUDE THE SETTING OF THE ANCHOR BOLTS. THUS, THE SETTING OF THE ANCHOR BOLTS INTO THE PILASTER IS ALSO PART OF THIS WORK.

PAYMENT WILL BE MADE AT EACH SUCH POLE LOCATION AT THE UNIT PRICE BID FOR EACH CMS ITEM 625, "LIGHT POLE ANCHOR BOLTS ON STRUCTURES" AND SHALL BE FULL COMPENSATION FOR FURNISHING AND PLACING THE SET OF ANCHOR BOLTS REQUIRED.

CONDUIT EXPANSION AND DEFLECTION

EXPANSION FITTINGS SHALL BE OZ TYPE AX, CROUSE HINDS TYPE XJG, OR EQUAL APPROVED BY THE ENGINEER. EACH EXPANSION FITTING SHALL PROVIDE EITHER 4 OR 8 INCHES TOTAL MOVEMENT AS SPECIFIED BY THE PLAN DETAILS AND SHALL HAVE AN EXTERNAL COPPER BONDING JUMPER, UNLESS SPECIFIED OTHERWISE BY THE PLAN DETAILS.

DEFLECTION COUPLINGS SHALL BE OZ TYPE DX, CROUSE HINDS TYPE XD, OR EQUAL APPROVED BY THE ENGINEER. EACH DEFLECTION COUPLING SHALL HAVE AN EXTERNAL COPPER BONDING JUMPER, UNLESS SPECIFIED OTHERWISE BY THE PLAN DETAILS. MINIMUM DEFLECTION CAPABILITY: 25 DEGREES.

EXPANSION AND DEFLECTION FITTINGS FULLY OR PARTIALLY EMBEDDED IN CONCRETE, SOIL, OR SIMILAR MATERIAL SHALL BE COMPLETELY WRAPPED IN A NEOPRENE SLEEVE OR SHEET OF 1/2-INCH MINIMUM THICKNESS.

SECURE NEOPRENE WRAP WITH TIE-WRAP PRIOR TO EMBEDMENT OF THE FITTING.

ITEM 625 - 1-1/2" DUCT CABLE WITH THREE NO. 4 AWG 2400 VOLT CABLES

IN ADDITION TO THE QUANTITY CALCULATED IN THE LIGHTING SUBSUMMARY SHEETS, THE FOLLOWING CONTINGENCY QUANTITY HAS BEEN CARRIED TO THE LIGHTING GENERAL SUMMARY FOR THIS ITEM:

ITEM 625 - 1-1/2" DUCT CABLE WITH THREE NO. 4 AWG 2400 VOLT CABLES	1100 FT
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THIS QUANTITY IS TO PROVIDE EXCESS DUCT CABLE TO ACCOUNT FOR CABLES BEING DRAWN INTO THE DUCT AT THE START OF EACH SPOOL OF DUCT CABLE.

ITEM 625 - SERVICE TO UNDERPASS LIGHTING, AS PER PLAN

ALL LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO REPLACE THE EXISTING THE UNDERPASS LIGHTING MOUNTED ON THE FORWARD ABUTMENT OF BRIDGE CUY-90-09.910 SHALL BE INCLUDED AS PART OF ITEM 625 - SERVICE TO UNDERPASS LIGHTING, AS PER PLAN. THIS WORK SHALL BEGIN AFTER THE COMPLETION OF THE SEMI-INTEGRAL ABUTMENT WORK. THE FOLLOWING QUANTITIES ARE CARRIED TO THE LIGHTING GENERAL SUMMARY:

ITEM 625 - NO. 4 AWG 2400 VOLT DISTRIBUTION CABLE	600 FT
ITEM 625 - CONDUIT, 1-1/2", 725.04	200 FT
ITEM 625 - LUMINAIRE, UNDERPASS, SOLID STATE (LED), AS PER PLAN, CPP FIXTURE	4 EACH
ITEM 625 - JUNCTION BOX	4 EACH
ITEM 625 - SERVICE TO UNDERPASS LIGHTING, AS PER PLAN	1 EACH

ITEM 625 - POWER SERVICE, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF THE SPECIFICATIONS, THE FOLLOWING IS ADDED.

THE POWER SUPPLYING AGENCY FOR THIS PROJECT IS:

POWER COMPANY ADDRESS	FIRST ENERGY (CEI) 6896 MILLER ROAD BRECKSVILLE, OH 44141
PHONE # CONTACT NAME	330-384-5970 AUREL MIU

POWER COMPANY ADDRESS	CLEVELAND PUBLIC POWER (CPP) 1300 LAKESIDE AVENUE CLEVELAND, OH 44114
PHONE # (1) CONTACT NAME (1)	216-563-7212 (EXT 76115) CHRIS HIRZEL

PHONE # (2) CONTACT NAME (2)	216-563-7239 (EXT 76123) PATRICK YORK
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THE AGENCY SUPPLYING POWER FOR EACH CONTROL CENTER WITHIN THE PROJECT LIMITS IS IDENTIFIED ON THE LIGHTING PLAN SHEETS.

THIS ITEM SHALL INCLUDE NEW POWER SERVICES ESTABLISHED BY THIS PROJECT AS WELL AS REASSIGNMENT OF EXISTING SERVICE DUE TO WORK PERFORMED BY THIS PROJECT. SUBMIT SHOP DRAWINGS (CATALOG CUTS) TO THE ENGINEER AND THE AGENCY SUPPLYING POWER FOR THEIR APPROVAL.

THE CONTRACTOR SHALL ESTABLISH OR TRANSFER ALL NEW OR EXISTING POWER SERVICES TO THEIR NAME PRIOR TO BEGINNING WORK. THE ENGINEER SHALL ENSURE THAT EACH POWER SERVICE ELECTRICAL ENERGY ACCOUNT IS IN THE NAME OF AND THAT THE BILLING ADDRESS IS TO THE MAINTAINING AGENCY NOTED IN THE PLANS UPON FINAL ACCEPTANCE OF THE WORK. THIS SHALL BE DONE NOT ONLY FOR EACH NEW POWER SERVICE ESTABLISHED BY THIS PROJECT BUT ALSO FOR EACH EXISTING POWER SERVICE, SINCE THERE MAY BE A REASSIGNMENT OF THE RESPONSIBILITY FOR AN EXISTING SERVICE AS A RESULT OF THE WORK PERFORMED BY THIS PROJECT.

ONCE THE ACCOUNTS HAVE BEEN TRANSFERRED AND THE CONTRACTOR HAS RECEIVED THE FINAL INVOICE, THE CONTRACTOR SHALL SUBMIT A SUMMARY AND ALL COPIES OF INVOICES PAID FOR EACH ELECTRICAL SERVICE ACCOUNT, INCLUDING ALL MAKE-READY WORK TO THE ENGINEER FOR REVIEW AND REIMBURSEMENT IN ACCORDANCE WITH C&MS 625.15.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH CMS ITEM 625, "POWER SERVICE, AS PER PLAN" WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

PADLOCKS AND KEYS

PADLOCKS FURNISHED SHALL BE EITHER BRASS OR BRONZE, EQUAL TO MASTER NO. 4BKA OR WILSON BOHANNAN 660A, AND SHALL BE KEYED IN ACCORDANCE WITH C&MS 631.06. PAYMENT SHALL BE INCLUDED IN THE BID FOR THE ITEM(S) BEING LOCKED.

