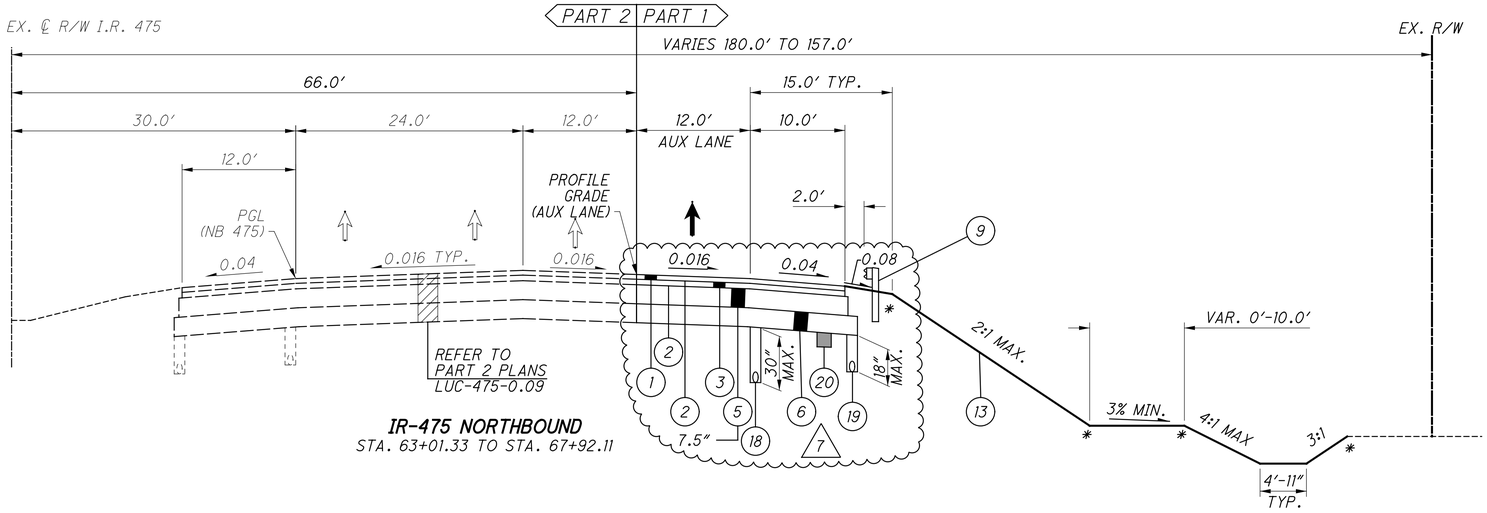
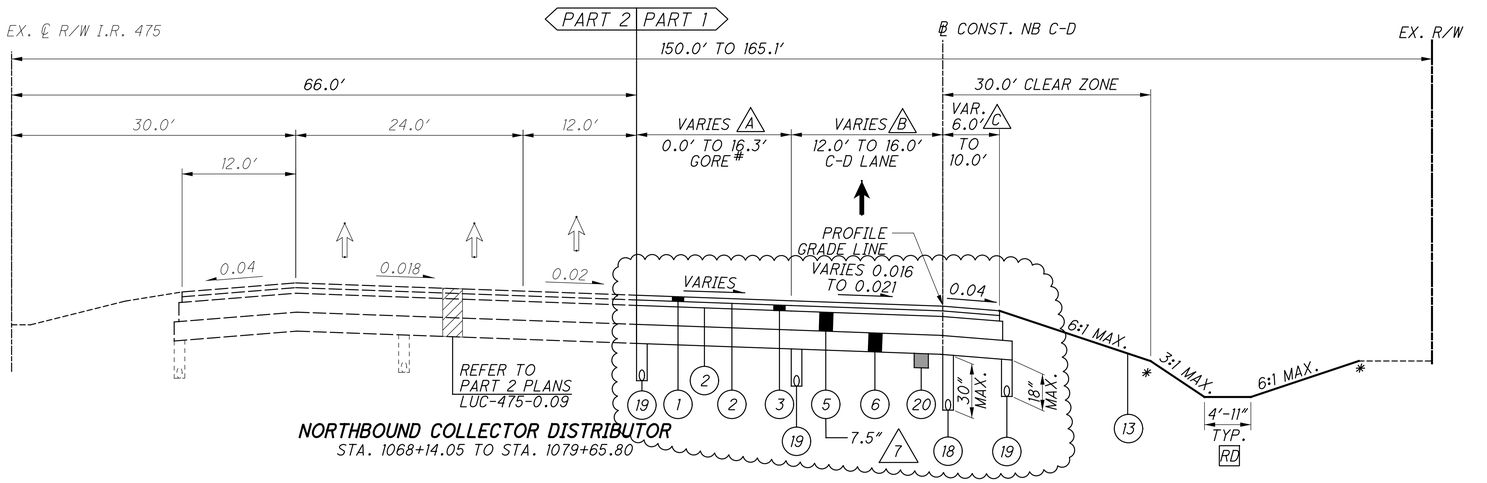
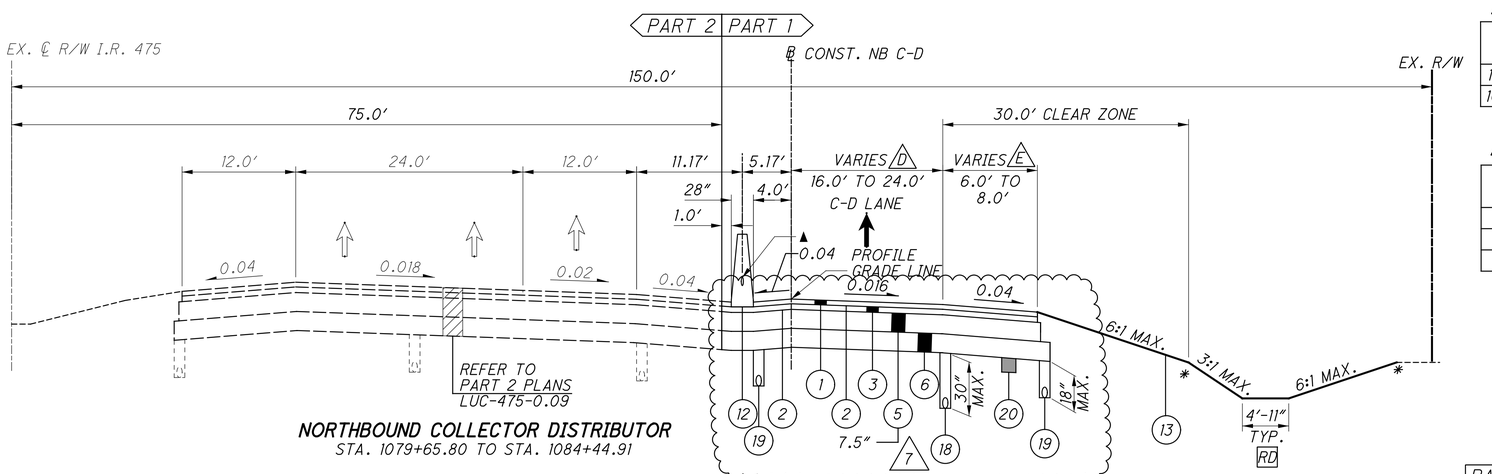


IR-475 NORTHBOUND
STA. 63+01.33 TO STA. 67+92.11



NORTHBOUND COLLECTOR DISTRIBUTOR
STA. 1068+14.05 TO STA. 1079+65.80



NORTHBOUND COLLECTOR DISTRIBUTOR
STA. 1079+65.80 TO STA. 1084+44.91

LEGEND

1. ITEM 442 - 1 1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5mm, TYPE A (447)
2. ITEM 407 - NON-TRACKING TACK COAT
3. ITEM 442 - 2 1/4" ASPHALT CONCRETE INTERMEDIATE COURSE, 19mm, TYPE A (446)
4. ITEM 452 - 13" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC1P WITH QC/QA
5. ITEM 302 - ASPHALT CONCRETE BASE, AS PER PLAN (THICKNESS AS SHOWN)
6. ITEM 304 - 6" AGGREGATE BASE
7. ITEM 526 - REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=15"), AS PER PLAN
8. ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE D
9. ITEM 606 - GUARDRAIL, TYPE MGS, AS PER PLAN
10. ITEM 441 - 2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22
11. ITEM 609 - CURB, TYPE 6
12. ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE B
13. ITEM 659 - SEEDING AND MULCHING
14. ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE (3"±)
15. ITEM 609 - CURB, TYPE 2A
16. ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE C
17. ITEM 204 - SUBGRADE COMPACTION
18. ITEM 605 - 6" SHALLOW PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC
19. ITEM 605 - 6" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC
20. ITEM 206 - CEMENT STABILIZED SUBGRADE, 12 INCHES DEEP (SEE DETAIL ON SHEET 24)
21. ITEM 609 - CURB, TYPE 4C
22. ITEM 875 - LONGITUDINAL JOINT ADHESIVE
23. ITEM - BRIDGE PARAPET RAILING TRANSITION (STD. DWG. SBR-1-13) REFER TO SHEETS 584 - 585 .
24. ITEM - BRIDGE SIDEWALK RAILING (STD. DWG. BR-2-15) REFER TO SHEETS 584 - 585 .

△A

STATION LIMITS	GORE WIDTH	
	BEGIN	END
1068+14.05 - 1070+40.48	0.0'	0.0'
1070+40.48 - 1079+65.80	0.0'	16.3'

△B

STATION LIMITS	PAVEMENT WIDTH	
	BEGIN	END
1068+14.05 - 1075+35.68	12.0'	16.0'
1075+35.68 - 1079+65.80	16.0'	16.0'

△C

STATION LIMITS	SHOULDER WIDTH	
	BEGIN	END
1068+14.05 - 1069+14.05	10.0'	6.0'
1069+14.05 - 1079+65.80	6.0'	6.0'

△D

STATION LIMITS	PAVEMENT WIDTH	
	BEGIN	END
1079+65.80 - 1080+61.04	16.0'	16.0'
1080+61.04 - 1081+61.04	16.0'	24.0'
1081+61.04 - 1084+44.91	24.0'	24.0'

△E

STATION LIMITS	PAVEMENT WIDTH	
	BEGIN	END
1079+65.80 - 1080+61.04	6.0'	6.0'
1080+61.04 - 1081+61.04	6.0'	8.0'
1081+61.04 - 1084+44.91	8.0'	8.0'

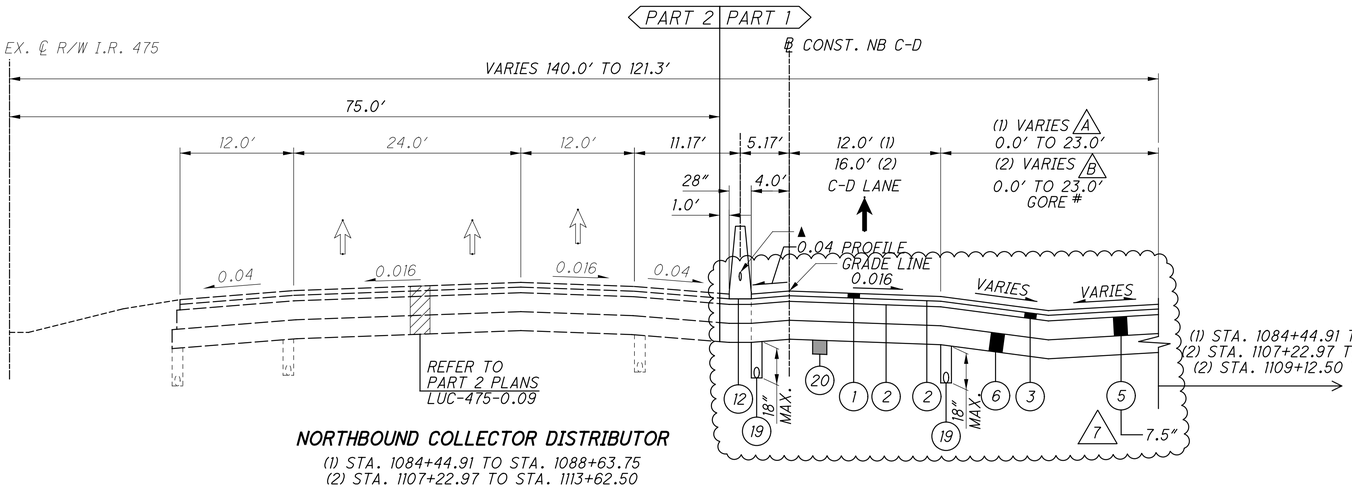
NOTES:
* USE 4' ROUNDING UNLESS OTHERWISE SHOWN.
# SEE SHEETS 380 - 386 FOR GORE DETAILS.
▲ 4" RACEWAY SEE LIGHTING PLANS
SEE SHEET 6 FOR EXISTING LEGEND.
SEE SHEET 15 FOR NB AND SB IR-475 STEP DETAIL.

PART 2 - REFER TO PART 2 PLANS LUC-475-0.09

RD RECOVERABLE DITCH, SEE SHEET 24 FOR DETAIL.

TYPICAL SECTIONS - NB IR-475

LUC-475-01.85



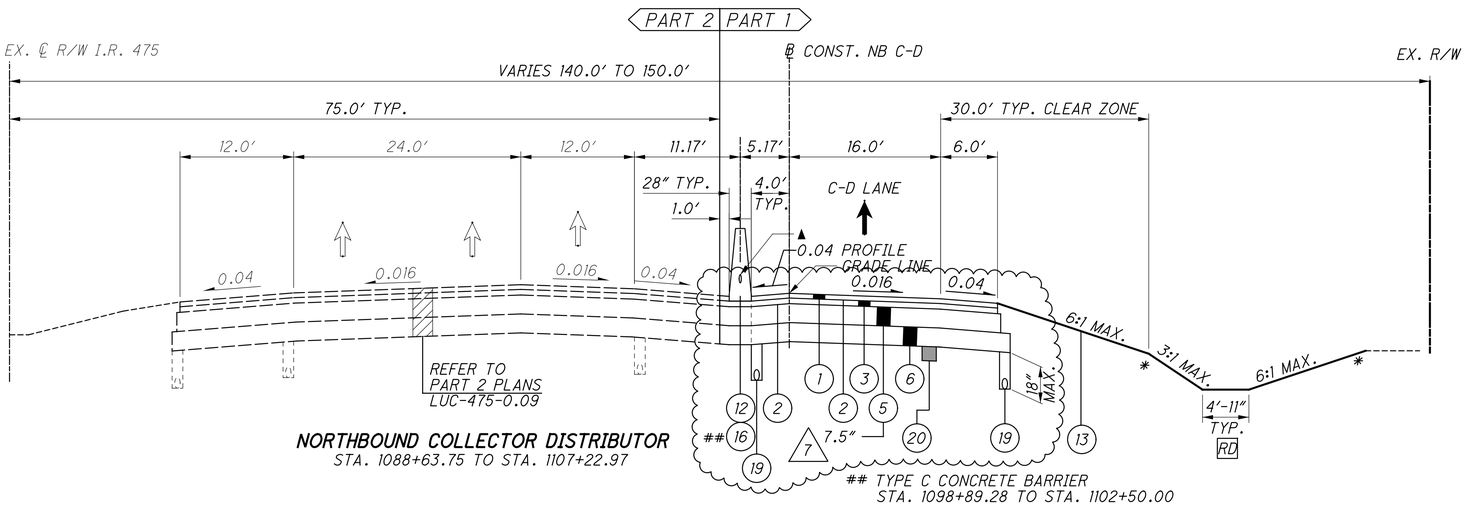
NORTHBOUND COLLECTOR DISTRIBUTOR

(1) STA. 1084+44.91 TO STA. 1088+63.75
(2) STA. 1107+22.97 TO STA. 1113+62.50

A	STATION LIMITS	GORE WIDTH	
		BEGIN	END
	1084+44.91 - 1088+63.75	0.0′	23.0′

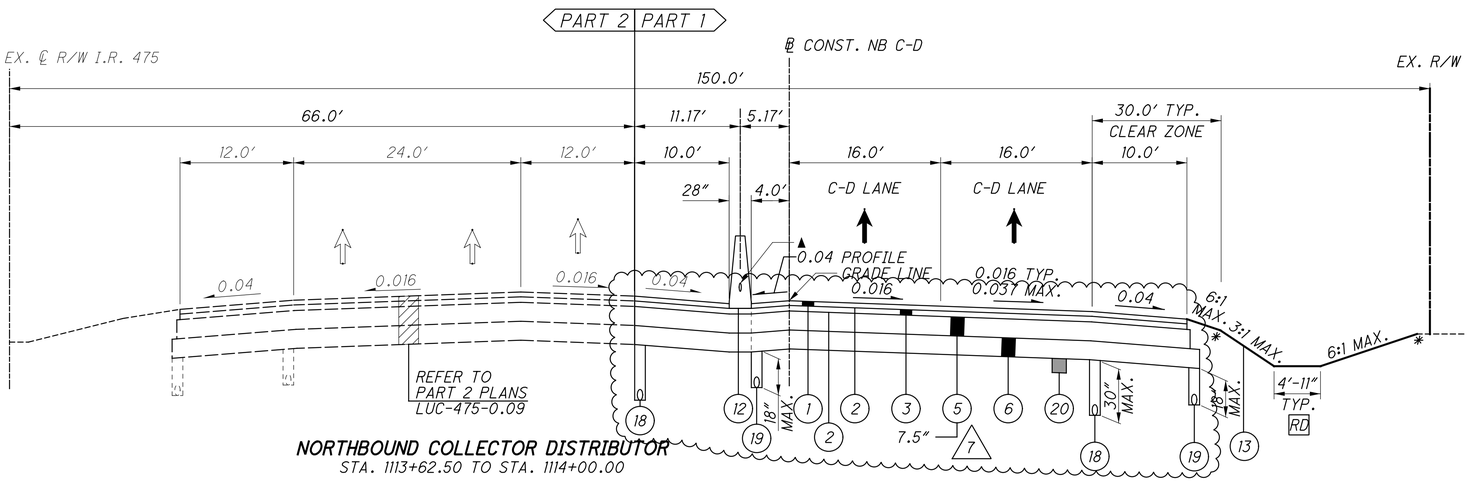
B	STATION LIMITS	GORE WIDTH	
		BEGIN	END
	1107+22.97 - 1113+62.50	23.0′	0.0′

C	STATION LIMITS	PAVMENT WIDTH	
		BEGIN	END
	1084+44.91 - 1088+63.75	12.0′	16.0′



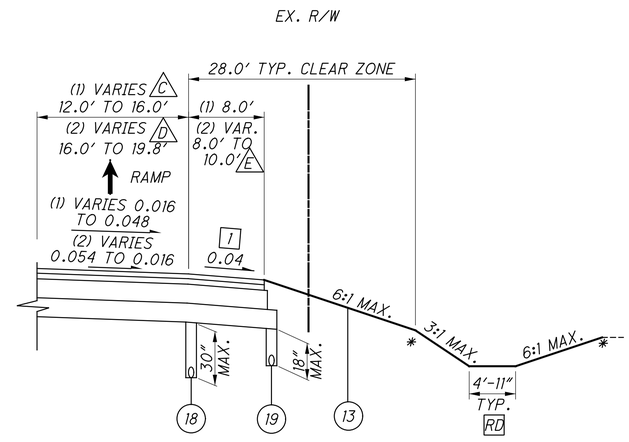
NORTHBOUND COLLECTOR DISTRIBUTOR

STA. 1088+63.75 TO STA. 1107+22.97



NORTHBOUND COLLECTOR DISTRIBUTOR

STA. 1113+62.50 TO STA. 1114+00.00



ASPHALT RAMP DETAIL

D	STATION LIMITS	PAVEMENT WIDTH	
		BEGIN	END
	1109+12.50 - 1113+62.50	16.0′	16.0′

E	STATION LIMITS	SHOULDER WIDTH	
		BEGIN	END
	1109+12.50 - 1113+12.50	8.0′	8.0′
	1113+12.50 - 1113+62.50	8.0′	10.0′

NOTES:

* USE 4′ ROUNDING UNLESS OTHERWISE SHOWN.
# SEE SHEETS 380 - 386 FOR GORE DETAILS.
▲ 4″ RACEWAY SEE LIGHTING PLANS

SEE SHEET 15 FOR NB AND SB IR-475 STEP DETAIL.

SEE SHEET 8 FOR PROPOSED LEGEND.

SEE SHEET 6 FOR EXISTING LEGEND.

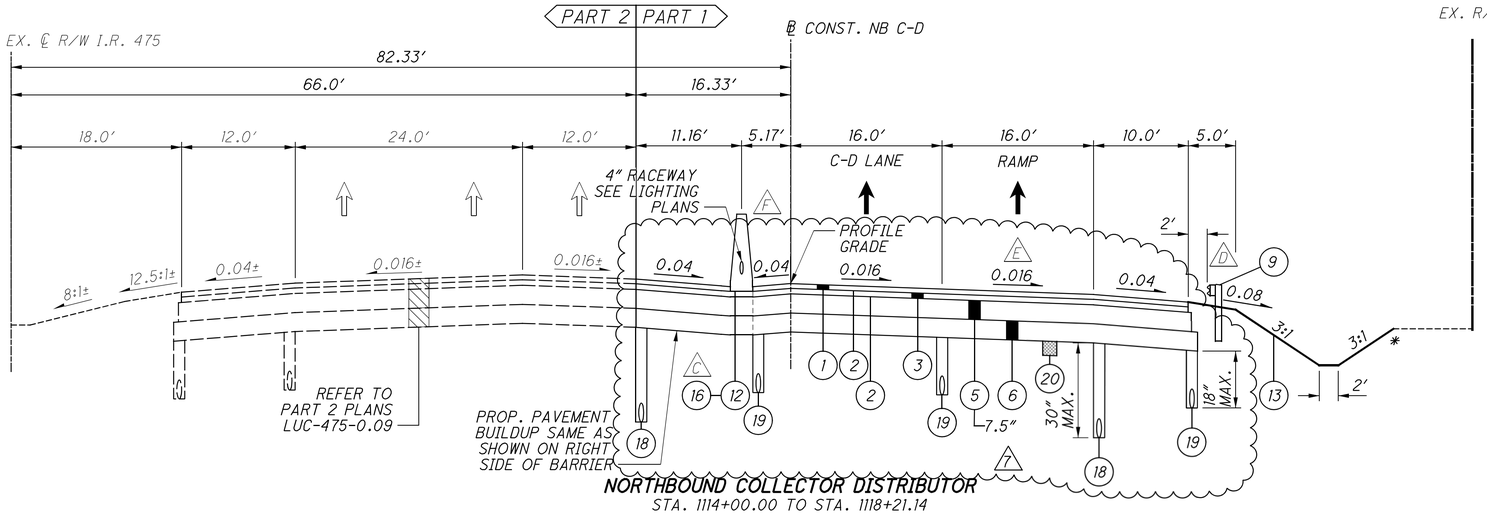
1 0.04 TYPICAL SHOULDER CROSS SLOPE OR MATCH PAVEMENT SUPERELEVATION, WHICHEVER IS GREATER

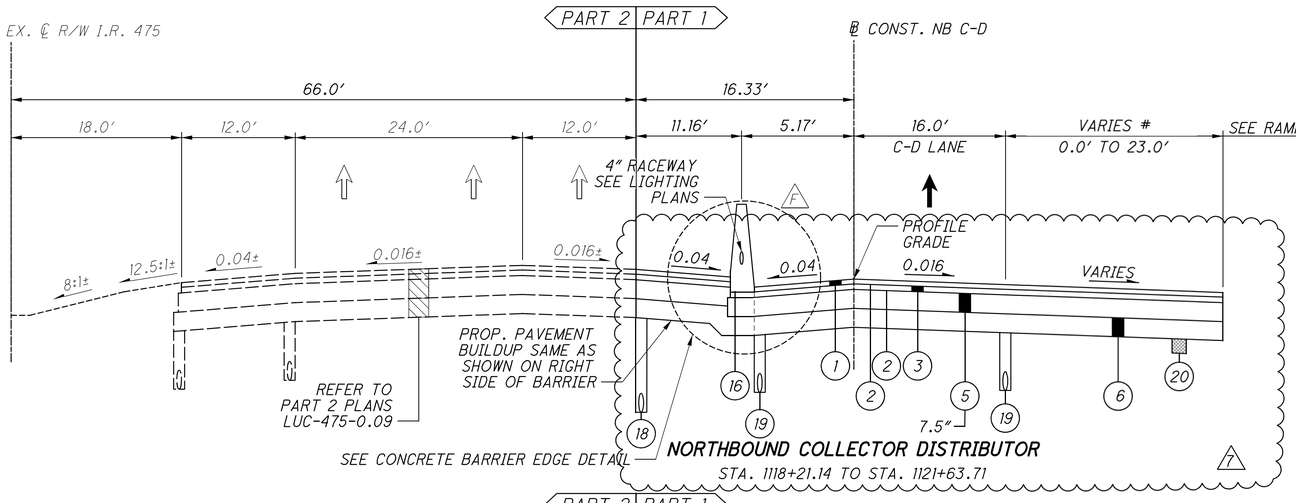
RD RECOVERABLE DITCH, SEE SHEET 24 FOR DETAIL.

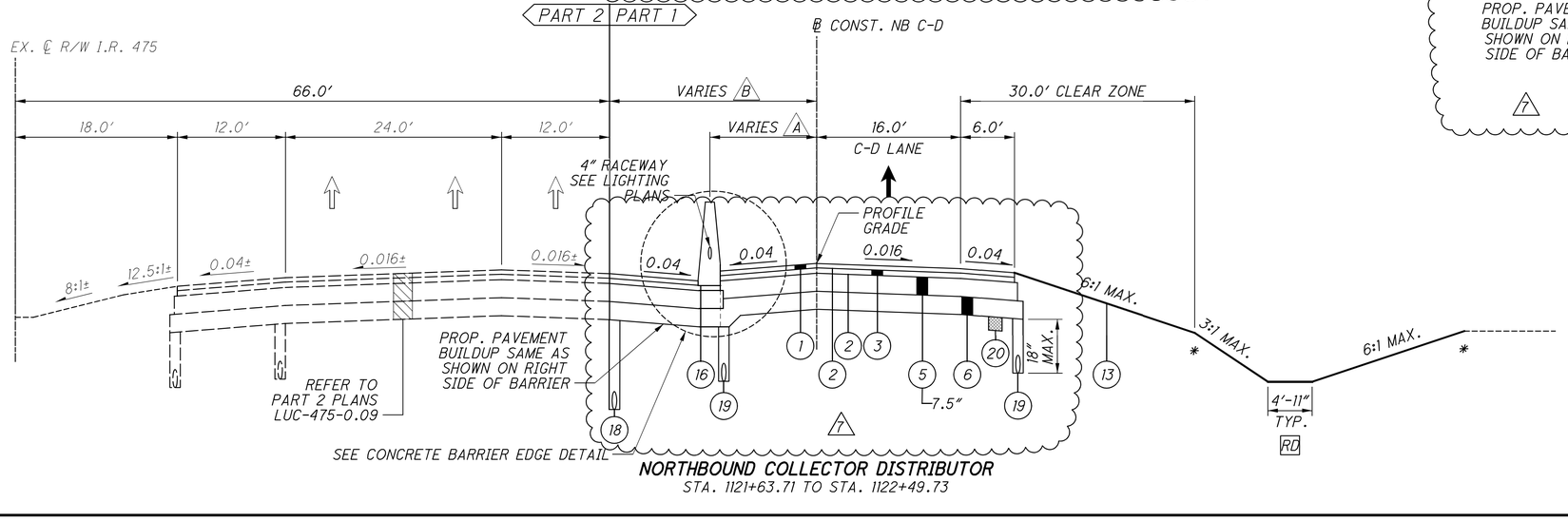
PART 2 - REFER TO PART 2 PLANS LUC-475-0.09

TYPICAL SECTIONS - NB IR-475

LUC-475-01.85







A	STATION LIMITS	SHOULDER WIDTH	
		BEGIN	END
	1121+63.71 - 1122+00.00	5.17′	5.17′
	1122+00.00 - 1127+41.94	5.17′	11.83′

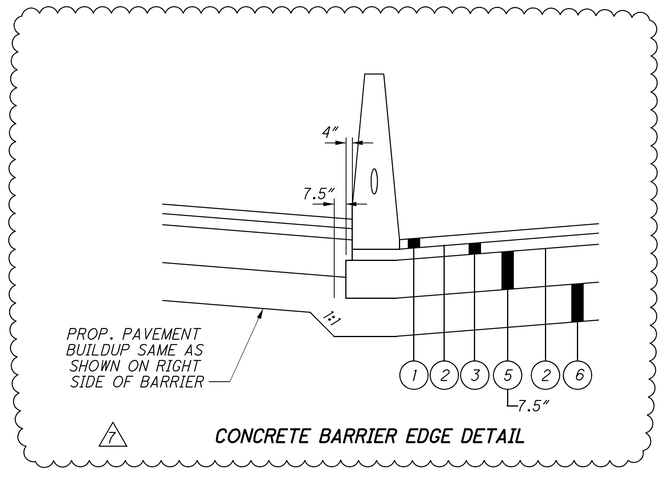
B	STATION LIMITS	SHOULDER WIDTH	
		BEGIN	END
	1121+63.71 - 1122+00.00	16.33′	16.33′
	1122+00.00 - 1127+41.94	16.33′	25.00′

C	STATION LIMITS	CONCRETE BARRIER
	1114+00.00 - 1117+71.00	TYPE B
	1117+71.00 - 1118+21.14	TYPE C

D	STATION LIMITS	GUARDRAIL
	1116+80.96 - 1119+93.31	

E	STATION LIMITS	CROSS SLOPE	
		BEGIN	END
	1117+45.37 - 1118+21.14	0.016	0.0373

F CONC. BARRIER TRANSITIONS PER SCD RM-4.4
STA. 1117+71.00 TO STA. 1118+61.00



NOTES:

* USE 4′ ROUNDING UNLESS OTHERWISE SHOWN.

SEE SHEETS 384 - 386 FOR GORE DETAILS.

SEE SHEET 8 FOR PROPOSED LEGEND.

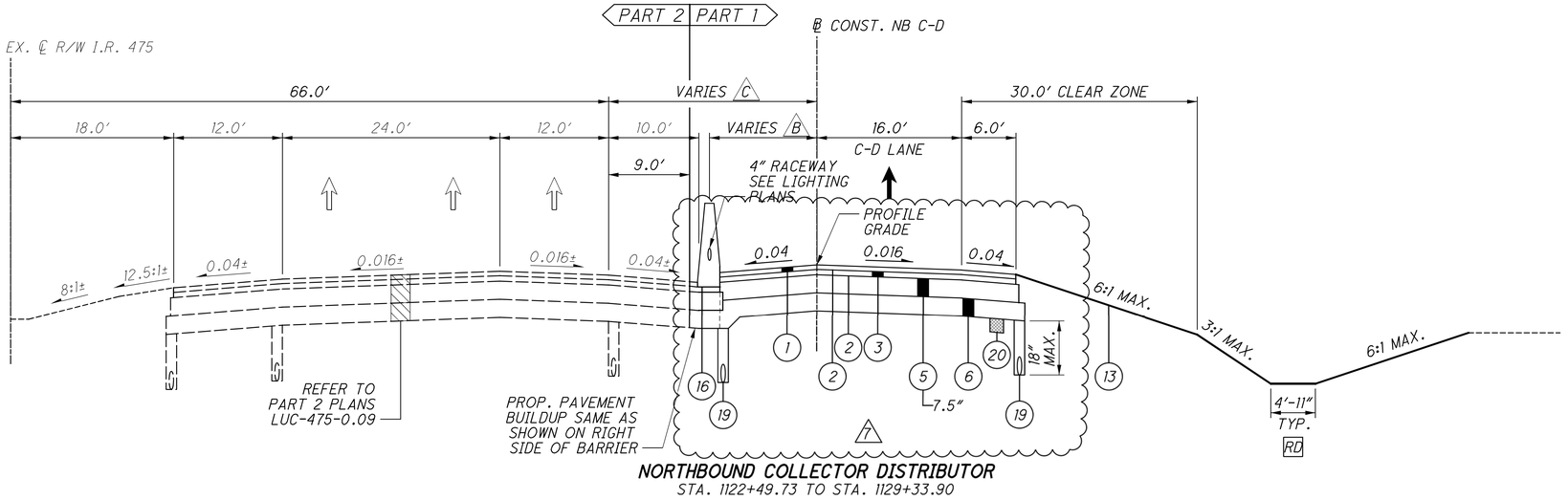
SEE SHEET 15 FOR NB AND SB IR-475 STEP DETAIL.

SEE SHEET 24 FOR SUBGRADE STABILIZATION DETAIL.

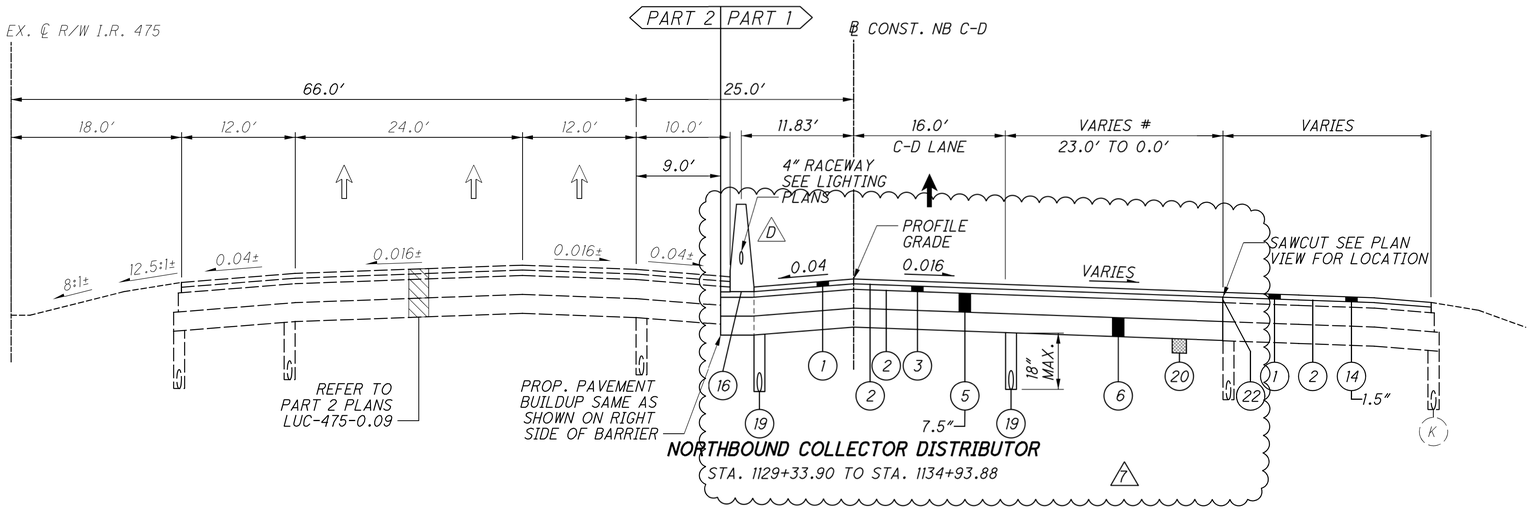
RD RECOVERABLE DITCH, SEE SHEET 24 FOR DETAIL.

TYPICAL SECTIONS - NB IR-475

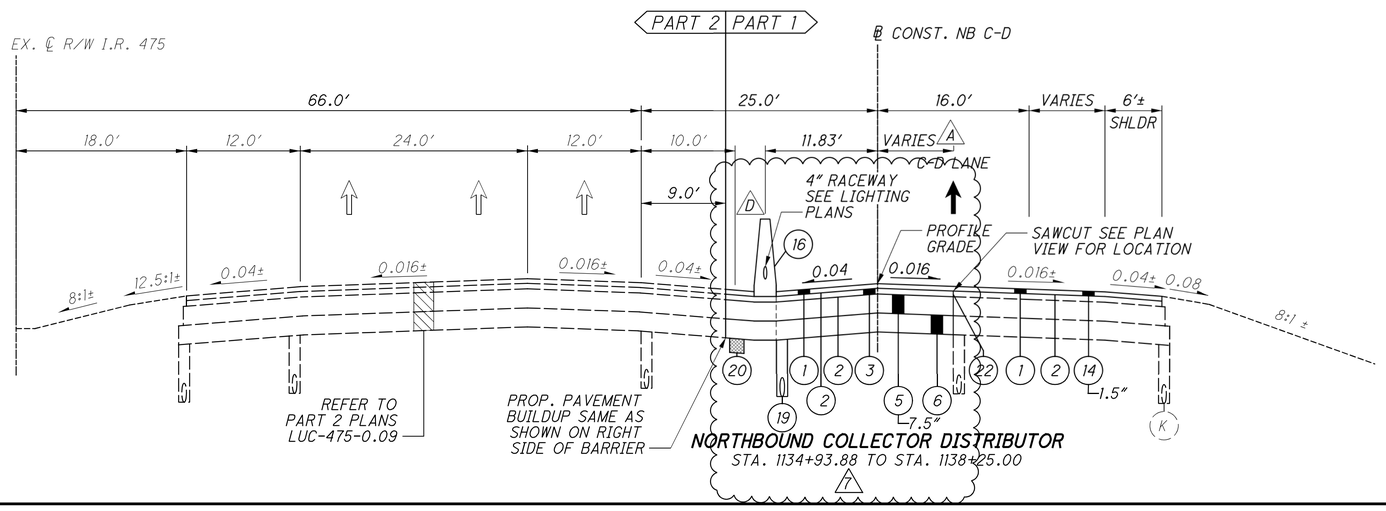
LUC-475-01.85



NORTHBOUND COLLECTOR DISTRIBUTOR
STA. 1122+49.73 TO STA. 1129+33.90



NORTHBOUND COLLECTOR DISTRIBUTOR
STA. 1129+33.90 TO STA. 1134+93.88



NORTHBOUND COLLECTOR DISTRIBUTOR
STA. 1134+93.88 TO STA. 1138+25.00

A	STATION LIMITS	PAVEMENT WIDTH	
		BEGIN	END
	1134+93.88 - 1138+25.00	16.00′	8.18′

B	STATION LIMITS	SHOULDER WIDTH	
		BEGIN	END
	1122+00.00 - 1127+41.94	5.17′	11.83′
	1127+41.94 - 1129+33.90	11.83′	11.83′

C	STATION LIMITS	SHOULDER WIDTH	
		BEGIN	END
	1122+00.00 - 1127+41.94	16.33′	25.00′
	1127+41.94 - 1129+33.90	25.00′	25.00′

D CONC. BARRIER TRANSITIONS PER SCD RM-4.4 STA. 1133+10.00 TO STA. 1135+17.19

NOTES:

* USE 4′ ROUNDING UNLESS OTHERWISE SHOWN.

SEE SHEETS 384 - 386 FOR GORE DETAILS.

SEE SHEET 8 FOR PROPOSED LEGEND.

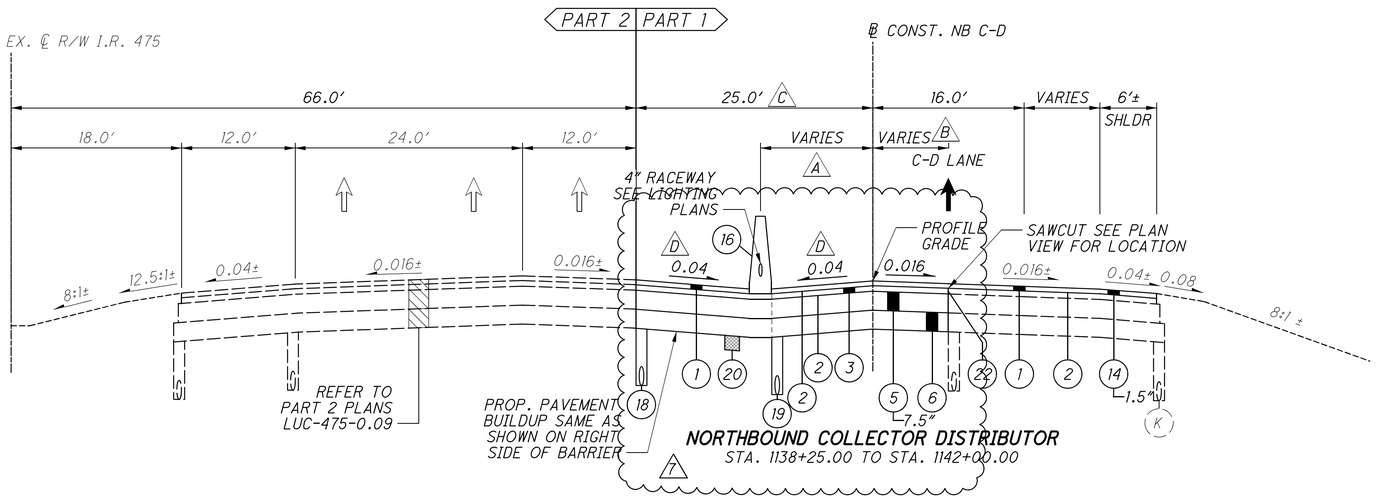
SEE SHEET 15 FOR NB AND SB IR-475 STEP DETAIL.

SEE SHEET 24 FOR SUBGRADE STABILIZATION DETAIL.

RD RECOVERABLE DITCH, SEE SHEET 24 FOR DETAIL.

TYPICAL SECTIONS - NB IR-475

LUC-475-01.85



A	STATION LIMITS	SHOULDER WIDTH	
		BEGIN	END
	1134+93.88 - 1139+05.72	11.83′	11.83′
	1139+05.72 - 1142+00.00	11.83′	8.16′

B	STATION LIMITS	PAVEMENT WIDTH	
		BEGIN	END
	1138+25.00 - 1142+00.00	8.18′	0.00′

C	STATION LIMITS	SHOULDER WIDTH	
		BEGIN	END
	1139+05.72 - 1142+00.00	25.0′	21.32′

D	STATION LIMITS	CROSS SLOPE	
		BEGIN	END
	1141+60.00 - 1142+00.00	0.04	MATCH EX.

NOTES:

* USE 4′ ROUNDING UNLESS OTHERWISE SHOWN.

SEE SHEETS 384 - 386 FOR GORE DETAILS.

SEE SHEET 8 FOR PROPOSED LEGEND.

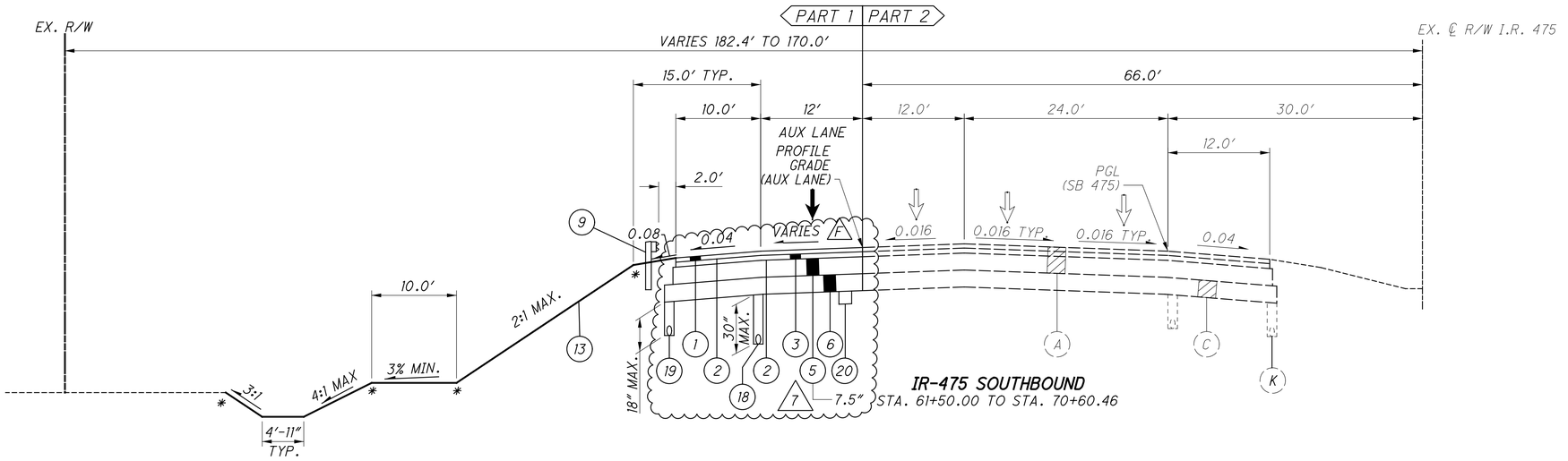
SEE SHEET 15 FOR NB AND SB IR-475 STEP DETAIL.

SEE SHEET 24 FOR SUBGRADE STABILIZATION DETAIL.

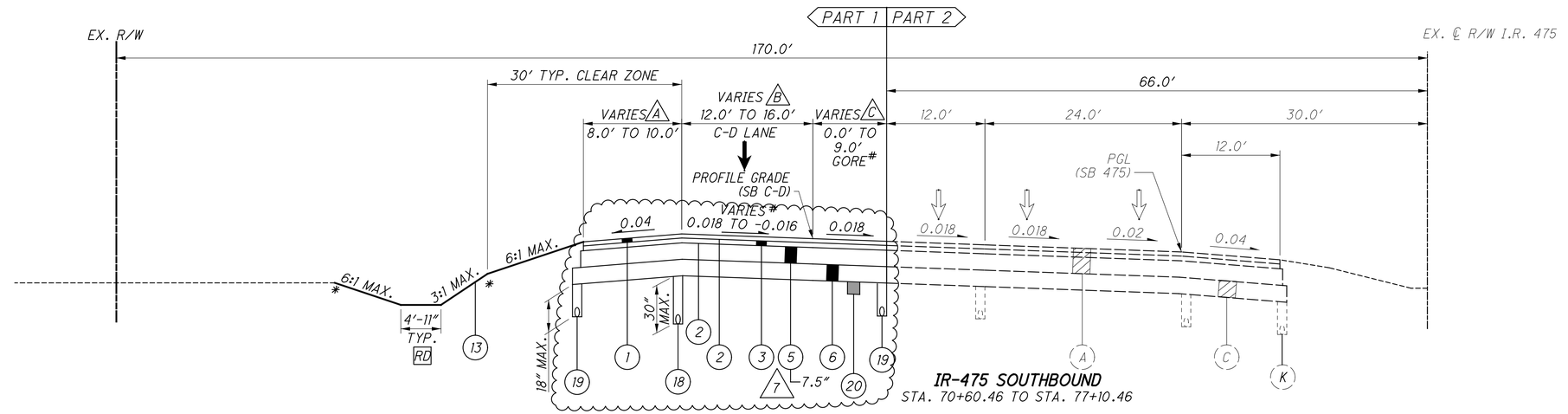
RD RECOVERABLE DITCH, SEE SHEET 24 FOR DETAIL.

TYPICAL SECTIONS - NB IR-475

LUC-475-01.85



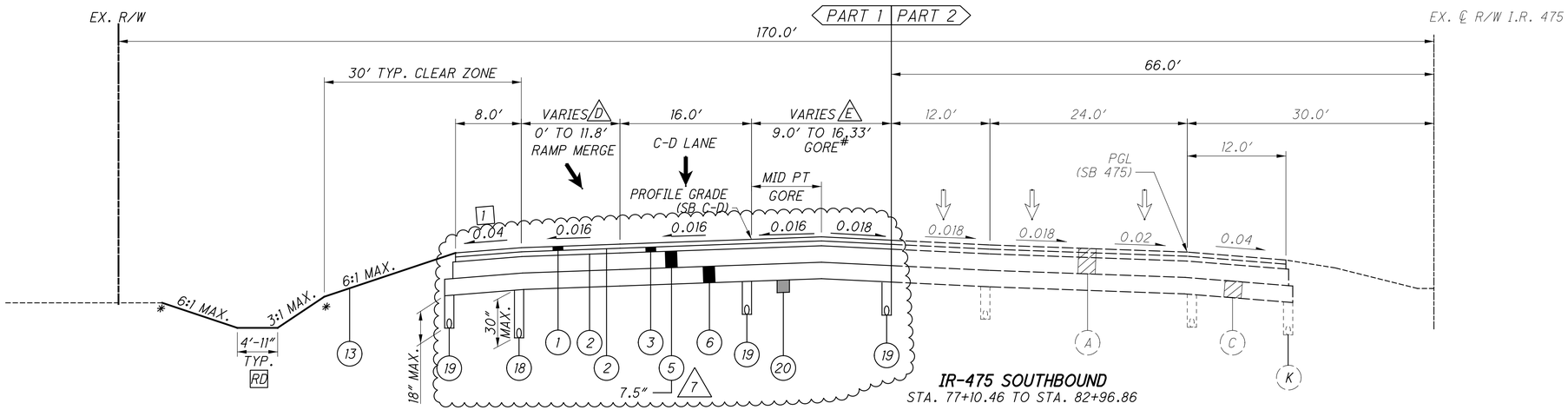
F	STATION LIMITS	CROSS SLOPE	
		BEGIN	END
	66+56.56 - 67+70.56	-0.016	+0.018
	67+70.56 - 70+60.46	+0.018	+0.018



A	STATION LIMITS	SHOULDER WIDTH	
		BEGIN	END
	70+60.46 - 71+60.46	10.0'	8.0'
	71+60.46 - 77+10.46	8.0'	8.0'

B	STATION LIMITS	PAVEMENT WIDTH	
		BEGIN	END
	70+60.46 - 77+10.46	12.0'	16.0'

C	STATION LIMITS	GORE WIDTH	
		BEGIN	END
	70+60.46 - 77+10.46	0.0'	9.0'



D	STATION LIMITS	RAMP WIDTH	
		BEGIN	END
	77+10.46 - 82+96.86	0.0'	11.8'

E	STATION LIMITS	GORE WIDTH	
		BEGIN	END
	77+10.46 - 82+96.86	9.0'	16.33'

NOTES:

* USE 4' ROUNDING UNLESS OTHERWISE SHOWN.
# SEE SHEETS 380 - 386 FOR GORE DETAILS.
4" RACEWAY SEE LIGHTING PLANS

SEE SHEET 15 FOR NB AND SB IR-475 STEP DETAIL.

SEE SHEET 8 FOR PROPOSED LEGEND.

SEE SHEET 6 FOR EXISTING LEGEND.

1 0.04 TYPICAL SHOULDER CROSS SLOPE OR MATCH PAVEMENT SUPERELEVATION, WHICHEVER IS GREATER

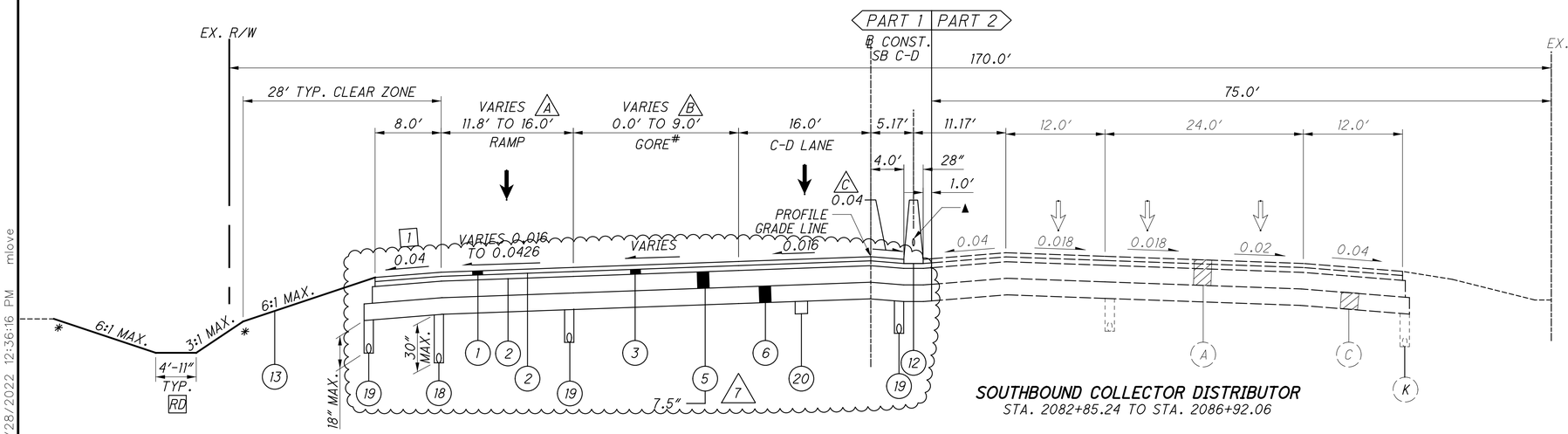
RD RECOVERABLE DITCH, SEE SHEET 24 FOR DETAIL.

PART 2 - REFER TO PART 2 PLANS LUC-475-0.09

TYPICAL SECTIONS - SB IR-475

LUC-475-01.85

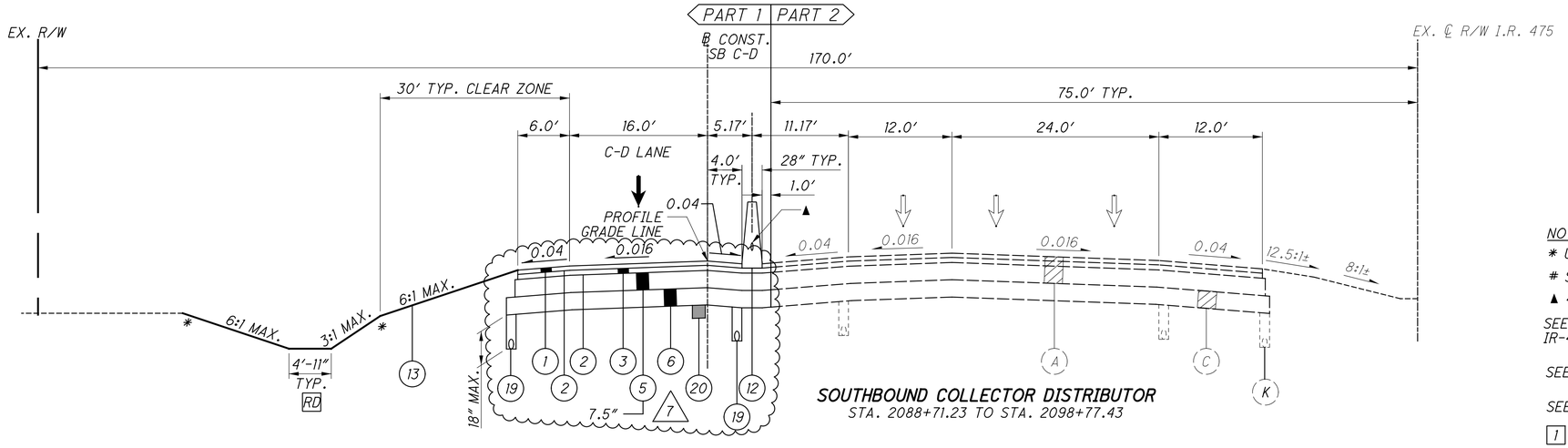
13
637



A	STATION LIMITS	RAMP WIDTH	
		BEGIN	END
	2082+85.24 - 2086+92.06	11.8′	16.0′

B	STATION LIMITS	GORE WIDTH	
		BEGIN	END
	2082+85.24 - 2086+92.06	0.0′	9.0′

C	STATION LIMITS	CROSS SLOPE	
		BEGIN	END
	2082+85.24 - 2083+10.24	+0.016	-0.04



NOTES:

* USE 4′ ROUNDING UNLESS OTHERWISE SHOWN.
# SEE SHEETS 380 - 386 FOR GORE DETAILS.
▲ 4″ RACEWAY SEE LIGHTING PLANS

SEE SHEET 15 FOR NB AND SB IR-475 STEP DETAIL.

SEE SHEET 8 FOR PROPOSED LEGEND.

SEE SHEET 6 FOR EXISTING LEGEND.

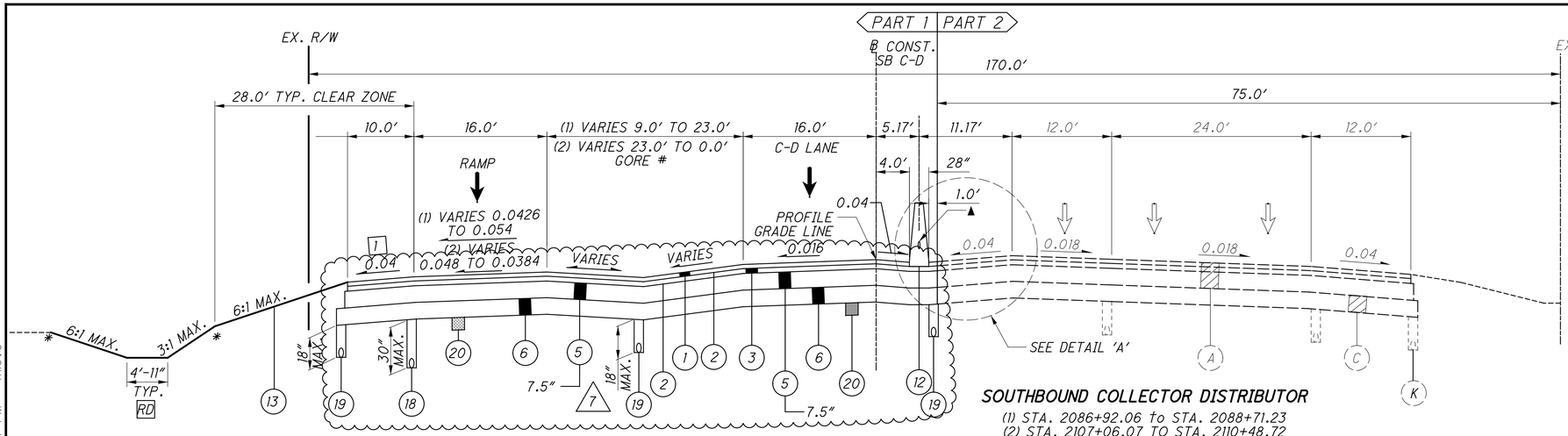
[1] 0.04 TYPICAL SHOULDER CROSS SLOPE OR MATCH PAVEMENT SUPERELEVATION, WHICHEVER IS GREATER

[RD] RECOVERABLE DITCH, SEE SHEET 24 FOR DETAIL.

[PART 2] - REFER TO PART 2 PLANS LUC-475-0.09

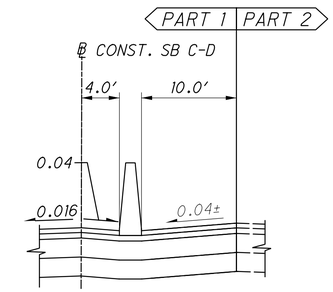
TYPICAL SECTIONS - SB IR-475

LUC-475-01.85



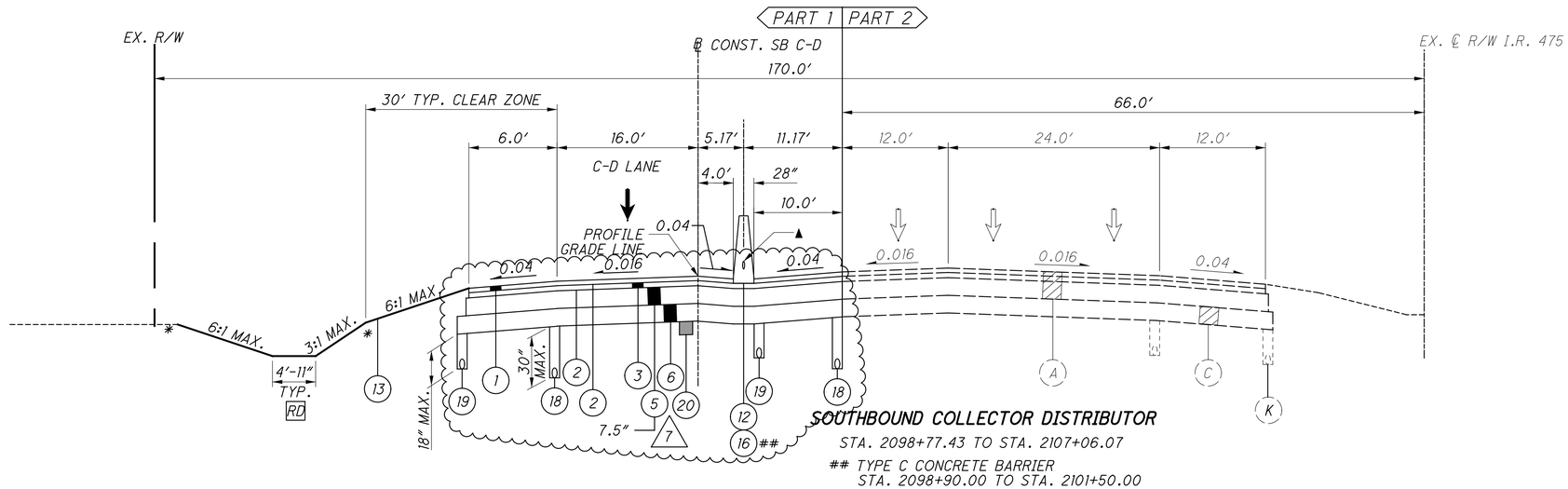
SOUTHBOUND COLLECTOR DISTRIBUTOR

(1) STA. 2086+92.06 to STA. 2088+71.23
(2) STA. 2107+06.07 TO STA. 2110+48.72



DETAIL 'A'

FULL SHOULDER REPLACEMENT
(2) 2107+06.07 TO 2110+48.72



SOUTHBOUND COLLECTOR DISTRIBUTOR

STA. 2098+77.43 TO STA. 2107+06.07

TYPE C CONCRETE BARRIER
STA. 2098+90.00 TO STA. 2101+50.00

IR-475 ASPHALT PAVEMENT EDGE DETAIL

- NORTHBOUND AND SOUTHBOUND COLLECTOR-DISTRIBUTOR
- US 20A RAMP ACCEL/DECEL
- DUSSEL/SALISBURY RAMPS

SOUTHBOUND COLLECTOR DISTRIBUTOR

STA. 2110+48.72 TO STA. 2112+74.85

NOTES:

* USE 4′ ROUNDING UNLESS OTHERWISE SHOWN.
# SEE SHEETS 380 - 386 FOR GORE DETAILS.
▲ 4″ RACEWAY SEE LIGHTING PLANS
SEE SHEET 8 FOR PROPOSED LEGEND.

SEE SHEET 6 FOR EXISTING LEGEND.

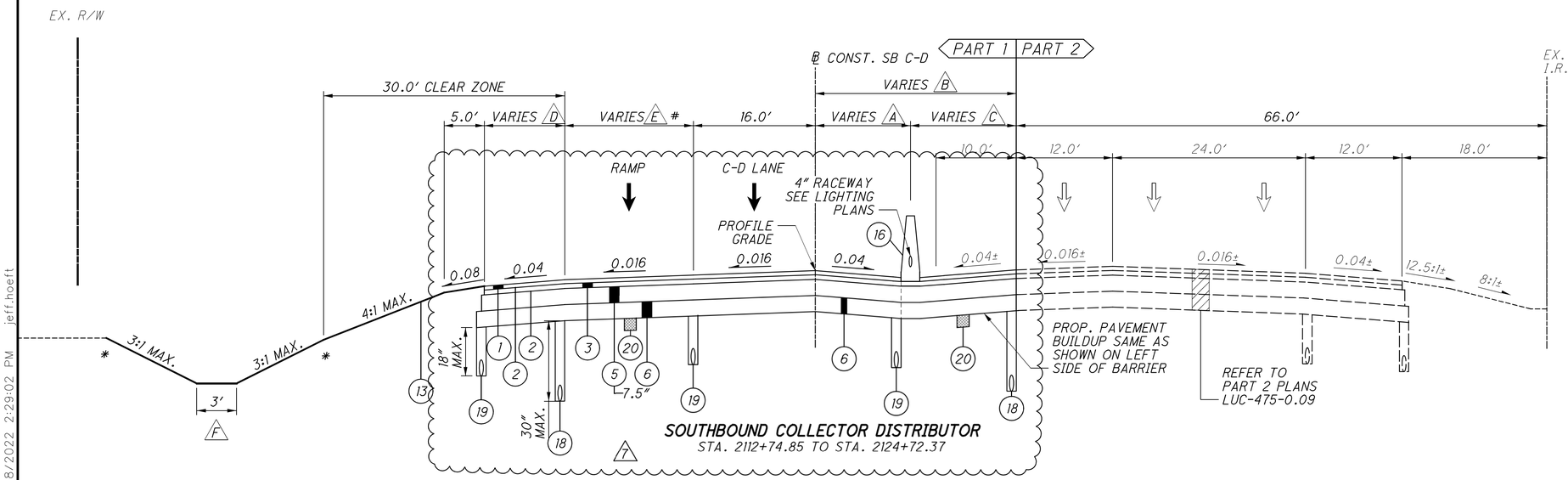
[1] 0.04 TYPICAL SHOULDER CROSS SLOPE OR MATCH PAVEMENT SUPERELEVATION, WHICHEVER IS GREATER

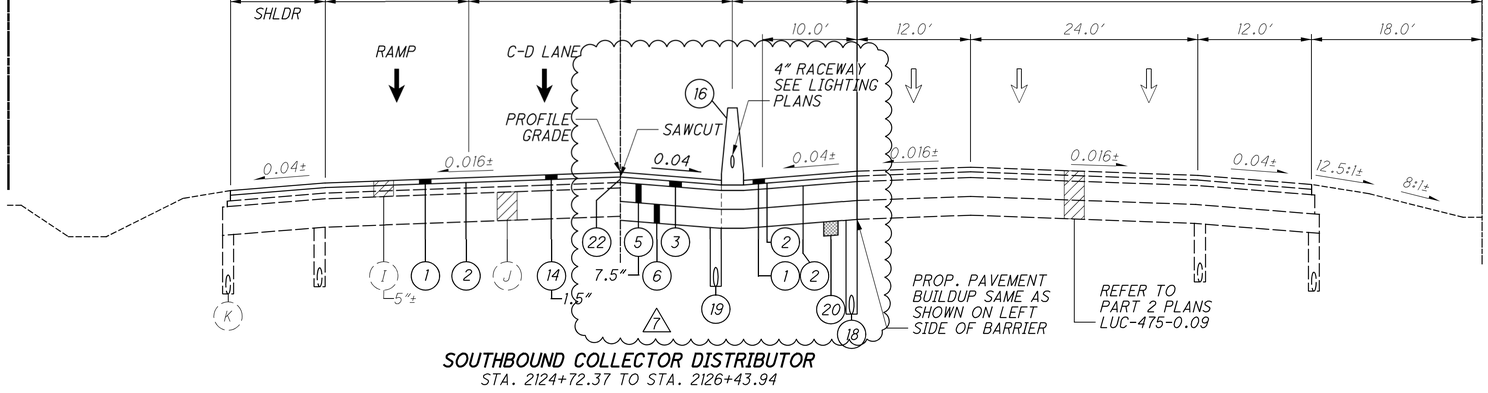
RD RECOVERABLE DITCH, SEE SHEET 24 FOR DETAIL.

PART 2 - REFER TO PART 2 PLANS LUC-475-0.09

TYPICAL SECTIONS - SB IR-475

LUC-475-01.85





A	STATION LIMITS	SHOULDER WIDTH	
		BEGIN	END
	2112+74.85 - 2114+00.00	5.17′	5.17′
	2114+00.00 - 2118+16.79	5.17′	11.83′

B	STATION LIMITS	SHOULDER WIDTH	
		BEGIN	END
	2112+74.85 - 2118+16.79	16.33′	25.00′
	2118+16.79 - 2124+72.37	25.00′	25.00′

C	STATION LIMITS	SHOULDER WIDTH	
		BEGIN	END
	2112+74.85 - 2114+00.00	11.17′	13.17′
	2114+00.00 - 2124+72.37	13.17′	13.17′

D	STATION LIMITS	SHOULDER WIDTH	
		BEGIN	END
	2112+74.85 - 2119+16.79	10.00′	10.00′
	2119+16.79 - 2120+16.61	10.00′	8.00′
	2120+16.61 - 2123+90.84	8.00′	8.00′
	2123+90.84 - 2124+40.86	8.00′	6.00′
	2124+40.86 - 2124+72.17	6.00′	6.00′

E	STATION LIMITS	WIDTH	
		BEGIN	END
	2112+74.85 - 2119+16.95	16.00′	16.00′
	2119+16.95 - 2124+72.37	16.00′	27.50′

F	STATION LIMITS	DITCH WIDTH	
		BEGIN	END
	2117+00.00 - 2119+00.00	3′	5′
	2119+00.00 - 2121+00.00	5′	5′
	2121+00.00 - 2122+00.00	5′	4′-11″
	2122+00.00 - 2124+72.37	4′-11″	4′-11″

NOTES:

* USE 4′ ROUNDING UNLESS OTHERWISE SHOWN.

\# SEE SHEETS 384 - 386 FOR GORE DETAILS.

SEE SHEET 8 FOR PROPOSED LEGEND.

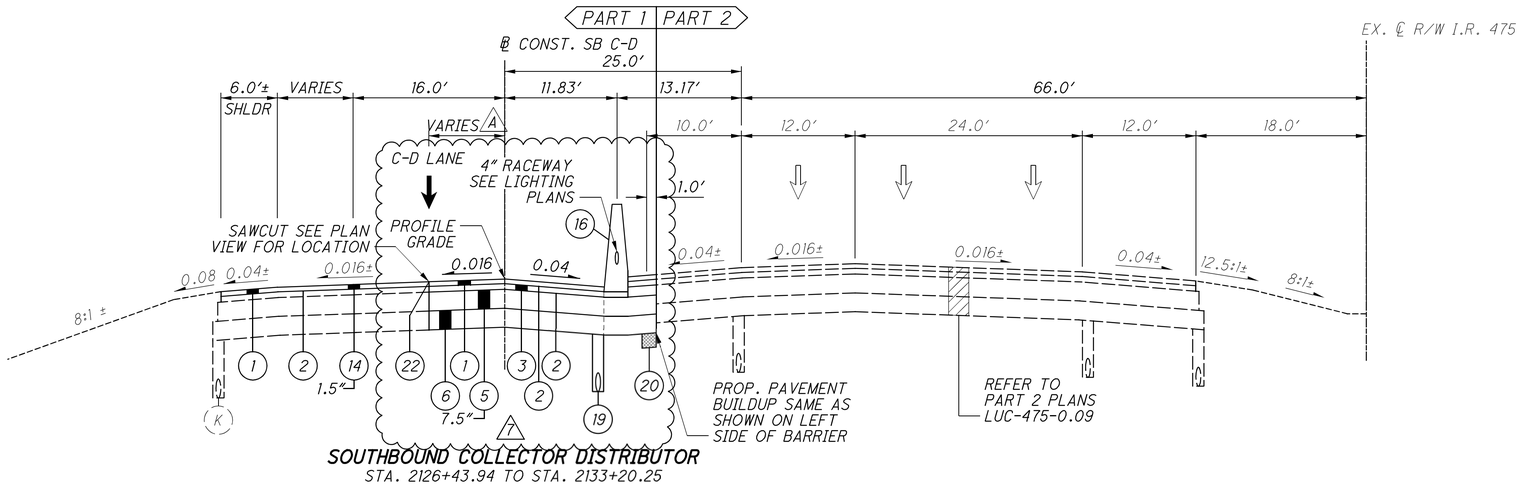
SEE SHEET 15 FOR NB AND SB IR-475 STEP DETAIL.

SEE SHEET 24 FOR SUBGRADE STABILIZATION DETAIL.

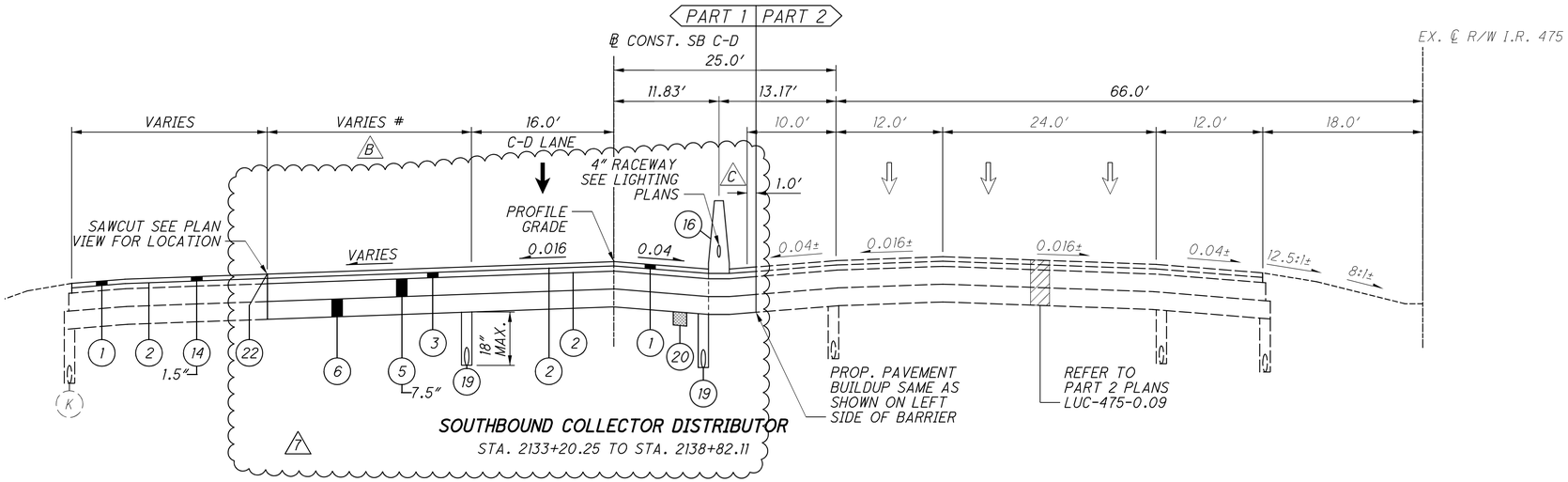
RD RECOVERABLE DITCH, SEE SHEET 24 FOR DETAIL.

TYPICAL SECTIONS - SB IR-475

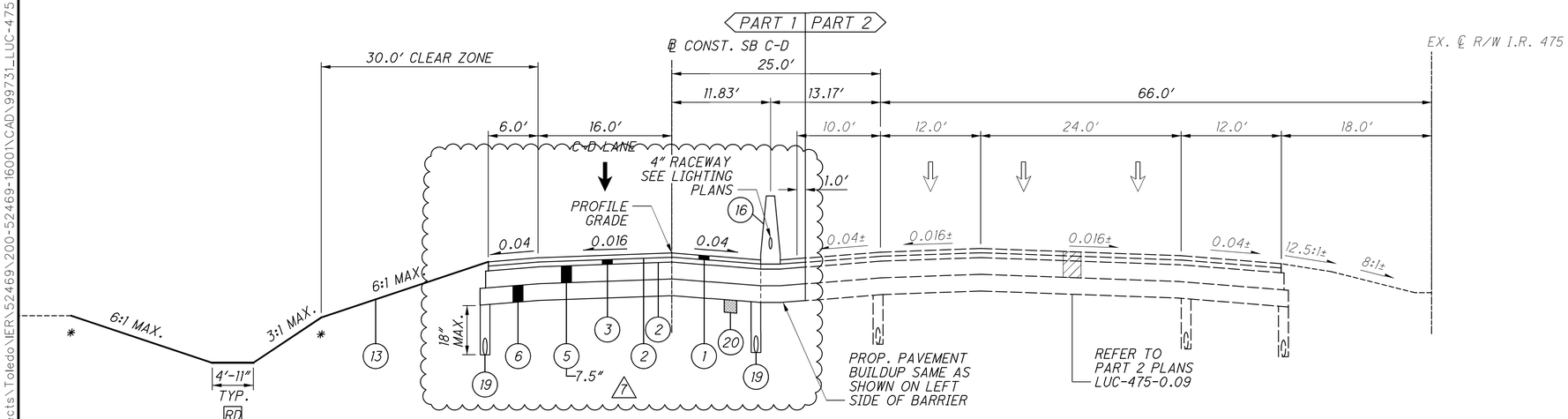
LUC-475-01.85



SOUTHBOUND COLLECTOR DISTRIBUTOR
STA. 2126+43.94 TO STA. 2133+20.25



SOUTHBOUND COLLECTOR DISTRIBUTOR
STA. 2133+20.25 TO STA. 2138+82.11



SOUTHBOUND COLLECTOR DISTRIBUTOR
STA. 2138+82.11 TO STA. 2146+18.66

A	STATION LIMITS	PAVEMENT WIDTH	
		BEGIN	END
	2126+43.94 - 2133+20.25	2.63′	16′

B	STATION LIMITS	PAVEMENT WIDTH	
		BEGIN	END
	2133+20.25 - 2138+82.11	0.0′	23.0′

C CONC. BARRIER TRANSITIONS PER SCD RM-4.4
STA. 2133+38.56 TO STA. 2135+46.70

NOTES:

* USE 4′ ROUNDING UNLESS OTHERWISE SHOWN.

\# SEE SHEETS 384 - 386 FOR GORE DETAILS.

SEE SHEET 8 FOR PROPOSED LEGEND.

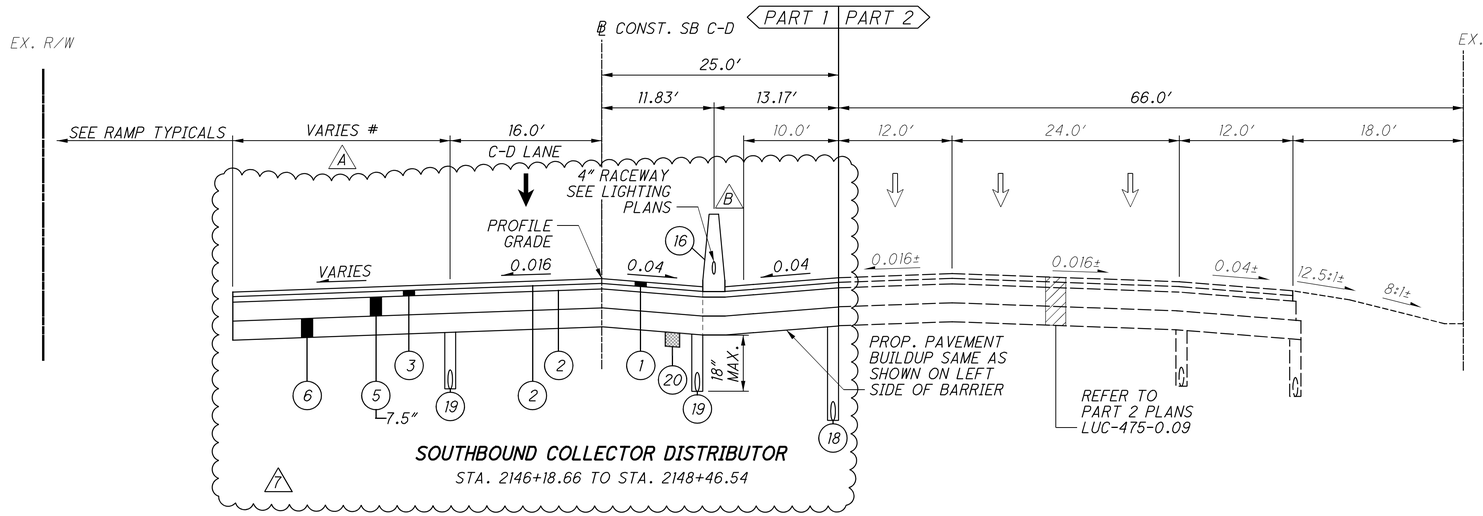
SEE SHEET 15 FOR NB AND SB IR-475 STEP DETAIL.

