



Andy Beshear
GOVERNOR

TRANSPORTATION CABINET

200 Mero Street
Frankfort, Kentucky 40601

Jim Gray
SECRETARY

August 9, 2024

CALL NO. 103
CONTRACT ID NO. 241315
ADDENDUM # 1

Subject: Warren County, STP1 5082 (024)
Letting August 22, 2024

- (1) Revised - Proposal Bid Items - Pages 112-115 of 115
- (2) Revised - Plan Sheets - T001, T009, T010, T012, T014, T016-T020, T023, R2I, R24

Proposal revisions are available at <http://transportation.ky.gov/Construction-Procurement/>.

If you have any questions, please contact us at 502-564-3500.

Sincerely,

A handwritten signature in cursive script that reads "Rachel Mills".

Rachel Mills, P.E.
Director
Division of Construction Procurement

RM:mr
Enclosures

PROPOSAL BID ITEMS

241315

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Report Date 8/9/24

Section: 0001 - PAVING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	00003		CRUSHED STONE BASE	61,280.00	TON		\$	
0020	00005		GEOGRID REINFORCEMENT FOR SUBGRADE	75,422.00	SQYD		\$	
0030	00020		TRAFFIC BOUND BASE	423.00	TON		\$	
0040	00100		ASPHALT SEAL AGGREGATE	536.00	TON		\$	
0050	00103		ASPHALT SEAL COAT	103.00	TON		\$	
0060	00190		LEVELING & WEDGING PG64-22	20.00	TON		\$	
0070	00212		CL2 ASPH BASE 1.00D PG64-22	2,566.00	TON		\$	
0080	00214		CL3 ASPH BASE 1.00D PG64-22	14,693.00	TON		\$	
0090	00301		CL2 ASPH SURF 0.38D PG64-22	1,905.00	TON		\$	
0100	00388		CL3 ASPH SURF 0.38B PG64-22	4,731.00	TON		\$	
0110	02602		FABRIC-GEOTEXTILE CLASS 1	75,422.00	SQYD		\$	
0120	20071EC		JOINT ADHESIVE	55,582.00	LF		\$	
0130	24970EC		ASPHALT MATERIAL FOR TACK NON-TRACKING	44.90	TON		\$	

Section: 0002 - ROADWAY

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0140	00078		CRUSHED AGGREGATE SIZE NO 2	24.00	TON		\$	
0150	01000		PERFORATED PIPE-4 IN	350.00	LF		\$	
0160	01010		NON-PERFORATED PIPE-4 IN	154.00	LF		\$	
0170	01028		PERF PIPE HEADWALL TY 3-4 IN	4.00	EACH		\$	
0180	01810		STANDARD CURB AND GUTTER	625.00	LF		\$	
0190	01917		STANDARD BARRIER MEDIAN TYPE 2	207.00	SQYD		\$	
0200	01990		DELINEATOR FOR BARRIER WALL-B/W	8.00	EACH		\$	
0210	02014		BARRICADE-TYPE III	6.00	EACH		\$	
0220	02091		REMOVE PAVEMENT	1,059.00	SQYD		\$	
0230	02159		TEMP DITCH	4,000.00	LF		\$	
0240	02160		CLEAN TEMP DITCH	2,000.00	LF		\$	
0250	02230		EMBANKMENT IN PLACE	52,640.00	CUYD		\$	
0260	02242		WATER	300.00	MGAL		\$	
0270	02261		FENCE-WOVEN WIRE	485.00	LF		\$	
0280	02429		RIGHT-OF-WAY MONUMENT TYPE 1	29.00	EACH		\$	
0290	02432		WITNESS POST	3.00	EACH		\$	
0300	02483		CHANNEL LINING CLASS II	1,391.00	TON		\$	
0310	02545		CLEARING AND GRUBBING (APPROX. 40 AC)	1.00	LS		\$	
0320	02555		CONCRETE-CLASS B	5.20	CUYD		\$	
0330	02562		TEMPORARY SIGNS	907.00	SQFT		\$	
0340	02607		FABRIC-GEOTEXTILE CLASS 2 FOR PIPE	5,157.00	SQYD	\$2.00	\$	\$10,314.00
0350	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		\$	
0360	02655		CROSSOVER	1.00	LS		\$	
0370	02671		PORTABLE CHANGEABLE MESSAGE SIGN	3.00	EACH		\$	
0380	02676		MOBILIZATION FOR MILL & TEXT	1.00	LS		\$	
0390	02677		ASPHALT PAVE MILLING & TEXTURING	51.00	TON		\$	
0400	02690		SAFELOADING	30.00	CUYD		\$	

PROPOSAL BID ITEMS

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LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0410	02696		SHOULDER RUMBLE STRIPS	1,338.00	LF		\$	
0420	02697		EDGE LINE RUMBLE STRIPS	23,782.00	LF		\$	
0430	02701		TEMP SILT FENCE	4,000.00	LF		\$	
0440	02703		SILT TRAP TYPE A	41.00	EACH		\$	
0450	02704		SILT TRAP TYPE B	41.00	EACH		\$	
0460	02705		SILT TRAP TYPE C	41.00	EACH		\$	
0470	02706		CLEAN SILT TRAP TYPE A	41.00	EACH		\$	
0480	02707		CLEAN SILT TRAP TYPE B	41.00	EACH		\$	
0490	02708		CLEAN SILT TRAP TYPE C	41.00	EACH		\$	
0500	02720		SIDEWALK-4 IN CONCRETE	259.00	SQYD		\$	
0510	02726		STAKING	1.00	LS		\$	
0520	03171		CONCRETE BARRIER WALL TYPE 9T	800.00	LF		\$	
0530	05950		EROSION CONTROL BLANKET	13,009.00	SQYD		\$	
0540	05952		TEMP MULCH	129,757.00	SQYD		\$	
0550	05953		TEMP SEEDING AND PROTECTION	97,318.00	SQYD		\$	
0560	05963		INITIAL FERTILIZER	3.40	TON		\$	
0570	05964		MAINTENANCE FERTILIZER	5.70	TON		\$	
0580	05985		SEEDING AND PROTECTION	72,855.00	SQYD		\$	
0590	05990		SODDING	25,000.00	SQYD		\$	
0600	05992		AGRICULTURAL LIMESTONE	45.00	TON		\$	
0610	06404		FLEXIBLE DELINEATOR POST-M/Y	20.00	EACH		\$	
0620	06510		PAVE STRIPING-TEMP PAINT-4 IN	43,803.00	LF		\$	
0630	06514		PAVE STRIPING-PERM PAINT-4 IN	3,173.00	LF		\$	
0640	06542		PAVE STRIPING-THERMO-6 IN W	28,667.00	LF		\$	
0650	06543		PAVE STRIPING-THERMO-6 IN Y	16,250.00	LF		\$	
0660	06566		PAVE MARKING-THERMO X-WALK-12 IN	292.00	LF		\$	
0670	06568		PAVE MARKING-THERMO STOP BAR-24IN	211.00	LF		\$	
0680	06569		PAVE MARKING-THERMO CROSS-HATCH	6,640.00	SQFT		\$	
0690	06574		PAVE MARKING-THERMO CURV ARROW (REVISED 8-9-2024)	44.00	EACH		\$	
0700	06575		PAVE MARKING-THERMO COMB ARROW (REVISED 8-9-2024)	20.00	EACH		\$	
0710	06576		PAVE MARKING-THERMO ONLY	7.00	EACH		\$	
0720	06578		PAVE MARKING-THERMO MERGE ARROW	2.00	EACH		\$	
0730	06610		INLAID PAVEMENT MARKER-MW	146.00	EACH		\$	
0740	06612		INLAID PAVEMENT MARKER-BY	254.00	EACH		\$	
0750	06613		INLAID PAVEMENT MARKER-B W/R	150.00	EACH		\$	
0760	08903		CRASH CUSHION TY VI CLASS BT TL3	4.00	EACH		\$	
0770	10020NS		FUEL ADJUSTMENT	76,551.00	DOLL	\$1.00	\$	\$76,551.00
0780	10030NS		ASPHALT ADJUSTMENT	96,172.00	DOLL	\$1.00	\$	\$96,172.00
0790	20458ES403		CENTERLINE RUMBLE STRIPS	1,092.00	LF		\$	
0800	23158ES505		DETECTABLE WARNINGS	37.00	SQFT		\$	
0810	23608EC		YELLOW PAINT FOR MEDIAN SAFETY NOSE	12.00	SQFT		\$	
0820	23697EC		VINYL FENCE	1,327.00	LF		\$	
0830	24540		R/W MONUMENT TYPE 3	1.00	EACH		\$	
0840	24679ED		PAVE MARK THERMO CHEVRON	479.00	SQFT		\$	
0850	24889EC		PAVE MARKING-THERMO U-TURN (REVISED 8-9-2024)	4.00	EACH		\$	

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Section: 0003 - DRAINAGE

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0860	00440		ENTRANCE PIPE-15 IN	353.00	LF		\$	
0870	00441		ENTRANCE PIPE-18 IN	741.00	LF		\$	
0880	00443		ENTRANCE PIPE-24 IN	56.00	LF		\$	
0890	00460		CULVERT PIPE-12 IN	16.00	LF		\$	
0900	00461		CULVERT PIPE-15 IN	225.00	LF		\$	
0910	00462		CULVERT PIPE-18 IN	332.00	LF		\$	
0920	00464		CULVERT PIPE-24 IN	292.00	LF		\$	
0930	00469		CULVERT PIPE-42 IN	333.00	LF		\$	
0940	00521		STORM SEWER PIPE-15 IN	32.00	LF		\$	
0950	00524		STORM SEWER PIPE-24 IN	205.00	LF		\$	
0960	00980		SLOTTED DRAIN PIPE-12 IN	40.00	LF		\$	
0970	01396		METAL END SECTION TY 3-42 IN	4.00	EACH		\$	
0980	01432		SLOPED BOX OUTLET TYPE 1-15 IN	3.00	EACH		\$	
0990	01433		SLOPED BOX OUTLET TYPE 1-18 IN	2.00	EACH		\$	
1000	01434		SLOPED BOX OUTLET TYPE 1-24 IN	3.00	EACH		\$	
1010	01450		S & F BOX INLET-OUTLET-18 IN	7.00	EACH		\$	
1020	01451		S & F BOX INLET-OUTLET-24 IN	5.00	EACH		\$	
1030	01484		CURB BOX INLET TYPE B-T	2.00	EACH		\$	
1040	01496		DROP BOX INLET TYPE 3	1.00	EACH		\$	
1050	01508		DROP BOX INLET TYPE 5C	3.00	EACH		\$	
1060	01511		DROP BOX INLET TYPE 5D	1.00	EACH		\$	
1070	01517		DROP BOX INLET TYPE 5F	2.00	EACH		\$	
1080	01587		DROP BOX INLET TYPE 16S	2.00	EACH		\$	
1090	23610NC		CORED HOLE DRAINAGE BOX CON	2.00	EACH		\$	
1100	23911EC		GROUT	1.00	CUYD		\$	
1110	24814EC		PIPELINE INSPECTION	1,982.00	LF		\$	

Section: 0004 - BRIDGE - OVER UNNAMED CAVE

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1120	00071		CRUSHED AGGREGATE SIZE NO 57	587.00	TON		\$	
1130	02231		STRUCTURE GRANULAR BACKFILL	559.00	CUYD		\$	
1140	02603		FABRIC-GEOTEXTILE CLASS 2	1,002.00	SQYD		\$	
1150	03299		ARMORED EDGE FOR CONCRETE	242.00	LF		\$	
1160	08002		STRUCTURE EXCAV-SOLID ROCK	95.00	CUYD		\$	
1170	08003		FOUNDATION PREPARATION	1.00	LS		\$	
1180	08100		CONCRETE-CLASS A	165.10	CUYD		\$	
1190	08104		CONCRETE-CLASS AA	283.90	CUYD		\$	
1200	08150		STEEL REINFORCEMENT	14,573.00	LB		\$	
1210	08151		STEEL REINFORCEMENT-EPOXY COATED	56,539.00	LB		\$	
1220	08671		PRECAST PC BOX BEAM SB33	1,027.00	LF		\$	

Section: 0005 - SIGNING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
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PROPOSAL BID ITEMS

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LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1230	06406		SBM ALUM SHEET SIGNS .080 IN (REVISED 8-9-2024)	499.50	SQFT		\$	
1240	06407		SBM ALUM SHEET SIGNS .125 IN	253.00	SQFT		\$	
1250	06410		STEEL POST TYPE 1 (REVISED 8-9-2024)	1,387.00	LF		\$	
1260	06490		CLASS A CONCRETE FOR SIGNS	.50	CUYD		\$	
1270	20419ND		ROADWAY CROSS SECTION	1.00	EACH		\$	
1280	21596ND		GMSS TYPE D	11.00	EACH		\$	
1290	21813NN		REMOVE AND RELOCATE SHEET SIGNS	6.00	EACH		\$	
1300	24631EC		BARCODE SIGN INVENTORY	132.00	EACH		\$	

Section: 0006 - SIGNALIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1310	04820		TRENCHING AND BACKFILLING	80.00	LF		\$	
1320	04845		CABLE-NO. 14/7C	1,150.00	LF		\$	
1330	04886		MESSENGER-15400 LB (REVISED 8-9-2024)	650.00	LF		\$	
1340	04932		INSTALL STEEL STRAIN POLE	4.00	EACH		\$	
1350	04953		TEMP RELOCATION OF SIGNAL HEAD	16.00	EACH		\$	
1360	20188NS835		INSTALL LED SIGNAL-3 SECTION	7.00	EACH		\$	
1370	20266ES835		INSTALL LED SIGNAL- 4 SECTION	1.00	EACH		\$	
1380	20390NS835		INSTALL COORDINATING UNIT	1.00	EACH		\$	
1390	23157EN		TRAFFIC SIGNAL POLE BASE	20.00	CUYD		\$	
1395	24528ED		TETHER WIRE (ADDED 8-9-2024)	500.00	LF		\$	
1400	24901EC		PVC CONDUIT-2 IN-SCHEDULE 80	80.00	LF		\$	
1410	24908EC		INSTALL SIGNAL CONTROLLER-TY ATC	1.00	EACH		\$	
1420	24955ED		REMOVE SIGNAL EQUIPMENT	1.00	EACH		\$	
1430	26119EC		INSTALL RADAR PRESENCE DETECTOR TYPE A	3.00	EACH		\$	
1440	26120EC		INSTALL RADAR ADVANCE DETECTOR TYPE B	2.00	EACH		\$	

Section: 0007 - DEMOBILIZATION &/OR MOBILIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1450	02568		MOBILIZATION	1.00	LS		\$	
1460	02569		DEMOBILIZATION	1.00	LS		\$	

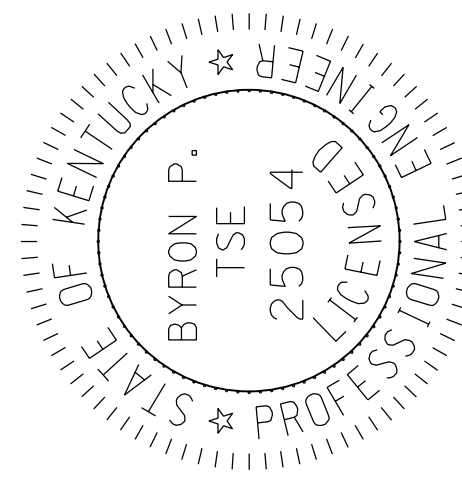
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ESTIMATE OF QUANTITIES