ITEM 625 - MEDIAN LIGHT POLE FOUNDATION, 10' DEEP, AS PER PLAN

SLIP FORMING OF MEDIAN BARRIER FOR MEDIAN LIGHT POLE LIMITS IS NOT PERMITTED.

DESIGN AGENCY	
Michael Baker INTERNATIONAL	
DESIGNER	
JLD	
REVIEWER	
SM	08/09/23
PROJECT ID	
76779	
SHEET	TOTAL
P.1309	P.1587

ITEM SPECIAL - MAINTAIN EXISTING LIGHTING

EXISTING ROADWAYS WHICH ARE TO REMAIN OPEN TO TRAFFIC DURING CONSTRUCTION OF THIS PROJECT AND WHICH ARE LIGHTED SHALL HAVE THE LIGHTING MAINTAINED AS DESCRIBED HEREIN.

BEFORE ANY WORK IS STARTED IN THE IMMEDIATE VICINITY OF THE EXISTING LIGHTING CIRCUITS, REPRESENTATIVES OF ODOT, THE MAINTAINING AGENCY AND THE CONTRACTOR SHALL MAKE A VISUAL INSPECTION OF THE EXISTING ROADWAY LIGHTING CIRCUITS TO BE MAINTAINED. DURING THIS INSPECTION, A WRITTEN RECORD OF THE CONDITION OF EXISTING LIGHTING SHALL BE MADE BY ODOT'S REPRESENTATIVE. THIS WRITTEN REPORT SHALL NOTE INDIVIDUAL LUMINAIRES WHICH ARE NOT IN WORKING ORDER, INDIVIDUAL POLES WHICH ARE NOT STANDING, AND INDIVIDUAL CIRCUITS WHICH ARE NOT IN WORKING ORDER. THE COMPLETED REPORT SHALL BE SIGNED BY THE REPRESENTATIVES OF ODOT, THE MAINTAINING AGENCY AND THE CONTRACTOR.

IF, AS A RESULT OF THIS INSPECTION, IT IS DETERMINED THAT THE CONDITION OF THE EXISTING SYSTEM IS BELOW THAT REQUIRED FOR THE SAFETY OF THE TRAVELING PUBLIC, THEN THE MAINTAINING AGENCY SHALL MAKE THE REPAIRS NECESSARY TO RETURN THE SYSTEM TO AN ACCEPTABLE CONDITION. FOLLOWING THESE REPAIRS, THE SYSTEM SHALL AGAIN BE INSPECTED AND A REPORT SHALL BE MADE AND SIGNED AS OUTLINED HEREIN.

WHEN THE EXISTING SYSTEM IS IN AN ACCEPTABLE CONDITION, IT SHALL BE TURNED OVER TO THE CONTRACTOR WHO SHALL THEN BE REQUIRED TO MAINTAIN THE EXISTING LIGHTING TO THE CONDITION OUTLINED IN THIS REPORT WITH THE EXCEPTION OF KNOCKDOWNS DUE TO TRAFFIC CRASHES.

REPLACEMENT OF KNOCKED DOWNED UNITS SHALL BE DONE ONLY WHEN THE ENGINEER HAS DETERMINED THAT THE REPLACEMENT OF THE KNOCKED DOWN UNIT IS NECESSARY AND SHALL BE PAID SEPARATELY ON A UNIT BASIS.

BETTERMENTS SHALL BE COVERED IN ITEMS OF WORK PERTAINING TO THE CONSTRUCTION OF PERMANENT IMPROVEMENT.

WHEN THE SEQUENCE OF CONSTRUCTION ACTIVITIES REQUIRES, OR SHOULD THE CONTRACTOR DESIRE, THE REMOVAL OF THE EXISTING LIGHTING BEFORE THE NEW LIGHTING IS OPERATIONAL, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY LIGHTING OF THIS PORTION OF THE ROADWAY.

PRIOR TO INSTALLING SUCH LIGHTING, THE CONTRACTOR SHALL PREPARE AND SUBMIT FOUR SETS OF THE TEMPORARY LIGHTING PLAN TO THE ENGINEER FOR REVIEW AND APPROVAL.

THIS PLAN SHALL SHOW LOCATIONS OF POLES, LENGTHS OF BRACKET ARMS, STYLES OF LUMINAIRES, MOUNTING HEIGHTS, WIRING METHODS AND OTHER PERTINENT INFORMATION. THE TEMPORARY LIGHTING SHALL PROVIDE AN AVERAGE INITIAL INTENSITY OF 1.2 FOOTCANDLES WITH AN AVERAGE TO MINIMUM UNIFORMITY NOT TO EXCEED 3:1. MOUNTING HEIGHT OF TEMPORARY LUMINAIRES SHALL NOT BE LESS THAN 30 FEET, AND THE MINIMUM OVERHEAD CONDUCTOR CLEARANCE SHALL BE 20 FEET. TEMPORARY OVERHEAD CONSTRUCTION SHALL NOT BE LESS THAN GRADE "B" FOR STRENGTH REQUIREMENTS AS DEFINED BY THE NATIONAL ELECTRIC SAFETY CODE. WOOD POLES WITH OVERHEAD WIRING MAY BE USED. HOWEVER, TEMPORARY LIGHTING SHALL MEET FEDERAL AND STATE SAFETY CRITERIA. IF BREAKAWAY POLES ARE USED TO MEET THESE CRITERIA, THEN UNDERGROUND WIRING SHALL BE USED. RECONDITIONED OR USED MATERIALS MAY BE FURNISHED FOR TEMPORARY LIGHTING. ALL MATERIALS NECESSARY TO COMPLETE THE TEMPORARY LIGHTING SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. WHEN NO LONGER NEEDED, THE TEMPORARY LIGHTING INSTALLATION SHALL BE REMOVED AND PROPERLY DISPOSED OF BY THE CONTRACTOR.

SPECIAL, MAINTAIN EXISTING LIGHTING (CONTINUED)

THE CONTRACTOR SHALL ESTABLISH OR TRANSFER ALL NEW OR EXISTING POWER SERVICES TO THEIR NAME PRIOR TO BEGINNING WORK. THE DEPARTMENT WILL REIMBURSE FOR ELECTRICAL CHARGES IN ACCORDANCE WITH ITEM 625 - POWER SERVICE, APP EXCEPT FOR NEW POWER SERVICES ESTABLISHED AND UTILIZED FOR THE EXCLUSIVE PURPOSE OF THIS ITEM.

THE LUMP SUM PRICE BID FOR ITEM SPECIAL "MAINTAIN EXISTING LIGHTING" SHALL INCLUDE PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO MAINTAIN THE EXISTING LIGHTING AS SPECIFIED HEREIN.

THE UNIT PRICE BID FOR ITEM SPECIAL "REPLACEMENT OF EXISTING LIGHTING UNIT" SHALL BE FULL PAYMENT FOR THE REPLACEMENT OF AN EXISTING LIGHTING UNIT WHICH HAS BEEN KNOCKED DOWN AFTER THE AFOREMENTIONED INSPECTION AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO PROVIDE A REPLACEMENT FOR SUCH UNIT.