SEE SHEET 24 FOR SUBGRADE STABILIZATION DETAIL.

RD RECOVERABLE DITCH, SEE SHEET 24 FOR DETAIL.

TYPICAL SECTIONS - SB IR-475

LUC-475-01.85



A	STATION LIMITS	PAVEMENT WIDTH	
		BEGIN	END
	2146+18.66 - 2148+46.54	23.0′	0.0′

B CONC. BARRIER TRANSITIONS PER SCD RM-4.4 STA. 2148+08.00 TO STA. 2148+98.00

NOTES:

* USE 4′ ROUNDING UNLESS OTHERWISE SHOWN.

\# SEE SHEETS 384 - 386 FOR GORE DETAILS.

SEE SHEET 8 FOR PROPOSED LEGEND.

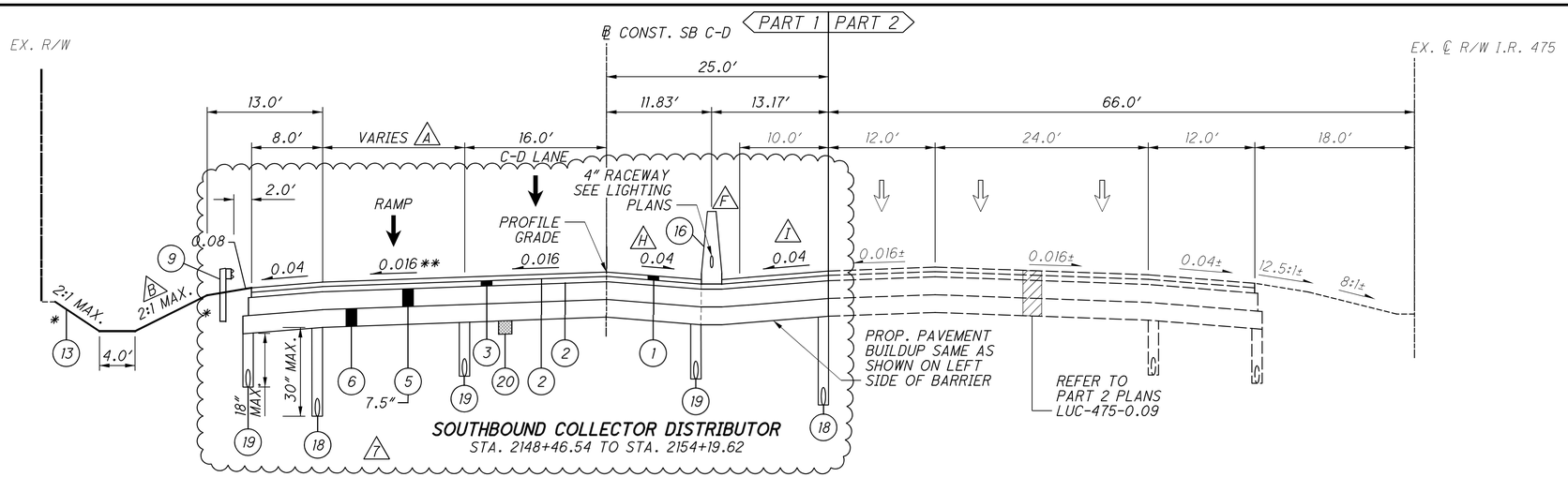
SEE SHEET 15 FOR NB AND SB IR-475 STEP DETAIL.

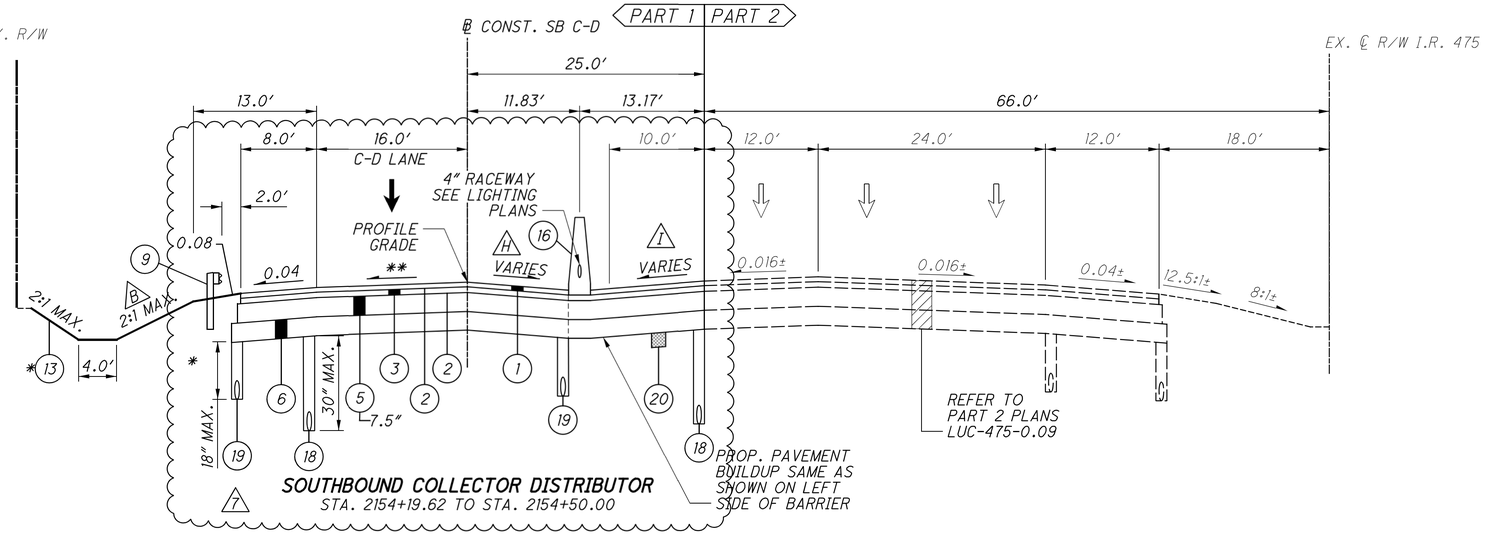
SEE SHEET 24 FOR SUBGRADE STABILIZATION DETAIL.

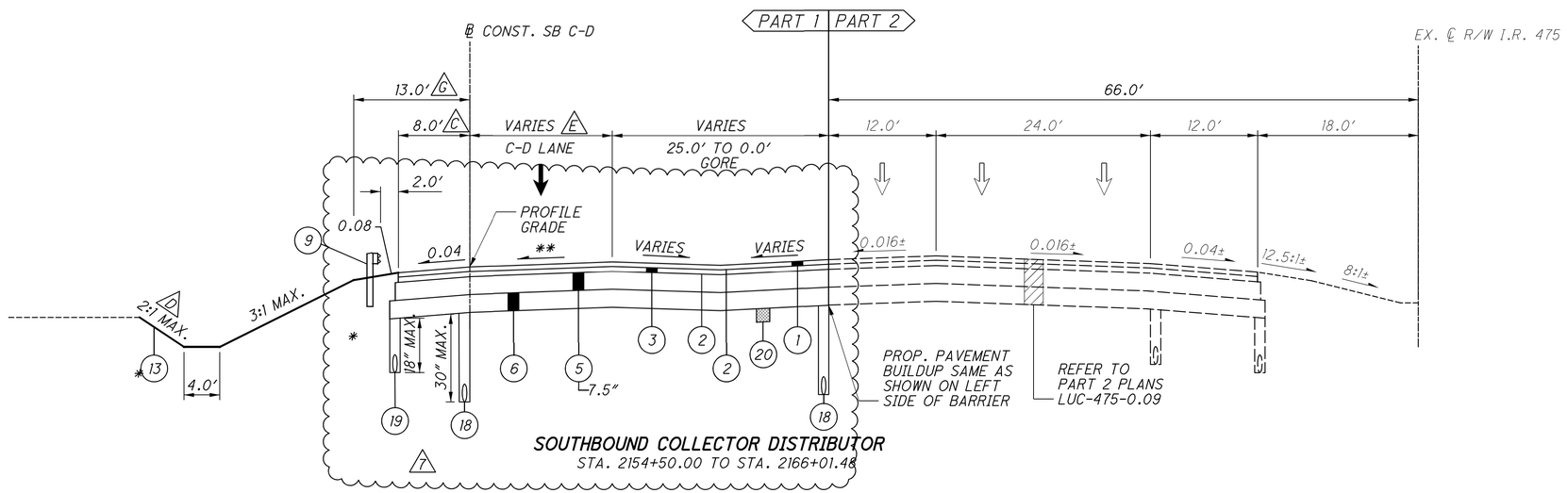
RD RECOVERABLE DITCH, SEE SHEET 24 FOR DETAIL.

TYPICAL SECTIONS - SB IR-475

LUC-475-01.85







A	STATION LIMITS	PAVEMENT WIDTH	
		BEGIN	END
	2148+46.54 - 2149+89.65	16.0′	12.0′
	2149+89.65 - 2153+19.62	12.0′	12.0′
	2153+19.62 - 2154+19.62	12.0′	0.0′

B	STATION LIMITS	SLOPE	
		BEGIN	END
	2148+50.00 - 2153+50.00	2:1	2:1
	2153+50.00 - 2154+00.00	2:1	3:1
	2154+00.00 - 2154+50.00	3:1	3:1

C	STATION LIMITS	SHOULDER WIDTH	
		BEGIN	END
	2165+00.77 - 2166+01.48	8.0′	12.0′

D	STATION LIMITS	SLOPE	
		BEGIN	END
	2154+50.00 - 2156+00.00	2:1	2:1
	2156+00.00 - 2157+00.00	2:1	3:1
	2157+00.00 - 2166+01.48	3:1	3:1

E	STATION LIMITS	PAVEMENT WIDTH	
		BEGIN	END
	2154+50.00 - 2160+06.97	16′	16′
	2160+06.97 - 2162+20.78	16′	12′
	2162+20.78 - 2165+00.77	12′	12′
	2165+00.77 - 2166+01.48	12′	0′

F CONC. BARRIER TRANSITIONS PER SCD RM-4.4 STA. 2148+08.00 TO STA. 2148+98.00

G	STATION LIMITS	GRADED SHLD WIDTH	
		BEGIN	END
	2165+00.77 - 2166+01.48	13.0′	17.0′

H	STATION LIMITS	CROSS SLOPE	
		BEGIN	END
	2154+10.00 - 2154+50.00	0.04	0.0253

I	STATION LIMITS	CROSS SLOPE	
		BEGIN	END
	2154+10.00 - 2154+50.00	0.04	0.0267

NOTES:

* USE 4′ ROUNDING UNLESS OTHERWISE SHOWN.

SEE SHEETS 384 - 386 FOR GORE DETAILS.

** SEE SHEET 379 FOR SUPERELEVATION TABLE

SEE SHEET 8 FOR PROPOSED LEGEND.

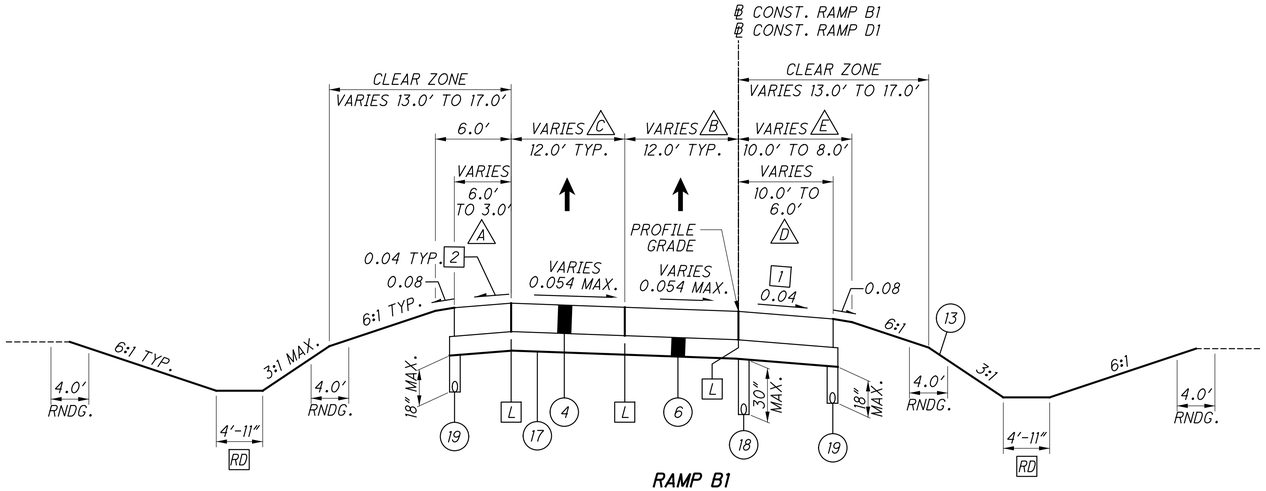
SEE SHEET 15 FOR NB AND SB IR-475 STEP DETAIL.

SEE SHEET 24 FOR SUBGRADE STABILIZATION DETAIL.

RD RECOVERABLE DITCH, SEE SHEET 24 FOR DETAIL.

TYPICAL SECTIONS - SB IR-475

LUC-475-01.85



RAMP B1
STA. 38+08.38 TO STA. 44+54.11
RAMP D1
STA. 83+82.81 TO STA. 90+48.70

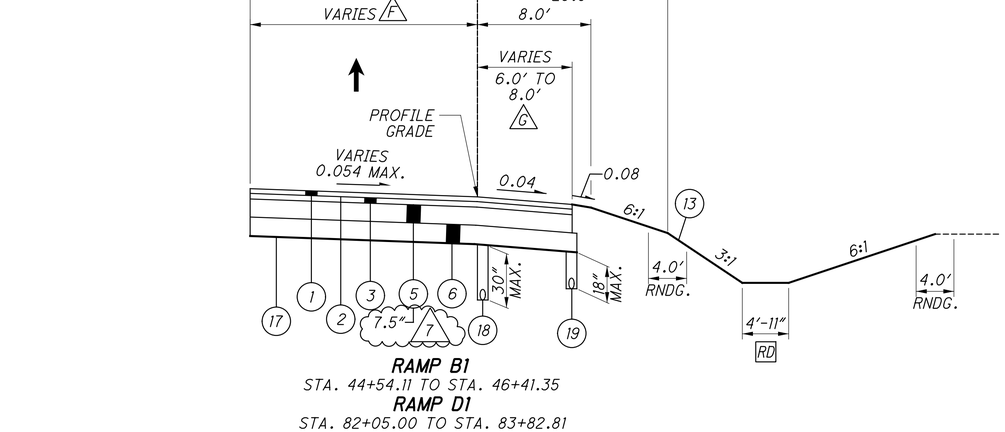
A	STATION LIMITS (RAMP B1)	SHOULDER WIDTH	
		BEGIN	END
	38+08.38 - 38+58.38	6.0′	4.0′
	38+58.38 - 42+41.17	4.0′	4.0′
	42+41.17 - 42+66.17	4.0′	3.0′
	42+66.17 - 44+54.11	3.0′	3.0′
	STATION LIMITS (RAMP D1)	SHOULDER WIDTH	
		BEGIN	END
	83+82.81 - 85+80.00	3.0′	3.0′
	85+80.00 - 86+05.00	3.0′	4.0′
	86+05.00 - 89+98.70	4.0′	4.0′
	89+98.70 - 90+48.70	4.0′	6.0′

B	STATION LIMITS (RAMP B1)	PAVEMENT WIDTH	
		BEGIN	END
	38+08.38 - 42+41.17	12.0′	12.0′
	42+41.17 - 44+54.11	12.0′	9.875′
	STATION LIMITS (RAMP D1)	PAVEMENT WIDTH	
		BEGIN	END
	83+82.81 - 86+05.00	9.775′	12.0′
	86+05.00 - 90+48.70	12.0′	12.0′

C	STATION LIMITS (RAMP B1)	LANE WIDTH	
		BEGIN	END
	38+08.38 - 39+48.38	16.0′	12.0′
	39+48.38 - 42+41.17	12.0′	12.0′
	42+41.17 - 44+54.11	12.0′	9.875′
	STATION LIMITS (RAMP D1)	LANE WIDTH	
		BEGIN	END
	83+82.81 - 86+05.00	9.775′	12.0′
	86+05.00 - 89+08.70	12.0′	12.0′
	89+08.70 - 90+48.70	12.0′	16.0′

D	STATION LIMITS (RAMP B1)	SHOULDER WIDTH	
		BEGIN	END
	38+08.38 - 42+41.17	10.0′	10.0′
	42+41.17 - 43+41.17	10.0′	6.0′
	43+41.17 - 44+54.11	6.0′	6.0′
	STATION LIMITS (RAMP D1)	SHOULDER WIDTH	
		BEGIN	END
	83+82.81 - 85+05.00	6.0′	6.0′
	85+05.00 - 86+05.00	6.0′	10.0′
	86+05.00 - 90+48.70	10.0′	10.0′

E	STATION LIMITS (RAMP B1)	GRD SHLDR WIDTH	
		BEGIN	END
	38+08.38 - 42+41.17	10.0′	10.0′
	42+41.17 - 43+41.17	10.0′	8.0′
	43+41.17 - 44+54.11	8.0′	8.0′
	STATION LIMITS (RAMP D1)	GRD SHLDR WIDTH	
		BEGIN	END
	83+82.81 - 85+05.00	8.0′	8.0′
	85+05.00 - 86+05.00	8.0′	10.0′
	86+05.00 - 90+48.70	10.0′	10.0′



RAMP B1
STA. 44+54.11 TO STA. 46+41.35
RAMP D1
STA. 82+05.00 TO STA. 83+82.81

F	STATION LIMITS (RAMP B1)	PAVEMENT WIDTH	
		BEGIN	END
	44+54.11 - 46+41.35	19.75′	16.0′
	STATION LIMITS (RAMP D1)	PAVEMENT WIDTH	
		BEGIN	END
	82+05.00 - 83+82.81	16.0′	19.55′

G	STATION LIMITS (RAMP B1)	SHOULDER WIDTH	
		BEGIN	END
	44+54.11 - 45+91.35	6.0′	6.0′
	45+91.35 - 46+41.35	6.0′	8.0′
	STATION LIMITS (RAMP D1)	SHOULDER WIDTH	
		BEGIN	END
	82+05.00 - 82+55.00	8.0′	6.0′
	82+55.00 - 83+82.81	6.0′	6.0′

NOTES:

1. TWO RAMP LIMITS ARE SHOWN WITH EACH SECTION DETAIL. SECTION DETAILS ARE SHOWN IN STATIONING DIRECTION OF FIRST RAMP LISTED. SECOND RAMP LISTED IS MIRROR OF SECTION DETAIL SHOWN.
2. FOR INTERCHANGE AND INTERSECTION DETAILS, SEE SHEETS 380 - 393 .
3. FOR PROPOSED LEGEND, SEE SHEET 8 .
4. FOR TYPICAL EDGE DETAILS, SEE SHEET 24 .

[1] 0.04 TYPICAL SHOULDER CROSS SLOPE OR MATCH PAVEMENT SUPERELEVATION, WHICHEVER IS GREATER

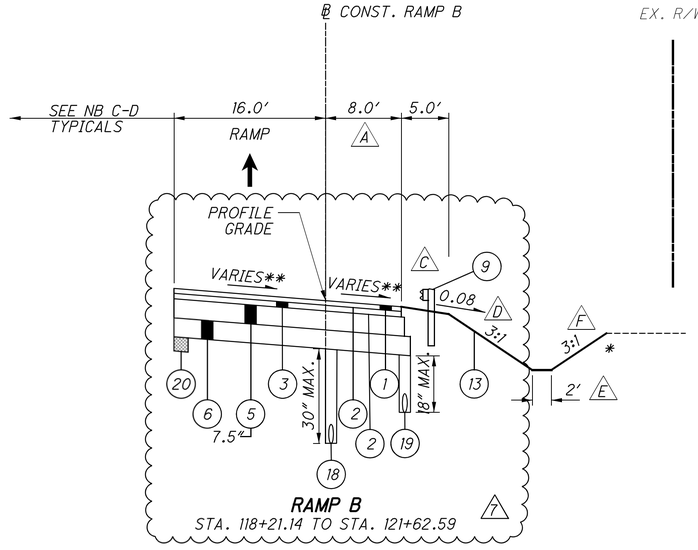
[2] 0.07 MAXIMUM BREAK. SHOULDER CROSS SLOPE VARIES 0.040 TO 0.022.

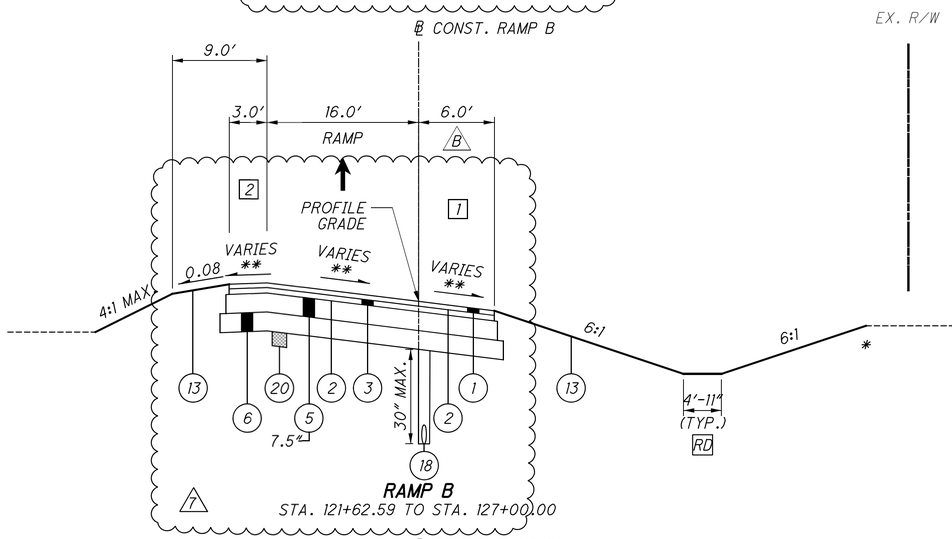
[RD] RECOVERABLE DITCH, SEE SHEET 24 FOR DETAIL.

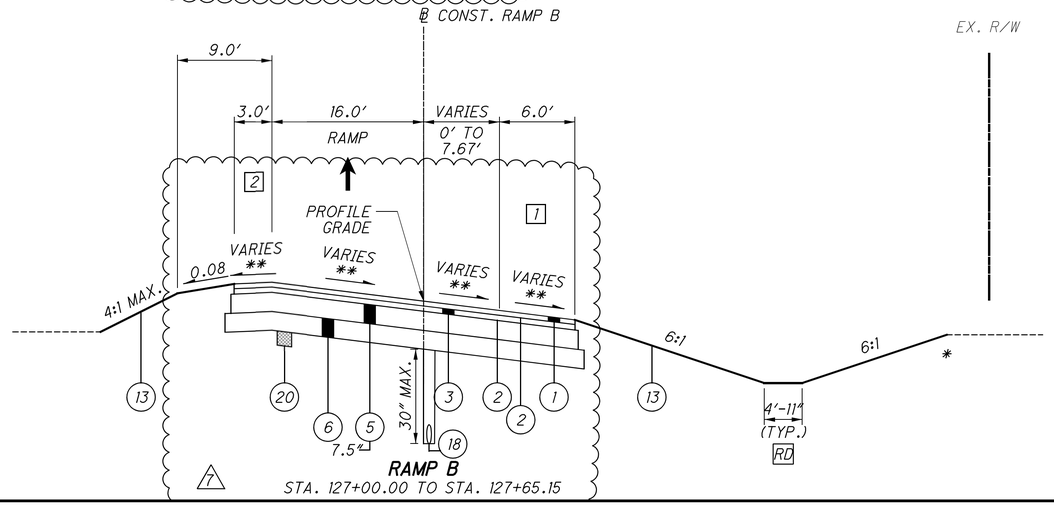
[L] LONGITUDINAL JOINT, SCD BP-2.1. SEE SHEETS 394 - 403 . FOR COMPLETE JOINTING LAYOUTS.

TYPICAL SECTIONS - US 20A RAMPS

LUC-475-01.85







A	STATION LIMITS	SHOULDER WIDTH	
		BEGIN	END
	118+21.14 - 118+71.14	10′	8′

B	STATION LIMITS	SHOULDER WIDTH	
		BEGIN	END
	121+62.59 - 122+12.59	8′	6′

C	STATION LIMITS	GUARDRAIL
	1116+80.96 - 1119+93.31	

D	STATION LIMITS	SLOPE	
		BEGIN	END
	119+00.00 - 119+94.00	3:1	2:1
	119+94.00 - 121+62.59	2:1	6:1

E	STATION LIMITS	DITCH WIDTH	
		BEGIN	END
	120+25.19 - 121+62.59	4′-11″	4′-11″

F	STATION LIMITS	SLOPE	
		BEGIN	END
	120+25.19 - 121+62.59	6:1	6:1

NOTES:

* USE 4′ ROUNDING UNLESS OTHERWISE SHOWN.

SEE SHEETS 384 - 386 FOR GORE DETAILS.

** SEE SHEET 377 FOR SUPERELEVATION TABLE

SEE SHEET 8 FOR PROPOSED LEGEND.

SEE SHEET 15 FOR NB AND SB IR-475 STEP DETAIL.

SEE SHEET 24 FOR SUBGRADE STABILIZATION DETAIL.

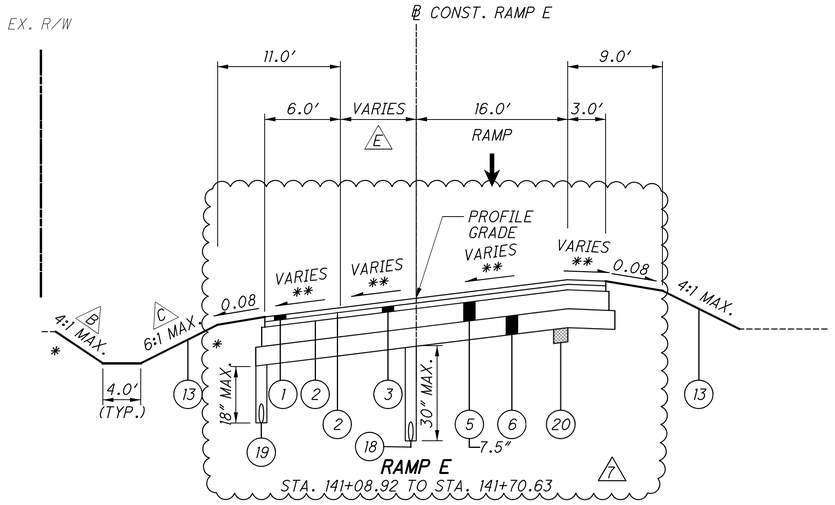
RD RECOVERABLE DITCH, SEE SHEET 24 FOR DETAIL.

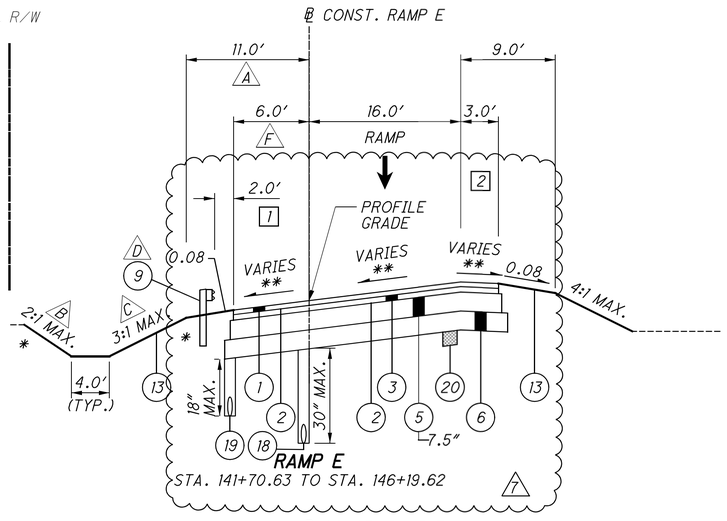
1 0.04 TYPICAL SHOULDER CROSS SLOPE OR MATCH PAVEMENT SUPERELEVATION, WHICHEVER IS GREATER

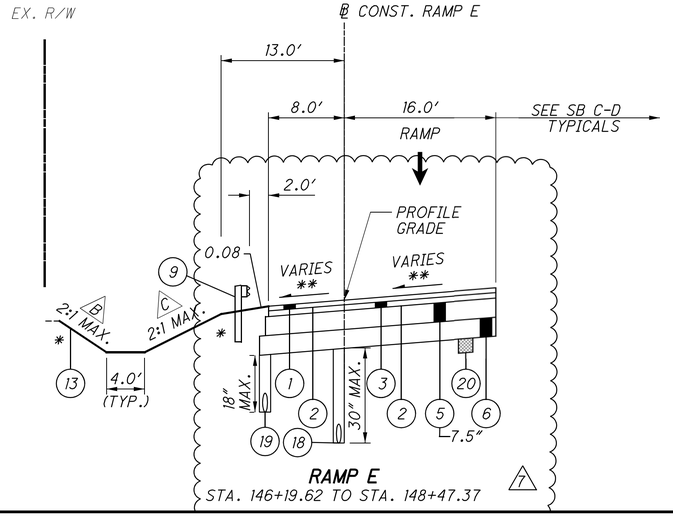
2 0.07 MAXIMUM BREAK.

TYPICAL SECTIONS - DUSSEL-SALISBURY RAMPS

LUC-475-01.85







A

STATION LIMITS	SHOULDER WIDTH	
	BEGIN	END
145+69.62 - 146+19.62	11′	13′

B

STATION LIMITS	SLOPE	
	BEGIN	END
141+08.92 - 143+50.00	4:1	4:1
143+50.00 - 144+00.00	4:1	3:1
144+00.00 - 145+50.00	3:1	3:1
145+50.00 - 146+00.00	3:1	2:1
146+00.00 - 153+19.62	2:1	2:1

C

STATION LIMITS	SLOPE	
	BEGIN	END
141+08.92 - 141+50.00	6:1	6:1
141+50.00 - 142+00.00	6:1	5:1
142+00.00 - 142+50.00	5:1	4:1
142+50.00 - 144+00.00	4:1	4:1
144+00.00 - 144+50.00	4:1	3:1
144+50.00 - 148+00.00	3:1	3:1
148+00.00 - 149+00.00	3:1	2:1
149+00.00 - 152+00.00	2:1	2:1

D

STATION LIMITS	GUARDRAIL
144+00.00 - 146+19.62	

E

STATION LIMITS	PAVEMENT WIDTH	
	BEGIN	END
141+08.92 - 141+70.63	7.11′	0′

F

STATION LIMITS	PAVEMENT WIDTH	
	BEGIN	END
145+69.62 - 146+19.62	6′	8′

NOTES:

* USE 4′ ROUNDING UNLESS OTHERWISE SHOWN.

SEE SHEETS 384 - 386 FOR GORE DETAILS.

** SEE SHEET 378 FOR SUPERELEVATION TABLE

SEE SHEET 8 FOR PROPOSED LEGEND.

SEE SHEET 15 FOR NB AND SB IR-475 STEP DETAIL.

SEE SHEET 24 FOR SUBGRADE STABILIZATION DETAIL.

RD RECOVERABLE DITCH, SEE SHEET 24 FOR DETAIL.

1 0.04 TYPICAL SHOULDER CROSS SLOPE OR MATCH PAVEMENT SUPERELEVATION, WHICHEVER IS GREATER

2 0.07 MAXIMUM BREAK.

TYPICAL SECTIONS - DUSSEL-SALISBURY RAMPS

LUC-475-01.85

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

CONTRACTION AND/OR EXPANSION JOINTS

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

PART-WIDTH CONSTRUCTION

BECAUSE OF THE NECESSITY TO BUILD THIS PROJECT UNDER TRAFFIC AND TO CONSTRUCT THE FULL PAVEMENT WIDTH IN STAGES, EXERCISE CARE TO PREVENT THE CONSTRUCTION OF A BUTT JOINT IN THE BASE COURSES. LAP LONGITUDINAL JOINTS AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1.

PATH ACCESS

THE SIDEPATH ALONG THE WEST SIDE OF BRIARFIELD BOULEVARD AND TECHNOLOGY DRIVE IS WITHIN PUBLIC RIGHT OF WAY AND THE CONTRACTOR SHALL MAINTAIN ACCESS TO THE SIDEPATH AT ALL TIMES DURING CONSTRUCTION ACTIVITIES.

ITEM 204 PROOF ROLLING

THE FOLLOWING QUANTITY IS PROVIDED IN THE GENERAL SUMMARY TO ADDRESS LOCATIONS REQUIRING PROOF ROLLING. REFER TO OFFICE CALCS FOR ADDITIONAL INFORMATION.

ITEM 204 PROOF ROLLING 46 HOUR. 6

SUBGRADE CEMENT STABILIZATION

AS INDICATED IN THE PLANS, CEMENT STABILIZATION WILL BE USED THROUGHOUT THE LENGTH OF THE WORK ALONG THE I-475 MAINLINE AND COLLECTOR-DISTRIBUTOR ROADS.

THE FOLLOWING PAY ITEMS HAVE BEEN PROVIDED IN THE OFFICE CALCULATIONS AND CARRIED FORWARD TO THE GENERAL SUMMARY.

ITEM 206 - CEMENT
ITEM 206 - CURING COAT
ITEM 206 - CEMENT STABILIZED SUBGRADE, 12 INCHES DEEP
ITEM 206 - MIXTURE DESIGN FOR CHEMICALLY STABILIZED SOILS

ITEM 204 - SUBGRADE COMPACTION AND PROOF ROLLING

CONSTRUCT THE SUBGRADE AS FOLLOWS AND IN THE FOLLOWING SEQUENCE:

1. SHAPE THE SUBGRADE TO WITHIN 0.2 FEET OF THE PLAN SUBGRADE ELEVATION.

2. EXCAVATE AND REPLACE UNSUITABLE SUBGRADE BEFORE PROOF ROLLING. THE EXCAVATION LIMITS ARE SHOWN AND LABELED ON THE CROSS SECTIONS AS UNSUITABLE SUBGRADE. UNSUITABLE SUBGRADE INCLUDES UNSUITABLE SOIL (A-4B, A-2-5, A-5, A-7-5, AND SOIL WITH A LIQUID LIMIT GREATER THAN 65) AND ANY COAL, SHALE, OR ROCK WHICH NEEDS TO BE REMOVED ACCORDING TO 204.05.

IF THERE IS UNSUITABLE SUBGRADE IN A SHALLOW FILL LOCATION, EXCAVATE AND REPLACE THE UNSUITABLE SUBGRADE BEFORE CONSTRUCTING THE SHALLOW FILL AND SHAPING THE SUBGRADE.

3. COMPACT THE SUBGRADE ACCORDING TO 204.03.

4. APPROXIMATE LIMITS FOR EXCAVATION OF UNSTABLE SUBGRADE ARE SHOWN AND LABELED ON THE CROSS SECTIONS AS UNSTABLE SUBGRADE. THE ENGINEER WILL IDENTIFY THE ACTUAL LIMITS OF EXCAVATION FOR UNSTABLE SUBGRADE BASED ON THE PROOF ROLLING RESULTS AND VISUAL OBSERVATIONS.

PROOF ROLL THE COMPACTED SUBGRADE ACCORDING TO 204.06.

5. EXCAVATE UNSTABLE SUBGRADE AS DIRECTED BY THE ENGINEER AND STABILIZE BY REPLACING WITH THE SPECIFIED MATERIALS ACCORDING TO 204.07. EXCAVATIONS WILL EXTEND 18 INCHES BEYOND THE EDGE OF THE SURFACE OF THE PAVEMENT, PAVED SHOULDERS, OR PAVED MEDIANS.

6. PROOF ROLL THE STABILIZED AREAS ACCORDING TO 204.06 TO VERIFY STABILITY.

7. FINE GRADE THE SUBGRADE TO THE SPECIFIED GRADE.

THE QUANTITIES FOR EXCAVATING THE UNSUITABLE SUBGRADE AND UNSTABLE SUBGRADE ARE BOTH PAID UNDER ITEM 204 EXCAVATION OF SUBGRADE.

IN ADDITION TO THE ANTICIPATED AREA OF SUBGRADE STABILIZATION AND EXCAVATION OF UNSUITABLE SOILS IDENTIFIED ABOVE AND IN THE CROSS SECTIONS, THE FOLLOWING ADDITIONAL QUANTITIES HAVE BEEN PROVIDED FOR USE BY THE ENGINEER. THIS AS DIRECTED WORK SHALL INCLUDE EXCAVATION OF UNSUITABLE SOIL (18 INCH DEPTH FOR ESTIMATED PURPOSE), BACKFILL WITH GRANULAR MATERIAL, TYPE D, AND PLACEMENT OF GEOGRID. EXCAVATION OF UNSUITABLE SOILS AND PROOF ROLL TO VERIFY STABILITY ARE BOTH PAID FOR UNDER ITEM 204, EXCAVATION OF SUBGRADE. THE FOLLOWING ADDITIONAL QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 204, EXCAVATION OF SUBGRADE	315 CY
ITEM 204, GRANULAR MATERIAL, TYPE D	315 CY
ITEM 204, GEOGRID	1400 SY

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

ALL PROVISIONS OF ITEM 606, GUARDRAIL, TYPE MGS SHALL BE ADHERED TO WITH THE EXCEPTION THAT ALL POSTS WILL BE STEEL ACCORDING TO SCD MGS-1.1

ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE B

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE 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.

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.

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

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

ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E, MASH 2016

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE 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 CMS 730.19.

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 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, MASH 2016, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 606 - IMPACT ATTENUATOR, TYPE 3, (SPEED (60 MPH), HAZARD WIDTH (24 INCHES)), UNIDIRECTIONAL, AS PER PLAN

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE TYPE 3 IMPACT ATTENUATORS AS LISTED ON THE OFFICE OF ROADWAY ENGINEERING'S WEB PAGE (REFER TO THE POSTED SHOP DRAWINGS FOR THE MOST CURRENT APPROVED PRODUCT MODELS). THE FACE OF THE IMPACT HEAD SHALL BE COVERED WITH TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

THE CONTRACTOR SHALL USE AN NCHRP 350, TL-3 APPROVED SYSTEM FOR THE NHS AND ENSURE THAT THE LENGTH OF THE SELECTED UNIT SHALL FIT WITHIN THE FOOTPRINT OF LOCATIONS SHOWN IN THE PLANS.

THE CONCRETE FOUNDATION PAD SHALL BE REINFORCED CONCRETE ACCORDING TO THE MANUFACTURER'S SPECIFICATION.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, IMPACT ATTENUATOR, TYPE 3 (SPEED (60 MPH), HAZARD WIDTH (24 INCHES)), UNIDIRECTIONAL, AS PER PLAN, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS/BACKSTOPS, TRANSITIONS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

ITEM 202 - FENCE REMOVED, AS PER PLAN

ALL PROVISIONS OF ITEM 202, FENCE REMOVED SHALL APPLY WITH THE FOLLOWING ADDENDUM.

THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING FENCING ALONG THE LIMITED ACCESS AT ALL TIMES. EXISTING FENCING IS NOT TO BE REMOVED UNLESS PROPOSED OR TEMPORARY FENCING IS IN PLACE. NO ADDITIONAL PAYMENT SHALL BE MADE IF TEMPORARY FENCING IS UTILIZIED.

ITEM 607 - FENCE, CLT, AS PER PLAN

ALL PROVISIONS OF ITEM 607, FENCE, CLT SHALL APPLY WITH THE FOLLOWING ADDENDUM.

THE CHAIN LINK FABRIC MATERIAL SHALL BE TYPE IV POLYVINYL CHLORIDE (PVC) COATED STEEL ACCORDING TO 710.03 AND SHALL BE FEDERAL COLOR BLACK (NO. 17038). ALL POSTS SHALL BE EQUALLY FEDERAL COLOR BLACK (NO.17038) MATCHING TO CHAIN LINK FABRIC. BARBED WIRE WILL NOT BE INSTALLED ALONG TOP OF FENCE.

ANY DAMAGES OF THE VINYL COATING OR PAINT FINISHES AS A RESULT OF THE INSTALLATION SHALL BE REPAIRED AS DIRECTED BY THE ENGINEER.

LOCATIONS OF THE FENCE, CLT, AS PER PLAN ARE AS SPECIFIED IN THE PLANS, PROVIDED ON SHEET _____.

ALL LABOR, MATERIALS, AND EQUIPMENT REQUIRED TO CONSTRUCT COMPLETE THE WORK DESCRIBED SHALL BE PAID FOR IN THE LINEAR FOOT UNIT FOR ITEM 607, FENCE, CLT, AS PER PLAN.

ITEM SPECIAL - MAILBOX SUPPORT

THIS WORK SHALL CONSIST OF FURNISHING AND ERECTING MAILBOX SUPPORTS AND ANY ASSOCIATED MOUNTING HARDWARE IN ACCORDANCE WITH PLAN DETAILS, AND ATTACHING AN OWNER-SUPPLIED MAILBOX AT LOCATIONS SPECIFIED IN THE PLAN, OR OTHERWISE ESTABLISHED BY THE ENGINEER.

WOOD POSTS SHALL BE NOMINAL 4 INCHES BY 4 INCHES SQUARE OR 4.5 INCHES DIAMETER ROUND, AND CONFORM TO 710.14.

STEEL POSTS SHALL BE NOMINAL PIPE SIZE 2 INCHES I.D., AND CONFORM TO AASHTO M 181.

ALL HARDWARE INCLUDING BUT NOT LIMITED TO PLATES, SCREWS, BOLTS, AND ETC. SHALL BE COMMERCIAL-GRADE GALVANIZED STEEL.

POSTS SHALL BE SET PER THE FIRST PARAGRAPH OF 606.03, AND SHALL IN NO INSTANCE BE ENCASED IN CONCRETE.

SUPPORT HARDWARE SHALL ACCOMMODATE EITHER A SINGLE OR A DOUBLE MAILBOX INSTALLATION, AND NO MORE THAN TWO BOXES MAY BE MOUNTED ON A SINGLE POST.

THE MAILBOX SHALL BE SECURELY AND NEATLY ATTACHED BY THE CONTRACTOR TO THE NEW SUPPORT. THE CONTRACTOR SHALL FURNISH ALL NECESSARY ATTACHMENT HARDWARE (NUTS, BOLTS, PLATES, SPACERS, AND WASHERS) AS NECESSARY TO ACCOMMODATE THE COMPLETE INSTALLATION.

IN THE ABSENCE OF A NEW BOX SUPPLIED BY THE OWNER, THE CONTRACTOR SHALL SALVAGE THE EXISTING BOX AND PLACE IT ON THE NEW SUPPORT. DUE CARE SHALL BE EXERCISED IN SUCH AN OPERATION, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ANY BOX DAMAGED BY IMPROPER HANDLING ON HIS PART, AS JUDGED AND DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE LOCAL POST MASTER REGARDING THE TIMING OF THE MOVEMENT OF ANY MAILBOX TO A NEW LOCATION.

PAYMENT UNDER THIS ITEM SHALL BE LIMITED TO FINAL PERMANENT INSTALLATIONS. TEMPORARY INSTALLATIONS SHALL BE IN ACCORDANCE WITH 107.10. HOWEVER, THE SAME MATERIAL AND SIZE LIMITATIONS AS FOR PERMANENT INSTALLATIONS SHALL APPLY.

MAILBOX SUPPORTS, COMPLETE IN PLACE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH, FOR ITEM SPECIAL MAILBOX SUPPORT SYSTEM, SINGLE (DOUBLE). THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THE ABOVE DESCRIBED WORK.

ITEM SPECIAL - MAILBOX SUPPORT SYSTEM, SINGLE 1 EACH

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

THIS ITEM SHALL CONSIST OF CONSTRUCTING COMPLETE THE BARRIER END SECTION, SINGLE SLOPE, TYPE D ACCORDING TO CMS 622 AND SCD RM-4.6, AT THE LOCATION AS SHOWN IN THESE PLANS. TRANSITION THE BARRIER TO MATCH THE WIDTH AND SKEW OF THE APPROACH SLAB BARRIER. THE BARRIER END SECTION SHALL NOT BE DOWELED TO THE APPROACH SLAB BARRIER, AND A 1/2" PREFORMED EXPANSION JOINT SHALL BE INCLUDED IN THE CONSTRUCTION OF THE END SECTION.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 622, CONCRETE BARRIER, END SECTION, TYPE D, AS PER PLAN, EACH, AND SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT NECESSARY TO CONSTRUCT COMPLETE THE BARRIER END SECTION.

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

THIS ITEM SHALL CONSIST OF CONSTRUCTING COMPLETE THE SINGLE SLOPE, TYPE D BARRIER END ANCHORAGE ACCORDING TO CMS 622, AND SCD RM-4.5. THE BARRIER SHALL BE TRANSITIONED TO MATCH THE WIDTH AND SKEW OF THE APPROACH SLAB BARRIER, WILL NOT BE DOWELED TO THE APPROACH SLAB BARRIER AND A 1/2" PREFORMED EXPANSION JOINT SHALL BE INCLUDED AT THE END SECTION.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE FOR ITEM 622, CONCRETE BARRIER END ANCHORAGE, REINFORCED, TYPE D, AS PER PLAN, EACH, AND SHALL INCLUDE ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO CONSTRUCT COMPLETE THIS ITEM.

CALCULATED MAL CHECKED KDK

GENERAL NOTES

LUC-475-01.85

ITEM 302 - ASPHALT CONCRETE BASE, (449) AS PER PLAN

MIX DESIGN
FOLLOW THE REQUIREMENTS OF 302.02 EXCEPT AS MODIFIED BELOW:
- ◊ USE A MAXIMUM F/A RATIO OF 1.4. IF THE F/A RATIO IS GREATER THAN 1.2, RECALCULATE THE F/A RATIO USING THE EFFECTIVE ASPHALT BINDER CONTENT.
- ◊ THE TSR IS REQUIRED AND THE MINIMUM TSR IS 0.70 AS DETERMINED USING SUPPLEMENT 1051. ADD ANTISTRIP ADDITIVE AS SPECIFIED IN 440.06 IF REQUIRED BASED ON TSR AND ENSURE THE MINIMUM IS 0.80 AFTER ANTISTRIP.

QUALITY CONTROL AND ACCEPTANCE
FOLLOW THE REQUIREMENTS AS SPECIFIED IN 403 USING 446 ACCEPTANCE EXCEPT AS MODIFIED BELOW:
- ◊ RUN MSG AND AIR VOIDS AND FOLLOW 403.06.G INSTEAD OF 403.06.F.

TABLE 403.06-1

MIX CHARACTERISTIC	OUT OF SPECIFICATION LIMITS [5]
ASPHALT BINDER CONTENT [1]	-0.5% TO 0.5%
1/2 INCH (12.5mm) SIEVE [1]	-7.0% TO 7.0%
NO.4 (4.75mm) SIEVE [1]	-6.0% TO 6.0%
NO.8 (2.36mm) SIEVE [1]	-5.0% TO 5.0%
NO. 200 (75µm) SIEVE [1]	-2.0% TO 2.0%
AIR VOIDS [2]	2.5% TO 5.5%
MSG [3]	-0.015 TO 0.015
F/A [4]	1.4 MAX
VMA	12.0 MIN

[1] DEVIATION FROM THE JMF.
[2] FOR DESIGN AIR VOIDS OF 4.0%. COMPACT USING A SIX-INCH MARSHALL HAMMER WITH 70 BLOWS ON BOTH SIDES PER 302.02.
[3] DEVIATION FROM THE MTD.
[4] IF THE F/A RATIO IS GREATER THAN 1.2, RECALCULATE THE F/A RATIO USING THE EFFECTIVE ASPHALT BINDER CONTENT.
[5] DO NOT FOLLOW THE MINIMUM 7% RETAINED DURING PRODUCTION PER 403.06.F.5.

- ◊ REPLACE MSG COMPARISON IN TABLE 403.10-1 WITH 0.015.
- ◊ NOTIFY ERIC BIEHL - OMM 614-275-1380 AND JULIE MILLER - OCA 614-466-3165 ONE WEEK PRIOR TO PLANNED BEGINNING PRODUCTION AND PLACEMENT. YOU MAY EMAIL THEM AS WELL.

FIELD OPERATIONS
FOLLOW THE REQUIREMENTS OF 401 AND ANTI-SEGREGATION EQUIPMENT IS REQUIRED PER 401.03.C AND IS INCIDENTAL TO THE COST OF THIS ITEM.

DENSITY ACCEPTANCE
FOLLOW THE REQUIREMENTS OF 446 ASPHALT CONCRETE CORE DENSITY ACCEPTANCE, INCLUDING JOINT CORES, EXCEPT AS MODIFIED BELOW:
- ◊ OBTAIN 6-INCH DIAMETER CORES ON EACH LIFT PLACED.
- ◊ OBTAIN JOINT CORES AT COLD LONGITUDINAL JOINTS SUCH THAT THE CORE'S CLOSEST EDGE IS 6 INCHES (152 MM) FROM THE EDGE OF THE MAT.
- ◊ PAY FACTORS FOR EACH LIFT OF 302 AS PER PLAN WILL BE AS SPECIFIED IN THE FOLLOWING TABLE.

MEAN OF LOT CORE DENSITY [1]	PAY FACTOR 302, AS PER PLAN
> 98.0%	[2]
> 97.0% TO 98.0%	[3]
92.0% TO 97.0%	1.00
91.0% TO 91.9%	0.90
90.0% TO 90.9%	0.80
89.0% TO 89.9%	0.70
<89.0%	[4]

[1] MEAN OF CORES AS PERCENT OF AVERAGE MSG FOR THE PRODUCTION DAY.
[2] THE DISTRICT WILL DETERMINE WHETHER THE MATERIAL MAY REMAIN IN PLACE. THE PAY FACTOR FOR MATERIAL ALLOWED TO REMAIN IN PLACE IS 0.50.
[3] THE DISTRICT WILL DETERMINE WHETHER THE MATERIAL MAY REMAIN IN PLACE. THE PAY FACTOR FOR MATERIAL ALLOWED TO REMAIN IN PLACE IS 0.70.
[4] THE DISTRICT WILL DETERMINE WHETHER THE MATERIAL MAY REMAIN IN PLACE. THE PAY FACTOR FOR MATERIAL ALLOWED TO REMAIN IN PLACE IS 0.50.

IF MATERIAL IS REMOVED AND REPLACED THE CONTRACTOR WILL REMOVE AND REPLACE THIS COURSE AND ALL COURSES PAVED ON THIS COURSE.

APP FOR IDEAL-CT:

FOLLOW ALL REQUIREMENTS OF THE SPECIFICATIONS WITH THE ADDITION OF THE FOLLOWING:

PERFORM THE IDEAL-CT FOR THE MIX DESIGN SUBMITTAL PER SUPPLEMENT 1033 ON THE JMF ASPHALT BINDER CONTENT DETERMINED FROM THE DESIGN AIR VOIDS AND ENSURE THE MINIMUM IN THE TABLE BELOW IS MET FOR THE MIX TYPE. THE IDEAL-CT ONLY NEEDS TO BE RAN FOR MIX DESIGN ACCEPTANCE.

PROVIDE RESULTS PER SUPPLEMENT 1033 WITH THE MIX DESIGN. SUPPLY SIX GYRATORY COMPACTED SPECIMENS TO THE HEIGHT MENTIONED IN SUPPLEMENT 1033 FOR THE MIX TYPE SPECIFIED. ALLOW MORE THAN TWO WEEKS FOR MIX DESIGN REVIEW AND PRELIMINARY APPROVAL DUE TO OMM VERIFYING THE MIX.

MIX CHARACTERISTIC	MINIMUM CT INDEX
ITEM 442 (SUPERPAVE) 9.5mm	80
ITEM 442 (SUPERPAVE) 12.5mm (SURFACE)	80
ITEM 442 (SUPERPAVE) 12.5mm (INTERMEDIATE)	70
ITEM 442 (SUPERPAVE) 19mm (INTERMEDIATE)	60
ITEM 441 (MARSHALL) TYPE 1 SURFACE MIXES	80
ITEM 441 (MARSHALL) TYPE 1 INTERMEDIATE MIXES	80
ITEM 441 (MARSHALL) TYPE 2 INTERMEDIATE MIXES	60
ITEM 302 (MARSHALL) MIXES	60

ITEM 611 - CONDUIT BORED OR JACKED

WHERE IT IS SPECIFIED THAT A CONDUIT BE INSTALLED BY THE METHOD OF BORING OR JACKING, NO TRENCH EXCAVATION SHALL BE CLOSER THAN __6__ FEET TO THE EDGE OF PAVEMENT. PROVIDE A STEEL CASING PIPE CONFORMING TO 748.06 HAVING JOINTS WITH A CIRCUMFERENCIAL FULLY PENETRATING B-U4B WELD THAT IS PERFORMED BY AN ODOT APPROVED FIELD WELDER. THE INSTALLED CASING PIPE IS THE STORM WATER CONVEYANCE CARRIER UNLESS OTHERWISE SPECIFIED IN THE PLANS. HYDROSTATIC TESTING IS NOT REQUIRED FOR THE CASING PIPE.

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING
CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEM.

FARM DRAINS

ALL FARM DRAINS, WHICH ARE ENCOUNTERED DURING CONSTRUCTION, SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS. EXISTING COLLECTORS WHICH ARE LOCATED BELOW THE ROADWAY DITCH ELEVATIONS, AND WHICH CROSS THE ROADWAY, SHALL BE REPLACED WITHIN THE CONSTRUCTION LIMITS BY ITEM 611 CONDUIT, TYPE B, ONE COMMERCIAL SIZE LARGER THAN THE EXISTING CONDUIT.

EXISTING COLLECTORS AND ISOLATED FARM DRAINS, WHICH ARE ENCOUNTERED ABOVE THE ELEVATION OF ROADWAY DITCHES, SHALL BE OUTLETTED INTO THE ROADWAY DITCH BY 611 TYPE F CONDUIT. THE OPTIMUM OUTLET ELEVATION SHALL BE ONE FOOT ABOVE THE FLOWLINE ELEVATION OF THE DITCH. LATERAL FIELD TILES WHICH CROSS THE ROADWAY SHALL BE INTERCEPTED BY 611, TYPE E CONDUIT, AND CARRIED IN A LONGITUDINAL DIRECTION TO AN ADEQUATE OUTLET OR ROADWAY CROSSING.

THE LOCATION, TYPE, SIZE AND GRADE OF REPLACEMENTS SHALL BE DETERMINED BY THE ENGINEER AND PAYMENT SHALL BE MADE ON FINAL MEASUREMENTS.

EROSION CONTROL PADS SHALL BE PROVIDED AT THE OUTLET END OF ALL FARM DRAINS AS PER STANDARD CONSTRUCTION DRAWING DM-1.1, EXCEPT WHEN THEY OUTLET INTO A DRAINAGE STRUCTURE. PAYMENT FOR THE EROSION CONTROL PADS AND ANY NECESSARY BENDS OR BRANCHES SHALL BE INCLUDED FOR PAYMENT IN THE PERTINENT CONDUIT ITEMS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

611 6" CONDUIT, TYPE B 100 FT.

611 6" CONDUIT, TYPE E 200 FT.

611 6" CONDUIT, TYPE F 200 FT.

EXISTING SUBSURFACE DRAINAGE

PROVIDE UNOBSTRUCTED OUTLETS FOR ALL EXISTING UNDERDRAINS OR AGGREGATE DRAINS ENCOUNTERED DURING CONSTRUCTION.

PROVIDE AN OUTLET PER STANDARD CONSTRUCTION DRAWING DM-1.1 FOR ALL UNDERDRAINS THAT OUTLET TO A SLOPE.

UNDERDRAINS THAT CAN BE CONNECTED TO THE NEW OR EXISTING UNDERDRAINS AT THE END OF THE PROJECT LIMITS AS WELL AS ALL NECESSARY BENDS OR BRANCHES REQUIRED FOR CONNECTION ARE INCLUDED IN THE BASIS OF PAYMENT FOR UNCLASSIFIED PIPE UNDERDRAINS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

601 TIED CONCRETE BLOCK MAT, TYPE 1 7 SQ. YD.
611 6" CONDUIT, TYPE F 100 FT.
611 PRECAST REINFORCED CONCRETE OUTLET 4 EACH

ITEM SPECIAL-FILL AND PLUG EXISTING CONDUIT

THIS ITEM CONSISTS OF THE CONSTRUCTION OF BULKHEADS IN AN EXISTING 15 INCH DIAMETER CONDUIT AND FILLING THE AREA SEALED OFF WITH ITEM 613, SAND OR OTHER MATERIAL APPROVED BY THE ENGINEER. LOCATE THE BULKHEADS AT THE LIMITS OF THE AREA TO BE FILLED, AS INDICATED ON THE PLANS. THE BULKHEADS CONSIST OF BRICK OR CONCRETE MASONRY WITH A MINIMUM THICKNESS OF 12 INCHES. PUMP THE FILL MATERIAL INTO PLACE OR BY OTHER MEANS APPROVED BY THE
ENGINEER, SO THAT AFTER SETTLEMENT, AT LEAST 90 PERCENT OF THE CROSSSECTIONAL AREA OF THE CONDUIT, FOR ITS ENTIRE LENGTH IS FILLED. THE LENGTH OF FILLED AND PLUGGED CONDUIT TO BE PAID FOR IS THE ACTUAL NUMBER OF FEET (MEASURED ALONG THE CENTERLINE OF EACH CONDUIT FROM OUTER FACE TO OUTER FACE OF BULKHEADS) FILLED AND PLUGGED AS DESCRIBED ABOVE.
IN LIEU OF FILLING AND PLUGGING THE EXISTING CONDUIT, THE PIPE MAY BE
CRUSHED AND BACKFILLED PER 203, OR IT MAY BE REMOVED. THE LENGTH, MEASURED AS PROVIDED ABOVE, WILL BE PAID FOR AT THE CONTRACT PRICE PER FOOT FOR, ITEM SPECIAL, FILL AND PLUG EXISTING CONDUIT.

REVIEW OF DRAINAGE FACILITIES

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

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE STATE.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEMS.

POST CONSTRUCTION STORM WATER TREATMENT

THIS PLAN UTILIZES STRUCTURAL BEST MANAGEMENT PRACTICES (BMP'S) FOR POST CONSTRUCTION STORM WATER TREATMENT.

WATERWORK

THIS WORK SHALL BE PROVIDE FOR REQUIRED ADJUSTMENTS AND RELOCATIONS OF WATERMAIN AND APPERTANCES AS DIRECTED BY THE ENGINEER. ALL WATERWORK SHALL MEET THE SPECIFICATIONS AND STANDARDS OF THE CITY OF MAUMEE. THE FOLLOWING ITEMS HAVE BEEN CARRIED FORWARD TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

ITEM 611, MANHOLE ADJUSTED TO GRADE 1 EACH
ITEM 638, VALVE BOX ADJUSTED TO GRADE 3 EACH
ITEM 638, 6" GATE VALVE AND VALVE BOX 1 EACH
ITEM 638, 6" FIRE HYDRANT 2 EACH
ITEM 638, FIRE HYDRANT REMOVED 2 EACH
ITEM 638, 12" WATERMAIN DUCTILE IRON PIPE ANSI CLASS 53, PUSH-ON JOINTS AND FITTINGS 100 FEET

7

FUTURE IRRIGATION

THIS WORK SHALL INCLUDE INSTALLING TWO-4 INCH PVC, 707.45 AND TWO-2 INCH PVC, 707.45, PIPING AT EACH OF THE APPROXIMATE LOCATIONS IN THE US20A INTERCHANGE LISTED BELOW AND SHOWN WITHIN THE PLANS. THE PVC PIPING WILL BE EMPTY, CAPPED AT EACH END, TO BE USED AS SLEEVES FOR INSTALLING FUTURE IRRIGATION LINES BY OTHERS. THE PVC PIPING SHALL BE DIRECT BURIED AND A MINIMUM OF 3 FEET OF COVER BELOW THE PROPOSED FINISHED GRADE AND EXTEND A MINIMUM 10 FEET BEYOND EDGE OF PAVEMENT. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING A WOOD STAKE OR PAVEMENT PAINT MARK INDICATING THE LOCATION OF THE BURIED PIPE.

LOCATIONS: (INSTALL TWO 4" PVC AND TWO 2" PVC, 60 LF EACH AT EACH LOCATION BELOW)
RAMP A1, STA. 24+50
RAMP A2, STA. 2+50
RAMP B1, STA. 34+50
RAMP B2, STA. 13+00
RAMP C1, STA. 62+00
RAMP C2, STA. 11+50
RAMP D1, STA. 94+00
RAMP D2, STA. 1+50

LOCATIONS: (INSTALL TWO 4" PVC AND TWO 2" PVC, 80 LF EACH AT EACH LOCATION BELOW)
US 20A WB: STA. 650+00, 651+85, 657+60, 660+50
US 20A EB: STA. 750+00, 751+70, 757+70, 759+30, 761+05

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 611, CONDUIT MISC., 4 INCH CONDUIT, TYPE E, 707.45, FEET, AND ITEM 611, CONDUIT MISC., 2 INCH CONDUIT, TYPE E, 707.45, FEET. THIS WORK SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS TO CONSTRUCTION COMPLETE THIS ITEM. THE FOLLOWING QUANTITIES HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 611, CONDUIT MISC.: 4 INCH CONDUIT, TYPE E, 707.45 2400 LF

ITEM 611, CONDUIT MISC.: 2 INCH CONDUIT, TYPE E, 707.45 2400 LF

CALCULATED MAL CHECKED KDK

GENERAL NOTES

LUC-475-01.85

PRIMARY PROJECT CONTROL INFORMATION								
POINT NUMBER	GRID COORDINATES U.S. SURVEY FEET		SCALED COORDINATES U.S. SURVEY FEET		ORTHOMETRIC HEIGHT (ELEVATION)	EXISTING CL R/W IR-475		DESC.
	NORTHING	EASTING	NORTHING	EASTING		STATION	OFFSET	
CP128	691585.2478	1643539.0461	691615.2640	1643610.3790	640.362	49+91.12	123.68	IPINS
CP129	691596.4233	1643021.0216	691626.4400	1643092.3320	637.486	51+33.88	-374.43	IPINS
CP03	693395.1113	1642772.9664	693425.2060	1642844.2660	636.797	69+33.97	-157.74	CMONS
CP717	694270.8493	1642957.2934	694300.9820	1643028.6010	636.144	77+54.48	203.71	IPINS
CP723	694653.2787	1642441.2018	694683.4280	1642512.4870	634.202	82+11.70	-246.79	IPINS
CP716	695273.1608	1643019.9336	695303.3370	1643091.2440	643.470	87+64.66	399.37	IPINS
CP721	695210.2555	1642189.2317	695240.4290	1642260.5060	636.467	87+78.16	-433.64	IPINS
CP653	695394.5606	1642489.2023	695424.7421	1642560.4896	634.032	89+32.87	-119.09	IPINS
CP722	695389.2437	1642150.4774	695419.4250	1642221.7500	635.428	89+53.42	-457.22	IPINS
CP714	695837.1303	1644958.5955	695867.3310	1645029.9900	634.202	92+39.36	2374.47	IPINS
CP650	695742.1504	1642470.7565	695772.3470	1642542.0430	634.422	92+77.67	-115.05	IPINS
CP713	695907.6512	1644170.5216	695937.8550	1644241.8819	635.585	93+68.85	1590.68	IPINS
CP715	695880.3554	1643078.7021	695910.5580	1643150.0150	634.724	93+89.51	498.64	IPINS
CP718	696047.2392	1643928.1802	696077.4490	1643999.5300	635.082	95+37.35	1353.55	IPINS
CP710	696102.2348	1643674.1793	696132.4470	1643745.5180	634.768	96+05.95	1101.09	IPINS
CP700	696101.6478	1641229.6743	696131.8600	1641300.9070	635.240	96+57.93	-1342.96	IPINS
CP950	696199.7055	1642803.7088	696229.9220	1642875.0098	655.272	97+26.43	232.57	IPINS
CP709	696230.9482	1642871.1111	696261.1660	1642942.4150	654.660	97+57.48	300.37	IPINS
CP708	696284.5689	1642374.7806	696314.7890	1642446.0630	656.887	98+15.87	-195.47	IPINS
CP707	696327.1020	1642147.4025	696357.3240	1642218.6750	651.534	98+58.47	-422.65	IPINS
CP706	696365.6993	1641947.3962	696395.9230	1642018.6600	645.867	98+95.83	-622.59	IPINS
CP702	696429.6956	1641874.9133	696459.9220	1641946.1740	643.943	99+56.42	-695.22	IPINS
CP711	696515.7478	1642824.2671	696545.9780	1642895.5690	645.031	100+48.46	253.43	IPINS
CP701	696578.5771	1641271.6105	696608.8100	1641342.8450	637.384	100+94.69	-1299.88	IPINS
CP980	696625.5261	1640626.4305	696655.7610	1640697.6370	636.188	101+34.74	-1945.55	IPINS
CP703	696704.6226	1641540.9358	696734.8610	1641612.1820	635.329	102+23.61	-1031.90	IPINS
CP704	696815.5178	1642122.3956	696845.7610	1642193.6670	634.855	103+40.72	-451.64	IPINS
MN375	696864.5777	1642574.6080	696894.8230	1642645.8990	638.018	103+94.62	0.04	IPINS
CP712	697318.8200	1642787.0918	697349.0850	1642858.3920	641.087	108+51.12	207.67	IPINS
CP705	697531.6587	1642185.6709	697561.9330	1642256.9450	635.641	110+57.53	-396.02	IPINS
CP735	698421.9791	1642373.8927	698452.2920	1642445.1750	639.661	119+49.85	-217.32	IPINS
CP728	698698.8541	1642758.5560	698729.1790	1642829.8550	633.637	122+30.83	164.38	IPINS
CP04	699139.9769	1642279.5248	699170.3210	1642350.8030	634.025	126+66.83	-319.36	CMONS
CP729	699344.9510	1643297.1966	699375.3040	1643368.5190	638.114	128+82.68	696.10	IPINS
CP724	699872.1951	1643084.9158	699902.5710	1643156.2290	645.545	134+07.65	478.19	IPINS
CP733	699915.4103	1642166.8977	699945.7880	1642238.1710	646.828	134+41.05	-440.28	IPINS
CP731	700396.5384	1641975.6900	700426.9370	1642046.9550	637.697	139+20.13	-636.63	IPINS
CP732	700523.8199	1642358.3714	700554.2240	1642429.6530	633.623	140+51.50	-255.31	IPINS
CP738	701338.8665	1642869.1532	701369.3060	1642940.4570	631.522	148+71.99	246.75	IPINS
CP726	701543.3336	1642739.4548	701573.7820	1642810.7530	630.452	150+75.07	114.87	IPINS
CP737	701701.9937	1642882.1506	701732.4490	1642953.4550	632.568	152+35.25	255.87	IPINS

FOR ℄ R/W MONUMENT INFORMATION SEE CENTERLINE PLAT

ITEM 619 - FIELD OFFICE, TYPE C, AS PER PLAN (7)

THIS ITEM SHALL BE IN ACCORDANCE WITH ITEM 619 OF THE 2019 OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS EXCEPT AS MODIFIED BY THE FOLLOWING:

1. THE FIELD OFFICE SHALL BE ACCEPTED BY THE ENGINEER AND BE LOCATED IN THE AREA ALONG I-475 BETWEEN AIRPORT HWY AND US 24 AND WITHIN 2 MILE EAST OR WEST OF THIS I-475 SECTION. LOCATIONS OUTSIDE THE FOOTPRINT WILL NOT BE ACCEPTED UNLESS APPROVAL IS RECEIVED BY THE ENGINEER.

2. A CONFERENCE ROOM SHALL BE SUPPLIED WITH A MINIMUM OF 1000 SQUARE FEET OF FLOOR SPACE. THE ROOM SHALL BE SUPPLIED WITH CONFERENCE TABLES AND PADDED CHAIRS CAPABLE OF SEATING MINIMUM OF 30 ATTENDEES. THE ROOM SHALL INCLUDE A SEPARATE PHONE LINE WITH SPEAKERPHONE CAPABILITIES, DATA CONNECTION PORT AND TWO WALL MOUNTED 80" OR LARGER HD FLAT SCREEN TV'S. TWO 25' OR LONGER HDMI CABLES ARE TO BE INCLUDED WITH THE TV'S. A PROJECTOR AND SCREEN WOULD BE AN ACCEPTABLE ALTERNATIVE TO THE TWO TV'S.

3. THE SPACE SHALL BE CONTINUOUS AND WITHING THE SAME BUILDING. A MINIMUM OF TWO BATHROOMS SHALL BE DEDICATED FOR THE FIELD OFFICE. ONE MENS AND ONE WOMENS. NO PORTABLE FACILITIES WILL BE ACCEPTED. BATHROOM FACILITIES SHALL BE HANDICAP ACCESSIBLE. THE CONTRACTOR SHALL PROVIDE CLEANING SERVICES FOR THE FIELD OFFICE A MINIMUM OF 1 TIME/WEEK.

4. THE REQUIREMENT OF ONE SEPARATE ROOM SHALL BE INCREASED TO A MINIMUM OF SIX. SEPARATE ENCLOSED ROOMS OF 150 SQUARE FEET MINIMUM PER ROOM. EACH ROOM SHALL BE SUPPLIED WITH A MINIMUM OF TWO ELECTRICAL OUTLETS. IN ADDITION, 10 CUBICLES AND/OR OFFICES OF 100 SQUARE FEET MINIMUM PER OFFICE SHALL BE SUPPLIED WITH A MINIMUM OF ONE ELECTRICAL OUTLETS EACH.

5. THE ALL-WEATHER PARKING SPACES PROVIDED SHALL BE INCREASED TO 2 PARKING SPACES PER DESK SPACE AND INCLUDE SNOW REMOVAL. SNOW REMOVAL FOR THE ENTIRE PARKING AREA AND WALKS WILL BE COMPLETED NO LATER THAN 6:30 AM EACH DAY.

6. PROVIDE INTERNET CONNECTION CAPABLE OF 500 Mbps DOWNLOAD AND 30 Mbps UPLOAD.

7. SECURITY SHALL BE PROVIDED FOR THE FIELD OFFICE AND SURROUNDING FACILITIES BY ILLUMINATING ALL SIDES OF THE FIELD OFFICE AND PARKING AREA.

8. THE FIELD OFFICE REQUIREMENTS FOR MOISTURE AND DENSITY CONTROL OF MATERIALS SHALL BE SATISFIED, HOWEVER WITH THE FOLLOWING MODIFICATIONS: THE FACILITY SHALL BE CAPABLE OF STORING UP TO 2 NUCLEAR DENSITY GUAGES IN 2 SEPARATE BOXES. THE AREA TO BE DESIGNATED NUCLEAR GUAGE STORAGE MUST BE A MINIMUM OF 15' AWAY FROM ANY OFFICES OR OTHER CONTINUALLY OCCUPIED SPACES OF THE OFFICE. A CURE BOX SHALL BE PROVIDED CAPABLE OF HOLDING AT LEAST FIVE 3 GALLON SIZE BUCKETS OR EIGHTEEN 4X8 CONCRETE CYLINDERS.

NO ADDITIONAL COMPENSATION WILL BE GRANTED FOR ADDITIONAL REQUIREMENTS STATED ABOVE. THE DEPARTMENT WILL MEASURE FIELD OFFICE, TYPE C, AS PER PLAN BY THE NUMBER OF MONTHS THE OFFICE IS MAINTAINED.