ITEM	CODE NUMBER	UNIT	PROJECT	QUANTITY	TOTALS	ITEM	CODE NUMBER	UNIT	PROJECT	QUANTITY	TOTALS	PROJECT	QUANTITY	TOTALS
GROUND MOUNTED SIGN SUPPORTS						OVERHEAD SIGN SUPPORTS ②								
⊕ TYPE A	6400	LBS.				OSS ALUMINUM 60 FT TRUSS	6422	EACH						
⊕ TYPE C	6441	LBS.				OSS ALUMINUM 65 FT TRUSS	6424	EACH						
FOOTINGS FOR SIGNS						OSS ALUMINUM 70 FT TRUSS	6426	EACH						
CONCRETE - CLASS "A" FOR SIGNS	6490	CU.YD.	0.5		0.5	OSS ALUMINUM 75 FT TRUSS	6436	EACH						
REINFORCEMENT STEEL	6491	LBS.	-		-	OSS ALUMINUM 80 FT TRUSS	6438	EACH						
SIGN BASE MATERIAL						OSS ALUMINUM 85 FT TRUSS	6443	EACH						
ALUMINUM						OSS ALUMINUM 90 FT TRUSS	6445	EACH						
② PANEL SIGNS	6405	SQ.FT.				OSS ALUMINUM 95 FT TRUSS	6453	EACH						
③ SHEETING SIGNS						OSS ALUMINUM 100 FT TRUSS	6455	EACH						
0.080 GAUGE	6406	SO.FT.	499.5		499.5	OSS ALUMINUM 105 FT TRUSS	6457	EACH						
0.125 GAUGE	6407	SO.FT.	253		253	OSS ALUMINUM 110 FT TRUSS	6459	EACH						
STEEL POST ④⑤						OSS ALUMINUM 115 FT TRUSS	6461	EACH						
TYPE 1	6410	LN.FT.	1,387		1,387	OSS ALUMINUM 120 FT TRUSS	6463	EACH						
TYPE 2	6411	LN.FT.				OSS ALUMINUM 125 FT TRUSS	6465	EACH						
⑥ GMSS TYPE D ④	21596ND	EACH	11		11	OSS ALUMINUM 130 FT TRUSS	6467	EACH						
⑦ MILE MARKERS	6412	EACH				OSS ALUMINUM 135 FT TRUSS	6469	EACH						
REFERENCE MARKERS	4903	EACH				OSS ALUMINUM 140 FT TRUSS	6471	EACH						
DELINEATORS						OSS GALV STEEL CANTILEVER MOD	6201	EACH						
WHITE	6413	EACH				OSS GALV STEEL CANTILEVER	6415	EACH						
AMBER	6414	EACH				SIGN BRIDGE ATTACHMENT BRACKET	6448	EACH						
REMOVAL ITEMS ⑧⑨						MISCELLANEOUS								
REMOVE OVERHEAD SIGN SUPPORT						BARRIER MOUNTING BRACKET	4904	EACH						
STRUCTURE	6449	EACH				BARRIER WALL POST	20912ND	EACH						
⑩ REMOVE OVERHEAD SIGN SUPPORT						ROADWAY CROSS SECTION	20419ND	EACH	1		1			
STRUCTURE CONCRETE BASE	6450	EACH				FLEXIBLE DELINEATOR POSTS								
⑪ REMOVE SIGN SUPPORT BEAMS	6451	EACH				Ⓢ WHITE	6417	EACH						
REMOVE SIGN	21373ND	EACH				Ⓢ YELLOW	6418	EACH						
REMOVE & RELOCATE SIGNS	20418ED	EACH				STAKING	2726	L.S.						
REMOVE AND RELOCATE SHEET SIGNS	21813NN	EACH	6		6	FLASHING ARROW	2775	EACH						
REMOVE AND RELOCATE SIGN ASSEMBLY	22400NN	EACH				DEMOBILIZATION	2569	L.S.						
STEEL "W" BEAM GUARDRAIL						MAINTAIN & CONTROL TRAFFIC	2650	L.S.						
SINGLE FACE	2351	LN.FT.				BARCODE SIGN INVENTORY	2463IEC	EACH	132		132			
DOUBLE FACE	2352	LN.FT.												
END TREATMENT TYPE 1	2367	EACH												
END TREATMENT TYPE 2A	2369	EACH												

NOTES :

- (1) PAYMENT FOR GROUND MOUNTED SIGN SUPPORTS TYPE A AND TYPE C SHALL BE BASED ON THE NOMINAL WEIGHT OF THE BEAMS, THE NECESSARY GALVANIZING, HARDWARE, ETC. IS TO BE CONSIDERED INCIDENTAL. QUANTITIES FOR TYPE C SUPPORTS SHALL INCLUDE ALL NECESSARY HARDWARE TO FORM COMPLETE BREAK-AWAY BEAMS. SEE PANEL SIGN DETAIL SHEET.
- (2) QUANTITY SHALL INCLUDE ALL COPY AND HARDWARE NECESSARY TO FORM COMPLETE SIGNS. NO DEDUCTION IN AREA IS TO BE MADE FOR ROUNDING OF CORNERS.
- (3) WITH PERMISSION OF THE ENGINEER, SHEETING SIGNS ON THE RAMPS AND SIDE ROADS MAY BE MOVED TO BE COMPATIBLE WITH THE EXISTING SIGNS.
- (4) QUANTITY IS ESTIMATED. THE EXACT LENGTH SHALL BE DETERMINED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.
- (5) WHERE REQUIRED, BRACING FOR SHEETING SIGNS SHALL BE INCIDENTAL TO STEEL POST. SEE SHEETING SIGN DETAIL SHEET.
- (6) QUANTITY SHALL INCLUDE ALL MATERIAL NECESSARY TO FORM A COMPLETE BREAK-AWAY ASSEMBLY, TYPE I POSTS AND CONCRETE SHALL BE PAID SEPARATELY, SEE SHEETING SIGN DETAIL SHEET, TYPE D SURFACE MOUNTS DO NOT REQUIRE CONCRETE.
- (7) QUANTITY SHALL INCLUDE SIGN AND POST.
- (8) ALL MATERIALS REMOVED AND NOT REUSED, SUCH AS SIGNS, SIGN LIGHTS, SIGN SUPPORTS, ETC. SHALL BECOME THE PROPERTY OF THE CONTRACTOR.
- (9) THE REMOVAL OF ALL TYPE I OR II POSTS AND ALL SHEETING SIGNS SHALL BE INCIDENTAL TO THE PROJECT WITH NO ADDITIONAL PAYMENT BEING ALLOWED. ALL MATERIAL SHALL BE STORED IN ACCORDANCE WITH NOTE (8) ABOVE.
- (10) WHERE THE REMOVAL OF OVERHEAD STRUCTURE CONCRETE BASE IS CALLED FOR, THE BASE IS TO BE REMOVED TO A MINIMUM OF ONE FOOT (1') BELOW THE GROUND LINE, BACKFILLED TO EXISTING GROUND LINE, AND THE DISTURBED AREAS RESEDED.
- (11) WHERE THE REMOVAL OF BEAM SIGN SUPPORTS IS CALLED FOR, THE BEAM AND ANY CONCRETE PROJECTING ABOVE THE GROUND LINE ARE TO BE CUT OFF A MINIMUM OF ONE FOOT (1') BELOW EXISTING GROUND LINE OR THE ENTIRE BEAM AND CONCRETE BASE ARE TO BE REMOVED COMPLETELY AND BACKFILLED TO EXISTING GROUND LINE.
- (12) QUANTITY SHALL INCLUDE W-BARS AND ALL HARDWARE NECESSARY FOR ATTACHING SIGNS TO SUPPORTS.
- (13) QUANTITY IS ESTIMATED. THE EXACT NUMBER SHALL BE DETERMINED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. SEE SIGNING POSITIONING DETAIL SHEET FOR DELINEATOR PLACEMENT.
- (14) 9 OF 11 ARE GMSS TYPE D SURFACE MOUNT: S-12, S-20, S-23, S-21, S-22, S-26 AND S-55.
2 OF 11 ARE GMSS TYPE D



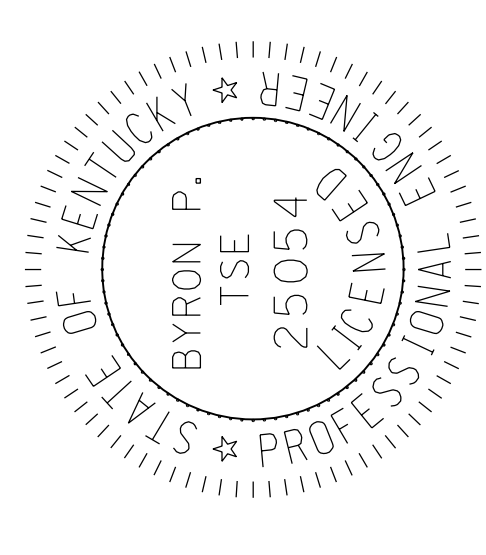
SIGNING

ESTIMATE OF QUANTITIES

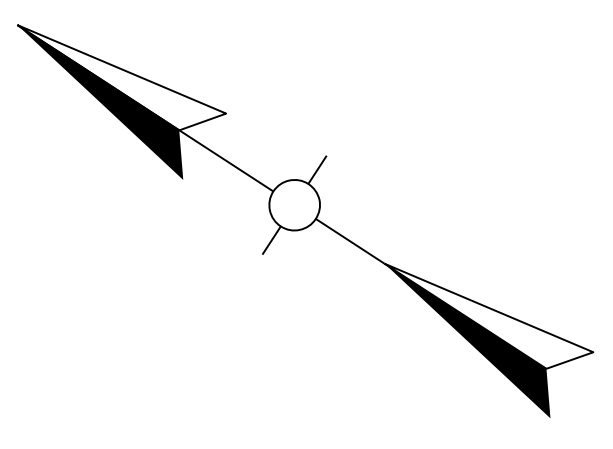
ITEM	CODE NUMBER	UNIT	PROJECT		TOTALS	ITEM	CODE NUMBER	UNIT	PROJECT		TOTALS
			QUANTITY						QUANTITY		
GROUND MOUNTED SIGN SUPPORTS						OVERHEAD SIGN SUPPORTS ②					
⊕ TYPE A	6400	LBS.				OSS ALUMINUM 60 FT TRUSS	6422	EACH			
⊕ TYPE C	6441	LBS.				OSS ALUMINUM 65 FT TRUSS	6424	EACH			
FOOTINGS FOR SIGNS						OSS ALUMINUM 70 FT TRUSS	6426	EACH			
CONCRETE - CLASS "A" FOR SIGNS	6490	CU.YD.	0.5		0.5	OSS ALUMINUM 75 FT TRUSS	6436	EACH			
REINFORCEMENT STEEL	6491	LBS.	-		-	OSS ALUMINUM 80 FT TRUSS	6438	EACH			
SIGN BASE MATERIAL						OSS ALUMINUM 85 FT TRUSS	6443	EACH			
ALUMINUM						OSS ALUMINUM 90 FT TRUSS	6445	EACH			
② PANEL SIGNS	6405	SQ.FT.				OSS ALUMINUM 95 FT TRUSS	6453	EACH			
③ SHEETING SIGNS						OSS ALUMINUM 100 FT TRUSS	6455	EACH			
0.080 GAUGE	6406	SQ.FT.	499.5		499.5	OSS ALUMINUM 105 FT TRUSS	6457	EACH			
0.125 GAUGE	6407	SQ.FT.	253		253	OSS ALUMINUM 110 FT TRUSS	6459	EACH			
STEEL POST ④⑤						OSS ALUMINUM 115 FT TRUSS	6461	EACH			
TYPE 1	6410	LN.FT.	1,387		1,387	OSS ALUMINUM 120 FT TRUSS	6463	EACH			
TYPE 2	6411	LN.FT.	1,387		1,387	OSS ALUMINUM 125 FT TRUSS	6465	EACH			
⑥ GMSS TYPE D ④	21596ND	EACH	11		11	OSS ALUMINUM 130 FT TRUSS	6467	EACH			
⑦ MILE MARKERS	6412	EACH				OSS ALUMINUM 135 FT TRUSS	6469	EACH			
REFERENCE MARKERS	4903	EACH				OSS ALUMINUM 140 FT TRUSS	6471	EACH			
DELINEATORS						OSS GALV STEEL CANTILEVER MOD	6201	EACH			
WHITE	6413	EACH				OSS GALV STEEL CANTILEVER	6415	EACH			
AMBER	6414	EACH				SIGN BRIDGE ATTACHMENT BRACKET	6448	EACH			
REMOVAL ITEMS ⑧⑨						MISCELLANEOUS					
REMOVE OVERHEAD SIGN SUPPORT						BARRIER MOUNTING BRACKET	4904	EACH			
STRUCTURE	6449	EACH				BARRIER WALL POST	20912ND	EACH			
⑩ REMOVE OVERHEAD SIGN SUPPORT						ROADWAY CROSS SECTION	20419ND	EACH	1		1
STRUCTURE CONCRETE BASE	6450	EACH				FLEXIBLE DELINEATOR POSTS					
⑪ REMOVE SIGN SUPPORT BEAMS	6451	EACH				Ⓢ WHITE	6417	EACH			
REMOVE SIGN	21373ND	EACH				Ⓢ YELLOW	6418	EACH			
REMOVE & RELOCATE SIGNS	20418ED	EACH				STAKING	2726	L.S.			
REMOVE AND RELOCATE SHEET SIGNS	21813NN	EACH	6		6	FLASHING ARROW	2775	EACH			
REMOVE AND RELOCATE SIGN ASSEMBLY	22400NN	EACH				DEMOBILIZATION	2569	L.S.			
STEEL "W" BEAM GUARDRAIL						MAINTAIN & CONTROL TRAFFIC	2650	L.S.			
SINGLE FACE	2351	LN.FT.				BARCODE SIGN INVENTORY	24631EC	EACH	132		132
DOUBLE FACE	2352	LN.FT.									
END TREATMENT TYPE 1	2367	EACH									
END TREATMENT TYPE 2A	2369	EACH									

NOTES :

- PAYMENT FOR GROUND MOUNTED SIGN SUPPORTS TYPE A AND TYPE C SHALL BE BASED ON THE NOMINAL WEIGHT OF THE BEAMS, THE NECESSARY GALVANIZING, HARDWARE, ETC. IS TO BE CONSIDERED INCIDENTAL. QUANTITIES FOR TYPE C SUPPORTS SHALL INCLUDE ALL NECESSARY HARDWARE TO FORM COMPLETE BREAK-AWAY BEAMS. SEE PANEL SIGN DETAIL SHEET.
- QUANTITY SHALL INCLUDE ALL COPY AND HARDWARE NECESSARY TO FORM COMPLETE SIGNS. NO DEDUCTION IN AREA IS TO BE MADE FOR ROUNDING OF CORNERS.
- WITH PERMISSION OF THE ENGINEER, SHEETING SIGNS ON THE RAMPS AND SIDE ROADS MAY BE MOVED TO BE COMPATIBLE WITH THE EXISTING SIGNS.
- QUANTITY IS ESTIMATED. THE EXACT LENGTH SHALL BE DETERMINED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.
- WHERE REQUIRED, BRACING FOR SHEETING SIGNS SHALL BE INCIDENTAL TO STEEL POST. SEE SHEETING SIGN DETAIL SHEET.
- QUANTITY SHALL INCLUDE ALL MATERIAL NECESSARY TO FORM A COMPLETE BREAK-AWAY ASSEMBLY. TYPE I POSTS AND CONCRETE SHALL BE PAID SEPARATELY. SEE SHEETING SIGN DETAIL SHEET. TYPE D SURFACE MOUNTS DO NOT REQUIRE CONCRETE.
- QUANTITY SHALL INCLUDE SIGN AND POST.
- ALL MATERIALS REMOVED AND NOT REUSED, SUCH AS SIGNS, SIGN LIGHTS, SIGN SUPPORTS, ETC. SHALL BECOME THE PROPERTY OF THE CONTRACTOR.
- THE REMOVAL OF ALL TYPE I OR II POSTS AND ALL SHEETING SIGNS SHALL BE INCIDENTAL TO THE PROJECT WITH NO ADDITIONAL PAYMENT BEING ALLOWED. ALL MATERIAL SHALL BE STORED IN ACCORDANCE WITH NOTE (8) ABOVE.
- WHERE THE REMOVAL OF OVERHEAD STRUCTURE CONCRETE BASE IS CALLED FOR, THE BASE IS TO BE REMOVED TO A MINIMUM OF ONE FOOT (1') BELOW THE GROUND LINE, BACKFILLED TO EXISTING GROUND LINE, AND THE DISTURBED AREAS RESEDED.
- WHERE THE REMOVAL OF BEAM SIGN SUPPORTS IS CALLED FOR, THE BEAM AND ANY CONCRETE PROJECTING ABOVE THE GROUND LINE ARE TO BE CUT OFF A MINIMUM OF ONE FOOT (1') BELOW EXISTING GROUND LINE OR THE ENTIRE BEAM AND CONCRETE BASE ARE TO BE REMOVED COMPLETELY AND BACKFILLED TO EXISTING GROUND LINE.
- QUANTITY SHALL INCLUDE W-BARS AND ALL HARDWARE NECESSARY FOR ATTACHING SIGNS TO SUPPORTS.
- QUANTITY IS ESTIMATED. THE EXACT NUMBER SHALL BE DETERMINED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. SEE SIGNING POSITIONING DETAIL SHEET FOR DELINEATOR PLACEMENT.
- 9 OF 11 ARE GMSS TYPE D SURFACE MOUNT: S-12, S-20, S-23, S-21, S-22, S-26 AND S-55.
2 OF 11 ARE GMSS TYPE D