ITEM 625 - LUMINAIRE, LOW MAST, SOLID STATE (LED), AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF ODOT CMS 625, LUMINAIRES SHALL BE ONE OF THE FOLLOWING PRODUCTS.

FOR ASYMMETRIC FIXTURES:
HOLOPHANE HMLED4-P3-30K-XVOLT-HGR-AW-HMLED4D180
GE EVOLVE ERHM-03-5-40-C6-7-30-N-1-4B-GRAY-R
COOPER STREETWORKS CELESTEON CST-CA8-330-730-8-T3-AP (FREEWAY ONLY)
COOPER STREETWORKS CELESTEON CST-CA8-230-730-8-T3-AP (RAMPS ONLY)

FOR SYMMETRIC FIXTURES:
HOLOPHANE HMLED4-P3-30K-XVOLT-HGR-AW
GE EVOLVE ERHM-03-5-60-VW-7-30-N-1-4B-GRAY-R
COOPER STREETWORKS CELESTEON CST-CA8-480-730-8-T5-AP

ALL FIXTURES SHALL COMPLY WITH ODOT SUPPLEMENTAL SPECIFICATION 813.

ITEM 625 - LUMINAIRE, UNDERPASS, SOLID STATE (LED), AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF ODOT CMS 625, LUMINAIRES SHALL BE ONE OF THE FOLLOWING PRODUCTS.

HOLOPHANE W4GLED-10C1000-30K-T3S-480-SPD
GE EVOLVE EWAS-01-5-Dx-AW-7-30-N-1-FM-GRAY-F
COOPER STREETWORKS WAL-PAK-WKP-6B-LED-E-8-GL-AP-10K-7030-B

ALL FIXTURES SHALL COMPLY WITH ODOT SUPPLEMENTAL SPECIFICATION 813.

ITEM 625 - LUMINAIRE, UNDERPASS, SOLID STATE (LED), AS PER PLAN, CPP FIXTURE

THIS ITEM INCLUDES THE REPLACEMENT LUMINAIRES FOR THE EXISTING UNDERPASS LIGHTING MOUNTED ON THE FORWARD ABUTMENT OF BRIDGE CUY-90-09.910. REPLACE THE EXISTING UNDERPASS LUMINAIRES WITH A FIXTURE MATCHING THE PRODUCT TYPE AND SPECS OF THE EXISTING LUMINAIRES OR PROVIDE FIXTURES MEETING CURRENT CLEVELAND PUBLIC POWER (CPP) SPECIFICATIONS.

ITEM 625 - PULL BOX, 725.08, 48", TYPE 1, AS PER PLAN

THE CONTRACTOR SHALL FURNISH AND INSTALL A 48" ROUND PULL BOX, TYPE 1, WITH CONCRETE PAD PER ODOT SCD ITS-14.20.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE UNDER CMS ITEM 625, "PULL BOX, 725.08, 48", TYPE 1, AS PER PLAN" FOR EACH 48" PULL BOX PROPOSED IN THE PLANS WHICH SHALL INCLUDE FULL COMPENSATION FOR ALL LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

ITEM 625 - STRUCTURE GROUNDING SYSTEM, AS PER PLAN

THIS ITEM OF WORK INCLUDES INSTALLING A STRUCTURE GROUNDING SYSTEM TO THE QUALITY OF HL-50.21. IF AN EXISTING STRUCTURE GROUNDING SYSTEM IS PRESENT, VERIFY IT IS UP TO THE STANDARDS OF HL-50.21.

VERIFY THE EXISTING BRIDGE INCLUDES A STRUCTURE GROUNDING SYSTEM. VERIFY EACH GROUNDING ELECTRODE IS ACCEPTABLE BEFORE ANY MODIFICATION OR INSTALLATION OF ADDITIONAL ELECTRODES.

IF EXISTING, ONCE THE STRUCTURE GROUNDING SYSTEM HAS BEEN DETERMINED ACCEPTABLE BY THE ENGINEER, THIS ITEM OF WORK SHALL INCLUDE TYING THE PROPOSED LIGHT POLES INTO THE EXSTING STRUCTURE GROUNDING SYSTEM.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE UNDER CMS ITEM 625, "STRUCTURE GROUNDING SYSTEM, AS PER PLAN" FOR EACH STRUCTURE REQUIRED WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

ITEM 625 - LIGHTING, MISC.: CONNECT PROPOSED CIRCUIT TO EXISTING CIRCUIT

THIS ITEM OF WORK INCLUDES THE CONNECTION OF PROPOSED CONDUIT AND CABLES TO AN EXISTING CIRCUIT.

CONNECTION SHALL INVOLVE EARTHWORK NEEDED TO EXPOSE EXISTING CONDUIT OR CONDUIT ENTRANCES, OPENING OF THE CONDUIT OR CONDUIT ENTRANCES, CONNECTION, INSTALLING THE CONDUCTORS REQUIRED TO MAKE THE CONNECTION, AND CONNECTION OF THE CIRCUITRY REQUIRED, WHICH ARE ALL INCLUDED IN THIS PAY ITEM.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE UNDER CMS ITEM 625, "LIGHTING, MISC.: CONNECT PROPOSED CIRCUIT TO EXISTING CIRCUIT" AT EACH LOCATION WHERE CONNECTION IS REQUIRED WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

ITEM 625 - LIGHTING, MISC.: CONNECT PROPOSED CIRCUIT TO EXISTING CONTROL CENTER

THIS ITEM OF WORK INCLUDES THE CONNECTION OF PROPOSED CONDUIT AND CABLES TO AN EXISTING CONTROL CENTER.

CONNECTION SHALL INVOLVE EARTHWORK NEEDED TO EXPOSE EXISTING CONDUIT ENTRANCES, OPENING OF THE CONDUIT ENTRANCES, CONNECTION OF THE CONDUIT ENTRANCES, FEEDING THE CONDUCTORS TO THE EXISTING CONTROL CENTER, AND CONNECTION OF THE CIRCUITRY REQUIRED, WHICH ARE ALL INCLUDED IN THIS PAY ITEM.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE UNDER CMS ITEM 625, "LIGHTING, MISC.: CONNECT PROPOSED CIRCUIT TO EXISTING CONTROL CENTER" AT EACH LOCATION WHERE CONNECTION IS REQUIRED WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

ITEM 625 - LIGHTING, MISC.: TEST NEW CIRCUITS

UPON COMPLETION OF THE INSTALLATION OF NEW LIGHT POLES, TOWERS, UNDERPASS LUMINAIRES, AND CIRCUITRY, THE CONTRACTOR SHALL TEST ALL NEW CIRCUITS TO VERIFY THAT POWER IS SUPPLIED TO ALL LIGHT FIXTURES AND THAT NO CIRCUITS HAVE BEEN DAMAGED. REPRESENTATIVES OF ODOT, THE POWER SUPPLYING AGENCY, AND THE CONTRACTOR SHALL BE PRESENT FOR THE INPSECTION OF THESE CIRCUITS.