CALCULATED MAL CHECKED KDK

GENERAL NOTES

LUC-475-01.85

GENERAL SUMMARY

CALCULATED MAL | CHECKED SMG

SHEET NUM. 30	31			40	42	45	51			591		OFFICE CALC	PART. 01/IMS/PV	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
																		ROADWAY	
LS													LS	201	11000	LS		CLEARING AND GRUBBING	
											6	36,865	36,865	202	23000	36,865	SY	PAVEMENT REMOVED	
				262									262	202	30000	262	SF	WALK REMOVED	
				477									477	202	30700	477	FT	CONCRETE BARRIER REMOVED	
												70	70	202	32000	70	FT	CURB REMOVED	
												459	459	202	32500	459	FT	CURB AND GUTTER REMOVED	
						3,766							3,766	202	35100	3,766	FT	PIPE REMOVED, 24" AND UNDER	
						291							291	202	35200	291	FT	PIPE REMOVED, OVER 24"	
				4,939									4,939	202	38000	4,939	FT	GUARDRAIL REMOVED	
				9									9	202	42010	9	EACH	ANCHOR ASSEMBLY REMOVED, TYPE E	
				6									6	202	42040	6	EACH	ANCHOR ASSEMBLY REMOVED, TYPE T	
				9									9	202	47000	9	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED	
				1									1	202	53100	1	EACH	MAILBOX REMOVED	
						6							6	202	58000	6	EACH	MANHOLE REMOVED	
						33							33	202	58100	33	EACH	CATCH BASIN REMOVED	
						149							149	SPECIAL	20270000	149	FT	FILL AND PLUG EXISTING CONDUIT, 15"	32
				8,872									8,872	202	75001	8,872	FT	FENCE REMOVED, AS PER PLAN	31
				6									6	202	98100	6	EACH	REMOVAL MISC.:POST	
				1									1	202	98100	1	EACH	REMOVAL MISC.:PRIVATE SIGN	
							89,365					7	89,521	203	10000	89,521	CY	EXCAVATION	
							300,113						300,113	203	20000	300,113	CY	EMBANKMENT	
												44,188	44,188	204	10000	44,188	SY	SUBGRADE COMPACTION	
	315						1,693						2,008	204	13000	2,008	CY	EXCAVATION OF SUBGRADE	
							1,793						1,793	204	30010	1,793	CY	GRANULAR MATERIAL, TYPE B	
	315						256						571	204	30030	571	CY	GRANULAR MATERIAL, TYPE D	
	46											6	46	204	45000	46	HOUR	PROOF ROLLING	
	1,400												1,400	204	51000	1,400	SY	GEOGRID	
												2,197	2,197	206	10500	2,197	TON	CEMENT	
											6	84,802	84,802	206	11000	84,802	SY	CURING COAT	
												84,802	84,802	206	15010	84,802	SY	CEMENT STABILIZED SUBGRADE, 12 INCHES DEEP	
												LS	LS	206	30000	LS		MIXTURE DESIGN FOR CHEMICALLY STABILIZED SOILS	
					6,475								6,475	606	15051	6,475	FT	GUARDRAIL, TYPE MGS, AS PER PLAN	31
					4								4	606	26050	4	EACH	ANCHOR ASSEMBLY, MGS TYPE B	
					17								17	606	26150	17	EACH	ANCHOR ASSEMBLY, MGS TYPE E, MASH 2016	
					21								21	606	26550	21	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
					4								4	606	35002	4	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
					4								4	606	35102	4	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	
					2								2	606	60041	2	EACH	IMPACT ATTENUATOR, TYPE 3 UNIDIRECTIONAL, AS PER PLAN, SPEED (60 MPH), HAZARD WIDTH (24 INCHES)	31
										185			185	607	23000	185	FT	FENCE, TYPE CLT	
										7,941			7,941	607	23001	7,941	FT	FENCE, TYPE CLT, AS PER PLAN	31
				2,547									2,547	608	52000	2,547	SF	CURB RAMP	
					5,322								5,322	622	10060	5,322	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE B	
					6,067								6,067	622	10120	6,067	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE C	
					45								45	622	10161	45	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN	410
					2								2	622	24840	2	EACH	CONCRETE BARRIER END SECTION, TYPE B	
					1								1	622	25001	1	EACH	CONCRETE BARRIER END SECTION, TYPE D, AS PER PLAN	31
					24								24	622	25004	24	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE B	
					41								41	622	25008	41	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE C	
					1								1	622	25051	1	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D, AS PER PLAN	31
4													4	623	38500	4	EACH	MONUMENT ASSEMBLY	
20													20	623	40500	20	EACH	REFERENCE MONUMENT	
										8			8	625	32000	8	EACH	GROUND ROD	
	1												1	SPECIAL	69050100	1	EACH	MAILBOX SUPPORT SYSTEM, SINGLE	31

LUC-475-01.85

SHEET NUM.												OFFICE CALC	PART. 01/IMS/PV	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
30		32			44		50	52											
																		EROSION CONTROL	
								145					145	203	22000	145	CY	EMBANKMENT, USING NATURAL SOILS, 703.16.A	
		7					71						78	601	21050	78	SY	TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT	
					156								156	601	27000	156	CY	DUMPED ROCK FILL, TYPE C	
								1,005					1,005	601	45030	1,005	SY	DETENTION BASIN FILTER, 601.10	
3													3	659	00100	3	EACH	SOIL ANALYSIS TEST	
22,637													22,637	659	00300	22,637	CY	TOPSOIL	
203,933													203,933	659	10000	203,933	SY	SEEDING AND MULCHING	
10,197													10,197	659	14000	10,197	SY	REPAIR SEEDING AND MULCHING	
10,197													10,197	659	15000	10,197	SY	INTER-SEEDING	
45.88													45.88	659	20000	45.88	TON	COMMERCIAL FERTILIZER	
42.14													42.14	659	31000	42.14	ACRE	LIME	
1,129													1,129	659	35000	1,129	MGAL	WATER	
459													459	659	40000	459	MSF	MOWING	
								18,954					18,954	670	00500	18,954	SY	SLOPE EROSION PROTECTION	
								LS					LS	832	15000	LS		STORM WATER POLLUTION PREVENTION PLAN	
								LS					LS	832	15002	LS		STORM WATER POLLUTION PREVENTION INSPECTIONS	
								LS					LS	832	15010	LS		STORM WATER POLLUTION PREVENTION INSPECTION SOFTWARE	
								304,764					304,764	832	30000	304,764	EACH	EROSION CONTROL	
																		DRAINAGE	
					25.5								25.5	602	20000	25.5	CY	CONCRETE MASONRY	
							16,156						16,156	605	11110	16,156	FT	6" SHALLOW PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	
							3,612						3,612	605	13410	3,612	FT	6" UNCLASSIFIED PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	
							50,112						50,112	605	14020	50,112	FT	6" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	
							3,227						3,227	611	00510	3,227	FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	
		100											100	611	00900	100	FT	6" CONDUIT, TYPE B	
		200											200	611	01400	200	FT	6" CONDUIT, TYPE E	
		300											300	611	01500	300	FT	6" CONDUIT, TYPE F	
				7	5								5	611	04400	5	FT	12" CONDUIT, TYPE B	
					205								205	611	04600	205	FT	12" CONDUIT, TYPE C	
					15								15	611	04900	15	FT	12" CONDUIT, TYPE D	
				7	2,294								2,294	611	05900	2,294	FT	15" CONDUIT, TYPE B	
					468								468	611	06100	468	FT	15" CONDUIT, TYPE C	
					304								304	611	06400	304	FT	15" CONDUIT, TYPE D	
					869								869	611	07400	869	FT	18" CONDUIT, TYPE B	
					216								216	611	07600	216	FT	18" CONDUIT, TYPE C	
					20								20	611	07900	20	FT	18" CONDUIT, TYPE D	
					536								536	611	08900	536	FT	21" CONDUIT, TYPE B	
					32								32	611	10200	32	FT	24" CONDUIT, TYPE A	
					42								42	611	10600	42	FT	24" CONDUIT, TYPE C	
					10								10	611	10900	10	FT	24" CONDUIT, TYPE D	
					284								284	611	11700	284	FT	27" CONDUIT, TYPE A	
					130								130	611	13200	130	FT	30" CONDUIT, TYPE A	
					119								119	611	13400	119	FT	30" CONDUIT, TYPE B	
					345								345	611	16200	345	FT	36" CONDUIT, TYPE A	
					65								65	611	16600	65	FT	36" CONDUIT, TYPE C	
					205								205	611	20700	205	FT	48" CONDUIT, TYPE A	
					11								11	611	22200	11	FT	54" CONDUIT, TYPE A	
					36								36	611	22600	36	FT	54" CONDUIT, TYPE C	
					473								473	611	96600	473	FT	CONDUIT, BORED OR JACKED, 15" TYPE B	
					291								291	611	96600	291	FT	CONDUIT, BORED OR JACKED, 27" TYPE A	
					294								294	611	96600	294	FT	CONDUIT, BORED OR JACKED, 30" TYPE A	
		7 2,400											2,400	611	97400	2,400	FT	CONDUIT, MISC.: 2" CONDUIT, TYPE E, 707.45	32
		2,400											2,400	611	97400	2,400	FT	CONDUIT, MISC.: 4" CONDUIT, TYPE E, 707.45	32

CALCULATED MAL CHECKED SMG

GENERAL SUMMARY

LUC-475-01.85

35
637

SHEET NUM.												PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
	32		40			44	50		516	517		OFFICE CALC	01/IMS /PV		EXT	TOTAL		
																	DRAINAGE (CONT.)	
						21							21	611	98180	21	EACH	CATCH BASIN, NO. 3A	
						3							3	611	98370	3	EACH	CATCH BASIN, NO. 6	
						3							3	611	98470	3	EACH	CATCH BASIN, NO. 2-2B	
						10							10	611	98800	10	EACH	INLET, NO. 3B	
						13							13	611	98810	13	EACH	INLET, NO. 3C	
						15							15	611	99574	15	EACH	MANHOLE, NO. 3	
						1							1	611	99654	1	EACH	MANHOLE ADJUSTED TO GRADE	
						1							1	611	99660	1	EACH	MANHOLE RECONSTRUCTED TO GRADE	
	4						39						43	611	99710	43	EACH	PRECAST REINFORCED CONCRETE OUTLET	
						2							2	611	99854	2	EACH	WATER QUALITY BASIN, DETENTION	
																	WATER WORK	
	1												1	611	99654	1	EACH	MANHOLE ADJUSTED TO GRADE	
	100												100	638	02404	100	FT	12" WATER MAIN DUCTILE IRON PIPE ANSI CLASS 53, PUSH-ON JOINTS AND FITTINGS	
	1												1	638	07800	1	EACH	6" GATE VALVE AND VALVE BOX	
	2												2	638	10200	2	EACH	6" FIRE HYDRANT	
	2												2	638	10480	2	EACH	FIRE HYDRANT REMOVED	
	3												3	638	10800	3	EACH	VALVE BOX ADJUSTED TO GRADE	
																	PAVEMENT	
												7,291	7,291	254	01000	7,291	SY	PAVEMENT PLANING, ASPHALT CONCRETE, 1.5"	
												~~9,820~~	~~9,820~~	~~254~~	~~01000~~	~~9,820~~	SY	PAVEMENT PLANING, ASPHALT CONCRETE, 3.75"	
												21,240	21,240	302	56001	21,240	CY	ASPHALT CONCRETE BASE, (449), AS PER PLAN	32
												21,768	21,768	304	20000	21,768	CY	AGGREGATE BASE	
												13,287	13,287	407	20000	13,287	GAL	NON-TRACKING TACK COAT	
												173	173	441	50000	173	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	
												15	15	441	70500	15	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), (DRIVEWAYS)	
												18	18	441	70700	18	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449), (DRIVEWAYS)	
												4,988	4,988	442	10300	4,988	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447)	
												7,245	7,245	442	10100	7,245	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)	
												28	28	452	12010	28	SY	8" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P	
												17,170	17,170	452	16020	17,170	SY	13" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P WITH QC/QA	
												2,128	2,128	609	14000	2,128	FT	CURB, TYPE 2-A	
												2,268	2,268	609	24510	2,268	FT	CURB, TYPE 4-C	
												6,116	6,116	609	26000	6,116	FT	CURB, TYPE 6	
			253										253	609	71000	253	SF	CONCRETE MEDIAN	
												30,846	30,846	618	40100	30,846	FT	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)	
												893	893	875	10000	893	LB	LONGITUDINAL JOINT ADHESIVE	
																	LIGHTING	
										1			1	202	75800	1	EACH	DISCONNECT EXISTING CIRCUIT	
									262				262	625	00450	262	EACH	CONNECTION, FUSED PULL APART	
									90				90	625	00480	90	EACH	CONNECTION, UNFUSED PERMANENT	
									2				2	625	10490	2	EACH	LIGHT POLE, CONVENTIONAL, AT12B50	
									60				60	625	10490	60	EACH	LIGHT POLE, CONVENTIONAL, AT18B50	
									7				7	625	10491	7	EACH	LIGHT POLE, CONVENTIONAL, AS PER PLAN, AT08B40	499
									61				61	625	10494	61	EACH	LIGHT POLE, LOW MAST, ALM50	
									2				2	625	10494	2	EACH	LIGHT POLE, LOW MAST, ATLM50	
									4				4	625	11200	4	EACH	LIGHT TOWER, BB100	
									1				1	625	11300	1	EACH	LIGHT TOWER, BB110	
									1				1	625	11400	1	EACH	LIGHT TOWER, BB120	
									2				2	625	12200	2	EACH	LIGHT TOWER, BBB100	
									3				3	625	12300	3	EACH	LIGHT TOWER, BBB110	

CALCULATED MAL CHECKED SMG

GENERAL SUMMARY

LUC-475-01.85

SHEET NUM.												PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
		42		432	438		498		516	517		OFFICE CALC	01/IMS /PV		EXT	TOTAL			
																	LIGHTING (CONT.)	
									37				37	625	14200	37	EACH	LIGHT POLE FOUNDATION, 24" X 10' DEEP	
									61				61	625	14306	61	EACH	MEDIAN LIGHT POLE FOUNDATION, 10' DEEP	
									1				1	625	14307	1	EACH	MEDIAN LIGHT POLE FOUNDATION, 10' DEEP, AS PER PLAN	502
									33				33	625	14500	33	EACH	LIGHT POLE FOUNDATION, 24" X 12' DEEP	
									11				11	625	15200	11	EACH	LIGHT TOWER FOUNDATION, 36" X 25' DEEP	
									39,234				39,234	625	23200	39,234	FT	NO. 4 AWG 2400 VOLT DISTRIBUTION CABLE	
									882				882	625	23306	882	FT	NO. 10 AWG 600 VOLT DISTRIBUTION CABLE	
									22,926				22,926	625	23400	22,926	FT	NO. 10 AWG POLE AND BRACKET CABLE	
									17,862				17,862	625	24320	17,862	FT	1-1/2" DUCT CABLE WITH THREE NO. 4 AWG 2400 VOLT CABLES	
										272			272	625	25200	272	FT	CONDUIT, 1-1/4", 725.04	
										434			434	625	25500	434	FT	CONDUIT, 3", 725.04	
										111			111	625	25600	111	FT	CONDUIT, 4", 725.04	
										691			691	625	25900	691	FT	CONDUIT, JACKED OR DRILLED, 3" 725.04	
										69			69	625	26253	69	EACH	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN, IES-III, 17,300-19,100 LUMENS	499
										20			20	625	26263	20	EACH	LUMINAIRE, HIGH MAST, SOLID STATE (LED), AS PER PLAN, IES-III, 58,600-61,100 LUMENS	499
										41			41	625	26263	41	EACH	LUMINAIRE, HIGH MAST, SOLID STATE (LED), AS PER PLAN, IES-V, 61,100-62,200 LUMENS	499
										2			2	625	26273	2	EACH	LUMINAIRE, LOW MAST, SOLID STATE (LED), AS PER PLAN, IES-III, 37,600-42,100 LUMENS	499
										61			61	625	26273	61	EACH	LUMINAIRE, LOW MAST, SOLID STATE (LED), AS PER PLAN, IES-V, 37,600-42,800 LUMENS	499
										8			8	625	27503	8	EACH	LUMINAIRE, UNDERPASS, SOLID STATE (LED), AS PER PLAN, 7,500-9,100 LUMENS	499
										17,001			17,001	625	29002	17,001	FT	TRENCH, 24" DEEP	
										10			10	625	29900	10	EACH	JUNCTION BOX	
										12			12	625	29930	12	EACH	MEDIAN JUNCTION BOX	
										26			26	625	30706	26	EACH	PULL BOX, 725.08, 24"	
										155			155	625	32000	155	EACH	GROUND ROD	
										5			5	625	34001	5	EACH	POWER SERVICE, AS PER PLAN	498
										17,886			17,886	625	36010	17,886	FT	UNDERGROUND WARNING/MARKING TAPE	
										2			2	625	37100	2	EACH	SERVICE TO UNDERPASS LIGHTING	
													LS	SPECIAL	62540000	LS		MAINTAIN EXISTING LIGHTING	498
										62			62	625	75506	62	EACH	LUMINAIRE REMOVED	
										5			5	625	75510	5	EACH	POWER SERVICE REMOVED	
									7				5	SPECIAL	62540010	5	EACH	REPLACEMENT OF EXISTING LIGHTING UNIT	
																		TRAFFIC CONTROL	
				1,110									1,110	621	00100	1,110	EACH	RPM	
		214											214	626	00102	214	EACH	BARRIER REFLECTOR, TYPE 1, BI-DIRECTIONAL	
		67											67	626	00116	67	EACH	BARRIER REFLECTOR, TYPE 5, ONE-WAY	
		37											37	626	00116	37	EACH	BARRIER REFLECTOR, TYPE 5, BI-DIRECTIONAL	
					1,421								1,421	630	03101	1,421	FT	GROUND MOUNTED SUPPORT, NO. 3 POST, AS PER PLAN	425
					172								172	630	07600	172	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W10X12	
					78								78	630	08302	78	FT	GROUND MOUNTED WOODEN BOX BEAM SUPPORT, TYPE M BEAM	
					106								106	630	08601	106	EACH	SIGN POST REFLECTOR, AS PER PLAN	425
					8								8	630	55000	8	EACH	CONCRETE BARRIER MEDIAN OVERHEAD SIGN SUPPORT FOUNDATION, TC-7.65	
					2								2	630	72321	2	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-12.31, DESIGN 6, AS PER PLAN	425
					2								2	630	72330	2	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-12.31, DESIGN 10	
					3								3	630	72340	3	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-12.31, DESIGN 12	
					4								4	630	72410	4	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 1	
					1								1	630	72411	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 1, AS PER PLAN	425
					3								3	630	72420	3	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 2	
					3								3	630	72421	3	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 2, AS PER PLAN	425
					2								2	630	72550	2	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-16.22, DESIGN 13	

CALCULATED MAL CHECKED SMG

GENERAL SUMMARY

LUC-475-01.85

SHEET NUM.												OFFICE CALC	PART. 01/IMS /PV	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
							486	490	494										
																		TRAFFIC SIGNALS (CONT.)	
							6	2	4				12	632	26000	12	EACH	PEDESTRIAN PUSHBUTTON	
							1,057	314	920				2,291	632	40200	2,291	FT	SIGNAL CABLE, 2 CONDUCTOR, NO. 14 AWG	
							1,081	322	936				2,339	632	40500	2,339	FT	SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG	
							1,888	1,770	1,834				5,492	632	40700	5,492	FT	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG	
							4	4	4				12	632	64011	12	EACH	SIGNAL SUPPORT FOUNDATION, AS PER PLAN	479
							6	4	6				16	632	64020	16	EACH	PEDESTAL FOUNDATION	
							94	148	89				331	632	68300	331	FT	POWER CABLE, 3 CONDUCTOR, NO. 6 AWG	
							333	920					1,253	632	69800	1,253	FT	SERVICE CABLE, 3 CONDUCTOR, NO. 6 AWG	
							1	1	1				3	632	70001	3	EACH	POWER SERVICE, AS PER PLAN	479
							1	1	1				3	632	70400	3	EACH	CONDUIT RISER, 2" DIAMETER	
								1	2				3	632	72101	3	EACH	SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 2, AS PER PLAN	479
								1	2				3	632	72111	3	EACH	SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 4, AS PER PLAN	479
								2					2	632	72131	2	EACH	SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 12, AS PER PLAN	479
							4						4	632	72151	4	EACH	SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 14, AS PER PLAN	479
							6		3				9	632	89901	9	EACH	PEDESTAL, 8', TRANSFORMER BASE, AS PER PLAN	479
								4	3				7	632	90010	7	EACH	PEDESTAL, MISC.: 15' TRANSFORMER BASE	479
							1						1	632	90100	1	EACH	REMOVAL OF TRAFFIC SIGNAL INSTALLATION	
							1	1	1				3	633	65511	3	EACH	CABINET, TYPE TS-2, AS PER PLAN	480
							1	1	1				3	633	67101	3	EACH	CABINET FOUNDATION, AS PER PLAN	479
							1	1	1				3	633	67201	3	EACH	CONTROLLER WORK PAD, AS PER PLAN	479
							1	1	1				3	633	75001	3	EACH	UNINTERRUPTIBLE POWER SUPPLY (UPS), 1000 WATT, AS PER PLAN	480
							4	1	1				6	809	69001	6	EACH	ADVANCE RADAR DETECTION, AS PER PLAN	480
							4	4	4				12	809	69101	12	EACH	STOP LINE RADAR DETECTION, AS PER PLAN	481
							1	1	1				3	809	69123	3	EACH	ATC CONTROLLER, AS PER PLAN (PROGRAM AND INSTALL ONLY)	480
							1	1	1				3	809	64500	3	EACH	HIGH-SPEED ETHERNET RADIO	
																		STRUCTURE OVER 20 FOOT SPAN (LUC-20A-1048 L & R)	
																		SEE SHEET 548 FOR STRUCTURE ESTIMATED QUANTITIES	
																		MAINTENANCE OF TRAFFIC	
																		SEE PART 2 : LUC-475-0.09 FOR MAINTENANCE OF TRAFFIC PLANS AND QUANTITIES	
																		INCIDENTALS	
													30	619	16021	30	MNTH	FIELD OFFICE, TYPE C, AS PER PLAN (7)	33
													LS	623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
													LS	624	10000	LS		MOBILIZATION	
													LS	108	10000	LS		CPM PROGRESS SCHEDULE	

CALCULATED MAL CHECKED SMG

GENERAL SUMMARY

LUC-475-01.85

DRAINAGE SUBSUMMARY (1 OF 2)

LUC-475-01.85

CALCULATED ADC | CHECKED SRC

SHEET	REF. NO.	STATION FROM	STATION TO	SIDE	CENTERLINE ROADWAY REFERENCE	602 CONCRETE MASONRY	611 24" CONDUIT, TYPE A	611 27" CONDUIT, TYPE A	611 30" CONDUIT, TYPE A	611 36" CONDUIT, TYPE A	611 48" CONDUIT, TYPE A	611 54" CONDUIT, TYPE A	611 12" CONDUIT, TYPE B	611 15" CONDUIT, TYPE B	611 18" CONDUIT, TYPE B	611 21" CONDUIT, TYPE B	611 24" CONDUIT, TYPE B	611 30" CONDUIT, TYPE B	611 12" CONDUIT, TYPE C	611 15" CONDUIT, TYPE C	611 18" CONDUIT, TYPE C	611 24" CONDUIT, TYPE C	611 36" CONDUIT, TYPE C	611 54" CONDUIT, TYPE C	611 12" CONDUIT, TYPE D	611 15" CONDUIT, TYPE D	611 18" CONDUIT, TYPE D	611 24" CONDUIT, TYPE D	611 CONDUIT, BORED OR JACKED, 15" TYPE B	611 CONDUIT, BORED OR JACKED, 27" TYPE A	611 CONDUIT, BORED OR JACKED, 30" TYPE A	611 MANHOLE ADJUSTED TO GRADE	611 MANHOLE RECONSTRUCTED TO GRADE	611 MANHOLE, NO. 3	611 CATCH BASIN, NO. 3A	611 CATCH BASIN, NO. 2-2B	611 WATER QUALITY BASIN, DETENTION	611 INLET, NO. 3B	611 INLET, NO. 3C	611 CATCH BASIN, NO. 6	601 DUMPED ROCK FILL, TYPE C
						CY	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	CY
		475 NORTHBOUND																																								
61	D-1	1175+61	1175+62	RT	CD-NB																	34																1				
63	D-2	1080+06	1080+06	RT	CD-NB	0.25								54																									1			1.8
66	D-3	1093+00	1093+00	RT	CD-NB	0.25								64																									1			1.8
66 + 97	D-4	1093+29	1093+30	LT/RT	CD-NB	1.12																										294										2.2
67	D-4A	1096+03	1096+03	RT	CD-NB	0.31									133																											1.8
69	D-5	1099+50	1099+50	RT	CD-NB	0.25								52																										1		1.8
69	D-6	1101+00	1101+00	RT	CD-NB	0.25								58																										1		1.8
69 + 100	D-7	1103+29	1103+30	LT/RT	CD-NB	0.98																									291										2.3
70	D-8	1105+00	1105+97	RT	CD-NB									97																									1			
70	D-9	1105+97	1105+97	RT	CD-NB										6																									1			
70	D-10	1105+97	1107+00	RT	CD-NB									103																									1			
74 + 75	D-11	1118+94	1119+94	RT	CD-NB									101																										1		
75	D-12	1119+94	1119+95	RT	CD-NB	0.31									72																									1		
75	D-13	1119+94	1120+94	RT	CD-NB									100																										1		
77	D-14	1128+28	1128+50	RT	CD-NB	0.69																	25																		
78	D-15	1132+00	1132+00	RT	CD-NB	0.25																								94									1		1.8
81	D-16	1141+60	1141+60	RT	CD-NB	0.25																								127									1		1.8
		475 SOUTHBOUND																																						
89	D-17	67+70	67+70	LT	475	0.25								134																												1.8
92	D17A	74+44	74+44	LT	475	0.31									125																											1.8
92	D-18	75+03	75+42	LT	475	0.69																	40															1			2.7
92	D19	75+65	75+65	LT	475	0.37										127																									1.8
94	D-20	2083+05	2083+05	LT	CD-SB	0.25								82																									1			1.8
97	D-21	2093+00	2093+00	LT	CD-SB	0.25								80																									1			1.8
100	D-21A	2101+00	2101+00	LT	CD-SB	0.25								138																												1.8
101	D-21B	2104+95	2104+95	LT	CD-SB									76																												
101	D-22	2104+95	2105+97	LT	CD-SB											103																								1		
101	D-23	2105+97	2105+98	LT	CD-SB										7				39																				1		
101 + 130	D-24	2105+98	2106+12	LT	CD-SB	0.56													80																		1				2.2
101	D-25	2105+97	2106+95	LT	CD-SB										97																								1			
101	D-25A	2106+95	2106+95	LT	CD-SB									76																												
105	D-25B	2118+94	5018+94	LT	CD-SB									78																												
105	D-26	2118+94	2118+94	LT	CD-SB	0.37										90																								1		1.8
106	D-27	2119+94	2119+94	LT	CD-SB	0.31									100																									1		1.8
106	D-27A	2120+94	2120+94	LT	CD-SB										78																											
106	D-28	2120+94	2120+94	LT	CD-SB	0.31									93																									1		1.8
111	D-28A	2136+93	2136+93	LT	CD-SB										80																											
111	D-29	2136+93	2136+93	LT	CD-SB	0.37										128																								1		1.8
112	D-30	2139+90	2140+25	LT	CD-SB	1.32																		36																	4.1
114	D-30A	2146+94	2146+94	LT	CD-SB										78																											
114	D-31	2146+94	2146+94	LT	CD-SB	0.37										88																								1		1.8
114	D-32	2148+19	2148+20	LT	CD-SB	0.43	32																																		1.6
114	D-33	2148+39	2148+39	LT	CD-SB	0.69				32																															2.7
115	D-34	2154+10	2154+10	LT	CD-SB	0.25								61																										1		1.8
117	D-35	2157+00	2157+00	LT	CD-SB	0.25								59																											1	1.8
117	D-36	2157+28	2157+36	LT	CD-SB	0.49		142																																		2
		SR 20A - RAMP A1																																						
123	D-37	21+38	21+47	LT/RT	RP A1	1.12			130																																2.2
		SR 20A - RAMP B1																																						
127	D-38	40+87	40+89	LT/RT	RP B1	0.98		142																																	2.5
TOTALS CARRIED TO SHEET 44						15.1	32	284	130	32	0	0	0	1413	869	536	0	119	0	0	0	34	65	36	0	0	0	0	221	291	294	0	0	3	0	0	2	10	13	1	60.5

SHEET	REF. NO.	STATION FROM	STATION TO	SIDE	CENTERLINE ROADWAY REFERENCE	602 CONCRETE MASONRY	611 24" CONDUIT, TYPE A	611 27" CONDUIT, TYPE A	611 30" CONDUIT, TYPE A	611 36" CONDUIT, TYPE A	611 48" CONDUIT, TYPE A	611 54" CONDUIT, TYPE A	611 12" CONDUIT, TYPE B	611 15" CONDUIT, TYPE B	611 18" CONDUIT, TYPE B	611 21" CONDUIT, TYPE B	611 24" CONDUIT, TYPE B	611 30" CONDUIT, TYPE B	611 12" CONDUIT, TYPE C	611 15" CONDUIT, TYPE C	611 18" CONDUIT, TYPE C	611 24" CONDUIT, TYPE C	611 36" CONDUIT, TYPE C	611 54" CONDUIT, TYPE C	611 12" CONDUIT, TYPE D	611 15" CONDUIT, TYPE D	611 18" CONDUIT, TYPE D	611 24" CONDUIT, TYPE D	611 CONDUIT, BORED OR JACKED, 15" TYPE B	611 CONDUIT, BORED OR JACKED, 27" TYPE A	611 CONDUIT, BORED OR JACKED, 30" TYPE A	611 MANHOLE ADJUSTED TO GRADE	611 MANHOLE RECONSTRUCTED TO GRADE	611 MANHOLE, NO. 3	611 CATCH BASIN, NO. 3A	611 CATCH BASIN, NO. 2-2B	611 WATER QUALITY BASIN, DETENTION	611 INLET, NO. 3B	611 INLET, NO. 3C	611 CATCH BASIN, NO. 6	601 DUMPED ROCK FILL, TYPE C
						CY	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	CY
		SR 20A - RAMP C1																																								
130	D-39	65+74	65+74	LT/RT	RP C1	1.38				121																																2.7
		SR 20A - RAMP D1																																								
133	D-40	88+03	88+09	LT/RT	RP D1	1.38				192																																2.7
		SALISBURY - RAMP E																																							
155	D-41	142+50	142+56	LT	RP E	1.32						11																														5.7
		US 20A																																							
137	D-42	542+95	543+29	RT	20A	0.25							5													56								1							1.8
137	D-43	543+30	543+45	LT	20A														5	12														1						
137	D-44	543+45	543+45	LT/RT	20A																								67						1						
137	D-45	543+45	543+45	RT	20A	0.25																				42									1						1.8
137	D-46	544+50	544+50	LT	20A	0.25														23															1						1.8
137	D-47	544+50	544+50	RT	20A	0.25																				41									1						1.8
138	D-48	545+50	545+50	LT	20A	0.25														22															1						2.4
138	D-49	545+50	545+50	RT	20A	0.25																				39									1						3.1
138	D-50	546+46	546+46	LT	20A	0.25								57																										1	6.2
138	D-51	546+75	546+75	LT/RT	20A	2.18					205																															3.6
138	D-52	546+95	547+00	RT	20A	0.25																				37									1						7.3
138	D-53	548+98	548+99	LT/RT	20A															59															1						
138	D-54	548+95	548+99	LT	20A	0.25								67																					1						12.4
140	D-55	551+60	551+60	LT	20A									5																					1						
140	D-56	550+70	551+60	LT	20A									133																					1						
138 + 140	D-57	550+02	550+70	LT	20A	0.25								82																						1					15.6
142	D-58	557+71	557+71	LT/RT	20A									5																					1						
142	D-59	557+71	559+50	LT/RT	20A									236																					1						
142 + 144	D-60	559+50	560+07	LT	20A	0.25								77																						1					9.3
144	D-61	560+50	560+50	LT/RT	20A															53															1						
144	D-62	560+50	561+09	LT	20A	0.25								115																					1						6.2
144	D-63	562+27	562+27	LT/RT	20A	0.25								78																										1	6.2
144	D-64	563+20	563+20	LT	20A	0.25														22															1						3.1
144	D-65	563+20	563+20	RT	20A	0.25																				40									1						2.2
146	D-66	566+25	566+50	RT	20A									26											5									1						
146	D-67	566+50	566+50	LT/RT	20A																								57						1						
146	D-68	566+50	566+50	LT	20A																28														1						
146	D-69	566+50	568+15	LT	20A																165														1						
146	D-70	568+15	568+36	LT	20A	0.31															23														1						
146 - 147	D-71	568+71	571+25	RT	20A															255		8													1						
146	D-71A	568+59	568+59	RT	20A																													1								
147	D-72	571+25	571+25	RT	20A																					35									1						
147	D-73	571+25	571+25	LT/RT	20A																								55						2						
147	D-74	572+00	572+95	LT	20A														95																	1						
147	D-75	572+95	574+00	LT	20A														105																	1						
147	D-76	572+95	572+95	LT/RT	20A																								73						1						
147	D-77	572+95	573+00	RT	20A															22																1						
147	D-78	572+95	573+05	RT	20A																							10							1						
147	D-79	573+15	573+15	LT	20A																													1								
148	D-80	575+98	576+18	RT	20A																				10	14	10	10						1								
SUBTOTAL FROM SHEET 44						10.4	0	0	0	313	205	11	5	881	0	0	0	0	205	468	216	8	0	0	15	304	20	10	252	0	0	1	1	12	21	3	0	0	0	2	95.9
SUBTOTAL FROM SHEET 43						15.1	32	284	130	32	0	0	0	1413	869	536	0	119	0	0	0	34	65	36	0	0	0	0	221	291	294	0	0	3	0	0	2	10	13	1	60.5
TOTALS CARRIED TO GENERAL SUMMARY						25.5	32	284	130	345	205	11	5	2294	869	536	0	119	205	468	216	42	65	36	15	304	20	10	473	291	294	1	1	15	21	3	2	10	13	3	156

CALCULATED ADC
CHECKED SRC

DRAINAGE SUBSUMMARY (2 OF 2)

LUC-475-01.85

REF NO.	SHEET NO.	ROADWAY	STATION TO STATION			203 EXCAVATION CY	203 EMBANKMENT CY	204 EXCAVATION OF SUBGRADE CY	204 GRANULAR MATERIAL, TYPE B CY	204 GRANULAR MATERIAL, TYPE D CY	659 SEEDING AND MULCHING SY
				TO							
		IR 475 NORTHBOUND									
	167	IR 475 NB AUXILIARY LANE	53+00.00		67+92.11	585	3523				3937
	193	IR 475 NB C-D LANE	1068+14.05		1145+00.00	12672	15745				28384
		EXCAVATION BENEATH EXIST. SHOULDER				469 (7)					
		IR 475 SOUTHBOUND									
	207	IR 475 SB AUXILIARY LANE/C-D LANE	53+00.00		82+96.86	5519	11623				18792
	232	IR 475 SB C-D LANE	2082+85.24		2166+01.48	22071	29431				40394
		EXCAVATION BENEATH EXIST. SHOULDER				806 (7)					
		IR 475 SB C-D LANE	2149+00.00		2153+00.00				100	256	
		US 20A RAMPS									
	241	RAMP A1	17+00.00		26+36.18	1421	24644				10501
	245	RAMP A2	1+16.80		3+98.42		13930				2452
	259	RAMP B1	31+42.58		46+41.35	8803	24987				17286
	265	RAMP B2	10+64.34		15+67.53	6722	24745				10117
	276	RAMP C1	60+00.00		69+34.79	9912	19652				13203
	281	RAMP C2	10+00.00		13+30.21		15377				2923
	297	RAMP D1	82+05.00		97+32.54	9150	41266				20572
	304	RAMP D2	1+40.01		6+07.58		25045				4298
		US 20A									
	311	US 20A (WEST)	537+00.00		546+00.00	2620	1336				4362
	327	US 20A WESTBOUND	646+00.00		665+00.00	2630	21695				7610
	348	US 20A EASTBOUND	746+00.00		765+00.00	898	24365				6709
	360	US 20A (EAST)	565+00.00		577+00.00	3158	645				5173
	418	US 20A (EAST)	567+00.00		574+25.00			1693	1693		
		DUSSEL-SALISBURY RAMPS									
		RAMP B	121+62.59		127+65.15	888	360				3591
		RAMP E	141+08.92		146+19.62	1041	1744				3629
TOTALS CARRIED TO GENERAL SUMMARY						89365 (7)	300113	1693	1793	256	203933*

* CARRIED TO GENERAL NOTE SHEET 30 FOR SEEDING AND MULCHING QUANTITIES

CALCULATED MAL
CHECKED SMG

EARTHWORK SUBSUMMARY

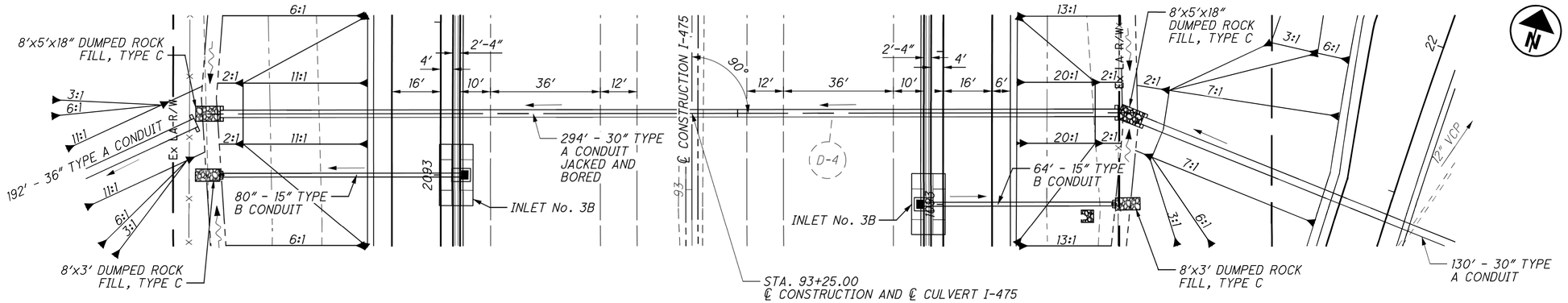
LUC-475-01.85

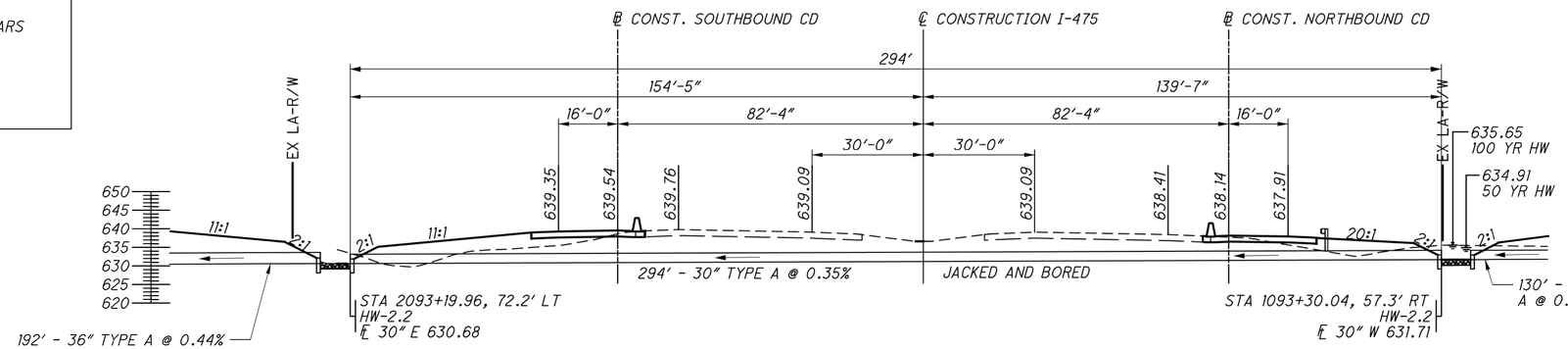
PROPOSED STRUCTURE

TYPE: 30" CIRCULAR CONCRETE PIPE
SKEW: 90° L.F.
ALIGNMENT: TANGENT

HYDRAULIC DESIGN DATA

DRAINAGE AREA: 17 ACRES
Q(50): 30.11 CFS
HW(50): 634.91 FT
V(50): 7.6 FT/S
Q(100): 34.7 CFT
HW(100): 635.65 FT
V(100): 8.2 FT/S
OHWM: 631.10
DESIGN SERVICE LIFE: 75 YEARS
pH: 7.7
ABRASION LEVEL: 1
CFN:





ESTIMATED QUANTITIES

601	DUMPED ROCK FILL, TYPE C	2.2 CY
602	CONCRETE MASONRY	1.12 CU.YD.
611	CONDUIT, BORED OR JACKED, 30" TYPE A	294 FT

EXISTING STRUCTURE

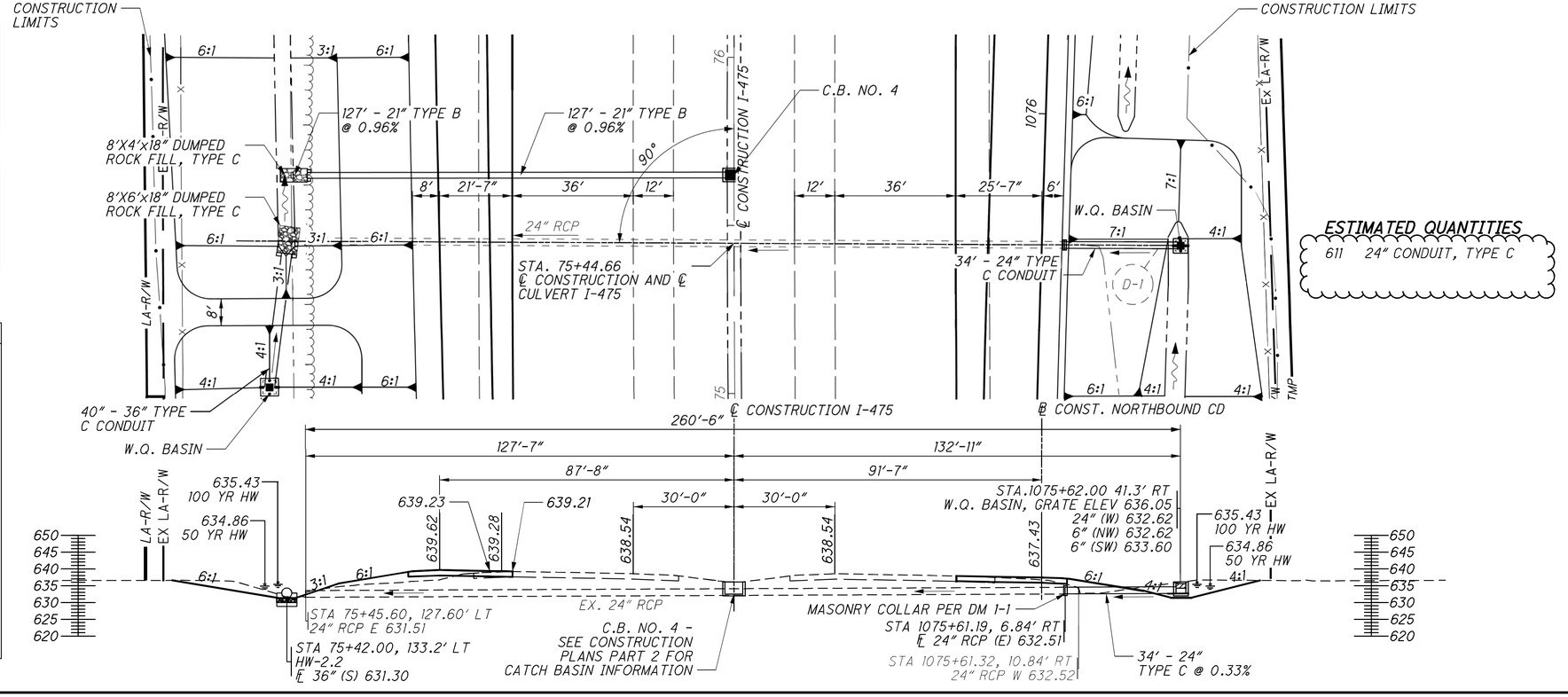
TYPE: 24" PIPE CLASS A-1
SKEW: 90° L.F.
ALIGNMENT: TANGENT

PROPOSED STRUCTURE

TYPE: 24" CIRCULAR CONCRETE PIPE
SKEW: 90° L.F.
ALIGNMENT: TANGENT

HYDRAULIC DESIGN DATA

DRAINAGE AREA: 15 ACRES
Q(50): 15.7 CFS
HW(50): 634.86 FT
V(50): 5.5 FT/S
Q(100): 18.8 CFTS
HW(100): 635.43 FT
V(100): 6.4 FT/S
OHWM: 631.29
DESIGN SERVICE LIFE: 75 YEARS
pH: 7.7
ABRASION LEVEL: 1
CFN:



ESTIMATED QUANTITIES

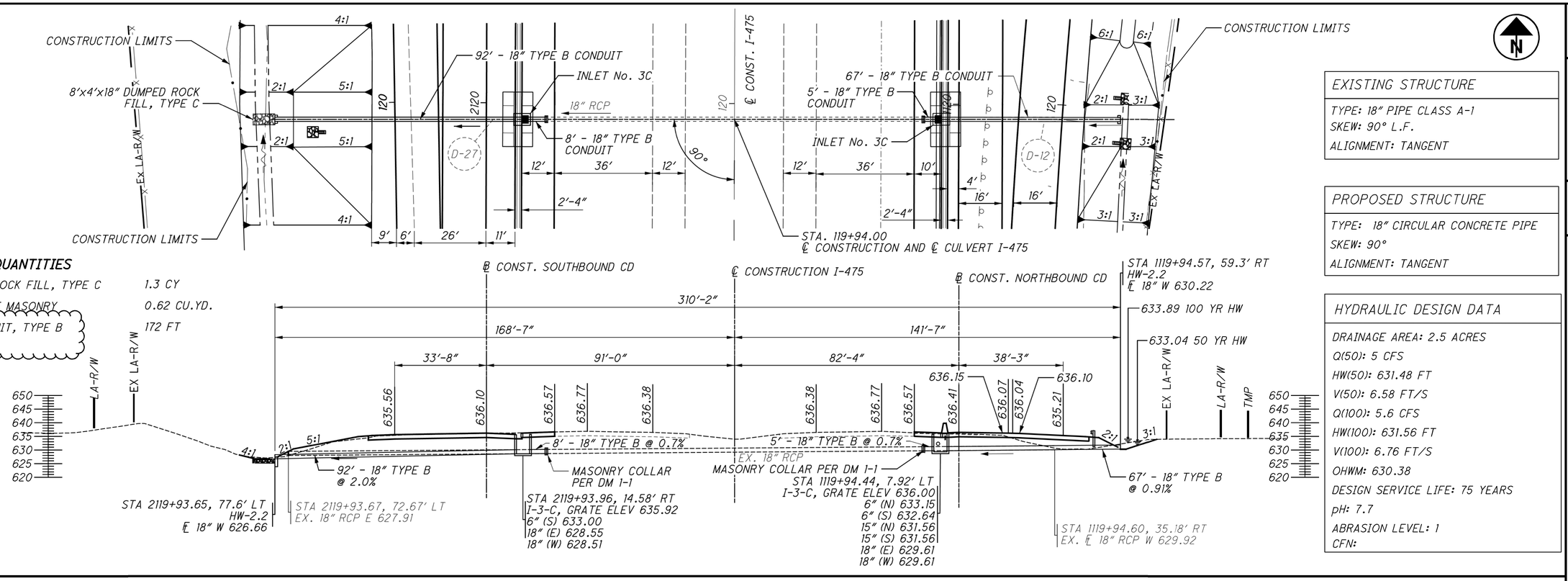
611	24" CONDUIT, TYPE C	34 FT

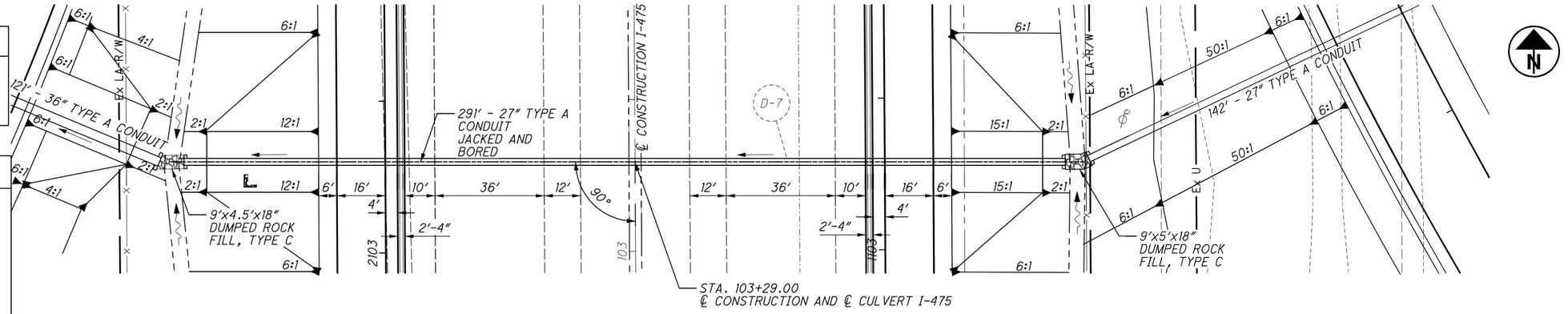
CULVERT DETAIL
I-475 STA. 75+44.66 & I-475 STA. 93+25.00
LUC-475-01.85

HORIZONTAL SCALE IN FEET
0 10 20 40
CALCULATED ADC
CHECKED RJM

413
637

M:\16017 (Arcadis - LUC-475-01.85, 20A Interchange)\ProjectData\9973L\Design\Drainage\Sheets\9973L_DC002.dgn Sheet 4/25/2022 2:23:18 PM ADC





HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED ADC
CHECKED RJM

CULVERT DETAIL
I-475 STA. 103+29.00 & I-475 STA. 119+94.00

LUC-475-01.85

414
637

M:\16017 (Arcadis - LUC-475-01.85, 20A Interchange)\Project Data\9973\Design\Drainage\Sheets\9973LDC003.dgn Sheet 4/25/2022 3:00:37 PM ADC

EXISTING STRUCTURE

TYPE: 24" CONDUIT, TYPE A, 706.02
SKEW: 90° L.F.
ALIGNMENT: TANGENT

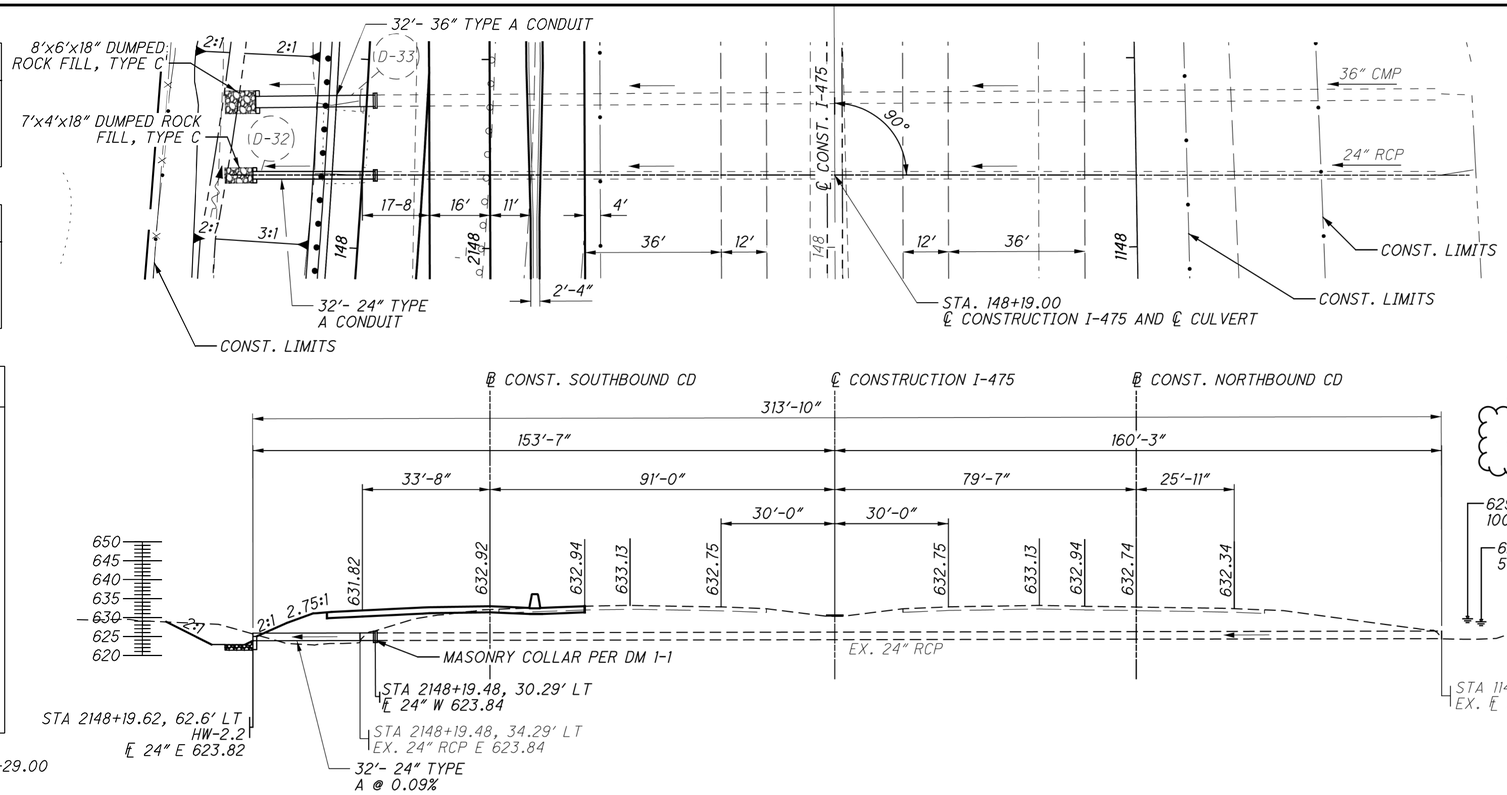
PROPOSED STRUCTURE

TYPE: 24" CIRCULAR CONCRETE PIPE
SKEW: 90°
ALIGNMENT: TANGENT

HYDRAULIC DESIGN DATA

DRAINAGE AREA: 33 ACRES
Q(50): 18.9 CFS
HW(50): 628.80 FT
V(50): 6.6 FT/S
Q(100): 21.6 CFS
HW(100): 629.58 FT
V(100): 7.3 FT/S
OHWM: 623.82
DESIGN SERVICE LIFE: 75 YEARS
pH: 7.7
ABRASION LEVEL: 1
CFN:

* COMBINED AREA FOR CULVERTS AT:
STA. 148+19.00, STA.148+39.00, STA.157+29.00



ESTIMATED QUANTITIES

601	DUMPED ROCK FILL, TYPE C	1.6 CY
602	CONCRETE MASONRY	0.43 CU.YD.
611	24" CONDUIT, TYPE A	32 FT

EXISTING STRUCTURE

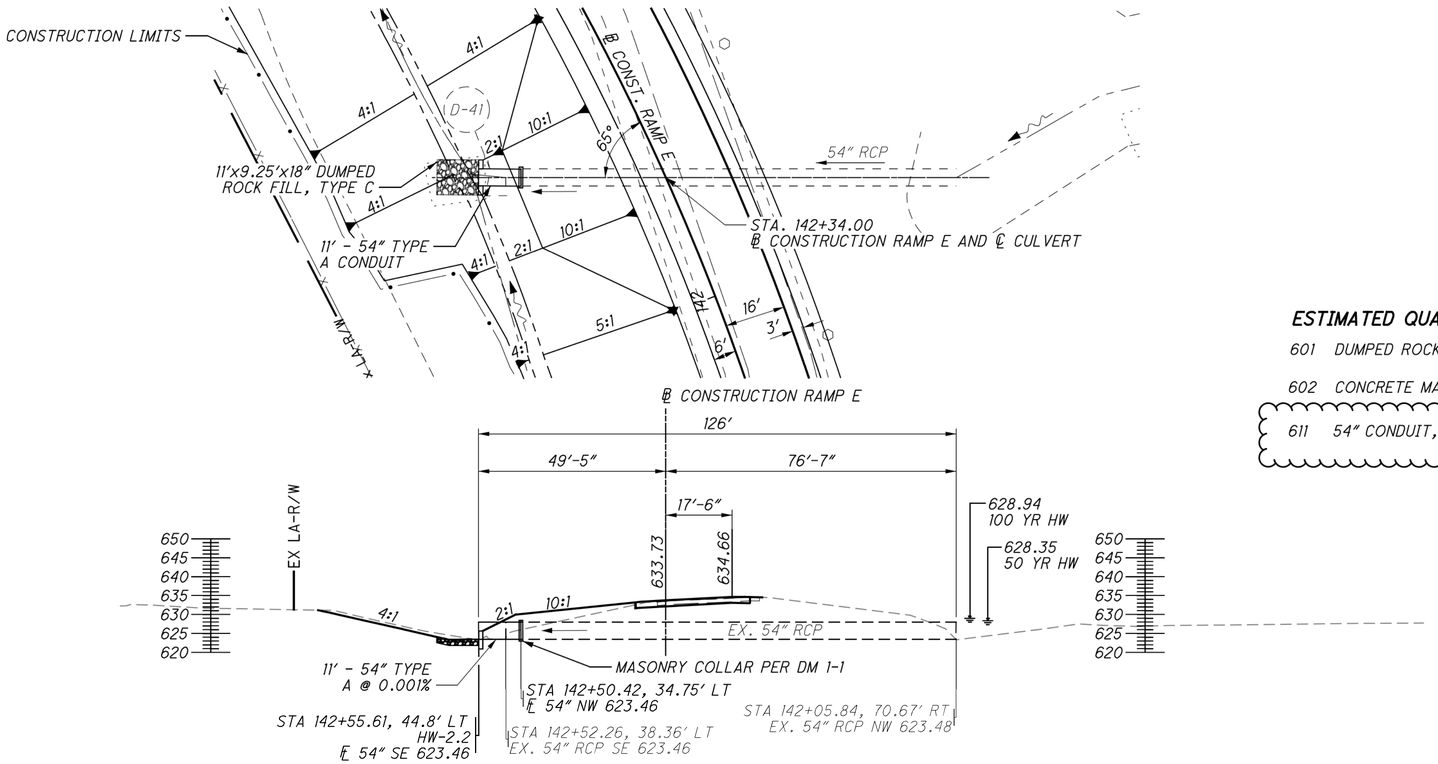
TYPE: 54" CONDUIT TYPE A, 706.02
SKEW: 70° L.F.
ALIGNMENT: TANGENT

PROPOSED STRUCTURE

TYPE: 54" CONDUIT TYPE A, 706.02
SKEW: 65°
ALIGNMENT: TANGENT

HYDRAULIC DESIGN DATA

DRAINAGE AREA: 149 ACRES
Q(50): 107 CFS
HW(50): 628.35 FT
V(50): 9.4 FT/S
Q(100): 125 CFS
HW(100): 628.94 FT
V(100): 10.0 FT/S
OHWM: 623.46
DESIGN SERVICE LIFE: 75 YEARS
pH: 7.7
ABRASION LEVEL: 1
CFN:



ESTIMATED QUANTITIES

601	DUMPED ROCK FILL, TYPE C	5.7 CY
602	CONCRETE MASONRY	1.32 CU.YD.
611	54" CONDUIT, TYPE A	11 FT

HORIZONTAL SCALE IN FEET
0 10 20 40
CALCULATED ADC
CHECKED RJM

CULVERT DETAIL
RAMP E STA. 142+34.00
LUC-475-01.85
415
637

M:\160IT (Arcadis - LUC-475-01.85, 20A Interchange)\Project Data\9973\Design\Drainage\Sheets\9973L_DC004.dgn Sheet 4/25/2022 2:23:25 PM ADC

EXISTING STRUCTURE

TYPE: 27" CONDUIT, TYPE A, 706.2
SKEW: 90° L.F.
ALIGNMENT: TANGENT

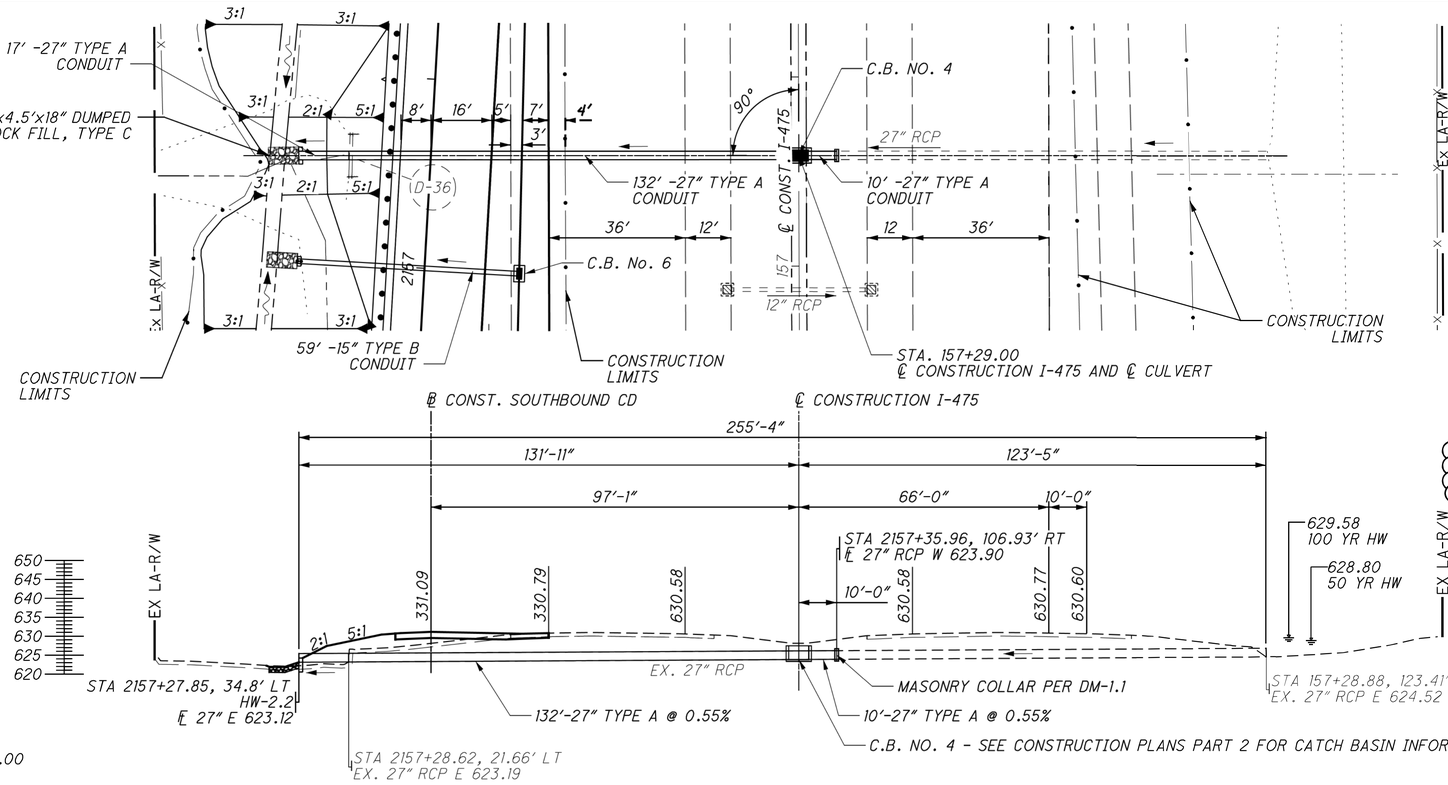
PROPOSED STRUCTURE

TYPE: 27" CIRCULAR CONCRETE PIPE
SKEW: 90°
ALIGNMENT: TANGENT

HYDRAULIC DESIGN DATA

DRAINAGE AREA: 33 ACRES
Q(50): 27.1 CFS
HW(50): 628.80 FT
V(50): 6.8 FT/S
Q(100): 30.7 CFS
HW(100): 629.58
V(100): 7.7 FT/S
OHWM: 623.12
DESIGN SERVICE LIFE: 75 YEARS
pH: 7.7
ABRASION LEVEL: 1
CFN:

* COMBINED AREA FOR CULVERTS AT:
STA. 148+19.00, STA.148+39.00, STA.157+29.00



ESTIMATED QUANTITIES

601	DUMPED ROCK FILL, TYPE C	2.0 CY
602	CONCRETE MASONRY	0.49 CU.YD.
611	27" CONDUIT, TYPE A	142 FT

EXISTING STRUCTURE

TYPE: CORRUGATED METAL PIPE
SKEW: 90° L.F.
ALIGNMENT: TANGENT

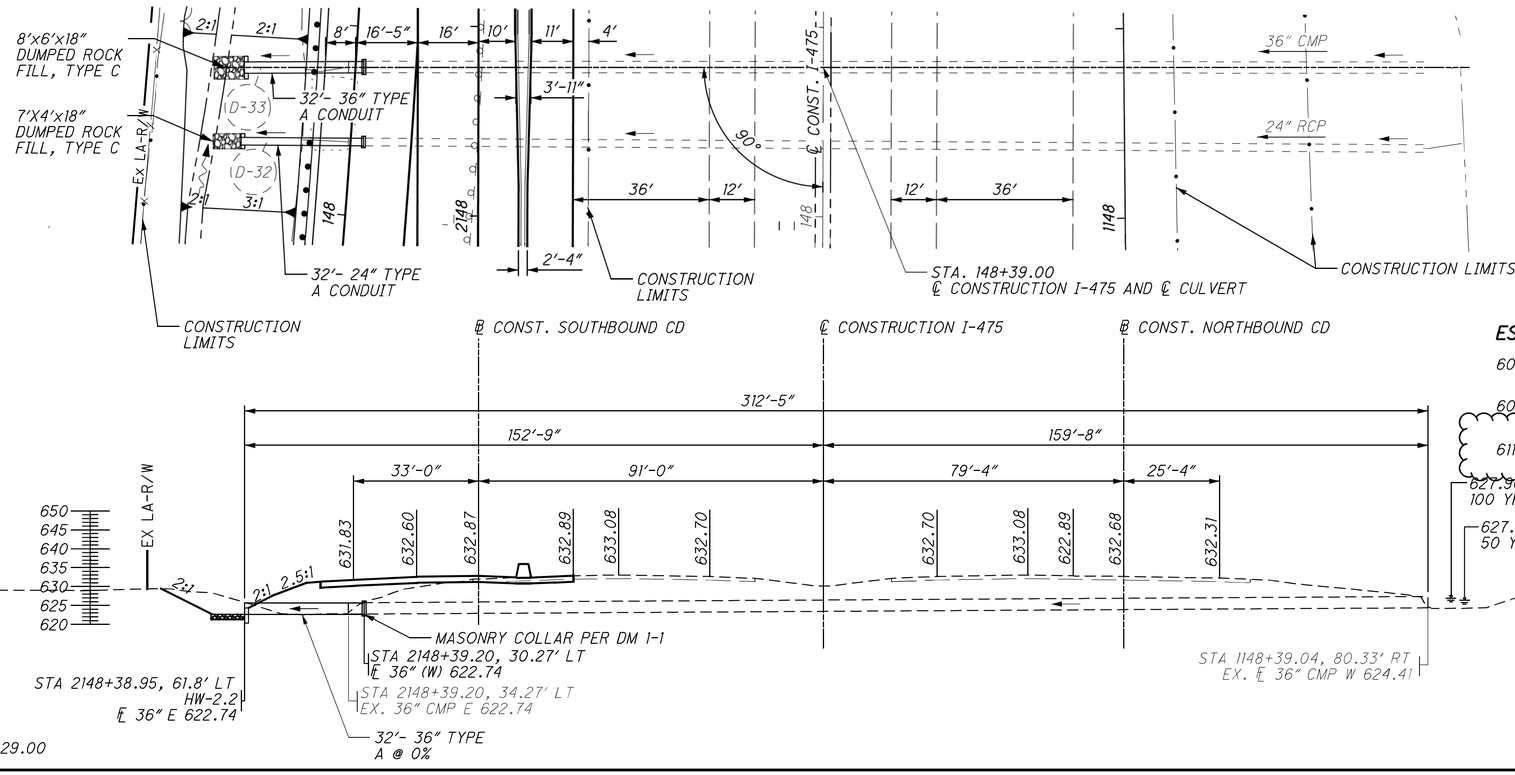
PROPOSED STRUCTURE

36" CORRUGATED METAL PIPE
SKEW: 90°
ALIGNMENT: TANGENT

HYDRAULIC DESIGN DATA

DRAINAGE AREA: 33 ACRES
Q(50): 19 CFS
HW(50): 627.27 FT
V(50): 2.6 FT/S
Q(100): 21.20 CFS
HW(100): 627.90 FT
V(100): 3.0 FT/S
OHWM: 622.55
DESIGN SERVICE LIFE: 75 YEARS
pH: 7.7
ABRASION LEVEL: 1
CFN:

* COMBINED AREA FOR CULVERTS AT:
STA. 148+19.00, STA.148+39.00, STA.157+29.00



ESTIMATED QUANTITIES

601	DUMPED ROCK FILL, TYPE C	2.7 CY
602	CONCRETE MASONRY	0.69 CU.YD.
611	36" CONDUIT, TYPE A	32 FT

HORIZONTAL SCALE IN FEET
0 10 20 40
CALCULATED ADC
CHECKED RJM

CULVERT DETAIL
I-475 STA. 148+39.00 & I-475 STA. 157+29.00
LUC-475-01.85

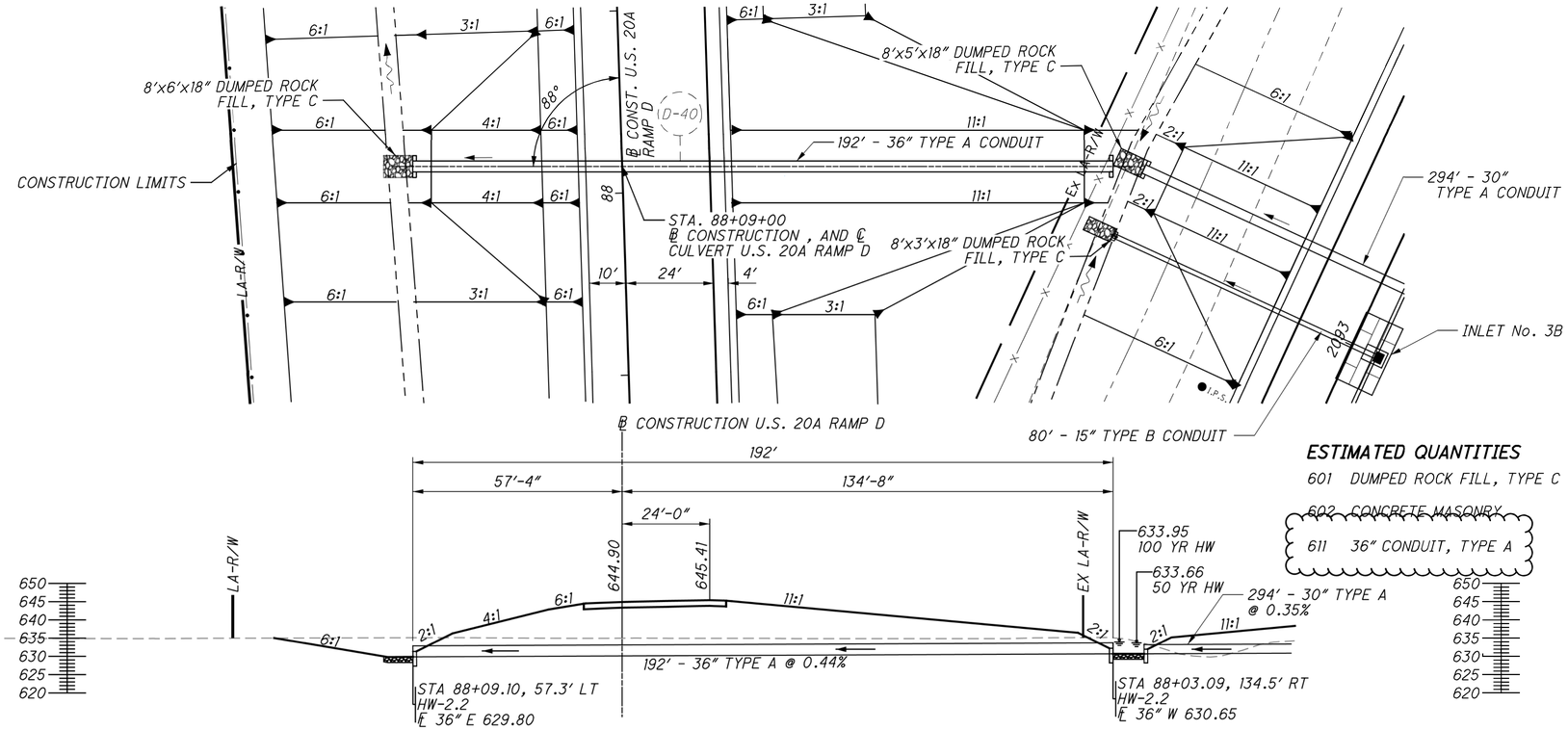
416
637

PROPOSED STRUCTURE

TYPE: 36" CIRCULAR CONCRETE PIPE
SKEW: 88° L.F.
ALIGNMENT: TANGENT

HYDRAULIC DESIGN DATA

DRAINAGE AREA: 24 ACRES
Q(50): 36.0 CFS
HW(50): 633.66 FT
V(50): 5.1 FT/S
Q(100): 38.9 CFS
HW(100): 633.95 FT
V(100): 5.5 FT/S
OHWM: 630.13
DESIGN SERVICE LIFE: 75 YEARS
pH: 7.7
ABRASION LEVEL: 1
CFN:



ESTIMATED QUANTITIES

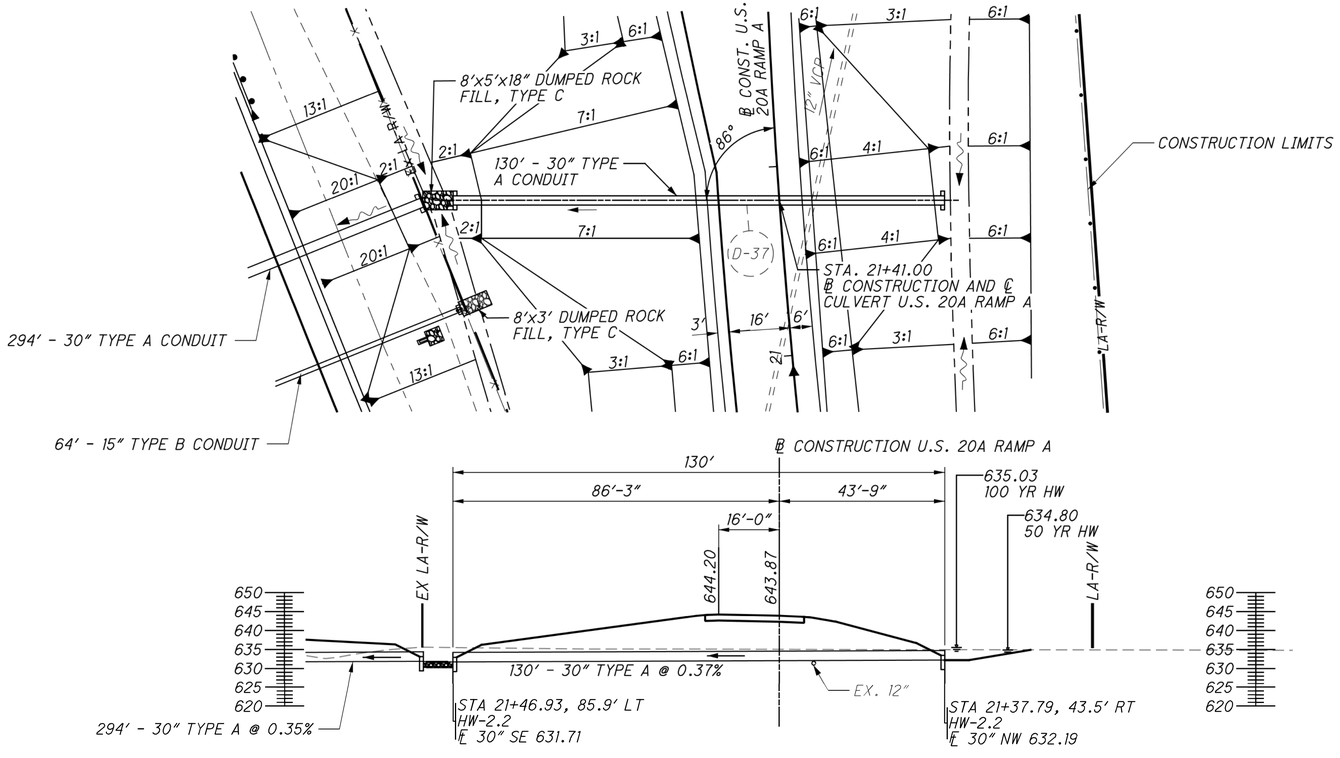
601	DUMPED ROCK FILL, TYPE C	2.7 CY
602	CONCRETE MASONRY	1.38 CU.YD.
611	36" CONDUIT, TYPE A	192 FT

PROPOSED STRUCTURE

TYPE: 30" CIRCULAR CONCRETE PIPE
SKEW: 86° L.F.
ALIGNMENT: TANGENT

HYDRAULIC DESIGN DATA

DRAINAGE AREA: 14 ACRES
Q(50): 25.0 CFS
HW(50): 634.80 FT
V(50): 7.0 FT/S
Q(100): 28.1 CFS
HW(100): 635.03 FT
V(100): 7.2 FT/S
OHWM: 632.03
DESIGN SERVICE LIFE: 75 YEARS
pH: 7.7
ABRASION LEVEL: 1
CFN:



ESTIMATED QUANTITIES

601	DUMPED ROCK FILL, TYPE C	2.2 CY
602	CONCRETE MASONRY	1.12 CU.YD.
611	30" CONDUIT, TYPE A	130 FT

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED ADC
CHECKED RJM

CULVERT DETAIL
RAMP A STA. 21+41.00 & RAMP D STA. 88+09.00

LUC-475-01.85

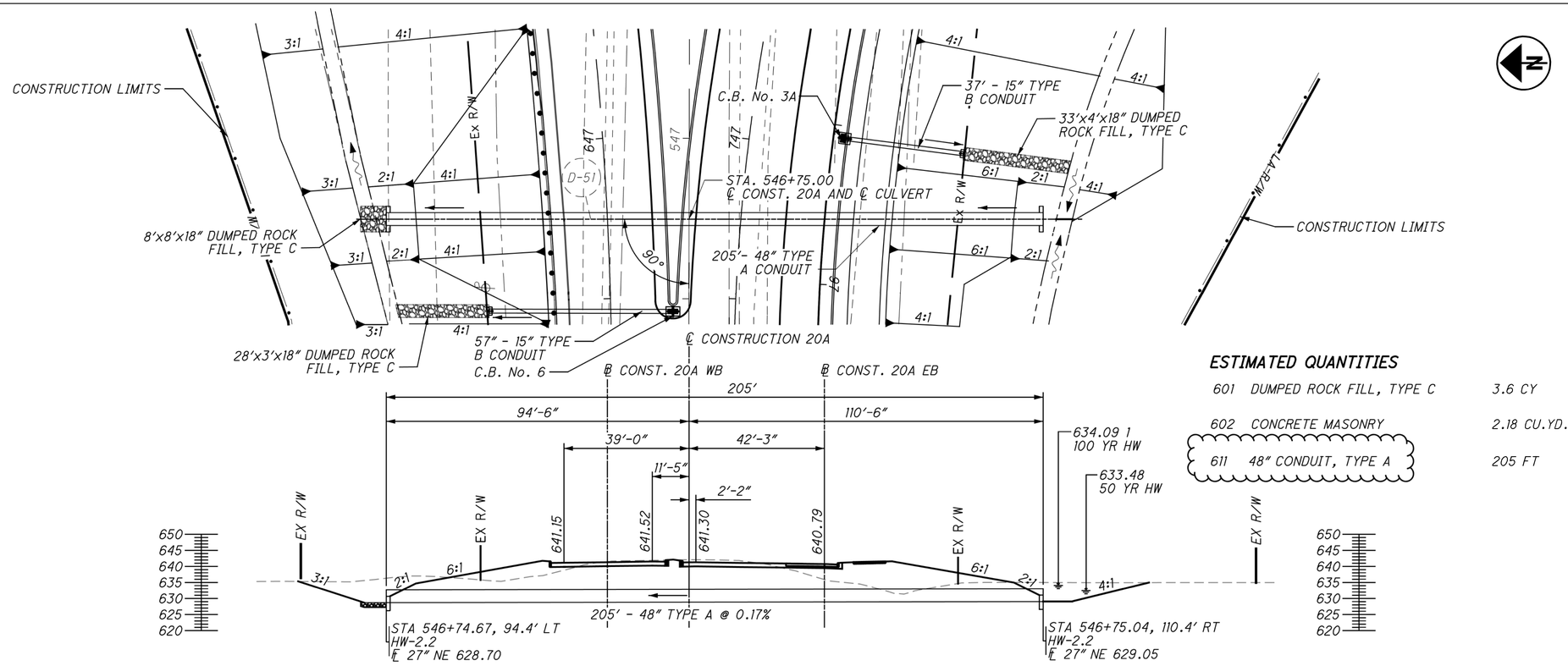
417
637

PROPOSED STRUCTURE

TYPE: 48" CIRCULAR CONCRETE PIPE
SKEW: 90° L.F.
ALIGNMENT: TANGENT

HYDRAULIC DESIGN DATA

DRAINAGE AREA: 73 ACRES
Q(50): 83.7 CFS
HW(50): 633.48
V(50): 8.6 FT/S
Q(100): 96.9 CFS
HW(100): 634.09
V(100): 9.5



ESTIMATED QUANTITIES

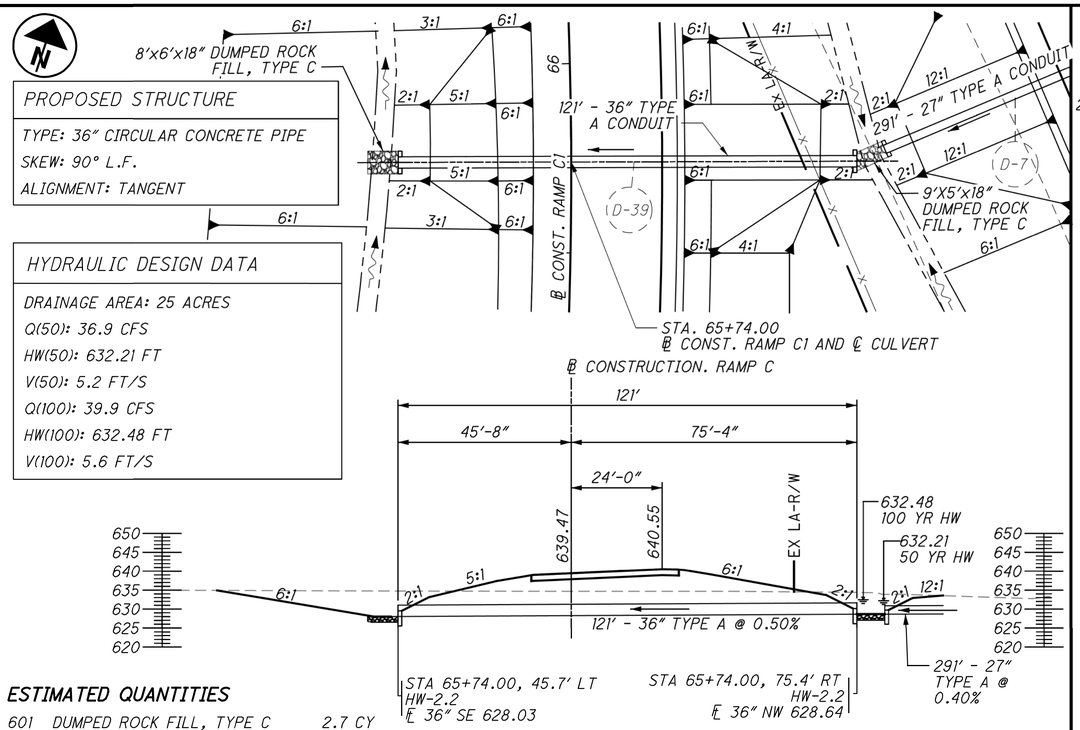
601	DUMPED ROCK FILL, TYPE C	3.6 CY
602	CONCRETE MASONRY	2.18 CU.YD.
611	48" CONDUIT, TYPE A	205 FT

PROPOSED STRUCTURE

TYPE: 36" CIRCULAR CONCRETE PIPE
SKEW: 90° L.F.
ALIGNMENT: TANGENT

HYDRAULIC DESIGN DATA

DRAINAGE AREA: 25 ACRES
Q(50): 36.9 CFS
HW(50): 632.21 FT
V(50): 5.2 FT/S
Q(100): 39.9 CFS
HW(100): 632.48 FT
V(100): 5.6 FT/S



ESTIMATED QUANTITIES

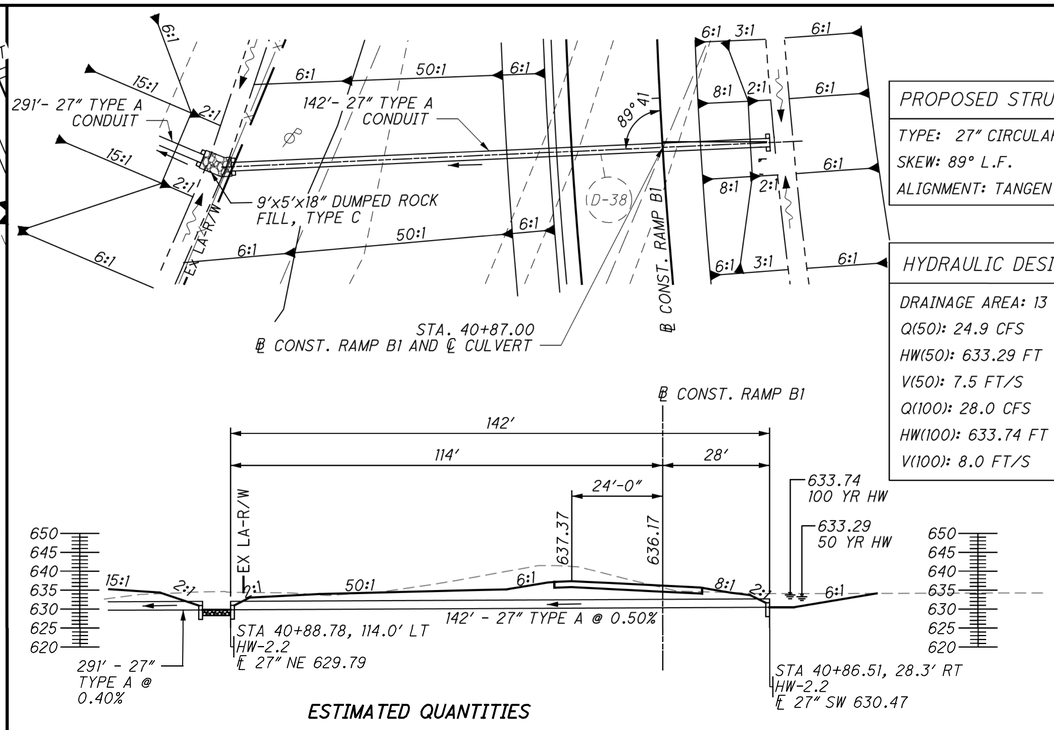
601	DUMPED ROCK FILL, TYPE C	2.7 CY
602	CONCRETE MASONRY	1.38 CU.YD.
611	36" CONDUIT, TYPE A	121 FT

PROPOSED STRUCTURE

TYPE: 27" CIRCULAR CONCRETE PIPE
SKEW: 89° L.F.
ALIGNMENT: TANGENT

HYDRAULIC DESIGN DATA

DRAINAGE AREA: 13 ACRES
Q(50): 24.9 CFS
HW(50): 633.29 FT
V(50): 7.5 FT/S
Q(100): 28.0 CFS
HW(100): 633.74 FT
V(100): 8.0 FT/S



ESTIMATED QUANTITIES

601	DUMPED ROCK FILL, TYPE C	2.5 CY
602	CONCRETE MASONRY	0.98 CU.YD.
611	27" CONDUIT, TYPE A	142 FT

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED ADC
CHECKED RJM

CULVERT DETAIL - RAMP C1 STA. 65+79.14, RAMP B1 STA. 48+88.00 & 20A STA. 546+75.00

LUC-475-01.85

418
637

M:\16017 (Arcadis - LUC-475-01.85, 20A Interchange)\ProjectData\9973I\Design\Drainage\Sheets\9973I_DC007.dgn Sheet 4/25/2022 2:23:34 PM ADC

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 TOLEDO EDISON

ADDRESS 6099 ANGOLA ROAD, HOLLAND, OH 43528

PHONE # 419-249-5119

CONTACT NAME NELSON RODRIGUEZ

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. 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.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH C&MS 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.