COUNTY OF	WARREN
ITEM NO.	03-8905.00
SHEET NO.	T009

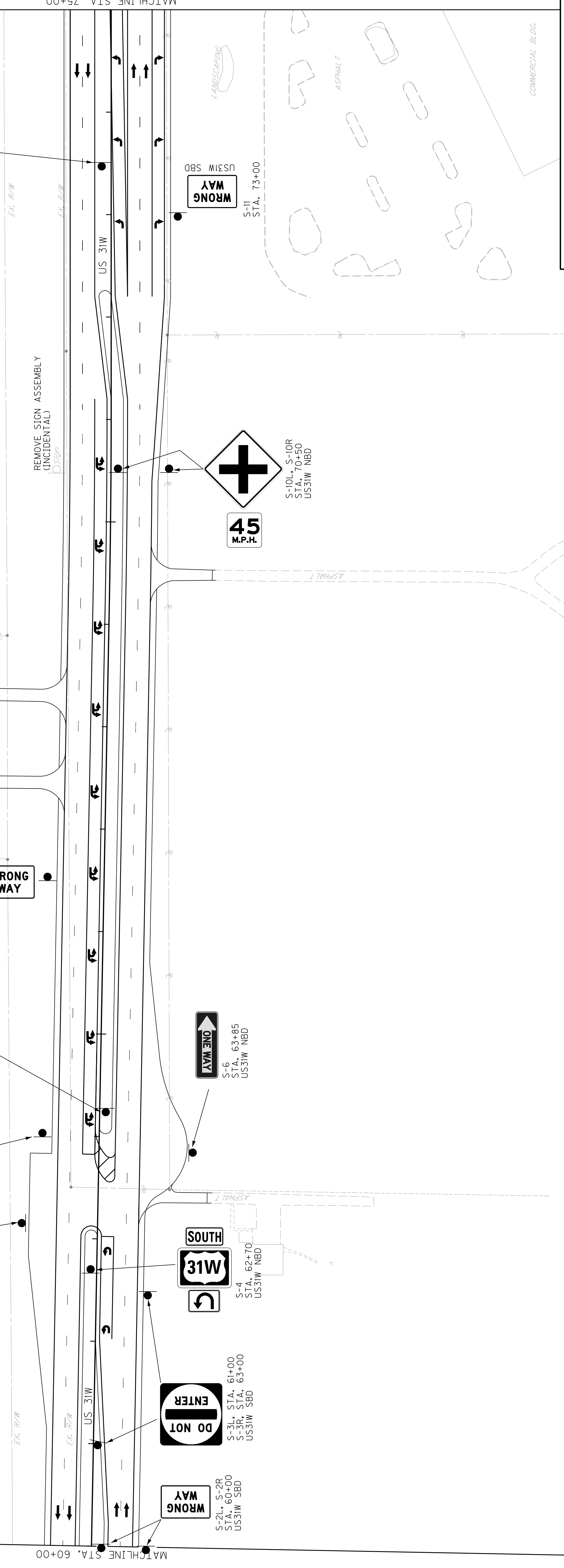
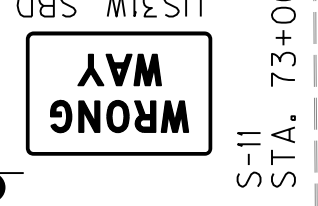
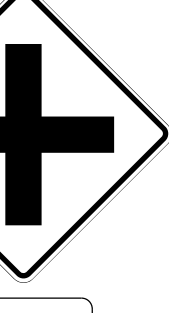
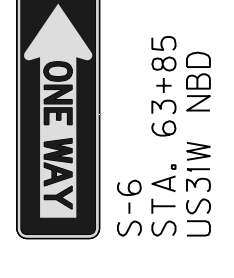
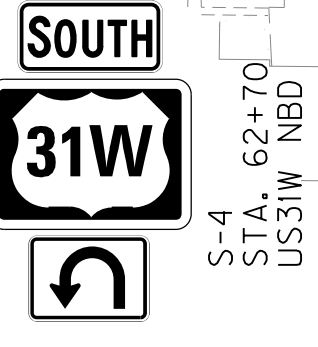
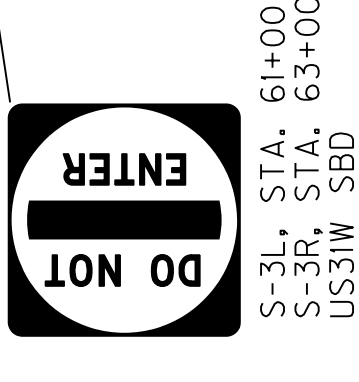
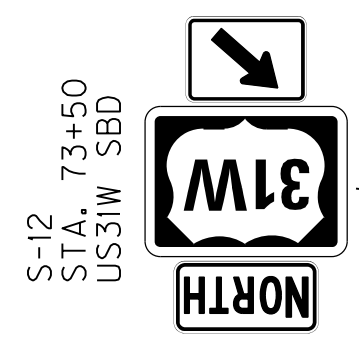
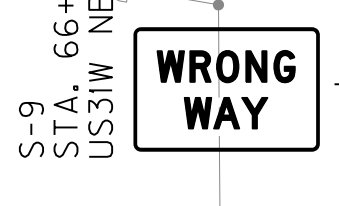
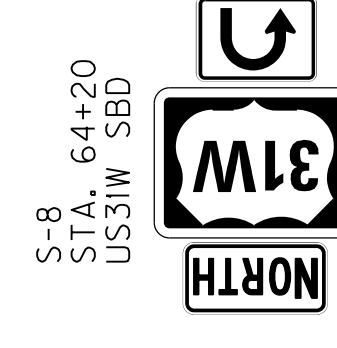
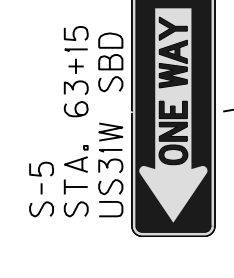


70+00

65+00

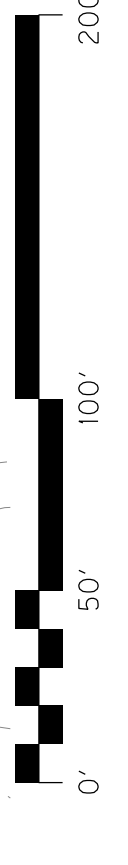
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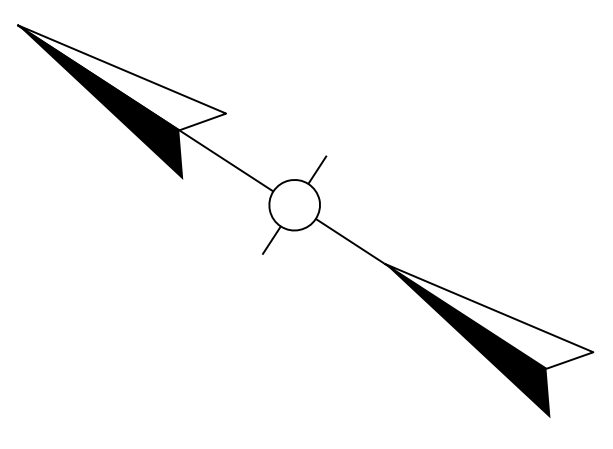


US 31W
SIGNING PLAN
STA. 60+00 TO STA. 75+00

SCALE: 1"=50'



COUNTY OF	WARREN
ITEM NO.	03-8905.00
SHEET NO.	T009

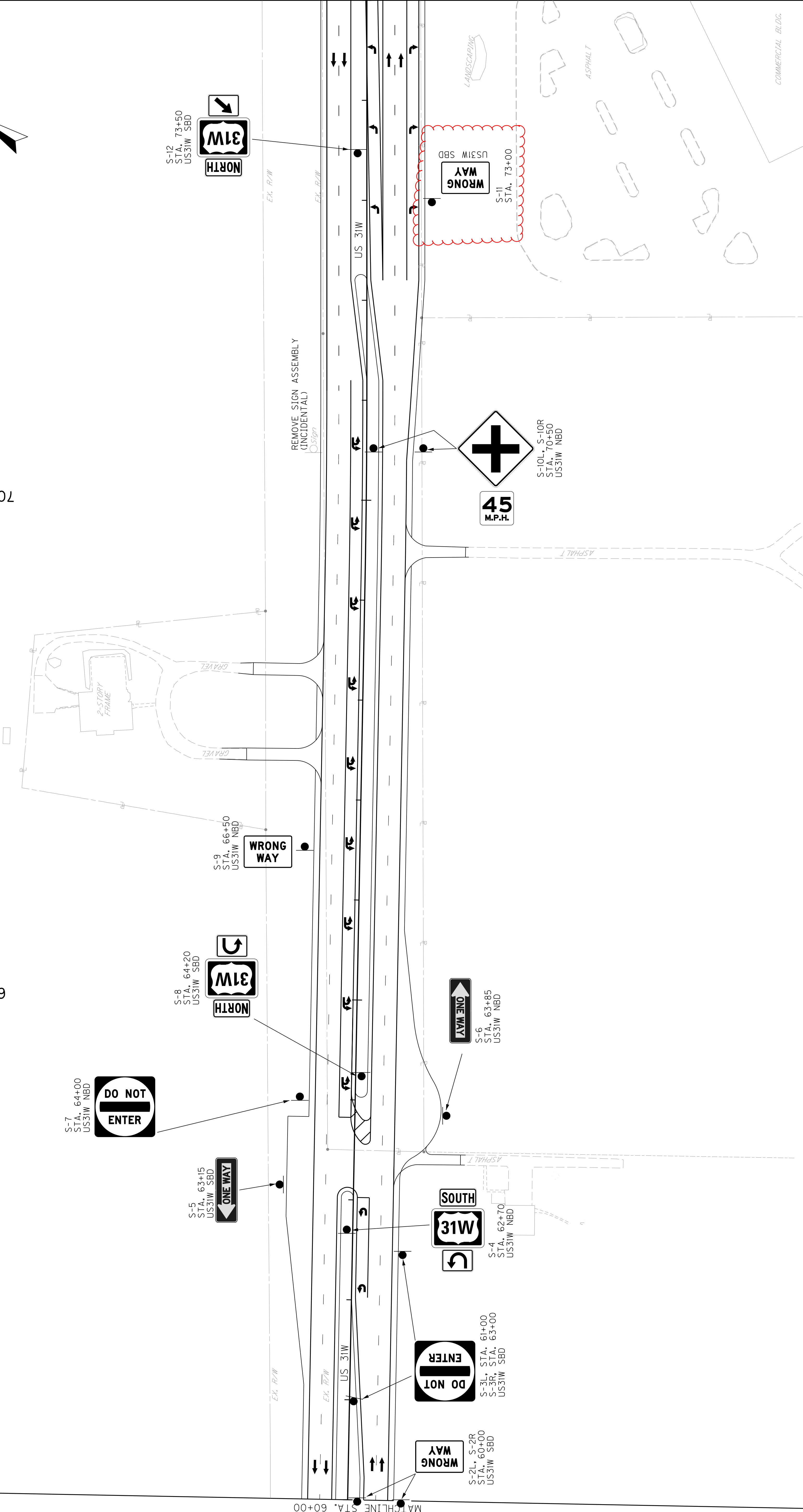


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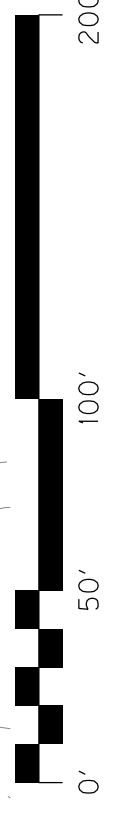
MATCHLINE STA. 75+00

MATCHLINE STA. 60+00

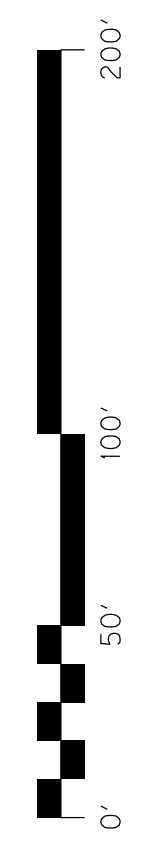
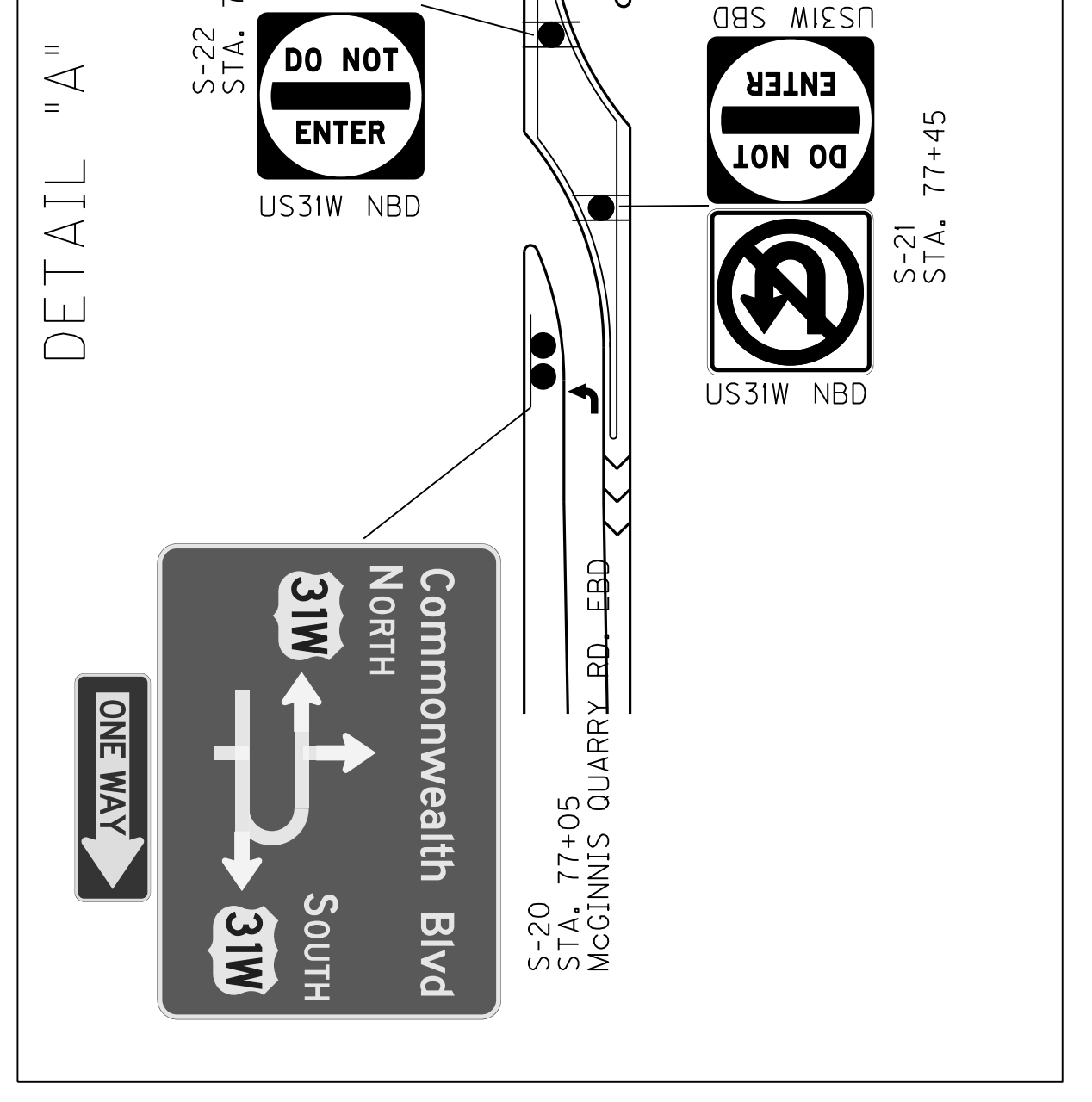
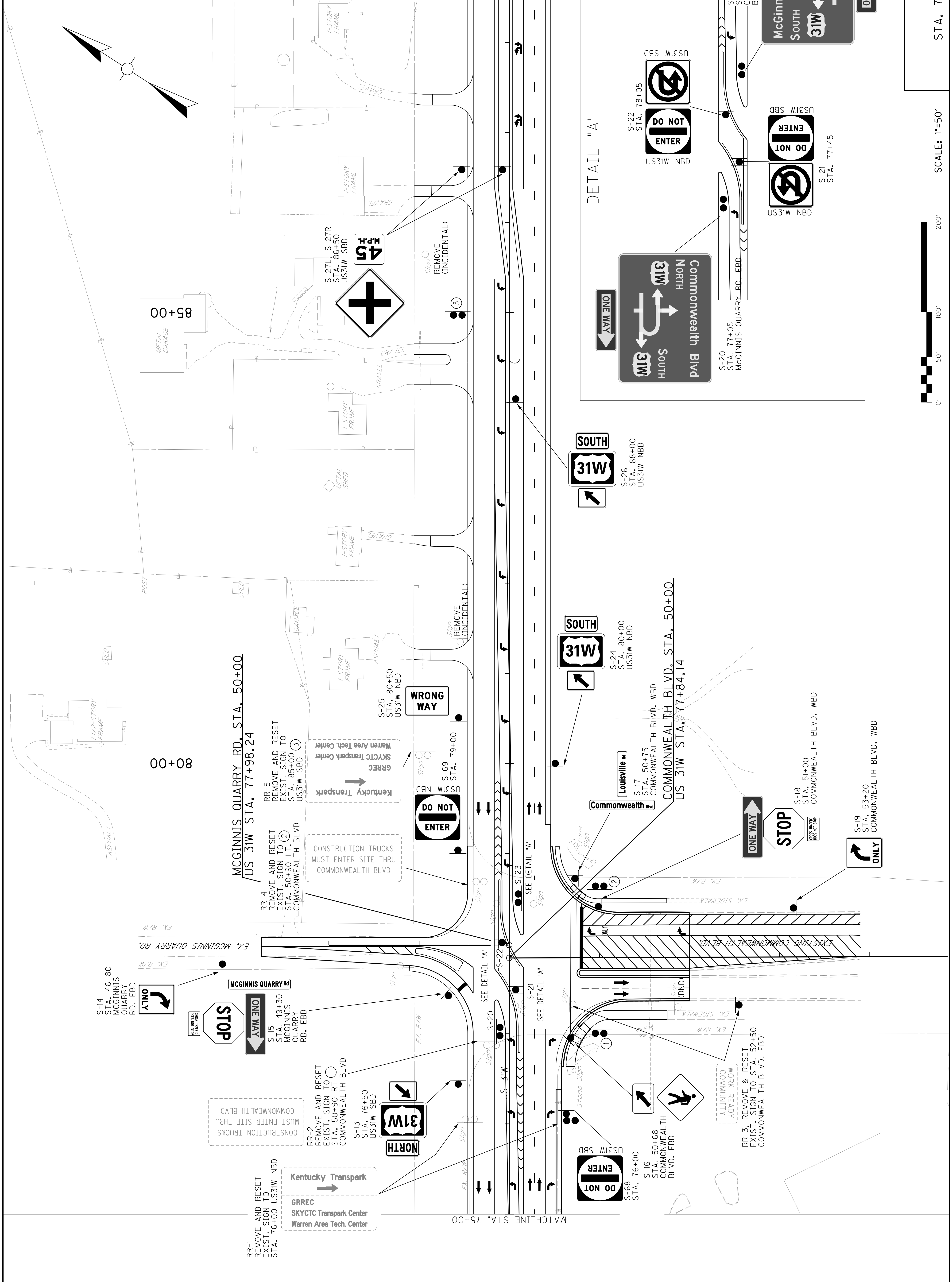