TESTING OF EXISTING CIRCUITS SHALL BE CHECKED AT EACH POWER SERVICE LOCATION THAT WILL SERVE ALL OR PORTIONS OF NEW LIGHTING. TESTING SHALL COMPLY WITH ODOT CMS 625.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR ODOT CMS ITEM 625, "LIGHTING, MISC.: TEST NEW CIRCUITS" FOR EACH INDICATED POWER SERVICE INSTALLATION WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANER.

ITEM 625 - LIGHTING, MISC.: DISCONNECT EXISTING WIRES FROM EXISTING CONTROL CENTER

THIS ITEM OF WORK INCLUDES DISCONNECTING EXISTING CONDUIT AND CABLES FOR ODOT LIGHTING FROM EXISTING CPP CONTROL CENTERS TO REMAIN IN PLACE.

THE CONTRACTOR SHALL COORDINATE TEMPORARY SHUT-OFF OF SERVICE AT EACH EXISTING CONTROL CENTER TO REMAIN IN PLACE WITH ODOT AND CPP. ONCE SERVICE IS SHUT-OFF, DISCONNECT EXISTING CONDUIT AND CABLES FOR THE DISCONNECTED ODOT LIGHTING FROM THE CONTROL CENTER AND PROPERLY CLOSE THE RESULTANT OPENINGS AT THE CONTROL CENTER. CUT AND REMOVE THE CABLE ENCLOSED IN CONDUIT FOR THE DISCONNECTED ODOT LIGHTING UNTIL APPROXIMATELY 2 FEET BELOW GRADE. BACKFILL THE RESULTANT DEPRESSION AND RESTORE THE DISTURBED AREA.

ONCE ODOT LIGHTING IS REMOVED FROM THE EXISTING CPP CONTROL CENTER, THE CONTRACTOR SHALL TEST ALL CPP CIRCUITS REMAINING ON THE CONTROL CENTER TO VERIFY THAT POWER IS SUPPLIED TO ALL CPP LIGHT FIXTURES AND NO CIRCUITS HAVE BEEN DAMAGED. REPRESENTATIVES OF ODOT, CPP, AND THE CONTRACTOR SHALL BE PRESENT FOR THE INSPECTION OF THESE CIRCUITS.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE UNDER CMS ITEM 625, "LIGHTING, MISC.: DISCONNECT EXISTING WIRES FROM EXISTING CONTROL CENTER" AT EACH LOCATION WHERE DISCONNECT FROM AN EXISTING CONTROL CENTER TO REMAIN IN PLACE IS REQUIRED WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

DESIGN AGENCY	
Michael Baker INTERNATIONAL	
DESIGNER	JLD
REVIEWER	SM 08/09/23
PROJECT ID	76779
SHEET	TOTAL
P.1310	P.1587

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):

AS-1-15	REVISED	01-20-23
AS-2-15	REVISED	07-21-23
BR-1-13	REVISED	01-17-14
EXJ-4-87	REVISED	01-19-24
GSD-1-19	REVISED	07-19-24
HL-20.14	REVISED	04-17-20
RB-1-55	REVISED	07-19-24
SBR-1-20	REVISED	07-19-24
SBR-2-20	REVISED	07-19-24
SICD-1-21	REVISED	01-19-24
SICD-2-14	REVISED	01-15-21
VPF-1-90	REVISED	07-19-24

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION(S):

800	DATED	01-17-25
838	DATED	01-15-21
848	DATED	07-19-24

DESIGN SPECIFICATIONS

THE STRUCTURES CONFORM TO THE 9th EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2020 AND THE ODOT BRIDGE DESIGN MANUAL, 2024.

DESIGN DATA

CONCRETE CLASS QC2 -
COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)

CONCRETE CLASS QC1
COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

CONCRETE REINFORCEMENT:
EPOXY COATED STEEL REINFORCEMENT - MINIMUM
YIELD STRENGTH 60-KSI

STRUCTURAL STEEL - ASTM A709 GRADE 50 - YIELD
STRENGTH 50 KSI

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO C&MS, SECTIONS 102.05, 105.02, AND 513.04. BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

UTILITY LINES

THE UTILITIES SHALL BEAR ALL EXPENSE INVOLVED IN RELOCATING LINES ATTACHED TO THE EAST (FORWARD) BERE A ROAD ABUTMENT. THE CONTRACTOR AND UTILITIES ARE TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN

THIS WORK CONSISTS OF THE REMOVAL OF CONCRETE DECKS INCLUDING SIDEWALKS, CONCRETE BRIDGE RAILINGS, METAL RAILINGS, DECK JOINTS AND OTHER APPURTENANCES FROM STEEL SUPPORTING SYSTEMS (BEAMS, GIRDERS, CROSS FRAMES, ETC.). THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES. PERFORM WORK CAREFULLY DURING DECK REMOVALS TO PROTECT PORTIONS OF SUCH SYSTEMS THAT ARE TO BE SALVAGED AND INCORPORATED INTO THE PROPOSED STRUCTURE. THE DEPARTMENT WILL NOT PERMIT THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE RAM TYPE OF EQUIPMENT IS PROHIBITED. SUBMIT CONSTRUCTION PLANS ACCORDING TO C&MS 501.05.

PROTECTION OF STEEL SUPPORT SYSTEMS: BEFORE DECK SLAB CUTTING IS PERMITTED, DRAW THE OUTLINE OF PRIMARY STEEL MEMBERS IN CONTACT WITH THE BOTTOM OF THE DECK ON THE SURFACE OF DECK. DRILL SMALL DIAMETER PILOT HOLES 2 INCHES OUTSIDE THESE LINES TO CONFIRM THE LOCATION OF FLANGE EDGES. DECK CUTS OVER OR WITHIN 2 INCHES OF FLANGE EDGES SHALL NOT EXTEND LOWER THAN THE BOTTOM LAYER OF DECK SLAB REINFORCING STEEL. CUTS MADE OUTSIDE 2 INCHES OF FLANGE EDGES MAY EXTEND THE FULL DEPTH OF THE DECK. PERFORM WORK CAREFULLY DURING CUTTING OF THE DECK SLAB TO AVOID DAMAGING STEEL MEMBERS THAT ARE TO BE INCORPORATED INTO THE PROPOSED STRUCTURE. REPLACE OR REPAIR STEEL MEMBERS DAMAGED BY THE DECK SLAB CUTTING OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE ENGINEER. OBTAIN THE ENGINEER'S APPROVAL BEFORE PERFORMING REPAIR.