HIGH VOLTAGE TEST WAIVED

THE HIGH VOLTAGE TEST SHALL NOT BE PERFORMED ON THE FOLLOWING CIRCUITS CONSTRUCTED BY THIS PROJECT, SINCE THE TEST COULD DAMAGE THE PORTION OF THE COMPLETED CIRCUIT WHICH HAS BEEN IN SERVICE PRIOR TO THIS PROJECT.

CIRCUITS W1, W2 & W3

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.

SPECIAL, MAINTAIN EXISTING LIGHTING

EXISTING ROADWAYS WHICH ARE TO REMAIN OPEN TO TRAFFIC DURING CONSTRUCTION OF THIS PROJECT AND ARE LIGHTED SHALL HAVE THE LIGHTING MAINTAINED AS DESCRIBED HEREIN. ANY NEW ROADWAYS THAT ARE TO BE LIGHTED SHALL BE LIT WITH NEW OR TEMPORARY LIGHTING PRIOR TO BEING OPENED TO TRAFFIC.

BEFORE ANY WORK IS STARTED IN THE IMMEDIATE VICINITY OF ANY EXISTING LIGHTING CIRCUITS, REPRESENTATIVES OF THE STATE, THE MAINTAINING AGENCY, AND THE CONTRACTOR SHALL MAKE A VISUAL INSPECTION OF THE OF THE EXISTING ROADWAY LIGHTING CIRCUITS TO BE MAINTAINED. DURING THIS INSPECTION A WRITTEN RECORD OF THE CONDITION OF THE EXISTING LIGHTING SHALL BE MADE BY THE STATE'S REPRESENTATIVE. THIS WRITTEN REPORT SHALL NOTE INDIVIDUAL LUMINAIRES WHICH ARE NOT STANDING, AND INDIVIDUAL CIRCUITS WHICH ARE NOT IN WORKING ORDER. THE COMPLETED REPORT SHALL BE SIGNED BY THE REPRESENTATIVES OF THE STATE, 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 REPAIRS NECESSARY TO RETURN THE SYSTEM TO AN ACCEPTABLE CONDITION. FOLLOWING THESE REPAIRS, THE SYSTEM SHALL AGAIN BE INSPECTED, AND A REPORT 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 ACCIDENTS.

REPLACEMENT OF KNOCKED DOWN 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 PER UNIT BASIS.

BETTERMENTS SHALL BE COVERED IN ITEMS OF WORK PERTAINING TO THE CONSTRUCTION OF PERMANENT IMPROVEMENTS. THE STATE SHALL GIVE THE CONTRACTOR ONE COPY OF THE EXISTING LIGHTING CIRCUITRY LAYOUT.

WHEN THE CONTRACTOR HAS TAKEN OVER THE MAINTENANCE OF THE EXISTING SYSTEM, THE CONTRACTOR SHALL PROVIDE ALL REQUIRED LAYOUT AND LOCATING OF EXISTING LIGHTING CIRCUITS WITHIN THE PROJECT.

PRIOR TO INSTALLING TEMPORARY LIGHTING THE CONTRACTOR SHALL SUBMIT A TEMPORARY LIGHTING PLAN TO THE ENGINEER.

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. A SEPARATE POWER SERVICE WILL BE PROVIDED BY THE CONTRACTOR FOR THE TEMPORARY LIGHTING SYSTEM. THE TEMPORARY LIGHTING SHALL NOT BE SPLICED INTO EXISTING LIGHTING CIRCUITS. THE CONTRACTOR SHALL PAY ALL HOOK-UP FEES AND ELECTRICAL COSTS FOR THE TEMPORARY SYSTEM. THESE COSTS SHALL BE PAID FOR UNDER THE LUMP SUM ITEM SPECIAL MAINTAIN EXISTING LIGHTING. WHEN NO LONGER NEEDED THE TEMPORARY LIGHTING INSTALLATION SHALL BE REMOVED AND PROPERLY DISPOSED OF BY THE CONTRACTOR.

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

THE UNIT BID PRICE FOR EACH "ITEM SPECIAL - REPLACEMENT OF EXISTING LIGHTING UNIT" SHALL BE FULL PAYMENT FOR THE REPLACEMENT OF AN EXISTING 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. THE FOLLOWING QUANTITIES ARE FOR USE AS DIRECTED BY THE DEPARTMENT'S ENGINEER.

△7

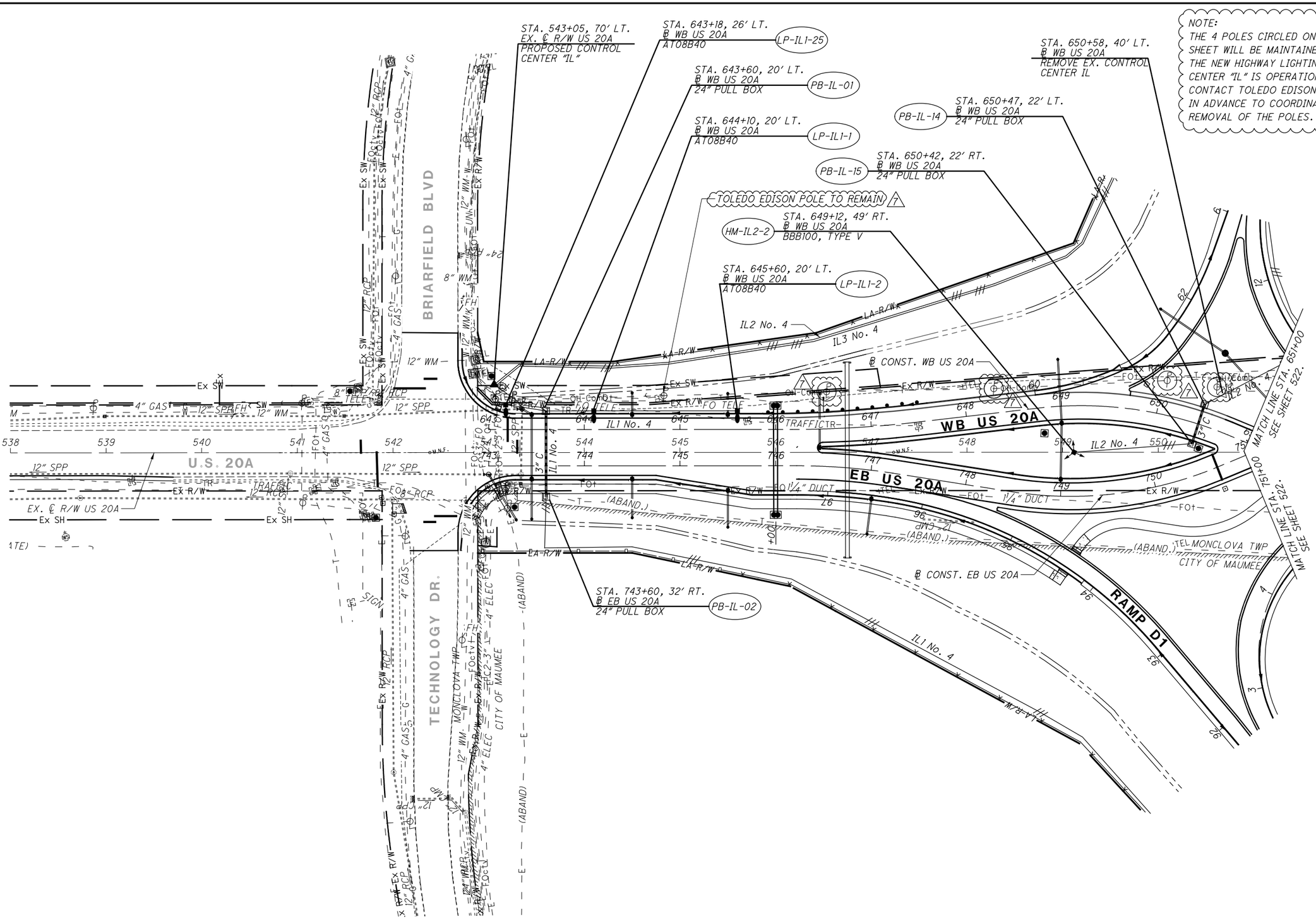
ITEM SPECIAL- REPLACEMENT OF EX LIGHTING UNIT - 5 EA

CALCULATED TSR CHECKED DTC

LIGHTING GENERAL NOTES

LUC-475-01.85

498
637



HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED AR
CHECKED DTC

LIGHTING PLAN - U.S. 20A
STA. 638+00 TO STA. 650+00

LUC-475-01.85

529
637

0:\Projects\Toledo\VER\52469\200-52469-1600\CAD\9973LLUC-475-01.85\Design\Lighting\Sheets\9973LLP21.dgn Sheet 4/29/2022 12:32:44 PM Dave.Charville

ESTIMATED QUANTITIES (02/IMS/BR)

QUANTITIES BY: SAM 12-4-18
CHECKED BY: NBL 2-6-19

ITEM	EXTENSION		LEFT TOTAL	RIGHT TOTAL	UNIT	DESCRIPTION	LUC-20A-1048 (LEFT) ABUT.	PIERS	SUPER.	GEN.	LUC-20A-1048 (RIGHT) ABUT.	PIERS	SUPER.	GEN.	REFERENCE SHEET(S)
202	11002			LUMP		STRUCTURE REMOVED OVER 20 FOOT SPAN								LUMP	
202	22900			184	SY	APPROACH SLAB REMOVED								184	
503	11101		LUMP	LUMP		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN				LUMP				LUMP	10/46 11/46
503	21100		705	589	CY	UNCLASSIFIED EXCAVATION	436	269			387	202			
505	11100		LUMP	LUMP		PILE DRIVING EQUIPMENT MOBILIZATION				LUMP				LUMP	
507	00100		10340	8155	FT	STEEL PILES HP10X42, FURNISHED	3200	7140			2800	5355			
507	00150		9760	7700	FT	STEEL PILES HP10X42, DRIVEN	3040	6720			2660	5040			
507	93300		116	91	EACH	STEEL POINTS OR SHOES	32	84			28	63			
509	10001		238559	184086	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	13158	57619	168815		11669	41787	130630		3/46
511	33500		2	2	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE	2				2				
511	34446		587	457	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK			587				457		
511	34451		160	101	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN			142	18			93	8	4/46 39/46
511	41012		156	118	CY	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTING		156				118			
511	43512		203	169	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT INCLUDING FOOTING	203				169				
511	46512		108	81	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING		108				81			
512	10100		2232	1805	SY	SEALING OF CONCRETE SURFACES (EPOXY URETHANE)	121	418	1693		121	318	1366		
512	33300		23	18	SY	TYPE A WATERPROOFING			23				18		
515	15080		10	8	EACH	DRAPED STRAND PRESTRESSED CONCRETE BRIDGE I-BEAM MEMBERS, LEVEL 3, TYPE WF42-49 (72'-7" BEAM)			10				8		
515	15080		10	8	EACH	DRAPED STRAND PRESTRESSED CONCRETE BRIDGE I-BEAM MEMBERS, LEVEL 3, TYPE WF42-49 (78'-2½" BEAM)			10				8		
515	20000		16	12	EACH	INTERMEDIATE DIAPHRAGMS			16				12		
516	10010		98	74	FT	ARMORLESS PREFORMED JOINT SEAL	98				74				
516	13600		26	17	SF	1" PREFORMED EXPANSION JOINT FILLER	26				17				
516	13900		100	100	SF	2" PREFORMED EXPANSION JOINT FILLER	100				100				
516	14020		133	110	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	133				110				
516	44101		10	8	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (11.5" x 18" x 2.26"), LOAD PLATE (14.5" x 19" x 2"), AS PER PLAN	10				8				20/46
516	44100		30	24	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (11.5" x 18" x 2.26"), LOAD PLATE (14.5" x 19" x 2")		30				24			
518	21200		68	56	CY	POROUS BACKFILL WITH FILTER FABRIC	68				56				
518	40000		112	89	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	112				89				
518	40010		50	50	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	50				50				
526	25011		276	212	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=15"), AS PER PLAN				276				212	41/46 42/46
526	90030		100	76	FT	TYPE C INSTALLATION				100				76	
601	20000		496	404	SY	CRUSHED AGGREGATE SLOPE PROTECTION				496				404	
607	39930		327	-	FT	VANDAL PROTECTION FENCE, 12' CURVED, COATED FABRIC			327						
SPECIAL	60740000		300	600	FT	VANDAL PROTECTION FENCE			300				600		3/46

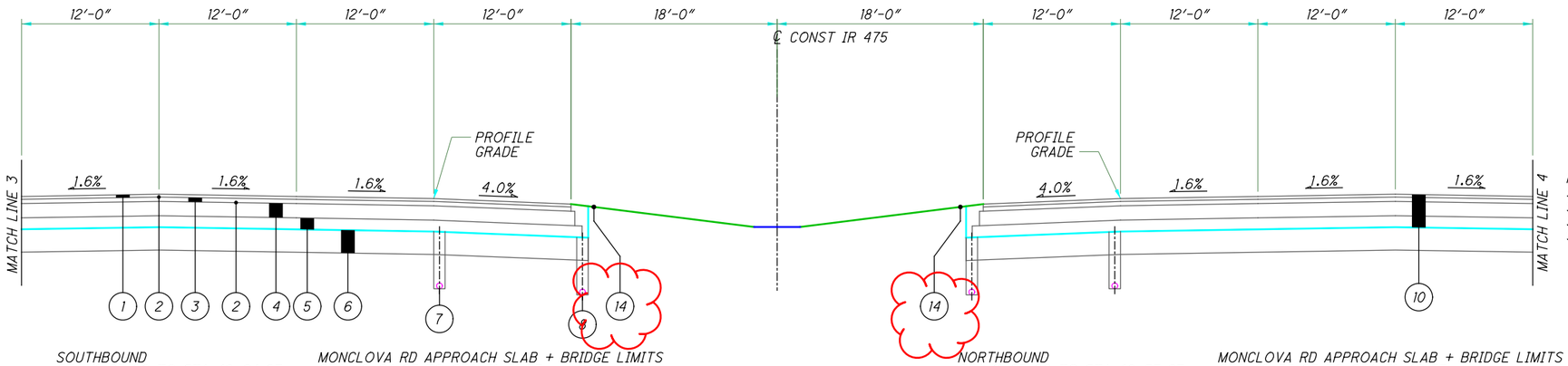
DESIGN AGENCY
DGL Consulting Engineers, LLC
3455 Briarfield Blvd. Suite E
Maumee, Ohio 43537 (419) 535-1015

DESIGNED KWL
DRAWN SAM
REVIEWED LLA
DATE 3-9-18
CHECKED NBL
REVISED
STRUCTURE FILE NUMBER 4801025L/4801026R

ESTIMATED QUANTITIES
BRIDGE NO. LUC-20A-1048 (L & R)
US 20A OVER I-475/US 23

LUC-475-01.85
PID No. 99731

NORMAL SECTION



SOUTHBOUND
SEE PART 1
STA 61+50.00 TO STA 82+96.86
STA 98+78.46 TO STA 126+43.92
STA 146+18.58 TO STA 166+03.63

SOUTHBOUND
STA 11+25.00 TO STA 48+64.67
STA 51+51.33 TO STA 65+60.56
STA 102+05.61 TO STA 166+03.63
STA 173+53.03 TO STA 223+25.00

MONCLOVA RD APPROACH SLAB + BRIDGE LIMITS
STA 48+64.67 TO STA 51+51.33

OHIO TURNPIKE/MANLY RD/SWAN CREEK
APPROACH SLAB + BRIDGE LIMITS
STA 166+03.63 TO STA 173+53.03

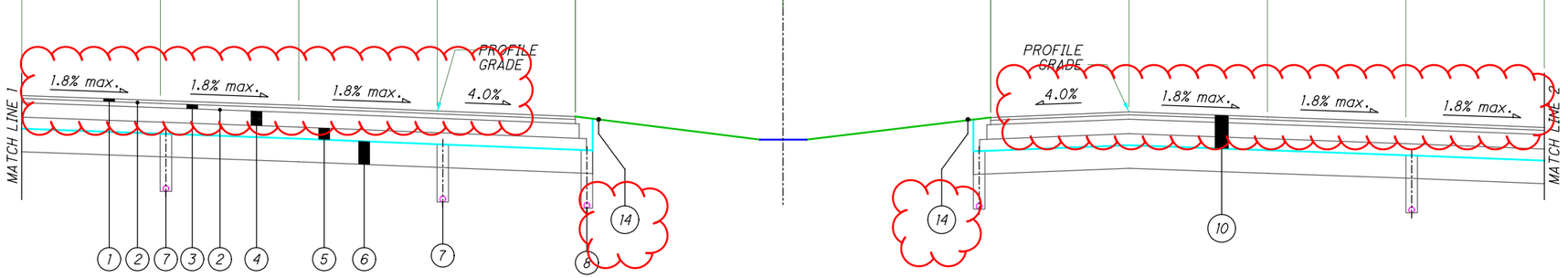
NORTHBOUND
SEE PART 1
STA 63+01.33 TO STA 79+51.87
STA 113+62.49 TO STA 122+50.00
STA 138+24.50 TO STA 141+99.62

NORTHBOUND
STA 11+25.00 TO STA 48+53.67
STA 51+40.33 TO STA 65+60.56
STA 102+05.61 TO STA 166+03.63
STA 173+53.03 TO STA 213+75.00

MONCLOVA RD APPROACH SLAB + BRIDGE LIMITS
STA 48+53.67 TO STA 51+40.33

OHIO TURNPIKE/MANLY RD/SWAN CREEK
APPROACH SLAB + BRIDGE LIMITS
STA 166+03.63 TO STA 173+53.03

SUPERELEVATED SECTION



SOUTHBOUND
STA 65+60.56 TO STA 102+05.61

NORTHBOUND
STA 65+60.56 TO STA 102+05.61

PROPOSED LEGEND

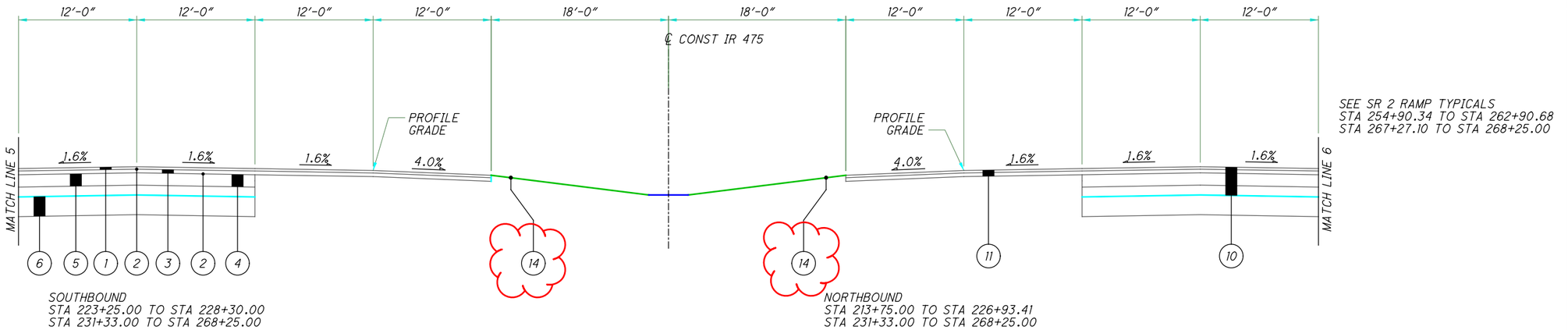
1. ITEM 442 - 1½" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (447)
2. ITEM 407 - NON-TRACKING TACK COAT
3. ITEM 442 - 2¼" ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446)
4. ITEM 302 - 7½" ASPHALT CONCRETE BASE, AS PER PLAN
5. ITEM 304 - 6" AGGREGATE BASE
6. ITEM 206 - CEMENT STABILIZED SUBGRADE, 12" DEEP
7. ITEM 605 - BASE PIPE UNDERDRAINS W GEOTEXTILE FABRIC
8. ITEM 606 - SHALLOW PIPE UNDERDRAINS W GEOTEXTILE FABRIC
9. ITEM 606 - GUARDRAIL TYPE MGS
10. ITEM 202 - PAVEMENT REMOVED
11. ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE
12. ITEM 203 - 6" GRANULAR MATERIAL, TYPE B
13. ITEM 203 - 18" GRANULAR MATERICAL, TYPE D
14. ITEM 617 - 3¾" COMPACTED AGGREGATE (2 FT WIDE)

CALCULATED JRB
CHECKED XXX

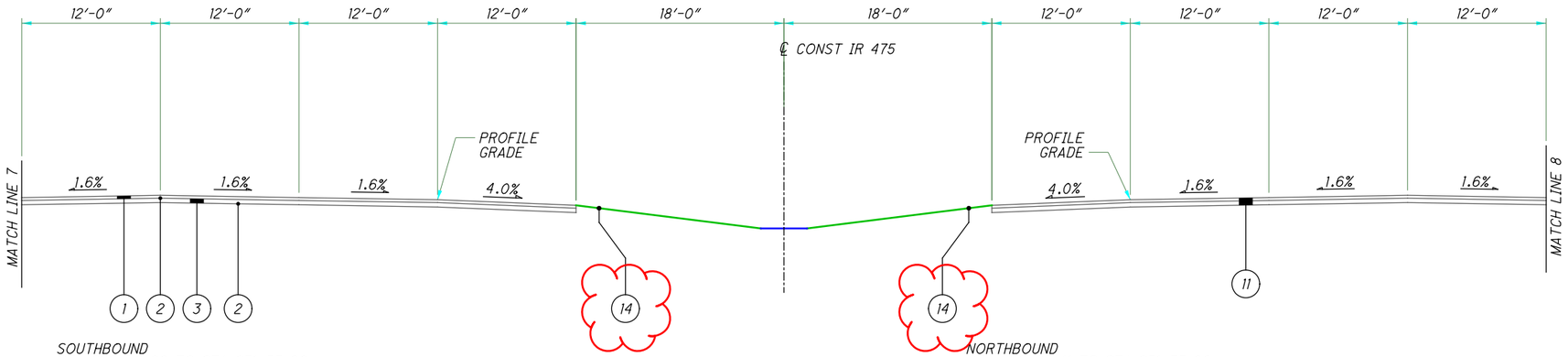
PROPOSED TYPICAL SECTIONS - IR 475

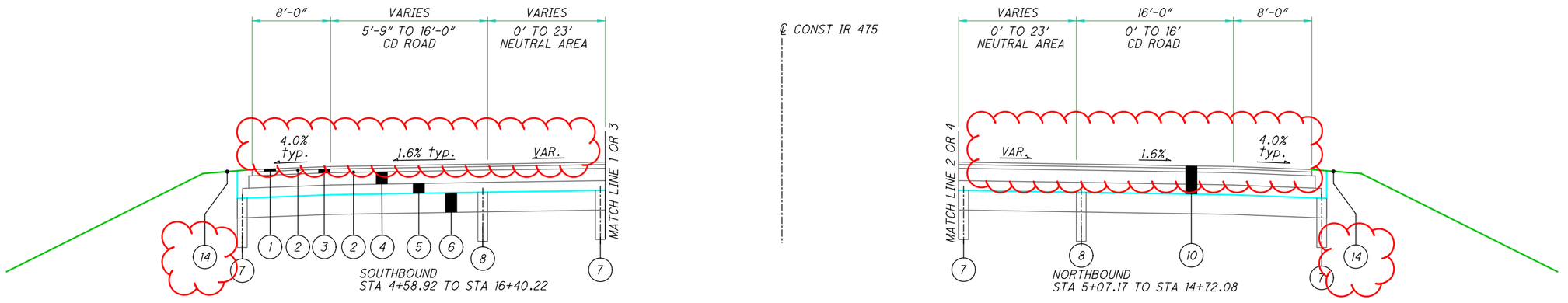
LUC-475-0.09

NORMAL SECTION



NORMAL SECTION



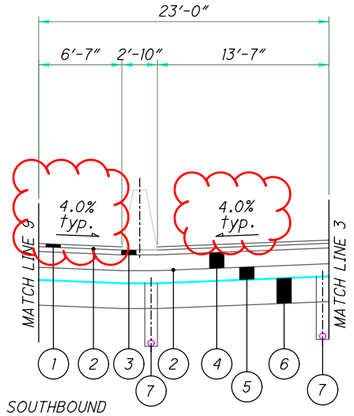


CALCULATED JRB
CHECKED XXX

PROPOSED TYPICAL SECTIONS - IR 475

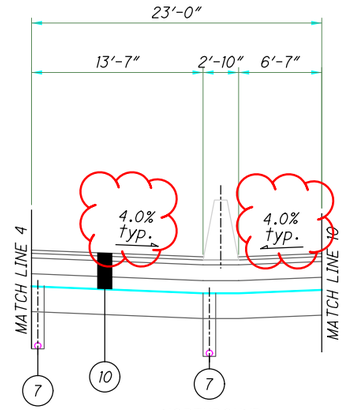
LUC-475-0.09

22
855

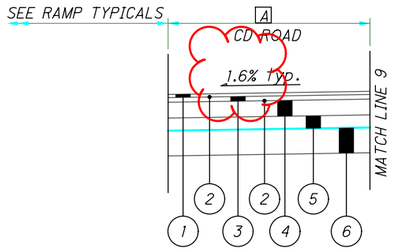


SOUTHBOUND
STA 16+40.22 TO STA 45+09.52

℄ CONST IR 475

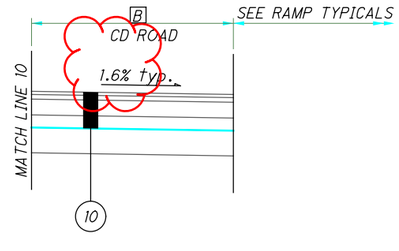


NORTHBOUND
STA 14+72.08 TO STA 45+31.33

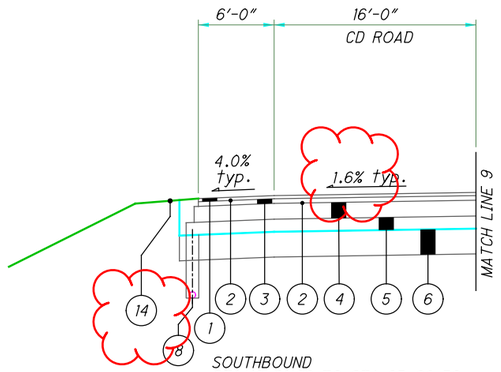


SOUTHBOUND
A
16' FROM STA 16+40.22 TO STA 19+91.92
12' FROM STA 25+90.36 TO STA 29+07.85
12' MIN. FROM STA 30+54.32 TO STA 32+78.46
16' FROM STA 42+76.73 TO STA 45+09.52

℄ CONST IR 475

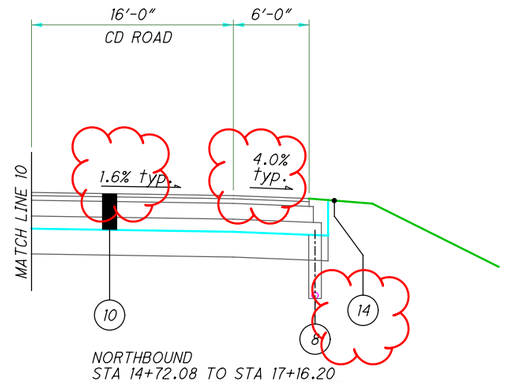


NORTHBOUND
B
16' FROM STA 17+16.20 TO STA 19+72.58
12' MIN. FROM STA 27+35.55 TO STA 29+59.68
12' FROM STA 32+71.51 TO STA 35+41.60
16' FROM STA 42+15.85 TO STA 45+31.33



SOUTHBOUND
STA 19+91.92 TO STA 25+90.36
STA 32+78.46 TO STA 42+76.73

℄ CONST IR 475

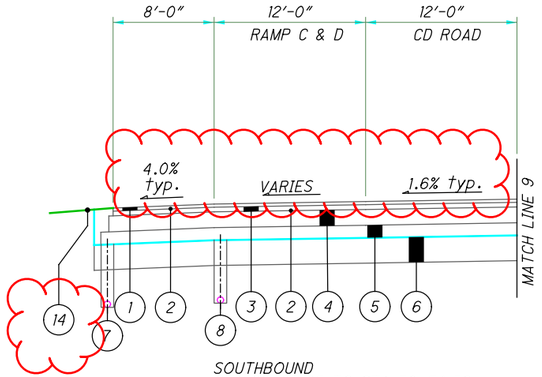


NORTHBOUND
STA 14+72.08 TO STA 17+16.20
STA 19+72.58 TO STA 27+35.55
STA 35+41.60 TO STA 42+15.85

CALCULATED JRB
CHECKED XXX

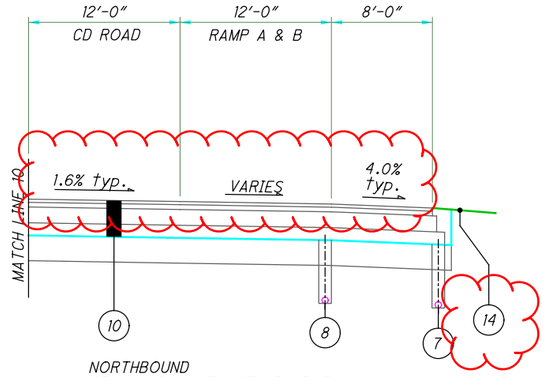
PROPOSED TYPICAL SECTIONS - IR 475

LUC-475-0.09

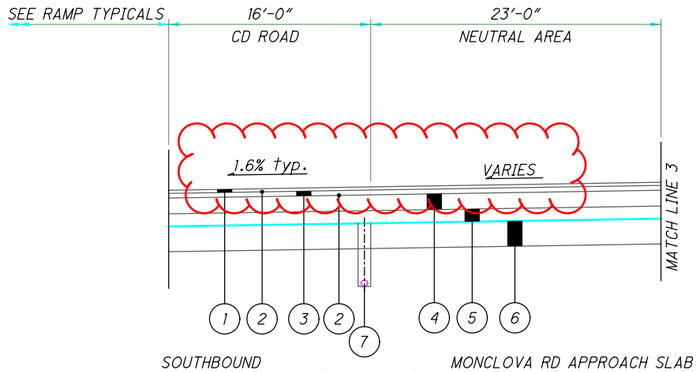


SOUTHBOUND
STA 29+07.85 TO STA 30+54.32

℄ CONST IR 475



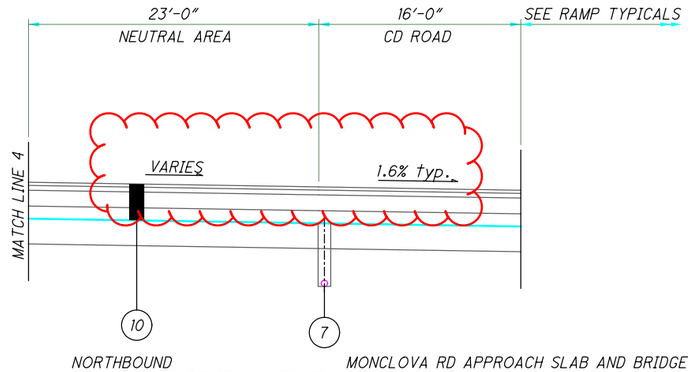
NORTHBOUND
STA 29+59.68 TO STA 32+71.51



SOUTHBOUND
STA 45+09.52 TO STA 48+64.67

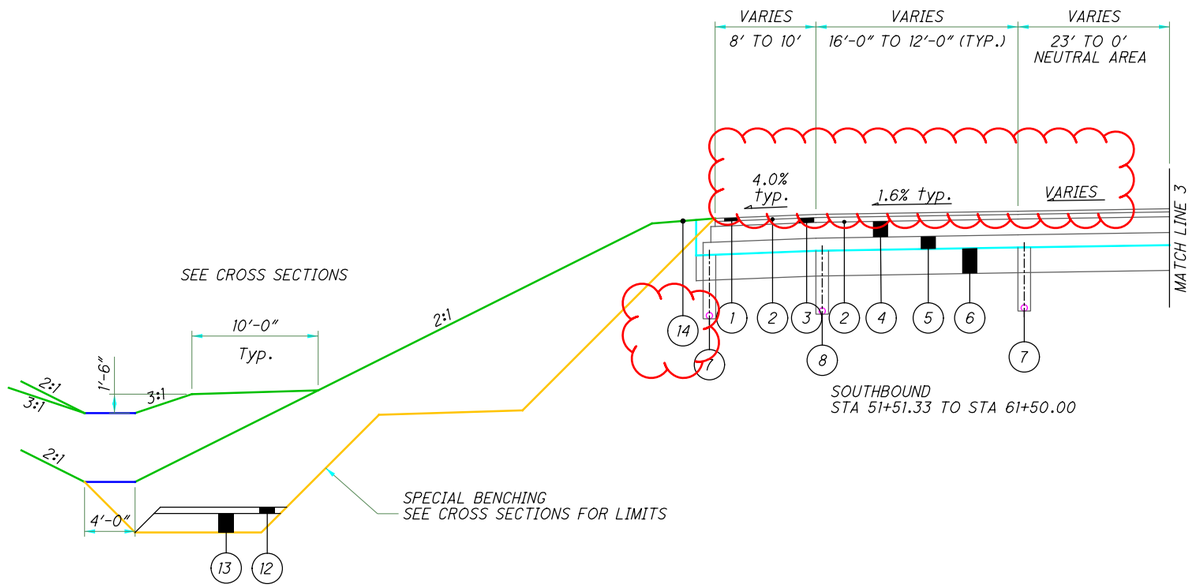
MONCLOVA RD APPROACH SLAB AND BRIDGE LIMITS
STA 48+64.67 TO STA 51+51.33

℄ CONST IR 475



NORTHBOUND
STA 45+31.33 TO STA 48+53.67

MONCLOVA RD APPROACH SLAB AND BRIDGE LIMITS
STA 48+53.67 TO STA 51+40.33



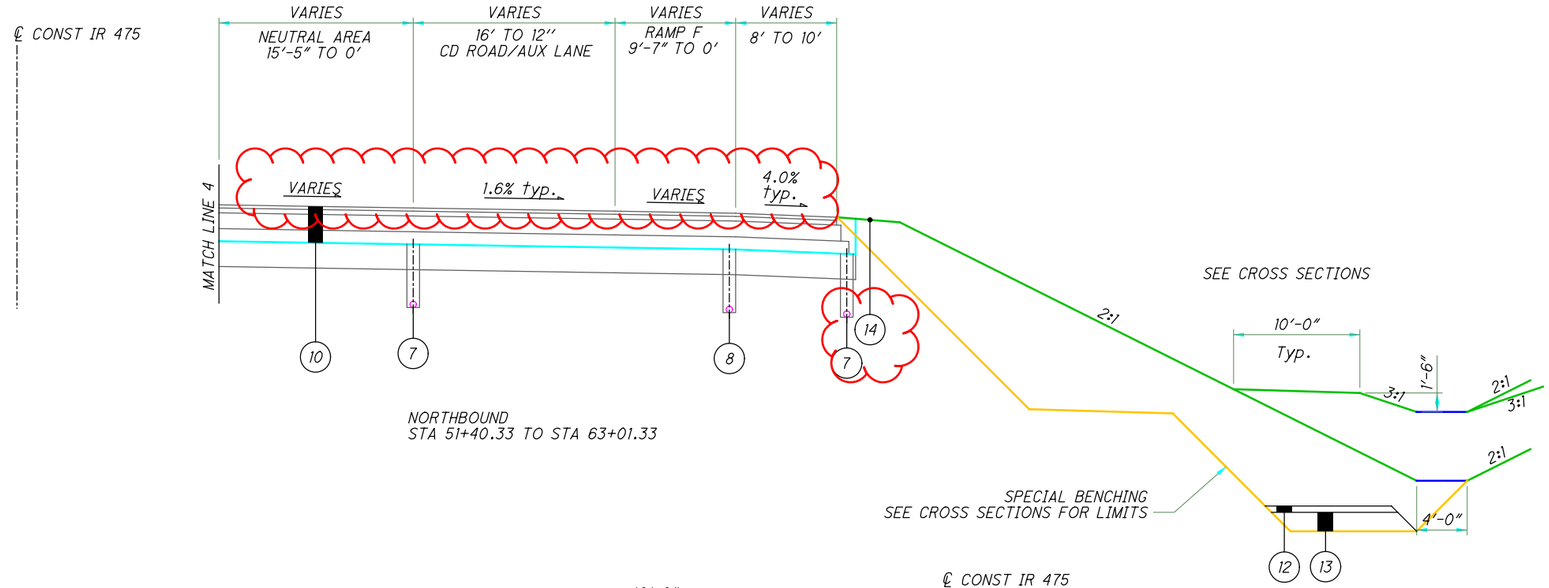
SOUTHBOUND
STA 51+51.33 TO STA 61+50.00

℄ CONST IR 475

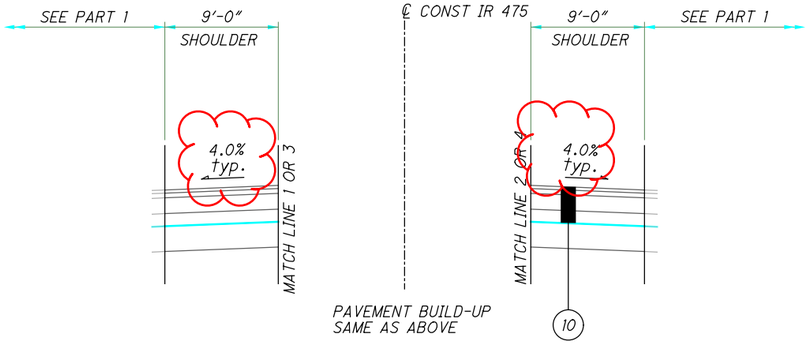
PROPOSED TYPICAL SECTIONS - IR 475

CALCULATED JRB
CHECKED XXX

LUC-475-0.09



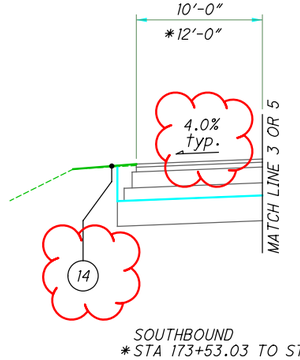
NORTHBOUND
STA 51+40.33 TO STA 63+01.33



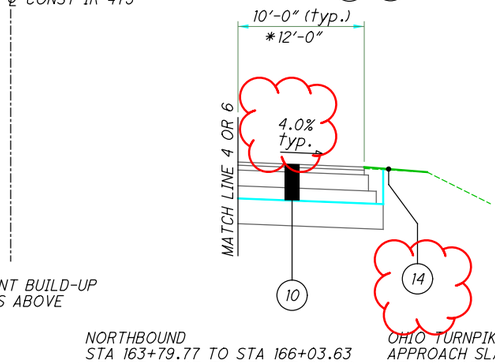
SOUTHBOUND
STA 82+96.86 TO STA 98+78.46
STA 126+43.92 TO STA 146+18.58

PAVEMENT BUILD-UP
SAME AS ABOVE

NORTHBOUND
STA 79+51.87 TO STA 113+62.49
STA 122+50.00 TO STA 138+24.50



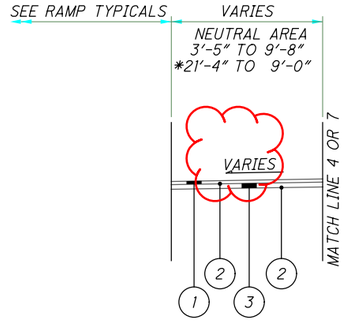
SOUTHBOUND
*STA 173+53.03 TO STA 177+09.74
STA 177+09.74 TO STA 218+99.00
STA 235+71.18 TO STA 245+29.73
STA 253+20.00 TO STA 258+24.39
STA 266+43.00 TO STA 268+25.00



PAVEMENT BUILD-UP
SAME AS ABOVE

NORTHBOUND
STA 163+79.77 TO STA 166+03.63
*STA 173+53.03 TO STA 177+00.00
STA 177+00.00 TO STA 226+93.41
STA 236+80.69 TO STA 246+06.40

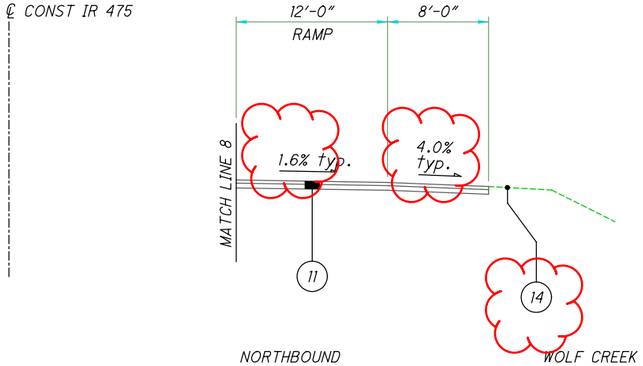
OHIO TURNPIKE/MANLY RD/SWAN CREEK
APPROACH SLAB + BRIDGE LIMITS
STA 166+03.63 TO STA 173+53.03



WOLF CREEK BRIDGE + APPROACH SLAB LIMITS
SKEWED - STA 228+69.33 TO STA 230+39.68 = 170.35'

SOUTHBOUND
STA 228+30.00 TO STA 231+33.00

NORTHBOUND (MIRRORED)
*STA 141+99.62 TO STA 151+85.47



NORTHBOUND
STA 226+93.41 TO STA 231+33.00

WOLF CREEK BRIDGE + APPROACH SLAB LIMITS
SKEWED - STA 228+69.33 TO STA 230+39.68 = 170.35'

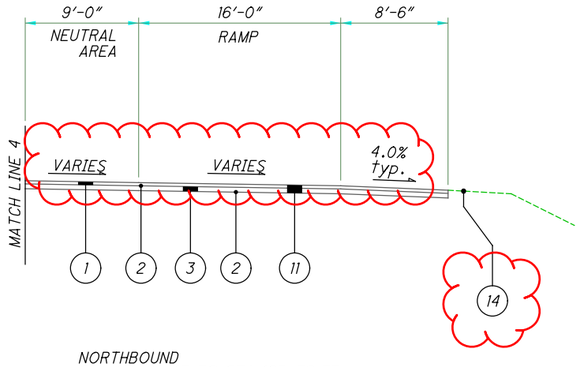
CALCULATED JRB
CHECKED XXX

PROPOSED TYPICAL SECTIONS - IR 475

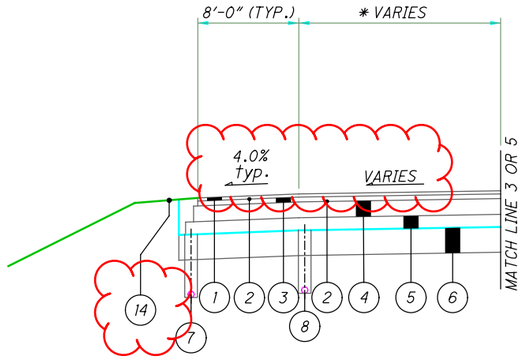
LUC-475-0.09

25
855

℄ CONST IR 475



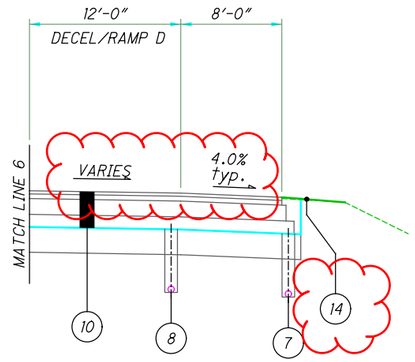
NORTHBOUND
STA 151+85.47 TO STA 163+79.77



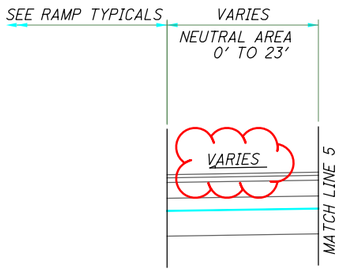
SOUTHBOUND
* 0′ TO 16′ FROM STA 218+99.00 TO STA 226+67.15

* 12′ (TYP.) FROM STA 249+83.69 TO STA 253+20.00
* 12′ (TYP.) FROM STA 262+77.29 TO STA 266+43.00

℄ CONST IR 475



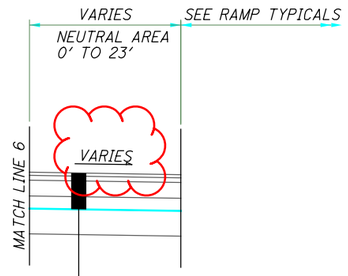
NORTHBOUND
STA 231+33.00 TO STA 232+26.38



SOUTHBOUND
STA 226+67.15 TO STA 228+30.00
STA 231+33.00 TO STA 235+71.18
STA 245+29.73 TO STA 248+08.63
STA 258+24.39 TO STA 261+02.78

℄ CONST IR 475

PAVEMENT BUILD-UP
SAME AS ABOVE

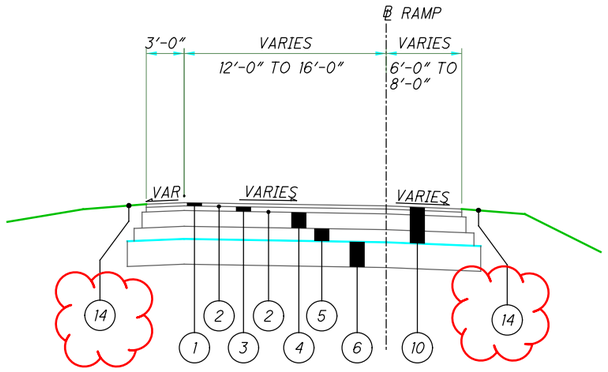


NORTHBOUND
STA 232+26.38 TO STA 236+80.69
STA 246+06.40 TO STA 254+90.34
STA 262+90.68 TO STA 267+27.10

CALCULATED JRB
CHECKED XXX

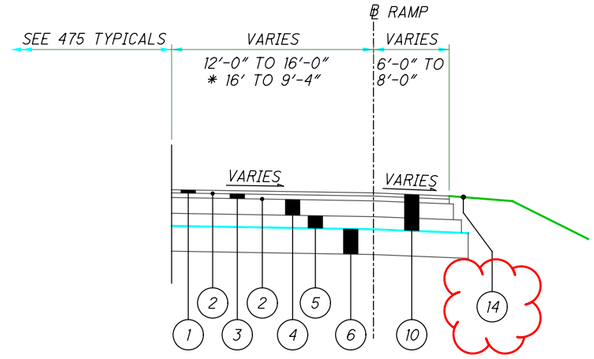
PROPOSED TYPICAL SECTIONS - IR 475

LUC-475-0.09



US 24 RAMPS
RAMP A STA 13+05.51 TO STA 13+23.15 MAX SUPER e = 6.89%
RAMP B STA 0+00.00 TO STA 2+66.20 MAX SUPER e = 4.22%
RAMP C STA 13+20.00 TO STA 13+42.42 MAX SUPER e = 5.93%
RAMP D STA 3+14.22 TO STA 3+32.00 MAX SUPER e = 5.29%
RAMP E STA 2+53.42 TO STA 2+75.00 MAX SUPER e = 6.17%
RAMP G MIRRORED ABOUT ℄
RAMP G STA 40+00.00 TO STA 42+76.65 MAX SUPER e = 6.00%
RAMP H STA 17+80.00 TO STA 18+07.68 MAX SUPER e = 8.95%

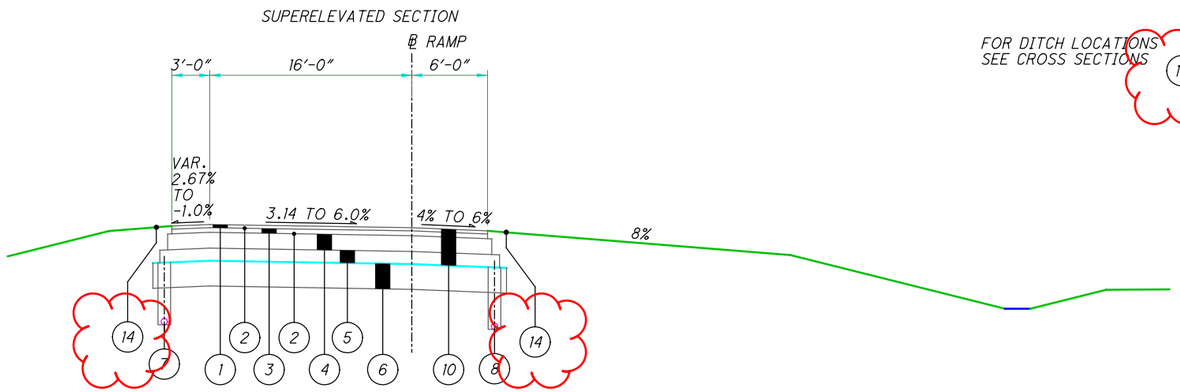
SR 2 RAMPS
RAMP A STA 4+48.02 TO STA 6+10.00 MAX SUPER e = 4.62%
RAMP B STA 14+50.00 TO STA 14+81.15 MAX SUPER e = 4.51%
RAMP C STA 4+52.72 TO STA 5+25.00 MAX SUPER e = 3.80%
RAMP D STA 4+52.66 TO STA 5+55.00 MAX SUPER e = 4.19%
RAMP E STA 11+82.51 TO STA 12+66.05 MAX SUPER e = 6.31%
RAMP F STA 11+72.38 TO STA 12+72.76 MAX SUPER e = 4.00%



US 24 RAMPS
RAMP A STA 13+23.15 TO STA 15+44.29 MAX SUPER e = 6.5%
RAMP B STA 2+66.20 TO STA 3+00.00 MAX SUPER e = 5.19%
RAMP C STA 13+42.42 TO STA 15+63.60 MAX SUPER e = 5.53%
RAMP D STA 0+00.00 TO STA 3+14.22 MAX SUPER e = 4.63%
RAMP E STA 0+00.00 TO STA 2+53.42 MAX SUPER e = 6.60%
RAMP G MIRRORED ABOUT ℄
RAMP G STA 42+76.65 TO STA 48+89.38 MAX SUPER e = 1.90%
RAMP H STA 18+07.68 TO STA 21+56.73 MAX SUPER e = 8.02%

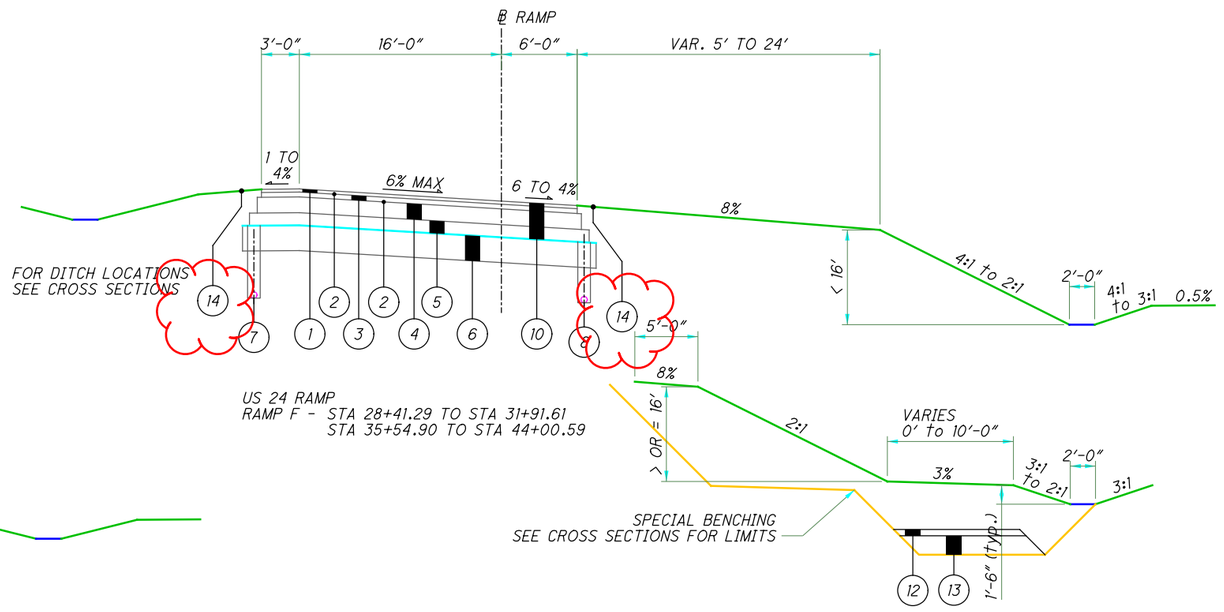
SR 2 RAMPS
RAMP A STA 0+00.00 TO STA 4+48.02 MAX SUPER e = 4.5%
RAMP B STA 14+81.15 TO STA 19+17.93 MAX SUPER e = 4.04%
RAMP B STA 22+20.86 TO STA 23+83.68 NORMAL CROWN
RAMP C STA 0+00.00 TO STA 4+52.72 MAX SUPER e = 2.37%
RAMP D STA 0+00.00 TO STA 4+52.66 NORMAL CROWN
*RAMP E STA 12+66.05 TO STA 24+79.64 MAX SUPER e = 4.32%
RAMP F STA 12+72.76 TO STA 22+82.99 MAX SUPER e = 2.8%

SUPERELEVATED SECTION



US 24 RAMP
RAMP F - STA 26+43.22 TO STA 28+41.29

SUPERELEVATED SECTION



US 24 RAMP
RAMP F - STA 28+41.29 TO STA 31+91.61
STA 35+54.90 TO STA 44+00.59

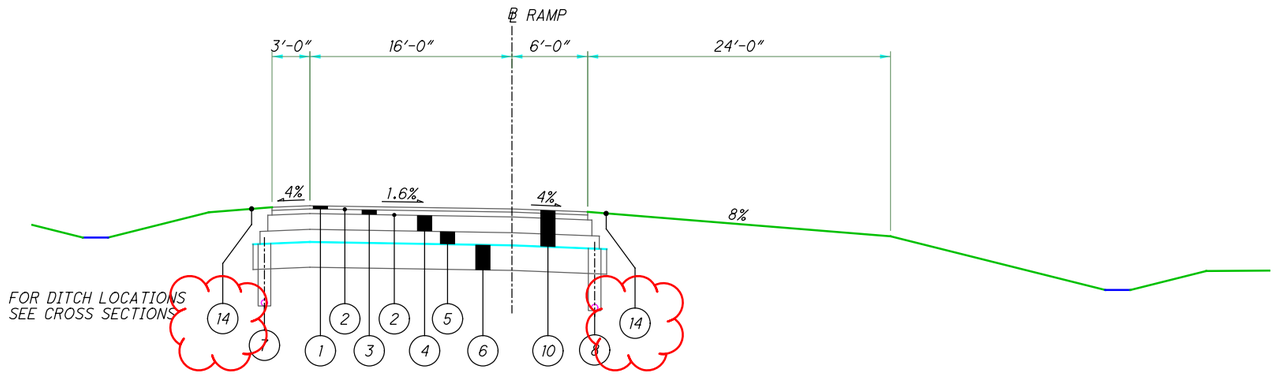
CALCULATED JRB
CHECKED XXX

PROPOSED TYPICAL SECTIONS - IR 475

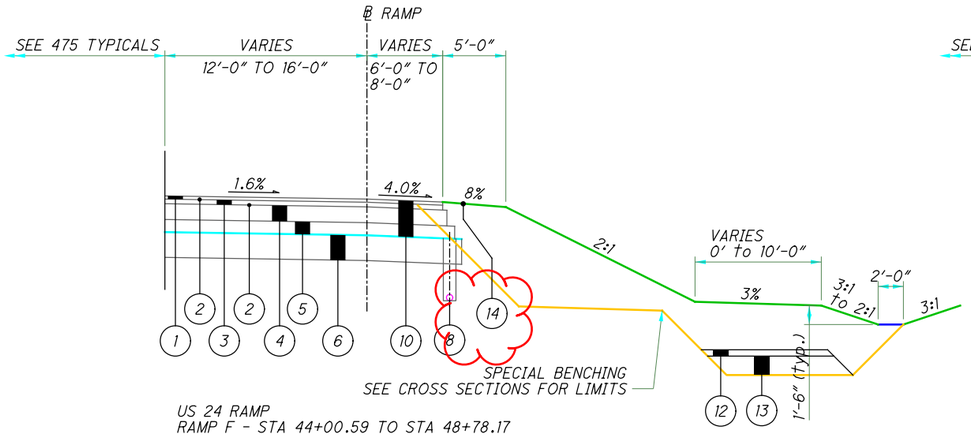
LUC-475-0.09

PROPOSED TYPICAL SECTIONS - IR 475

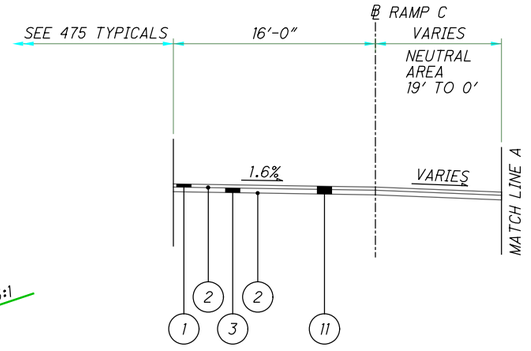
NORMAL SECTION



US 24 RAMP
RAMP F - STA 31+91.61 TO STA 35+54.90

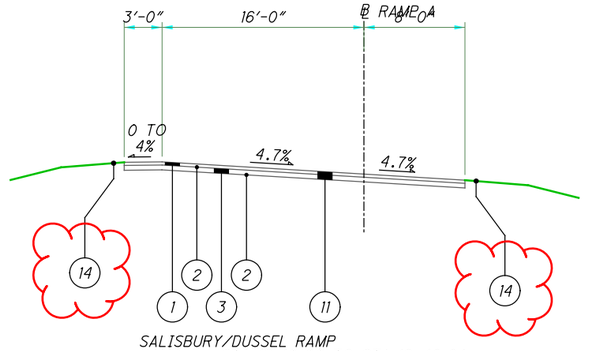


US 24 RAMP
RAMP F - STA 44+00.59 TO STA 48+78.17

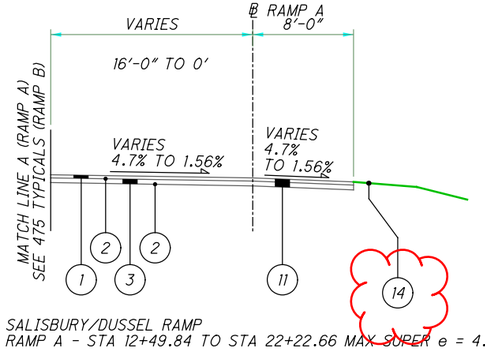


SALISBURY/DUSSEL RAMP
RAMP C - STA 26+36.30 TO STA 36+21.95

SUPERELEVATED SECTION

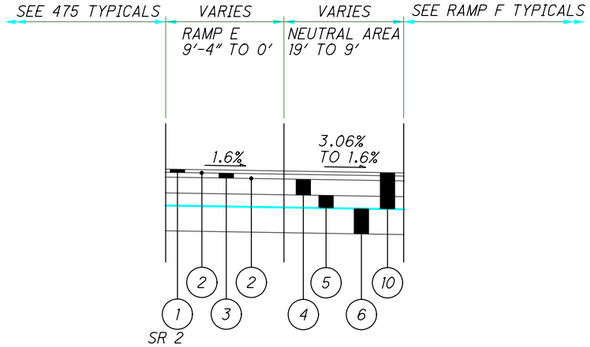


SALISBURY/DUSSEL RAMP
RAMP A - STA 12+10.00 TO STA 12+49.84



SALISBURY/DUSSEL RAMP
RAMP A - STA 12+49.84 TO STA 22+22.66 MAX SUPER e = 4.7%

SR 2 RAMP
RAMP B STA 19+17.93 TO STA 22+20.86 RAMP AND SHOULDER = 1.56%
WOLF CREEK BRIDGE + APPROACH SLAB LIMITS
SKEWED - SR 2 RAMP B STA 19+66.51 TO STA 21+38.63



SR 2
RAMP E STA 24+79.64 TO STA 29+51.95

LUC-475-0.09

REVIEW OF DRAINAGE FACILITIES

PRIOR TO THE START OF WORK AND AGAIN BEFORE FINAL ACCEPTANCE, PERFORM AN INSPECTION WITH REPRESENTATIVES OF THE DEPARTMENT, CONTRACTOR AND LOCALS OF ALL EXISTING DRAINAGE FACILITIES THAT ARE TO REMAIN IN SERVICE WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES IS DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION ARE MAINTAINED BY THE DEPARTMENT.

CONFIRM ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE-MENTIONED PARTIES ARE MAINTAINED AND LEFT IN A CONDITION COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. THE CONTRACTOR IS RESPONSIBLE TO CORRECT ANY CHANGE IN THE CONDITION RESULTING FROM THEIR OPERATIONS AS DIRECTED AND APPROVED BY THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE IS INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEMS.

EXISTING SUBSURFACE DRAINAGE

PROVIDE UNOBSTRUCTED OUTLETS FOR ALL EXISTING UNDERDRAINS OR AGGREGATE DRAINS ENCOUNTERED DURING CONSTRUCTION.

PROVIDE AN OUTLET PER STANDARD CONSTRUCTION DRAWING DM-1.1 FOR ALL UNDERDRAINS THAT OUTLET TO A SLOPE. UNDERDRAINS THAT CAN BE CONNECTED TO THE NEW OR EXISTING UNDERDRAINS AT THE END OF THE PROJECT LIMITS AS WELL AS ALL NECESSARY BENDS OR BRANCHES REQUIRED FOR CONNECTION ARE INCLUDED IN THE BASIS OF PAYMENT FOR UNCLASSIFIED PIPE UNDERDRAINS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

ITEM 601, TIED CONCRETE BLOCK MAT WITH TYPE 2 UNDERLAYMENT - 23 SQ. YD.
ITEM 611, 6" CONDUIT, TYPE F - 100 FT.
ITEM 611, PRECAST REINFORCED CONCRETE OUTLET - 10 EACH

SEEDING AND MULCHING

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

659, SOIL ANALYSIS TEST	2 EACH
659, TOPSOIL	20782 CU. YD.
659, REPAIR SEEDING AND MULCHING	9361 SQ. YD.
659, INTER-SEEDING	9361 SQ. YD.
659, COMMERCIAL FERTILIZER	42 TON
659, LIME	38.6 ACRES
659, WATER	1517 M. GAL.
659, MOWING	421 M. SQ.FT.

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

302 ASPHALT CONCRETE BASE, (449), AS PER PLAN

MIX DESIGN - FOLLOW THE REQUIREMENTS OF 302.02 EXCEPT AS MODIFIED BELOW:

- USE A MAXIMUM F/A RATIO OF 1.4. IF THE F/A RATIO IS GREATER THAN 1.2, RECALCULATE THE F/A RATIO USING THE EFFECTIVE ASPHALT BINDER CONTENT.
- THE TSR IS REQUIRED AND THE MINIMUM TSR IS 0.70 AS DETERMINED USING SUPPLEMENT 1051. ADD ANTISTRIP ADDITIVE AS SPECIFIED IN 440.06 IF REQUIRED BASED ON TSR AND ENSURE THE MINIMUM IS 0.80 AFTER ANTISTRIP.

QUALITY CONTROL AND ACCEPTANCE

FOLLOW THE REQUIREMENTS AS SPECIFIED IN 403 USING 446 ACCEPTANCE EXCEPT AS MODIFIED BELOW:

- RUN MSG AND AIR VOIDS AND FOLLOW 403.06.G INSTEAD OF 403.06.F.

TABLE 403.06-1

MIX CHARACTERISTIC	OUT OF SPECIFICATION LIMITS [1]
ASPHALT BINDER CONTENT [2]	-0.5% TO 0.5%
1/2 INCH (12.5 MM) SIEVE [3]	-7.0% TO 7.0%
NO.4 (4.75MM) SIEVE [3]	-6.0% TO 6.0%
NO. 8 (2.36 MM) SIEVE [3]	-5.0% TO 5.0%
NO. 200 (75 µM) SIEVE [3]	-2.0% TO 2.0%
AIR VOIDS [3]	2.5% TO 5.5%
MSG [3]	-0.015 TO 0.015
F/A [3]	1.4 MAX
VMA	12.0 MIN

[1] DEVIATION FROM THE JMF.
[2] FOR DESIGN AIR VOIDS OF 4.0%. COMPACT USING A SIX-INCH MARSHALL HAMMER WITH 70 BLOWS ON BOTH SIDES PER 302.02.
[3] DEVIATION FROM THE MTD.
[4] IF THE F/A RATIO IS GREATER THAN 1.2, RECALCULATE THE F/A RATIO USING THE EFFECTIVE ASPHALT BINDER CONTENT.
[5] DO NOT FOLLOW THE MINIMUM 7% RETAINED DURING PRODUCTION PER 403.06.F.5.

- REPLACE MSG COMPARISON IN TABLE 403.10-1 WITH 0.015.
- NOTIFY ERIC BIEHL - OMM 614-275-1380 AND JULIA MILLER OCA 614-466-3165 ONE WEEK PRIOR TO PLANNED BEGINNING PRODUCTION AND PLACEMENT. YOU MAY EMAIL THEM AS WELL.

DENSITY ACCEPTANCE

FOLLOW THE REQUIREMENTS OF 446 ASPHALT CONCRETE CORE DENSITY ACCEPTANCE, INCLUDING JOINT CORES, EXCEPT AS MODIFIED BELOW:

OBTAIN 6-INCH DIAMETER CORES ON EACH LIFT PLACED. OBTAIN JOINT CORES AT COLD LONGITUDINAL JOINTS SUCH THAT THE CORE $\frac{5}{32}$S CLOSEST EDGE IS 6 INCHES (152 MM) FROM THE EDGE OF THE MAT.
PAY FACTORS FOR EACH LIFT OF 302 APP WILL BE AS SPECIFIED IN THE FOLLOWING TABLE.

MEAN OF LOT CORE DENSITY [1]	PAY FACTOR 302,APP
>98.0%	[2]
>97.0% TO 98.0%	[3]
92.0% TO 97%	1.00
91.0% TO 91.9%	0.90
90.0% TO 90.9%	0.80
89.0% TO 89.9%	0.70
<89.0%	[4]

[1] MEAN OF CORES AS PERCENT OF AVERAGE MSG FOR THE PRODUCTION DAY.
[2] THE DISTRICT WILL DETERMINE WHETHER THE MATERIAL MAY REMAIN IN PLACE.
THE PAY FACTOR FOR MATERIAL ALLOWED TO REMAIN IN PLACE IS 0.50.
[3] THE DISTRICT WILL DETERMINE WHETHER THE MATERIAL MAY REMAIN IN PLACE.
THE PAY FACTOR FOR MATERIAL ALLOWED TO REMAIN IN PLACE IS 0.70.
[4] THE DISTRICT WILL DETERMINE WHETHER THE MATERIAL MAY REMAIN IN PLACE.
THE PAY FACTOR FOR MATERIAL ALLOWED TO REMAIN IN PLACE IS 0.50.

IF MATERIAL IS REMOVED AND REPLACED THE CONTRACTOR WILL REMOVE AND REPLACE THIS COURSE AND ALL COURSES PAVED ON THIS COURSE.

IDEAL-CT:

FOLLOW ALL REQUIREMENTS OF THE SPECIFICATIONS WITH THE ADDITION OF THE FOLLOWING:

PERFORM THE IDEAL-CT FOR THE MIX DESIGN SUBMITTAL PER SUPPLEMENT 1033 ON THE JMF ASPHALT BINDER CONTENT DETERMINED FROM THE DESIGN AIR VOIDS AND ENSURE THE MINIMUM IN THE TABLE BELOW IS MET FOR THE MIX TYPE. THE IDEAL-CT ONLY NEEDS TO BE RAN FOR MIX DESIGN ACCEPTANCE.

PROVIDE RESULTS PER SUPPLEMENT 1033 WITH THE MIX DESIGN. SUPPLY SIX GYRATORY COMPACTED SPECIMENS TO THE HEIGHT MENTIONED IN SUPPLEMENT 1033 FOR THE MIX TYPE SPECIFIED. ALLOW MORE THAN TWO WEEKS FOR MIX DESIGN REVIEW AND PRELIMINARY APPROVAL DUE TO OMM VERIFYING THE MIX.

MIX TYPE	MINIMUM CT_{MM}
ITEM 442 (SUPERPAVE) 9.5 MM	80
ITEM 442 (SUPERPAVE) 12.5MM (SURFACE)	80
ITEM 442 (SUPERPAVE) 12.5 MM (INTERMEDIATE)	70
ITEM 442 (SUPERPAVE) 19 MM (INTERMEDIATE)	60
ITEM 441 (MARSHALL) TYPE 1 SURFACE MIXES	80
ITEM 441 (MARSHALL) TYPE 1 INTERMEDIATE MIXES	80
ITEM 441 (MARSHALL) TYPE 2 INTERMEDIATE MIXES	60
ITEM 302 (MARSHALL) MIXES	60

ENVIRONMENTAL COMMITMENTS

ENDANGERED BAT HABITAT REMOVAL

THE CONTRACTOR SHALL NOT REMOVE ANY TREES UNDER THIS PROJECT FROM APRIL 1 THROUGH SEPTEMBER 30 EVERY YEAR. THE PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT AND NORTHERN LONG-EARED BAT. ALL NECESSARY TREE REMOVAL SHALL OCCUR FROM OCTOBER 1 THROUGH MARCH 31. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT. FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS A LIVE, DYING, OR DEAD WOODY PLANT, WITH A A TRUNK 3 INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

SIDE CUT METROPARK IS A PROTECTED SECTION 6(F) PROPERTY LOCATED SOUTH OF THE I-475/US-24 INTERCHANGE ALONG THE WESTERN/NORTHERN BANK OF THE MAUMEE RIVER. THE DISTRICT 2 ENVIRONMENTAL COORDINATOR SHALL ENSURE THAT NO NEW RIGHT OF WAY WILL BE TAKEN FROM THIS SECTION 6(F) PROPERTY. FURTHERMORE, NO STAGING AND/OR STORAGE OF CONSTRUCTION EQUIPMENT WILL OCCUR OUTSIDE OF THE PROJECT CONSTRUCTION AREA WITHIN THE KNOWN BOUNDARIES OF THE SECTION 6(F) PROPERTY.

THE FALLEN TIMBERS BATTLEFIELD IS AN HISTORIC LOCATED IN THE SOUTHWEST QUADRANT OF THE I-475 AND MONCLOVA ROAD OVERPASS. THE DISTRICT 2 ENVIRONMENTAL COORDINATOR SHALL ENSURE THAT NO NEW RIGHT OF WAY WILL BE TAKEN FROM THIS SECTION 4(F) PROPERTY AND THAT NO STAGING AND/OR STORAGE OF CONSTRUCTION EQUIPMENT WILL OCCUR OUTSIDE OF THE PROJECT CONSTRUCTION AREA WITHIN THE KNOWN BOUNDARIES OF THE SECTION 4(F) PROPERTY.

THE CONTRACTOR SHALL PROVIDE THE NOISE WALL SHOP DRAWINGS TO THE PROJECT ENGINEER WHO SHALL PROVIDE THEM TO NOEL ALCALA IN THE OFFICE OF ENVIRONMENTAL SERVICES FOR REVIEW AND APPROVAL A MINIMUM OF 30 DAYS PRIOR TO MANUFACTURING THE NOISE WALLS.

VEGETATED FILTER STRIP

THIS PLAN UTILIZES VEGETATED FILTER STRIP(S) FOR POST CONSTRUCTION STORM WATER TREATMENT. PLACE EITHER ITEM 660 SODDING OR ITEM 659 SEEDING AND MULCHING WITH A 4-INCH LIFT OF TOPSOIL AND ITEM 670, SLOPE EROSION PROTECTION TO ALL DISTURBED AREAS DESIGNATED AS VEGETATED FILTER STRIPS, THE EDGE OF SHOULDER, AND THE FORESLOPE AS SPECIFIED IN THE PLANS.

VEGETATED BIOFILTER

THIS PLAN UTILIZES VEGETATED BIOFILTER(S) FOR POST CONSTRUCTION STORM WATER TREATMENT. PLACE EITHER ITEM 660 SODDING OR ITEM 659 SEEDING AND MULCHING WITH A 4-INCH LIFT OF TOPSOIL AS SHOWN IN THE PLANS TO ANY DISTURBED AREA ON THE SHOULDER AND FORESLOPE DRAINING TO A VEGETATED BIOFILTER. THE DITCH FOR EACH VEGETATED BIOFILTER SHALL BE TRAPEZOIDAL, AS SHOWN IN THE PLAN CROSS SECTIONS. PROVIDE ITEM 670 AS SPECIFIED IN THE PLANS.

FIELD OPERATIONS

FOLLOW THE REQUIREMENTS OF 401 AND ANTI-SEGREGATION EQUIPMENT IS REQUIRED PER 401.03.C AND IS INCIDENTAL TO THE COST OF THIS ITEM. USE ANTI-SEGREGATION EQUIPMENT FOR PAVING THE 302 BASE COURSE ON ALL LANES AND ADJACENT SHOULDERS INCLUDING MAINLINE LANES, EXPRESS LANES, COLLECTOR DISTRIBUTOR LANES, CONTINUOUS CENTER TURN LANES, ACCELERATION/ DECELERATION LANES, AND RAMP LANES.

CALCULATED JMF CHECKED XXX

GENERAL NOTES

LUC-475-0.09

ITEM SPECIAL - SETTLEMENT PLATFORMS

DESCRIPTION: THIS ITEM CONSISTS OF FURNISHING, CONSTRUCTING, AND MAINTAINING SETTLEMENT PLATFORMS AND OBTAINING SETTLEMENT READINGS AS REQUIRED BY THE PLANS OR AS DIRECTED BY THE ENGINEER. AT THE OPTION AND EXPENSE OF THE CONTRACTOR, ADDITIONAL SETTLEMENT PLATFORMS MAY BE INSTALLED AT LOCATIONS APPROVED BY THE ENGINEER. SETTLEMENT READINGS SHALL BE TAKEN WEEKLY DURING CONSTRUCTION AND DURING ANY SPECIFIED WAITING PERIOD. THE READINGS SHALL BE PLOTTED ON GRAPH PAPER PRESENTING DEFORMATION (ON THE NEGATIVE Y-AXIS) AND FILL HEIGHT (ON THE POSITIVE Y-AXIS) VERSUS TIME (ON THE X-AXIS). A COPY OF EACH CUMULATIVE PLOT SHALL BE SENT TO THE DISTRICT GEOTECHNICAL ENGINEER AND THE OFFICE OF GEOTECHNICAL ENGINEERING, ATTENTION: GEOTECHNICAL DESIGN COORDINATOR, AFTER EACH SETTLEMENT READING IS RECORDED.

THE DEPARTMENT WILL CONSIDER VIBRATING WIRE SETTLEMENT MONITORING PLATFORMS IN LIEU OF THE CONVENTIONAL SETTLEMENT PLATFORMS. THE CONTRACTOR SHOULD PROVIDE DETAILS OF THE PROPOSED VIBRATING WIRE SETTLEMENT PLATFORMS AS WELL AS DESIGN DRAWINGS OF THE PROPOSED PLATFORM AND CABLING LAYOUT TO THE ENGINEER AT LEAST 30 DAYS PRIOR TO CONSTRUCTION. THE DEPARTMENT WILL REQUIRE 10 WORKING DAYS FOR REVIEW AND APPROVAL. THE DESIGN DRAWINGS SHOULD ILLUSTRATE THE PROPOSED SETTLEMENT VIBRATING WIRE SETTLEMENT PLATFORM LOCATIONS WITH ALL EXISTING AND PROPOSED SITE FEATURES TO VERIFY THE PROPOSED CABLING WILL NOT CONFLICT WITH EXISTING FACILITIES, PROPOSED FACILITIES OR UTILITIES. NO ADDITIONAL PAYMENT WILL BE PROVIDED IF THE CONTRACTOR ELECTS TO UTILIZE VIBRATING WIRE SETTLEMENT PLATFORMS.