US 31W
SIGNING PLAN
STA. 60+00 TO STA. 75+00

SCALE: 1"=50'



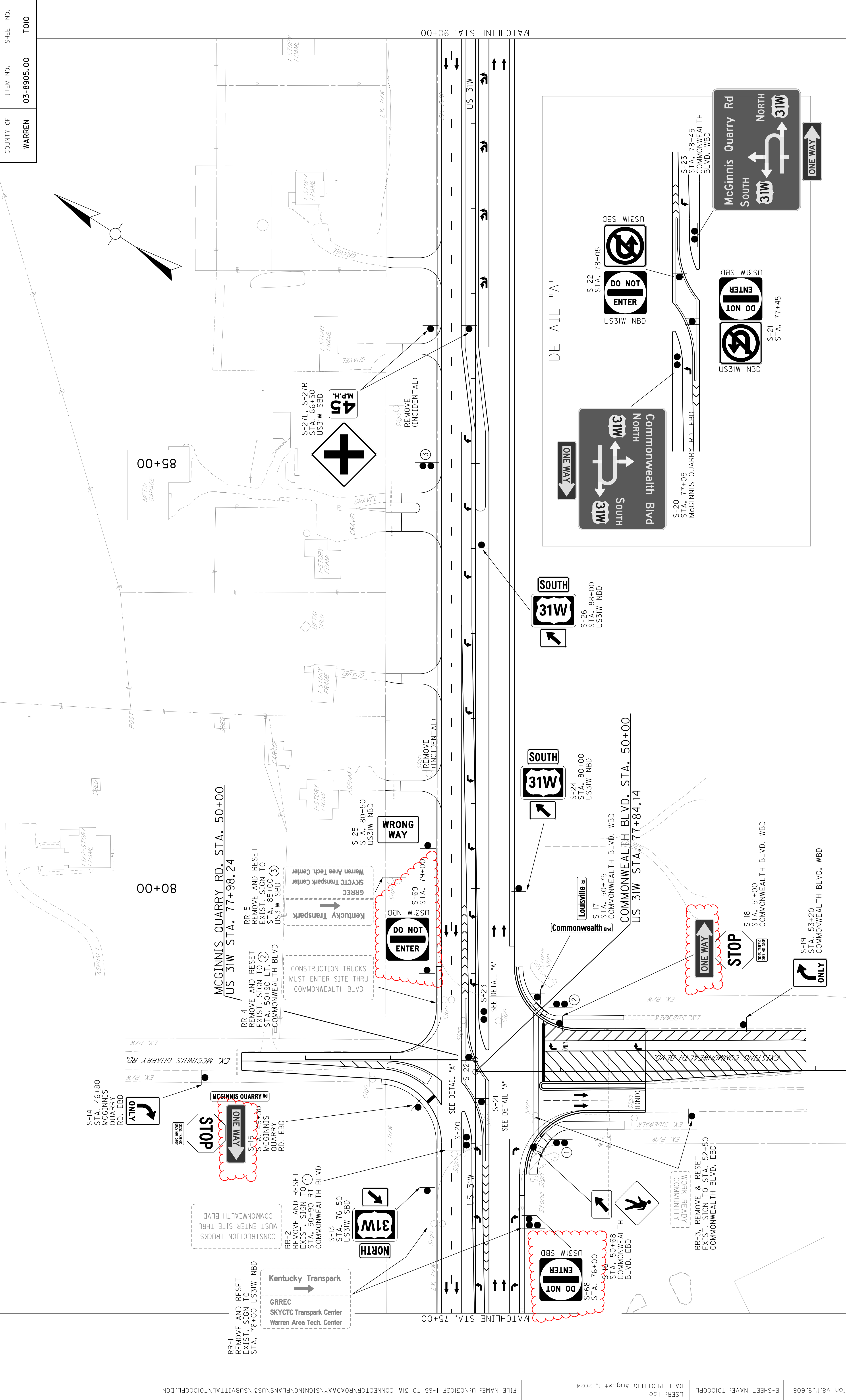
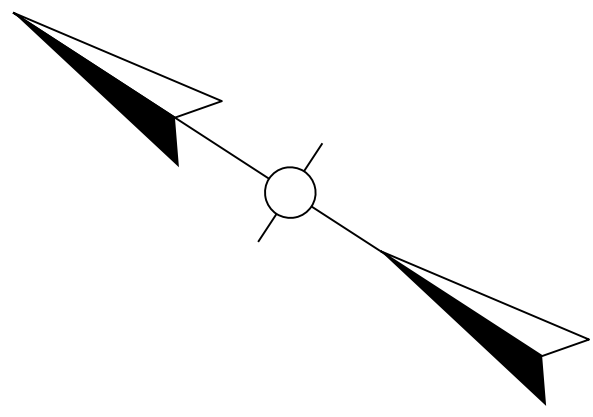
COUNTY OF	WARREN	SHEET NO.	T010
ITEM NO.	03-8905.00		



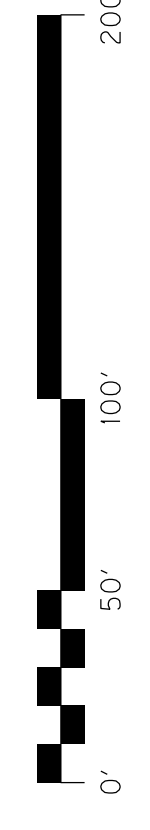
US 31W
SIGNING PLAN
STA. 75+00 TO STA. 90+00

SCALE: 1"=50'

COUNTY OF	WARREN	ITEM NO.	03-8905.00	SHEET NO.	T010
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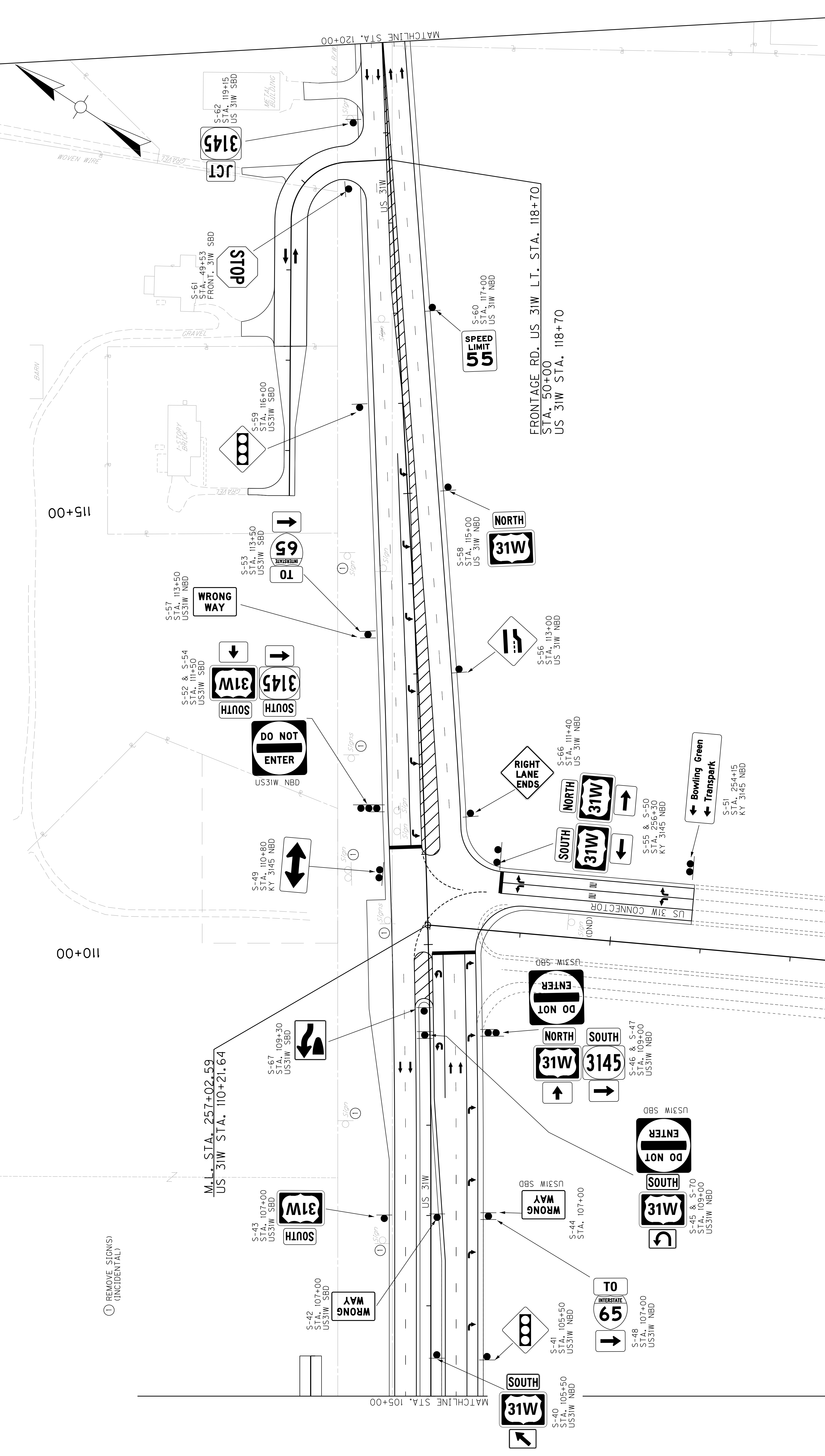
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 DATE PLOTTED: August 1, 2024
 USER: tse
 E-SHEET NAME: T0100PL
 MicroStation v8.11.9.608
 SCALE: 1"=50'
 US 31W SIGNING PLAN
 STA. 75+00 TO STA. 90+00