REMOVAL METHODS: THE CONTRACTOR MAY REMOVE CONCRETE BY CUTTING AND BY MEANS OF HAND OPERATED PNEUMATIC HAMMERS EMPLOYING POINTED OR BLUNTED CHISEL TYPE TOOLS. FOR REMOVALS OVER STRUCTURAL MEMBERS (I-BEAM, STEEL BEAM STEEL GIRDER, ETC.), THE CONTRACTOR MAY USE A HAMMER HEAVIER THAN 35 POUNDS BUT NOT TO EXCEED 90 POUNDS UNLESS APPROVED BY THE ENGINEER. REMOVAL METHODS OVER STRUCTURAL MEMBERS SHALL ENSURE ADEQUATE DEPTH CONTROL AND PREVENT NICKING OR GOUGING THE PRIMARY STRUCTURAL MEMBERS. DUE TO THE POSSIBLE PRESENCE OF ATTACHMENTS (E.G., FINISHING MACHINE, SCUPPER AND FORM SUPPORTS, ETC.) TO EXISTING STRUCTURAL MEMBERS, PERFORM WORK CAREFULLY DURING DECK REMOVAL TO AVOID DAMAGING STRUCTURAL MEMBERS THAT ARE TO REMAIN. REPLACE OR REPAIR STRUCTURAL MEMBERS DAMAGED BY THE REMOVAL OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE ENGINEER. OBTAIN THE ENGINEER'S APPROVAL BEFORE PERFORMING REPAIR.

EXISTING WELDED ATTACHMENTS: REMOVE EXISTING WELDED ATTACHMENTS (E.G., FINISHING MACHINE AND FORM SUPPORTS; AND SUPPORTS FOR SCUPPERS AND BULB ANGLES WHICH ARE TO BE REMOVED) LOCATED IN THE DESIGNATED TENSION PORTIONS OF THE TOP FLANGES OF EXISTING STEEL MEMBERS AND GRIND THE FLANGE SURFACES SMOOTH. CAREFULLY GRIND PARALLEL TO THE FLANGES.

CUT LINE CONSTRUCTION JOINT PREPARATION:
SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING REINFORCING STEEL, IF REQUIRED IN THE PLANS, IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING REINFORCING STEEL DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE.

SUBSTRUCTURE AND SUPERSTRUCTURE CONCRETE REMOVAL:
REMOVE CONCRETE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18 INCH LIMIT, THE CONTRACTOR MAY USE HAMMERS NOT EXCEEDING 90 POUNDS UPON THE APPROVAL OF THE ENGINEER. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

MEASUREMENT & PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.

ASBESTOS NOTIFICATION

A CERTIFIED ASBESTOS HAZARD EVALUATION SPECIALIST SURVEYED THE BRIDGE STRUCTURES SCHEDULED FOR DEMOLITION AND/OR REHABILITATION; THE SURVEY DETERMINED THAT NO ASBESTOS IS PRESENT ON THE BRIDGE STRUCTURES.

ODOT SHALL PROVIDE A COPY OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA) NOTIFICATION OF DEMOLITION AND RENOVATION FORM, PARTIALLY COMPLETED AND SIGNED BY THE BRIDGE OWNER, TO THE SUCCESSFUL BIDDER. THE CONTRACTOR SHALL COMPLETE THE FORM AND SUBMIT IT TO ONE OF THE ADDRESSES BELOW AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF ANY DEMOLITION AND/OR RENOVATION.

ASBESTOS PROGRAM	OR	ASBESTOS PROGRAM
OHIO EPA, DAPC		OHIO EPA, DAPC
P.O. BOX 1049		50 W. TOWN ST., SUITE 700
COLUMBUS, OH 43216-1049		COLUMBUS, OH 43215

THE CONTRACTOR SHALL PROVIDE A COPY OF THE COMPLETED FORM TO THE ENGINEER AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF ANY DEMOLITION AND/OR RENOVATION. THE FORM SALL INCLUDE: 1) THE CONTRACTORS NAME AND ADDRESS, 2) THE SCHEDULED DATES FOR THE START AND COMPLETION OF THE BRIDGE REMOVAL AND 3) A DESCRIPTION OF THE PLANNED DEMOLITION WORK AND THE METHOD(S) TO BE USED. COPIES OF THE OEPA FORM AND BRIDGE INSPECTION REPORT ARE AVAILABLE FOR REVIEW AT THE ODOT DISTRICT 12 OFFICE, 5500 TRANSPORTATION BOULEVARD, GARFIELD HEIGHTS, OHIO 44125.

BASIS FOR PAYMENT - THE CONTRACTOR SHALL FURNISH ALL FEES, LABOR, AND MATERIAL NECESSARY TO COMPLETE AND SUBMIT THE OEPA NOTIFICATION FORM. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.

ITEM 503 - UNCLASSIFIED EXCAVATION

FOR BRIDGES WHERE ITEM SPECIAL - COMPOSITE FIBER WRAP SYSTEM IS SPECIFIED AT THE FIXED PIER, THE ESTIMATED QUANTITY FOR THIS ITEM INCLUDES THE EXCAVATION FROM THE BOTTOM OF THE PROPOSED SUBGRADE TO THE TOP OF THE EXISTING PIER FOOTINGS OR FROM THE TOP OF THE EXISTING GROUND TO THE TOP OF THE EXISTING PIER FOOTINGS, AS REQUIRED TO EXPOSE THE FULL HEIGHT OF THE EXISTING PIER COLUMNS AND PERFORM THE WORK.

ITEM 509 - CONCRETE REINFORCEMENT, REPLACEMENT OF EXISTING CONCRETE REINFORCEMENT, AS PER PLAN

REPLACE ALL EXISTING REINFORCING BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION. THE DEPARTMENT WILL MEASURE THE REPLACEMENT CONCRETE REINFORCEMENT BY THE NUMBER OF POUNDS ACCEPTED IN PLACE. REPLACE ALL EXISTING STEEL REINFORCEMENT BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND ARE DEEMED BY THE ENGINEER TO BE MADE UNUSABLE BY CONCRETE REMOVAL OPERATIONS WITH NEW CONCRETE REINFORCEMENT OF THE SAME SIZE, COATING, AND MATERIAL AT NO COST TO THE DEPARTMENT.

ITEM 509 - EPOXY COATED STEEL REINFORCEMENT, AS PER PLAN

IN ADDITION TO THE PROVISIONS OF ITEM 509, FIELD BEND AND/OR FIELD CUT THE STEEL REINFORCEMENT DESIGNATED IN THE PLANS, AS NECESSARY, IN ORDER TO MAINTAIN THE REQUIRED CLEARANCES AND BAR SPACINGS. REPAIR ALL DAMAGE TO THE EPOXY COATING, AS A RESULT OF THIS WORK, ACCORDING TO C&MS 709.00.

ITEM 512 - REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES, AS PER PLAN

THIS ITEM IS INCLUDED FOR THE REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES TO BE SEALED. AREAS OF CONCRETE REQUIRING PATCHES SHALL NOT BE INCLUDED IN THIS ITEM.

DESIGN AGENCY	
Michael Baker INTERNATIONAL	
DESIGNER	MKB
REVIEWER	CDC 04/07/23
PROJECT ID	76779
SHEET	TOTAL
P.1348	P.1587

NORFOLK SOUTHERN CONTACT

ELDRIDGE CHAMBERS
PUBLIC IMPROVEMENTS ENGINEER
NORFOLK SOUTHERN CORPORATION
650 PEACHTREE STREET, NW, BOX 45
ATLANTA, GA 30308
(470) 463-6307
ELDRIDGE.CHAMBERS@NSCORP.COM

GCRTA COORDINATION

THE APPROPRIATE GCRTA REPRESENTATIVE SHALL BE INVITED TO THE PRE-CONSTRUCTION MEETING.