MATERIALS: SOUND LUMBER SUCH AS 3/4 INCH EXTERIOR GRADE PLYWOOD SHALL BE USED FOR THE BASE. THE PIPE SHALL BE 2 1/2" STANDARD BLACK PIPE WITH THREADED FITTINGS AS SHOWN ON THE PLANS. A STEEL PLATE 36"X36"X1/8" MAY BE SUBSTITUTED FOR THE LUMBER FOR THE PLATFORMS, AT CONTRACTOR'S OPTION.

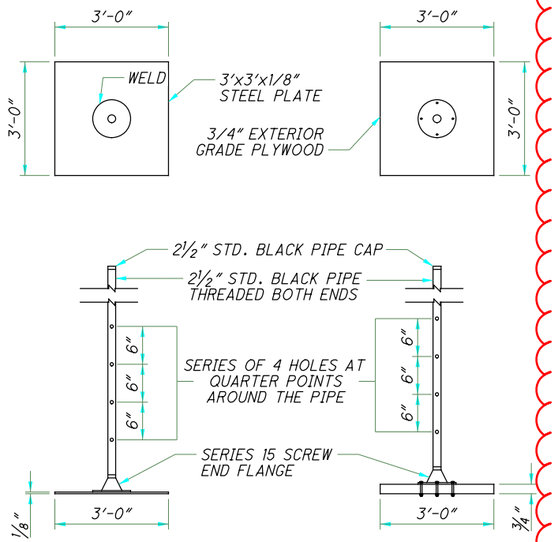
CONSTRUCTION REQUIREMENTS: THE 36"X36" PLATFORM SHALL CONFORM TO THE DETAILS SHOWN ON THE PLANS. THE PLATFORM SHALL BE SET ON A LEVEL SURFACE. THE PIPES SHALL BE FIRMLY SECURED TO THE PLATFORMS AND SHALL BE MAINTAINED IN PLUMB POSITION DURING THE PLACEMENT OF THE EMBANKMENT. PIPE SHALL BE MARKED AT INTERVALS BY THE CONTRACTOR TO FACILITATE MEASUREMENT OF THE DEPTH OF FILL. THE CONTRACTOR SHALL STOP WORK IN ANY LOCATION WHERE A SETTLEMENT PLATFORM HAS DISTURBED OR DAMAGED UNTIL THE NECESSARY CORRECTIONS OR REPLACEMENT HAS BEEN PERFORMED.

THE ESTIMATED SETTLEMENT IS 2.5". THE ESTIMATED SETTLEMENT PERIOD IS 90 CONSECUTIVE DAYS AFTER THE FINAL LIFT OF EMBANKMENT HAS BEEN PLACED.

PRIOR TO PAVING, THE TOP OF THE SETTLEMENT PLATFORM PIPE SHALL BE CUT OFF 2 FEET BELOW FINISHED SURFACE OF THE SUBGRADE OR TOPSOIL SURFACE, WHICHEVER IS APPLICABLE.

METHOD OF MEASUREMENT: THE NUMBER OF SETTLEMENT PLATFORMS TO BE PAID FOR WILL BE THE ACTUAL NUMBER OF SETTLEMENT PLATFORMS COMPLETED, MAINTAINED, AND ACCEPTED BY THE ENGINEER.

BASIS OF PAYMENT: PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE PER EACH FOR "ITEM SPECIAL, SETTLEMENT PLATFORMS" WHICH IS COMPENSATED FOR CONSTRUCTION, MAINTAINING AND MONITORING THE SETTLEMENT PLATFORMS INCLUDING FURNISHING ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THIS WORK. PAYMENT WILL NOT BE MADE FOR SETTLEMENT PLATFORMS WHICH BECOME USELESS BECAUSE OF DAMAGE INFLICTED BY THE CONTRACTOR'S OPERATIONS.



NOTES:

1. SETTLEMENT PLATFORMS SHALL BE PLACED AT RAMP F
   STA. 33+00.00, 19' OFFSET (LT)
   STA. 40+00.00, 10' OFFSET (RT)
   STA. 41+00.00, 10' OFFSET (RT)
   STA. 48+00.00, 10' OFFSET (RT)
2. CONTRACTOR HAS OPTION OF USING EITHER STEEL OR PLYWOOD PLATFORM BASE.
3. CONTRACTOR SHALL FURNISH MATERIALS AND LABOR TO EXTEND PIPE UP THROUGH ENTIRE FILL.
4. SETTLEMENT PLATFORMS SHALL BE ANCHORED BY STAKES DRIVEN AT EACH CORNER TO PREVENT OVERTURNING.

ITEM 619 - FIELD OFFICE, TYPE C, AS PER PLAN

THIS ITEM SHALL BE IN ACCORDANCE WITH ITEM 619 OF THE 2019 OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS EXCEPT AS MODIFIED BY THE FOLLOWING:

1. THE FIELD OFFICE SHALL BE ACCEPTED BY THE ENGINEER AND BE LOCATED IN THE AREA ALONG I-475 BETWEEN AIRPORT HWY AND US 24 AND WITHIN 2 MILE EAST OR WEST OF THIS I-475 SECTION. LOCATIONS OUTSIDE THE FOOTPRINT WILL NOT BE ACCEPTED UNLESS APPROVAL IS RECEIVED BY THE ENGINEER.

2. A CONFERENCE ROOM SHALL BE SUPPLIED WITH A MINIMUM OF 1000 SQUARE FEET OF FLOOR SPACE. THE ROOM SHALL BE SUPPLIED WITH CONFERENCE TABLES AND PADDED CHAIRS CAPABLE OF SEATING MINIMUM OF 30 ATTENDEES. THE ROOM SHALL INCLUDE A SEPARATE PHONE LINE WITH SPEAKERPHONE CAPABILITIES, DATA CONNECTION PORT AND TWO WALL MOUNTED 80" OR LARGER HD FLAT SCREEN TV'S. TWO 25' OR LONGER HDMI CABLES ARE TO BE INCLUDED WITH THE TV'S. A PROJECTOR AND SCREEN WOULD BE AN ACCEPTABLE ALTERNATIVE TO THE TWO TV'S.

3. THE SPACE SHALL BE CONTINUOUS AND WITHING THE SAME BUILDING. A MINIMUM OF TWO BATHROOMS SHALL BE DEDICATED FOR THE FIELD OFFICE. ONE MENS AND ONE WOMENS. NO PORTABLE FACILITIES WILL BE ACCEPTED. BATHROOM FACILITIES SHALL BE HANDICAP ACCESSIBLE. THE CONTRACTOR SHALL PROVIDE CLEANING SERVICES FOR THE FIELD OFFICE A MINIMUM OF 1 TIME/WEEK.

4. THE REQUIREMENT OF ONE SEPARATE ROOM SHALL BE INCREASED TO A MINIMUM OF SIX. SEPARATE ENCLOSED ROOMS OF 150 SQUARE FEET MINIMUM PER ROOM. EACH ROOM SHALL BE SUPPLIED WITH A MINIMUM OF TWO ELECTRICAL OUTLETS. IN ADDITION, 10 CUBICLES AND/OR OFFICES OF 100 SQUARE FEET MINIMUM PER OFFICE SHALL BE SUPPLIED WITH A MINIMUM OF ONE ELECTRICAL OUTLETS EACH.

5. THE ALL-WEATHER PARKING SPACES PROVIDED SHALL BE INCREASED TO 2 PARKING SPACES PER DESK SPACE AND INCLUDE SNOW REMOVAL. SNOW REMOVAL FOR THE ENTIRE PARKING AREA AND WALKS WILL BE COMPLETED NO LATER THAN 6:30 AM EACH DAY.

6. PROVIDE INTERNET CONNECTION CAPABLE OF 500 Mbps DOWNLOAD AND 30 Mbps UPLOAD.

7. SECURITY SHALL BE PROVIDED FOR THE FIELD OFFICE AND SURROUNDING FACILITIES BY ILLUMINATING ALL SIDES OF THE FIELD OFFICE AND PARKING AREA.

8. THE FIELD OFFICE REQUIREMENTS FOR MOISTURE AND DENSITY CONTROL OF MATERIALS SHALL BE SATISFIED, HOWEVER WITH THE FOLLOWING MODIFICATIONS: THE FACILITY SHALL BE CAPABLE OF STORING UP TO 2 NUCLEAR DENSITY GUAGES IN 2 SEPARATE BOXES. THE AREA TO BE DESIGNATED NUCLEAR GUAGE STORAGE MUST BE A MINIMUM OF 15' AWAY FROM ANY OFFICES OR OTHER CONTINUALLY OCCUPIED SPACES OF THE OFFICE. A CURE BOX SHALL BE PROVIDED CAPABLE OF HOLDING AT LEAST FIVE 3-GALLON SIZE BUCKETS OR EIGHTEEN 4X8 CONCRETE CYLINDERS.

NO ADDITIONAL COMPENSATION WILL BE GRANTED FOR ADDITIONAL REQUIREMENTS STATED ABOVE. THE DEPARTMENT WILL MEASURE "FIELD OFFICE, TYPE C, A.P.P. BY THE NUMBER OF MONTHS THE OFFICE IS MAINTAINED.

CALCULATED JRB CHECKED XXX

GENERAL NOTES

LUC-475-0.09

ITEM 614, MAINTAINING TRAFFIC

THIS PROJECT CONSISTS OF CONSTRUCTION OF A DIVERGING DIAMOND INTERCHANGE AT US 20A WITH COLLECTOR DISTRIBUTOR ROADWAYS TO THE DUSSEL DR/SALISBURY ROAD INTERCHANGE, NEW BRIDGES, LIGHTING, NEW TRAFFIC SIGNALS, NEW SIGNING, BARRIER AND DRAINAGE IMPROVEMENTS.

A MINIMUM OF 2 LANES OF TRAFFIC IN EACH DIRECTION ON I-475, I-475 RAMPS AND 1 LANE IN EACH DIRECTION ON US 20A SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING PAVEMENT, THE COMPLETED PAVEMENT, ITEM 615 PAVEMENT FOR MAINTAINING TRAFFIC, AND TEMPORARY SURFACES USING ITEMS 410, AND 614 UNLESS OTHERWISE NOTED.

THE CONTRACTOR SHALL PROVIDE, ERECT, MAINTAIN, COVER AND REMOVE ALL SIGNS, SIGN SUPPORTS, BARRICADES, CONES, DRUMS, FLAGGERS, AND ANY INCIDENTALS AS DETAILED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES OR SHOWN ON THE PLANS.

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

MAINTAINING TRAFFIC (I-475: THREE LANES IN EACH DIRECTION) ONCE THE CONTRACTOR HAS OPENED ONE OR BOTH DIRECTIONS OF I-475 TO THREE LANES OF TRAFFIC, THE FOLLOWING PERMITTED LANE CLOSURE SHALL FOLLOW THE HOURS SHOWN IN THE LANE VALUE CONTRACT TABLE AS SHOWN ON SHEET 42.

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN STANDARD 48 X 30 INCH ROAD CLOSED SIGNS, SIGN SUPPORTS, BARRICADES AND LIGHTS, AS DETAILED IN SCD MT-101.60 AT THE LOCATIONS SHOWN ON THE PLANS DURING PERIODS IN WHICH US 20A IS CLOSED TO TRAFFIC.

NOTICE OF CLOSURE SIGNS (W20-H13), 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 SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD/RAMP FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT OR NEAR THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

NOTICE OF CLOSURE SIGN TIME TABLE

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

THE SIGN SHALL DISPLAY THE DATE OF THE CLOSURE IN MMM-DD FORMAT AND THE NUMBER OF DAYS OF THE CLOSURE. THE LAST LINE OF THE W20-H13 SIGN LISTS A PHONE NUMBER WHICH A MOTORIST MAY CALL FOR ADDITIONAL INFORMATION. THIS IS TO BE A SPECIFIC OFFICE WITHIN THE DISTRIC RATHER THAN THE GENERAL SWITCHBOARD NUMBER.

ITEM 614, MAINTAINING TRAFFIC (CONT.)

THE SIGN SHALL DISPLAY THE DATE OF THE CLOSURE IN MMM-DD FORMAT AND THE NUMBER OF DAYS OF THE CLOSURE. THE LAST LINE OF THE W20-H13 SIGN LISTS A PHONE NUMBER WHICH A MOTORIST MAY CALL FOR ADDITIONAL INFORMATION. THIS IS TO BE A SPECIFIC OFFICE WITHIN THE DISTRIC RATHER THAN THE GENERAL SWITCHBOARD NUMBER.

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 INCLUDING REMOVALS SHALL SHALL BE PER THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

NOTIFICATION OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. 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 DISTRICT PUBLIC INFORMATION OFFICER ((419)373-4428, D02.pio@dot.pio.gov)), DISTRICT PERMIT SECTION ((419)373-4301, d02.permits@dot.ohio.gov, CENTRAL OFFICE SPECIAL HAULING PERMITS SECTION ((614)351-2300, HAULING.PERMITS@DOT.OHIO.GOV). 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, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTICE TO OFFICE OF COMMUNICATION TIME TABLE

ITEM	DURATION OF CLOSURE	NOTICE DUE TO OFFICE OF COMMUNICATIONS
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	5 BUSINESS DAYS PRIOR TO CLOSURE
START OF CONST. & TRAFFIC PATTERN CHANGES	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.

PERMITTED LANE CLOSURE NOTE

LANES CLOSURES ON I-475 MAY ONLY BE IMPLEMENTED AT THE TIMES PERMITTED BY DISTRICT 2, PERMITTED LANE CLOSURE TIMES MAP WHICH IS LOCATED ON ODOT'S WEB SITE AT:

http://plcm.dot.state.oh.us/PLCMSearch.aspx

THE LANE VALUE CONTRACT TABLE ON SHEET 41 SHOWS THE RESTRICTED TIMES OF THE PERMITTED LANE CLOSURES.

THE LATEST REVISION, 14 DAYS PRIOR TO THE BID DATE, WILL BE IN EFFECT FOR THIS JOB.

SHOULDER, LANE AND RAMP CLOSURES

ALL RAMPS AND LANES ARE TO REMAIN OPEN TO TRAFFIC UNLESS OTHERWISE SPECIFIED IN THESE PLANS OR BY THE ENGINEER. SHOULDER CLOSURES SHALL BE PER STANDARD CONSTRUCTION DRAWING MT-95.45 UNLESS OTHERWISE SHOWN IN THE PLANS.

DROPOFFS IN THE WORK ZONE

THE OPTIONAL WEDGE TREATMENT AS DETAIL ON MT-101.90 WILL BE REQUIRED AND SHALL BE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 614, MAINTAINING TRAFFIC FOR I-475, RAMPS AND US 20A.

WORK ZONE MARKINGS AND SIGNS

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

ITEM 614, WORK ZONE MARKING SIGN 5 EACH
ITEM 614, WORK ZONE EDGE LINE, CLASS I, 4" 0.20 MILE
ITEM 614, WORK ZONE CENTER LINE, CLASS I 0.10 MILE
ITEM 614, WORK ZONE LANE LINE, CLASS I, 4" 0.02 MILE
ITEM 614, WORK ZONE CHANNELIZING LINE, CLASS I, 12" 50 FT
ITEM 614, WORK ZONE STOP LINE, CLASS I, 50 FT
ITEM 614, WORK ZONE CROSSWALK LINE, CLASS I, 12" 150 FT
ITEM 614, WORK ZONE GORE MARKING, CLASS II 500 FT

WORK ZONE MARKINGS AND SIGNS

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AT LOCATIONS IDENTIFIED BY THE ENGINEER FOR WORK ZONE PAVEMENT MARKINGS AND SIGNS PER THE REQUIREMENTS OF C&MS 614.04 AND 614.11. THESE WORK ZONE MARKINGS ALONG MAINLINE IR-475 AND ITS RAMPS SHALL BE WET REFLECTIVE PAINT PER SS 807. IN ACCORDANCE OF C&MS 614.11.B, THE CONTRACTOR SHALL NOT USE WET REFLECTIVE OPTICS SPECIFIED IN SS 807 FOR COLD WEATHER APPLICATIONS.

ITEM 614, WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT 1.60 MILE
ITEM 614, WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT 4.10 MILE
ITEM 614, WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807 PAINT 2,600 FT
ITEM 614, WORK ZONE DOTTED LINE, CLASS I, 6", 807 PAINT 1,285 FT

ESTIMATED QUANTITIES

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DETERMINED BY THE ENGINEER FOR THE MAINTENANCE OF TRAFFIC.

ITEM 410, TRAFFIC COMPACTED SURFACE, TYPE A OR B 100 CU. YD.
ITEM 614, ASPHALT CONCRETE FOR MAINTAINING TRAFFIC 30 CU. YD.
ITEM 614, DETOUR SIGNING LS
ITEM 615, ROADS FOR MAINTAINING TRAFFIC LS
ITEM 616, WATER 5 M. GAL.

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

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

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

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

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

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

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

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

EARTHWORK FOR MAINTAINING TRAFFIC

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

EXCAVATION FOR MAINTAINING TRAFFIC 3,085 CU. YD.
EMBANKMENT FOR MAINTAINING TRAFFIC 4,905 CU. YD.

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

CALCULATED BRO CHECKED DRJ

MAINTENANCE OF TRAFFIC GENERAL NOTES

LUC-475-01.85

DELINEATION OF PORTABLE AND PERMANENT BARRIER

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

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

INCREASED BARRIER DELINEATION, AS SPECIFIED HEREIN, SHALL BE INSTALLED ON ALL PB AND CONCRETE PERMANENT BARRIER LOCATED WITHIN 5 FEET OF THE EDGE OF THE TRAVELED LANE ALONG TAPERS AND TRANSITION AREAS AND 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 BE OTHERWISE ATTACHED. THERE SHALL BE NO OPEN SPACE BETWEEN THE ADJACENT BARRIER REFLECTORS. THE TRIPLE-STACKED BARRIER REFLECTORS SHALL CONFORM TO C&MS 626, EXCEPT THAT THEY SHALL BE SPACED AND ALIGNED PER TRAFFIC SCD MT-101.70.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE PLANS AND CARRIED TO THE GENERAL SUMMARY:

ITEM 614, BARRIER REFLECTOR, TYPE 1, ONE-WAY	3830 EACH
ITEM 614, OBJECT MARKER, ONE-WAY	3830 EACH
ITEM 614, INCREASED BARRIER DELINEATION	21,685 FEET

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

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.

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

IN ADDITION TO THE REQUIREMENTS OF 615, THE CONTRACTOR SHALL PROOF ROLL ALL AREAS OF PAVEMENT FOR MAINTAINING TRAFFIC IN ACCORDANCE WITH 204.

DUST CONTROL

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

ITEM 616, WATER 50 M. GAL.

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 NOVEMBER THROUGH MARCH.

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 WITHIN 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.

THE FOLLOWING ITEMS HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE	42,000 SQUARE YARDS
ITEM 407, TACK COAT	14,280 GAL
ITEM 442, ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (447)	3,500 CUBIC YARDS
ITEM 614, WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	1,000 EACH

PAYMENT FOR RESURFACING WITHIN THE TRANSITION AREA SHALL BE PAID FOR UNDER THE APPROPRIATE BID ITEMS FOR THE WORK REQUIRED, AS PROVIDED FOR IN THE PLANS.

UNSUITABLE SOILS AT LOCATIONS OF PAVEMENT FOR MAINTAINING TRAFFIC

AT LOCATIONS DETERMINED BY THE ENGINEER, THE CONTRACTOR SHALL UNDERCUT THE EXISTING SOIL, PERFORM CHEMICAL STABILIZATION OR REPLACE WITH GRANULAR MATERIAL AND PLACE SUITABLE THICKNESS OF AGGREGATE BASE AS DETERMINED BY THE ENGINEER PRIOR TO THE PLACMENT OF PAVMEENT FOR MAINTAINING TRAFFIC.

THE FOLLOW QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

ITEM 204 - GRANULAR MATERIAL, TYPE B	920 CY
ITEM 204 - EXCAVATION OF SUBGRADE	920 CY
ITEM 204 - GEOTEXTILE FABRIC	1,850 SY
ITEM 206 - CEMENT STABILIZED SUBGRADE, 12 INCHES DEEP	1,850 SY
ITEM 304 - AGGREGATE BASE	310 CY

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) SHOULD BE PROVIDED FOR THE FOLLOWING 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 OR 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)

"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 IS 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:

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

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 OFTHE 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	3,000 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 AN LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

CALCULATED BRO CHECKED DRJ

MAINTENANCE OF TRAFFIC GENERAL NOTES

LUC-475-01.85

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN

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

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. THE PCMS SHALL BE DELINEATED IN ACCORDANCE WITH C&MS 614.03.

PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED AWAY FROM ALL TRAFFIC.

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

THE CONTRACTOR SHALL IMPLEMENT A SYSTEM WHEREBY CHANGEABLE MESSAGES WILL BE IMPLEMENTED WITHIN 4 HOURS FOLLOWING TELEPHONE NOTIFICATION FROM THE PROJECT ENGINEER TO A DESIGNATED PHONE.

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRE-CONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE. THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

THE PCMS SHALL CONTAIN A CELLULAR TELEPHONE DATA LINK WHICH WILL (IN ACTIVE CELLULAR PHONE AREAS) ALLOW REMOTE SIGN ACTIVATION, MESSAGE CHANGES, MESSAGE ADDITIONS AND REVISIONS TO TIME OF DAY PROGRAMS. THE SYSTEM SHALL ALSO PERMIT VERIFICATION OF CURRENT AND PROGRAMMED MESSAGES. ONE REMOTE DATA INPUT DEVICE (LAPTOP COMPUTER PLUS MODEM OR EQUIVALENT) SHALL BE FURNISHED FOR USE BY THE DISTRICT TRAFFIC ENGINEER, OR EQUIVALENT, AND SHALL BE INSURED AGAINST THEFT.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN (CONT)

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF C&MS 614.07. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS, WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS, TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS, INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC. THE ENTIRE COST TO CONTROL TRAFFIC, ACCRUED BY THE DEPARTMENT DUE TO THE CONTRACTOR'S NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

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

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN 250 SIGN MONTH

WORK-SITE TRAFFIC SUPERVISOR

SUBJECT TO APPROVAL OF THE ENGINEER, THE CONTRACTOR SHALL EMPLOY AND IDENTIFY (SOMEONE OTHER THAN THE SUPERINTENDENT) A PREQUALIFIED WORKSITE TRAFFIC SUPERVISOR (WTS) BEFORE STARTING WORK IN THE FIELD. THE WTS SHALL BE TRAINED IN ACCORDANCE WITH CMS 614.03, SHALL HAVE SUCCESSFULLY COMPLETED ODOT ADMINISTERED WTS TESTING (AND RE-TESTING WHEN APPLICABLE) AND BE LISTED ON THE ODOT PREQUALIFIED WTS ROSTER. PREQUALIFICATION EXPIRES EVERY 5 YEARS. RE-TESTING SHALL BE SUCCESSFULLY REPEATED EVERY 5 YEARS TO REMAIN PREQUALIFIED.

THE NAME OF THE PREQUALIFIED WTS AND RELATED 24-HOUR CONTACT INFORMATION SHALL BE PROVIDED TO THE ENGINEER AT THE PRECONSTRUCTION CONFERENCE. IF THE DESIGNATED WTS WILL NOT BE AVAILABLE FULL TIME (24/7), THE CONTRACTOR MAY DESIGNATE AN ALTERNATE (SECONDARY) WTS TO BE AVAILABLE WHEN THE PRIMARY IS OFF DUTY; HOWEVER THE PRIMARY WTS SHALL REMAIN THE POINT OF CONTACT AT ALL TIMES. ANY ALTERNATE (SECONDARY) WTS IS SUBJECT TO THE SAME TRAINING, PREQUALIFICATION AND OTHER REQUIREMENTS OUTLINED WITHIN THIS PLAN NOTE. AT ALL TIMES THE ENGINEER, OR ENGINEER'S REPRESENTATIVES, MUST BE INFORMED OF WHO THE PRIMARY WTS (AND SECONDARY WTS, IF APPLICABLE) IS AT THE CURRENT TIME.

THE WTS POSITION HAS THE PRIMARY RESPONSIBILITY OF IMPLEMENTING THE TRAFFIC MANAGEMENT PLAN (TMP), MONITORING THE SAFETY AND MOBILITY OF THE ENTIRE WORK ZONE, AND CORRECTING TEMPORARY TRAFFIC CONTROL (TTC) DEFICIENCIES FOR THE ENTIRE WORK ZONE. THE WTS, AND ALTERNATE WTS WHEN ON DUTY, SHALL HAVE SUFFICIENT AUTHORITY TO EFFECTIVELY CARRY OUT THE IDENTIFIED WTS RESPONSIBILITIES AND DUTIES. THE DUTIES OF THE WTS ARE AS FOLLOWS:

1. BE AVAILABLE ON A 24-HOUR PER DAY BASIS.

WORK-SITE TRAFFIC SUPERVISOR (CONT)

2. BE ON SITE FOR ALL EMERGENCY TTC NEEDS WITHIN ONE HOUR OF NOTIFICATION BY POLICE OR PROJECT STAFF, AND EFFECT CORRECTIVE MEASURES IMMEDIATELY ON EXISTING WORK ZONE TTC DEVICES.

3. ATTEND PRECONSTRUCTION MEETING AND ALL PROJECT MEETINGS WHERE TTC MANAGEMENT IS DISCUSSED.

4. BE AVAILABLE ON SITE FOR OTHER MEETINGS OR DISCUSSIONS WITH THE ENGINEER UPON REQUEST.

5. BE AWARE OF ALL EXISTING AND PROPOSED TTC OPERATIONS OF THE CONTRACTOR, SUBCONTRACTORS AND SUPPLIERS, AND ENSURE COORDINATION OCCURS BETWEEN THEM TO ELIMINATE CONFLICTING TEMPORARY AND/OR PERMANENT TRAFFIC CONTROL.

6. COORDINATE PROJECT ACTIVITIES WITH ALL LAW ENFORCEMENT OFFICERS (LEOS). THE WTS SHALL ALSO BE THE MAIN CONTACT PERSON WITH THE LEOS WHILE LEOS ARE ON THE PROJECT.

7. COORDINATE AND FACILITATE MEETINGS WITH ODOT PERSONNEL, LEOS AND OTHER APPLICABLE ENTITIES BEFORE EACH PLAN PHASE SWITCH TO DISCUSS THE WORK ZONE TTC FOR IMPLEMENTING THE PHASE SWITCH. SUBMIT A WRITTEN DETAIL OF MOT OPERATIONS AND SCHEDULE OF EVENTS TO IMPLEMENT THE SWITCH BETWEEN PHASE PLANS TO THE ENGINEER 5 CALENDAR DAYS PRIOR TO THIS MEETING.

8. BE PRESENT, ON SITE FOR, AND INVOLVED WITH, EACH TTC SET UP/TAKE DOWN AND EACH PHASE CHANGE IN ACCORDANCE WITH CMS 614.03.

9. ON A CONTINUAL BASIS ENSURE THAT THE TTC ZONE AND ALL RELATED DEVICES ARE INSTALLED, MAINTAINED AND REMOVED IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.

10. ON A CONTINUAL BASIS FACILITATE CORRECTIVE ACTION(S) NECESSARY TO BRING DEFICIENT TTC ZONES AND ALL RELATED DEVICES INTO COMPLIANCE WITH CONTRACT DOCUMENTS IN THE TIMEFRAME DETERMINED BY THE ENGINEER.

11. INSPECT, EVALUATE, PROPOSE NECESSARY MODIFICATIONS TO, AND DOCUMENT THE EFFECTIVENESS OF, THE TTC DEVICES AND TRAFFIC OPERATIONS ON A DAILY BASIS (7 DAYS A WEEK). IN ADDITION, PERFORM ONE WEEKLY NIGHT INSPECTION OF THE WORK ZONE SETUP FOR DAYTIME WORK OPERATIONS; AND ONE DAYTIME INSPECTION PER WEEK FOR NIGHTTIME PROJECTS. THIS SHALL INCLUDE (BUT NOT BE LIMITED TO) DOCUMENTATION ON THE FOLLOWING PROJECT EVENTS:

A. INITIAL TTC SETUP (DAY AND NIGHT REVIEW).
B. DAILY TTC SETUP AND REMOVAL.
C. WHEN CONSTRUCTION STAGING CAUSES A CHANGE IN THE TTC SETUP.
D. CRASH OCCURRENCES WITHIN THE CONSTRUCTION AREA AND WITHIN THE INFLUENCE AREA(S) APPROACHING THE WORK ZONE.
E. REMOVAL OF TTC DEVICES AT THE END OF A PHASE OR PROJECT.
F. ALL OTHER EMERGENCY TTC NEEDS.

WORK-SITE TRAFFIC SUPERVISOR (CONT)

12. COMPLETE THE DEPARTMENT APPROVED LONG TERM INSPECTION FORM (CA-D-8) AFTER EACH INSPECTION AS REQUIRED IN # 11 AND SUBMIT IT TO THE ENGINEER THE FOLLOWING WORKDAY. THESE REPORTS SHALL INCLUDE A CHECKLIST OF ALL TTC MAINTENANCE ITEMS TO BE REVIEWED. A COPY OF THE FORM WILL BE PROVIDED AT THE PRE-CONSTRUCTION MEETING. ANY DEFICIENCIES OBSERVED SHALL BE NOTED, ALONG WITH RECOMMENDED OR COMPLETED CORRECTIVE ACTIONS AND THE DATES BY WHICH SUCH CORRECTIONS WERE, OR WILL BE, COMPLETED. A COPY OF THE CURRENT CA-D-8 DOCUMENT CAN BE FOUND ON THE OFFICE OF CONSTRUCTION ADMINISTRATION'S INSPECTION FORMS WEBSITE.

13. HAVE COPIES OF THE ODOT TEMPORARY TRAFFIC CONTROL MANUAL AND CONTRACT DOCUMENTS AVAILABLE AT ALL TIMES ON THE PROJECT.

THE DEPARTMENT WILL DEDUCT:

A. THE PRORATED DAILY AMOUNT OF ITEM 614 MAINTAINING TRAFFIC FOR ANY DAY IN WHICH THE WTS FAILS TO PERFORM THE DUTIES SET FORTH ABOVE. THE PRORATED DAILY AMOUNT WILL BE EQUAL TO THE ORIGINAL BID AMOUNT FOR ITEM 614 MAINTAINING TRAFFIC DIVIDED BY THE DIFFERENCE BETWEEN THE ORIGINAL COMPLETION DATE AND THE FIRST DAY OF WORK, IN CALENDAR DAYS.

B. 1% OF THE ORIGINAL BID AMOUNT FOR ITEM 614 MAINTAINING TRAFFIC FOR ANY DAY THAT A TTC ISSUE IS IDENTIFIED IN THE FIELD AND IS NOT CORRECTED IN THE GIVEN TIMEFRAME PER THE ENGINEER. DEDUCTION B SHALL NOT APPLY TO SITUATIONS COVERED BY DEDUCTION C.

C. 1% OF THE ORIGINAL BID AMOUNT FOR ITEM 614 MAINTAINING TRAFFIC FOR ANY DAY THAT A LANE OR RAMP IS BLOCKED (FULLY OR PARTIALLY) WITHOUT TTC, AS DETERMINED BY THE ENGINEER. THIS DEDUCTION SHALL BE IN ADDITION TO ANY OTHER DISINCENTIVES ESTABLISHED FOR UNAUTHORIZED LANE USE.

FOR DAYS IN WHICH MORE THAN ONE DEDUCTION LISTED ABOVE OCCUR, THE HIGHEST DEDUCTION AMOUNT WILL APPLY.

IF THREE OR MORE TOTAL DAYS RESULT IN TTC ISSUES DESCRIBED IN DEDUCTION B OR C ABOVE, THE PRIMARY WTS SHALL BE IMMEDIATELY REMOVED FROM THE WORK IN ACCORDANCE WITH C&MS 108.05. UPON REMOVAL THE ENGINEER SHALL NOTIFY ODOT CENTRAL OFFICE (WTSPREQUALIFICATION@DOT.OHIO.GOV) TO REGISTER A REMOVAL AGAINST THE STATEWIDE PREQUALIFICATION FOR THE PRIMARY WTS. THREE REMOVALS SHALL CAUSE STATEWIDE DISQUALIFICATION FOR ANY PREVIOUSLY PREQUALIFIED WTS.

PAYMENT FOR THE ABOVE REQUIREMENTS, RESPONSIBILITIES AND DUTIES SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614, MAINTAINING TRAFFIC.

CALCULATED BRO CHECKED DRJ

MAINTENANCE OF TRAFFIC GENERAL NOTES

LUC-475-01.85

MAINTAINING DRAINAGE DURING CONSTRUCTION

THE CONTRACTOR SHALL MAINTAIN DRAINAGE DURING CONSTRUCTION AT ALL TIMES. THIS SHALL BE ACHIEVED BY THE USE OF THE EXISTING DRAINAGE PIPES, DITCHES, CULVERTS, ETC. WHEN AT ALL POSSIBLE, AS WELL AS TEMPORARY AND PROPOSED DRAINAGE ITEMS.

GENERALLY, THE EXISTING DRAINAGE DEVICES SHALL REMAIN IN PLACE AND IN OPERATION UNTIL THE PROPOSED FEATURES ARE CONSTRUCTED AND OPERATIONAL. WHEN EXISTING DEVICES ARE NO LONGER NEEDED THEY SHALL BE REMOVED IF POSSIBLE OR PROPERLY PLUGGED AND FILLED. AT PROPOSED CULVERT CROSSINGS AND/OR MEDIAN STORM CROSSINGS, THE CONTRACTOR MAY HAVE THE OPTION OF INSTALLING TEMPORARY SHEETING OR BORING AND JACKING A PORTION OF THE PIPE UNDER THE ACTIVE LANES AT THE PHASE CUT LINE FOR THE PART-WIDTH CONSTRUCTION PHASES.

UNLESS SEPARATELY ITEMIZED IN THE PLANS, ALL LABOR, EQUIPMENT, MATERIALS REQUIRED TO MAINTAIN DRAINAGE DURING CONSTRUCTION, INCLUDING SUBSEQUENT REMOVAL OF ANY TEMPORARY ITEMS, SHALL BE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

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 REFLECTORS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE PLANS AND CARRIED TO THE GENERAL SUMMARY:

ITEM 614, BARRIER REFLECTOR, TYPE 5, 1-WAY	72 EACH
ITEM 614, OBJECT MARKER, 1-WAY	72 EACH

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

TEMPORARY PAVEMENT CONSTRUCTION

THE CONTRACTOR SHALL CONSTRUCT TEMPORARY PAVEMENT SUCH THAT POSITIVE DRAINAGE CAN BE ACHEIVED THROUGHOUT THE LIFESPAN OF THE TEMPORARY PAVEMENT. WHEN TEMPORARY PAVEMENT IS CONSTRUCTED ABUTTING EXISITING OR PROPOSED PAVEMENT, THE CONTRACTOR SHALL CONSTUCT THE CROSS SLOPE OF THE TEMPORAY PAVEMENT TO MATCH THE EXISTING OR PROPOSED ABUTTING PAVEMENT'S CROSS SLOPE UNLESS OTHERWISE SPECIFIED IN THE PLANS. FOR TEMPORARY PAVEMENT CONSTRUCTED AT THE CROSSOVERS, A MAXIMUM OF 1.60%± SLOPE SHALL BE UTILIZED.

WHEN TEMPORARY PAVEMENT IS PLACED ADJACENT TO THE EXISTING SHOULDER, THE CONTRACTOR SHALL SAW CUT 2' INTO THE EXISITNG SHOULDER TO ENSURE A SMOOTH TRANSITION FROM EXISTING PAVEMENT SURFACE TO THE TEMPORARY PAVEMENT SURFACE.

WORK ZONE SPEED ZONES (WZSZS)

THE FOLLOWING WORK ZONE SPEED ZONE (WZSZ) SPEED LIMIT REVISION(S) HAVE BEEN APPROVED FOR USE ON THIS PROJECT WHEN WORK ZONE CONDITIONS AND FACTORS ARE MET AS DESCRIBED BELOW:

WZSZ REVISION NUMBER	COUNTY & ROUTE	DIRECTION
WZ-15220	LUCAS IR-475	NB&SB
WZ-15226	LUCAS US-24	WB
WZ-15227	LUCAS US-24	EB

POTENTIAL WZSZ LOCATIONS SHALL HAVE AN ORIGINAL (PRE-CONSTRUCTION) POSTED SPEED LIMIT OF 55 MPH OR GREATER, A QUALIFYING WORK ZONE CONDITION OF AT LEAST 0.5 MILE IN LENGTH, AN EXPECTED WORK DURATION OF AT LEAST THREE HOURS, AND A WORK ZONE CONDITION IN PLACE THAT REDUCES THE EXISTING FUNCTIONALITY OF THE TRAVEL LANES OR SHOULDERS (I.E., LANE CLOSURE, LANE SHIFT, CROSSOVER, CONTRAFLOW AND/OR SHOULDER CLOSURE). THE LENGTH OF THE WORK ZONE CONDITION IS MEASURED FROM THE BEGINNING OF THE TAPER FOR THE SUBJECT WORK ZONE CONDITION IMPACTING THE TRAVEL LANES AND/OR SHOULDER TO THE END OF THE DOWNSTREAM TAPER, WHERE DRIVERS ARE RETURNED TO TYPICAL ALIGNMENT. AN EXPECTED WORK DURATION OF AT LEAST THREE HOURS IS REQUIRED TO BALANCE THE ADDITIONAL EXPOSURE CREATED BY INSTALLING AND REMOVING WZSZ SIGNING WITH THE TIME NEEDED TO COMPLETE THE WORK.

IF THE WORK ZONE MEETS THESE MINIMUM CRITERIA, IT SHALL BE ANALYZED FURTHER USING TABLE 1 BELOW TO DETERMINE IF AND WHEN IT QUALIFIES FOR A SPEED LIMIT REDUCTION. DEPENDING ON THE ORIGINAL POSTED SPEED LIMIT, THE TYPE OF TEMPORARY TRAFFIC CONTROL USED, AND WHETHER OR NOT WORKERS ARE PRESENT, A WARRANTED WZSZ WILL VARY IN THE APPROVED SPEED LIMIT TO BE POSTED OVER TIME.

C&MS ITEM 614, PARAGRAPH 614.02(B), INDICATES THAT TWO DIRECTIONS OF A DIVIDED HIGHWAY ARE CONSIDERED SEPARATE HIGHWAY SECTIONS. THEREFORE, IF THE WORK ON A MULTI-LANE DIVIDED HIGHWAY IS LIMITED TO ONLY ONE DIRECTION, A SPEED LIMIT REDUCTION IN THE DIRECTION OF THE WORK DOES NOT AUTOMATICALLY CONSTITUTE A SPEED LIMIT REDUCTION IN THE OPPOSITE DIRECTION. EACH DIRECTION SHALL BE ANALYZED INDEPENDENTLY FROM EACH OTHER.

ALL WZSZS FLUCTUATE BETWEEN TWO APPROVED REDUCED SPEED LIMITS OR BETWEEN AN APPROVED REDUCED SPEED LIMIT AND THE ORIGINAL POSTED SPEED LIMIT. ONLY ONE OF TWO SIGNING STRATEGIES SHALL BE USED TO IMPLEMENT A WZSZ.

WZSZS USING DSL SIGN ASSEMBLIES SHALL BE IN ACCORDANCE WITH THIS NOTE, APPROVED LIST SUPPLEMENTAL SPECIFICATIONS (SS) 808 AND 908, AND TRAFFIC SCD MT-104.10.

ONLY ONE WARRANTED SPEED LIMIT APPLIES AT ANY ONE TIME; SPEED LIMIT REDUCTIONS ARE NOT CUMULATIVE. WZSZS SHALL NOT BE USED FOR MOVING/MOBILE ACTIVITIES, AS DEFINED IN OMUTCD PART 6.

WHEN LOOKING UP THE WARRANTED WORK ZONE SPEED LIMITS, ALWAYS USE THE ORIGINAL, PRE-CONSTRUCTION, POSTED SPEED LIMIT. DO NOT USE A PRIOR OR CURRENT WORK ZONE SPEED LIMIT AS A LOOK UP VALUE IN THE TABLE. POSITIVE PROTECTION IS GENERALLY REGARDED AS PORTABLE BARRIER OR OTHER RIGID BARRIER IN USE ALONG THE WORK AREA WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WITHOUT POSITIVE PROTECTION IS GENERALLY REGARDED AS USING DRUMS, CONES, SHADOW VEHICLE, ETC., ALONG THE WORK AREA WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WORKERS ARE CONSIDERED AS BEING PRESENT WHEN ON-SITE, WORKING WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WHEN THE WORK ZONE CONDITION REDUCING THE EXISTING FUNCTIONALITY OF THE TRAVEL LANES OR SHOULDERS IS REMOVED, THE SPEED LIMIT DISPLAYED SHALL RETURN TO THE ORIGINAL POSTED SPEED LIMIT.

WORK ZONE SPEED ZONES (WZSZS) (CONT)

TABLE 1: WARRANTED WORK ZONE SPEED LIMITS (MPH) FOR WORK ZONES ON HIGH-SPEED (55 MPH OR GREATER) MULTI-LANE HIGHWAYS

ORIGINAL POSTED SPEED LIMIT	WITH POSITIVE PROTECTION		WITHOUT POSITIVE PROTECTION	
	WORKERS PRESENT	WORKERS NOT PRESENT	WORKERS PRESENT	WORKERS NOT PRESENT
70	60	65	55	65
65	55	60	50	60
60	55	60	50	60
55	50	55	45	55

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY

ITEM 808, DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY 360 SIGN MNTH
(ASSUMING 12 DSL SIGN ASSEMBLIES FOR 30 MONTHS)

LONGITUDINAL AND TRANSVERSE BUTT JOINTS

LONGITUDINAL BUTT JOINTS ARE REQUIRED ALONG AREAS WHERE TRAFFIC WILL CROSS FROM PAVEMENT SURFACES OF DIFFERENT ELEVATIONS. TRANSVERSE BUTT JOINTS AT BRIDGES AND AT THE RESURFACING LIMITS SHALL NOT BE LEFT OPEN TO TRAFFIC. BEFORE OPENING TO TRAFFIC A TEMPORARY ASPHALT CONCRETE WEDGE OF SUFFICIENT LENGTH SHALL BE CONSTRUCTED AT THE LONGITUDINAL OR TRANSVERSE BUTT JOINT. ITEM 614, ASPHALT CONCRETE FOR MAINTAINING TRAFFIC IS TO BE USED FOR THE WEDGE CONSTRUCTION. IT SHALL BE PLACED WHILE TRAFFIC IS PROHIBITED. BEFORE THE NEW PAVEMENT IS PLACED, THE WEDGE SHALL BE REMOVED PRIOR TO PLACING THE SURFACE COURSE AND THE COSTS SHALL BE CONSIDERED INCIDENTAL TO ITEM 614, ASPHALT CONCRETE FOR MAINTAINING TRAFFIC.

LONGITUDINAL BUTT JOINT WEDGE SHALL UTILIZE A TAPER RATE OF 1" PER 3' OR FLATTER. TRANSVERSE BUTT JOINT WEDGE SHALL BE AT A RATE OF 1" PER 4' (RAMPS) OR 1" PER 10' (MAINLINE). AT LOCATIONS WHERE THE FINAL PAVING WILL NOT OCCUR FOR MORE THAN ONE WEEK, THE TRANSITION RATE SHALL BE 1" PER 35'.

PAYMENT FOR ALL WORK, MATERIALS, EQUIPMENT, ETC. SHALL BE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

FOR TRANSVERSE BUT JOINTS, "BUMP" (W8-11) AND "ADVISORY SPEED" (W13-1) SIGNS AND SUPPORTS SHALL BE ERECTED AND MAINTAINED AT THE BUTT JOINT UNTIL THE SURFACE COURSE IS COMPLETED. THE COSTS OF PROVIDING, ERECTING, MAINTAINING AND SUBSEQUENTLY REMOVING THESE SIGNS AND SUPPORTS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614, MAINTAINING TRAFFIC.

ITEM 622, PORTABLE BARRIER, 50", AS PER PLAN

THIS WORK SHALL CONSIST OF FURNISHING, MAINTAINING, AND SUBSEQUENTLY REMOVING A 50-INCH PORTABLE BARRIER AT THE LOCATIONS SHOWN ON THE PLANS. FOR DETAILS, SEE SCD RM-4.1.

PORTABLE STEEL BARRIER IS AN APPROVED ALTERNATIVE TO PORTABLE CONCRETE BARRIER. FOR INFORMATION ON APPROVED VENDORS, SEE THE APPROVED PRODUCTS LIST MAINTAINED BY THE OFFICE OF ROADWAY ENGINEERING.

PORTABLE BARRIER, 32 INCHES HIGH WITH AN 18-INCH MINIMUM HEIGHT GLARE SCREEN MAY BE USED AT THE OPTION OF THE CONTRACTOR. THE GLARE SCREEN SHALL BE CONSTRUCTED USING ONE OF THE SCREENS PROVIDED ON THE APPROVED LIST, AVAILABLE ON THE OFFICE OF ROADWAY ENGINEERING WEBSITE.

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

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

FOR DIRECTIONS ON HOW TO INSTALL THE GLARE SCREEN AND THE BARRIER, SEE THE MANUFACTURER'S INSTRUCTIONS.

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

CALCULATED BRO CHECKED DRJ

MAINTENANCE OF TRAFFIC GENERAL NOTES

LUC-475-01.85

DESIGNATED LOCAL DETOUR ROUTE

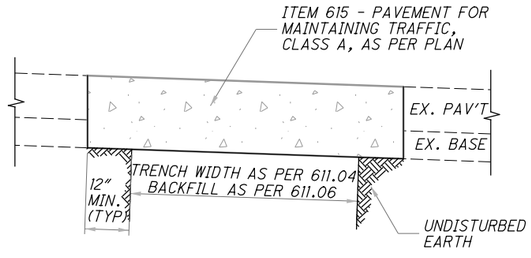
IN ADDITION TO THE OFFICIAL, SIGNED DETOUR ROUTE, A LOCAL ROUTE HAS BEEN DETERMINED TO BE THE SECONDARY, UNSIGNED DETOUR ROUTE OR "DESIGNATED LOCAL DETOUR ROUTE." THIS ROUTE IS US 20A TO BRIARFIELD BOULEVARD TO SALISBURY ROAD/DUSSEL DRIVE TO FORD STREET TO US 20A. DURING THE TIME THAT TRAFFIC IS DETOURED, THE CONTRACTOR SHALL MAINTAIN THIS ROUTE IN A CONDITION WHICH IS REASONABLY SMOOTH AND FREE FROM HOLES, RUTS, RIDGES, BUMPS, DUST AND STANDING WATER. ONCE THE DETOUR IS REMOVED AND TRAFFIC RETURNED TO ITS NORMAL PATTERN, THE DESIGNATED LOCAL DETOUR ROUTE SHALL BE RESTORED TO A CONDITION THAT IS EQUIVALENT TO THAT WHICH EXISTED PRIOR TO ITS USE FOR THIS PURPOSE. ALL SUCH WORK SHALL BE PERFORMED WHEN AND AS DETERMINED BY THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED FOR USE AS DETERMINED BY THE ENGINEER TO MAINTAIN AND SUBSEQUENTLY RESTORE THE DESIGNATED LOCAL DETOUR ROUTE.

ITEM 441, ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448) PG 64-22	175 CU. YD.
ITEM 407, NON-TRACKING TACK COAT	502 GAL.
ITEM 642, CENTER LINE, TYPE 1	0.30 MILE
ITEM 642, EDGE LINE, 4", TYPE 1	0.30 MILE
ITEM 642, LANE LINE, 4", TYPE 1	0.30 MILE
ITEM 642, CHANNELIZING LINE, 8", TYPE 1	210 FOOT
ITEM 642, TRANSVERSE/DIAGONAL LINE, TYPE 1	600 FOOT
ITEM 642, STOP LINE, TYPE 1	22 FOOT

CONDUIT CROSSINGS

THE CONTRACTOR SHALL CONSTRUCT CONDUIT CROSSINGS OF EXISTING PAVEMENT DURING WEEKEND CLOSURES OR DURING SUBSEQUENT PHASES PER THE SEQUNCE OF TRAFFIC NOTES. AT THE CONCLUSION OF THE CONDUIT INSTALLATION, THE CONTRACTOR SHALL BACKFILL AND PLACE TEMPORARY PAVEMENT PER THE DETAIL BELOW OR PER THE TRENCH REPAIR DETAIL LOCATED IN THE PLANS.



PAVEMENT REPLACEMENT OVER TRENCH

THE FOLLOWING ESTIMATED QUANTITY OF 110 SQ. YD. HAS BEEN INCLUDED IN THE PLAN FOR INFORMATION ONLY. ALL TEMPORARY PAVEMENT UTILIZIED FOR CONDUIT CROSSING SHALL BE INCLUDED IN THE LUMP SUM BID ITEM FOR MAINTAINING TRAFFIC.

MAINTENANCE OF TRAFFIC SIGNAL/FLASHER INSTALLATION

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC SIGNAL/FLASHER INSTALLATIONS WITHIN THE PROJECT UNDER THE FOLLOWING CONDITIONS:

1. EXISTING SIGNAL/FLASHER INSTALLATIONS WHICH THE PLANS REQUIRE THE CONTRACTOR TO ADJUST, MODIFY, ADD ONTO OR REMOVE, OR WHICH THE CONTRACTOR ACTUALLY ADJUSTS, MODIFIES OR OTHERWISE DISTURBS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ENTIRE INSTALLATION (AT AN INTERSECTION) FROM THE TIME HIS OPERATIONS FIRST DISTURB THE INSTALLATION UNTIL THE INSTALLATION HAS BEEN SUBSEQUENTLY REMOVED OR MODIFIED AND THE WORK IS ACCEPTED.

2. NEW OR REUSED SIGNAL/FLASHER INSTALLATIONS OR DEVICES, INSTALLED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THESE FROM THE TIME OF INSTALLATION UNTIL THE WORK IS ACCEPTED.

THE CONTRACTOR SHALL CORRECT AS QUICKLY AS POSSIBLE ALL OUTAGES OR MALFUNCTIONS. HE SHALL PROVIDE THE MAINTAINING AGENCY AND THE ENGINEER SUCH ADDRESSES AND PHONE NUMBERS WHERE HIS MAINTENANCE FORCES CAN BE CONTACTED. THE CONTRACTOR SHALL PROVIDE ONE OR MORE PERSONS TO RECEIVE ALL CALLS AND DISPATCH THE NECESSARY MAINTENANCE FORCES TO CORRECT OUTAGES. SUCH A PERSON OR PERSONS MAY BE USED TO PERFORM OTHER DUTIES AS LONG AS PROMPT ATTENTION IS GIVEN TO THESE CALLS AND A PERSON IS READILY AVAILABLE CONTINUOUSLY 24 HOURS A DAY, 7 DAYS A WEEK. ALL LAMP OUTAGES, CABLE OUTAGES, ELECTRICAL FAILURES, EQUIPMENT MALFUNCTIONS AND MISALIGNED SIGNAL HEADS SHALL BE CORRECTED TO THE SATISFACTION OF THE ENGINEER WITH THE SIGNAL BACK TO SERVICE WITHIN FOUR HOURS AFTER THE CONTRACTOR HAS BEEN NOTIFIED OF THE OUTAGE.

IN THE EVENT NEW SIGNALS ARE DAMAGED PRIOR TO ACCEPTANCE, ALL DAMAGED EQUIPMENT EXCEPT POLES AND CONTROL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER WITH THE SIGNAL BACK IN SERVICE WITHIN 8 HOURS AFTER THE CONTRACTOR'S NOTIFICATION OF THE OUTAGE. THE CONTRACTOR SHALL ARRANGE FOR FULL TRAFFIC CONTROL UNTIL THE SIGNAL IS BACK IN OPERATION.

IF POLES AND/OR CONTROL EQUIPMENT ARE DAMAGED AND MUST BE REPLACED, THE CONTRACTOR SHALL MAKE TEMPORARY REPAIRS AS NECESSARY TO BRING THE SIGNAL BACK INTO FULL OPERATION WITHIN THE ALLOWED 8-HOUR PERIOD, AND SHALL MAKE PERMANENT REPAIRS OR REPLACEMENT AS SOON THEREAFTER AS POSSIBLE.

NONE OF THE ABOVE SHALL BE CONSTRUED AS COLLECTIVE OR CONSECUTIVE OUTAGE TIME PERIODS AT ANY ONE LOCATION. THAT IS, WHERE MORE THAN ONE OUTAGE OCCURS AT ANY ONE LOCATION THEN THE ALLOTTED TIME LIMIT SHALL BE FOR THE WORST SINGLE OUTAGE.

WHERE OUTAGES ARE THE DIRECT RESULT OF A VEHICLE ACCIDENT THE RESPONSE OF THE CONTRACTOR SHALL BE AS OUTLINED ABOVE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COLLECTION OF ANY COMPENSATION FOR THIS WORK FROM THOSE PARTIES RESPONSIBLE FOR THE DAMAGE.

WHERE THE CONTRACTOR HAS FAILED TO, OR CANNOT RESPOND TO, AN OUTAGE OR SIGNAL EQUIPMENT MALFUNCTION, AT THESE LOCATIONS WITHIN HIS RESPONSIBILITY, WITHIN PERIODS AS SPECIFIED ABOVE, THE ENGINEER MAY INVOKE THE PROVISIONS OF SECTION 105.15 AND ANY SUBSEQUENT BILLINGS TO THE STATE, LUCAS COUNTY OR THE CITY OF MAUMEE FOR POLICE SERVICES AND MAINTENANCE SERVICES BY CITY OR COUNTY FORCES SHALL BE DEDUCTED FROM MONIES DUE OR TO BECOME DUE THE CONTRACTOR IN ACCORDANCE WITH PROVISIONS OF SECTION 105.15.

MAINTENANCE OF TRAFFIC SIGNAL/FLASHER INSTALLATION (CONT)

THE CONTRACTOR SHALL PROVIDE THE MAINTENANCE SERVICE ENTIRELY WITH HIS FORCES OR HE MAY CHOOSE TO ENTER INTO A COOPERATIVE UNDERSTANDING WITH THE LOCAL MAINTAINING AGENCY TO PROVIDE THE MAINTENANCE. THE CONTRACTOR SHALL INFORM THE ENGINEER, IN WRITING, OF THE MAINTENANCE METHOD SELECTED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ANY TRAFFIC SIGNAL COMPONENTS REQUIRED TO BE HANDLED DURING THE RELOCATION OF POLES AND REVISIONS TO THE SIGNAL SYSTEM. WHEN A TRAFFIC SIGNAL MUST BE TAKEN OUT OF SERVICE BY THE CONTRACTOR, DUE TO CONSTRUCTION PROCEDURES, THIS OUTAGE SHALL NOT EXCEED 4 HOURS AND SHALL NOT INCLUDE THE HOURS OF 7 TO 9 AM AND 4 TO 6 PM. ANY SIGNALIZED INTERSECTION, WHERE THE SIGNAL IS OUT OF SERVICE DUE TO CONSTRUCTION PROCEDURES, OR DUE TO AN OUTAGE OR MALFUNCTION OF EQUIPMENT AS DESCRIBED ABOVE, SHALL BE PROTECTED, BY THE CONTRACTOR, BY THE INSTALLATION OF TEMPORARY "STOP" SIGNS, EXCEPT FOR THE FOLLOWING INTERSECTIONS WHICH SHALL BE PROTECTED BY OFF-DUTY CITY OF MAUMEE POLICE OR LUCAS COUNTY SHERIFF, HIRED BY THE CONTRACTOR:

1. BRIARFIELD BLVD/TECHNOLOGY DRIVE & US 20A

ANY VEHICULAR TRAFFIC SIGNAL HEAD, EITHER NEW OR EXISTING WHICH WILL BE OUT OF OPERATION SHALL BE COVERED IN THE MANNER DESCRIBED IN 632.25.

THE CONTRACTOR SHALL MAINTAIN COMPLETE RECORDS OF MALFUNCTIONS INCLUDING:

1. TIME OF NOTIFICATION OF MALFUNCTION;
2. TIME OF WORK CREWS ARRIVAL TO CORRECT THE MALFUNCTION;
3. ACTIONS TAKEN TO CORRECT THE MALFUNCTION, INCLUDING A LIST OF PARTS REPAIRED OR REPLACED;
4. A DIAGNOSIS OF REASON FOR THE MALFUNCTION AND PROBABILITY OF REOCCURRENCE;
5. TIME OF COMPLETION OF THE REPAIR AND SYSTEM RESTORED TO FULL SERVICE.

A COPY OF THESE RECORDS SHALL BE PROVIDED TO THE ENGINEER WITHIN THREE (3) WORKING DAYS FOLLOWING COMPLETION OF EACH REPAIR.

ALL COSTS RESULTING FROM THE ABOVE REQUIREMENTS SHALL BE CONSIDERED TO BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614, MAINTAINING TRAFFIC.

BI-DIRECTIONAL TRAFFIC ON US 20A

WHEN BI-DIRECTIONAL TRAFFIC ON US 20A IS IN EFFECT DURING PHASE 3 THE CONTRACTOR SHALL PLACE DELINEATORS EVERY 25 FEET ALONG THE CENTERLINE PAVEMENT MARKING. THE DELINEATOR SHALL BE FLEXIBLE POSTS WITH BASE THAT IS 48" IN HEIGHT. IT SHALL INCLUDE A MINIMUM OF TWO 3" REFLECTIVE BANDS FOR VISIBILITY. THE BASE SHALL BE ADHERED TO THE PAVEMENT AS TO NOT DAMAGE THE PAVEMENT SURFACE. PAYMENT WILL BE MADE AT THE UNIT PRICE PER EACH FOR ITEM 620, DELINEATOR, POST SURFACE MOUNTED, AS PER PLAN.

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

ITEM 620, DELINEATOR, POST SURFACE MOUNTED, AS PER PLAN
160 EACH

CALCULATED BRO CHECKED DRJ

MAINTENANCE OF TRAFFIC GENERAL NOTES

LUC-475-01.85

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 WILL BE ON I-475 NB, I-475 SB AND US-24 EB. THE APPROXIMATE LOCATION BY STATION OR DESCRIPTION ARE LISTED BELOW. THE SENSORS AND PCMSS SHALL BE PLACED FOR PHASES 1 & 2.

I-475 NB	
1 MILE SOUTH OF CROSSOVER	PCMS & SENSOR
0.5 MILE SOUTH OF CROSSOVER	SENSOR
7+00	SENSOR
33+40	SENSOR
95+80	PCMS & SENSOR
122+20	SENSOR
148+60	SENSOR
175+00	SENSOR

I-475 SB	
1 MILE NORTH OF CROSSOVER	PCMS & SENSOR
0.5 MILE NORTH OF CROSSOVER	SENSOR
300+00	SENSOR
259+00	PCMS & SENSOR
232+60	SENSOR
179+80	SENSOR
127+00	SENSOR

US-24 EB	
700+20	PCMS & SENSOR
726+60	SENSOR
753+00	SENSOR

IT IS EXPECTED THAT THESE LOCATIONS 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:

GREATER THAN OR EQUAL TO 50 MPH USE FOUR CORNER FLASHING CAUTION MODE
BETWEEN 50 MPH AND 25 MPH TRAFFIC AHEAD XX MPH / SLOW DOWN
BELOW OR EQUAL TO 25 MPH TRAFFIC AHEAD XX MPH / PREPARE TO STOP

WORK ZONE QUEUE DETECTION WARNING SYSTEM (CONT.)

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
432 SIGN MONTHS
(ASSUMING 18 SENSORS FOR 24 MONTHS)

ITEM 896 - PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN
120 SIGN MONTHS
(ASSUMING 5 PCMS SIGNS FOR 24 MONTHS)

APPROVED MAINTENANCE OF TRAFFIC (MOT) POLICY EXCEPTION(S)

PORTIONS OF THE MOT PLANS AS DESCRIBED BELOW HAVE APPROVED MOT EXCEPTION(S) PER TRAFFIC MANAGEMENT IN WORK ZONES POLICY (21-008(P)) AND STANDARD PROCEDURE (123-001(SP)).

APPROVED MOT EXCEPTIONS INCLUDE:

EXCEPTION 1: RAMP CLOSURE OF THE SYSTEM RAMP FROM US-24 WESTBOUND TO I-475 NORTHBOUND FOR THE DURATION OF PHASE 1.

EXCEPTION 2: RAMP CLOSURE OF THE SYSTEM RAMP FROM I-475 NORTHBOUND TO US-24 WESTBOUND FOR A DURATION NOT TO EXCEED 60 DAYS. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT SHOWN ON THE RAMP CLOSURE/DETOUR INFORMATION CHART ON SHEET 40 FOR EACH CALENDAR DAY THAT THE RAMP REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

EXCEPTION 3: RAMP CLOSURES OF THE SYSTEM RAMP FROM US-24 EASTBOUND TO I-475 SOUTHBOUND AND THE SYSTEM RAMP FROM US-24 WESTBOUND TO I-475 SOUTHBOUND FOR THE DURATION OF PHASE 2.

THE SYSTEM RAMPS LISTED ABOVE SHALL BE DETOURED AS LISTED IN THE RAMP CLOSURE/DETOUR INFORMATION CHART ON SHEET 40 .

A MAINTENANCE OF TRAFFIC MEETING SHALL BE HELD A MINIMUM OF 30 CALENDAR DAYS PRIOR TO IMPLEMENTATION OF EACH APPROVED MOT EXCEPTION. THIS MEETING SHALL INCLUDE THE DISTRICT WORK ZONE TRAFFIC MANAGER AND [INSERT APPLICABLE LOCAL AGENCY(IES)] AS WELL AS THE CONTRACTOR, WORKSITE TRAFFIC SUPERVISOR (WTS) AND ANY SUBCONTRACTORS INVOLVED WITH TEMPORARY TRAFFIC CONTROL.

IN ADDITION TO ANY NOTIFICATIONS REQUIRED IN OTHER NOTES, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AT LEAST 3 BUSINESS DAYS IN ADVANCE OF IMPLEMENTATION OF THE APPROVED MOT EXCEPTION(S) REFERENCED ABOVE SO THAT THE PROJECT ENGINEER CAN SEND EMAIL NOTIFICATION TO THE OFFICE OF ROADWAY ENGINEERING, STATEWIDE TMC, DWZTM AND SPECIAL HAULING PERMITS AT LEAST 2 BUSINESS DAYS IN ADVANCE OF THE IMPLEMENTATION OF THE APPROVED MOT EXCEPTIONS REFERENCED ABOVE. REFERENCE EXCEPTION REQUEST APPROVAL DATED 5/25/21 FOR PID 99731 AND PID 95875 IN THE NOTIFICATION AND OTHER CORRESPONDENCE.

APPROVED MAINTENANCE OF TRAFFIC (MOT) POLICY EXCEPTION(S) (CONT.)

ANY CHANGES TO THE MOT THAT IMPACT THE PREVIOUSLY APPROVED MOT EXCEPTION(S) LISTED ABOVE SHALL BE APPROVED IN WRITING BY 1/11/22 BY THE MOT EXCEPTION COMMITTEE (MOTEC). IN THE EVENT THAT SUCH CHANGES ARE PROPOSED, THE REQUEST SHALL BE COORDINATED THROUGH THE DISTRICT WORK ZONE TRAFFIC MANAGER (DWZTM) A MINIMUM OF 30 CALENDAR DAYS PRIOR TO THE DESIRED IMPLEMENTATION DATE. IF THE DISTRICT AGREES WITH THE PROPOSED CHANGES THE DWZTM SHALL SEEK APPROVAL FROM THE MOTEC. IN THE EVENT THE PROPOSED CHANGES ARE APPROVED IN WRITING, THE CLOSURES ARE STILL SUBJECT TO NOTIFICATION REQUIREMENTS WITHIN THIS NOTE PRIOR TO IMPLEMENTATION.

RUMBLE STRIP REMOVAL BEFORE PAVING

RUMBLE STRIPS WILL BE PLANED WITH ITEM 441 THE QUANTITIES FOR PLANING AND PAVING THE RUMBLE STRIPS ARE PROVIDED BELOW. QUANTITIES ARE BASED ON 2' WIDE MILL. QUANTITIES TO BE CARRIED TO THE GENERAL SUMMARY.

EXISTING LENGTH OF RUMBLE STRIP:
LENGTH = 30000 FT

ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, 1 1/2 ", AS PER PLAN
6,667 SY

ITEM 407 - NON TRACKING TACK COAT, AS PER PLAN
2,267 GAL

ITEM 441- ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22, AS PER PLAN
833 CY

CALCULATED BRO CHECKED DRJ

MAINTENANCE OF TRAFFIC GENERAL NOTES

LUC-475-01.85

RAMP CLOSURES

RAMP CLOSURES FOR VARIOUS WORK ITEMS ARE EXPECTED. RAMP CLOSURES SHALL OCCUR OVERNIGHT AND/OR ON WEEKENDS UNLESS OTHERWISE NOTED IN THE PLANS. RAMP CLOSURES WILL BE HELD TO THE MINIMUM NUMBER REQUIRED TO COMPLETE WORK. RAMP CLOSURES WILL NOT BE ALLOWED FOR THE CONVENIENCE OF THE CONTRACTOR IF WORK CAN BE SAFELY COMPLETED WHILE MAINTAINING TRAFFIC. ALL SYSTEM RAMP CLOSURES AT THE I-475 & US-24 INTERCHANGE SHALL BE APPROVED BY THE DISTRICT WORK ZONE TRAFFIC MANAGER. ALL OTHER RAMP CLOSURES SHALL BE PRE-APPROVED BY THE PROJECT ENGINEER. ALL RAMP CLOSURES SHALL REQUIRE APPROVAL A MINIMUM OF 14 DAYS PRIOR TO CLOSURE.

OVERNIGHT: ALL OVERNIGHT CLOSURES ARE CONSIDERED TO BE FROM 9PM TO 6AM UNLESS OTHERWISE NOTED.

WEEKEND: ALL WEEKEND CLOSURES ARE CONSIDERED TO BE FROM 9PM FRIDAY TO 6AM MONDAY UNLESS OTHERWISE NOTED.

RAMP CLOSURES SHALL BE SCHEDULED TO ENSURE THAT THERE ARE NO CONFLICTS WITH THE LISTED DETOUR ROUTES. RAMP CLOSURE AND DETOUR DETAILS SPECIFIED IN THE RAMP CLOSURE TABLE ARE SHOWN WITHIN THE PLAN.

CLOSURE/DETOUR INFORMATION

ROUTE/INTERCHANGE	RAMP/ROUTE TO BE CLOSED	DETOUR ROUTE	EXTENDED RAMP/ROUTE CLOSURES BY PHASE	DISINCENTIVE	
				TIME UNIT	DISINCENTIVE PER TIME UNIT.
I-475 & US-24	I-475 NB EXIT TO US-24 EB	I-475 NB TO DUSSEL TO I-475 SB TO US-24 EB		PER HOUR	$2,000
	I-475 NB ENTRANCE FROM US-24 EB	I-475 SB TO SR-25 TO I-475 NB		PER HOUR	$2,000
	I-475 NB EXIT TO US-24 WB	I-475 NB TO DUSSEL TO I-475 SB TO US-24 WB	PHASE 1A: 60 DAYS	PHASE 1/1A: PER DAY; WEEKEND/OVERNIGHT CLOSURES: PER HOUR	$10,000 PER DAY; $2000 PER HOUR
	I-475 NB ENTRANCE FROM US-24 WB	UTILIZE LOOP RAMPS AT I-475/US-24: W-S RAMP TO S-E RAMP TO E-N RAMP	PHASE 1: ENTIRE PHASE	WEEKEND/OVERNIGHT CLOSURES: PER HOUR	$2,000
	I-475 SB EXIT TO US-24 WB	I-475 SB TO SR-25 TO I-475 NB TO US-24 WB		PER HOUR	$2,000
	I-475 SB ENTRANCE FROM US-24 WB	I-475 NB TO DUSSEL TO I-475 SB	PHASE 2: ENTIRE PHASE	WEEKEND/OVERNIGHT CLOSURES: PER HOUR	$2,000
	I-475 SB EXIT TO US-24 EB	US-24 WB TO FALLEN TIMBERS TO US-24 EB		PER HOUR	$2,000
	I-475 SB ENTRANCE FROM US-24 EB	I-475/US-24 E-N RAMP TO DUSSEL TO I-475 SB	PHASE 2: ENTIRE PHASE	WEEKEND/OVERNIGHT CLOSURES: PER HOUR	$2,000
I-475 & DUSSEL DR	I-475 NB EXIT TO DUSSEL	I-475 NB TO SR-2 TO I-475 SB		PER HOUR	$1,000
	I-475 NB ENTRANCE FROM DUSSEL EB	I-475 SB TO I-475/US-24 S-E RAMP TO I-475/US-24 E-N RAMP TO I-475 NB		PER HOUR	$1,000
	I-475 NB ENTRANCE FROM DUSSEL WB	I-475 SB TO I-475/US-24 S-E RAMP TO I-475/US-24 E-N RAMP TO I-475 NB		PER HOUR	$1,000
	I-475 SB EXIT TO DUSSEL	I-475 SB TO I-475/US-24 S-E RAMP TO I-475/US-24 E-N RAMP TO I-475 NB TO DUSSEL		PER HOUR	$1,000
	I-475 SB ENTRANCE FROM DUSSEL WB	I-475 NB TO SR-2 TO I-475 SB		PER HOUR	$1,000
	I-475 SB ENTRANCE FROM DUSSEL EB	I-475 NB TO SR-2 TO I-475 SB		PER HOUR	$1,000
I-475 & SR-2 (AIRPORT HWY)	I-475 NB EXIT TO SR-2	I-475 NB TO DORR ST TO I-475 SB TO SR-2		PER HOUR	$1,000
	I-475 NB ENTRANCE FROM SR-2 EB	I-475 SB TO DUSSEL TO I-475 NB		PER HOUR	$1,000
	I-475 NB ENTRANCE FROM SR-2 WB	I-475 SB TO DUSSEL TO I-475 NB		PER HOUR	$1,000
	I-475 SB EXIT TO SR-2 WB	I-475 SB TO DUSSEL TO I-475 NB TO SR-2		PER HOUR	$1,000
	I-475 SB EXIT TO SR-2 EB	I-475 SB TO DUSSEL TO I-475 NB TO SR-2		PER HOUR	$1,000
	I-475 SB ENTRANCE FROM SR-2	I-475 NB TO DORR ST TO I-475 SB		PER HOUR	$1,000
US-24 & FALLEN TIMBERS	US-24 EB TO FALLEN TIMBERS LANE	US-24 EB TO I-475/US-24 E-N RAMP TO I-475/US-24 N-W RAMP TO US-24 WB TO FALLEN TIMBERS LANE		PER HOUR	$500
	US-24 EB ENTRANCE RAMPS FROM FALLEN TIMBERS LANE	US-24 WB TO SR-64 TO US-24 EB		PER HOUR	$500
	US-24 WB EXIT RAMP TO FALLEN TIMBERS LANE	US-24 WB TO SR-64 TO US-24 EB		PER HOUR	$500
	US-24 WB ENTRANCE RAMP FROM FALLEN TIMBERS LANE	US-24 EB TO I-475/US-24 E-N RAMP TO I-475/US-24 N-W RAMP TO US-24 WB TO FALLEN TIMBERS LANE		PER HOUR	$500
I-475	I-475 AT US-20A SHORT TERM CLOSURE. CLOSURES OUTSIDE OF THE PERMITTED HOURS OR LONGER THAN THE SPECIFIED LIMIT IN MT-99.60	N/A		PER MINUTE	$215
US-20A	US-20A		PHASE 1: 30 DAYS; PHASE 2: 7 DAYS	PER DAY	$2,500

CALCULATED BRO CHECKED DRJ

MAINTENANCE OF TRAFFIC GENERAL NOTES

LUC-475-01.85

ITEM 625 SPECIAL - MAINTAIN EXISTING LIGHTING

EXISTING ROADWAYS WHICH ARE TO REMAIN OPEN TO TRAFFIC DURING CONSTRUCTION OF THIS PROJECT AND ARE LIGHTED SHALL HAVE THE LIGHTING MAINTAINED AS DESCRIBED HEREIN. ANY NEW ROADWAYS THAT ARE TO BE LIGHTED SHALL BE LIT WITH NEW OR TEMPORARY LIGHTING PRIOR TO BEING OPENED TO

BEFORE ANY WORK IS STARTED IN THE IMMEDIATE VICINITY OF ANY EXISTING LIGHTING CIRCUITS, REPRESENTATIVES OF THE STATE, THE MAINTAINING AGENCY, AND THE CONTRACTOR SHALL MAKE A VISUAL INSPECTION OF THE OF THE EXISTING ROADWAY LIGHTING CIRCUITS TO BE MAINTAINED. DURING THIS INSPECTION A WRITTEN RECORD OF THE CONDITION OF THE EXISTING LIGHTING SHALL BE MADE BY THE STATE'S REPRESENTATIVE. THIS WRITTEN REPORT SHALL NOTE INDIVIDUAL LUMINAIRES WHICH ARE NOT STANDING, AND INDIVIDUAL CIRCUITS WHICH ARE NOT IN WORKING ORDER. THE COMPLETED REPORT SHALL BE SIGNED BY THE REPRESENTATIVES OF THE STATE, 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 REPAIRS NECESSARY TO RETURN THE SYSTEM TO AN ACCEPTABLE CONDITION. FOLLOWING THESE REPAIRS, THE SYSTEM SHALL AGAIN BE INSPECTED, AND A REPORT 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 ACCIDENTS.

REPLACEMENT OF KNOCKED DOWN 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 PER UNIT BASIS.

BETTERMENTS SHALL BE COVERED IN ITEMS OF WORK PERTAINING TO THE CONSTRUCTION OF PERMANENT IMPROVEMENTS. THE STATE SHALL GIVE THE CONTRACTOR ONE COPY OF THE EXISTING LIGHTING CIRCUITRY LAYOUT.

WHEN THE CONTRACTOR HAS TAKEN OVER THE MAINTENANCE OF THE EXISTING SYSTEM, THE CONTRACTOR SHALL PROVIDE ALL REQUIRED LAYOUT AND LOCATING OF EXISTING LIGHTING CIRCUITS WITHIN THE PROJECT.

PRIOR TO INSTALLING TEMPORARY LIGHTING THE CONTRACTOR SHALL SUBMIT A TEMPORARY LIGHTING PLAN TO THE ENGINEER.

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.

ITEM 625 SPECIAL - MAINTAIN EXISTING LIGHTING (CONTINUED)

ALL MATERIALS NECESSARY TO COMPLETE THE TEMPORARY LIGHTING SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. A SEPARATE POWER SERVICE WILL BE PROVIDED BY THE CONTRACTOR FOR THE TEMPORARY LIGHTING SYSTEM. THE TEMPORARY LIGHTING SHALL NOT BE SPLICED INTO EXISTING LIGHTING CIRCUITS. THE CONTRACTOR SHALL PAY ALL HOOK-UP FEES AND ELECTRICAL COSTS FOR THE TEMPORARY SYSTEM. THESE COSTS SHALL BE PAID FOR UNDER THE LUMP SUM ITEM SPECIAL MAINTAIN EXISTING LIGHTING. WHEN NO LONGER NEEDED THE TEMPORARY LIGHTING INSTALLATION SHALL BE REMOVED AND PROPERLY DISPOSED OF BY THE CONTRACTOR.

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

THE UNIT BID PRICE FOR EACH "ITEM SPECIAL - REPLACEMENT OF EXISTING LIGHTING UNIT" SHALL BE FULL PAYMENT FOR THE REPLACEMENT OF AN EXISTING 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. THE FOLLOWING QUANTITIES ARE FOR USE AS DIRECTED BY THE DEPARTMENT'S ENGINEER.

ITEM SPECIAL- MAINTAIN EXISTING LIGHTING UNIT - LUMP

ITEM 614 MAINTAINING TRAFFIC, MISC.: 6"X8" SOLID WOOD POST, AS PER PLAN

THIS ITEM SHALL CONSIST OF INSTALLING AND REMOVING GROUND MOUNTED 6"X8" SOLID WOOD POSTS. FIGURE 298-26 OF THE TRAFFIC ENGINEERING MANUAL(P. 2-219) SHOULD BE USED AS A GUIDE FOR INSTALLATION OF THE 6"X8" POSTS.

GRADE 2 SOUTHERN YELLOW PINE SHALL BE USED AND SHALL BE PRESSURE TREATED WITH CCA PRESERVATIVE.

PAYMENT WILL BE MADE PER UNIT PRICE BID PER EACH ITEM 614 MAINTAINING TRAFFIC, MISC.: 6"X8" SOLID WOOD POST, AS PER PLAN.

ITEM 614 MAINTAINING TRAFFIC, MISC.: SIGN (FLAT SHEET), AS PER PLAN

THIS ITEM CONSISTS OF INSTALLING AND REMOVING A FLAT SHEET SIGN APPROPRIATE FOR OUTDOOR USE. ATTACHMENT AND MOUNTING MATERIALS SHALL BE IN CONFORMANCE WITH NCHRP REPORT 350. SEE SHEETS 70-171 FOR LOCATION AND SIZES OF THE TEMPORARY SIGNAGE. THIS SIGNAGE IS TO BE REMOVED ONCE THE PERMANENT SIGNS HAVE BEEN PLACED ON THE OVERHEAD SIGN SUPPORTS.

PAYMENT WILL BE MADE PER UNIT PRICE BID PER SQUARE FOOT OF ITEM 614 MAINTAINING TRAFFIC, MISC.: SIGN (FLAT SHEET), AS PER PLAN.

LANE VALUE CONTRACT (PN 127)

THE CONTRACTOR SHALL BE ASSESSED DISINCENTIVES AS DESIGNATED IN THE LANE VALUE CONTRACT TABLES/TIME LIMITATION NOTES FOR EACH UNIT OF TIME THE DESCRIBED CRITICAL LANE/RAMP IS RESTRICTED FROM FULL USE BY THE TRAVELING PUBLIC WITHIN THE RESTRICTED TIME PERIOD. THE LANE VALUE CONTRACT AMOUNT IS LOCATED IN THE TIME LIMITATION AND GENERAL MOT NOTES. THE DISINCENTIVES WILL BE ASSESSED FOR ALL RESTRICTIONS OF THE CRITICAL WORK.

CRITICAL WORK IS SHOWN IN THE LANE VALUE CONTRACT TABLE.

CRITICAL WORK IS DEFINED AS HAVING THE DESIGNATED SECTIONS OPEN TO UNRESTRICTED TRAFFIC AS SHOWN IN THE TABLE, OR THE ENTIRE PROJECT IF NOT OTHERWISE LISTED.

UNRESTRICTED TRAFFIC IS DEFINED AS ALL TRAFFIC LANES BEING AVAILABLE FOR USE WITH SPECIFIED STRIPING AND SAFETY FEATURES IN PLACE.