MATCHLINE STA. 90+00

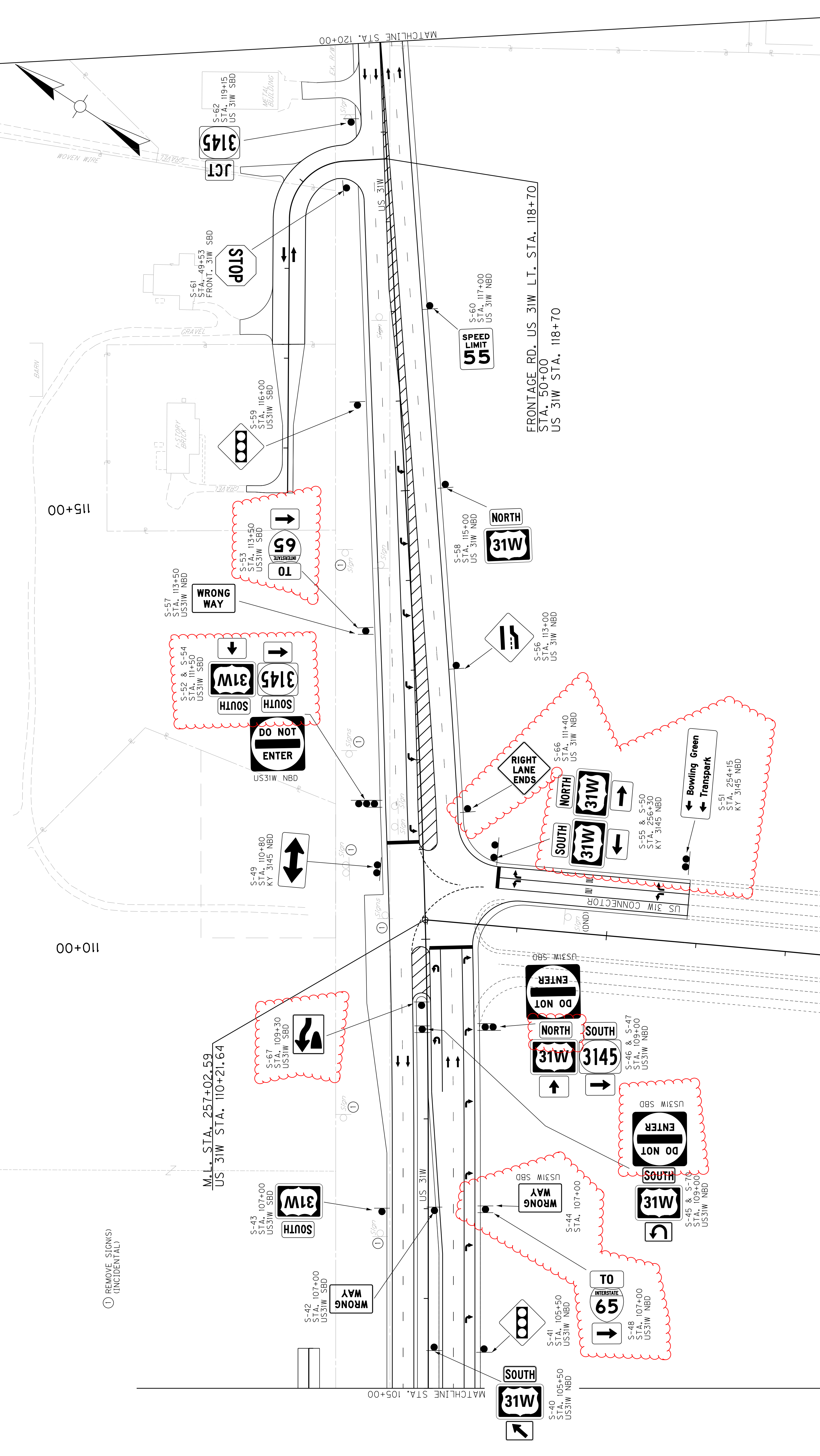
MATCHLINE STA. 75+00

COUNTY OF	WARREN
ITEM NO.	03-8905.00
SHEET NO.	TO12

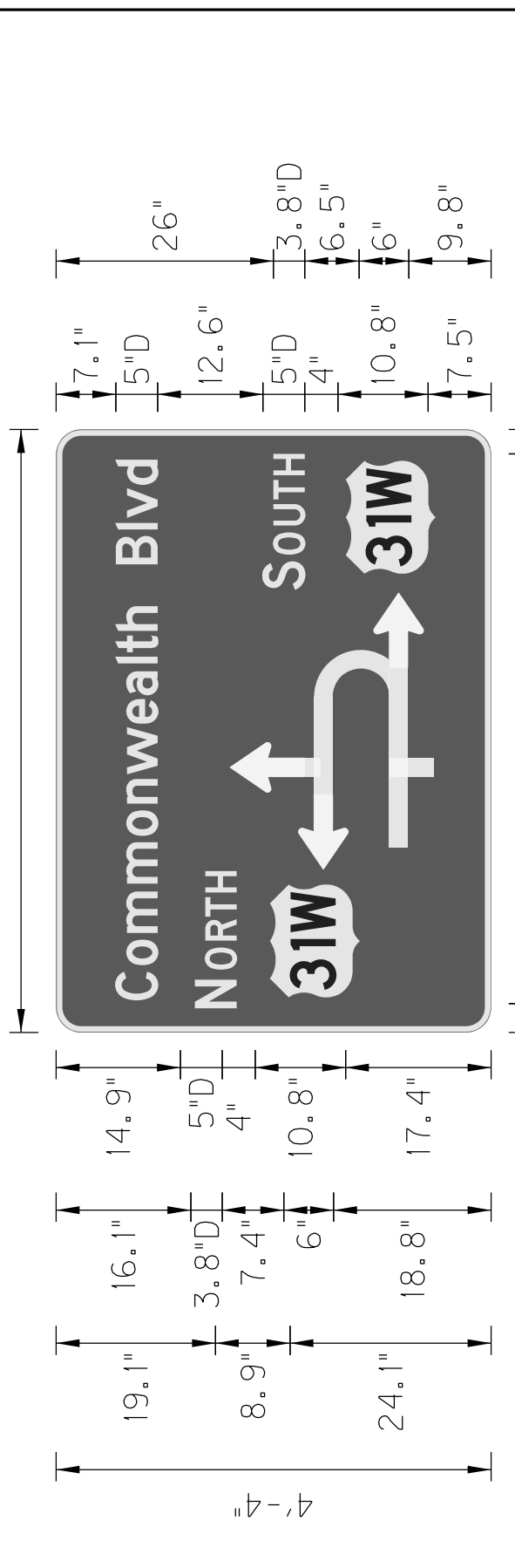


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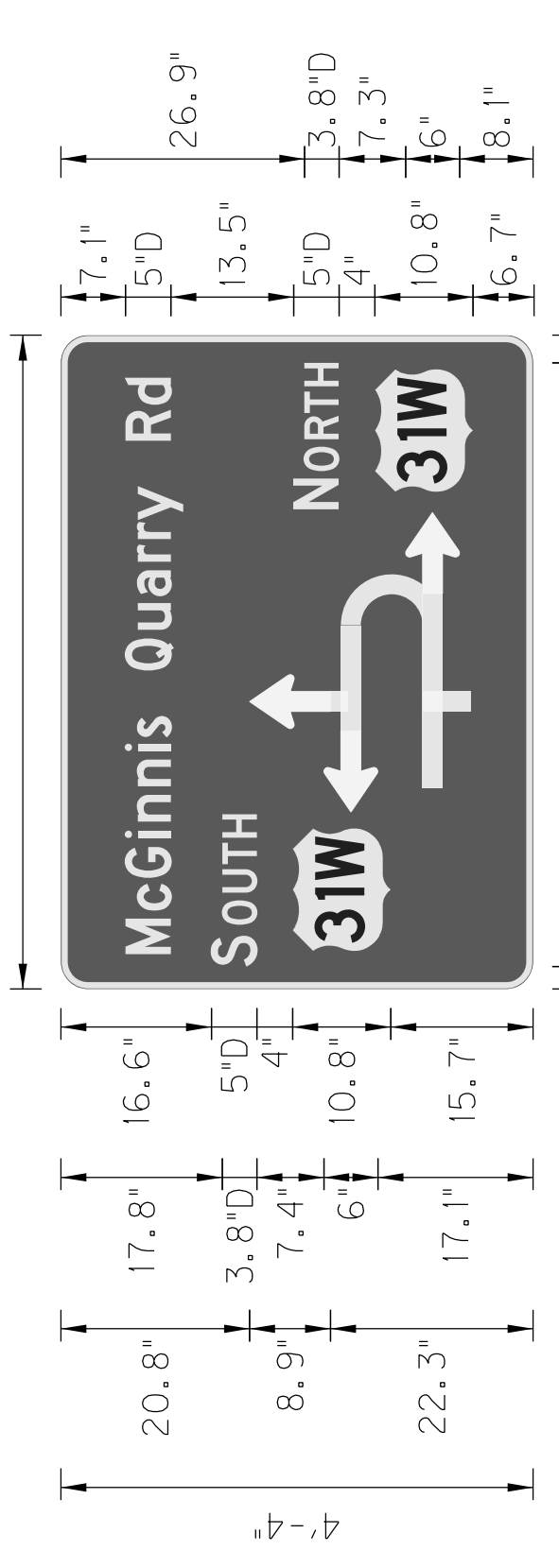
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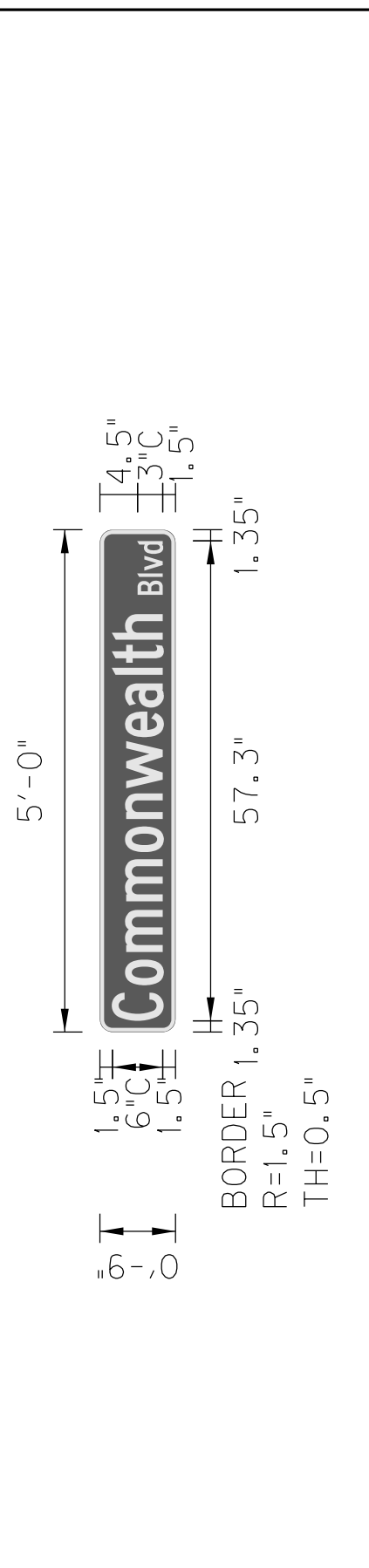
GENERAL NOTES:



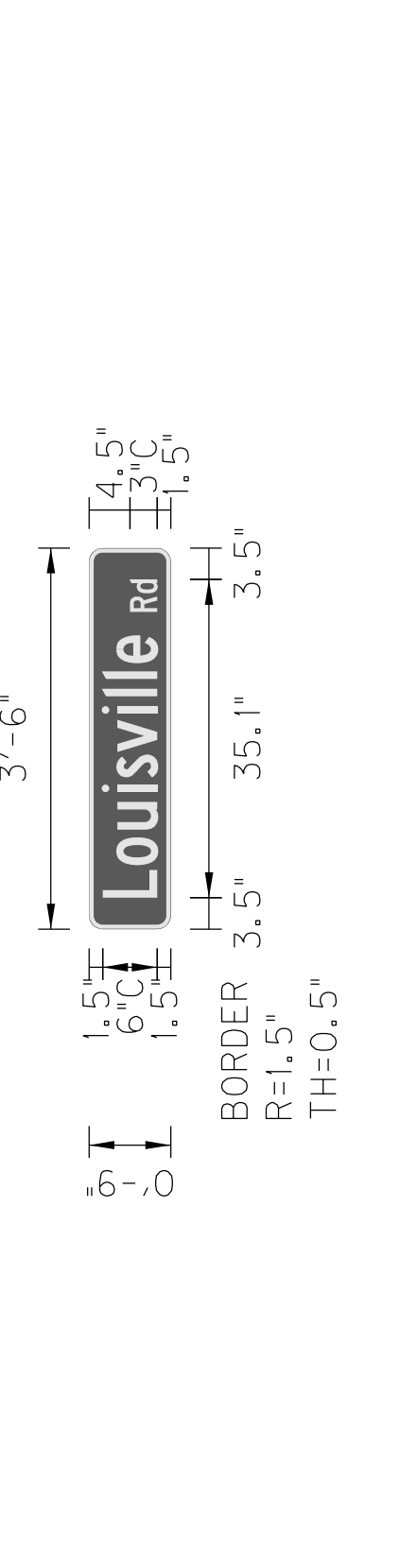
SIGN INFORMATION		SIGN LOCATION / SUPPORT		SUPPORT TYPE	
SIGN NUMBER	S-20	ROAD & MILE POINT	US 31W	SUPPORT TYPE	'D' SURFACE MOUNT
QUANTITY	1	TRAFFIC DIRECTION	SBD (MCGINNIS RD.)	'A' = FIXED BEAMS	'A' = FIXED BEAMS
WIDTH	6'-0"	SIDE OF ROAD	MEDIAN	'B' = STANDARD BREAK-A-WAY BEAMS	'B' = STANDARD BREAK-A-WAY BEAMS
HEIGHT	4'-6"	MOUNTING STYLE	2 - TYPE 1 POSTS	'C' = OMNI-DIRECTIONAL BREAK-A-WAY	'C' = OMNI-DIRECTIONAL BREAK-A-WAY
AREA (Sq. Ft.)	26.00 Sq.Ft	BEAM MATERIAL	2 1/2"	HORIZONTAL CLEARANCE	
BORDER WIDTH	0.75"	POST SIZE	2 1/2"		
BORDER RADIUS	3"	BEAM/POST LENGTH	1. = 11.5'	SYMBOL	X Y WIDTH HEIGHT
PANEL COLOR	Green	BEAM/POST LENGTH	2. = 11.5'	US .31W	4.2 15.7 13.5 11.8
LEGEND/BORDER COLOR	White/White	BEAM/POST LENGTH	3. =	US .31W	54.8 6.6 13.5 11.8
STATION(S)	77+05	BEAM/POST LENGTH	4. =	AR.L/RCUT	19.5 6.8 33 24.4
PANEL MATERIAL	Reflective	CONC 'a' =			
LEGEND MATERIAL	Reflective	CONC 'b' =			



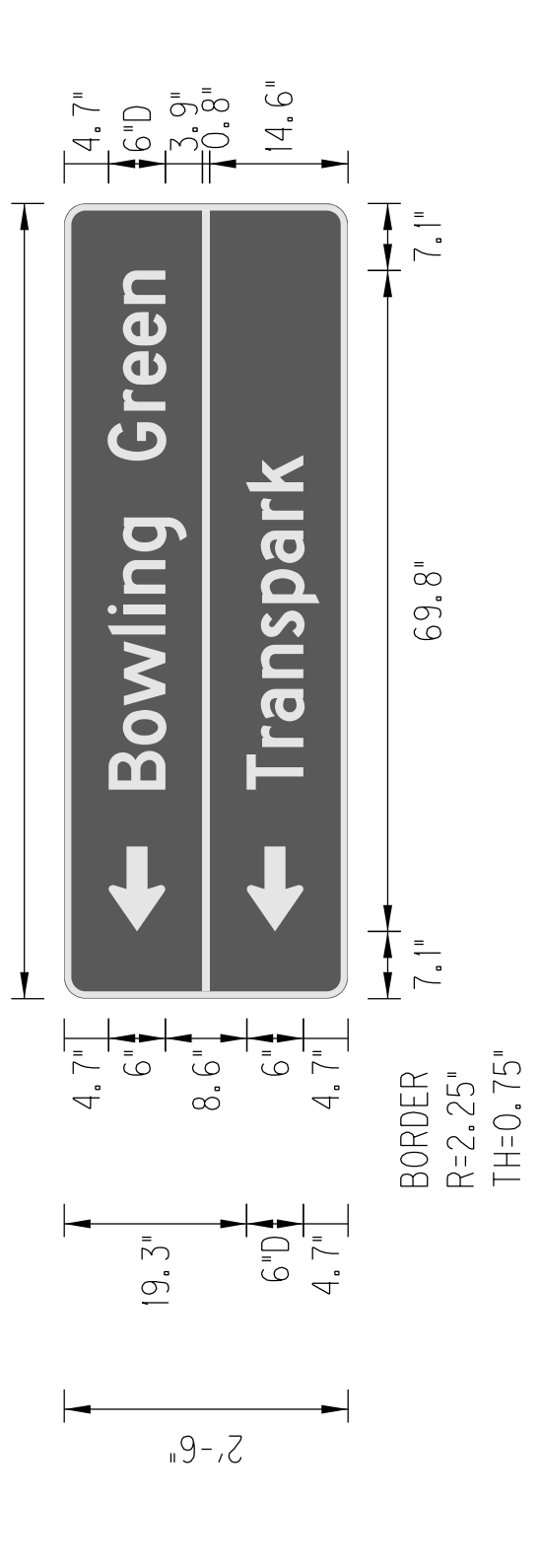
SIGN INFORMATION		SIGN LOCATION / SUPPORT		SUPPORT TYPE	
SIGN NUMBER	S-23	ROAD & MILE POINT	US 31W	SUPPORT TYPE	'D' SURFACE MOUNT
QUANTITY	1	TRAFFIC DIRECTION	NBD (Commonwealth)	'A' = FIXED BEAMS	'A' = FIXED BEAMS
WIDTH	6'-0"	SIDE OF ROAD	MEDIAN	'B' = STANDARD BREAK-A-WAY BEAMS	'B' = STANDARD BREAK-A-WAY BEAMS
HEIGHT	4'-6"	MOUNTING STYLE	2 - TYPE 1 POSTS	'C' = OMNI-DIRECTIONAL BREAK-A-WAY	'C' = OMNI-DIRECTIONAL BREAK-A-WAY
AREA (Sq. Ft.)	26.00 Sq.Ft	BEAM MATERIAL	2 1/2"	HORIZONTAL CLEARANCE	
BORDER WIDTH	0.75"	POST SIZE	2 1/2"		
BORDER RADIUS	3"	BEAM/POST LENGTH	1. = 11.5'	SYMBOL	X Y WIDTH HEIGHT
PANEL COLOR	Green	BEAM/POST LENGTH	2. = 11.5'	US .31W	4.2 15.7 13.5 11.8
LEGEND/BORDER COLOR	White/White	BEAM/POST LENGTH	3. =	US .31W	54.8 6.6 13.5 11.8
STATION(S)	78+45	BEAM/POST LENGTH	4. =	AR.L/RCUT	19.5 6.8 33 24.4
PANEL MATERIAL	Reflective	CONC 'a' =			
LEGEND MATERIAL	Reflective	CONC 'b' =			



SIGN INFORMATION		SIGN LOCATION / SUPPORT		SUPPORT TYPE	
SIGN NUMBER	S-17	ROAD & MILE POINT	Com. Blvd. at US 31W	SUPPORT TYPE	SOIL STABILIZER
QUANTITY	1	TRAFFIC DIRECTION	FACING US 31W	'A' = FIXED BEAMS	'A' = FIXED BEAMS
WIDTH	5'-0"	SIDE OF ROAD	RIGHT	'B' = STANDARD BREAK-A-WAY BEAMS	'B' = STANDARD BREAK-A-WAY BEAMS
HEIGHT	0'-9"	MOUNTING STYLE	1 - TYPE 1 POST	'C' = OMNI-DIRECTIONAL BREAK-A-WAY	'C' = OMNI-DIRECTIONAL BREAK-A-WAY
AREA (Sq. Ft.)	3.75 Sq.Ft	BEAM MATERIAL	2"	HORIZONTAL CLEARANCE	
BORDER WIDTH	1.5"	POST SIZE	2"		
BORDER RADIUS	0.5"	BEAM/POST LENGTH	1. = 11.5'	SYMBOL	X Y WIDTH HEIGHT
PANEL COLOR	Green	BEAM/POST LENGTH	2. =		
LEGEND/BORDER COLOR	White/White	BEAM/POST LENGTH	3. =		
STATION(S)	50+75	BEAM/POST LENGTH	4. =		
PANEL MATERIAL	Reflective	CONC 'a' =			
LEGEND MATERIAL	Reflective	CONC 'b' =			