THE CONTRACTOR SHALL SHALL NOTIFY THE GCRTA IN WRITING AT LEAST FOURTEEN (14) CALENDAR DAYS PRIOR TO THE START OF CONSTRUCTION AND AT LEAST SEVEN (7) CALENDAR DAYS BEFORE IMPLEMENTING ANY SUBSTANTIAL CHANGE IN TRAFFIC PATTERN OR CLOSING ANY STREET OR PORTION THEREOF TO TRAFFIC.

THE FOLLOWING IS A LIST OF GCRTA CONTACTS FOR NOTIFICATIONS:

CENTRAL COMMUNICATIONS - (216) 566-5135 MONITORED 24/7

TONY RICHARDSON, SERVICE QUALITY,
ARICHARDSON@GCRTRA.ORG

HOWARD WESLEY, SERVICE QUALITY, HWESLEY@GCRTA.ORG

ROBERT FLEIG, PUBLIC INFORMATION OFFICER,
ROBERT.FLEIG@GCRTA.ORG

MARK RODRIGUEZ, SERVICE QUALITY OFFICE MANAGER,
MARK.RODRIGUEZ@GCRTA.ORG

JOEL FREILICH, SERVICE MANAGEMENT, JFREILICH@GCRTA.ORG

JEFFREY MACKO, SERVICE MANAGEMENT, JMACKO@GCRTA.ORG

GCRTA REQUIREMENTS AND RESTRICTIONS

THE CONTRACTOR'S WORK SHALL NOT INTERRUPT GCRTA OPERATIONS (BUS & RAIL) WITHOUT PRIOR APPROVAL OF THE GCRTA.

ALL WORK ADJACENT TO AND WITHIN THE GCRTA TRISKETT BUS DISTRICT, BUS & EMPLOYEE PARKING AREA SHALL BE COORDINATED WITH GCRTA AUTHORITY PERSONNEL.

ALL WORK OVER, ADJACENT TO AND WITHIN THE GCRTA RAIL RIGHT OF WAY SHALL BE COORDINATED WITH GCRTA AUTHORITY PERSONNEL AND MUST COMPLY WITH THE FOLLOWING GCRTA SPECIFICATIONS: SECTION 014500 - SAFETY; SECTION 015010 MAINTENANCE OF RAIL TRAFFIC AND RESUMPTION OF RAIL SERVICE; SECTION 015020 - STANDARD RAIL FLAGGING PROCEDURES; SECTION 015020 - WORK ZONE APPENDIX, AS DELINEATED IN THE GCRTA "SPECIAL CLAUSES IN THE PROPOSAL" THAT WAS INCLUDED IN THE BID PROPOSAL.

PRIOR TO THE START OF ANY WORK, THE CONTRACTOR MUST ENTER INTO AND EXECUTE A TEMPORARY RIGHT OF ENTRY AGREEMENT WITH THE GCRTA. INCLUDED IN THE TEMPORARY RIGHT OF ENTRY AGREEMENT ARE REQUIREMENTS FOR INSURANCE COVERAGE. IN ADDITION TO THE STANDARD INSURANCE COVERAGES, THE CONTRACTOR SHALL CARRY ADDITIONAL LIABILITY INSURANCE COVERING RAILROAD PROTECTIVE PUBLIC LIABILITY AND PROPERTY DAMAGE LIABILITY. ALL WORK OVER AND ON THE GCRTA RIGHT OF WAY SHALL BE COORDINATED WITH GCRTA PERSONNEL. THE CONTRACTOR SHALL CARRY ADDITIONAL LIABILITY INSURANCE COVERING RAILROAD'S PROTECTIVE PUBLIC LIABILITY AND PROPERTY DAMAGE LIABILITY FOR THE GCRTA AND OTHER RAILROADS.

AFTER THE TEMPORARY RIGHT OF ENTRY HAS BEEN FULLY EXECUTED AND PRIOR TO THE START OF ANY WORK, ODOT AND CONTRACTOR PROJECT PERSONNEL MUST COMPLETE GCRTA CONTRACTOR RULEBOOK C TRAINING, OBTAIN CONTRACTOR IDENTIFICATION BADGES AND BE ASSIGNED A GCRTA RADIO.

THE CONTRACTOR MUST SUBMIT WEEKLY RAIL OUTAGE REQUESTS TO GCRTA FOR APPROVAL TO ENTER AND WORK WITHIN THE GCRTA RIGHT OF WAY. REQUESTS ARE APPROVED ON A WEEKLY BASIS AND ARE WHOLLY DEPENDENT ON THE GCRTA OPERATIONAL REQUIREMENTS. REQUESTS TO GCRTA FOR TOTAL SHUTDOWNS MUST BE SUBMITTED FOUR WEEKS IN ADVANCE AND EVERY WEEK THEREAFTER UNTIL APPROVAL. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY DISRUPTIONS TO REGULAR, CONTINUOUS RAPID TRANSIT SERVICE CAUSED AS A RESULT OF CONSTRUCTION ACTIVITIES.

EXTREME CARE SHALL BE EXERCISED AT ALL TIMES TO SAFELY WORK AROUND AND PROTECT THE GCRTA OVERHEAD CATENARY LINES. THE GCRTA OVERHEAD CATENARY AND TRACK SYSTEM IS CONTINUOUSLY ENERGIZED AT 600 VOLTS DIRECT CURRENT.

THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF 15.75 FT OF VERTICAL CLEARANCE AND A MINIMUM OF 6.5 FT OF HORIZONTAL CLEARANCE FROM THE CENTERLINE OF TRACK AT ALL TIMES WITH TRAINS ARE OPERATING. A GCRTA FLAGGER WILL BE REQUIRED WHEN WORKING WITHIN 10 FEET OF THE CENTERLINE OF AN ACTIVE TRACK. NO CONSTRUCTION ACTIVITY SHALL TAKE PLACE WITHIN GCRTA CLEARANCE LIMITS WHILE A TRACK IS ACTIVE UNLESS A TEMPORARY PROTECTIVE STRUCTURE (OR CONTAINMENT SYSTEM) IS ERECTED TO PROTECT GCRTA TRAFFIC. DETAILS OF THE PROTECTIVE STRUCTURE (OR CONTAINMENT SYSTEM) SHALL BE PREPARED BY A PROFESSIONAL ENGINEER AND SUBMITTED TO THE GCRTA FOR APPROVAL AT LEAST THIRTY (30) DAYS PRIOR TO STARTING ANY WORK. THE PROTECTIVE STRUCTURE (OR CONTAINMENT SYSTEM) MUST BE DESIGNED TO BE FULLY INSULATED, BONDED AND GROUNDED ELECTRICALLY FOR ISOLATION FROM THE GCRTA OVERHEAD CATENARY SYSTEMS. ELECTRICAL ISOLATION/GROUNDING OF THE TEMPORARY WORK PLATFORM/CONTAINMENT STRUCTURE IS THE RESPONSIBILITY OF THE CONTRACTOR, NOT THE GCRTA. THE CONTRACTOR'S DESIGN INCLUDING ALL REQUIRED STRUCTURAL AND ELECTRICAL GROUNDING CALCULATIONS AND DETAILS MUST BE PROVIDED IN ADVANCE OF THE WORK FOR REVIEW AND APPROVAL BY THE GCRTA. ITEM SPECIAL - STRUCTURES, TEMPORARY FALSEWORK AND PROTECTIVE STRUCTURE. WHEN CONDITIONS WARRANT, THE CONTRACTOR SHALL PLACE A FILTER FABRIC WRAP OVER THE GCRTA BALLAST WITHIN THE CONSTRUCTION LIMITS. THE GCRTA TRACKS SHALL ALSO BE PROTECTED FROM FALLING DEBRIS WITH PLYWOOD AND/OR OTHER SUITABLE MATERIAL. SUBMIT DETAILED DRAWINGS FOR THE PROTECTIVE PLAN TO THE GCRTA FOR APPROVAL.