LANE VALUE CONTRACT TABLE

ROUTE	RESTRICTION/NUMBER OF LANES TO BE MAINTAINED	RESTRICTED TIME PERIOD	TIME UNIT	DISINCENTIVE $ PER TIME UNIT
I-475	2 LANES	WEEKDAYS: 6AM-9PM; WEEKENDS: 6AM-7PM	EACH MINUTE	$215
I-475 (AFTER 3 LANES OPEN IN ONE OR BOTH DIRECTIONS)	3 LANES	WEEKDAYS: 7-9AM AND 2-7PM; WEEKENDS: 3-6PM	EACH MINUTE	$215
	2 LANES	WEEKDAYS: 6AM-9PM; WEEKENDS: 6AM-7PM	EACH MINUTE	$215
PART 3: US-24	2 LANES	WEEKDAYS: 7-9AM AND 2-7PM; WEEKENDS: 3-6PM	EACH MINUTE	$215

CALCULATED BRO CHECKED DRJ

MAINTENANCE OF TRAFFIC GENERAL NOTES

LUC-475-01.85

EXTRA ADVANCE WARNING SIGNS

AN EXTRA ADVANCE WARNING SIGN GROUP CONSISTS OF TWO W20-1 (ROAD WORK AHEAD) SIGNS, TWO W20-5 (RIGHT/LEFT LANE CLOSED AHEAD) SIGNS WITH W16-3a DISTANCE PLATES, AND TWO W3-H7 (WATCH FOR STOPPED TRAFFIC) SIGNS AND REQUIRED WARNING LIGHTS.

THE CONTRACTOR SHALL PROVIDE, ERECT, MAINTAIN AND REMOVE EXTRA ADVANCE WARNING SIGN GROUPS AS SHOWN ON TRAFFIC SCD MT-95.50 AT THE FOLLOWING DISTANCES OF THE LANE TAPERS WITH THE APPROPRIATE W16-3a DISTANCE PLATES:

1) I-475 SB LANE CLOSURE, STATION 308+66, PHASES 1 & 2 AND ALL SUB PHASES; PROVIDE A SIGN GROUP AT 2 MILES.

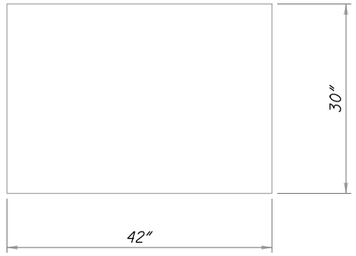
PAYMENT FOR PROVIDING, ERECTING, MAINTAINING AND REMOVING EXTRA ADVANCE WARNING SIGN GROUPS SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614, MAINTAINING TRAFFIC.

OVERLAY SIGN DETAILS

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DETERMINED BY THE ENGINEER FOR MAINTENANCE OF TRAFFIC AND SHALL BE USED IN THE LOCATIONS SPECIFIED IN THE PLANS.

ITEM 630, SIGN TEMPORARY OVERLAY 54 SF

ITEM 630, REMOVAL OF TEMPORARY OVERLAY SIGN AND DISPOSAL 4 EACH



OV-2, OV-4
NO BORDER
BLANK ORANGE OVERLAY

OV-1, OV-3
NO BORDER
BLANK ORANGE OVERLAY

CALCULATED BRO
CHECKED DRJ

MAINTENANCE OF TRAFFIC GENERAL NOTES

LUC-475-01.85

SEQUENCE OF CONSTRUCTION

PID 95875 (MAINLINE I-475 WIDENING AND REPLACEMENT)

IT IS ASSUMED ALL DRAINAGE, LIGHTING, AND ANCILLARY ITEMS WILL BE CONSTRUCTED DURING THE PHASE THEY ARE LOCATED WITHIN.

SWITCHING BETWEEN PHASES SHALL BE COMPLETED DURING NIGHT TIME, WEEKEND OR OFF PEAK HOURS AS APPROVED BY THE ENGINEER.

SHOULDERS ON I-475 WILL REQUIRE CLOSING FOR INSTALLATION OF OVERHEAD AND GROUND MOUNTED SIGNS LOCATED OUTSIDE OF THE PROJECT LIMITS. TRAFFIC SHALL BE MAINTAINED PER MT-95.45.

THE CONTRACTOR HAS THE ABILITY TO DO ANY WORK CONCURRENTLY THAT WILL NOT IMPACT I-475 OR RAMP TRAFFIC BEYOND WHAT IS STATED IN THE PLANS AT ANY TIME.

THE PID 95875 PROJECT (WIDENING AND REPLACEMENT OF I-475) WILL BE CONSTRUCTED IN THREE MAIN PHASES:

PRE-PHASE 1

COMPLETE EARTHWORK AND TEMPORARY PAVEMENT ON THE SOUTHBOUND SIDE FROM STA. 51+11 TO 64+50. TWO LANES OF TRAFFIC SHALL BE MAINTAINED UTILIZING A SHOULDER CLOSURE PER STANDARD CONSTRUCTION DRAWING 95.45 DURING PERMITTED LANE CLOSURE TIMES.

PRE-PHASE 1A

AFTER PRE-PHASE 1, THE TWO SOUTHBOUND LANES SHALL BE SHIFTED TO THEIR PROPOSED PHASE 1 LOCATION TO ACCOMMODATE THE CONSTRUCTION OF TEMPORARY PAVEMENT IN THE MEDIAN, RAMP/MAINLINE CROSSOVERS AND PLACEMENT OF PORTABLE CONCRETE BARRIER WALL. TRAFFIC SHALL BE MAINTAINED PER STANDARD CONSTRUCTION DRAWINGS MT-95.30 AND MT-95.45. SINGLE LANE CLOSURES WILL BE PERMITTED IN ACCORDANCE WITH THE PERMITTED LANE CLOSURE NOTE ON SHEET 33.

PHASE 1

TWO LANES OF TRAFFIC ON NB AND SB I-475 SHALL BE MAINTAINED AT ALL TIMES.

TWO NORTHBOUND LANES OF TRAFFIC SHALL BE CROSSED OVER TO THE SOUTHBOUND DIRECTION PER THE PLANS. PHASE 1 WOULD WIDEN AND RECONSTRUCT THE ENTIRE PORTION OF THE NORTHBOUND DIRECTION UP TO AND INCLUDING THE INTERMEDIATE COURSE.

THE NORTHBOUND MONCLOVA BRIDGE WOULD BE CONSTRUCTED DURING THIS PHASE. SEE SEQUENCE OF CONSTRUCTION NOTES ON THIS SHEET FOR PID 96482 PROJECT FOR ADDITIONAL DETAILS FOR THE MONCLOVA BRIDGE CONSTRUCTION.

IN THE VICINITY OF THE US 20A BRIDGE TRAFFIC WOULD BE SHIFTED TO THE OUTSIDE TO ALLOW FOR THE CONSTRUCTION OF THE SUB STRUCTURE. SEE SEQUENCE OF CONSTRUCTION NOTES ON SHEET 45 FOR PID 99731 PROJECT FOR ADDITIONAL DETAILS FOR US 20A CONSTRUCTION.

SEQUENCE OF CONSTRUCTION (CONT)

PHASE 1 (CONTINUED)

NEAR THE COMPLETION OF PHASE 1, SHORT TERM LANE CLOSURES WOULD BE REQUIRED TO RESURFACE AND WIDEN THE PAVEMENT ADJACENT TO THE MAUMEE RIVER BRIDGE IN ACCORDANCE WITH THE PERMITTED LANE CLOSURE NOTE ON SHEET 33.

ALL RAMPS SHALL BE MAINTAINED DURING PHASE 1 WITH EXCEPTION OF THE I-475 NB ENTRANCE RAMP FROM US 24-WB WHICH SHALL BE CLOSED FOR THE DURATION OF PHASE 1 AND SHORT TERM CLOSURES FOR THE OTHER US 24 RAMPS FOR RESURFACING AND BARRIER REMOVAL AND REPLACEMENT. SEE PLANS FOR DETAILS. SEE DETOUR PLANS FOR THE DETOUR OF THE WESTBOUND US 24 NORTHBOUND ENTRANCE RAMP.

PHASE 2

TWO LANES OF TRAFFIC ON NB AND SB I-475 SHALL BE MAINTAINED AT ALL TIMES.

TWO SOUTHBOUND LANES OF TRAFFIC SHALL BE CROSSED OVER TO THE NORTHBOUND DIRECTION PER THE PLANS ON TO THE COMPLETED PHASE 1 PAVEMENT. PHASE 2 WOULD WIDEN AND RECONSTRUCT THE ENTIRE PORTION OF THE SOUTHBOUND DIRECTION UP TO AND INCLUDING THE INTERMEDIATE COURSE.

THE SOUTHBOUND MONCLOVA BRIDGE WOULD BE CONSTRUCTED DURING THIS PHASE. SEE SEQUENCE OF CONSTRUCTION NOTES ON THIS SHEET FOR PID 96482 PROJECT FOR ADDITIONAL DETAILS FOR THE MONCLOVA BRIDGE CONSTRUCTION.

IN THE VICINITY OF THE US 20A BRIDGE SEE SEQUENCE OF CONSTRUCTION NOTES ON SHEET 45 FOR PID 99731 PROJECT FOR ADDITIONAL DETAILS FOR US 20A CONSTRUCTION.

NEAR THE COMPLETION OF PHASE 2, SHORT TERM LANE CLOSURES WOULD BE REQUIRED TO RESURFACE AND WIDEN THE PAVEMENT ADJACENT TO THE MAUMEE RIVER BRIDGE IN ACCORDANCE WITH THE PERMITTED LANE CLOSURE NOTE ON SHEET 33.

ALL RAMPS SHALL BE MAINTAINED DURING PHASE 2 WITH EXCEPTION I-475 SB ENTRANCE RAMPS FROM US-24 EB AND US-24 WB WHICH SHALL BE CLOSED FOR THE DURATION OF PHASE 2 AND SHORT TERM CLOSURES FOR US 24 RAMPS FOR RESURFACING AND BARRIER REMOVAL AND REPLACEMENT. SEE PLANS FOR DETAILS.

PHASE 3

PHASE 3 SHALL CONSIST OF THE PLACEMENT OF THE FINAL SURFACE COURSE AND PERMANANET PAVEMENT MARKINGS AS WELL AS ANY BARRIER REPLACEMENT WITHIN THE US 24 INTERCHANGE. A MINIMUM OF 2 LANES OF TRAFFIC IN EACH DIRECTION ON I-475 AND ALL RAMPS SHALL BE MAINTAINED AT ALL TIMES. TRAFFIC SHALL BE MAINTAINED PER MT-95.30, OMUTCD FIGURE 6H-37 AND MT-99.20. LANE CLOSURES SHALL BE IN ACCORDANCE WITH THE PERMITTED LANE CLOSURE NOTE ON SHEET 33.

PID 96482 - MAINTENANCE OF TRAFFIC FOR MONCLOVA ROAD UNDERNEATH IR-475

NO OTHER TRAFFIC RESTRICTIONS ON MONCLOVA ROAD WILL BE ALLOWED EXCEPT AS DESCRIBED BELOW.

MONCLOVA ROAD SHALL REMAIN COMPLETELY OPEN TO BOTH EASTBOUND AND WESTBOUND TRAFFIC WHEN US20A IS CLOSED FOR CONSTRUCTION. NO FLAGGING OPERATIONS WILL BE ALLOWED ON MONCLOVA ROAD WHEN US20A IS CLOSED FOR CONSTRUCTION.

WESTBOUND MONCLOVA ROAD - CLOSURES AND FLAGGING OPERATIONS

WESTBOUND MONCLOVA ROAD CLOSURES AND FLAGGING OPERATIONS WILL NOT BE LIMITED EXCEPT WHEN USR20A IS CLOSED AS NOTED ABOVE.

EASTBOUND MONCLOVA ROAD - CLOSURE

THE CONTRACTOR MAY CLOSE EASTBOUND MONCLOVA ROAD FOR THE NUMBER OF DAYS SHOWN IN TABLE 1 (THIS IS IN ADDITION TO THE ALLOWABLE FLAGGING DAYS). THE CONTRACTOR WILL BE PAID AN INCENTIVE FOR THE NUMBER OF ALLOWABLE CLOSURE DAYS NOT UTILIZED OR WILL BE ASSESSED A DISINCENTIVE FOR EACH DAY EXCEEDING THE ALLOWABLE CLOSURE DAYS. MULTIPLE CLOSURES ARE ALLOWED. COMPLETE CLOSURES OF MONCLOVA RD SHALL BE SPACED A MINIMUM OF 2 WEEKS APART REGARDLESS OF ANY SPECIFIC COMPLETE CLOSURE DURATION. CLOSURE DURATIONS IN TABLE 1 SHOW THE TOTAL CLOSURE DAYS ALLOWED FOR BOTH THE RIGHT AND LEFT STRUCTURES TOGETHER.

EASTBOUND MONCLOVA ROAD - FLAGGING OPERATIONS

THE CONTRACTOR MAY RESTRICT TRAFFIC WITH A FLAGGING OPERATION FOR THE NUMBER OF DAYS SHOWN IN TABLE 1 (THIS IS IN ADDITION TO THE ALLOWABLE CLOSURE DAYS). THE CONTRACTOR WILL BE PAID AN INCENTIVE FOR THE NUMBER OF ALLOWABLE FLAGGING DAYS NOT UTILIZED OR WILL BE ASSESSED A DISINCENTIVE FOR EACH DAY EXCEEDING THE ALLOWABLE FLAGGING DAYS.

FLAGGING DURATIONS IN TABLE 1 SHOW THE TOTAL FLAGGING DAYS ALLOWED FOR BOTH THE RIGHT AND LEFT STRUCTURES TOGETHER. FLAGGING FOR ANY PORTION OF THE DAY WILL COUNT AS A FULL FLAGGING DAY REGARDLESS OF THE ACTUAL FLAGGING DURATION.

STOPPAGE OF TRAFFIC BY FLAGGERS SHALL NOT EXCEED 5 MINUTES AT A TIME. ONCE THE 5-MINUTE INTERVAL IS COMPLETE, TRAFFIC SHALL BE ALLOWED TO FLOW UNTIL ALL QUEUED TRAFFIC HAS PASSED THROUGH THE PROJECT.

IF A FLAGGING OPERATION STOPS TRAFFIC FOR MORE THAN 5 MINUTES, DAMAGES IN THE AMOUNT OF $25 PER MINUTE WILL BE ASSESSED AND THAT DAY WILL COUNT AS CLOSURE DAY AS WELL AS A FLAGGING DAY.

FLAGGERS SHALL GIVE PRIORITY TO ALL EMERGENCY VEHICLES DURING FLAGGING OPERATIONS. WORK SHALL IMMEDIATELY CEASE WHEN THE TRAFFIC QUEUE CONTAINS AN EMERGENCY VEHICLE WITH EMERGENCY SIGNALS OPERATING. TRAFFIC SHALL BE RELEASED TO ALLOW THE EMERGENCY VEHICLE TO PASS.

DESCRIPTION OF CRITICAL WORK	DURATION	TIME PERIOD	DISINCENTIVE $ PER TIME PERIOD	INCENTIVE $ PER TIME PERIOD	MAXIMUM INCENTIVE $
COMPLETE CLOSURE OF MONCLOVA ROAD	70	CALENDAR DAYS	$5,000	$2,000	$20,000
FLAGGING OPERATIONS ON MONCLOVA ROAD	90	CALENDAR DAYS	$5,000	$500	$10,000

PID 96482 - MAINTENANCE OF TRAFFIC FOR MONCLOVA ROAD UNDERNEATH IR-475 (CONTINUED)

NOTIFICATION

COMPLETE CLOSURE AND FLAGGING OPERATIONS SHALL BE COMMUNICATED WITH MCLAREN ST. LUKE'S HOSPITAL, PROMEDICA TOLEDO HOSPITAL EMERGENCY AND URGENT CARE, AND LOCAL EMERGENCY/AMBULANCE SERVICES. THE PROJECT ENGINEER WILL COORDINATE THIS COMMUNICATION AND PROVIDE A LIST OF PARTIES TO BE INCLUDED. NOTIFICATION TIME FRAMES SHALL MEET THE REQUIREMENTS DETAILED IN THE NOTICE TO OFFICE OF COMMUNICATION TIME TABLE ON SHEET 33 .

CLOSURE AND FLAGGING COMMUNICATIONS WILL INCLUDE THE TIME OF DAY THAT THE RESTRICTION WILL BEGIN AND END.
RESTRICTING THE ROADWAY PRIOR TO THE STATED TIME OF DAY OR EXTENDING A RESTRICTION PAST THE STATED TIME OF DAY WILL RESULT IN A $25/MINUTE DAMAGE.
THE CONTRACTOR SHALL USE PORTABLE MESSAGE BOARDS AT THE FOLLOWING LOCATIONS PRIOR TO AND DURING A CLOSURE/FLAGGING EVENT. THE PROJECT ENGINEER WILL PROVIDE MESSAGES TO BE USED.

- MONCLOVA RD. AND N. JEROME ROAD
- BRIARFIELD AND 20A
- RUSSELL RD. AND FALLEN TIMBERS LANE

CALCULATED BRO CHECKED DRJ

MAINTENANCE OF TRAFFIC GENERAL NOTES

LUC-475-01.85

SEQUENCE OF CONSTRUCTION (CONT)

PID 99731 (US 20A INTERCHANGE AND C-D ROADS)

ONE LANE IN EACH DIRECTION OF TRAFFIC ON US20A (ILLINOIS AVENUE) WILL BE MAINTAINED AT ALL TIMES WITH THE EXCEPTION AS STATED IN THE PHASING SUMMARY. DURING THAT TIME TRAFFIC SHALL BE DETOURED PER SHEET 202.

DUSSEL/SALISBURY RAMP TRAFFIC WILL BE MAINTAINED AT ALL TIMES WITH THE EXCEPTION OF THE PLACEMENT OF THE TEMPORARY PAVEMENT OVER A WEEKEND. DURING THAT TIME TRAFFIC SHALL BE DETOURED PER SHEET 201.

DUSSEL DRIVE/ SALISBURY ROAD TRAFFIC WILL NOT BE IMPACTED.

IT IS ASSUMED ALL DRAINAGE, SIDEWALK, TRAFFIC SIGNAL, LIGHTING, AND ANCILLARY ITEMS WILL BE CONSTRUCTED DURING THE PHASE THEY ARE LOCATED WITHIN.

SWITCHING BETWEEN PHASES SHALL BE COMPLETED DURING NIGHT TIME, WEEKEND OR OFF PEAK HOURS AS APPROVED BY THE ENGINEER. TRAFFIC SHALL BE MAINTAINED PER MT-97.10, MT-95.30 OR MT-95.31.

THE CONTRACTOR HAS THE ABILITY TO DO ANY WORK CONCURRENTLY THAT WILL NOT IMPACT DUSSEL/SALISBURY RAMPS AND US 20A TRAFFIC BEYOND WHAT IS STATED IN THE PLANS AT ANY TIME.

LOCAL TRAFFIC MAINTENANCE

ROADS THAT ARE PARTIALLY CLOSED DUE TO PART-WIDTH CONSTRUCTION WILL REMAIN OPEN TO LOCAL TRAFFIC. ACCESS WILL BE MAINTAINED TO ALL COMMERCIAL PROPERTIES FOR CUSTOMERS, DELIVERIES, ETC. FOR COMMERCIAL PROPERTIES WITH MULTIPLE DRIVE ENTRANCES, AT LEAST ONE DRIVE ENTRANCE SHALL BE ACCESSIBLE AT ALL TIMES.

PEDESTRIAN TRAFFIC MAINTENANCE

THERE ARE MINIMAL SECTIONS OF SIDEWALK, THEREFORE, WHEN IT BECOMES NECESSARY TO CLOSE A LENGTH OF SIDEWALK DUE TO CONSTRUCTION, A PEDESTRIAN DETOUR WILL NOT BE REQUIRED. THE SIDEWALK ON THE WEST SIDE OF BRIARFIELD BOULEVARD WILL BE MAINTAINED AT ALL TIMES WITH EXISTING PEDESTRIAN SIGNALS OR PROPOSED TEMPORARY ROUTE.

THE PID 99731 PROJECT (US 20A INTERCHANGE AND C-D ROAD TO DUSSEL/SALISBURY INTERCHANGE WILL BE CONSTRUCTED IN FOUR PHASES:

PHASE 1

THE TWO DUSSEL ROAD/SALISBURY ROAD EXIT RAMPS WILL REQUIRE TEMPORARY PAVEMENT TO MAINTAIN THE RAMPS DURING CONSTRUCTION PER THE PLANS. THE RAMPS ARE ALLOWED TO BE CLOSED DURING A WEEKEND FOR THE INSTALLATION OF THE TEMPORARY PAVEMENT PER THE DETOUR PLAN ON SHEET 201. THE PROJECT WILL MAINTAIN THE ENTRANCE RAMPS BY SHIFTING THE RAMP LANES AROUND WHILE CONSTRUCTING THE PROPOSED PAVEMENT. SEE PLAN SHEETS FOR DETAILS.

TRAFFIC ON US 20A WILL UTILIZE THE EXISTING PAVEMENT. CONSTRUCT THE OFFLINE PORTION OF INTERCHANGE, US 20A, THE SOUTHERN STRUCTURE, CD ROADS AND TEMPORARY PAVEMENT REQUIRED FOR PHASE 2. PAVEMENT WILL BE CONSTRUCTED UP THROUGH THE INTERMEDIATE COURSE.

SEQUENCE OF CONSTRUCTION (CONT)

PHASE 1 (CONT)

SHORT TERM FULL CLOSURE OF I-475 WILL BE REQUIRED FOR THE US 20A BRIDGE BEAM ERECTION. TRAFFIC ON I-475 WILL BE MAINTAINED PER MT-99.60 DURING THAT TIME. THE CONTRACTOR SHALL BE ALLOWED TO SET BEAMS BETWEEN MIDNIGHT AND 5AM. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF $75 PER MINUTE FOR EACH MINUTE ANY LANE REMAINS CLOSED.

DURING LENGTHENING OF THE EASTBOUND RIGHT TURN LANE ON US 20A AT THE BRIARFIELD BOULEVARD/ US 20A INTERSECTION, TRAFFIC WILL BE MAINTAINED IN ACCORDANCE WITH MT-97.10. DURING NON-WORKING HOURS THE CONTRACTOR SHALL BACKFILL OR PROVIDE PROTECTION FOR ANY OPEN EXCAVATION EXCEEDING THE WORK ZONE DROP OFF DEPTH REQUIREMENTS FOR DRUMS.

TEMPORARY PAVEMENT CONSTRUCTION SHALL BE COMPLETED FOR FUTURE PHASES AS SHOWN ON THE US 20A PHASE 1 SHEETS. TWO-WAY TRAFFIC SHALL BE MAINTAINED DURING THIS OPERATION IN ACCORDANCE WITH MT-97.10.

THE PROPOSED 48" CULVERT CROSSING US 20A AT APPROXIMATE STATION 546+75 WILL BE BUILT DURING ONE WEEKEND CLOSURE PER THE DETOUR PLAN ON SHEET 202. THE CONTRACTOR MAY CONSTRUCT OTHER CROSSINGS DURING THE CLOSURE. THE REMAINING 42" DIAMETER AND SMALLER DRAINAGE CONDUIT CROSSINGS SHALL BE BORED OR JACKED. THE CONTRACTOR SHALL REPLACE THE PAVEMENT OF THE TRENCH DURING THE WEEKEND CLOSURE.

THE C-D ROADS AND DUSSEL/SALISBURY RAMP WORK FOR THE SIDE OF PHASE 1 OF THE MAINLINE PROJECT SHALL BE DONE CONCURRENTLY WITH THE MAINLINE.

PHASE 2

THE TWO DUSSEL ROAD/SALISBURY ROAD EXIT RAMPS WILL SHIFT TO THE NEW RAMPS AND COMPLETE THE REMAINING PORTIONS OF THE CD ROADS. THE PROJECT WILL MAINTAIN THE ENTRANCE RAMPS BY SHIFTING THE RAMP LANES WHILE CONSTRUCTING THE PROPOSED PAVEMENT. SEE PLAN SHEETS FOR DETAILS.

THE CONTRACTOR SHALL CONSTRUCT THE PROPOSED PAVEMENT FOR THE NORTH SIDE OF US 20A AND SOUTHERN CROSSOVER PAVEMENT TO BE ABLE TO MOVE TWO LANES OF TRAFFIC TO THEM IN PHASE 3 AND THE TWO CROSSOVER LOCATIONS. PAVEMENT WILL BE CONSTRUCTED UP THROUGH THE INTERMEDIATE COURSE. TRAFFIC ON US 20A WILL BE DETOURED FOR A PERIOD NOT TO EXCEED 30 CONSECUTIVE CALENDAR DAYS. DURING THIS TIME TRAFFIC WILL BE DETOURED PER SHEET 202.

SEQUENCE OF CONSTRUCTION (CONT)

PHASE 3

US 20A TRAFFIC WILL BE SHIFTED TO THE NORTH SIDE OF THE PROPOSED PAVEMENT AND UTILIZE THE TWO CROSSOVERS. THE CONTRACTOR SHALL FINISH CONSTRUCTING THE SOUTH SIDE OF US20A AND THE NORTHERN CROSSOVER PAVEMENT. PAVEMENT WILL BE CONSTRUCTED UP THROUGH THE INTERMEDIATE COURSE. THE CONTRACTOR CAN ELECT TO PERFORM THE SURFACE COURSE FOR THE LIMITS OF PHASE 3.

CONSTRUCT THE NORTHERN BRIDGE AND REMOVE THE EXISTING BRIDGE. SHORT TERM FULL CLOSURE OF I-475 WILL BE REQUIRED FOR THE US 20A BRIDGE BEAM ERECTION AND REMOVAL. TRAFFIC ON I-475 WILL BE MAINTAINED PER MT-99.60 DURING THAT TIME. THE CONTRACTOR SHALL BE ALLOWED TO SET AND REMOVE BEAMS BETWEEN MIDNIGHT AND 5AM. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF $75 PER MINUTE FOR EACH MINUTE ANY LANE REMAINS CLOSED.

DUSSEL RD/SALISBURY RAMP TRAFFIC WILL BE ON THE MAINLINE PHASING DETAILS OR THEIR FINAL LOCATION.

PHASE 4

PLACEMENT OF THE FINAL SURFACE COURSE, REMOVAL OF TEMPORARY PAVEMENT AND PAVEMENT MARKINGS OVER THE ENTIRE PID 99731 PROJECT. TRAFFIC ON US 20A SHALL BE DETOURED IN ACCORDANCE WITH SHEET202 DURING PHASE 4 FOR A PERIOD NOT TO EXCEED 7 CONSECUTIVE CALENDAR DAYS.

TIME LIMITATION ON US 20A DETOUR

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES ON US 20A, EXCEPT FOR A PERIOD NOT TO EXCEED 30 CONSECUTIVE CALENDAR DAYS DURING PHASE 2 AND A PERIOD NOT TO EXCEED 7 CONSECUTIVE CALENDAR DAYS DURING PHASE 4 AS APPROVED BY THE ENGINEER, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET 202. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF $ 2,500 PER DAY FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A
- DIRECTION OF TRAFFIC
- IMPACT ATTENUATOR, PLACEMENT PER MT-101.75
- TYPE A WARNING LIGHT
- TEMPORARY SIGN SUPPORT
- CONSTRUCTION DRUM
- TYPE 3 BARRICADE
- PAVEMENT MARKING REMOVED
- DND — DO NOT DISTURB

- WEW — WORK ZONE EDGE LINE, CLASS I (WHITE)
- WEY — WORK ZONE EDGE LINE, CLASS I (YELLOW)
- WL — WORK ZONE LANE LINE, CLASS I
- WCL — WORK ZONE CENTER LINE, CLASS I
- WCH — WORK ZONE CHANNELIZING LINE, CLASS I
- WDW — WORK ZONE DOTTED LINE, CLASS I (WHITE)
- WDY — WORK ZONE DOTTED LINE, CLASS I (YELLOW)
- WS — WORK ZONE STOP LINE, CLASS I
- WCV — WORK ZONE CHEVRON MARKING, CLASS I
- TP — PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A
- PB — PORTABLE BARRIER
- WIA — IMPACT ATTENUATOR
- OV — SIGN, TEMPORARY OVERLAY
- PBY — PCB Y CONNECTOR

CALCULATED BRO CHECKED DRJ

GENERAL NOTES

MAINTENANCE OF TRAFFIC

LUC-475-01.85

REF NO.	SHEET NO.	STATION TO STATION		SIDE	614 WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL) EACH	614 MAINTAINING TRAFFIC, MISC.:6"X8" SOLID WOOD POST, AS PER PLAN EACH	614 MAINTAINING TRAFFIC, MISC.:SIGN (FLAT SHEET) SF	614 WORK ZONE LANE LINE, CLASS I, 4" (WHITE) FT	614 WORK ZONE CENTER LINE, CLASS I(WHITE) FT	614 WORK ZONE EDGE LINE, CLASS I, 6"(YELLOW) FT	614 WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT(YELLOW) FT	614 WORK ZONE EDGE LINE, CLASS I, 6" FT	614 WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT FT	614 WORK ZONE CHANNELIZING LINE, CLASS I, 12"(WHITE) FT	614 WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807 PAINT(YELLOW) FT	614 WORK ZONE DOTTED LINE, CLASS I(WHITE) FT	614 WORK ZONE DOTTED LINE, CLASS I FT	614 WORK ZONE DOTTED LINE, CLASS I, 6", 807 PAINT FT	614 WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT FT	614 WORK ZONE STOP LINE, CLASS I FT	615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN SY	622 PORTABLE BARRIER, 50", AS PER PLAN FT	622 PORTABLE BARRIER, "Y" CONNECTOR EACH	622 PORTABLE BARRIER, UNANCHORED FT
PID 99731 PHASE 2 CONTINUED																									
WEW-4	115	243+41	250+00	RT						671	671														
WEW-5	115	245+30	250+00	RT						474	474														
WEY-1	115	237+50	239+45	LT								221	221												
WEY-2	115	237+50	250+00	RT								1250	1250												
WEY-3	115	237+50	250+00	RT								1250	1250												
WEY-4	115	243+35	250+00	LT								677	677												
WL-1	115	237+50	250+00	RT				1250												1250					
WL-2	115	237+50	250+00	RT				1250												1250					
PB-1	115	237+50	250+00	RT																			1250		
PB-2	115	237+50	250+00	RT																					1250
SN-122	116	266+70		LT		1	32																		
WCH-1	116	250+00	256+40	RT										440	440										
WCH-2	116	250+00	256+40	RT										440	440										
WCH-3	116	258+49	262+93	RT										447	447										
WCH-4	116	258+50	262+93	RT										445	445										
WCH-5	116	258+27	261+36	LT										311	311										
WCH-6	116	258+25	261+36	LT										312	312										
WDW-1	116	256+40	258+50	RT												411		411							
WDW-2	116	261+36	266+70	LT												527		527							
WDW-3	116	268+13	275+00	RT												688		688							
WEW-1	116	250+00	275+00	RT						2504	2504														
WEW-2	116	256+29	275+00	RT						1884	1884														
WEW-3	116	255+51	275+00	LT						1525	1525														
WEW-4	116	250+00	258+25	LT						1943	1943														
WEY-1	116	250+00	275+00	RT								2504	2504												
WEY-2	116	250+00	275+00	RT								2504	2504												
WEY-3	116	265+27	258+49	RT								226	226												
WEY-4	116	257+71	258+27	LT								54	54												
WEY-5	116	250+00	275+00	LT								2492	2492												
WL-1	116	250+00	275+00	RT				2500												2500					
WL-2	116	250+00	275+00	RT				2500												2500					
WL-3	116	262+93	268+13	RT																					
PB-1	116	250+00	275+00	RT																			2506		
PB-2	116	250+00	270+51	RT																					2056
SN-123	117	298+60		LT		1	32																		
WCH-1	117	292+00	317+23	LT & RT										2540	2540										
WCH-2	117	297+75	301+63	RT										968	968										
WCH-3	117	297+75	301+63	RT										388	388										
WEW-1	117	275+00	300+21	RT						2521	2521														
WEW-2	117	275+00	292+00	RT						1700	1700														
WEW-3	117	275+00	317+23	LT						4300	4300														
WEY-1	117	275+00	308+67	RT								3368	3368												
WEY-2	117	275+00	317+23	LT & RT								4391	4391												
WEY-3	117	275+00	297+75	LT								2275	2275												
WL-1	117	275+00	300+21	RT				2521												2521					
WL-2	117	275+00	292+00	RT				1700												1700					
PB-1	117	275+00	302+06	RT																			2706		
PB-2	117	292+00	299+68	LT & RT																				1	772
WDW-1	117	301+66	305+83	LT												417		417							
WDW-2	117	309+43	317+23	LT												780		780							
PB-3	117	292+00	297+96	LT & RT																					
TP-1	117	300+00	306+88	LT & RT																		1300			
PID 99731 PHASE 2A																									
WEW-1	119	24+23	29+00	LT						526	526														
WEY-1	119	24+14	29+00	LT						536	536														
TP-1	119	10+00	14+40	LT & RT																		871			
TOTALS CARRIED TO SHEET				**69**		2	64	11721		18584	18584	21212	21212	6291	6291	2823		2823	11721			2171	6462	1	4078

CALCULATED DEK CHECKED XXX

TABLE OF TRAFFIC SUBSUMMARY - MAINTENANCE

LUC-475-0.09

62E
855

I:\ProjectData\LUC\95875_LUC-475-0.09\Design\MOT\Sheets\95875_MS010.dgn Sheet 5/3/2022 3:41:38 PM dkasemi

REF NO.	SHEET NO.	STATION TO STATION		SIDE	614 WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	614 MAINTAINING TRAFFIC, MISC.:6"X8" SOLID WOOD POST, AS PER PLAN	614 MAINTAINING TRAFFIC, MISC.:SIGN (FLAT SHEET)	614 WORK ZONE LANE LINE, CLASS I, 4" (WHITE)	614 WORK ZONE CENTER LINE, CLASS I(WHITE)	614 WORK ZONE EDGE LINE, CLASS I, 6"(YELLOW)	614 WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT(YELLOW)	614 WORK ZONE EDGE LINE, CLASS I, 6"	614 WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT	614 WORK ZONE CHANNELIZING LINE, CLASS I, 12"(WHITE)	614 WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807 PAINT(YELLOW)	614 WORK ZONE DOTTED LINE, CLASS I(WHITE)	614 WORK ZONE DOTTED LINE, CLASS I	614 WORK ZONE DOTTED LINE, CLASS I, 6", 807 PAINT	614 WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT	614 WORK ZONE STOP LINE, CLASS I	615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN	622 PORTABLE BARRIER, 50", AS PER PLAN	622 PORTABLE BARRIER, "Y" CONNECTOR	622 PORTABLE BARRIER, UNANCHORED	
					EACH	EACH	SF	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	SY	FT	EACH	FT	
PID 99731 PHASE 2A CONTINUED																										
SN-124	120	39+01		RT		1	32																			
WCH-1	120	32+99	36+22	LT & RT										328	328											
WCH-2	120	32+78	36+22	RT										344	344											
WDW-1	120	36+22	40+01	RT												379	379									
WEW-1	120	29+00	41+50	LT & RT						1381	1381															
WEW-2	120	36+47	41+50	LT						600	600															
WEY-1	120	29+00	32+99	LT								401	401													
WEY-2	120	36+38	41+50	LT								610	610													
WIA-1	120	34+22		RT	1																					
PB-1	120	29+00	34+53	LT & RT																						55
TP-1	120	32+23	40+01	LT & RT																	1427					
TP-2	120	36+36	41+50	LT																	1467					
SN-125	121	48+29		RT		1	32																			
WDW-1	121	36+22	40+01	RT												333		333								
WEW-1	121	41+50	48+29	LT & RT						690	690															
WEY-1	121	41+50	44+97	LT								357	357													
TP-1	121	41+50	48+12	LT & RT																	1207					
WEW-1	126	220+00	232+50	LT & RT						1253	1253															
WEY-1	126	225+64	232+50	LT & RT								890	890													
WDW-1	126	220+00	223+62	RT												362	362		0.04							
TP-1	126	223+62	232+50	LT & RT																	677					
WEW-1	127	232+50	240+40	LT						872	872															
WEW-2	127	242+90	245+00	LT						255	255															
WEY-1	127	232+50	240+49	LT								882	882													
WEY-2	127	242+80	245+00	LT								265	265													
TP-1	127	232+50	240+49	LT																	1712					
TP-2	127	242+80	245+00	LT																	518					
SN-126	128	245+75		LT		1	32																			
WEW-1	128	245+00	257+50	LT						1254	1254															
WEW-2	128	252+30	257+50	LT						546	546															
WEY-1	128	245+00	257+50	LT								1254	1254													
WEY-2	128	252+25	257+50	LT								551	551													
TP-1	128	245+00	246+78	LT																	368					
TP-2	128	252+25	257+50	LT																	113					
SN-127	129	258+80		LT		1	32																			
WDW-1	129	261+26	265+68	LT												439		439								
WEW-1	129	257+50	282+50	LT						1248	1248															
WEY-1	129	257+50	261+26	LT								378	378													
WEY-2	129	257+50	282+50	LT								2498	2498													
TP-1	129	257+50	261+62	LT																	756					
SN-128	130	298+60		LT		1	32																			
WCH-1	130	299+83	305+00	LT										517	517											
WCH-2	130	299+83	301+63	LT										179	179											
WEW-1	130	282+50	300+20	LT						1820	1820															
WEY-1	130	282+50	299+83	LT						1784	1784															
SN-129	-	APPROX. AT SLM 5.87		-		2	19																			
SN-130	-	APPROX. AT SLM 6.10		-		2	32																			
SN-131	-	APPROX. AT SLM 6.56		-		2	64																			
SN-132	-	APPROX. AT SLM 6.71		-		2	50																			
TOTALS CARRIED TO SHEET				**69**	1	13	325			11703	11703	8086	8086	1368	1368	1513	741	772	1		8245			55		

CALCULATED DEK
CHECKED XXX

MAINTENANCE OF TRAFFIC SUBSUMMARY - MAINLINE

LUC-475-0.09

TRAFFIC SUBSUMMARY - MAINLINE

CALCULATED DEK | CHECKED XXX

MAINTENANCE OF TRAFFIC

REF NO.	SHEET NO.	STATION TO STATION	SHEET	614 WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL) EACH	614 MAINTAINING TRAFFIC, MISC.:6"X8" SOLID WOOD POST, AS PER PLAN EACH	614 MAINTAINING TRAFFIC, MISC.:SIGN (FLAT SHEET) SF	614 WORK ZONE LANE LINE, CLASS I, 4" FT	614 WORK ZONE CENTER LINE, CLASS I FT	614 WORK ZONE EDGE LINE, CLASS I, 6" (WHITE) FT	614 WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT(WHITE) FT	614 WORK ZONE EDGE LINE, CLASS I, 6"(YELLOW) FT	614 WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT(YELLOW) FT	614 WORK ZONE CHANNELIZING LINE, CLASS I, 12" FT	614 WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807 PAINT FT	614 WORK ZONE DOTTED LINE, CLASS I(WHITE) FT	614 WORK ZONE DOTTED LINE, CLASS I(YELLOW) FT	614 WORK ZONE DOTTED LINE, CLASS I, 6", 807 PAINT(WHITE) FT	614 WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT FT	614 WORK ZONE STOP LINE, CLASS I FT	615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN SY	622 PORTABLE BARRIER, 50", AS PER PLAN FT	622 PORTABLE BARRIER, "Y" CONNECTOR EACH	622 PORTABLE BARRIER, UNANCHORED FT
		SUBTOTALS CARRIED FROM SHEET	58	2	3	96	5384		9633	9633	10947	10947	2456	2456	2720		2720	5384		9871	2937	2	7040
		SUBTOTALS CARRIED FROM SHEET	59				15001		19017	19017	16500	16500						15001		23548	9500		9238
		SUBTOTALS CARRIED FROM SHEET	60		7	206	17700		16502	16502	21079	21079			1355		1355	17700		17947	8850		5195
		SUBTOTALS CARRIED FROM SHEET	61	2			8680	5000	22447	22447	18692	18692	1865	1865	1543		1543	8680		180	5000		7096
		SUBTOTALS CARRIED FROM SHEET	62	3	8	238			7275	7275	4389	4389	750	750	420		420			4818	2052		4390
		SUBTOTALS CARRIED FROM SHEET	62A		1	32			6634	6634	9014	9014	498	498	353		353			1878			
		SUBTOTALS CARRIED FROM SHEET	62B		7	224	7510		15593	15593	11077	11077	2339	2339	1006		1006	7510		3112	3250		3160
		SUBTOTALS CARRIED FROM SHEET	62C	1	4	96	21700		15585	15585	22033	22033						21700			8750		8897
		SUBTOTALS CARRIED FROM SHEET	62D		1	32	13776		16362	16362	13987	13987	1046	1046	2004		2004	13776		1964	8750		5619
		SUBTOTALS CARRIED FROM SHEET	62E		2	64	11721		18584	18584	21212	21212	6291	6291	2823		2823	11721		2171	6462	1	4078
		SUBTOTALS CARRIED FROM SHEET	62F	1	13	325			11703	11703	8086	8086	1368	1368	1513	379	1134	1		8245			55
		SUBTOTALS CARRIED FROM SHEET	63	2	7	154			10566	10566	8108	8108	3796	3796	2396		2396			3024		1	4020
		SUBTOTALS CARRIED FROM SHEET	64	6					11537	11537	9011	9011	1518	1518	2695		2695			4735		1	15277
		SUBTOTALS CARRIED FROM SHEET	65	1					15124	15124	11324	11324	2670	2670	4120		4120			2542		1	9583
		SUBTOTALS CARRIED FROM SHEET	66	2	7	146			7868	7868	3605	3605	4686	4686	3184		3184			2550		3	6367
		SUBTOTALS CARRIED FROM SHEET	67	7				2450	8506	3949	3378	3378	445	350	420		420		47	1503		1	6320
		SUBTOTALS CARRIED FROM SHEET	68	1			830	2950	4701				25		500	65			33				675
		LINEAR TOTALS	FT				102302	10400	217637	208379	192442	192442	29753	29633	27052	444	26173	101473			55551		
		LINEAR TOTALS	MI				19.375	1.970	41.219	39.466	36.447	36.447	5.635	5.612	5.123	0.084	4.957	19.218			10.521		
TOTALS CARRIED TO SHEET 208/208A				28	60	1613	19.38	1.97	41.219	39.466	36.447	36.447	29753	29633	27496		26173	19.218	80	88088	55551	10	97010

LUC-475-0.09

ENTRANCE FROM AIRPORT HWY

AIRPORT HWY

WEW-1

WEY-1

+38

+45

+41

+35

EXIT 8A

SN-121
STA. 245+20
E5-HIC

EXIT TO AIRPORT HWY

WEY-4

WEW-4

+30

MATCH LINE STA. 237+50

240

245

EX. ℄ R/W I.R. 475

MATCH LINE STA. 250+00

11'

11'

11'

11'

EXIT TO AIRPORT HWY

WEW-2

WL-1

WEY-2

WEY-3

WL-2

WEW-3

PB-1

PB-2

+25

+30

WEW-5

WCH-1

WCH-2

ENTRANCE FROM AIRPORT HWY

LEGEND:

- Phase 1 WORK AREA
- Phase 1A WORK AREA
- Phase 1B WORK AREA
- TEMPORARY PAVEMENT (FULL DEPTH)
- TEMPORARY PAVEMENT (VARIABLE DEPTH)
- Crash Attenuator
- Portable Concrete Barrier
- WEW Work Zone Edge Line (White)
- WEY Work Zone Edge Line (Yellow)
- WCH Work Zone Channelizing Line
- WDW Work Zone Dotted LIne (White)
- WL Work Zone Lane Line (White)
- • • • Drums

N

0 25 50 100
HORIZONTAL SCALE IN FEET

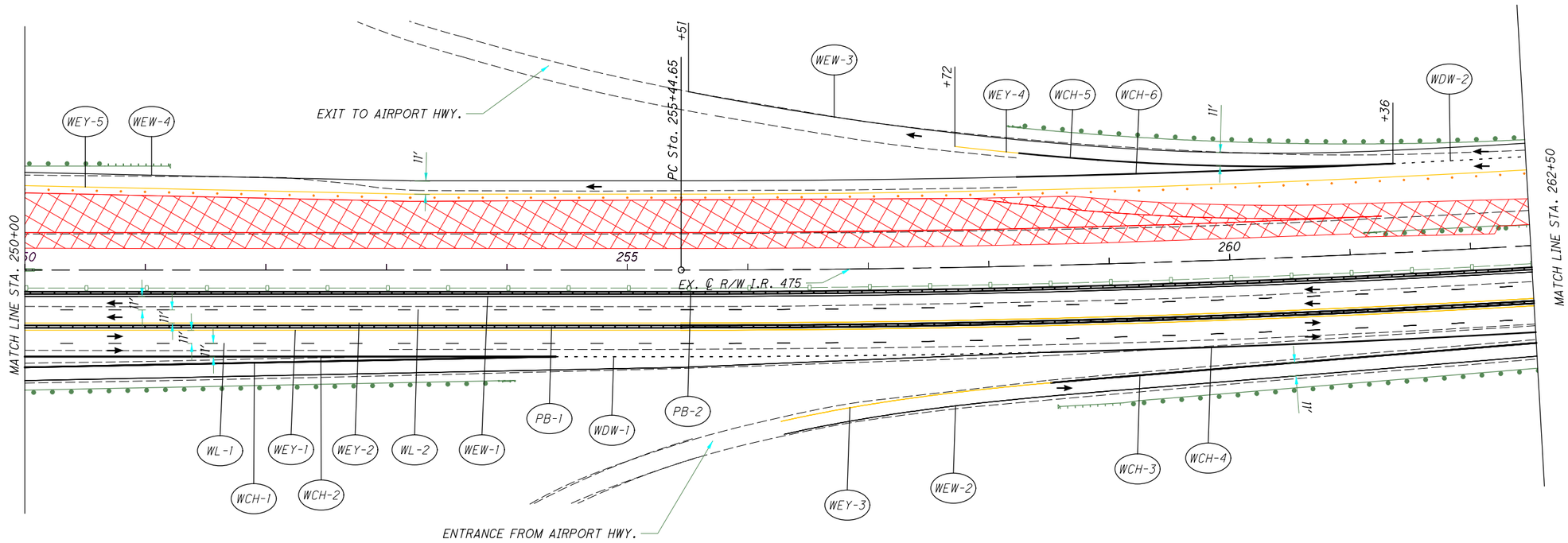
CALCULATED MK
CHECKED DEK

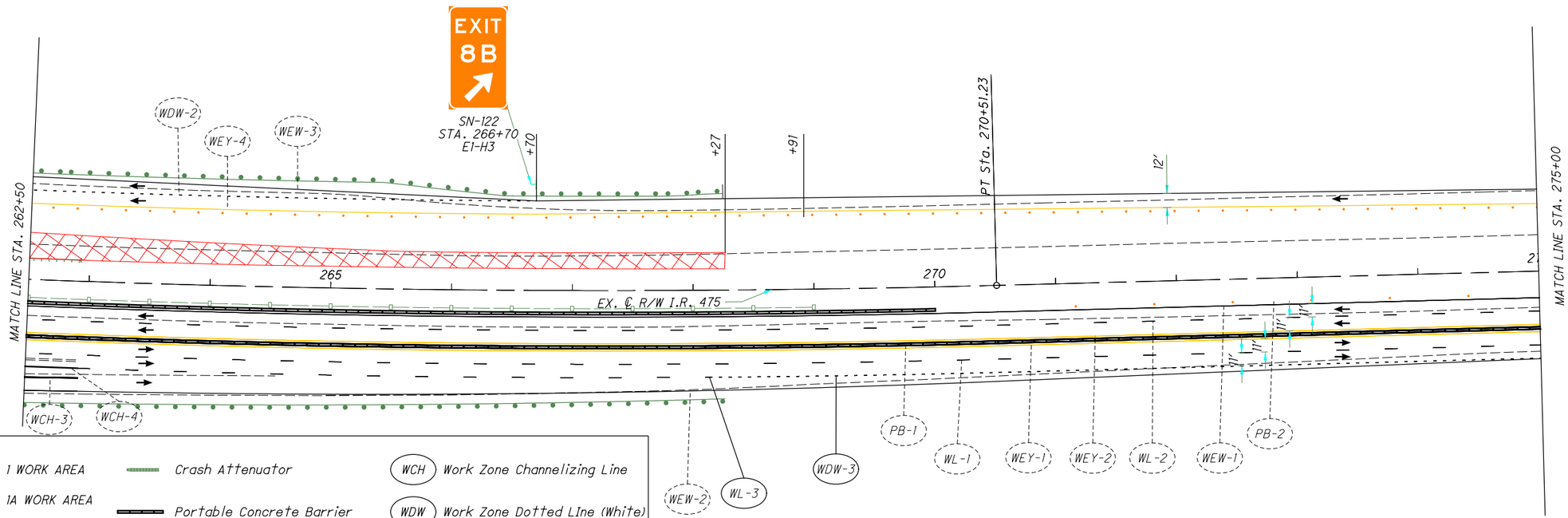
MAINTENANCE OF TRAFFIC - MAINLINE
PHASE 2 - STA. 237+50 TO STA. 250+00

LUC-475-0.09

115
855

I:\ProjectData\LUC\95875_LUC-475-0.09\Design\MOT\Sheets\95875_MP046.dgn Sheet 5/3/2022 4:11:20 PM dkaseml





LEGEND:

- Phase 1 WORK AREA
- Phase 1A WORK AREA
- Phase 1B WORK AREA
- TEMPORARY PAVEMENT (FULL DEPTH)
- TEMPORARY PAVEMENT (VARIABLE DEPTH)
- Crash Attenuator
- Portable Concrete Barrier
- WEW Work Zone Edge Line (White)
- WEY Work Zone Edge Line (Yellow)
- WCH Work Zone Channelizing Line
- WDW Work Zone Dotted LIne (White)
- WL Work Zone Lane Line (White)
- • • • Drums

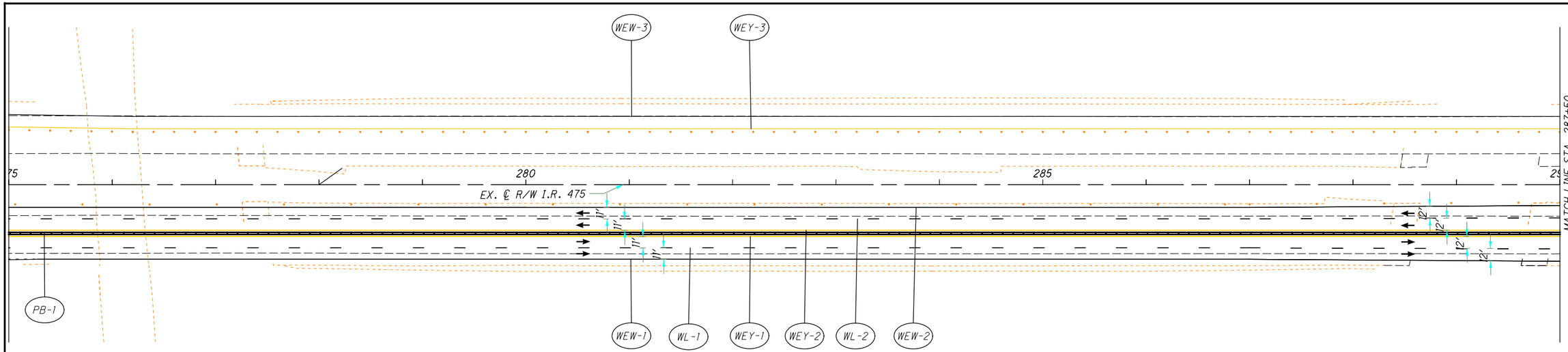
HORIZONTAL SCALE IN FEET
0 25 50 100

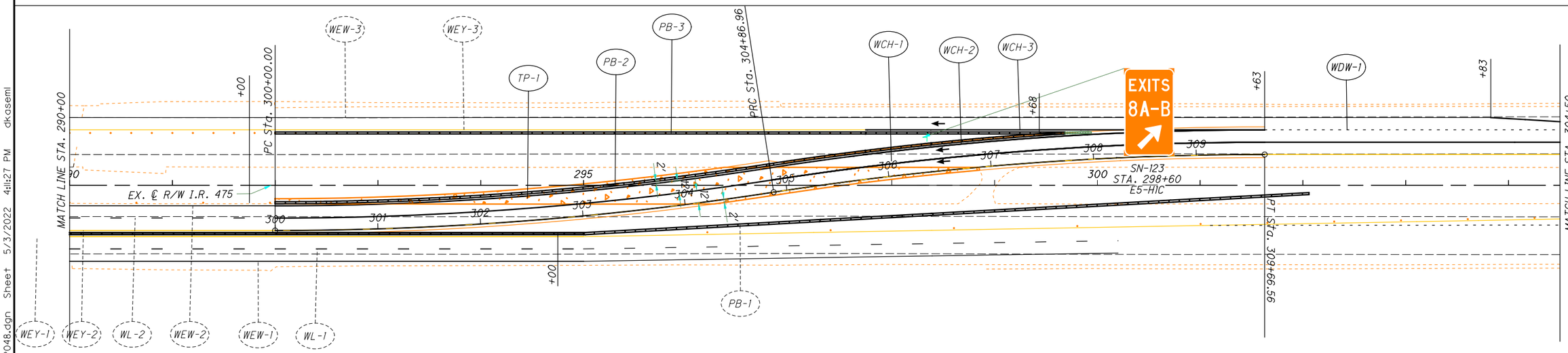
CALCULATED MK
CHECKED DEK

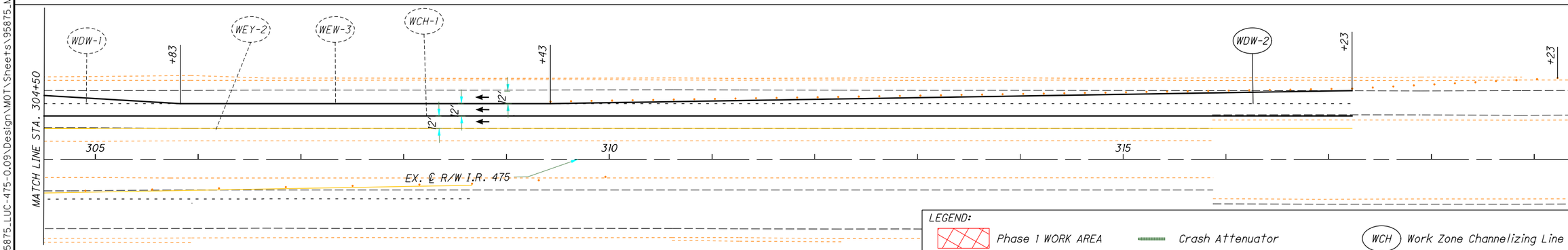
MAINTENANCE OF TRAFFIC - MAINLINE
PHASE 2 - STA. 250+00 TO STA. 275+00

LUC-475-0.09

I:\ProjectData\LUC\95875_LUC-475-0.09\Design\MOT\Sheets\95875_MP047.dgn Sheet 5/3/2022 4:11:24 PM dkosemi







LEGEND:

- Phase 1 WORK AREA
- Phase 1A WORK AREA
- Phase 1B WORK AREA
- TEMPORARY PAVEMENT (FULL DEPTH)
- TEMPORARY PAVEMENT (VARIABLE DEPTH)
- Crash Attenuator
- Portable Concrete Barrier
- WEW Work Zone Edge Line (White)
- WEY Work Zone Edge Line (Yellow)
- WCH Work Zone Channelizing Line
- WDW Work Zone Dotted LIne (White)
- WL Work Zone Lane Line (White)
- Drums

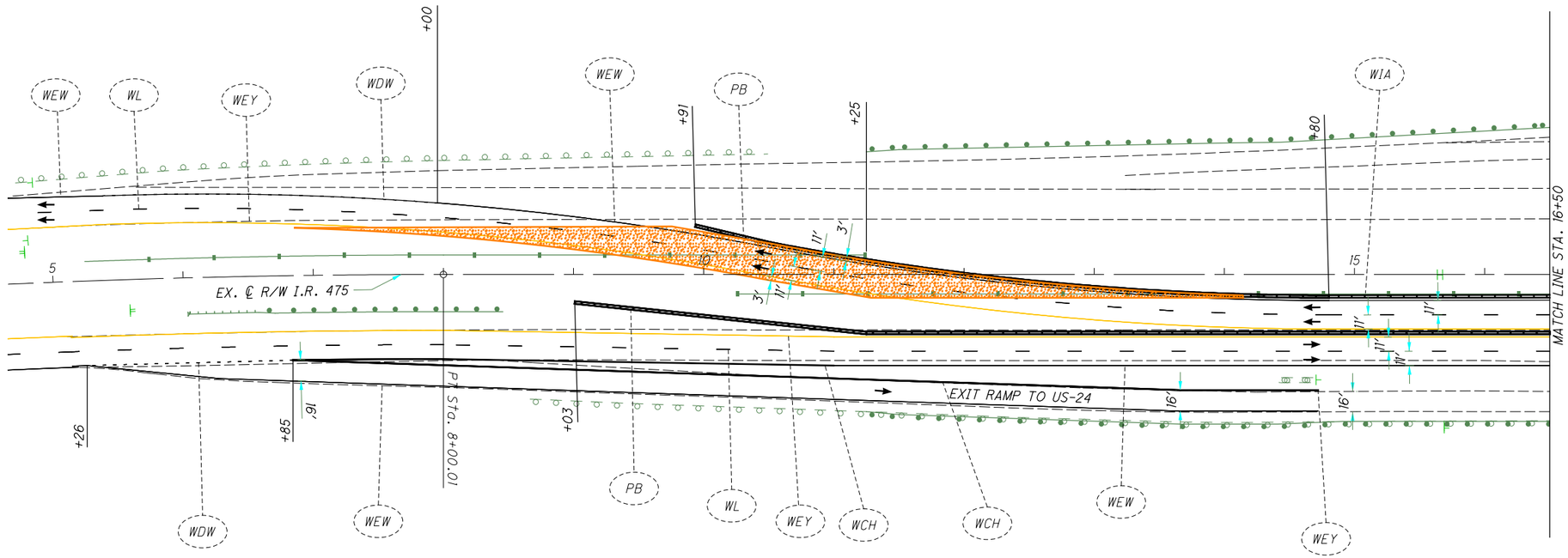
HORIZONTAL SCALE IN FEET: 0, 25, 50, 100

CALCULATED MK
CHECKED DEK

MAINTENANCE OF TRAFFIC - MAINLINE
PHASE 2 - STA. 275+00 TO STA. 319+25

LUC-475-0.09

I:\ProjectData\LUC\95875_LUC-475-0.09\Design\MOT\Sheets\95875_MP048.dgn Sheet 5/3/2022 4:11:27 PM dkosemi



LEGEND:

- Phase 1 WORK AREA
- Phase 1A WORK AREA
- Phase 1B WORK AREA
- TEMPORARY PAVEMENT (FULL DEPTH)
- TEMPORARY PAVEMENT (VARIABLE DEPTH)
- Crash Attenuator
- Portable Concrete Barrier
- (WEW) Work Zone Edge Line (White)
- (WEY) Work Zone Edge Line (Yellow)
- (WCH) Work Zone Channelizing Line
- (WDW) Work Zone Dotted LIne (White)
- (WL) Work Zone Lane Line (White)
- • • • Drums

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED MK
CHECKED DEK

MAINTENANCE OF TRAFFIC - MAINLINE
PHASE 2A - STA. 4+00 TO STA. 16+50

LUC-475-0.09

ENTRANCE FROM US 24 EB
(CLOSED FOR DURATION OF PHASE 2)

EXIT TO US 24 EB

PC Sta. 10+00.00

+51

+69

+14

+23

TP-1

WEW-1

WEY-1

PT Sta. 14+39.70

MATCH LINE STA. 16+50

MATCH LINE STA. 29+00

20

25

EX. ℄ R/W I.R. 475

12'

15'

11'

13'

WEY

WL

WEW

PB

PB

WEY

WL

WEW

EXIT TO US 24 EB

ENTRANCE FROM US 24 EB

LEGEND:

- Phase 1 WORK AREA
- Phase 1A WORK AREA
- Phase 1B WORK AREA
- TEMPORARY PAVEMENT (FULL DEPTH)
- TEMPORARY PAVEMENT (VARIABLE DEPTH)
- Crash Attenuator
- Portable Concrete Barrier
- WEW — Work Zone Edge Line (White)
- WEY — Work Zone Edge Line (Yellow)
- WCH — Work Zone Channelizing Line
- WDW — Work Zone Dotted LIne (White)
- WL — Work Zone Lane Line (White)
- Drums

HORIZONTAL SCALE IN FEET
0 25 50 100

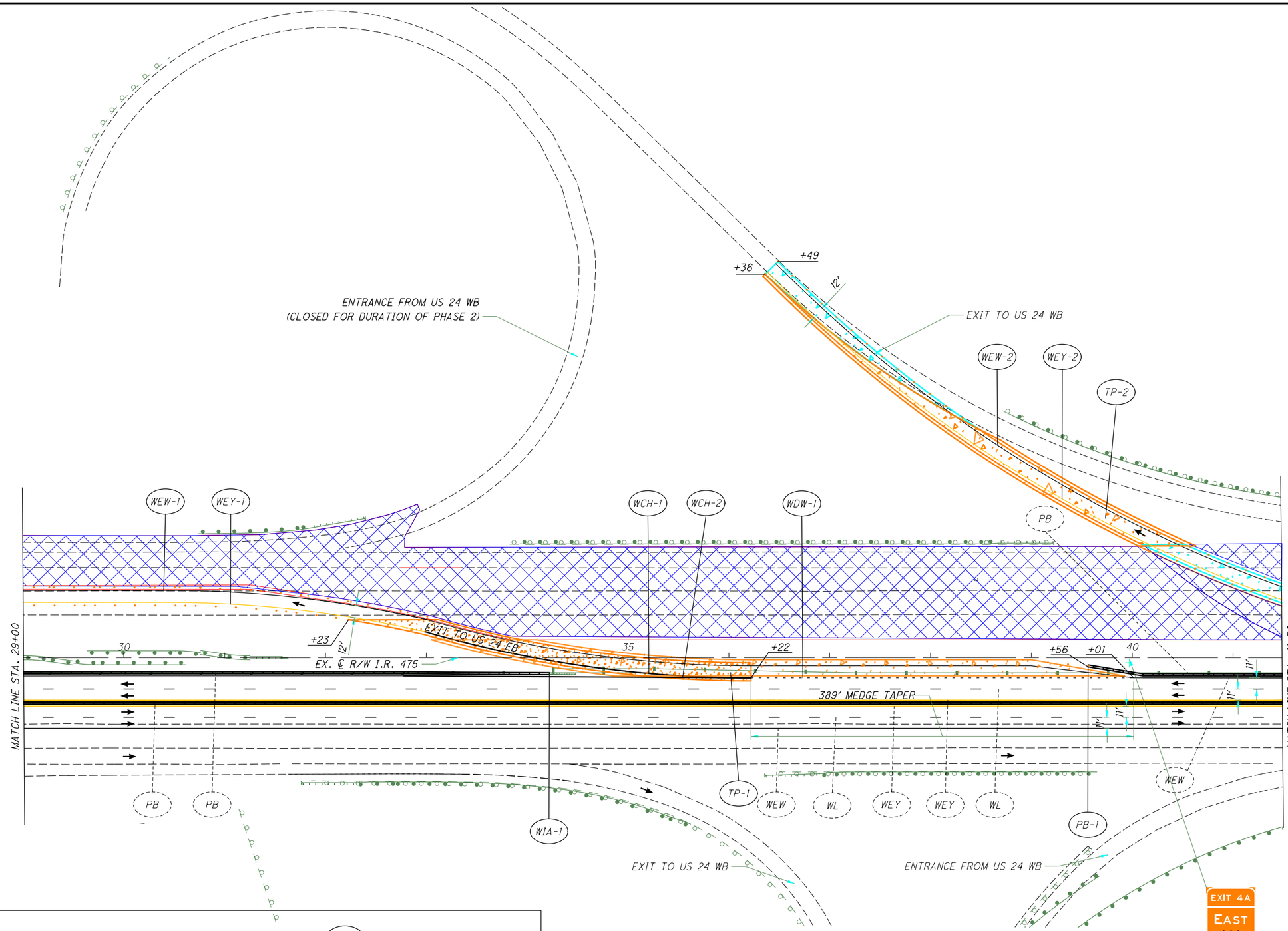
CALCULATED MK
CHECKED DEK

MAINTENANCE OF TRAFFIC - MAINLINE
PHASE 2A - STA. 16+50 TO STA. 29+00

LUC-475-0.09

119
855

I:\ProjectData\LUC\95875_LUC-475-0.09\Design\MOT\Sheets\95875_MP050.dgn Sheet 5/3/2022 4:11:32 PM dkasemi



LEGEND:

- Phase 1 WORK AREA
- Phase 1A WORK AREA
- Phase 1B WORK AREA
- TEMPORARY PAVEMENT (FULL DEPTH)
- TEMPORARY PAVEMENT (VARIABLE DEPTH)
- Crash Attenuator
- Portable Concrete Barrier
- WEW — Work Zone Edge Line (White)
- WEY — Work Zone Edge Line (Yellow)
- WCH — Work Zone Channelizing Line
- WDW — Work Zone Dotted LIne (White)
- WL — Work Zone Lane Line (White)
- Drums

HORIZONTAL SCALE IN FEET
0 25 50 100

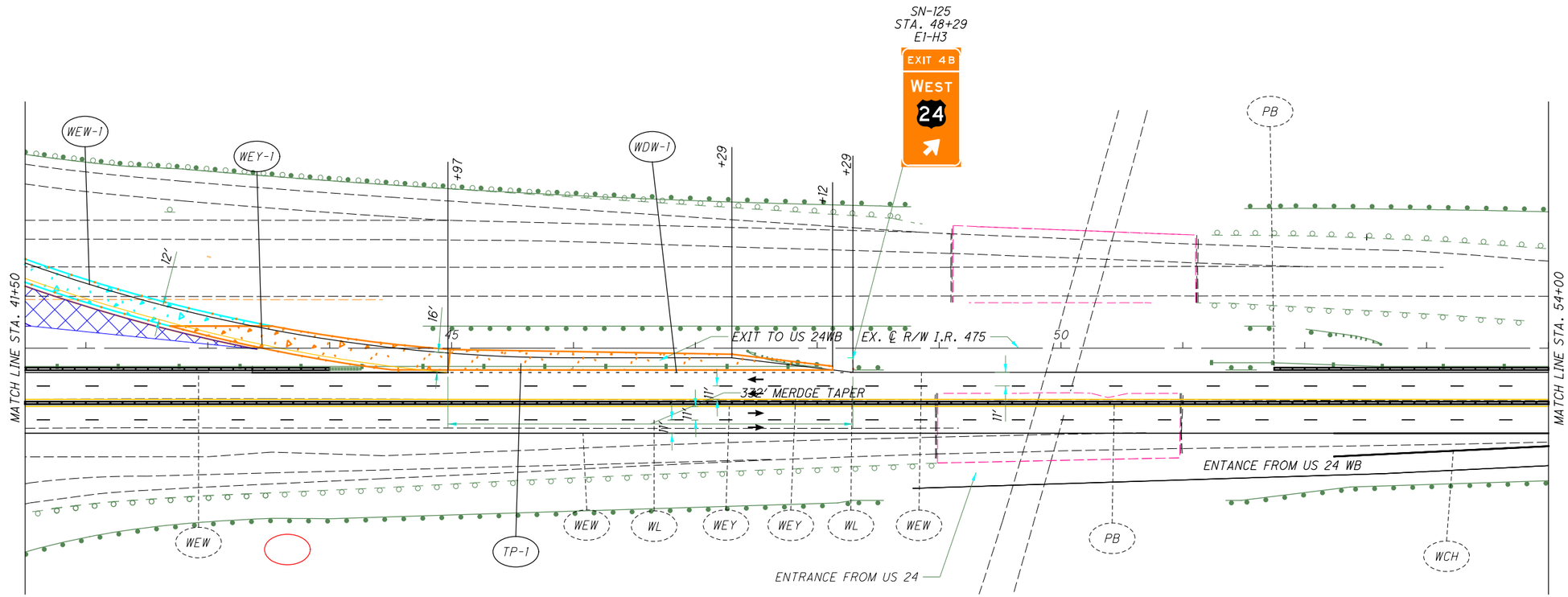
CALCULATED MK
CHECKED DEK

MAINTENANCE OF TRAFFIC - MAINLINE
PHASE 2A - STA. 29+00 TO STA. 41+50

LUC-475-0.09

120
855

i:\ProjectData\LUC\95875_LUC-475-0.09\Design\MOT\Sheets\95875_MP05i.dgn Sheet 5/3/2022 4:11:34 PM dkosemi



LEGEND:

- Phase 1 WORK AREA
- Phase 1A WORK AREA
- Phase 1B WORK AREA
- TEMPORARY PAVEMENT (FULL DEPTH)
- TEMPORARY PAVEMENT (VARIABLE DEPTH)
- Crash Attenuator
- Portable Concrete Barrier
- (WEW) Work Zone Edge Line (White)
- (WEY) Work Zone Edge Line (Yellow)
- (WCH) Work Zone Channelizing Line
- (WDW) Work Zone Dotted LIne (White)
- (WL) Work Zone Lane Line (White)
- • • • Drums

HORIZONTAL SCALE IN FEET
0 25 50 100

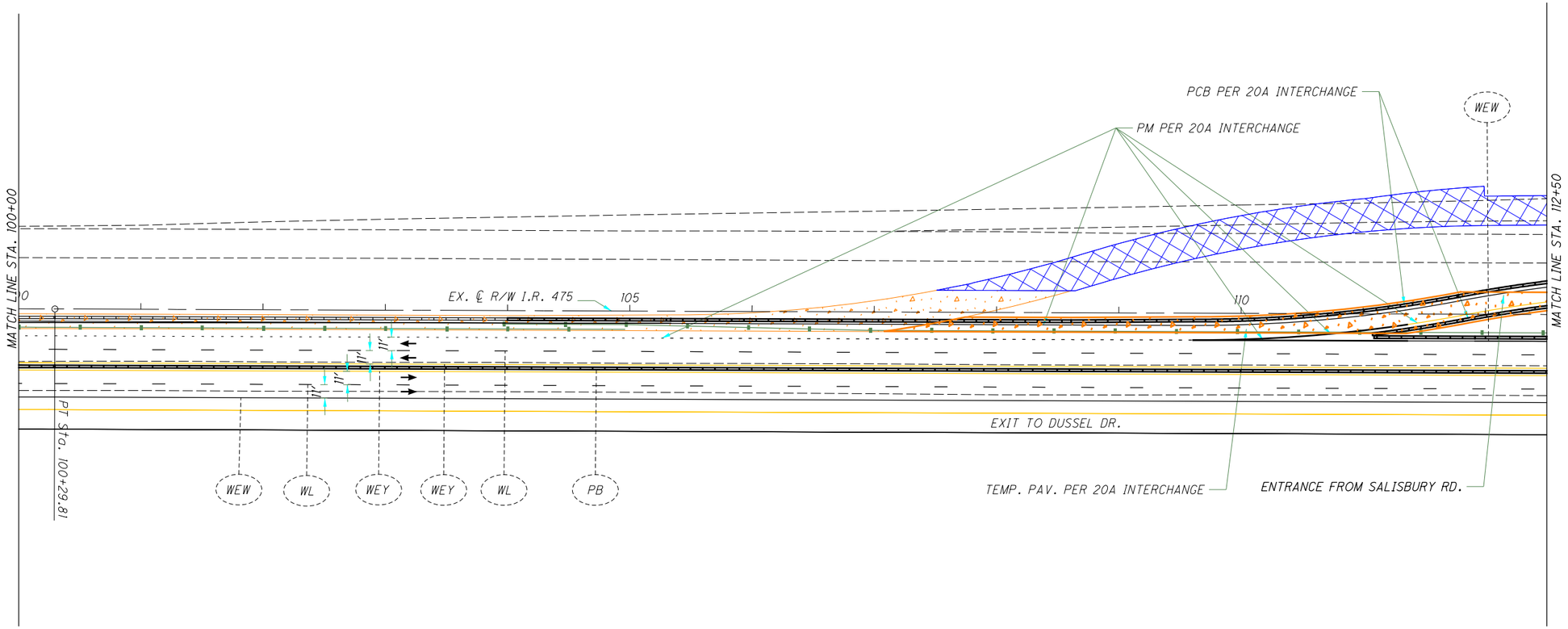
CALCULATED MK
CHECKED DEK

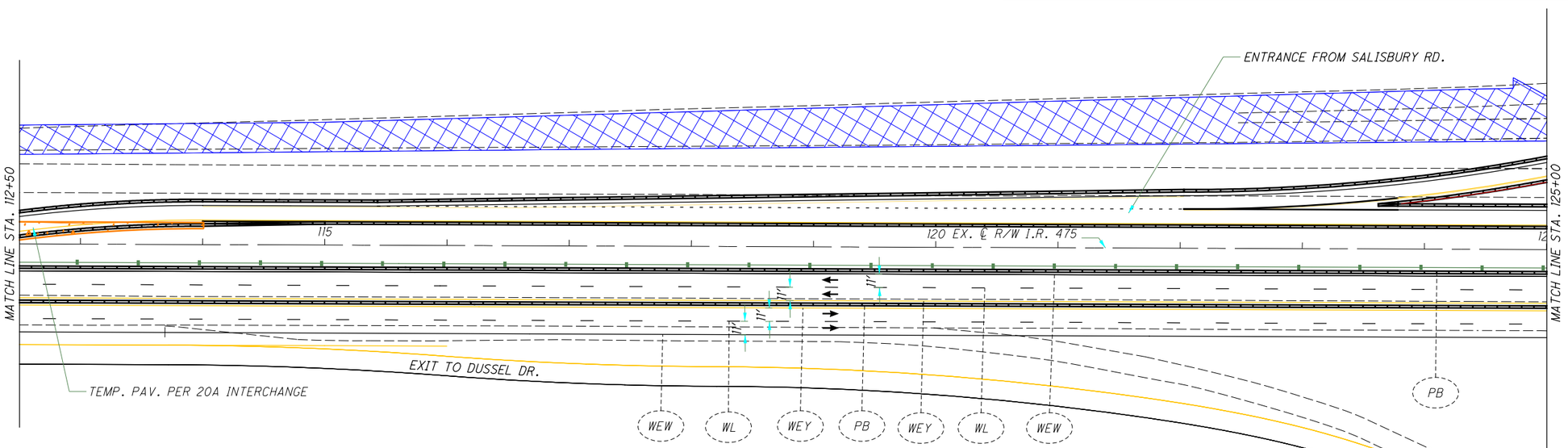
MAINTENANCE OF TRAFFIC - MAINLINE
PHASE 2A - STA. 41+50 TO STA. 49+00

LUC-475-0.09

121
855

I:\ProjectData\LUC\95875_LUC-475-0.09\Design\MOT\Sheets\95875_MP052.dgn Sheet 5/3/2022 4:11:37 PM dkosemi





LEGEND:

- Phase 1 WORK AREA
- Phase 1A WORK AREA
- Phase 1B WORK AREA
- TEMPORARY PAVEMENT (FULL DEPTH)
- TEMPORARY PAVEMENT (VARIABLE DEPTH)
- Crash Attenuator
- Portable Concrete Barrier
- (WEW) Work Zone Edge Line (White)
- (WEY) Work Zone Edge Line (Yellow)
- (WCH) Work Zone Channelizing Line
- (WDW) Work Zone Dotted LIne (White)
- (WL) Work Zone Lane Line (White)
- • • • Drums

HORIZONTAL SCALE IN FEET
0 25 50 100

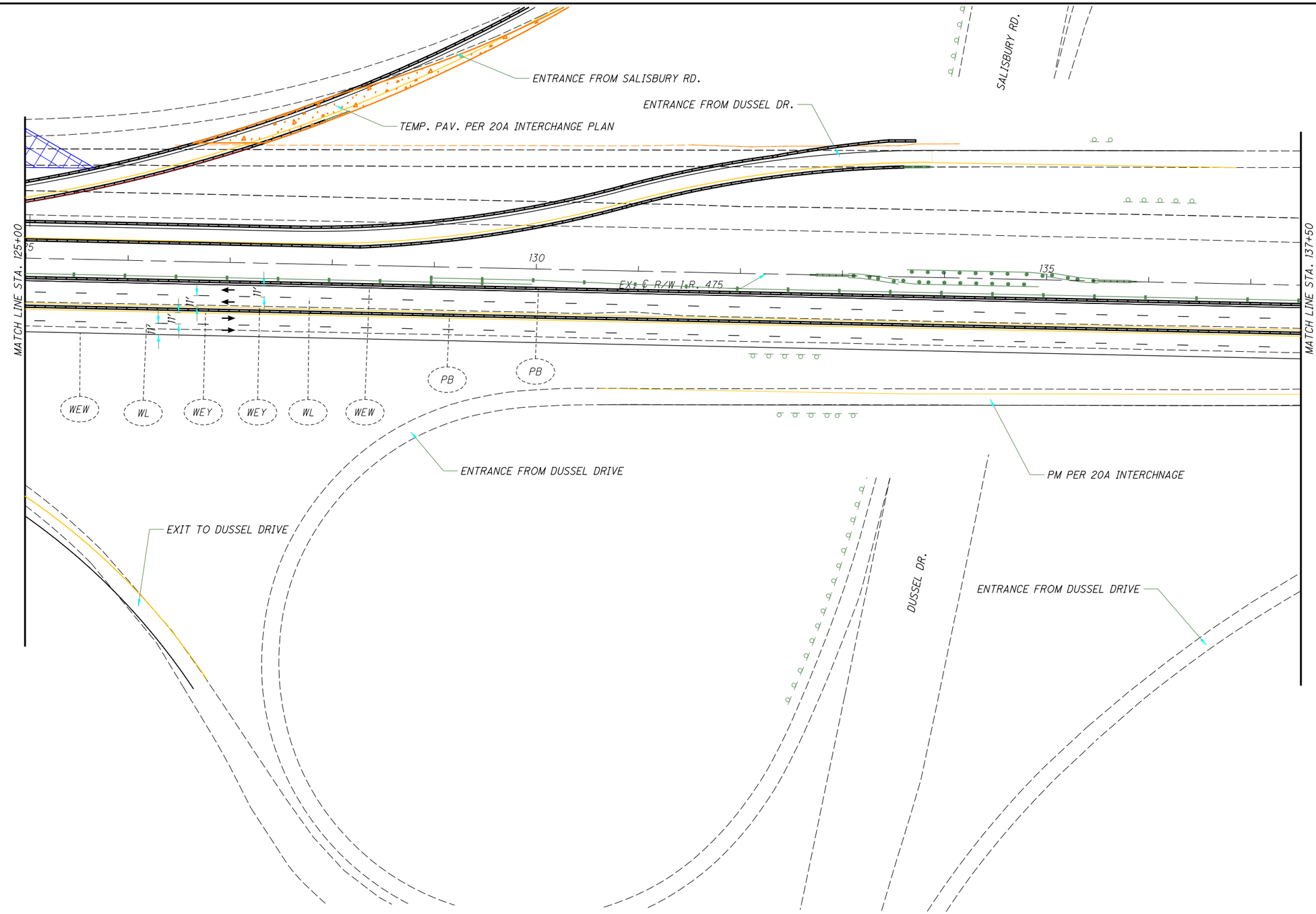
CALCULATED MK
CHECKED DEK

MAINTENANCE OF TRAFFIC - MAINLINE
PHASE 2A - STA. 100+00 TO STA. 125+00

LUC-475-0.09

122
855

I:\ProjectData\LUC\95875_LUC-475-0.09\Design\MOT\Sheets\95875_MP053.dgn Sheet 5/3/2022 4:11:40 PM dkaseml