SIGN INFORMATION		SIGN LOCATION / SUPPORT		SUPPORT TYPE	
SIGN NUMBER	S-17	ROAD & MILE POINT	Com. Blvd. at US 31W	SUPPORT TYPE	'D' SURFACE MOUNT
QUANTITY	1	TRAFFIC DIRECTION	Facing Commonwealth	'A' = FIXED BEAMS	'A' = FIXED BEAMS
WIDTH	16'-6"	SIDE OF ROAD	RIGHT	'B' = STANDARD BREAK-A-WAY BEAMS	'B' = STANDARD BREAK-A-WAY BEAMS
HEIGHT	14'-6"	MOUNTING STYLE	1 - TYPE 1 POST	'C' = OMNI-DIRECTIONAL BREAK-A-WAY	'C' = OMNI-DIRECTIONAL BREAK-A-WAY
AREA (Sq. Ft.)	2.63 Sq.Ft	BEAM MATERIAL	2"	HORIZONTAL CLEARANCE	
BORDER WIDTH	1.5"	POST SIZE	2"		
BORDER RADIUS	0.5"	BEAM/POST LENGTH	1. =	SYMBOL	X Y WIDTH HEIGHT
PANEL COLOR	Green	BEAM/POST LENGTH	2. =		
LEGEND/BORDER COLOR	White/White	BEAM/POST LENGTH	3. =		
STATION(S)	942+00	BEAM/POST LENGTH	4. =		
PANEL MATERIAL	Reflective	CONC 'a' =			
LEGEND MATERIAL	Reflective	CONC 'b' =			



SIGN INFORMATION		SIGN LOCATION / SUPPORT		SUPPORT TYPE	
SIGN NUMBER	S-51	ROAD & MILE POINT	KY 345	SUPPORT TYPE	'D'
QUANTITY	1	TRAFFIC DIRECTION	NBD	'A' = FIXED BEAMS	'A' = FIXED BEAMS
WIDTH	7'-0"	SIDE OF ROAD	RT	'B' = STANDARD BREAK-A-WAY BEAMS	'B' = STANDARD BREAK-A-WAY BEAMS
HEIGHT	2'-6"	MOUNTING STYLE	TYPE 1 POSTS	'C' = OMNI-DIRECTIONAL BREAK-A-WAY	'C' = OMNI-DIRECTIONAL BREAK-A-WAY
AREA (Sq. Ft.)	17.50 Sq.Ft	BEAM MATERIAL	2"	HORIZONTAL CLEARANCE	
BORDER WIDTH	0.75"	POST SIZE	2"		
BORDER RADIUS	1.5"	BEAM/POST LENGTH	1. = 9.6'	SYMBOL	X Y WIDTH HEIGHT
PANEL COLOR	Green	BEAM/POST LENGTH	2. = 10.4'	AR TYPE D	7.1 4.7 6 9
LEGEND/BORDER COLOR	White/White	BEAM/POST LENGTH	3. =	AR TYPE D	7.1 19.3 6 9
STATION(S)	254+15	BEAM/POST LENGTH	4. =		
PANEL MATERIAL	Reflective	CONC 'a' =			
LEGEND MATERIAL	Reflective	CONC 'b' =	0.46 Cu. Yds.		





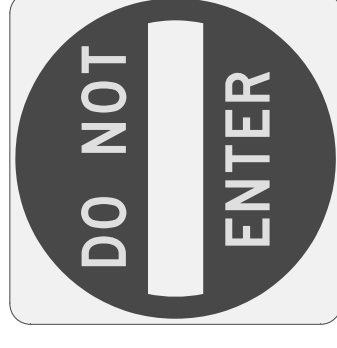





SIGN NUMBER	QUANTITY	WIDTH	HEIGHT	SIGN INFORMATION				SIGN LOCATION / SUPPORT				SIGN INFORMATION				SIGN INFORMATION																																					
				AREA (Sq. Ft.)	BORDER WIDTH	BORDER RADIUS	PANEL COLOR	LEGEND/BORDER COLOR	STATION(S)	PANEL MATERIAL	LEGEND MATERIAL	ROAD & MILE POINT	TRAFFIC DIRECTION	SIDE OF ROAD	MOUNTING STYLE	BEAM MATERIAL	POST SIZE	BEAM/POST LENGTH	BEAM/POST LENGTH	BEAM/POST LENGTH	CONC 'a'	CONC 'b'																															
5-23	1	6'-0"	4'-6"	26.00	0.75"	3"	Green	White/White	78-45	Reflective	US 31W	NBD (Commonwealth)	2 - TYPE 1 POSTS	2 1/2"	11.5'	11.5'	11.8	Green	White/White	78-45	Reflective	US 31W	NBD (Commonwealth)	2 - TYPE 1 POSTS	2 1/2"	11.5'	11.5'	11.8	Green	White/White	78-45	Reflective																					
<p>BORDER 2.5" R=3" TH=0.75"</p>																																																					
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ROAD & MILE POINT	TRAFFIC DIRECTION	SIDE OF ROAD	MOUNTING STYLE	BEAM MATERIAL	POST SIZE	BEAM/POST LENGTH	BEAM/POST LENGTH	BEAM/POST LENGTH	CONC 'a'	CONC 'b'																																											
US 31W	NBD (Commonwealth)	MEDIAN	2 - TYPE 1 POSTS	2 1/2"	11.5'	11.5'	11.8	11.8	-	Cu. Yds.																																											

SIGN NUMBER	QUANTITY	WIDTH	HEIGHT	SIGN INFORMATION				SIGN LOCATION / SUPPORT				SIGN INFORMATION				SIGN INFORMATION																																					
				AREA (Sq. Ft.)	BORDER WIDTH	BORDER RADIUS	PANEL COLOR	LEGEND/BORDER COLOR	STATION(S)	PANEL MATERIAL	LEGEND MATERIAL	ROAD & MILE POINT	TRAFFIC DIRECTION	SIDE OF ROAD	MOUNTING STYLE	BEAM MATERIAL	POST SIZE	BEAM/POST LENGTH	BEAM/POST LENGTH	BEAM/POST LENGTH	CONC 'a'	CONC 'b'																															
5-23	1	6'-0"	4'-6"	26.00	0.75"	3"	Green	White/White	78-45	Reflective	US 31W	NBD (Commonwealth)	2 - TYPE 1 POSTS	2 1/2"	11.5'	11.5'	11.8	Green	White/White	78-45	Reflective	US 31W	NBD (Commonwealth)	2 - TYPE 1 POSTS	2 1/2"	11.5'	11.5'	11.8	Green	White/White	78-45	Reflective																					
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ROAD & MILE POINT	TRAFFIC DIRECTION	SIDE OF ROAD	MOUNTING STYLE	BEAM MATERIAL	POST SIZE	BEAM/POST LENGTH	BEAM/POST LENGTH	BEAM/POST LENGTH	CONC 'a'	CONC 'b'																																											
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SIGN NUMBER	QUANTITY	WIDTH	HEIGHT	SIGN INFORMATION				SIGN LOCATION / SUPPORT				SIGN INFORMATION				SIGN INFORMATION																																					
				AREA (Sq. Ft.)	BORDER WIDTH	BORDER RADIUS	PANEL COLOR	LEGEND/BORDER COLOR	STATION(S)	PANEL MATERIAL	LEGEND MATERIAL	ROAD & MILE POINT	TRAFFIC DIRECTION	SIDE OF ROAD	MOUNTING STYLE	BEAM MATERIAL	POST SIZE	BEAM/POST LENGTH	BEAM/POST LENGTH	BEAM/POST LENGTH	CONC 'a'	CONC 'b'																															
5-23	1	6'-0"	4'-6"	26.00	0.75"	3"	Green	White/White	78-45	Reflective	US 31W	NBD (Commonwealth)	2 - TYPE 1 POSTS	2 1/2"	11.5'	11.5'	11.8	Green	White/White	78-45	Reflective	US 31W	NBD (Commonwealth)	2 - TYPE 1 POSTS	2 1/2"	11.5'	11.5'	11.8	Green	White/White	78-45	Reflective																					
<p>BORDER 2.5" R=3" TH=0.75"</p>																																																					
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ROAD & MILE POINT	TRAFFIC DIRECTION	SIDE OF ROAD	MOUNTING STYLE	BEAM MATERIAL	POST SIZE	BEAM/POST LENGTH	BEAM/POST LENGTH	BEAM/POST LENGTH	CONC 'a'	CONC 'b'																																											
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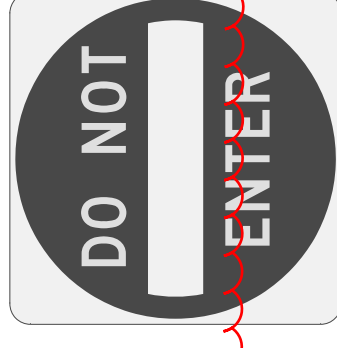
SIGN NUMBER	QUANTITY	WIDTH	HEIGHT	SIGN INFORMATION				SIGN LOCATION / SUPPORT				SIGN INFORMATION				SIGN INFORMATION																																					
				AREA (Sq. Ft.)	BORDER WIDTH	BORDER RADIUS	PANEL COLOR	LEGEND/BORDER COLOR	STATION(S)	PANEL MATERIAL	LEGEND MATERIAL	ROAD & MILE POINT	TRAFFIC DIRECTION	SIDE OF ROAD	MOUNTING STYLE	BEAM MATERIAL	POST SIZE	BEAM/POST LENGTH	BEAM/POST LENGTH	BEAM/POST LENGTH	CONC 'a'	CONC 'b'																															
5-17	1	5'-0"	0'-9"	3.75	0.5"	2"	Green	White/White	942-00	Reflective	Commonwealth Blvd. at US 31W	FACING US 31W	RIGHT	1 - TYPE 1 POST	2"	11.5'	11.5'	11.8	Green	White/White	942-00	Reflective	Commonwealth Blvd. at US 31W	FACING US 31W	RIGHT	1 - TYPE 1 POST	2"	11.5'	11.5'	11.8	Green	White/White	942-00	Reflective																			
<p>BORDER 1.35" R=1.5" TH=0.5"</p>																																																					
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ROAD & MILE POINT	TRAFFIC DIRECTION	SIDE OF ROAD	MOUNTING STYLE	BEAM MATERIAL	POST SIZE	BEAM/POST LENGTH	BEAM/POST LENGTH	BEAM/POST LENGTH	CONC 'a'	CONC 'b'																																											
Commonwealth Blvd. at US 31W	FACING US 31W	RIGHT	1 - TYPE 1 POST	2"	11.5'	11.5'	11.8	11.8	-	Cu. Yds.																																											

SHEETING SIGNS DETAIL SHEET

SIGN/SIGN ASSEMBLY NUMBER		SIZES IN INCHES HORIZ. VERT.		MESSAGES		SIGN LOCATION			SPECIFICATION	SIDE OF ROAD	FACING TRAFFIC TRAVELING	SIGN LOCATION	
												ON ROAD	AT STATION (APPROXIMATE)
S-1 S-24 S-26 S-40	24	12		M3-3	MD	NBD	US 31W	59+00		MD	NBD	US 31W	61+00
	30	24		M1-4a	MD	NBD	US 31W	59+00		US 31W	63+00		
	21	15		M6-2L	MD	NBD	US 31W	59+00		US 31W	63+00		
	24	12		M3-3	RT	NBD	US 31W	80+00		US 31W	64+00		
	30	24		M1-4a	RT	NBD	US 31W	80+00					
	21	15		M6-2L	RT	NBD	US 31W	80+00		US 31W	76+00		
	24	12		M3-3	MD	NBD	US 31W	88+00					
	30	24		M1-4a	MD	NBD	US 31W	88+00		US 31W	79+00		
	21	15		M6-2L	MD	NBD	US 31W	88+00		US 31W	93+50		
	24	12		M3-3	MD	NBD	US 31W	105+50					
S-2L S-2R S-9 S-11 S-25 S-28 S-36 S-42 S-44 S-57	42	30		R5-1a	LT	SBD	US 31W	60+00		MD	SBD	US 31W	109+00
	42	30		R5-1a	RT	SBD	US 31W	60+00		US 31W	62+70		
	42	30		R5-1a	RT	NBD	US 31W	66+50		US 31W	62+70		
	42	30		R5-1a	RT	SBD	US 31W	73+00		US 31W	93+35		
	42	30		R5-1a	RT	NBD	US 31W	80+50		US 31W	93+35		
	42	30		R5-1a	RT	SBD	US 31W	91+00		US 31W	93+35		
	42	30		R5-1a	RT	NBD	US 31W	98+50		US 31W	93+35		
	42	30		R5-1a	LT	SBD	US 31W	107+00		US 31W	109+00		
	42	30		R5-1a	RT	SBD	US 31W	107+00		US 31W	109+00		
	42	30		R5-1a	RT	NBD	US 31W	113+50		US 31W	109+00		
S-3L S-3R S-7 S-68 S-69 S-30 S-34R S-34L S-70	36	36		R5-1	LT	SBD	US 31W	61+00		MD	SBD	US 31W	61+00
	36	36		R5-1	RT	NBD	US 31W	64+00		US 31W	63+00		
	36	36		R5-1	LT	SBD	US 31W	76+00		US 31W	63+00		
	36	36		R5-1	RT	NBD	US 31W	64+00		US 31W	63+00		
	36	36		R5-1	LT	SBD	US 31W	79+00		US 31W	63+00		
	36	36		R5-1	RT	SBD	US 31W	93+50		US 31W	63+00		
	36	36		R5-1	MD	NBD	US 31W	95+00		US 31W	63+00		
	36	36		R5-1	MD	SBD	US 31W	109+00		US 31W	63+00		
	24	12		M3-3	MD	NBD	US 31W	62+70		US 31W	62+70		
	30	24		M1-4a	MD	NBD	US 31W	62+70		US 31W	62+70		
S-4 S-29 S-45	21	15		M5-3TL	MD	NBD	US 31W	62+70		MD	NBD	US 31W	62+70
	24	12		M3-3	MD	NBD	US 31W	93+35		US 31W	93+35		
	30	24		M1-4a	MD	NBD	US 31W	93+35		US 31W	93+35		
	21	15		M5-3TL	MD	NBD	US 31W	93+35		US 31W	93+35		
	24	12		M3-3	MD	NBD	US 31W	109+00		US 31W	109+00		
	30	24		M1-4a	MD	NBD	US 31W	109+00		US 31W	109+00		
	21	15		M5-3TL	MD	NBD	US 31W	109+00		US 31W	109+00		
	24	12		M3-3	MD	NBD	US 31W	109+00		US 31W	109+00		
	30	24		M1-4a	MD	NBD	US 31W	109+00		US 31W	109+00		
	21	15		M5-3TL	MD	NBD	US 31W	109+00		US 31W	109+00		
S-5 S-6 S-31 S-32	54	18		R6-1L	RT	SBD	US 31W	63+15		RT	SBD	US 31W	63+15
	54	18		R6-1L	RT	NBD	US 31W	63+85		US 31W	63+85		
	54	18		R6-1L	RT	SBD	US 31W	93+80		US 31W	93+80		
	54	18		R6-1L	RT	NBD	US 31W	94+70		US 31W	94+70		



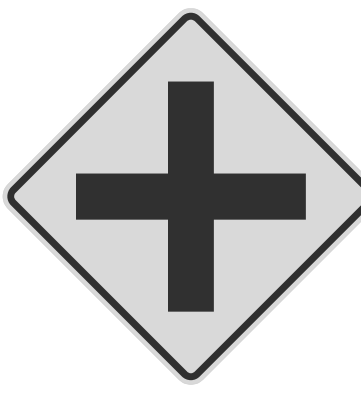

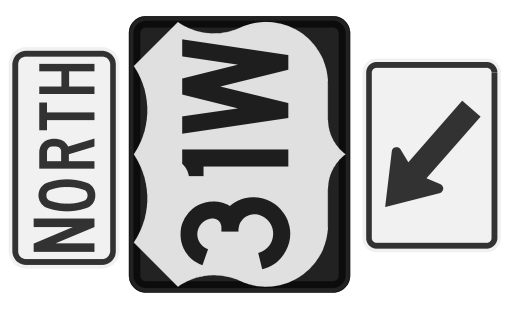

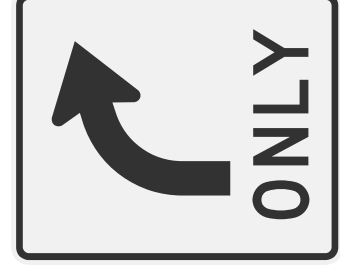
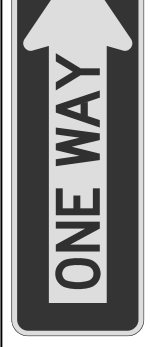