TWO (2) WEEKEND OUTAGES HAVE BEEN ESTIMATED FOR USE BY THE PROJECT FOR THE CONTRACTOR TO PERFORM PROJECT WORK WITHIN THE GCRTA RIGHT OF WAY. THE WEEKEND OUTAGES TYPICALLY RUN FROM APPROXIMATELY 3:00 AM SATURDAY TO 1:00 AM MONDAY.

THE PROTECTIVE STRUCTURE (OR CONTAINMENT SYSTEM) MUST ALSO BE USED TO PROTECT THE GCRTA TRISKETT BUS GARAGE AND THE BUS & EMPLOYEE PARKING LOT.

ACCESS TO THE GCRTA EMPLOYEE AND BUS PARKING LOT WILL BE PROVIDED TO THE CONTRACTOR. PARKING SPACES IN/AROUND THE PIERS WILL BE MADE AVAILABLE TO THE CONTRACTOR ON AN AS NEEDED BASIS. GCRTA RESERVES THE RIGHT TO LIMIT THE NUMBER OF PARKING SPACED CLOSED AT ANY ONE TIME. PARKING OF ANY CONTRACTOR VEHICLES (COMPANY OR PERSONAL) WILL NOT BE PERMITTED AT AY TIME IN THE GCRTA PARKING LOTS WITHOUT PRIOR APPROVAL OF THE GCRTA. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT A SPECIFIC WORK PLAN AND SCHEDULE IN ADVANCE OF THE WORK IN THE PARKING LOT FOR REVIEW AND APPROVAL BY THE GCRTA. THIS WILL AID IN THE COORDINATION OF THE WORK ACTIVITIES TO MINIMIZE THE IMPACTS TO THE GCRTA OPERATIONS. GCRTA WILL REQUIRE A MINIMUM OF SEVEN (7) DAYS NOTICE TO BLOCK-OFF PARKING SPACES AND/OR RELOCATE PARKING/MATERIALS PRIOR TO THE STAGING OF CONTRACTOR EQUIPMENT AND/OR CONTRACTOR WORK IN THE PARKING LOT AREA.

ACCESS TO THE GCRTA TRISKETT BUS GARAGE AND TRISKETT RAPID STATION MUST BE MAINTAINED AT ALL TIMES. ADDITIONALLY AT THE GCRTA TRISKETT GARAGE, ACCESS MUST BE MAINTAINED AT ALL TIMES TO THE INVENTORY/DELIVERY DOCK, THE BUS & EMPLOYEE PARKING LOT AND THE EMPLOYEE ENTRANCES.

ITEM 900 - RAILROAD FLAGGING SERVICES

THIS ITEM IS NOT SUBJECT TO ANY ADJUSTMENTS ACCORDING TO TABLE 104.02-2 OF THE C&MS.

ITEM SPECIAL - STRUCTURES, TEMPORARY FALSEWORK AND PROTECTIVE STRUCTURE

THIS ITEM INCLUDES ALL MATERIALS, EQUIPMENT AND LABOR TO DESIGN AND INSTALL A PROTECTIVE STRUCTURE TO PROTECT GCRTA TRAFFIC AS REQUIRED WHEN WORK IS TO BE PERFORMED WITHIN THE GCRTA OPERATING ENVELOPE IN SPAN 6 OF THE CUY-00090-09.700 L/R STRUCTURE OVER JOSLYN ROAD, THE NORFOLK SOUTHERN RAILWAY AND THE GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY RED LINE RAPID TRANSIT. THE PROTECTIVE STRUCTURE SHALL MEET THE REQUIREMENTS SET FORTH IN GCRTA STANDARD 015010 - MAINTENANCE OF RAIL TRAFFIC AND RESUMPTION OF REVENUE SERVICE. ONCE THE CONTRACTOR HAS COMPLETED WORK, THE PROTECTIVE STRUCTURE SHALL BE FULLY REMOVED FROM GCRTA RIGHT OF WAY.

PAYMENT SHALL INCLUDE FULL COMPENSATION FOR DESIGN, MATERIAL, TOOLS, EQUIPMENT, LABOR AND ACCESS TO INSTALL AND REMOVE A PROTECTIVE STRUCTURE MEETING GCRTA STANDARDS. THIS WORK SHALL BE PAID FOR USING THE FOLLOWING CONTRACT LUMP SUM PAY ITEM:

ITEM SPECIAL (530E00200) - STRUCTURES, TEMPORARY FALSEWORK AND PROTECTIVE STRUCTURE.

NORFOLK SOUTHERN RAILWAY CONSTRUCTION CLEARANCE

MAINTAIN A CONSTRUCTION CLEARANCE OF 13 FEET HORIZONTALLY FROM THE CENTER OF TANGENT TRACKS, 14 FEET HORIZONTALLY FROM CENTER OF CURVED TRACKS, AND 22 FEET VERTICALLY FROM TOP OF HIGHEST RAIL AT ALL TIMES.

ITEM 844 - CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN

IN ADDITION TO PROVIDING CONCRETE PATCHING PER SUPPLEMENTAL SPECIFICATION 844, GALVANIC ANODES SHALL BE PLACED AS CLOSE TO THE REPAIR EDGE AS POSSIBLE AND MAINTAIN A MAXIMUM SPACING OF 12" IN ALL DIRECTIONS.

ITEM 511 - CONCRETE, MISC.: REPLACEMENT OF DAMAGED BRIDGE RAIL TRANSITION

THE NORTH SIDE, EAST END OF THE BRIDGE RAIL ON THE WESTBOUND IR 90 BRIDGE OVER W 100TH ST WAS DAMAGED, AND A TEMPORARY REPAIR WAS MADE USING GUARDRAIL COMPONENTS. THIS ITEM WILL INCLUDE ALL MATERIALS, LABOR AND EQUIPMENT NECESSARY TO REMOVE THE DAMAGED BRIDGE RAIL AND RECONSTRUCT IT PER SCD BR-1-13.

REMOVAL: 14 FEET OF THE EAST END OF THE EXISTING DAMAGED BRIDGE RAIL SHALL BE REMOVED. DOWELING NEW VERTICAL REINFORCEMENT BARS IN THE EXISTING DECK WILL NOT BE PERMITTED, THEREFORE THE EXISTING VERTICAL REINFORCING EXTENDING FROM THE EXISTING DECK SHALL BE SALVAGED AND REUSED OR ENOUGH OF THE REINFORCING SHALL REMAIN SUCH THAT MECHANICAL CONNECTORS ARE USED TO CONNECT TO THE NEW REINFORCING STEEL. LONGITUDINAL BRIDGE RAIL REINFORCING STEEL MAY BE DOWELED INTO THE EXISTING BRIDGE RAIL, OR THE EXISTING REINFORCING SALVAGED TO LAP THE NEW REINFORCING OR UTILIZE MECHANICAL CONNECTORS.