LEGEND:

- Phase 1 WORK AREA
- Phase 1A WORK AREA
- Phase 1B WORK AREA
- TEMPORARY PAVEMENT (FULL DEPTH)
- TEMPORARY PAVEMENT (VARIABLE DEPTH)
- Crash Attenuator
- Portable Concrete Barrier
- WEW — Work Zone Edge Line (White)
- WEY — Work Zone Edge Line (Yellow)
- WCH — Work Zone Channelizing Line
- WDW — Work Zone Dotted LIne (White)
- WL — Work Zone Lane Line (White)
- Drums

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

CALCULATED MK
CHECKED DEK

MAINTENANCE OF TRAFFIC - MAINLINE
PHASE 2A - STA. 125+00 TO STA. 137+50

LUC-475-0.09

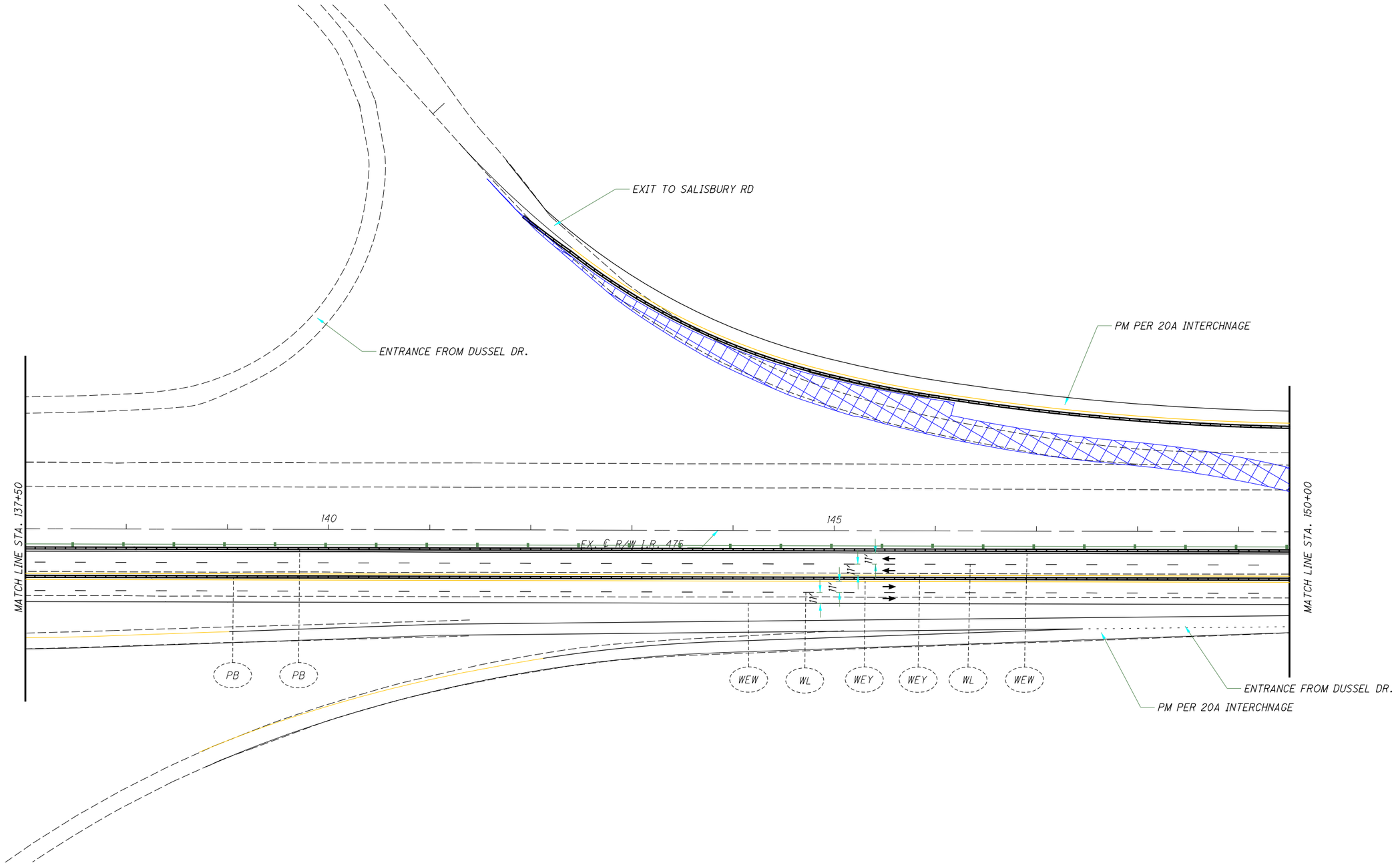
123
855

I:\ProjectData\LUC\95875_LUC-475-0.09\Design\MOT\Sheets\95875_MP054.dgn Sheet 5/3/2022 4:11:43 PM dkosemi

MAINTENANCE OF TRAFFIC - MAINLINE
PHASE 2A - STA. 137+50 TO STA. 150+00

CALCULATED MK
CHECKED DEK

HORIZONTAL SCALE IN FEET
0 25 50 100

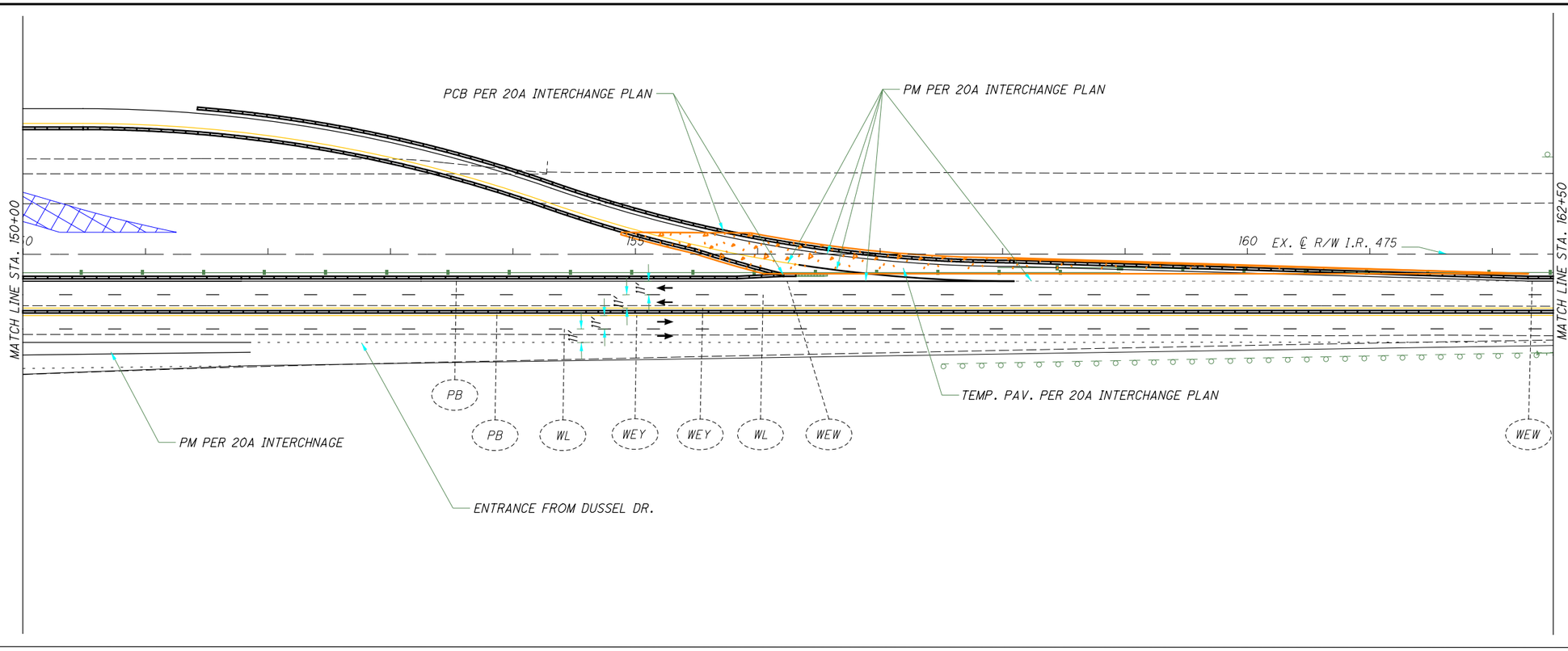


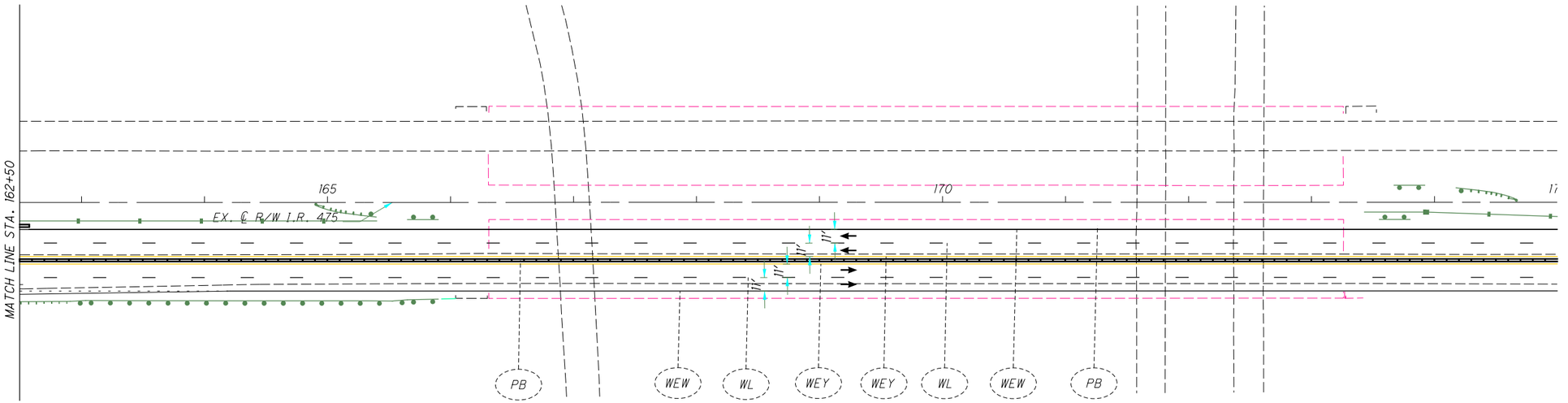
LEGEND:

- Phase 1 WORK AREA
- Phase 1A WORK AREA
- Phase 1B WORK AREA
- TEMPORARY PAVEMENT (FULL DEPTH)
- TEMPORARY PAVEMENT (VARIABLE DEPTH)
- Crash Attenuator
- Portable Concrete Barrier
- (WEW) Work Zone Edge Line (White)
- (WEY) Work Zone Edge Line (Yellow)
- (WCH) Work Zone Channelizing Line
- (WDW) Work Zone Dotted LIne (White)
- (WL) Work Zone Lane Line (White)
- • • • Drums

LUC-475-0.09

I:\Project Data\LUC\95875_LUC-475-0.09\Design\MOT\Sheets\95875_MP055.dgn Sheet 5/3/2022 4:11:45 PM dkosemi





LEGEND:

- Phase 1 WORK AREA
- Phase 1A WORK AREA
- Phase 1B WORK AREA
- TEMPORARY PAVEMENT (FULL DEPTH)
- TEMPORARY PAVEMENT (VARIABLE DEPTH)
- Crash Attenuator
- Portable Concrete Barrier
- WEW — Work Zone Edge Line (White)
- WEY — Work Zone Edge Line (Yellow)
- WCH — Work Zone Channelizing Line
- WDW — Work Zone Dotted LIne (White)
- WL — Work Zone Lane Line (White)
- Drums

HORIZONTAL SCALE IN FEET
0 25 50 100

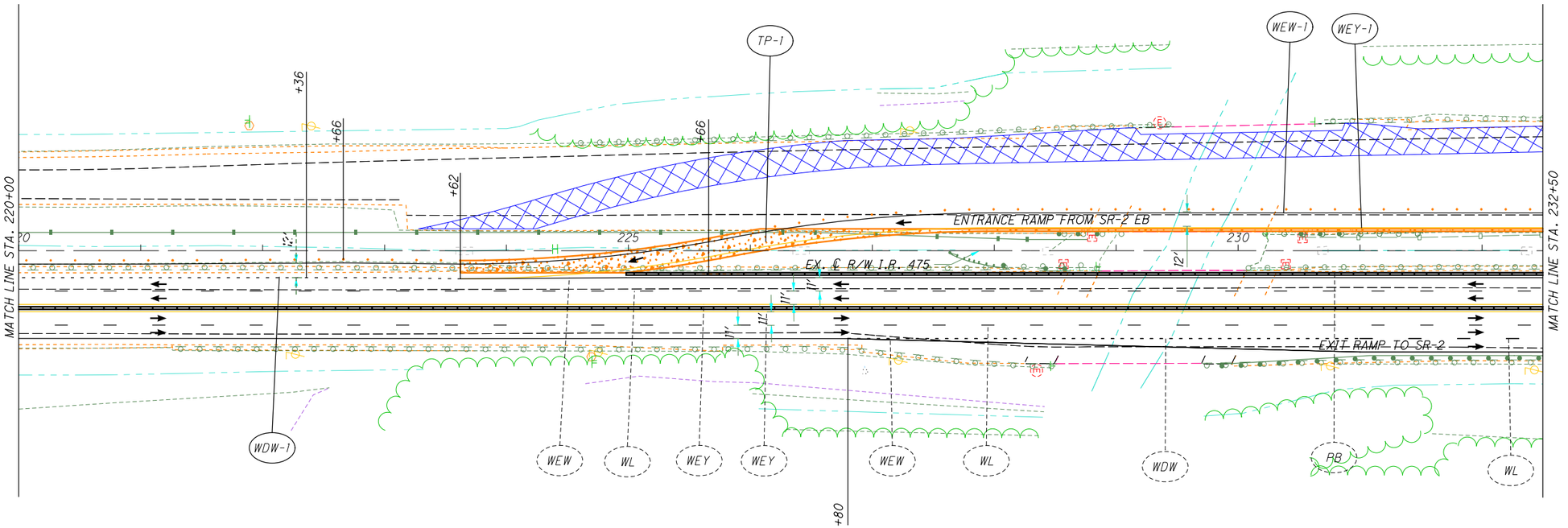
CALCULATED MK
CHECKED DEK

MAINTENANCE OF TRAFFIC - MAINLINE
PHASE 2A - STA. 150+00 TO STA. 175+00

LUC-475-0.09

125
855

I:\ProjectData\LUC\95875_LUC-475-0.09\Design\MOT\Sheets\95875_MP056.dgn Sheet 5/3/2022 4:11:48 PM dkosemi



LEGEND:

- Phase 1 WORK AREA
- Phase 1A WORK AREA
- Phase 1B WORK AREA
- TEMPORARY PAVEMENT (FULL DEPTH)
- TEMPORARY PAVEMENT (VARIABLE DEPTH)
- Crash Attenuator
- Portable Concrete Barrier
- WEW — Work Zone Edge Line (White)
- WEY — Work Zone Edge Line (Yellow)
- WCH — Work Zone Channelizing Line
- WDW — Work Zone Dotted LIne (White)
- WL — Work Zone Lane Line (White)
- Drums

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED MK
CHECKED DEK

MAINTENANCE OF TRAFFIC - MAINLINE PHASE 2A - STA. 220+00 TO STA. 232+50

LUC-475-0.09

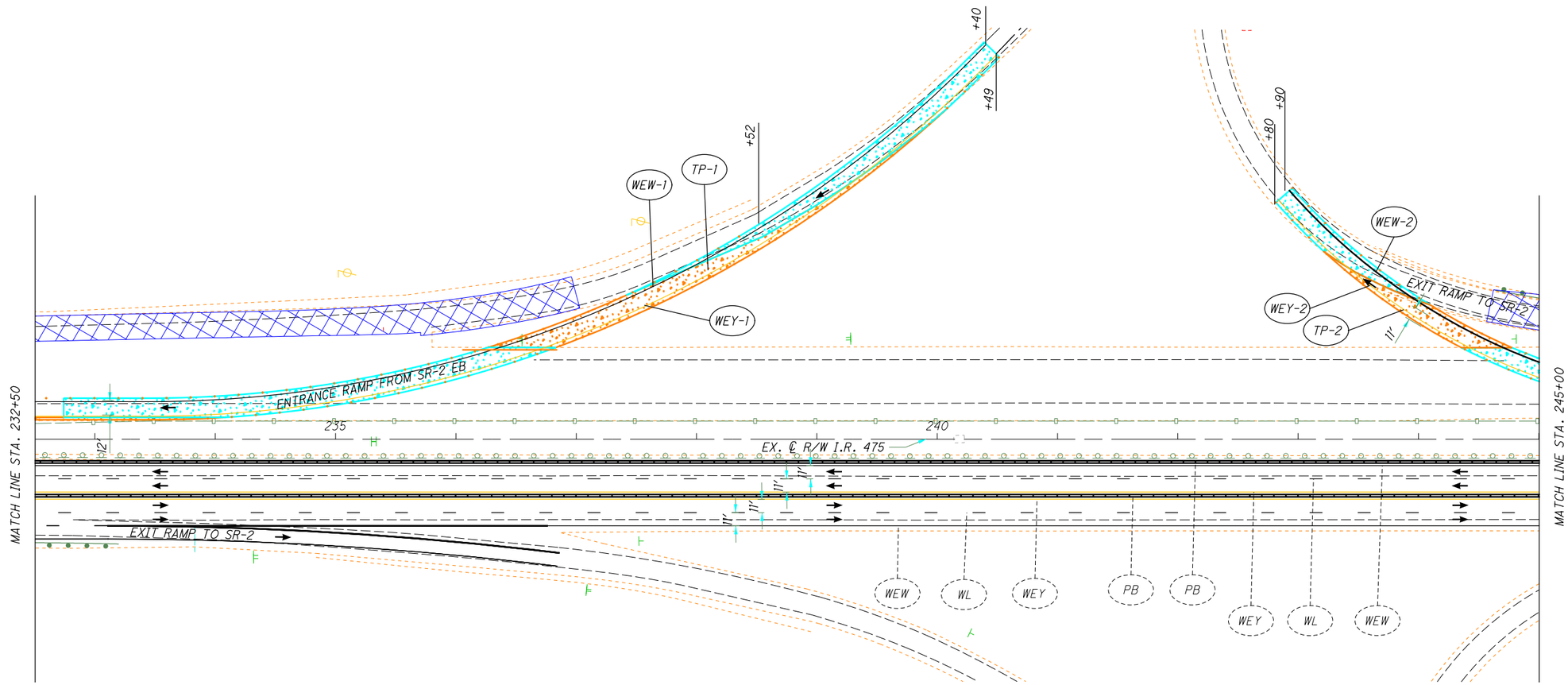
126
855

I:\ProjectData\LUC\95875_LUC-475-0.09\Design\MOT\Sheets\95875_MP057.dgn Sheet 5/3/2022 4:11:53 PM dkosemi

MAINTENANCE OF TRAFFIC - MAINLINE
PHASE 2A - STA. 232+50 TO STA. 245+00

CALCULATED MK
CHECKED DEK

HORIZONTAL SCALE IN FEET
0 25 50 100

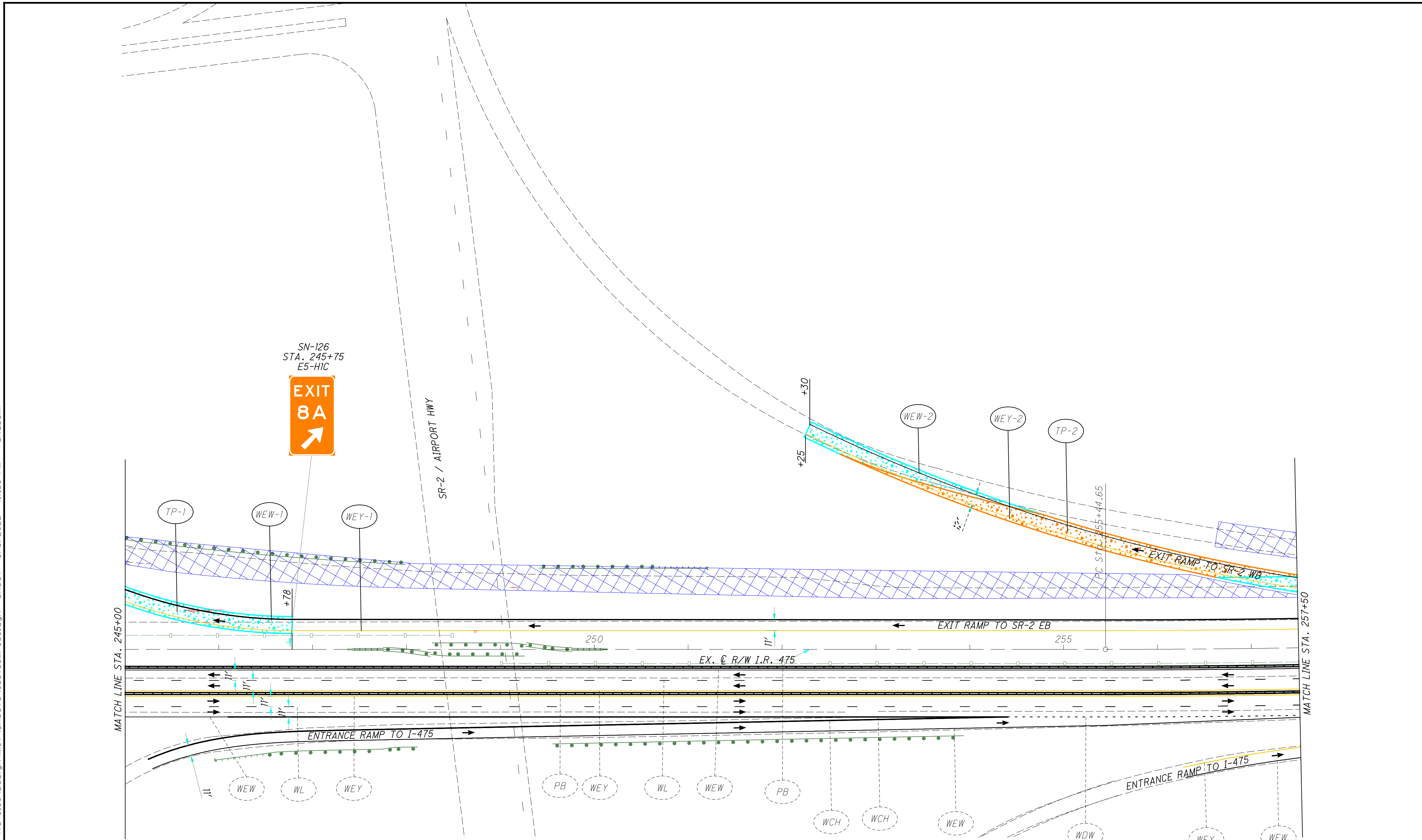


LEGEND:

- Phase 1 WORK AREA
- Phase 1A WORK AREA
- Phase 1B WORK AREA
- TEMPORARY PAVEMENT (FULL DEPTH)
- TEMPORARY PAVEMENT (VARIABLE DEPTH)
- Crash Attenuator
- Portable Concrete Barrier
- (WEW) Work Zone Edge Line (White)
- (WEY) Work Zone Edge Line (Yellow)
- (WCH) Work Zone Channelizing Line
- (WDW) Work Zone Dotted LIne (White)
- (WL) Work Zone Lane Line (White)
- • • • Drums

LUC-475-0.09

I:\ProjectData\LUC\95875_LUC-475-0.09\Design\MOT\Sheets\95875_MP058.dgn Sheet 5/3/2022 4:11:56 PM dk.oseml



LEGEND:

Phase 1 WORK AREA	Crash Attenuator
Phase 1A WORK AREA	Portable Concrete Barrier
Phase 1B WORK AREA	WEW Work Zone Edge Line (White)
TEMPORARY PAVEMENT (FULL DEPTH)	WEY Work Zone Edge Line (Yellow)
TEMPORARY PAVEMENT (VARIABLE DEPTH)	Drums
WCH Work Zone Channelizing Line	
WDW Work Zone Dotted LIne (White)	
WL Work Zone Lane Line (White)	

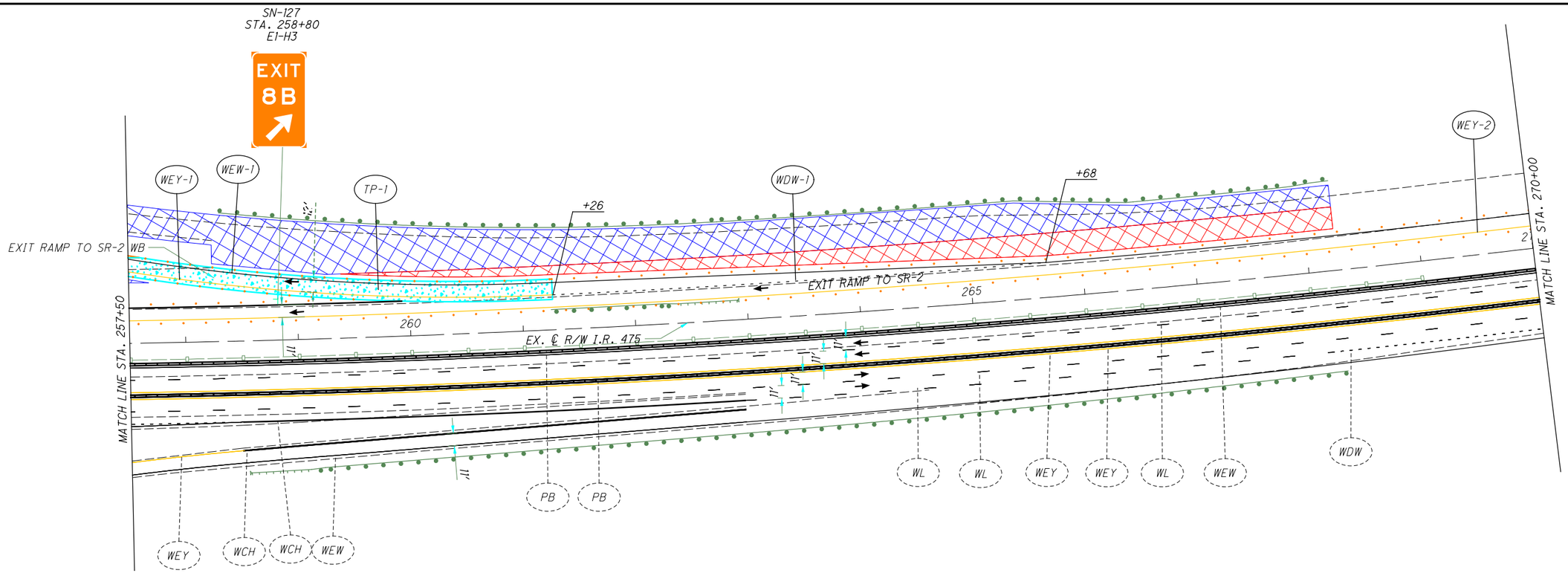
HORIZONTAL SCALE IN FEET 0 25 50 100

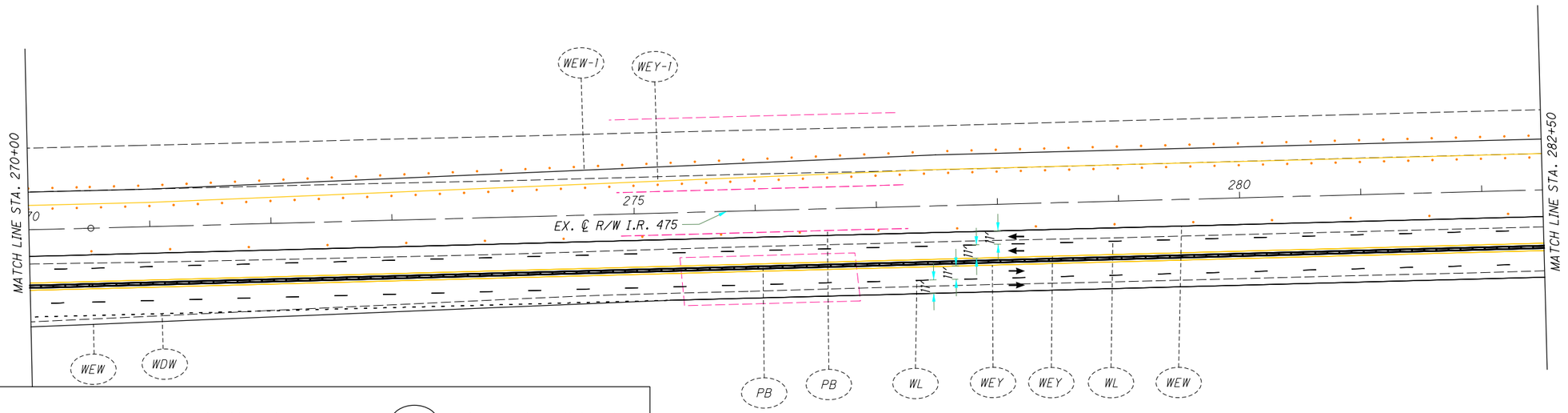
CALCULATED MK
CHECKED DEK

MAINTENANCE OF TRAFFIC - MAINLINE
PHASE 2A - STA. 245+00 TO STA. 257+50

LUC-475-0.09

I:\ProjectData\LUC\95875_LUC-475-0.09\Design\MOT\Sheets\95875_MP059.dgn Sheet 5/3/2022 4:11:58 PM dkaseml





LEGEND:

- Phase 1 WORK AREA
- Phase 1A WORK AREA
- Phase 1B WORK AREA
- TEMPORARY PAVEMENT (FULL DEPTH)
- TEMPORARY PAVEMENT (VARIABLE DEPTH)
- Crash Attenuator
- Portable Concrete Barrier
- (WEW) Work Zone Edge Line (White)
- (WEY) Work Zone Edge Line (Yellow)
- (WCH) Work Zone Channelizing Line
- (WDW) Work Zone Dotted LIne (White)
- (WL) Work Zone Lane Line (White)
- • • • Drums

N

HORIZONTAL SCALE IN FEET
0 25 50 100

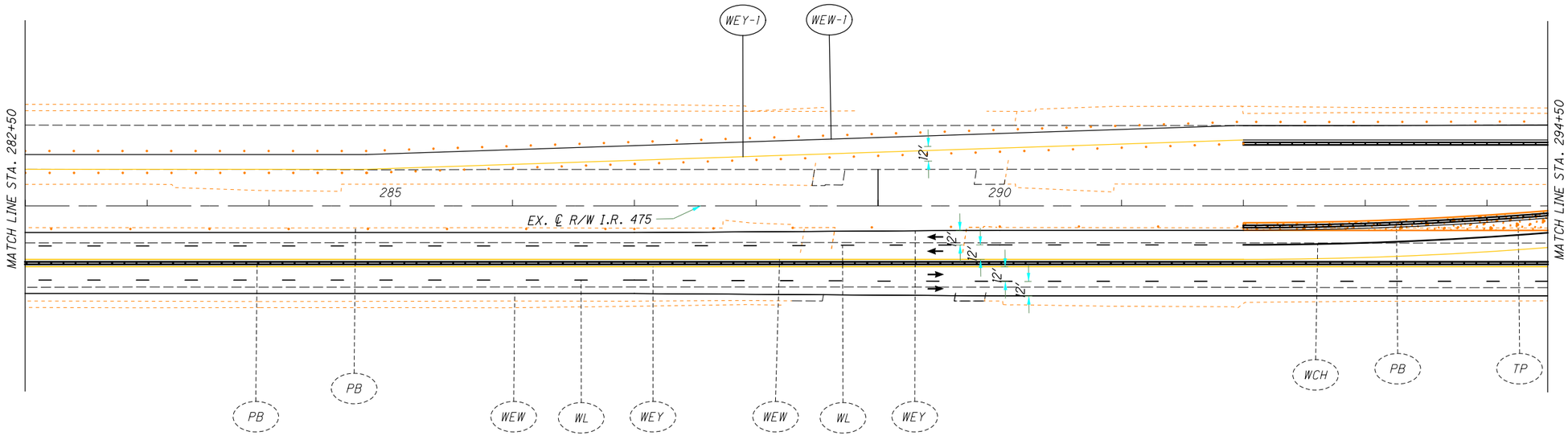
CALCULATED MK
CHECKED DEK

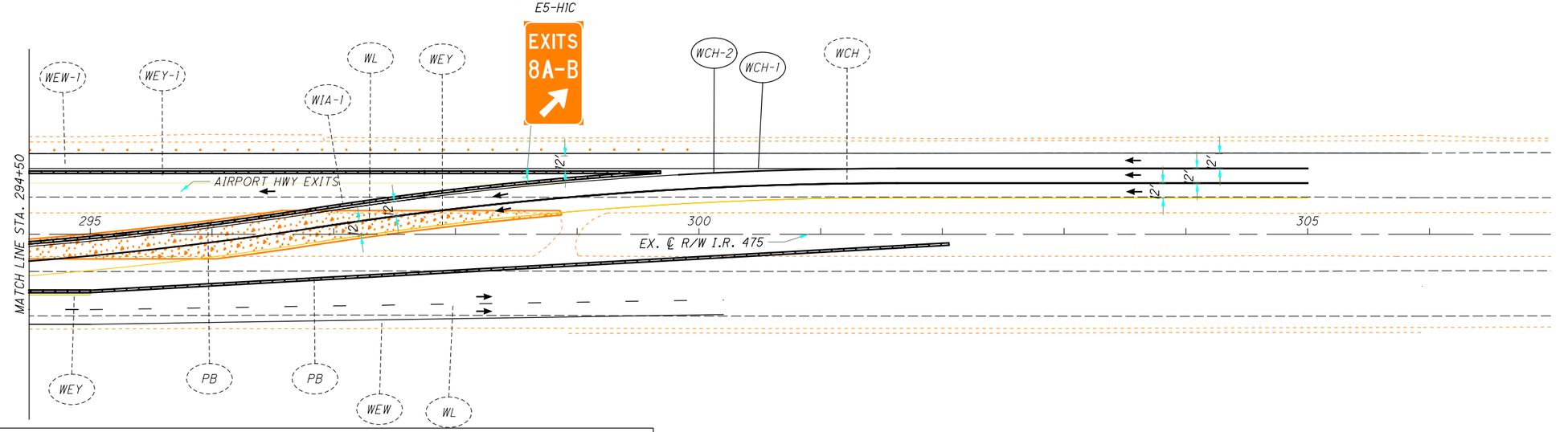
MAINTENANCE OF TRAFFIC - MAINLINE
PHASE 2A - STA. 257+50 TO STA. 282+50

LUC-475-0.09

129
855

I:\ProjectData\LUC\95875_LUC-475-0.09\Design\MOT\Sheets\95875_MP060.dgn Sheet 5/3/2022 4:12:01 PM dkasemi





LEGEND:

- Phase 1 WORK AREA
- Phase 1A WORK AREA
- Phase 1B WORK AREA
- TEMPORARY PAVEMENT (FULL DEPTH)
- TEMPORARY PAVEMENT (VARIABLE DEPTH)
- Crash Attenuator
- Portable Concrete Barrier
- (WEW) Work Zone Edge Line (White)
- (WEY) Work Zone Edge Line (Yellow)
- (WCH) Work Zone Channelizing Line
- (WDW) Work Zone Dotted LIne (White)
- (WL) Work Zone Lane Line (White)
- • • • Drums

N

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED MK
CHECKED DEK

MAINTENANCE OF TRAFFIC - MAINLINE
PHASE 2A - STA. 282+00 TO STA. 305+00

LUC-475-0.09

130
855

I:\ProjectData\LUC\95875_LUC-475-0.09\Design\MOT\Sheets\95875_MP06L.dgn Sheet 5/3/2022 4:12:04 PM dkasemi

SHEET NUM.												PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
29	32	35	69	209	210	211	214	217	218	235	601	03/IMS/PV	04/IMS/BR						
																		ROADWAY	
								2					2	202	20010	2	EACH	HEADWALL REMOVED	
										242,348		242,348		202	23000	242,348	SY	PAVEMENT REMOVED	
				6,332								6,332		202	30700	6,332	FT	CONCRETE BARRIER REMOVED	
				437								437		202	32000	437	FT	CURB REMOVED	
								5	967			967	5	202	35100	972	FT	PIPE REMOVED, 24" AND UNDER	
								145	719			719	145	202	35200	864	FT	PIPE REMOVED, OVER 24"	
				18,440								18,440		202	38000	18,440	FT	GUARDRAIL REMOVED	
				100								100		202	38300	100	FT	GUARDRAIL REMOVED, BARRIER DESIGN	
				20								20		202	42010	20	EACH	ANCHOR ASSEMBLY REMOVED, TYPE E	
				16								16		202	42040	16	EACH	ANCHOR ASSEMBLY REMOVED, TYPE T	
				4								4		202	42050	4	EACH	ANCHOR ASSEMBLY REMOVED, TYPE B	
				36								36		202	47000	36	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED	
				4								4		202	47800	4	EACH	IMPACT ATTENUATOR REMOVED	
									4			4		202	58000	4	EACH	MANHOLE REMOVED	
								1	28			28	1	202	58100	29	EACH	CATCH BASIN REMOVED	
									10			10		202	58200	10	EACH	INLET REMOVED	
18												18		202	60010	18	EACH	MONUMENT ASSEMBLY REMOVED	
									2,090			2,090		SPECIAL	20270000	2,090	FT	FILL AND PLUG EXISTING CONDUIT	30
											4,643	4,643		202	75001	4,643	FT	FENCE REMOVED, AS PER PLAN	599
							168,490					168,490		203	10000	168,490	CY	EXCAVATION	
							186,086					186,086		203	20000	186,086	CY	EMBANKMENT	
		920					1,914					2,834		203	35110	2,834	CY	GRANULAR MATERIAL, TYPE B	
							5,604					5,604		203	35130	5,604	CY	GRANULAR MATERIAL, TYPE D	
	4											4		SPECIAL	20365000	4	EACH	SETTLEMENT PLATFORM	32
		920										920		204	13000	920	CY	EXCAVATION OF SUBGRADE	
										167		167		204	45000	167	HOUR	PROOF ROLLING	
		1,850										1,850		204	50000	1,850	SY	GEOTEXTILE FABRIC	
		46.25								8,607		8,653.25		206	10500	8,653.25	TON	CEMENT	
										345,190		345,190		206	11000	345,190	SY	CURING COAT	
		1,850								345,190		347,040		206	15010	347,040	SY	CEMENT STABILIZED SUBGRADE, 12 INCHES DEEP	
LS										LS		LS		206	30000	LS		MIXTURE DESIGN FOR CHEMICALLY STABILIZED SOILS	29
										16		16		209	60500	16	MILE	LINEAR GRADING	
											166,339	166,339		SPECIAL	60610210	166,339	SF	NOISE BARRIER (REFLECTIVE)	599
					7,575	6,663						14,238		606	15050	14,238	FT	GUARDRAIL, TYPE MGS	
						75						75		606	15150	75	FT	GUARDRAIL, TYPE MGS HALF POST SPACING	
					300	250						550		606	15550	550	FT	GUARDRAIL, BARRIER DESIGN, TYPE MGS	
					3	2						5		606	26000	5	EACH	ANCHOR ASSEMBLY, TYPE B	
					9	11						20		606	26150	20	EACH	ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)	
					13	16						29		606	26500	29	EACH	ANCHOR ASSEMBLY, TYPE T	
					12	7						19		606	35002	19	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
					5	4						9		606	35100	9	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 2	
					18,938	2,869						21,807		SPECIAL	60655010	21,807	FT	CABLE BARRIER WITH CONCRETE LINE POST FOUNDATION	30
					9	3						12		SPECIAL	60655150	12	EACH	CABLE BARRIER, ANCHOR ASSEMBLY	30
					6	6						12		606	60012	12	EACH	IMPACT ATTENUATOR, TYPE 1 (BIDIRECTIONAL)	
					2	2						4		606	60040	4	EACH	IMPACT ATTENUATOR, TYPE 3 UNIDIRECTIONAL	
											4,744	4,744		607	23000	4,744	FT	FENCE, TYPE CLT	
											17	17		607	61200	17	EACH	GATE, TYPE CLT, 4 FT WIDE	
											4,643	4,643		607	98000	4,643	FT	FENCE, MISC.:TEMPORARY FENCE	NBS-1-09
					2,603	2,449						5,052		622	10060	5,052	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE B	
					40							40		622	10100	40	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE B1	
					48							48		622	10101	48	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE B1, AS PER PLAN	545
					2,169	2,307						4,476		622	10160	4,476	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D	
					1							1		622	24840	1	EACH	CONCRETE BARRIER END SECTION, TYPE B	
						1						1		622	24841	1	EACH	CONCRETE BARRIER END SECTION, TYPE B, AS PER PLAN	30
					4							4		622	24850	4	EACH	CONCRETE BARRIER END SECTION, TYPE B1	
					6	7						13		622	25000	13	EACH	CONCRETE BARRIER END SECTION, TYPE D	
					17	16						33		622	25004	33	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE B	
					11	12						23		622	25050	23	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D	
					1	1						2		622	25051	2	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D, AS PER PLAN	544
55												55		623	38500	55	EACH	MONUMENT ASSEMBLY	

gran. mat. type a removed

CALCULATED JRB CHECKED XXX

GENERAL SUMMARY 1 OF 5

LUC-475-0.09

205
855

I:\ProjectData\LUC\95875_LUC-475-0.09\Design\Roadway\Sheets\95875_GG001.dgn Sheet 5/4/2022 12:02:52 PM jbidinge

SHEET NUM.														PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
29	31	33	35	38	39	214	216	217	225	235	240	601	709	03/IMS/PV	04/IMS/BR						
	42													42		654	11000	42	TON	COMMERCIAL FERTILIZER	
																				EROSION CONTROL	
									52					52		601	21050	52	SY	TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT	
	23						695							718		601	21060	718	SY	TIED CONCRETE BLOCK MAT WITH TYPE 2 UNDERLAYMENT	
							34							34		601	32210	34	CY	ROCK CHANNEL PROTECTION, TYPE C WITH AGGREGATE FILTER	
		5	50											55		616	10000	55	MGAL	WATER	
	2													2		659	00100	2	EACH	SOIL ANALYSIS TEST	
	~~20,782~~													~~20,782~~		659	00300	~~20,782~~	CY	TOPSOIL	
						~~185,465~~								~~185,465~~		659	10000	~~185,465~~	SY	SEEDING AND MULCHING	
	~~9,361~~													~~9,361~~		659	14000	~~9,361~~	SY	REPAIR SEEDING AND MULCHING	
	9,361													9,361		659	15000	9,361	SY	INTER-SEEDING	
	38.6													38.6		659	31000	38.6	ACRE	LIME	
	1,517													1,517		659	35000	1,517	MGAL	WATER	
	421													421		659	40000	421	MSF	MOWING	
											136,100			136,100		670	00500	136,100	SY	SLOPE EROSION PROTECTION	
												10,193		10,193		671	15040	10,193	SY	EROSION CONTROL MAT, TYPE E	
														LS		832	15000	LS		STORM WATER POLLUTION PREVENTION PLAN	
														LS		832	15002	LS		STORM WATER POLLUTION PREVENTION INSPECTIONS	
														LS		832	15010	LS		STORM WATER POLLUTION PREVENTION INSPECTION SOFTWARE	
														850,000		832	30000	850,000	EACH	EROSION CONTROL	
																				DRAINAGE	
									70,646					70,646		605	11110	70,646	FT	6" SHALLOW PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	
							4,756		892					5,648		605	13410	5,648	FT	6" UNCLASSIFIED PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	
									101,557					101,557		605	14020	101,557	FT	6" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	
							303		3,418					3,721		611	00510	3,721	FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	
	100													100		611	01500	100	FT	6" CONDUIT, TYPE F	
								26							26	611	04600	26	FT	12" CONDUIT, TYPE C	
							1,207							1,207		611	05900	1,207	FT	15" CONDUIT, TYPE B	
							801							801		611	06100	801	FT	15" CONDUIT, TYPE C	
							~~514~~							~~514~~		611	06700	~~514~~	FT	15" CONDUIT, TYPE F	
							406							406		611	07600	406	FT	18" CONDUIT, TYPE C	
							~~100~~							~~100~~		611	10200	~~100~~	FT	24" CONDUIT, TYPE A	
							159							159		611	10400	159	FT	24" CONDUIT, TYPE B	
							10							10		611	10600	10	FT	24" CONDUIT, TYPE C	
							117							117		611	11200	117	FT	24" CONDUIT, TYPE F	
							142							142		611	13200	142	FT	30" CONDUIT, TYPE A	
								165							165	611	19600	165	FT	42" CONDUIT, TYPE C	
							18							18		611	21100	18	FT	48" CONDUIT, TYPE C	
							~~371~~							~~371~~		611	24000	~~371~~	FT	60" CONDUIT, TYPE C	
							22							22		611	98230	22	EACH	CATCH BASIN, NO. 4	
							5							5		611	98270	5	EACH	CATCH BASIN, NO. 4A	
							2							2		611	98410	2	EACH	CATCH BASIN, NO. 8	
							1							1		611	98450	1	EACH	CATCH BASIN, NO. 2-2A	
								2							2	611	98470	2	EACH	CATCH BASIN, NO. 2-2B	
							10							10		611	99094	10	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE B	
							9							9		611	99114	9	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE D	
								6							6	611	99574	6	EACH	MANHOLE, NO. 3, WITH 72" BASE I.D.	
							12		28					40		611	99710	40	EACH	PRECAST REINFORCED CONCRETE OUTLET	
																				PAVEMENT	
			42,000		6,667									48,667		254	01000	48,667	SY	PAVEMENT PLANING, ASPHALT CONCRETE, 1 1/2"	
										39,483				39,483		254	01000	39,483	SY	PAVEMENT PLANING, ASPHALT CONCRETE, 3.75"	29
										69,843				69,843		302	56001	69,843	CY	ASPHALT CONCRETE BASE, (449), AS PER PLAN	31
			310							56,747				57,057		304	20000	57,057	CY	AGGREGATE BASE	
			14,280											14,280		407	10000	14,280	GAL	TACK COAT	
				502	2,267					63,182				65,951		407	20000	65,951	GAL	NON-TRACKING TACK COAT	
				175										175		441	50000	175	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	
										23,187				23,187		442	10100	23,187	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)	

CALCULATED JRB
CHECKED XXX

GENERAL SUMMARY 2 OF 5

LUC-475-0.09

206
855

I:\ProjectData\LUC\95875_LUC-475-0.09\Design\Roadway\Sheets\95875_GG002.dgn Sheet 5/4/2022 12:27:25 PM jbidinge

SHEET NUM.												PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
35	38	39	210	211	216	228	231	235	571	582	583	03/IMS/PV	04/IMS/BR						
3,500								15,458				18,958		442	10300	18,958	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447)	
					842							842		609	24000	842	FT	CURB, TYPE 4-A	
								1,881				1,881		617	10100	1,881	CY	COMPACTED AGGREGATE	
																		LIGHTING	
										184		184		625	00450	184	EACH	CONNECTION, FUSED PULL APART	
										114		114		625	00480	114	EACH	CONNECTION, UNFUSED PERMANENT	
										20		20		625	10490	20	EACH	LIGHT POLE, CONVENTIONAL, A12B38	
										53		53		625	10490	53	EACH	LIGHT POLE, CONVENTIONAL, AT21B42	
										17		17		625	10494	17	EACH	LIGHT POLE, LOW MAST, ALM50	
										2		2		625	10494	2	EACH	LIGHT POLE, LOW MAST, ATLM50	
										53		53		625	14101	53	EACH	LIGHT POLE FOUNDATION, 24" X 8' DEEP, AS PER PLAN	571
										34		34		625	14307	34	EACH	MEDIAN LIGHT POLE FOUNDATION, 10' DEEP, AS PER PLAN	571
											2	2		625	14600	2	EACH	LIGHT POLE FOUNDATION, MISC.: 24" X 12' DEEP	571
										3		3		625	15201	3	EACH	LIGHT TOWER FOUNDATION, 36" X 25' DEEP, AS PER PLAN	571
										941		941		625	22900	941	FT	NO. 1/0 AWG 2400 VOLT DISTRIBUTION CABLE	
										3,366		3,366		625	23200	3,366	FT	NO. 4 AWG 2400 VOLT DISTRIBUTION CABLE	
										2,382		2,382		625	23302	2,382	FT	NO. 6 AWG 2400 VOLT DISTRIBUTION CABLE	
										2,356		2,356		625	23306	2,356	FT	NO. 10 AWG 600 VOLT DISTRIBUTION CABLE	
										15,867		15,867		625	23400	15,867	FT	NO. 10 AWG POLE AND BRACKET CABLE	
										10,796		10,796		625	23900	10,796	FT	1-1/2" DUCT CABLE WITH TWO NO. 6 AWG 2400 VOLT CABLES	
										917		917		625	24314	917	FT	1-1/2" DUCT CABLE WITH THREE NO. 1/0 AWG 2400 VOLT CABLES	
										4,188		4,188		625	24320	4,188	FT	1-1/2" DUCT CABLE WITH THREE NO. 4 AWG 2400 VOLT CABLES	
										858		858		625	25500	858	FT	CONDUIT, 3", 725.04	
											605	605		625	25902	605	FT	CONDUIT, JACKED OR DRILLED, 725.04, 3"	
										73		73		625	26253	73	EACH	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN, TYPE III, 17,200-19,100 LUMENS	571
										103		103		625	26263	103	EACH	LUMINAIRE, HIGH MAST, SOLID STATE (LED), AS PER PLAN, TYPE V, 61,100-62,200 LUMENS	571
										2		2		625	26273	2	EACH	LUMINAIRE, LOW MAST, SOLID STATE (LED), AS PER PLAN, TYPE III, 37,600-42,100 LUMENS	571
										17		17		625	26273	17	EACH	LUMINAIRE, LOW MAST, SOLID STATE (LED), AS PER PLAN, TYPE V, 37,600-42,836 LUMENS	571
											15,223	15,223		625	29002	15,223	FT	TRENCH, 24" DEEP	
											31	31		625	30706	31	EACH	PULL BOX, 725.08, 24"	
											2	2		625	31510	2	EACH	PULL BOX REMOVED	
							11		6	97		114		625	32000	114	EACH	GROUND ROD	
											7	7		625	34001	7	EACH	POWER SERVICE, AS PER PLAN	571
											3	3		625	35020	3	EACH	RE-ERECT EXISTING LIGHT TOWER	
											15,223	15,223		625	36010	15,223	FT	UNDERGROUND WARNING/MARKING TAPE	
									LS			LS		SPECIAL	62540000	LS		MAINTAIN EXISTING LIGHTING	41 571
									5			5		SPECIAL	62540010	5	EACH	REPLACEMENT OF EXISTING LIGHTING UNIT	571
											39	39		625	75351	39	EACH	LIGHT TOWER REMOVED, AS PER PLAN	571
											15	15		625	75400	15	EACH	LIGHT POLE REMOVED	
											144	144		625	75506	144	EACH	LUMINAIRE REMOVED	
											7	7		625	75510	7	EACH	POWER SERVICE REMOVED	
											39	39		625	75540	39	EACH	LIGHT TOWER FOUNDATION REMOVED	
																		TRAFFIC CONTROL	
						43						43		620	00500	43	EACH	DELINEATOR, POST GROUND MOUNTED	
	160											160		620	60001	160	EACH	DELINEATOR, POST SURFACE MOUNTED, AS PER PLAN	38
						1,163						1,163		621	00100	1,163	EACH	RPM	
						996						996		621	54000	996	EACH	RAISED PAVEMENT MARKER REMOVED	
			82	45								127		626	00102	127	EACH	BARRIER REFLECTOR, TYPE 1, (BI-DIRECTIONAL)	
			60	45								105		626	00102	105	EACH	BARRIER REFLECTOR, TYPE 1, (ONE-WAY)	
			85	114								199		626	00116	199	EACH	BARRIER REFLECTOR, TYPE 5, (BI-DIRECTIONAL)	
			15	15								30		626	00116	30	EACH	BARRIER REFLECTOR, TYPE 5, (ONE-WAY)	
			200	32								232		626	00118	232	EACH	BARRIER REFLECTOR, TYPE 6	
							809					809		630	03101	809	FT	GROUND MOUNTED SUPPORT, NO. 3 POST, AS PER PLAN	588
							87.8					87.8		630	07500	87.8	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W10X22	
							37.2					37.2		630	08302	37.2	FT	GROUND MOUNTED WOODEN BOX BEAM SUPPORT, TYPE M BEAM	
							2					2		630	72320	2	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-12.31, DESIGN 6	
							1					1		630	72330	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-12.31, DESIGN 10	
							1					1		630	79610	1	EACH	SIGN SUPPORT ASSEMBLY, BARRIER MOUNTED	
							490.25					490.25		630	80100	490.25	SF	SIGN, FLAT SHEET	
							962					962		630	80200	962	SF	SIGN, GROUND MOUNTED EXTRUSHEET	
							187.5					187.5		630	80224	187.5	SF	SIGN, OVERHEAD EXTRUSHEET	
							490.25					490.25		630	81100	490.25	SF	SIGN ERECTED, FLAT SHEET	
							1,149.5					1,149.5		630	81200	1,149.5	SF	SIGN ERECTED, EXTRUSHEET	

CALCULATED JRB CHECKED XXX

GENERAL SUMMARY 3 OF 5

LUC-475-0.09

SHEET NUM.												PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
33	34	35	36	37	38	39	69	216	228	231	42	03/IMS/PV	04/IMS/BR						
											54	54		630	80300	54	SF	SIGN, TEMPORARY OVERLAY	
										4		4		630	84010	4	EACH	CONCRETE BARRIER MEDIAN OVERHEAD SIGN SUPPORT FOUNDATION, TYPE TC-21.50	
										4		4		630	84500	4	EACH	GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION	
										3		3		630	84510	3	EACH	RIGID OVERHEAD SIGN SUPPORT FOUNDATION	
										4		4		630	84511	4	EACH	RIGID OVERHEAD SIGN SUPPORT FOUNDATION, AS PER PLAN	559-560
										80		80		630	84900	80	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
										1		1		630	84900	1	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL, BARRIER MOUNTED	
										1		1		630	85100	1	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	
										3		3		630	85100	3	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION, BARRIER MOUNTED	
										3		3		630	85400	3	EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL	
										59		59		630	86002	59	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
										4		4		630	86102	4	EACH	REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND DISPOSAL	
										13		13		630	87100	13	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND REERECTION	
										4		4		630	87400	4	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL	
										4		4		630	89500	4	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND REERECTION, TYPE TC-15.115	
										1		1		630	89702	1	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL	
										2		2		630	89812	2	EACH	REMOVAL OF WOOD POLE AND DISPOSAL	
											4	4		630	89894	4	EACH	REMOVAL OF TEMPORARY OVERLAY SIGN AND DISPOSAL	
					0.3							0.3		642	00100	0.3	MILE	EDGE LINE, 4", TYPE 1	
					0.3							0.3		642	00200	0.3	MILE	LANE LINE, 4", TYPE 1	
					0.3							0.3		642	00300	0.3	MILE	CENTER LINE, TYPE 1	
					210							210		642	00400	210	FT	CHANNELIZING LINE, 8", TYPE 1	
					22							22		642	00500	22	FT	STOP LINE, TYPE 1	
					600							600		642	00700	600	FT	TRANSVERSE/DIAGONAL LINE, TYPE 1	
									896			896		642	00720	896	FT	CHEVRON MARKING, TYPE 1, WHITE	
									4			4		642	01312	4	EACH	LANE REDUCTION ARROW, TYPE 1	
									21.36			21.36		807	14010	21.36	MILE	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6", WHITE	
									18.7			18.7		807	14110	18.7	MILE	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, LANE LINE, 6"	
									17,997			17,997		807	14310	17,997	FT	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CHANNELIZING LINE, 12", WHITE	
									10,403			10,403		807	14410	10,403	FT	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, DOTTED LINE, 6"	
									38.12			38.12		850	10010	38.12	MILE	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	
									9,633			9,633		850	10110	9,633	FT	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	
									16,856			16,856		850	10130	16,856	FT	GROOVING FOR 12" RECESSED PAVEMENT MARKING, (ASPHALT)	
									1.66			1.66		850	20010	1.66	MILE	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE)	
									771			771		850	20110	771	FT	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE)	
									1,142			1,142		850	20130	1,142	FT	GROOVING FOR 12" RECESSED PAVEMENT MARKING, (CONCRETE)	
																		RETAINING WALLS (XXX)	
								6				6		511	46610	6	CY	CLASS QC1 CONCRETE, HEADWALL	
																		STRUCTURE REPAIRS	
																		FOR LUC-475-0093L ESTIMATED QUANTITIES	680
																		FOR LUC-475-0093R ESTIMATED QUANTITIES	709
																		MAINTENANCE OF TRAFFIC	
100												100		410	12000	100	CY	TRAFFIC COMPACTED SURFACE, TYPE A OR B	
		3,000										3,000		614	11110	3,000	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
		21,685										21,685		614	11630	21,685	FT	INCREASED BARRIER DELINEATION	
							28					28		614	12380	28	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	
LS												LS		614	12420	LS		DETOUR SIGNING	
5												5		614	12460	5	EACH	WORK ZONE MARKING SIGN	
	16											16		614	12484	16	EACH	WORK ZONE INCREASED PENALTIES SIGN	
	10											10		614	12500	10	EACH	REPLACEMENT SIGN	
	50											50		614	12600	50	EACH	REPLACEMENT DRUM	
	6											6		614	12740	6	EACH	WORK ZONE LIGHTING SYSTEM	
		1,000										1,000		614	12800	1,000	EACH	WORK ZONE RAISED PAVEMENT MARKER	
30												30		614	13000	30	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
		3,830										3,830		614	13310	3,830	EACH	BARRIER REFLECTOR, TYPE 1, ONE-WAY	
		575										575		614	13310	575	EACH	BARRIER REFLECTOR, TYPE 1(BI-DIRECTIONAL)	
				72								72		614	13318	72	EACH	BARRIER REFLECTOR, TYPE 5, 1-WAY	
		3,830		72								3,902		614	13350	3,902	EACH	OBJECT MARKER, ONE WAY	
							60					60		614	18000	60	EACH	MAINTAINING TRAFFIC, MISC.:6"X8" SOLID WOOD POST, AS PER PLAN	41
							1,613					1,613		614	18010	1,613	SF	MAINTAINING TRAFFIC, MISC.:SIGN,(FLAT SHEET)	41
			250									250		614	18601	230	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	39
0.02							19.38					19.4		614	20000	19.4	MILE	WORK ZONE LANE LINE, CLASS I, 4"	
4.1							19.22					23.32		614	20056	23.32	MILE	WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT	
0.1							1.97					2.07		614	21000	2.07	MILE	WORK ZONE CENTER LINE, CLASS I	
0.2												0.2		614	22000	0.2	MILE	WORK ZONE EDGE LINE, CLASS I, 4"	

CALCULATED JRB CHECKED XXX

GENERAL SUMMARY 4 OF 5

LUC-475-0.09

208
855

i:\ProjectDot\CVO\95875_LUC-475-0.09\Design\Roadway\Sheets\95875_GG004.dgn Sheet 5/4/2022 12:02:54 PM jbidinge

SHEET NUM.												PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
							33	37	38	39	69	03/IMS/PV	04/IMS/BR						
											77.67	77.67		614	22010	77.67	MILE	WORK ZONE EDGE LINE, CLASS I, 6"	
							1.6				75.92	77.52		614	22056	77.52	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT	
							50				29,753	29,803		614	23010	29,803	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12"	
							2,600				29,633	32,233		614	23110	32,233	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807 PAINT	
											27,496	27,496		614	24000	27,496	FT	WORK ZONE DOTTED LINE, CLASS I	
							1,285				26,173	27,458		614	24102	27,458	FT	WORK ZONE DOTTED LINE, CLASS I, 6", 807 PAINT	
							50				80	130		614	26000	130	FT	WORK ZONE STOP LINE, CLASS I	
							150					150		614	27010	150	FT	WORK ZONE CROSSWALK LINE, CLASS I, 12"	
							500					500		614	28000	500	FT	WORK ZONE GORE MARKING, CLASS II	
							LS					LS		615	10000	LS		ROADS FOR MAINTAINING TRAFFIC	
											88,088	88,088		615	20001	88,088	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN	38
											55,551	55,551		622	41011	55,551	FT	PORTABLE BARRIER, 50", AS PER PLAN	35
											10	10		622	41050	10	EACH	PORTABLE BARRIER, "Y" CONNECTOR	
											97,010	97,010		622	41100	97,010	FT	PORTABLE BARRIER, UNANCHORED	
								360				360		808	18700	360	SNMT	DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY	
										432		432		896	00010	432	SNMT	PORTABLE NON-INTRUSIVE TRAFFIC SENSOR, CLASS I	
										120		120		896	00021	120	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	39
																		INCIDENTALS	
							LS					LS		614	11000	LS		MAINTAINING TRAFFIC	
												30		619	16021	30	MNTH	FIELD OFFICE, TYPE C, AS PER PLAN	32
												LS		623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
												LS		624	10000	LS		MOBILIZATION	

CALCULATED JRB
CHECKED XXX

GENERAL SUMMARY 5 OF 5

LUC-475-0.09

208A
855

I:\ProjectData\LUC\95875_LUC-475-0.09\Design\Roadway\Sheets\95875_GG005.dgn Sheet 5/4/2022 12:02:54 PM jbidinge

REF NO.	SHEET NO.	STATION TO STATION			SIDE	CENTERLINE ROADWAY REFERENCE	611 60" CONDUIT, TYPE C FT	611 CATCH BASIN, NO. 4A EACH	611 INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE B EACH	611 15" CONDUIT, TYPE B FT	611 CATCH BASIN, NO. 2-2A EACH	611 48" CONDUIT, TYPE C FT	611 CATCH BASIN, NO. 4 EACH	511 CLASS QC1 CONCRETE, HEADWALL CY	611 24" CONDUIT, TYPE B FT	611 15" CONDUIT, TYPE F FT	601 ROCK CHANNEL PROTECTION, TYPE C WITH AGGREGATE FILTER CY	611 15" CONDUIT, TYPE C FT	611 INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE D EACH	611 6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS FT	611 PRECAST REINFORCED CONCRETE OUTLET EACH	611 CATCH BASIN, NO. 8 EACH	611 24" CONDUIT, TYPE C FT	611 18" CONDUIT, TYPE C FT	605 6" UNCLASSIFIED PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC FT	611 24" CONDUIT, TYPE F FT	601 TIED CONCRETE BLOCK MAT WITH TYPE 2 UNDERLAYMENT SY	609 CURB, TYPE 4-A FT	611 30" CONDUIT, TYPE A FT	611 24" CONDUIT, TYPE A FT
D-101	244	14+53.00	TO	14+53.00	CL	475	9	1																						
D-102	244	14+53.00		16+45.00	CL	475	192.00	1																						
D-103	244	16+45.00		17+34.25	CL	475	85.00	1																						
D-104	244	17+34.25		18+19.00	CL	475	85.00	1																						
D-105	244	17+34.25		17+34.25	LT	475			1	80																				
D-106	244	18+19.00		18+19.00	LT	475			1	80																				
D-107	244	18+16.35		18+19.00	LT	24-H				59	1																			
D-108	244	16+45.00		16+45.00	RT	475			1	80																				
D-109	244	18+05.00		18+19.00	RT	475			1	82																				
D-110	245	21+44.67		18+19.00	CL	475		1				18																		
D-111	245	21+96.50		21+44.67	CL	475							1																	
D-112	245	21+96.50		21+96.50	LT	475			1	80																				
D-113	245	21+96.50		21+96.50	RT	475			1	80																				
D-114	248	31+94.00		31+94.00	CL	475				80			1																	
D-115	248	31+94.00		31+95.37	LT	475			1	90				0.25																
D-116	248	32+21.00		32+43.37	RT	475			1	90				0.25																
D-117	250	38+45.00		38+44.80	LT	475			1						30														56	
D-118	250	38+45.00		38+45.00	RT	475				80			1																	
D-119	250	38+45.00		38+45.92	RT	475			1					0.43	30														61	
D-120	253	48+00.00		48+00.00	CL	475				120			1	0.25		77	1.1													
D-121	254	52+00.00		52+00.00	CL	475				116			1	0.25		75	1.1													
D-122	257	61+00.00		61+00.00	CL	475				90			1	0.25		55	1.1													
D-123	259	67+70.00			CL	475							1																	
D-124	262	74+44.00			CL	475							1																	
D-125	262	75+65.00			CL	475							1																	
D-126	268	96+00.00			CL	475							1																	
D-127	269	101+00.00			CL	475							1																	
D-128	271	104+94.81			CL	475							1																	
D-129	271	106+94.81			CL	475							1																	
D-130	274	118+93.61			CL	475							1																	
D-131	274	120+94.16			CL	475							1																	
D-132	280	136+93.24			CL	475							1																	
D-133	283	146+93.93			CL	475							1																	
D-134	286	157+29.26			CL	475							1																	
D-135	296	192+92.00		196+67.00	CL	475							1					375												
D-136	298	196+67.00		200+42.00	CL	475							1					375												
D-137	299	200+42.00		200+42.00	CL	475							1		55															
D-138	302	211+33.79		211+33.79	CL	475							1		44															
Noise Wall Drainage																														
D-139	602	1103+46.00			BL	NW 01A								0.25		53	1.6		1											
D-140	604	1109+95.00			BL	NW 01A								0.25			1.6	25	1											
D-141	605	2103+58.00			BL	NW 02A								0.25		51	1.6		1											
D-142	607	2110+70.00			BL	NW 02A								0.25			1.6	26	1											
D-143	609	4106+00.00			LT	NW 04A														9	1									
D-144	611	5105+30.00			LT	NW 05A														23	1									
D-145	611	5109+42.00			LT	NW 05A														32	1									
D-146	612	5111+95.00			LT	NW 05A														19	1									
D-147	613	5117+82.00			LT	NW 05A														22	1									
D-148	616	5209+30.00			BL	NW 05B								0.25		32	1.6		1											
D-149	616	5211+22.00			BL	NW 05B								0.25		38	1.6		1											
D-150	617	5301+75.00			LT	NW 05C														26	1									
D-151	618	5306+17.00			LT	NW 05C														35	1									
D-152	619	5311+47.00			LT	NW 05C														29	1									
D-153	620	6103+33.77			RT	NW 06A																1	10							
D-154	621	6106+85.00			RT	NW 06A																1		352						
D-155	621	6107+10.00			RT	NW 06A														30										
D-156	622	6202+75.00			LT	NW 06B														14	1									
D-157	622	6203+50.00			LT	NW 06B														7	1									
D-158	623	6208+35.00			RT	NW 06B														19	1									
TOTALS CARRIED TO SHEET 2 OF 2							371	5	10	1207	1	18	22	3.18	159	381	13	801	6	265	11	2	10	406	117				

CALCULATED JRB
CHECKED XXX

DRAINAGE SUBSUMMARY (SHEET 1 OF 2)

LUC-475-0.09

215
855

DRAINAGE SUBSUMMARY (SHEET 2 OF 2)

CALCULATED JRB
CHECKED XXX

REF NO.	SHEET NO.	STATION TO STATION			SIDE	CENTERLINE ROADWAY REFERENCE	611 60" CONDUIT, TYPE C FT	611 CATCH BASIN, NO. 4A EACH	611 INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE B EACH	611 15" CONDUIT, TYPE B FT	611 CATCH BASIN, NO. 2-2A EACH	611 48" CONDUIT, TYPE C FT	611 CATCH BASIN, NO. 4 EACH	511 CLASS QC1 CONCRETE, HEADWALL CY	611 24" CONDUIT, TYPE B FT	611 15" CONDUIT, TYPE F FT	601 ROCK CHANNEL PROTECTION, TYPE C WITH AGGREGATE FILTER CY	611 15" CONDUIT, TYPE C FT	611 INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE D EACH	611 6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS FT	611 PRECAST REINFORCED CONCRETE OUTLET EACH	611 CATCH BASIN, NO. 8 EACH	611 24" CONDUIT, TYPE C FT	611 18" CONDUIT, TYPE C FT	605 6" UNCLASSIFIED PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC FT	611 24" CONDUIT, TYPE F FT	601 TIED CONCRETE BLOCK MAT WITH TYPE 2 UNDERLAYMENT SY	609 CURB, TYPE 4-A FT	611 30" CONDUIT, TYPE A FT	611 24" CONDUIT, TYPE A FT
D-159	625	6305+11.00	TO		LT	NW 06C								0.25		34	1.6		1											
D-160	625	6308+23.00			LT	NW 06C								0.25		51	1.6		1											
D-161	626	6400+88.00			LT	NW 06D								0.25		48	1.6		1											
D-162	626	6500+13.00			RT	NW 06E														38	1									
D-163	608-609	4101+25.00		4106+53.00		NW 04A																			530					
D-164	610-612	5100+35.00		5111+87.00		NW 05A																			1153					
D-165	612-613	5111+97.00		5117+82.00		NW 05A																			589					
D-166	617	5300+75.00		5303+80.00		NW 05C																			308					
D-167	617-618	5303+83.00		5308+60.00		NW 05C																			478					
D-168	618-619	5308+63.00		5311+50.00		NW 05C																			288					
D-169	621	6106+85.00		6109+18.00		NW 06A																			237					
D-170	622-623	6201+44.00		6208+40.00		NW 06B																			700					
D-171	627	6500+13.00		6504+76.00		NW 06E																			473					
C-1	253	46+72.98		48+63.98	LT	24-G																					168	174		
C-2	254	51+51.33		53+67.34	LT	475																					175	199		
C-3	254	51+47.33		53+66.97	RT	475																					174	204		
C-4	289	165+88.40		165+99.65	RT	475																						12		
C-5	253	45+83.00		46+03.00	RT	24-F																					178	253		
D-172	321	28+66.85			RT/LT	24-F								0.86			7.7													100
D-173	323	39+10.62			RT/LT	24-F								1.12			8.4												142	
TOTALS THIS SHEET														2.73		133	20.9		3	38	1			4756		695	842	142	100
TOTALS FROM SHEET 1 OF 2							371	5	10	1207	1	18	22	3.18	159	381	13.0	801	6	265	11	2	10	406		117				
TOTALS CARRIED TO GENERAL SUMMARY							371	5	10	1207	1	18	22	6	159	514	34	801	9	303	12	2	10	406	4756	117	695	842	142	100

LUC-475-0.09

STATION RANGE			SIDE		DISTANCE (D)	AVERAGE WIDTH (PAVEMENT) (W)	AVERAGE WIDTH (SHOULDER) (W)	CADD GENERATED AREA	202 PAVEMENT REMOVED	204 PROOF ROLLING	206 CEMENT STABILIZED SUBGRADE, 12 INCHES DEEP	206 CEMENT	254 PAVEMENT PLANING, ASPHALT CONCRETE, 3.75"	ITEM CODE DOES NOT EXIST IN ITEM MASTER	304 AGGREGATE BASE	407 NON-TRACKING TACK COAT	442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)	442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447)	206 CURING COAT	617 COMPACTED AGGREGATE	209 LINEAR GRADING
					FT	FT	FT	SY	SY	HOUR	SY	TON	SY		CY	GAL	CY	CY	SY	CY	MILE
NORTHBOUND QUANTITIES																					
5+00.00	TO	11+25.00	NB		625.00	24.00	14.00	2639					2639			449	165	110		29	0.24
11+25.00		13+66.20	NB		241.20	36.00	30.90	1793	1152	0.90	1833	46.39		375	303	305	112	75	1833	11	0.09
13+66.00		14+72.00	NB		106.00	36.00	30.90	788	554	0.39	806	20.39		165	133	134	49	33	806	5	0.04
14+72.00		45+31.33	NB		3059.33	36.00	26.00	21075	14277	10.54	21585	545.33		4413	3566	3583	1317	878	21585	71	0.58
45+31.33		48+53.67	NB		322.34	36.00	32.50	2453	1576	1.23	2507	63.48		513	414	417	153	102	2507	7	0.06
51+22.33		61+01.19	NB		978.86	36.00	20.00	6091	3915	3.05	6254	157.60		1276	1032	1035	381	254	6254	23	0.19
61+01.19		65+60.56	NB		459.37	36.00	12.00	2450	1429	1.22	2527	63.39		514	416	416	153	102	2527	11	0.09
65+60.56		79+51.55	NB		1390.99	36.00	12.00	7419	4328	3.71	7650	191.96		1556	1261	1261	464	309	7650	32	0.26
79+51.55		113+62.49	NB		3410.94	36.00	21.00	21603	14402	10.80	22171	558.97		4525	3660	3672	1350	900	22171	79	0.65
113+62.49		122+49.73	NB		887.24	36.00	12.00	4732	2760	2.37	4880	122.44		992	804	804	296	197	4880	21	0.17
122+49.73		138+25.00	NB		1575.27	36.00	21.00	9977	6476	4.99	10239	258.15		2090	1690	1696	624	416	10239	36	0.30
138+25.00		142+00.00	NB		375.00	36.00	12.00	2000	1167	1.00	2063	51.75		419	340	340	125	83	2063	9	0.07
142+00.00		151+85.47	NB		985.47	36.00	12.00	5256	3066	2.63	5420	135.99	4380.00	1102	893	1638	602	401	5420	23	0.19
151+85.47		163+79.77	NB		1194.30	36.00	12.00	6370	3716	3.18	6569	164.81	1659.00	1336	1082	1365	502	335	6569	28	0.23
163+79.77		166+03.63	NB		223.86	36.00	22.00	1443	945	0.72	1480	37.33		302	244	245	90	60	1480	5	0.04
173+53.03		174+55.00	NB		101.97	36.00	26.00	702	680	0.35	736	18.18		148	121	119	44	29	736	2	0.02
174+55.00		177+00.00	NB		245.00	36.00	24.00	1633	1633	0.82	1715	42.26		344	281	278	102	68	1715	6	0.05
177+00.00		177+50.00	NB		50.00	36.00	23.00	328	211	0.16	344	8.48		69	56	56	20	14	344	1	0.01
177+50.00		183+70.00	NB		620.00	36.00	22.00	3996	2618	2.00	4202	103.39		841	687	679	250	166	4202	14	0.12
183+70.00		213+75.00	NB		3005.00	36.00	22.00	19366	12688	9.68	20367	501.08		4078	3332	3292	1210	807	20367	70	0.57
213+75.00		217+16.00	NB		341.00	36.00	22.00	1288	1288	0.64	1345	33.33	909.00	271	221	373	137	92	1345	8	0.06
217+16.00		226+63.00	NB		947.00	36.00	22.00	3578	3578	1.79	3736	92.58	2597.00	752	613	1050	386	257	3736	22	0.18
226+63.00		226+93.41	NB		30.41	36.00	22.00	115	115	0.06	120	2.98	81.00	24	20	33	12	8	120	1	0.01
226+93.41		227+94.87	NB		101.46	36.00	24.25	679					679			231	42	28		2	0.02
227+94.87		228+69.33	NB		74.46	48.00	26.50	616					616			105	39	26		2	0.01
230+39.38		231+33.00	NB		93.62	48.00	23.33	742					742			126	46	31		2	0.02
231+33.00		232+34.28	NB		101.28	48.00	22.00	495	495	0.25	512	12.81	270.00	104	84	130	48	32	512	2	0.02
232+34.28		236+80.70	NB		446.42	36.00	12.00	1190	1190	0.60	1264	30.79	1190.00	251	206	405	149	99	1264	10	0.08
236+80.70		246+06.40	NB		925.70	36.00	22.00	3497	3497	1.75	3651	90.48	2469.00	735	599	1014	373	249	3651	21	0.18
246+60.40		255+44.35	NB		883.95	36.00	12.00	2357	2357	1.18	2504	60.99	2357.00	497	408	801	295	196	2504	20	0.17
255+44.35		258+21.29	NB		276.94	36.00	12.00	739	739	0.37	785	19.12	739.00	156	128	251	92	62	785	6	0.05
258+21.29		262+90.88	NB		469.59	36.00	12.00	1252	1252	0.63	1330	32.40	1252.00	264	217	426	157	104	1330	11	0.09
262+90.88		267+28.00	NB		437.12	36.00	12.00	1166	1166	0.58	1239	30.17	1166.00	246	202	396	146	97	1239	10	0.08
267+28.00		268+25.00	NB		97.00	36.00	12.00	259	259	0.13	275	6.70	259.00	55	45	88	32	22	275	2	0.02
11+25.00		14+72.00	LANE E-F		347.00	16.00	8.00	925	925	0.46	983	23.94		195	160	157	58	39	983	8	0.07
14+72.00		17+16.20	LANE E-F		244.20	16.00	12.58	775	775	0.39	816	20.07		163	133	132	48	32	816	6	0.05
17+16.20		19+72.58	LANE E-F		256.38	16.00	6.58	643	643	0.32	686	16.64		136	112	109	40	27	686	6	0.05
19+72.58		21+52.58	LANE E-F		180.00	16.00	15.58	632	632	0.32	662	16.34		133	108	107	39	26	662	4	0.03
21+52.58		27+35.50	LANE E-F		582.92	16.00	12.58	1851	1851	0.93	1948	47.90		390	319	315	116	77	1948	13	0.11
27+35.50		28+62.85	LANE E-F		127.35	14.00	6.58	291	291	0.15	312	7.53		62	51	50	18	12	312	3	0.02
28+62.85		29+59.68	LANE E-F		96.83	12.00	6.58	200	200	0.10	216	5.17		42	35	34	12	8	216	2	0.02
29+59.68		32+71.51	LANE E-F		311.83	24.00	14.58	1337	1337	0.67	1389	34.59		281	228	227	84	56	1389	7	0.06
32+71.51		35+41.60	LANE E-F		270.09	12.00	6.58	558	558	0.28	603	14.43		118	98	95	35	23	603	6	0.05
35+41.60		37+21.60	LANE E-F		180.00	14.00	11.00	500	500	0.25	530	12.94		105	86	85	31	21	530	4	0.03
37+21.60		42+15.86	LANE E-F		494.26	16.00	12.58	1570	1570	0.78	1652	40.61		331	270	267	98	65	1652	11	0.09
42+15.86		45+31.33	LANE E-F		315.47	16.00	6.58	791	791	0.40	844	20.48		167	137	135	49	33	844	7	0.06
45+31.33		48+53.67	LANE E-F		322.34	16.00	0.00	573	573	0.29	627	14.83		122	101	97	36	24	627	7	0.06
51+22.33		56+51.20	LANE E-F		528.87	16.00	0.00	940	940	0.47	1028	24.33		200	166	160	59	39	1028	12	0.10
56+51.20		61+01.19	LANE E-F		449.99	16.00	8.00	1200	1200	0.60	1275	31.05		253	208	204	75	50	1275	10	0.09
61+01.19		63+01.33	LANE E-F		200.14	14.00	0.00	311	311	0.16	345	8.06		66	55	53	19	13	345	5	0.04
NORTHBOUND TOTALS CARRIED TO NEXT SHEET									106626	74.25	154026	3842.61	24004	31178	25326	29442	10782	7188	154026	717	5.86