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SHEETING SIGNS DETAIL SHEET

SIGN/SIGN ASSEMBLY NUMBER		SIZES IN INCHES HORIZ. VERT.		MESSAGES		SPECIFICATION		SIGN LOCATION SIDE OF ROAD ON ROAD		AT STATION (APPROXIMATE)		SIGN LOCATION			ITEM NO.	SHEET NO.																																									
												ON ROAD	FACING TRAFFIC TRAVELING	SIDE OF ROAD			TRAFFIC TRAVELING	ON ROAD	AT STATION (APPROXIMATE)	WARREN	03-8905.00	T016																																			
S-1 S-24 S-26 S-40	24 12	30 24	21 15		M3-3	MD	NBD	US 31W	59+00	M3-3	MD	NBD	US 31W	61+00	WARREN	03-8905.00	T016																																								
																		M1-4a	MD	NBD	US 31W	59+00																																			
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																																																M1-4a	MD	NBD	US 31W	88+00					
																																																					M6-2L	MD	NBD	US 31W	88+00
M1-4a	MD	NBD	US 31W	105+50																																																					
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										S-2L S-2R S-9 S-11 S-25 S-28 S-36 S-42 S-44 S-57	42 30	42 30	42 30		R5-1a	LT	SBD	US 31W	60+00	R5-1a	MD	SBD	US 31W	62+70	WARREN	03-8905.00	T016																														
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R5-1a	RT	SBD	US 31W	107+00																																																					
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										S-3L S-3R S-7 S-68 S-69 S-30 S-34R S-34L S-70	36 36	36 36	36 36		R5-1	LT	SBD	US 31W	76+00	R5-1	LT	NBD	US 31W	79+00	WARREN	03-8905.00	T016																														
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SHEETING SIGNS DETAIL SHEET

SIGN/SIGN ASSEMBLY NUMBER	SIZES IN INCHES		MESSAGES	SPECIFICATION	SIDE OF ROAD	FACING TRAFFIC TRAVELING	SIGN LOCATION		AT STATION (APPROXIMATE)
	HORIZ.	VERT.					ON ROAD		
S-8 S-33	24	12	 	M3-1	MD	SBD	US	31W	64+20
	30	24		M1-4a	MD	SBD	US	31W	64+20
	21	15		M5-3TL	MD	SBD	US	31W	64+20
	24	12		M3-1	MD	SBD	US	31W	94+80
	30	24		M1-4a	MD	SBD	US	31W	94+80
21	15	M5-3TL	MD	SBD	US	31W	94+80		
S-10L S-10R S-27L S-27R	30	30	 	W2-1	MD	NBD	US	31W	70+50
	18	18		W13-1P	MD	NBD	US	31W	70+50
	30	30		W2-1	RT	NBD	US	31W	70+50
	18	18		W13-1P	RT	NBD	US	31W	70+50
	30	30		W2-1	MD	SBD	US	31W	86+50
18	18	W13-1P	MD	SBD	US	31W	86+50		
30	30	W2-1	RT	SBD	US	31W	86+50		
18	18	W13-1P	RT	SBD	US	31W	86+50		
S-12 S-13	24	12	 	M3-1	MD	SBD	US	31W	73+50
	30	24		M1-4a	MD	SBD	US	31W	73+50
	21	15		M6-2L	MD	SBD	US	31W	73+50
	24	12		M3-1	RT	SBD	US	31W	76+50
	30	24		M1-4a	RT	SBD	US	31W	76+50
21	15	M6-2R	RT	SBD	US	31W	76+50		
S-14 S-19	30	36		R3-5R	RT	EBD	MCCG. O. RD.		46+80
				R3-5R	RT	WBD	COMMON. BLVD.		53+20
S-15	52	8	  <small>CROSS TRAFFIC DOES NOT STOP</small>	D3-1	RT	EBD	MCCG. O. RD.		49+30
	36	12		R6-1R	RT	EBD	MCCG. O. RD.		49+30
	36	36		R1-1	RT	EBD	MCCG. O. RD.		49+30
	24	12		W4-4P	RT	EBD	MCCG. O. RD.		49+30

FILE NAME: U:\03102F 1-65 TO 31W CONNECTOR\ROADWAY\SIGNING\PLANS\US31\SUBMITTAL\SHEETING\SIGN.DETAIL.DGN

DATE PLOTTED: August 1, 2024
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SHEETING SIGNS DETAIL SHEET

SIGN/SIGN ASSEMBLY NUMBER		SIZES IN INCHES HORIZ. VERT.		MESSAGES		SIGN LOCATION			SPECIFICATION	SIDE OF ROAD	FACING TRAFFIC TRAVELING	ON ROAD	AT STATION (APPROXIMATE)	SIGN LOCATION			
														ON ROAD	FACING TRAFFIC TRAVELING	SIDE OF ROAD	SPECIFICATION
S-8 S-33	24	12			M3-1	MD	SBD	US 31W	M3-1	MD	EBD	COMMON. BLVD	50+68				
	30	24			M1-4a	MD	SBD	US 31W	M1-4a	MD	SBD	COMMON. BLVD.	50+68				
	21	15			M5-3TL	MD	SBD	US 31W	M5-3TL	MD	SBD						
	24	12			M3-1	MD	SBD	US 31W	M3-1	MD	SBD						
	30	24			M1-4a	MD	SBD	US 31W	M1-4a	MD	SBD						
21	15	M5-3TL	MD	SBD	US 31W	M5-3TL	MD	SBD									
S-10L S-10R S-27L S-27R	30	30			W2-1	MD	NBD	US 31W	W2-1	MD	NBD	US 31W	70+50	R6-IR R1-1	WBD	COMMON. BLVD.	51+00
	18	18			W13-1P	MD	NBD	US 31W	W13-1P	MD	NBD	US 31W	70+50				
	30	30			W2-1	RT	NBD	US 31W	W2-1	RT	NBD	US 31W	70+50				
	18	18			W13-1P	RT	NBD	US 31W	W13-1P	RT	NBD	US 31W	70+50				
	30	30			W2-1	MD	SBD	US 31W	W2-1	MD	SBD	US 31W	86+50				
18	18	W13-1P	MD	SBD	US 31W	W13-1P	MD	SBD	US 31W	86+50							
30	30	W2-1	RT	SBD	US 31W	W2-1	RT	SBD	US 31W	86+50							
18	18	W13-1P	RT	SBD	US 31W	W13-1P	RT	SBD	US 31W	86+50							
S-12 S-13	24	12			M3-1	MD	SBD	US 31W	M3-1	MD	SBD	US 31W	73+50	R3-4	NBD	US 31W	77+45
	30	24			M1-4a	MD	SBD	US 31W	M1-4a	MD	SBD	US 31W	77+45				
	21	15			M6-2L	MD	SBD	US 31W	M6-2L	MD	SBD	US 31W	78+05				
	24	12			M3-1	RT	SBD	US 31W	M3-1	RT	SBD	US 31W	78+05				
	30	24			M1-4a	RT	SBD	US 31W	M1-4a	RT	SBD	US 31W	78+05				
21	15	M6-2L	RT	SBD	US 31W	M6-2L	RT	SBD	US 31W	78+05							
S-14 S-19	30	36			R3-5R	RT	EBD	MCCG. O. RD.	R3-5R	RT	EBD	MCCG. O. RD.	46+80	R5-1a	NBD	US 31W	98+50
	30	36			R3-5R	RT	WBD	COMMON. BLVD.	R3-5R	RT	WBD	COMMON. BLVD.	53+20				
	52	8			D3-1	RT	EBD	MCCG. O. RD.	D3-1	RT	EBD	MCCG. O. RD.	49+30				
	36	12			R6-1R	RT	EBD	MCCG. O. RD.	R6-1R	RT	EBD	MCCG. O. RD.	49+30				
	36	36			R1-1	RT	EBD	MCCG. O. RD.	R1-1	RT	EBD	MCCG. O. RD.	49+30				
24	12	W4-4P	RT	EBD	MCCG. O. RD.	W4-4P	RT	EBD	MCCG. O. RD.	49+30							
S-15	36	36			W4-4P	RT	EBD	MCCG. O. RD.	W4-4P	RT	EBD	MCCG. O. RD.	49+30	R5-1	NBD	US 31W	78+05
	36	36			R1-1	RT	EBD	MCCG. O. RD.	R1-1	RT	EBD	MCCG. O. RD.	49+30				
	24	12			W4-4P	RT	EBD	MCCG. O. RD.	W4-4P	RT	EBD	MCCG. O. RD.	49+30				
	36	36			R6-1R	RT	EBD	MCCG. O. RD.	R6-1R	RT	EBD	MCCG. O. RD.	49+30				
	52	8			D3-1	RT	EBD	MCCG. O. RD.	D3-1	RT	EBD	MCCG. O. RD.	49+30				

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SHEETING SIGNS DETAIL SHEET

SIGN/SIGN ASSEMBLY NUMBER		SIZES IN INCHES HORIZ. VERT.		MESSAGES		SIGN LOCATION			SPECIFICATION	SIDE OF ROAD	FACING TRAFFIC TRAVELING	ON ROAD	AT STATION (APPROXIMATE)	COUNTY OF		ITEM NO.	SHEET NO.																													
														WARREN	03-8905.00			T018																												
S-46		36	36		R1-1	RT	SBD	FRONT. RD.	R5-1	RT	SBD	US 31W	109+00	WARREN	03-8905.00	T018																														
		24	12															M2-1	RT	NBD	US 31W	M3-1	RT	NBD	US 31W	109+00																				
		30	24																									M1-5a	RT	NBD	US 31W	M1-4a	RT	NBD	US 31W	109+00										
		21	15																																			M2-1	RT	SBD	US 31W	M6-3	RT	NBD	US 31W	109+00
S-47		24	12		R2-1	RT	SBD	US 31W	M3-3	RT	NBD	US 31W	109+00	WARREN	03-8905.00	T018																														
		30	24															M2-1	RT	SBD	US 31W	M3-3	RT	NBD	US 31W	109+00																				
		21	15																									M1-5a	RT	SBD	US 31W	M6-1R	RT	NBD	US 31W	109+00										
																																						M2-1	RT	SBD	US 31W	M3-3	RT	NBD	US 31W	109+00
S-49		48	24		W3-3	RT	NBD	US 31W	W1-7	RT	NBD	KY 3145	110+80	WARREN	03-8905.00	T018																														
																		W3-3	RT	SBD	US 31W	W3-3	RT	SBD	US 31W	116+00																				
																												M3-3	RT	SBD	US 31W	M3-3	RT	SBD	US 31W	107+00										
																																						M1-4a	RT	SBD	US 31W	M1-4a	RT	SBD	US 31W	107+00
S-50		24	12		M4-5	RT	NBD	US 31W	M3-3	RT	SBD	US 31W	107+00	WARREN	03-8905.00	T018																														
		30	24															M1-1	RT	NBD	US 31W	M3-3	RT	SBD	US 31W	107+00																				
		21	15																									M6-1R	RT	NBD	US 31W	M3-3	RT	SBD	US 31W	107+00										
																																						M1-1	RT	NBD	US 31W	M3-3	RT	SBD	US 31W	107+00
S-55		24	12		M4-5	RT	NBD	US 31W	M3-3	RT	SBD	US 31W	107+00	WARREN	03-8905.00	T018																														
		30	24															M1-1	RT	NBD	US 31W	M3-3	RT	SBD	US 31W	107+00																				
		21	15																									M6-1R	RT	NBD	US 31W	M3-3	RT	SBD	US 31W	107+00										
																																						M1-1	RT	NBD	US 31W	M3-3	RT	SBD	US 31W	107+00




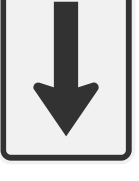
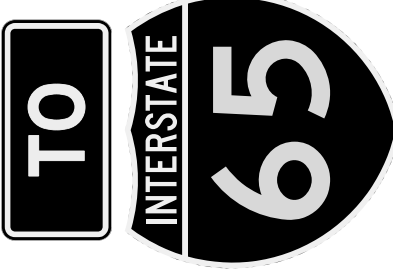
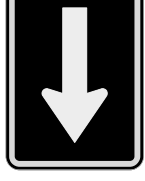


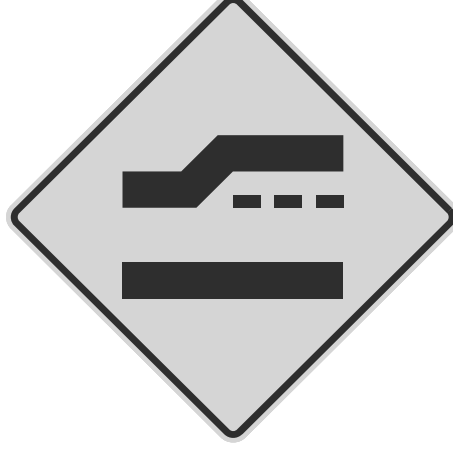





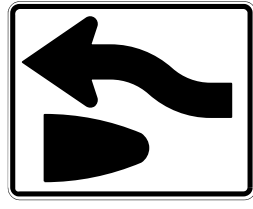
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SHEETING SIGNS DETAIL SHEET

SIGN/SIGN ASSEMBLY NUMBER		SIZES IN INCHES HORIZ. VERT.		MESSAGES		SIGN LOCATION			SPECIFICATION	SIDE OF ROAD	FACING TRAFFIC TRAVELING	ON ROAD	SIGN LOCATION		ITEM NO.	SHEET NO.
													AT STATION (APPROXIMATE)	AT STATION (APPROXIMATE)		
S-37	S-61	36	36		R1-1	RT	SBD	FRONT. RD.	R1-1	RT	SBD	FRONT. RD.	US 31W	03-8905.00	T018	
		49+30	109+00													
		36	36		R1-1	RT	SBD	FRONT. RD.		RT	SBD	FRONT. RD.				
S-38	S-62	21	15		M2-1	RT	NBD	US 31W	M2-1	RT	NBD	US 31W	US 31W			
		102+00	109+00													
		30	24		M1-5a	RT	NBD	US 31W		RT	NBD	US 31W				
		21	15		M2-1	RT	SBD	US 31W		RT	SBD	US 31W				
		30	24		M1-5a	RT	SBD	US 31W		RT	SBD	US 31W				
S-39	S-60	30	36		R2-1	RT	SBD	US 31W	R2-1	RT	SBD	US 31W	US 31W			
		104+00	109+00													
		30	36		R2-1	RT	NBD	US 31W		RT	NBD	US 31W				
S-41	S-59	36	36		W3-3	RT	NBD	US 31W	W3-3	RT	NBD	US 31W	US 31W			
		105+50	110+80													
		36	36		W3-3	RT	SBD	US 31W		RT	SBD	US 31W				
S-43		24	12		M3-3	RT	SBD	US 31W	M3-3	RT	SBD	US 31W	US 31W			
		107+00	109+00													
		30	24		M1-4a	RT	SBD	US 31W		RT	SBD	US 31W				
S-48		24	12		M4-5	RT	NBD	US 31W	M4-5	RT	NBD	US 31W	US 31W			
		107+00	109+00													
		24	24		M1-1	RT	NBD	US 31W		RT	NBD	US 31W				
		21	15		M6-1R	RT	NBD	US 31W		RT	NBD	US 31W				
S-46		36	36		R5-1	RT	SBD	US 31W	R5-1	RT	SBD	US 31W	US 31W			
		109+00	109+00													
		24	12		M3-1	RT	NBD	US 31W		RT	NBD	US 31W				
		30	24		M1-4a	RT	NBD	US 31W		RT	NBD	US 31W				
		21	15		M6-3	RT	NBD	US 31W		RT	NBD	US 31W				
S-47		24	12		M3-3	RT	NBD	US 31W	M3-3	RT	NBD	US 31W	US 31W			
		109+00	109+00													
		30	24		M1-5a	RT	NBD	US 31W		RT	NBD	US 31W				
		21	15		M6-1R	RT	NBD	US 31W		RT	NBD	US 31W				
S-49		48	24		W1-7	RT	NBD	KY 3145	W1-7	RT	NBD	KY 3145	KY 3145			
		110+80														
S-50		24	12		M3-1	RT	NBD	KY 3145	M3-1	RT	NBD	KY 3145	KY 3145			
		256+30	256+30													
		30	24		M1-4a	RT	NBD	KY 3145		RT	NBD	KY 3145				
		21	15		M6-1R	RT	NBD	KY 3145		RT	NBD	KY 3145				
S-55		24	12		M3-3	RT	NBD	KY 3145	M3-3	RT	NBD	KY 3145	KY 3145			
		256+30	256+30													
		30	24		M1-4a	RT	NBD	KY 3145		RT	NBD	KY 3145				
		21	15		M6-1L	RT	NBD	KY 3145		RT	NBD	KY 3145				