CLASS QC2 CONCRETE: A 14 FOOT BRIDGE RAIL TRANSITION SHALL BE CONSTRUCTED PER SCD BR-1-13 AND CMS 511.

CONCRETE REINFORCEMENT: EPOXY COATED REINFORCING STEEL PER CMS 509 SHALL BE CONSISTENT WITH SCD BR-1-13 FOR THE NEW PORTION OF THE BRIDGE RAIL. PROPOSED REINFORCING DETAILS SHALL BE SUBMITTED TO THE ENGINEER 30 DAYS PRIOR TO CONSTRUCTION.

CONCRETE SEALER: NEW CONCRETE BRIDGE RAIL SHALL BE SEALED WITH EPOXY URETHANE SEALER PER CMS 512. THE COLOR SHALL CLOSELY MATCH THE EXISTING BRIDGE RAIL.

PAYMENT: ALL MATERIALS, LABOR AND EQUIPMENT NECESSARY TO REMOVE THE EXISTING BRIDGE RAIL AND RECONSTRUCT THE NEW 14 FOOT TRANISTION SHALL BE INCLUDED FOR LUMP SUM PAYMENT ITEM 511 - CONCRETE, MISC: REPLACEMENT OF DAMAGED BRIDGE RAIL TRANSITION. GUARDRAIL AND BRIDGE TERMINAL ASSEMBLY ITEMS ARE ITEMIZED SEPARATELY.

PARTICIPATION		ESTIMATED QUANTITIES										REAR ABUTMENT	PIERS	FORWARD ABUTMENT	SUPER.	GENERAL	SHEET REF.
02/IMS/13	03/IMS/13	ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION											
	LS	202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN									LS	2	
	427	202	22900	427	SY	APPROACH SLAB REMOVED									427		
	11995	202	23500	11995	SY	WEARING COURSE REMOVED									11995		
	174	503	21100	174	CY	UNCLASSIFIED EXCAVATION			174								
	82313	509	10001	82313	LB	EPOXY COATED STEEL REINFORCEMENT, AS PER PLAN			31761			31761			18792	2	
	800	509	20001	800	LB	CONCRETE REINFORCEMENT, REPLACEMENT OF EXISTING CONCRETE REINFORCEMENT, AS PER PLAN							800				
	192	510	10000	192	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT									192		
	56	511	34412	56	CY	CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE								56			
	76	511	34450	76	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)			11			11		30	24		
	24	511	44112	24	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING			12			12					
	218	511	53012	218	CY	CLASS QC2 CONCRETE, MISC.: ABUTMENT SLABS WITH QA/QC			109			109				1	
	13311	512	10050	13311	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)								12239	1072		
	4036	512	10100	4036	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)			189			189		3510	149		
	927	512	10300	927	SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN			7			7		895	18		
	10701	513	10200	10701	LB	STRUCTURAL STEEL MEMBERS, LEVEL UF								10701			
	15611	513	21501	15611	LB	REPLACEMENT OF DETERIORATED END CROSSFRAMES, AS PER PLAN								15611		2, 16	
	LS	513	95020	LS		STRUCTURAL STEEL, MISC.: GIRDER SPLICE REPAIR								LS		16	
	566	514	00050	566	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL								566			
	566	514	00056	566	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT								566			
	3481	514	00060	3481	SF	FIELD PAINTING OF STRUCTURAL STEEL, INTERMEDIATE COAT								3481			
	3481	514	00066	3481	SF	FIELD PAINTING OF STRUCTURAL STEEL, FINISH COAT								3481			
	LS	514	27800	LS		FIELD PAINTING, MISC.: COATING SYSTEM REPAIR								LS		3	
	288	516	11210	288	FT	STRUCTURAL STEEL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL								288			
	87	516	13600	87	SF	1" PREFORMED EXPANSION JOINT FILLER									87		
	72	SPECIAL	51614010	72	FT	POURED POLYURETHANE JOINT SEAL								72			
	72	516	14600	72	FT	STRUCTURAL JOINT OR JOINT SEALER, MISC: 5"X5" PRECOMPRESSED BITUMEN IMPREGNATED FOAM JOINT SEAL								72			
	4	516	46201	4	EACH	BEARING DEVICE, ROCKER, AS PER PLAN			2			2				15	
	LS	516	47000	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE								LS			
	8	518	12500	8	EACH	SCUPPER, MISC: PLUG AND FILL EXISTING SCUPPER									8	3	
	39	518	21200	39	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC			39								
	144	518	40000	144	FT	6" PERFORATED CORRUGATED PLASTIC PIPE			144								
	92	518	40010	92	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS			92								
	23	519	11101	23	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN			16			7			SF		
	623	526	15010	623	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=13")									623		
	280	526	90010	280	FT	TYPE A INSTALLATION									280		
	2	SPECIAL	53000400	2	EACH	STRUCTURES, ACCESS DOOR ASSEMBLY									2		
	61	601	20010	61	CY	CRUSHED AGGREGATE SLOPE PROTECTION			61								
	126	607	35001	126	FT	FENCE REMOVED AND REBUILT, AS PER PLAN								126		3	
	92	611	96600	92	FT	CONDUIT, BORED OR JACKED, 6", 707.45			92								
	4	611	99710	4	EACH	PRECAST REINFORCED CONCRETE OUTLET			4								
	60	613	41200	60	CY	LOW STRENGTH MORTAR BACKFILL			60								
	104	838	20700	104	CY	GABIONS			104								
	832	844	10001	832	SF	CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN			468			364				3	
	12239	848	10201	12239	SY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY USING HYDRODEMOLITION 1 1/2" INCH THICK, AS PER PLAN								12239		3	
	12239	848	20000	12239	SY	SURFACE PREPARATION USING HYDRODEMOLITION								12239			
	123	848	30200	123	CY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY								123			
	241	848	50000	241	SY	HAND CHIPPING								241			
	LS	848	50100	LS		TEST SLAB									LS		
	12239	848	50320	12239	SY	EXISTING CONCRETE OVERLAY REMOVED, 1 1/4" NOMINAL THICKNESS								12239			
	100	848	50340	100	SY	REMOVAL OF DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS CONCRETE OVERLAY								100			

CALCULATED BY: SSW DATE: 04/05/23
CHECKED BY: CDC DATE: 04/05/23

ESTIMATED QUANTITIES
BRIDGE NO.: CUY-00090-07.580
IR 90 OVER ROCKY RIVER VALLEY

SFN	
1808567	
DESIGN AGENCY	
Michael Baker INTERNATIONAL	
DESIGNER	CHECKER
SSW	MKB
REVIEWER	
CDC 04/07/23	
PROJECT ID	
76779	
SUBSET	TOTAL
2	28
SHEET	TOTAL
P.1361	P.1587