CALCULATED ALF
CHECKED XXX

PAVEMENT CALCULATIONS (1 OF 4)

LUC-475-0.09

STATION RANGE			SIDE		DISTANCE (D)	AVERAGE WIDTH (PAVEMENT) (W)	AVERAGE WIDTH (SHOULDER) (W)	CADD GENERATED AREA	202 PAVEMENT REMOVED	204 PROOF ROLLING	206 CEMENT STABILIZED SUBGRADE, 12 INCHES DEEP	206 CEMENT	254 PAVEMENT PLANING, ASPHALT CONCRETE, 3.75"	ITEM CODE DOES NOT EXIST IN ITEM MASTER	304 AGGREGATE BASE	407 NON-TRACKING TACK COAT	442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)	442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447)	206 CURING COAT	617 COMPACTED AGGREGATE	209 LINEAR GRADING
					FT	FT	FT	SY	SY	HOUR	SY	TON	SY		CY	GAL	CY	CY	SY	CY	MILE
NORTHBOUND QUANTITIES CONTINUED																					
	TO																				
0+00.00		1+88.00	US-24 RAMP E		188.00	8.00	6.00	292	292	0.15	324	7.57		62	52	50	18	12	324	4	0.04
1+88.00		2+04.93	US-24 RAMP E		16.93	16.00	17.50	63	63	0.03	66	1.63		13	11	11	4	3	66	1	0.00
2+04.93		2+24.62	US-24 RAMP E		19.69	16.00	9.00	55	55	0.03	61	1.42		12	10	9	3	2	61	1	0.00
13+05.51		13+24.33	US-24 RAMP A		18.82	15.75	9.50	53	53	0.03	59	1.37		11	9	9	3	2	59	1	0.00
13+24.33		14+98.00	US-24 RAMP A		173.67	14.88	17.50	625	625	0.31	654	16.17		131	107	106	39	26	654	4	0.03
14+98.00		15+44.29	US-24 RAMP A		46.29	13.00	8.00	108	108	0.05	116	2.79		23	19	18	7	5	116	1	0.01
0+00.00		1+52.15	US-24 RAMP B		152.15	15.00	8.00	389	389	0.19	414	10.06		82	67	66	24	16	414	4	0.03
1+52.16		2+18.06	US-24 RAMP B		65.90	17.90	21.50	288	288	0.14	299	7.46		61	49	49	18	12	299	2	0.01
2+18.06		3+00.00	US-24 RAMP B		81.94	17.50	11.00	259	259	0.13	287	6.71		55	46	44	16	11	287	2	0.02
26+41.29		42+17.47	US-24 RAMP F		1576.18	16.00	9.00	4378	4378	2.19	4904	113.29		935	784	744	274	182	4904	36	0.30
42+17.47		47+95.25	US-24 RAMP F		577.78	16.00	19.50	2279	2279	1.14	2375	58.97		479	390	387	142	95	2375	13	0.11
51+22.33		56+51.20	US-24 RAMP F		528.87	4.79	11.00	928	928	0.46	1016	24.01		197	164	158	58	39	1016	12	0.10
12+10.00		12+49.84	Salisbury A		39.84	16.00	11.00	120					120.00			20	7	5		1	0.01
12+49.84		22+22.66	Salisbury A		972.82	8.00	8.00	1729					1726.00			294	108	72		23	0.18
0+00.00		0+55.80	SR-2 RAMP D		55.80	12.50	8.00	127	127	0.06	136	3.29		27	22	22	8	5	136	1	0.01
0+55.80		4+53.40	SR-2 RAMP D		397.60	16.00	18.00	1502	1502	0.75	1568	38.87		316	257	255	94	63	1568	9	0.08
4+53.40		5+55.00	SR-2 RAMP D		101.60	16.00	11.00	305	305	0.15	339	7.89		65	54	52	19	13	339	2	0.02
11+82.51		12+65.94	SR-2 RAMP E		83.43	16.00	11.00	250	250	0.13	278	6.48		53	45	43	16	10	278	2	0.02
12+65.94		22+01.31	SR-2 RAMP E		935.37	16.00	19.50	3690	3690	1.84	3845	95.47		775	631	627	231	154	3845	22	0.18
22+01.31		24+79.65	SR-2 RAMP E		278.34	12.68	8.00	640	640	0.32	686	16.55		135	111	109	40	27	686	6	0.05
24+79.65		29+51.95	SR-2 RAMP E		472.30	4.68	0.00	246	246	0.12	324	6.35		55	49	42	15	10	324	11	0.09
11+72.45		12+76.01	SR-2 RAMP F		103.56	16.00	11.00	311	311	0.16	345	8.04		66	55	53	19	13	345	2	0.02
12+76.01		22+33.00	SR-2 RAMP F		956.99	16.00	17.50	3562	3562	1.78	3722	92.17		749	610	606	223	148	3722	22	0.18
NORTHBOUND TOTALS THIS SHEET									20350	10.17	21819	526.54	1846	4303	3545	3774	1387	925	21819	185	1.49
NORTHBOUND TOTALS CARRIED FROM PREVIOUS SHEET									106626	74.25	154026	3842.61	24004	31178	25326	29442	10782	7188	154026	717	5.86
NORTHBOUND TOTALS CARRIED TO SHEET 4 OF 4									126976	84.43	175845	4369.15	25850	35482	28871	33216	12169	8113	175845	901	7.35

CALCULATED ALF
CHECKED XXX

PAVEMENT QUANTITY CALCULATIONS SHEET 2 OF 4

LUC-475-0.09

STATION RANGE			SIDE		DISTANCE (D)	AVERAGE WIDTH (PAVEMENT) (W)	AVERAGE WIDTH (SHOULDER) (W)	CADD GENERATED AREA	202 PAVEMENT REMOVED	204 PROOF ROLLING	206 CEMENT STABILIZED SUBGRADE, 12 INCHES DEEP	206 CEMENT	254 PAVEMENT PLANING, ASPHALT CONCRETE, 3.75"	ITEM CODE DOES NOT EXIST IN ITEM MASTER	304 AGGREGATE BASE	407 NON-TRACKING TACK COAT	442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)	442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447)	206 CURING COAT	617 COMPACTED AGGREGATE	209 LINEAR GRADING
					FT	FT	FT	SY	SY	HOUR	SY	TON	SY		CY	GAL	CY	CY	SY	CY	MILE
SOUTHBOUND QUANTITIES																					
5+00.00	TO	11+25.00	NB		625.00	24.00	14.00	2639					2639			449	165	110		29	0.24
11+25.00		16+40.22	SB		515.22	36.00	12.00	2748	1603	1.37	2834	71.10		576	467	467	172	114	2834	24	0.20
16+40.22		45+09.52	SB		2869.30	36.00	26.00	19766	12752	9.88	20245	511.45		4139	3344	3360	1235	824	20245	66	0.54
45+09.52		48+64.67	SB		355.15	36.00	35.00	2802	1855	1.40	2861	72.49		586	473	476	175	117	2861	8	0.07
51+51.33		59+35.56	SB		784.23	36.00	23.50	5185	3442	2.59	5315	134.15		1086	878	881	324	216	5315	18	0.15
59+35.56		61+49.92	SB		214.36	36.00	12.00	1143	666	0.57	1179	29.58		240	194	194	71	48	1179	5	0.04
61+49.92		65+60.56	SB		410.64	36.00	12.00	2190	1278	1.10	2259	56.67		459	372	372	137	91	2259	10	0.08
65+60.56		82+96.86	SB		1736.30	36.00	12.00	9260	5402	4.63	9550	239.61		1942	1574	1574	579	386	9550	40	0.33
82+96.86		98+78.46	SB		1581.60	36.00	21.00	10017	4921	5.01	10280	259.18		2098	1697	1703	626	417	10280	37	0.30
98+78.56		126+43.92	SB		2765.36	36.00	12.00	14749	8603	7.37	15209	381.62		3093	2506	2507	922	615	15209	64	0.52
126+43.92		146+18.58	SB		1974.66	36.00	21.00	12506	6143	6.25	12835	323.60		2620	2119	2126	782	521	12835	46	0.37
146+18.58		166+03.63	SB		1985.05	36.00	12.00	10587	6176	5.29	10918	273.94		2220	1799	1800	662	441	10918	46	0.38
173+53.03		173+73.00	SB		19.97	36.00	26.00	138	133	0.07	141	3.56		29	23	23	9	6	141	1	0.01
173+73.00		177+09.74	SB		336.74	36.00	24.00	2245	2180	1.12	2301	58.09		470	380	382	140	94	2301	16	0.13
177+09.74		218+99.00	SB		4189.26	36.00	22.00	26997	17729	13.50	27696	698.56		5655	4572	4590	1687	1125	27696	194	1.59
218+99.00		223+25.00	SB		426.00	36.00	12.00	2272	1325	1.14	2343	58.79		476	386	386	142	95	2343	20	0.16
223+25.00		228+69.00	SB		544.00	36.00	12.00	1136	1136	0.57	1227	29.39	1136	241	199	193	71	47	1227	25	0.21
230+39.68		231+33.00	SB		93.32	32.00	12.00	456					456			78	29	19		2	0.02
231+33.00		235+71.18	SB		438.18	36.00	12.00	1168	1168	0.58	1242	30.23	1168	247	202	397	146	97	1242	10	0.08
235+71.18		245+29.73	SB		958.55	36.00	22.00	3621	3621	1.81	3781	93.70	2556	761	620	1050	386	257	3781	44	0.36
245+29.73		248+06.58	SB		276.85	36.00	12.00	738	738	0.37	784	19.10	738	156	128	251	92	62	784	6	0.05
248+06.58		249+83.69	SB		177.11	36.00	12.00	472	472	0.24	502	12.22	472	100	82	161	59	39	502	4	0.03
249+83.69		252+20.00	SB		236.31	48.00	20.00	1155	1155	0.58	1194	29.89	630	242	197	303	112	74	1194	5	0.04
252+20.00		253+20.00	SB		100.00	42.00	21.00	433	433	0.22	450	11.20	267	91	74	119	44	29	450	2	0.02
253+20.00		258+24.25	SB		504.25	36.00	22.00	1905	1905	0.95	1989	49.29	1347	401	326	553	203	136	1989	23	0.19
258+24.25		260+92.50	SB		268.25	36.00	12.00	715	715	0.36	760	18.50	715	151	124	243	89	60	760	6	0.05
260+92.50		262+76.80	SB		184.30	36.00	12.00	491	491	0.25	522	12.70	491	104	85	167	61	41	522	4	0.03
262+76.80		265+42.72	SB		265.92	48.00	20.00	1300	1300	0.65	1344	33.64	70	273	221	233	86	57	1344	6	0.05
265+42.72		266+42.72	SB		100.00	42.00	21.00	433	433	0.22	450	11.20	267	91	74	119	44	29	450	2	0.02
266+42.72		268+25.00	SB		182.28	36.00	22.00	689	689	0.34	719	17.83	486	145	118	200	73	49	719	4	0.03
11+25.00		16+40.22	LANE H-G		515.22	16.00	19.90	2055	2055	1.03	2141	53.18		432	351	349	128	86	2141	12	0.10
16+40.22		18+82.00	LANE H-G		241.78	16.00	19.00	940	940	0.47	981	24.33		198	161	160	59	39	981	6	0.05
18+82.00		24+09.44	LANE H-G		527.44	16.00	12.60	1676	1676	0.84	1764	43.37		353	289	285	105	70	1764	12	0.10
24+09.44		25+90.36	LANE H-G		180.92	14.00	17.70	637	637	0.32	667	16.49		134	109	108	40	27	667	4	0.03
25+90.36		27+26.47	LANE H-G		136.11	12.00	6.60	281	281	0.14	304	7.28		60	49	48	18	12	304	3	0.03
27+26.47		29+07.85	LANE H-G		181.38	12.00	6.60	375	375	0.19	405	9.70		79	66	64	23	16	405	4	0.03
29+07.85		30+54.32	LANE H-G		146.47	24.00	14.60	628	628	0.31	653	16.25		132	107	107	39	26	653	3	0.03
30+54.32		31+51.14	LANE H-G		96.82	16.00	6.60	243	243	0.12	259	6.29		51	42	41	15	10	259	2	0.02
31+51.14		32+78.46	LANE H-G		127.32	14.00	6.60	291	291	0.15	313	7.54		62	51	50	18	12	313	3	0.02
32+78.46		42+76.65	LANE H-G		998.19	16.00	12.60	3172	3172	1.59	3338	82.08		668	546	539	198	132	3338	23	0.19
42+76.65		45+09.52	LANE H-G		232.87	16.00	6.60	585	585	0.29	624	15.13		124	102	99	37	24	624	5	0.04
45+09.52		48+64.67	LANE H-G		355.15	16.00	0.00	631	631	0.32	691	16.34		134	111	107	39	26	691	8	0.07
51+51.33		59+35.56	LANE H-G		784.23	16.00	8.00	2091	2091	1.05	2222	54.11		441	362	356	131	87	2222	18	0.15
59+35.56		61+49.92	LANE H-G		214.36	14.00	9.00	548	548	0.27	584	14.17		116	95	93	34	23	584	5	0.04
SOUTHBOUND TOTALS CARRIED TO NEXT SHEET									102617	75.51	155873	3907.56	13438	31673	25675	27764	10207	6805	155873	879	7.19

CALCULATED ALF
CHECKED XXX

PAVEMENT CALCULATIONS SHEET 3 OF 4

LUC-475-0.09

STATION RANGE			SIDE		DISTANCE (D)	AVERAGE WIDTH (PAVEMENT) (W)	AVERAGE WIDTH (SHOULDER) (W)	CADD GENERATED AREA	202 PAVEMENT REMOVED	204 PROOF ROLLING	206 CEMENT STABILIZED SUBGRADE, 12 INCHES DEEP	206 CEMENT	254 PAVEMENT PLANING, ASPHALT CONCRETE, 3.75"	ITEM CODE DOES NOT EXIST IN ITEM MASTER	304 AGGREGATE BASE	407 NON-TRACKING TACK COAT	442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)	442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447)	206 CURING COAT	617 COMPACTED AGGREGATE	209 LINEAR GRADING
					FT	FT	FT	SY	SY	HOUR	SY	TON	SY		CY	GAL	CY	CY	SY	CY	MILE
SOUTHBOUND QUANTITIES CONTINUED																					
17+80.32	TO	18+08.00	US-24 RAMP H		27.68	16.00	8.40	75	75	0.04	80	1.94		16	13	13	5	3	80	1	0.01
18+08.00		19+16.18	US-24 RAMP H		108.18	16.00	15.45	378	378	0.19	396	9.78		80	65	64	24	16	396	3	0.02
0+00.00		1+80.32	US-24 RAMP D		180.32	15.00	8.00	461	461	0.23	491	11.92		97	80	78	29	19	491	4	0.03
1+80.32		3+15.66	US-24 RAMP D		135.34	18.50	20.50	586	586	0.29	609	15.17		123	100	100	37	24	609	3	0.03
3+15.66		3+32.00	US-24 RAMP D		16.34	17.12	9.00	47	47	0.02	50	1.23		10	8	8	3	2	50	0	0.00
13+20.00		13+42.00	US-24 RAMP C		22.00	15.85	10.00	63	63	0.03	67	1.64		13	11	11	4	3	67	1	0.00
13+42.00		14+67.95	US-24 RAMP C		125.95	14.93	17.50	454	454	0.23	475	11.74		95	78	77	28	19	475	3	0.02
14+67.95		15+63.60	US-24 RAMP C		95.65	13.50	8.00	228	228	0.11	244	5.91		48	40	39	14	10	244	2	0.02
40+00.00		42+27.27	US-24 RAMP G		227.27	16.00	9.00	631	631	0.32	669	16.34		133	109	107	39	26	669	5	0.04
42+27.27		42+76.65	US-24 RAMP G		49.38	16.00	10.00	143	143	0.07	151	3.69		30	25	24	9	6	151	1	0.01
42+76.65		44+43.93	US-24 RAMP G		167.28	16.00	16.00	595	595	0.30	623	15.39		125	102	101	37	25	623	4	0.03
44+43.93		48+64.67	US-24 RAMP G		420.74	8.00	8.00	748	748	0.37	818	19.35		159	132	127	47	31	818	10	0.08
13+50.00		14+80.96	SR-2 RAMP B		130.96	16.00	11.00	393	393	0.20	415	10.17		83	68	67	25	16	415	3	0.02
14+80.96		19+17.93	SR-2 RAMP B		436.97	16.00	24.50	1966	1966	0.98	2039	50.88		413	335	334	123	82	2039	10	0.08
19+17.93		19+66.51	SR-2 RAMP B		48.58	16.00	20.00	194					194.00			33	12	8		1	0.01
21+38.63		23+83.68	SR-2 RAMP B		245.05	16.00	13.50	803	803	0.40	844	20.78		169	138	137	50	33	844	6	0.05
23+83.68		31+51.68	SR-2 RAMP B		768.00	8.00	9.00	1451	1451	0.73	1579	37.54		308	255	247	91	60	1579	18	0.15
0+00.00		1+74.69	SR-2 RAMP C		174.69	14.00	8.00	427	427	0.21	456	11.05		90	74	73	27	18	456	4	0.03
1+74.69		4+53.11	SR-2 RAMP C		278.42	16.00	19.40	1095	1095	0.55	1142	28.34		230	187	186	68	46	1142	6	0.05
4+53.11		5+25.00	SR-2 RAMP C		71.89	16.00	11.00	216	216	0.11	228	5.58		45	37	37	13	9	228	2	0.01
0+00.00		1+72.84	SR-2 RAMP A		172.84	14.00	8.00	422	422	0.21	451	10.93		89	73	72	26	18	451	4	0.03
1+72.84		4+49.12	SR-2 RAMP A		276.28	16.00	19.50	1090	1090	0.54	1136	28.20		229	186	185	68	45	1136	6	0.05
4+49.12		6+10.00	SR-2 RAMP A		160.88	16.00	11.00	483	483	0.24	509	12.49		102	83	82	30	20	509	4	0.03
SOUTHBOUND TOTALS THIS SHEET									12755	6.38	13471	330.06	194	2689	2200	2202	809	540	13471	100	0.82
SOUTHBOUND TOTALS CARRIED FROM PREVIOUS SHEET									102617	75.51	155873	3907.56	13438	31673	25675	27764	10207	6805	155873	879	7.19
SOUTHBOUND TOTALS									115372	81.89	169344	4237.61	13632	34361	27876	29966	11017	7345	169344	980	8.01
NORTHBOUND TOTALS									126976	84.43	175845	4369.15	25850	35482	28871	33216	12169	8113	175845	901	7.35
TOTALS CARRIED TO GENERAL SUMMARY									242348	167	345190	8607	39483	69843	56747	63182	23187	15458	345190	1881	16

CALCULATED ALF
CHECKED XXX

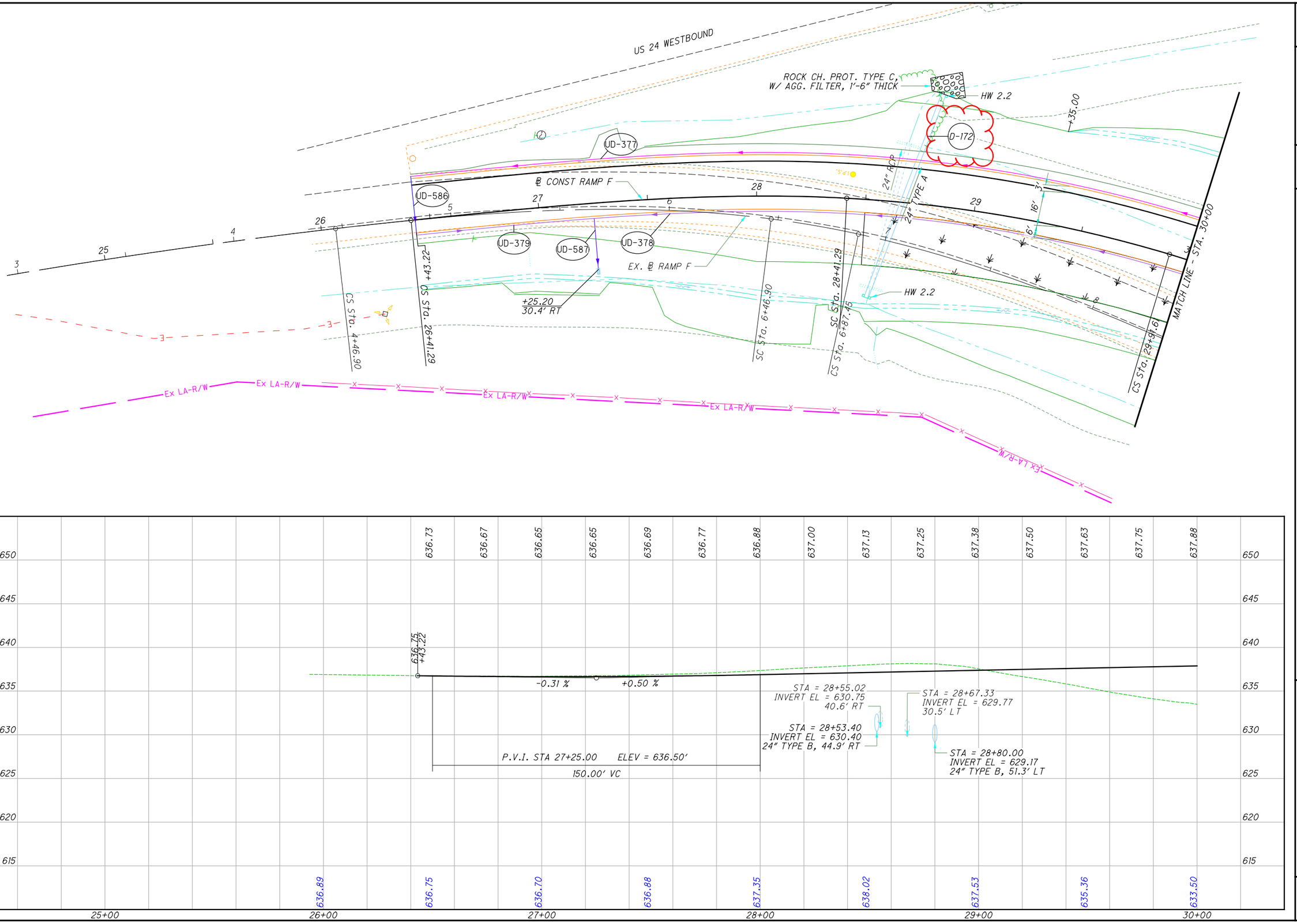
PAVEMENT CALCULATIONS SHEET 4 OF 4

LUC-475-0.09

PLAN SHEET IR 475
STA. 19+00 TO STA. 24+00

LUC-475-0.09

245
855



HORIZONTAL SCALE IN FEET
0 10 20 40

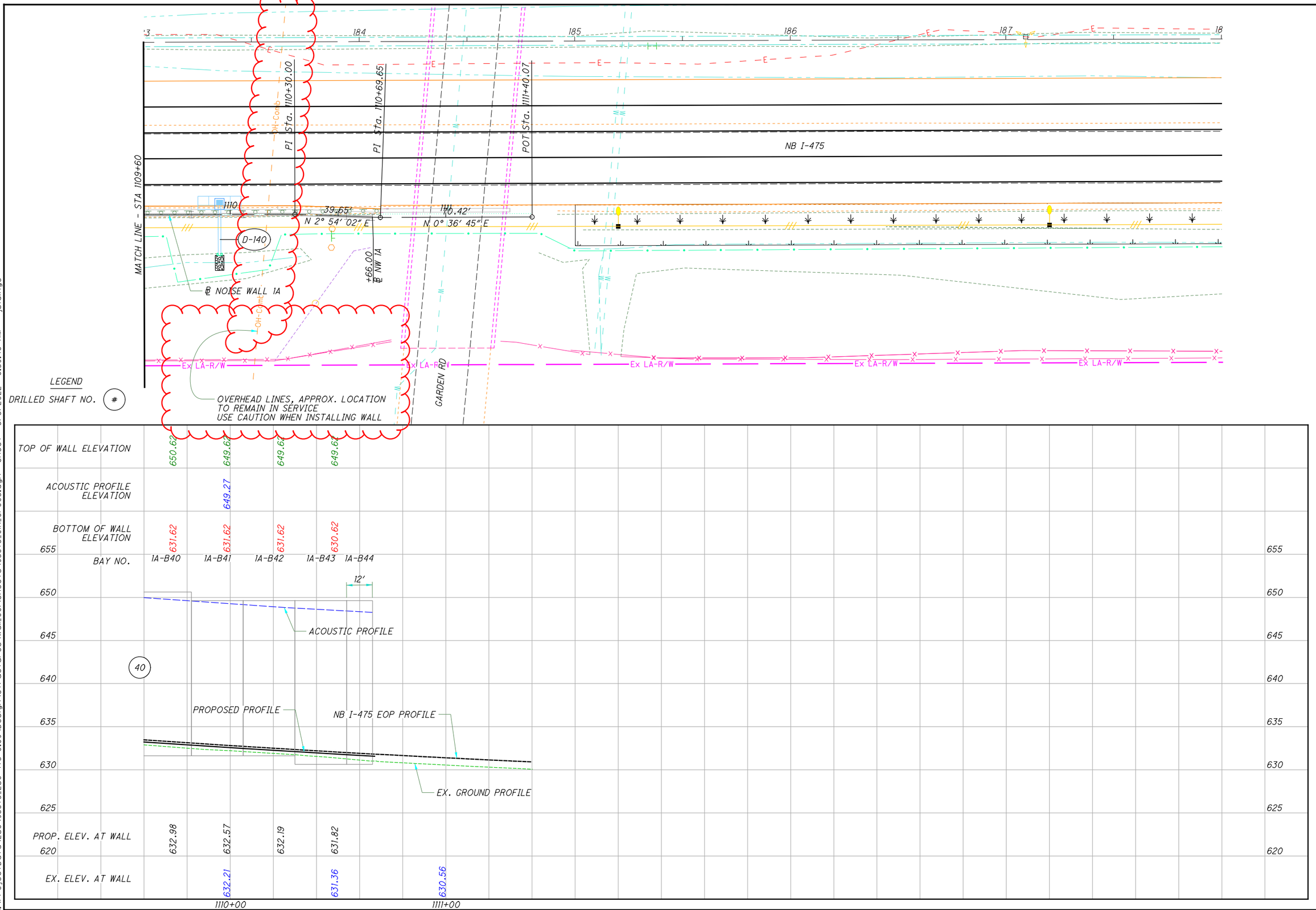
CALCULATED JRB
CHECKED XXX

PLAN AND PROFILE - US 24 RAMP F
STA. 25+00 TO STA. 30+00

LUC-475-0.09

321
855

I:\ProjectData\LUC\95875_LUC-475-0.09\Design\Roadway\Sheets\95875_GP101.dgn Sheet 5/2/2022 12:57:46 PM jbidinge



HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED JRB
CHECKED XXX

PLAN AND PROFILE - NOISE WALL 1A
STA. 1109+60 TO STA. 1111+40.07

LUC-475-0.09

604
855

i:\Project Data\LUC\95875_LUC-475-0.09\Design\Structures\Wall_00\Sheets\95875_01A_GP003.dgn Sheet 5/3/2022 6:59:46 AM jbidinge

OVERHEAD LINES, APPROX. LOCATION
TO REMAIN IN SERVICE
USE CAUTION WHEN INSTALLING WALL

A-R/W — Ex LA-R/W — LA-R/W — Ex LA-R/W — Ex LA-R/W

℄ NOISE WALL 2A

PI Sta. 2110+30.00

PI Sta. 2110+87.68

℄ NW 2A +78.00

GARDEN RD

POT Sta. 2111+40.11

OH-Comb

OH-Comb

MATCH LINE - STA 2108+80

40

D-142

2109

2110

2111

57.58'
N 1° 12' 49" W

52.53'
N 0° 36' 45" E

SB I-475

LEGEND

DRILLED SHAFT NO. (#)

TOP OF WALL ELEVATION	649.83	649.83	648.83	648.83	647.83	647.83	646.83	646.83
ACOUSTIC PROFILE ELEVATION	649.14				647.35			
BOTTOM OF WALL ELEVATION	632.83	632.83	631.83	631.83	631.83	630.83	630.83	630.83
BAY NO.	2A-B37	2A-B38	2A-B39	2A-B40	2A-B41	2A-B42	2A-B43	2A-B44

655 650 645 640 635 630 625 620

ACOUSTIC PROFILE

PROPOSED PROFILE

40

SB I-475 EOP PROFILE

EX. GROUND PROFILE

PROP. ELEV. AT WALL	634.31	633.85	633.40	632.98	632.57	632.18	631.82	631.47
EX. ELEV. AT WALL	634.12		633.18		632.30		631.49	630.61

2109+00 2110+00 2111+00

HORIZONTAL SCALE IN FEET
0 10 20 40

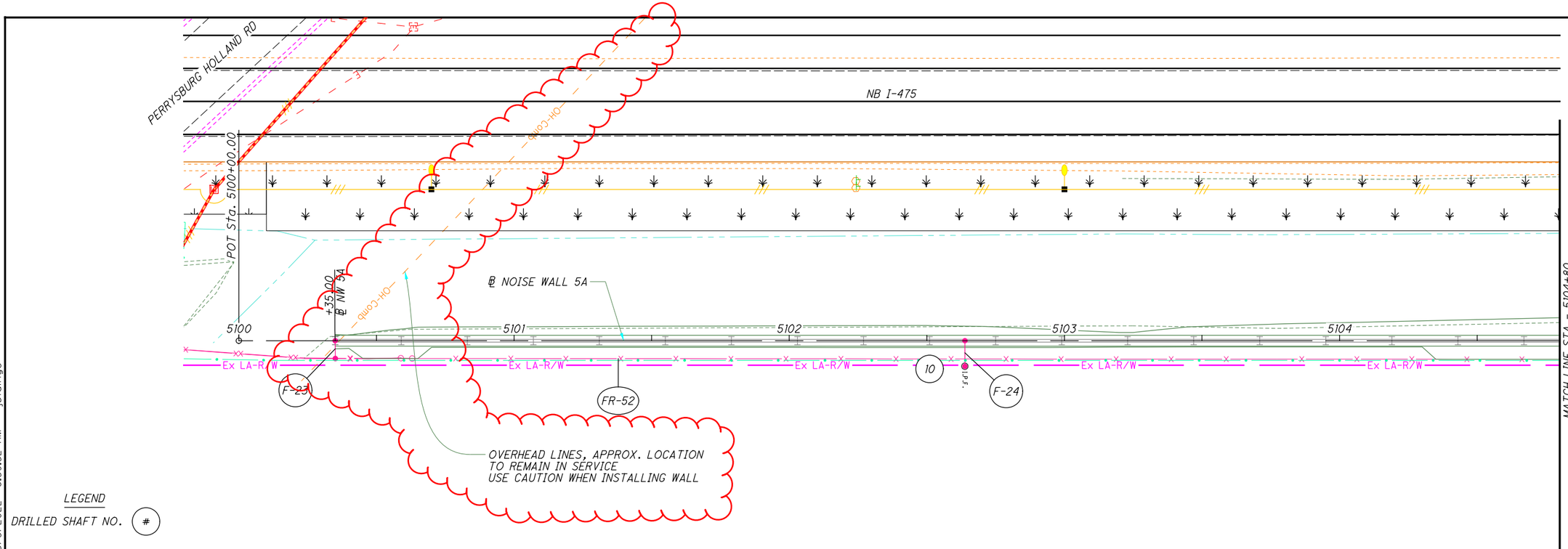
CALCULATED JRB CHECKED XXX

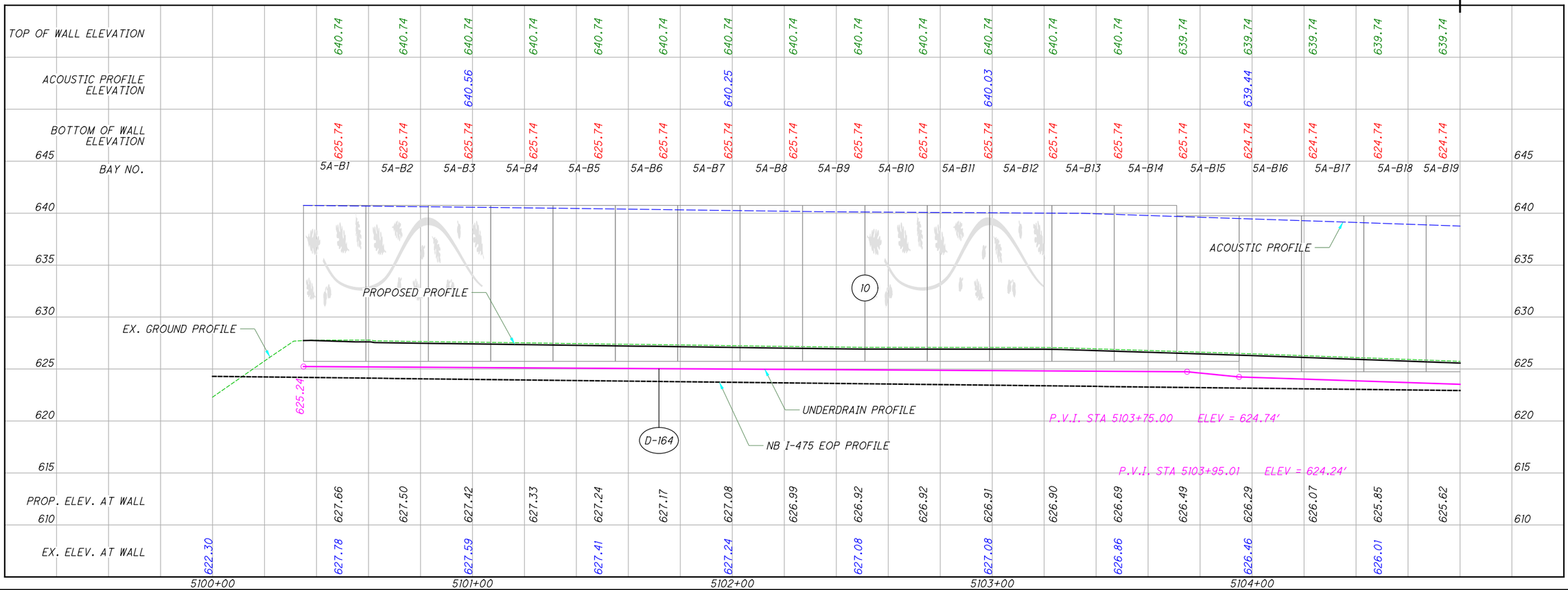
PLAN AND PROFILE - NOISE WALL 2A
STA. 2108+80 TO STA. 2111+40.11

LUC-475-0.09

607
855

I:\ProjectData\LUC\95875_LUC-475-0.09\Design\Structures\Wall_002\Sheets\95875_02A_GP003.dgn Sheet 5/3/2022 6:59:49 AM jbidinge





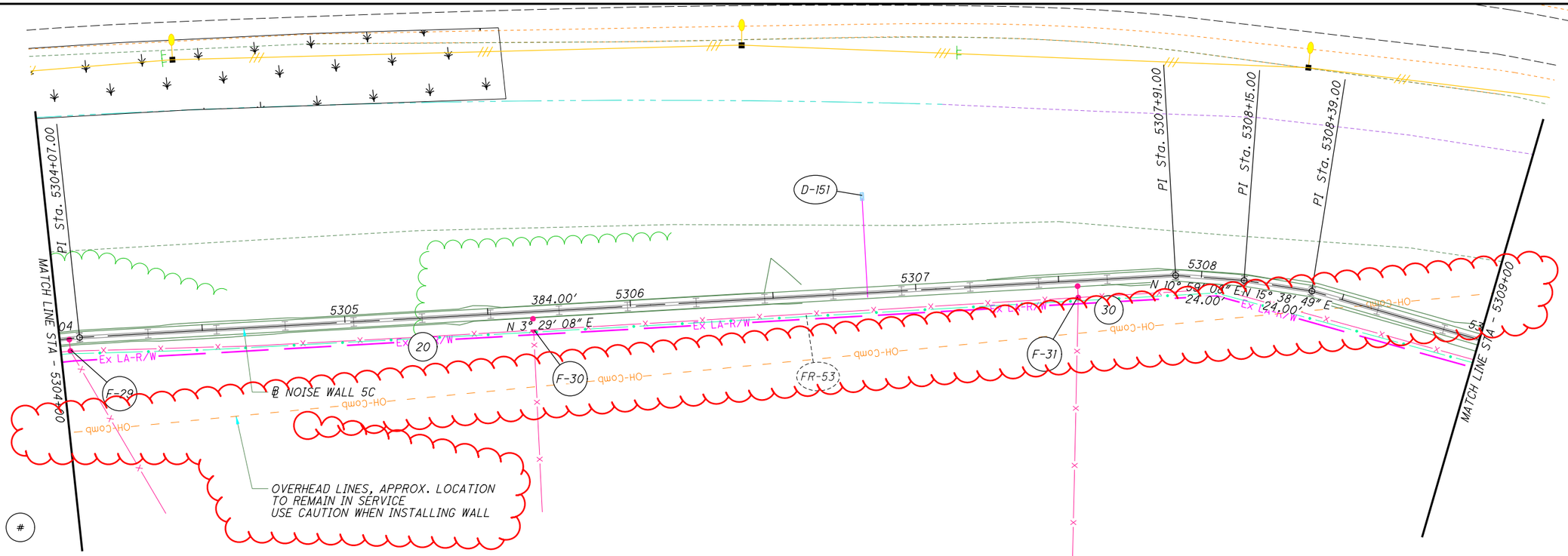
HORIZONTAL SCALE IN FEET
0 10 20 40

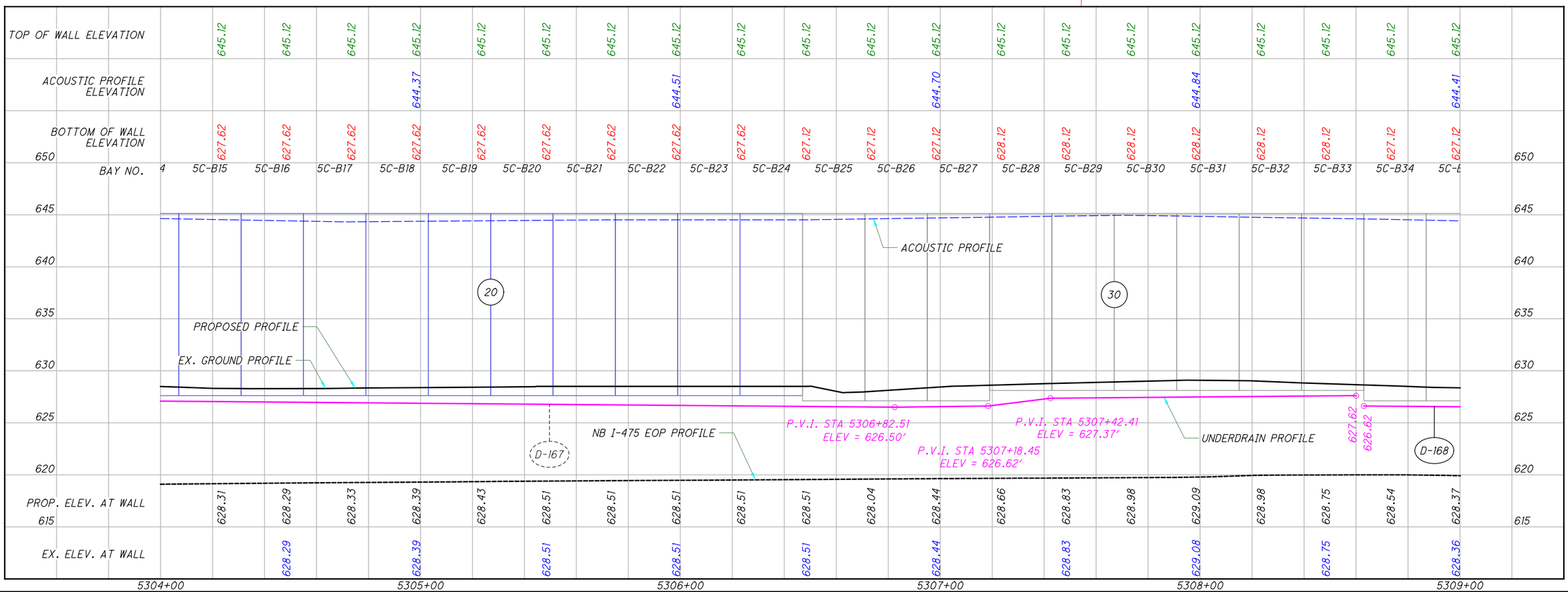
CALCULATED JRB
CHECKED XXX

PLAN AND PROFILE - NOISE WALL 5A
STA 5100+00 TO STA 5104+80

LUC-475-0.09

610
855





HORIZONTAL SCALE IN FEET
0 10 20 40

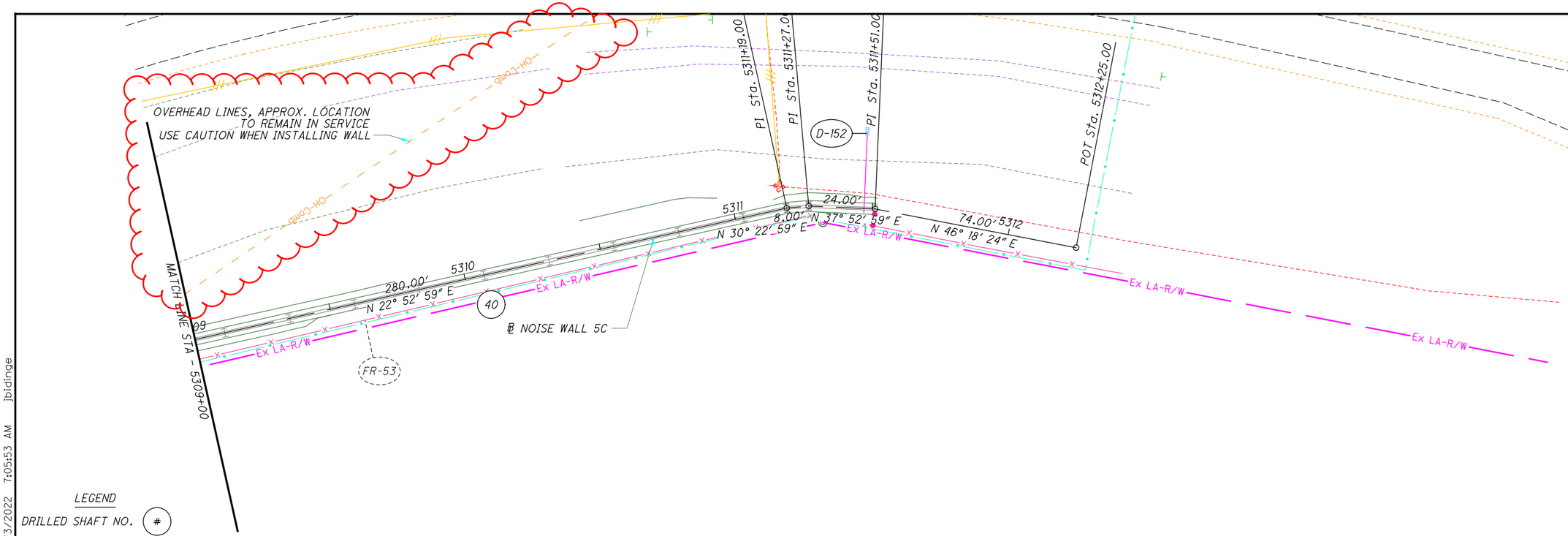
CALCULATED JRB
CHECKED XXX

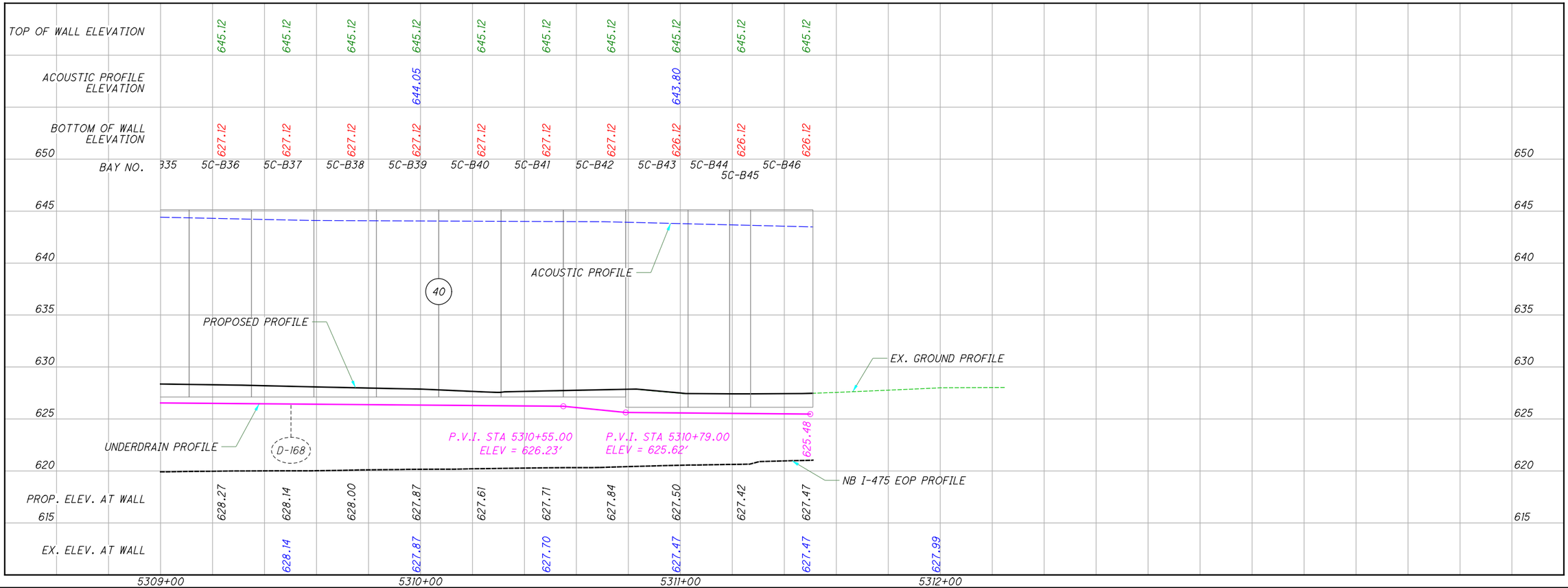
PLAN AND PROFILE - NOISE WALL 5C
STA 5304+00 TO STA 5309+00

LUC-475-0.09

618
855

I:\ProjectData\LUC\95875_LUC-475-0.09\Design\Structures\Wall_005\Sheets\95875_05C_GP002.dgn Sheet 5/3/2022 6:59:55 AM jbidinge





HORIZONTAL SCALE IN FEET
0 10 20 40

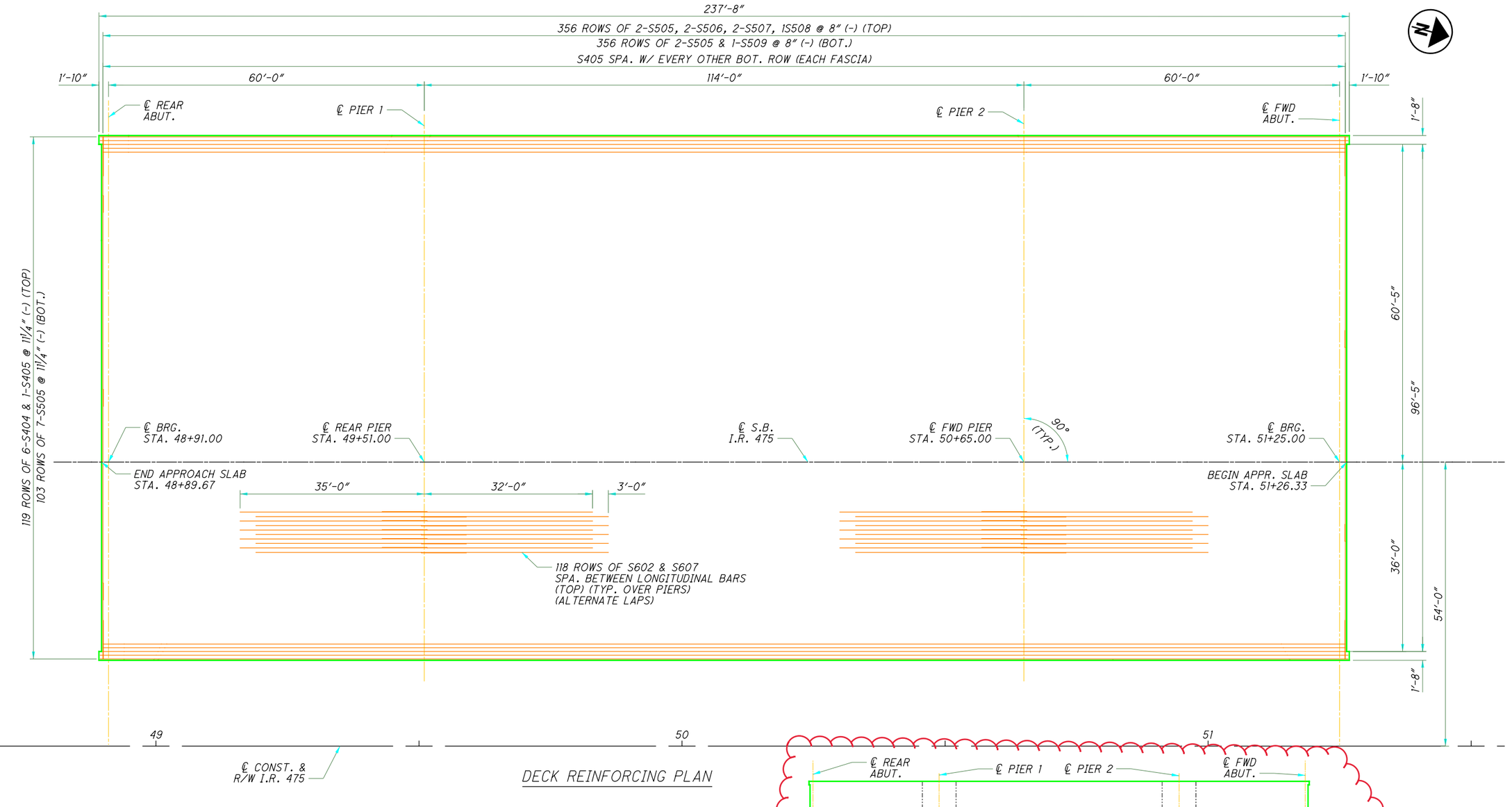
CALCULATED JRB
CHECKED XXX

PLAN AND PROFILE - NOISE WALL 5C
STA 5309+00 TO STA 5312+25

LUC-475-0.09

619
855

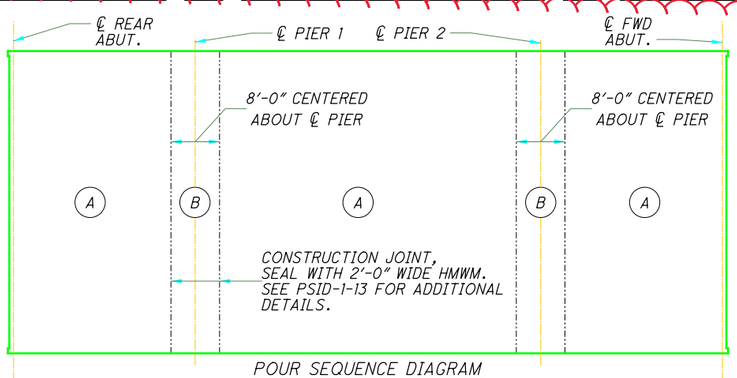
I:\ProjectData\LUC\95875_LUC-475-0.09\Design\Structures\Wall_005\Sheets\95875_05C_GP003.dgn Sheet 5/3/2022 7:05:53 AM jbidinge



DECK REINFORCING PLAN

NOTES:

1. LAP LENGTHS:
   #4 BAR - 5'-8"
   #5 BAR - 7'-1"
   #6 BAR - 8'-6"
2. SEE SHEET 23/29 FOR PARAPET REINFORCING DETAILS.
3. REINFORCING STEEL MAY BE FIELD OR SHOP BENT TO ACCOMMODATE THE CROWN. PAYMENT SHALL BE INCLUDED WITH ITEM 509 REINFORCING STEEL, AS PER PLAN.
4. SEE SHEET 19/29 FOR DECK REINFORCING DETAILS.
5. DECK SLAB CONCRETE AND APPROACH SLAB CONCRETE ARE PROHIBITED FROM BEING PLACED IN THE SAME POUR.



POUR SEQUENCE DIAGRAM

UPON THE COMPLETION OF THE PLACEMENT OF CONCRETE IN THE AREAS DESIGNATED "A", PLACE THE DIAPHRAGM AND DECK CONCRETE IN THE AREAS DESIGNATED "B".

CONTINUOUS DECK POUR PROCEDURES, WHICH PROCEED FROM END TO END OF THE BRIDGE AND PLACE THE PIER DIAPHRAGM CONCRETE CONCURRENTLY WITH THE DECK CONCRETE, MAY BE APPROVED BY THE ENGINEER IF THE PLACEMENT SUBMITTAL CAN ASSURE THAT THE DECK CONCRETE IN ADJACENT SPANS WILL BE PLACED BEFORE THE PIER DIAPHRAGM CONCRETE HAS REACHED ITS INITIAL SET.

DESIGN AGENCY
TETRA TECH
420 MADISON AVENUE, SUITE 1001
TOLEDO, OH 43604

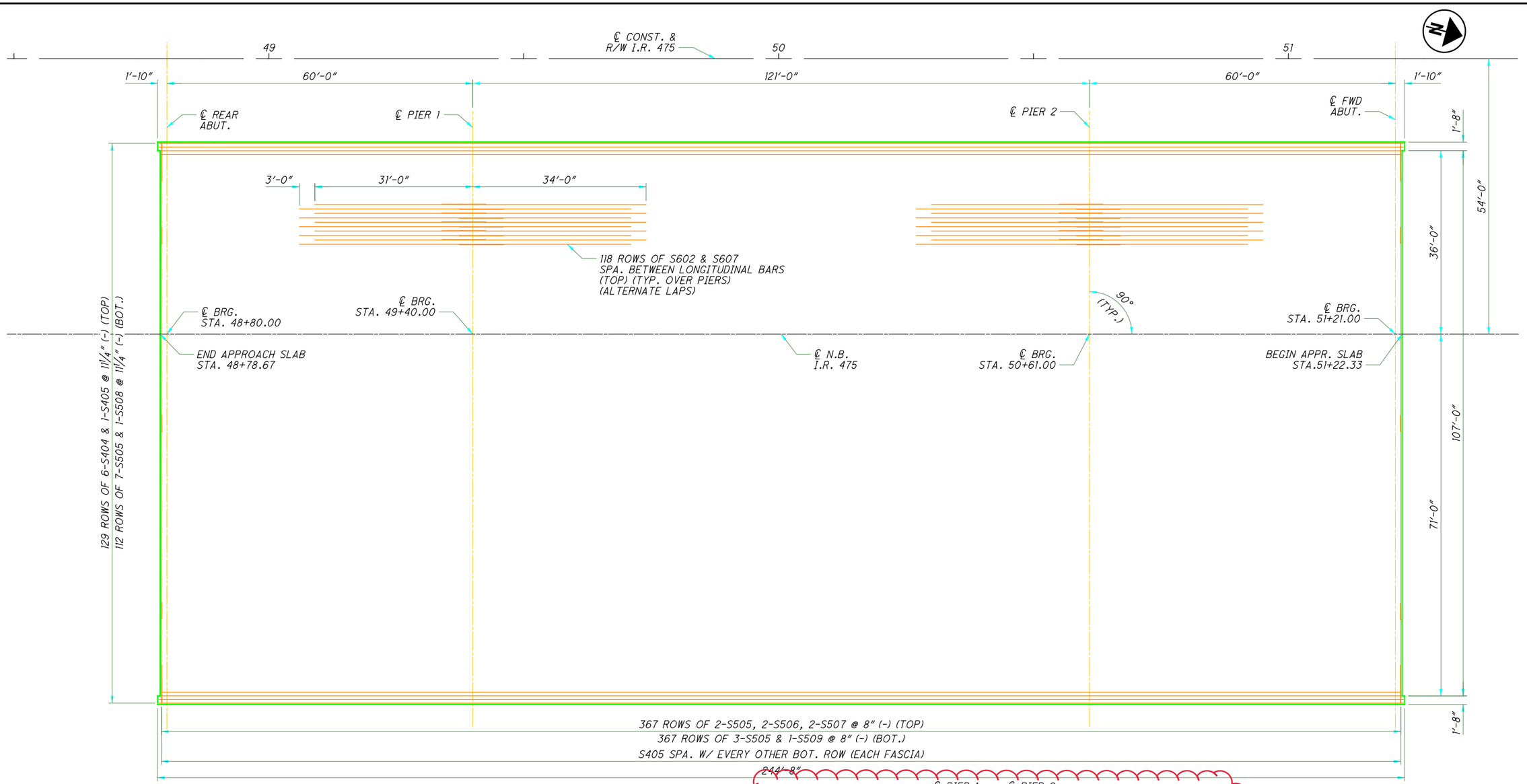
DESIGNED	DRAWN	REVIEWED	DATE
AJF	TSR	DTC	1/13/2022
CHECKED	REVISED	STRUCTURE FILE NUMBER	
TLR		4807082	

SLAB PLAN
LUC-475-0093L
I-475 OVER MONCLOVA ROAD AND NSRR

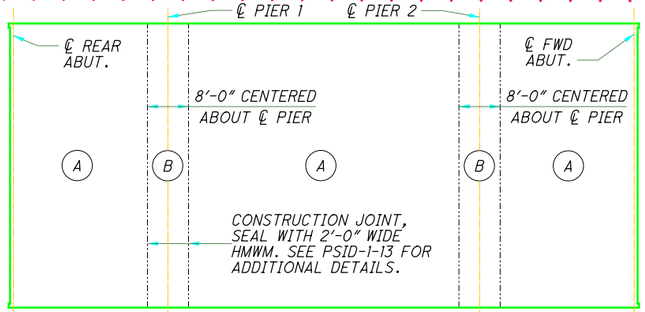
LUC-475-0.09
PID No. 99731

20 / 29

697
855



DECK REINFORCING PLAN



POUR SEQUENCE DIAGRAM

NOTES:

1. LAP LENGTHS:
   #4 BAR - 5'-8"
   #5 BAR - 7'-1"
   #6 BAR - 8'-6"
2. SEE SHEET 23/26 FOR PARAPET REINFORCING DETAILS.
3. REINFORCING STEEL MAY BE FIELD OR SHOP BENT TO ACCOMMODATE THE CROWN. PAYMENT SHALL BE INCLUDED WITH ITEM 509 REINFORCING STEEL, AS PER PLAN.
4. SEE SHEET 19/26 FOR DECK REINFORCING DETAILS.
5. DECK SLAB CONCRETE AND APPROACH SLAB CONCRETE ARE PROHIBITED FROM BEING PLACED IN THE SAME POUR.

UPON THE COMPLETION OF THE PLACEMENT OF CONCRETE IN THE AREAS DESIGNATED "A", PLACE THE DIAPHRAGM AND DECK CONCRETE IN THE AREAS DESIGNATED "B".

CONTINUOUS DECK POUR PROCEDURES, WHICH PROCEED FROM END TO END OF THE BRIDGE AND PLACE THE PIER DIAPHRAGM CONCRETE CONCURRENTLY WITH THE DECK CONCRETE, MAY BE APPROVED BY THE ENGINEER IF THE PLACEMENT SUBMITTAL CAN ASSURE THAT THE DECK CONCRETE IN ADJACENT SPANS WILL BE PLACED BEFORE THE PIER DIAPHRAGM CONCRETE HAS REACHED ITS INITIAL SET.

DESIGN AGENCY
TETRA TECH
420 MADISON AVENUE, SUITE 1001
TOLEDO, OH 43604

DESIGNED AJF | DRAWN TSR | REVIEWED DTC | DATE 1/13/2022
CHECKED TLR | REVISED | STRUCTURE FILE NUMBER 4807112

SLAB PLAN
LUC-475-0093R
I-475 OVER MONCLOVA ROAD AND NSRR

LUC-475-0.09
PID No. 99731

UTILITIES

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

ANR PIPELINE
6357 SR 67 NORTH
DEFIANCE, OHIO 43512
PH: (419) 783-3135

AT&T
130 N. ERIE STREET
TOLEDO, OHIO 43624
PH: (419) 245-7304

BUCKEYE CABLEVISION
2700 OREGON RD.
NORTHWOOD, OHIO 43519
PH: (419) 724-3713

BUCKEYE PIPELINE
P.O. BOX 368
EMMAUS, PA
PH: (484) 232-4000

CENTURYLINK
175 ASHLAND RD.
MANSFIELD, OHIO 44902
PH: (740) 263-2812

CHARTER TELECOMMUNICATIONS
3760 INTERCHANGE DR.
COLUMBUS, OHIO 43204
PH: (234) 208-4684

COLUMBIA GAS OF OHIO, INC.
2901 E. MANHATTAN BLVD.
TOLEDO, OHIO 43611
PH: (419) 539-6209

COLUMBIA GAS TRANSMISSION
301 MAPLE ST.
SUGAR GROVE, OHIO 43155
PH: (740) 746-2297

DOMINION EAST OHIO TRANSMISSION
7015 FREEDOM AVE. N.W.
NORTH CANTON, OHIO 44720
PH: (419) 335-9871

KINDER MORGAN PIPELINE
P.O. BOX 832
GOSHEN, INDIANA 46527
PH: (574) 534-1486 EXT. 22

LEVEL 3 COMMUNICATIONS
1025 ELDORADO BLVD.
BROOMFIELD, CO. 80021
PH: (419) 335-9871

LUCAS COUNTY ENGINEER
ONE GOV.CENTER STE 870
TOLEDO, OHIO 43604
PH: (419) 213-4541
EXT. 4539

LUCAS COUNTY SANITARY ENGINEER
1111 S. MCCORD RD.
HOLLAND, OHIO 43528
PH: (419) 213-2926

CITY OF MAUMEE
400 CONANT ST.
MAUMEE, OHIO 43537
PH: (419) 897-7150

TOWNSHIP OF MONCLOVA
4335 ALBON RD.
MONCLOVA, OHIO 43542
PH: (419) 245-7304

NORTHWESTERN WATER & SEWER
P.O. BOX 348
BOWLING GREEN, OHIO 43402
PH: (419) 354-9090

TOLEDO EDISON
6099 ANGOLA RD.
HOLLAND, OHIO 43528
PH: (419) 249-5218

CITY OF WATERVILLE
25 N. SECOND ST.
WATERVILLE, OHIO 43566
PH: (419) 878-8108

WATERVILLE GAS & OIL CO.
700 FARNSWORTH RD.
WATERVILLE, OHIO 43566
PH: (419) 878-4972

VILLAGE OF WHITEHOUSE
P.O. 2476
WHITEHOUSE, OHIO 43571
PH: (419) 887-5383

WINDSTREAM
6777 ENGLE RD. STE. E
MIDDLEBURG HEIGHTS, OH 44130
PH: (734) 790-6556

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

ROUNDING

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

SURVEYING PARAMETERS

USE THE FOLLOWING VERTICAL POSITIONING AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: NAVD88 (ODOT VRS DERIVED)
GEOID: 2012A

HORIZONTAL POSITIONING

REFERENCE FRAME: NAD83 (2011)
ELLIPSOID: GRS80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: OHIO STATE PLANE NORTH
COMBINED SCALE FACTOR: GRID=1.00004340

UNITS ARE IN U.S. SURVEY FEET. USE THE FOLLOWING CONVERSION FACTOR: 1 METER = 3.280833333 U.S. SURVEY FEET.

WORK LIMITS

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

PROFILE AND ALIGNMENT

THE WORK PROPOSED BY THIS PROJECT IS FOR THE RESURFACING OF THE EXISTING PAVEMENT. THE ALIGNMENT OF THE EXISTING PAVEMENT WILL NOT BE CHANGED AND THE PROFILE OF THE PROPOSED SURFACE WILL BE SIMILAR TO THAT OF THE EXISTING PAVEMENT.

ENVIRONMENTAL COMMITMENTS

THE DISTRICT ENVIRONMENTAL COORDINATOR (DEC) IS PHOENIX NEAL AND CAN BE REACHED AT 419-373-4319.

THE CONTRACTOR SHALL PERFORM ALL WORK WITHIN THE EXISTING RIGHT OF WAY.

NO TREES SHALL BE REMOVED UNDER THIS PROJECT. THE PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT AND NORTHERN LONG-EARED BAT. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT. FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK THREE INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO PREVENT ANY AND ALL MATERIAL FROM GOING OFF THE EDGE OF BRIDGE DECK(S) AND EDGE OF CULVERT(S) DURING ALL CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL IMMEDIATELY REMOVE ANY MATERIAL THAT FALLS INTO THE ROADSIDE DITCHES, STREAMS, WETLANDS, OR OTHER WATERS THROUGH NON-MECHANICAL MEANS. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR WORK IN OR STORE EQUIPMENT AND/OR MATERIALS IN ANY WETLANDS, STREAMS, OR OTHER WATERS. NO WORK OR STAGING IS PERMITTED BELOW THE TOP OF BANK OF ANY STREAM AND/OR WITHIN A WETLAND.

PAVEMENT MARKINGS

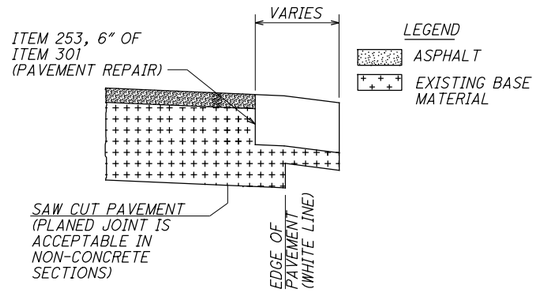
THE CONTRACTOR SHALL MAKE NOTE OF ALL EXISTING PAVEMENT MARKINGS AND RAISED PAVEMENT MARKERS BEFORE PERFORMING ANY WORK. ESTIMATED QUANTITIES HAVE BEEN INCLUDED TO BE USED AS DIRECTED BY THE ENGINEER.

PAVEMENT REPAIRS

THE FOLLOWING ESTIMATED QUANTITIES ARE TO BE USED FOR PAVEMENT REPAIR ON US 24 AS DIRECTED BY THE ENGINEER AND ARE BASED ON THE PERCENTAGES SHOWN:

LUC 24 SLM 12.67 - 14.98 - 5%
ITEM 253 - PAVEMENT REPAIR 6"
1355 CY

ITEM 253 TOTAL = 1355 CY CARRIED TO GENERAL SUMMARY



ALL EXISTING PAVEMENT AREAS WHICH WILL BE IN CONTACT WITH THE PAVEMENT REPAIR SHALL BE COATED WITH PG GRADE LIQUID ASPHALT (SIDES AND BOTTOM) AT AN APPLICATION RATE OF 0.25 GAL. PER SY)

NOTE: THE ENGINEER SHALL FIELD VERIFY ALL LOCATIONS PRIOR TO THE BEGINNING OF WORK. ANY ADJUSTMENTS NECESSARY SHALL BE AS DIRECTED BY THE ENGINEER.

ITEM 424 - FINE GRADED POLYMER ASPHALT CONCRETE, (448), TYPE B, AS PER PLAN

PER CMS 424.04, 448 DENSITY APPLIES TO THIS PROJECT. DENSITY WILL BE TESTED ACCORDING TO SUPPLEMENT 1055 PER CMS 448.02. THE DENSITY DISINCENTIVE PORTION OF TABLE 448.04-3. WILL BE WAIVED PROVIDING THAT THE CONTRACTOR MAKES EVERY EFFORT TO OBTAIN DENSITY AND DOES NOT USE VIBRATORY ROLLERS.

AN ESTIMATED QUANTITY OF 100 CY HAS BEEN CARRIED TO THE GENERAL SUMMARY TO ACCOUNT FOR SURFACE IRREGULARITIES.

RUMBLE STRIPE REMOVAL BEFORE PAVING

RUMBLE STRIPES WILL BE PLANED WITH ITEM 441 THE QUANTITIES FOR PLANING AND PAVING THE RUMBLE STRIPES ARE PROVIDED BELOW. QUANTITIES ARE BASED ON 2' WIDE MILL. QUANTITIES TO BE CARRIED TO THE GENERAL SUMMARY.

US 24 EXISTING LENGTH OF RUMBLE STRIPE: LENGTH = 11,494 FT TOTAL 11,494 FT

ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, 1 ½" US 24 2554 SY ITEM 254 TOTAL = 2554 SY

ITEM 407 - NON TRACKING TACK COAT US 24 360 GAL ITEM 407 TOTAL = 217 GAL

ITEM 441- ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22, 1 ½" US 24 106 CY ITEM 441 TOTAL = 106 CY

ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE B

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE 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.

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.

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

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

ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE 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 CMS 730.19.

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 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.

CALCULATED MJF
CHECKED JMF

GENERAL NOTES

LUC-24-11.54

SHEET NUM.													PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
6	7	8	11	12	13								05/NHS/PV						
																		ROADWAY	
			524										524	202	23500	524	SY	WEARING COURSE REMOVED	
			157										157	202	30600	157	SY	CONCRETE MEDIAN REMOVED	
				1,350									1,350	202	38000	1,350	FT	GUARDRAIL REMOVED	
				1									1	202	42010	1	EACH	ANCHOR ASSEMBLY REMOVED, TYPE E	
				3									3	202	42040	3	EACH	ANCHOR ASSEMBLY REMOVED, TYPE T	
				5									5	202	42050	5	EACH	ANCHOR ASSEMBLY REMOVED, TYPE B	
				3									3	202	47000	3	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED	
				14									14	209	15000	14	STA	RESHAPING UNDER GUARDRAIL	
			13										13	209	60500	13	MILE	LINEAR GRADING	
				1,350									1,350	606	15050	1,350	FT	GUARDRAIL, TYPE MGS	
				5									5	606	26050	5	EACH	ANCHOR ASSEMBLY, MGS TYPE B	
				1									1	606	26150	1	EACH	ANCHOR ASSEMBLY, MGS TYPE E, MASH 2016	
				3									3	606	26550	3	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
				3									3	606	35002	3	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
																		EROSION CONTROL	
													5,000	832	30000	5,000	EACH	EROSION CONTROL	
																		PAVEMENT	
1,355													1,355	253	02000	1,355	CY	PAVEMENT REPAIR	
2,554													2,554	254	01000	2,554	SY	PAVEMENT PLANING, ASPHALT CONCRETE ,1 1/2"	
			162,651										162,651	254	01000	162,651	SY	PAVEMENT PLANING, ASPHALT CONCRETE, 3 1/4"	
217			25,329										25,546	407	20000	25,546	GAL	NON-TRACKING TACK COAT	
100			5,355										5,455	424	14001	5,455	CY	FINE GRADED POLYMER ASPHALT CONCRETE, TYPE B, (448), AS PER PLAN	6
106													106	441	50000	106	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	
			10,167										10,167	442	10100	10,167	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)	
			157										157	609	72000	157	SY	CONCRETE MEDIAN	
			1,164										1,164	617	10100	1,164	CY	COMPACTED AGGREGATE	
			9										9	618	40600	9	MILE	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)	
			11,856										11,856	875	10000	11,856	LB	LONGITUDINAL JOINT ADHESIVE	
																		TRAFFIC CONTROL	
					942								942	621	00100	942	EACH	RPM	
					942								942	621	54000	942	EACH	RAISED PAVEMENT MARKER REMOVED	
				28									28	626	00116	28	EACH	BARRIER REFLECTOR, TYPE 5, 1-WAY	
					90								90	644	00500	90	FT	STOP LINE	
					739								739	644	00700	739	FT	TRANSVERSE/DIAGONAL LINE	
					6								6	644	01300	6	EACH	LANE ARROW	
					3								3	644	01360	3	EACH	WRONG WAY ARROW	
					19.11								19.11	807	14010	19.11	MILE	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6"	
					7.8								7.8	807	14110	7.8	MILE	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, LANE LINE, 6"	
					11,589								11,589	807	14310	11,589	FT	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CHANNELIZING LINE, 12"	
					7,381								7,381	807	14410	7,381	FT	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, DOTTED LINE, 6"	
					26.07								26.07	850	10010	26.07	MILE	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	
					988								988	850	10110	988	FT	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	
					11,589								11,589	850	10130	11,589	FT	GROOVING FOR 12" RECESSED PAVEMENT MARKING, (ASPHALT)	
					0.84								0.84	850	20010	0.84	MILE	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE)	
																		MAINTENANCE OF TRAFFIC	
		23											23	614	12460	23	EACH	WORK ZONE MARKING SIGN	
		10											10	614	12484	10	EACH	WORK ZONE INCREASED PENALTIES SIGN	
	5												5	614	12500	5	EACH	REPLACEMENT SIGN	
	5												5	614	12600	5	EACH	REPLACEMENT DRUM	
		8.34											8.34	614	20056	8.34	MILE	WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT	
		8.34											8.34	614	20110	8.34	MILE	WORK ZONE LANE LINE, CLASS I, 6", 642 PAINT	
		16.68											16.68	614	20560	16.68	MILE	WORK ZONE LANE LINE, CLASS III, 6", 642 PAINT	
		19.11											19.11	614	22056	19.11	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT	
		10,538											10,538	614	23110	10,538	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807 PAINT	
		10,538											10,538	614	23210	10,538	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 642 PAINT	
		21,076											21,076	614	23690	21,076	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 12", 642 PAINT	
		90											90	614	26200	90	FT	WORK ZONE STOP LINE, CLASS I, 642 PAINT	
		180											180	614	26610	180	FT	WORK ZONE STOP LINE, CLASS III, 642 PAINT	

CALCULATED MJF
CHECKED DAR

GENERAL SUMMARY

LUC-24-11.54

9
38

I:\ProjectData\LUC\02909_LUC_24_12.86\Design\Roadway\Sheets\02909_GG001.dgn Sheet 5/3/2022 8:40:35 AM nelkhech

STATION RANGE			DISTANCE (D)	AVERAGE WIDTH (W)	CADD GENERATED AREA	254 PAVEMENT PLANING, ASPHALT CONCRETE, 3 1/4"	202 WEARING COURSE REMOVED	407 NON-TRACKING TACK COAT, FOR INTERMEDIATE COURSE (0.085 GAL/SQ YD)	407 NON-TRACKING TACK COAT, FOR SURFACE COURSE (0.055 GAL/SQ YD)	424 FINE GRADED POLYMER ASPHALT CONCRETE, TYPE B, (448), AS PER PLAN			617 COMPACTED AGGREGATE	209 LINEAR GRADING		442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)			875 LONGITUDINAL JOINT ADHESIVE		618 RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)	
			FT	FT	SY	SY	SY	GAL	GAL	CY			CY	MILE		CY			LB		MILE	
WB US 24																						
609+28.00		666+75.00	5747.00	46.55	29726.00		524.00	2526.71		825.72			106.43	2.18					1915.67		2.18	
668+93.00		758+84.00	8991.00	48.29	48239.00	48239.00		4100.32	2653.15	1339.97			225.47	2.13		3014.94			2997.00		3.41	
762+30.00		790+90.00	2860.00	45.56	14477.00	14477.00		1230.55	796.24	402.14			57.38	0.54		904.81			953.33		1.08	
663+80.00		CROSS OVER			342.70			29.13		9.52												
EB US 24																						
668+93.00		758+84.00	8991.00	47.78	47729.00	47729.00		4056.97	2625.10	1325.81			225.47	2.13		2983.06			2997.00		1.70	
762+30.00		790+90.00	2860.00	50.53	16057.00	16057.00		1364.85	883.14	446.03			57.38	0.54		1003.56			953.33		0.54	
SUBTOTALS						126502.00	524.00	13308.51	6957.61	4349.19			672.12	7.52		7906.38			9816.33		8.91	
TOTALS CARRIED TO GENERAL SUMMARY						126502	524	13309	6958	4350			673	8		7907			9817		9	

STATION RANGE	DISTANCE (D)	AVERAGE WIDTH (W)	CADD GENERATED AREA	254 PAVEMENT PLANING, ASPHALT CONCRETE ,3 1/4"		407 NON-TRACKING TACK COAT, FOR INTERMEDIATE COURSE (0.085 GAL/SQ YD)	407 NON-TRACKING TACK COAT,FOR SURFACE COURSE (0.055 GAL/SQ YD)	424 FINE GRADED POLYMER ASPHALT CONCRETE, TYPE B, (448), AS PER PLAN	442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)		617 COMPACTED AGGREGATE	209 LINEAR GRADING		202 CONCRETE MEDIAN REMOVED	609 CONCRETE MEDIAN		875 LONGITUDINAL JOINT ADHESIVE			
	FT	FT	SY	SY		GAL	GAL	CY	CY		CY	MILE		SY	SY		LB			
US-24 TO FALLEN TIMBERS LANE																				
RAMP "A"	783.00	26.41	2298.00	2298.00		195.33	126.39	63.83	143.63		31.42	0.30					130.50			
RAMP "B"	878.00	35.96	3508.00	3508.00		298.18	192.94	97.44	219.25		35.23	0.33					146.33			
RAMP "C"	1070.00	27.01	3211.00	3211.00		272.94	176.61	89.19	200.69		42.93	0.41					178.33			
RAMP "D"	1380.00	24.94	3824.00	3824.00		325.04	210.32	106.22	239.00		55.37	0.52		157.00	157.00		230.00			
RAMP "E"	1100.00	24.59	3006.00	3006.00		255.51	165.33	83.50	187.88		44.14	0.42					183.33			
US-24 TO IR-475																				
RAMP "A"	1059.00	26.65	3136.00	3136.00		266.56	172.48	87.11	196.00		42.49	0.40					176.50			
RAMP "B"	936.00	35.41	3683.00	3683.00		313.06	202.57	102.31	230.19		37.56	0.35					156.00			
RAMP "C"	1088.00	25.92	3133.00	3133.00		266.31	172.32	87.03	195.81		43.65	0.41					181.33			
RAMP "D"	916.00	25.71	2617.00	2617.00		222.45	143.94	72.69	163.56		36.75	0.35					152.67			
RAMP "E"	1727.00	21.81	4185.00	4185.00		355.73	230.18	116.25	261.56		69.29	0.65					287.83			
RAMP "H"	1295.00	24.66	3548.00	3548.00		301.58	195.14	98.56	221.75		51.96	0.49					215.83			
SUBTOTALS				36149.00		3072.67	1988.20	1004.14	2259.31		490.79	4.63		157.00	157.00		2038.67			
TOTALS CARRIED TO GENERAL SUMMARY				36149		3073	1989	1005	2260		491	5		157	157		2039			

CALCULATED MJF
CHECKED DAR

PAVEMENT SUBSUMMARY

LUC-24-11.54