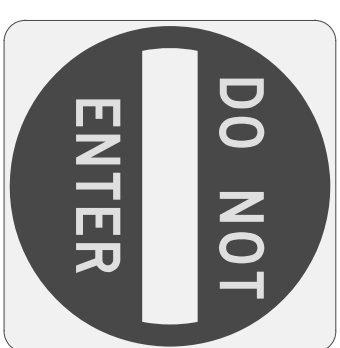
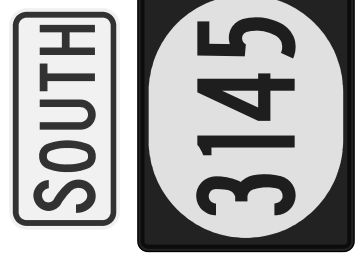
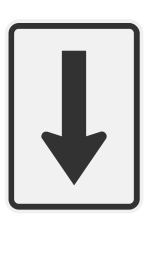

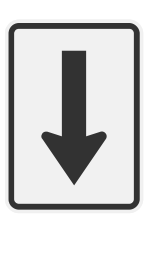
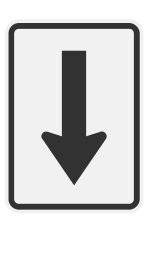
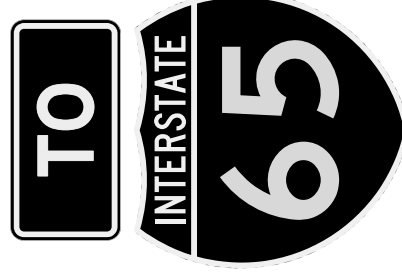
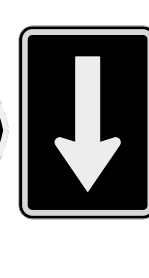
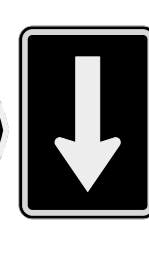
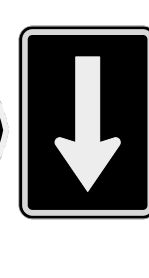
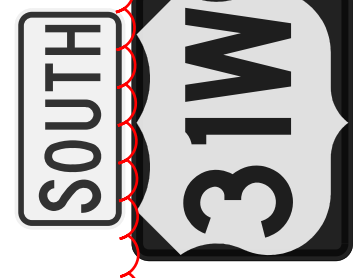



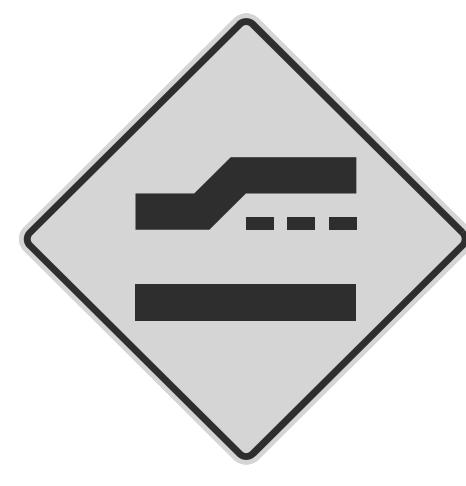
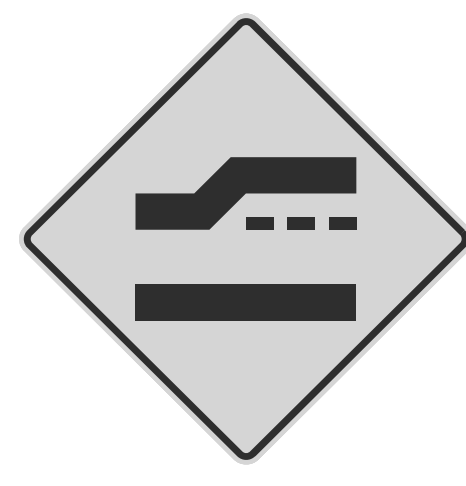
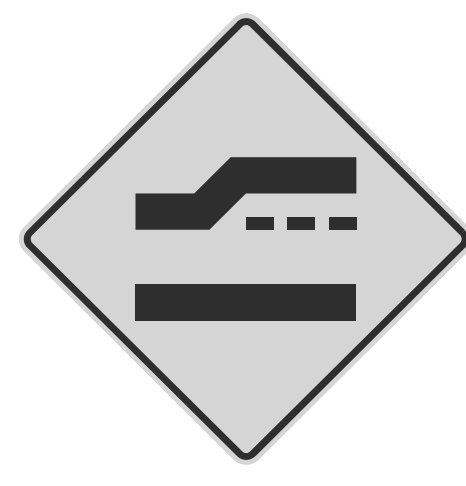



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SIGN/SIGN ASSEMBLY NUMBER		SIZES IN INCHES HORIZ. VERT.		MESSAGES		SIGN LOCATION			SPECIFICATION	SIDE OF ROAD	FACING TRAFFIC TRAVELING	ON ROAD	AT STATION (APPROXIMATE)	COUNTY OF		ITEM NO.	SHEET NO.
														WARREN	03-8905.00		
S-52	36	36	   		R5-1	RT	NBD	US 31W	111+50								
	24	12				RT	SBD	US 31W	111+50								
	30	24				RT	SBD	US 31W	111+50								
	21	15				RT	SBD	US 31W	111+50								
S-53	24	12	 		M3-3	RT	SBD	US 31W	113+50								
	24	24				RT	SBD	US 31W	113+50								
	21	15				RT	SBD	US 31W	113+50								
S-54	24	12	 		M3-3	RT	SBD	US 31W	111+50								
	30	24				RT	SBD	US 31W	111+50								
	21	15				RT	SBD	US 31W	111+50								
S-56	36	36			W4-2L	RT	NBD	US 31W	113+00								
S-58	24	12			M3-1	RT	NBD	US 31W	115+00								
	30	24				RT	NBD	US 31W	115+00								
S-63	36	9	 		D3-1	RT	NBD	MIZPAH RD.	50+40								
	36	36				RT	NBD	MIZPAH RD.	50+40								
S-64 S-65	48	48	36			W14-3	RT	SBD	US 31W	125+00							
	48	48	36				RT	NBD	US 31W	129+00							
S-66	36	36			W9-1	RT	NBD	US 31W	111+40								
S-67	24	30			R4-7	MD	SBD	US 31W	109+30								

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SIGN/SIGN ASSEMBLY NUMBER		SIZES IN INCHES HORIZ. VERT.		MESSAGES		SIGN LOCATION			SPECIFICATION	SIDE OF ROAD	FACING TRAFFIC TRAVELING	ON ROAD	AT STATION (APPROXIMATE)	SIGN LOCATION			ITEM NO.	SHEET NO.																									
														ON ROAD	AT STATION (APPROXIMATE)	SIDE OF ROAD			FACING TRAFFIC TRAVELING	ON ROAD	AT STATION (APPROXIMATE)																						
S-52	36	36	  		R5-1	RT	NBD	US 31W	111+50	S-63	36	9	SEE DETAIL SHEET T0157 	D3-1	RT	NBD	MIZPAH RD.	50+40	WARREN	03-8905.00	T019																						
	24	12																					M3-3	RT	SBD	US 31W	111+50	W14-3	RT	SBD	US 31W	125+00											
	30	24																																M1-5a	RT	SBD	US 31W	111+50	W14-3	RT	NBD	US 31W	129+00
	21	15																																									
S-53	24	12	 		M3-3	RT	SBD	US 31W	113+50	S-64	48	36	NO PASSING ZONE sign	W14-3	RT	SBD	US 31W	125+00	WARREN	03-8905.00	T019																						
	24	24																					M1-1	RT	SBD	US 31W	113+50	W14-3	RT	NBD	US 31W	129+00											
	21	15																																M6-1L	RT	SBD	US 31W	113+50					
S-54	24	12	 		M3-3	RT	SBD	US 31W	111+50	S-65	48	36	RIGHT LANE ENDS sign	W9-1	RT	NBD	US 31W	111+40	WARREN	03-8905.00	T019																						
	30	24																					M1-4a	RT	SBD	US 31W	111+50	R4-7	MD	SBD	US 31W	109+30											
	21	15																																M6-3	RT	SBD	US 31W	111+50					
S-56	36	36			W4-2L	RT	NBD	US 31W	113+00	S-66	36	36	RIGHT LANE ENDS sign	W9-1	RT	NBD	US 31W	111+40	WARREN	03-8905.00	T019																						
																							M3-1	RT	NBD	US 31W	115+00	R4-7	MD	SBD	US 31W	109+30											
																																		M1-4a	RT	NBD	US 31W	115+00					
S-58	24	12			M3-1	RT	NBD	US 31W	115+00	S-67	24	30	RIGHT LANE ENDS sign	R4-7	MD	SBD	US 31W	109+30	WARREN	03-8905.00	T019																						
	30	24																					M1-4a	RT	NBD	US 31W	115+00																
																																											

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TRAFFIC SIGNAL ESTIMATE OF QUANTITIES

TOTAL	UNITS	CODE	ITEM DESCRIPTION
80	LIN FT	4820	TRENCHING AND BACKFILLING
1,150	LIN FT	4845	CABLE-NO. 14/7C
650	LIN FT	4886	MESSENGER-15400 LB
4	EACH	4932	INSTALL STEEL STRAIN POLE
1	EACH	24955ed	REMOVE SIGNAL EQUIPMENT
16	EACH	4953	TEMPORARY RELOCATION OF SIGNAL HEAD
7	EACH	20188NS835	INSTALL SIGNAL-3 SECTION LED
1	EACH	20266ES835	INSTALL SIGNAL-4 SECTION LED
1	EACH	20390NS835	INSTALL COORDINATING UNIT
20	CU YD	23157EN	TRAFFIC SIGNAL POLE BASE
80	LIN FT	24901EC	PVC CONDUIT - 2 INCH - SCHEDULE 80
1	EACH	24908EC	INSTALL SIGNAL CONTROLLER-TY ATC
3	EACH	26119EC	INSTALL RADAR PRESENCE DETECTOR TYPE A
2	EACH	26120EC	INSTALL RADAR Advance DETECTOR TYPE B
500	LIN FT	24528ED	TETHER WIRE

THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION, AND OTHER SPECIAL NOTES AND SPECIFICATIONS WILL APPLY ON THIS PROJECT. SEE SECTION 706, 723, AND I12 FOR MEASUREMENT AND OTHER DETAILS. SEE SECTION 602 FOR SPIRAL REINFORCEMENT SPLICING.

THE CONTRACTOR SHALL MAKE AN INSPECTION OF THE PROJECT SITE PRIOR TO SUBMITTING A BID AND SHALL BE THOROUGHLY FAMILIARIZED WITH EXISTING CONDITIONS. SUBMISSIONS OF A BID WILL BE CONSIDERED AN AFFIRMATION OF THIS INSPECTION HAVING BEEN COMPLETED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PICKING UP MATERIALS FOR INSTALL ITEMS AT KYTC'S DIVISION OF EQUIPMENT WAREHOUSE (1239 WILKINSON BOULEVARD, FRANKFORT, KY 40622). THE FOLLOWING PROCEDURES SHALL BE FOLLOWED FOR MATERIAL RELEASE. FAILURE TO FOLLOW THESE PROCEDURES MAY RESULT IN LONG DELAYS OR REFUSAL TO DISTRIBUTE MATERIALS UPON ARRIVAL.

- CONTRACTOR SHALL SECURE THE SIGNATURES OF KYTC'S PROJECT ENGINEER AND THE ELECTRICAL CONTRACTOR'S FOREMAN ON THE PROJECT MATERIALS RELEASE FORM. IF THE RELEASE FORM IS NOT IN THE PROPOSAL, CONTACT KIM STAMPER OR KERRY DECKER WITH THE DIVISION OF TRAFFIC OPERATIONS BY PHONE (502-782-8994/502-782-5536) OR EMAIL (KIM.STAMPER@KY.GOV/KERRY.DECKER@KY.GOV).
- CONTRACTOR SHALL CONTACT THE WAREHOUSE TO PREARRANGE PICK UP OF MATERIALS. CONTRACTOR SHALL EMAIL THE PROJECT MATERIALS RELEASE FORM WITH REQUIRED SIGNATURES TO THE WAREHOUSE AT KIM.STAMPER@KY.GOV AND SHALL NOTIFY THE WAREHOUSE BY PHONE (502-782-8994/502-330-8153) OR EMAIL KIM.STAMPER@KY.GOV AT LEAST TWO (2) WORKING DAYS PRIOR TO ARRIVAL.
- CONTRACTOR SHALL ALSO CONTACT THE SIGNAL SYSTEM BRANCH OF THE DIVISION OF TRAFFIC OPERATIONS BY PHONE (502-782-5543/502-782-5547) OR EMAIL (JOE.THOMPSON@KY.GOV/LARRY.IRISH@KY.GOV) AT LEAST TWO (2) WORKING DAYS PRIOR TO ARRIVAL TO FACILITATE PROGRAMMING OF ROUTERS.
- CONTRACTOR SHALL ARRIVE AT THE KYTC'S DIVISION OF EQUIPMENT WAREHOUSE (1239 WILKINSON BOULEVARD, FRANKFORT, KY 40622) AT THE PREARRANGED DATE/TIME FOR MATERIAL PICK UP. TO FACILITATE THIS PROCESS, ENSURE CONTRACTOR'S DELIVERY DRIVER HAS A COPY OF THE PROJECT MATERIALS RELEASE FORM WITH THE REQUIRED SIGNATURES.

ADD SENTENCE TO SECTION 835.17: ALL WIRE SHALL HAVE WORDING ADDED TO THE OUTER JACKET THAT STATES : *PROPERTY OF KENTUCKY TRANSPORTATION CABINET 502 564 0501*.

6-11-2024

MATERIAL NOTES IN ADDITION TO SECTION 835

SUBSECTION: 16.07 SIGNAL TETHER CABLE
ADDITION: PROVIDE TETHER CABLE THAT CONSISTS OF "CLASS A" ZINC-COATED, COMMON GRADE STEEL AND EXTRA GALVANIZED PER ASTM 457-03. PROVIDE A MINIMUM 1/4 INCH DIAMETER WITH 7 STRANDS AND MINIMUM BREAKING STRENGTH OF 1,900 POUNDS.

SUBSECTION: 16.08 SIGNAL TETHER STRANDWISE
ADDITION: PROVIDE A STRANDWISE THAT HAS AN AUTOMATIC JAW TYPE DEAD-END FOR 1/4 INCH GALVANIZED STEEL MESSENGER. USE HUBBELL GDE5200L OR APPROVED EQUAL.

SUBSECTION: 16.09 SIGNAL TETHER STRANDLINK
ADDITION: PROVIDE A STRANDLINK THAT IS A SPLICE FOR 1/4 INCH GALVANIZED STEEL MESSENGER. USE HUBBELL GLS5000 OR APPROVED EQUAL.

MEASUREMENT NOTES THAT ARE IN ADDITION TO SECTION 723

INSTALL SIGNAL CONTROLLER TYPE ATC. THE DEPARTMENT WILL MEASURE THE QUANTITY AS EACH INDIVIDUAL UNIT INSTALLED. THE DEPARTMENT WILL NOT MEASURE THE CONCRETE BASE, MOUNTING THE CABINET, CONNECTING THE SIGNAL AND DETECTORS, EXCAVATION, BACKFILLING, RESTORATION, ANY NECESSARY POLE MOUNTING HARDWARE, ELECTRIC SERVICE, ELECTRICAL INSPECTION FEES, AND REQUIRED BUILDING FEES INVOLVING UTILITY SECONDARY/PRIMARY SERVICE FOR PAYMENT AND WILL CONSIDER THEM INCIDENTAL TO THIS ITEM OF WORK. THE DEPARTMENT WILL ALSO NOT MEASURE CONNECTING THE INDUCTION LOOP AMPLIFIERS, PEDESTRIAN ISOLATORS, LOAD SWITCHES, MODEL 400 MODEM CARD FOR PAYMENT AND WILL CONSIDER THEM INCIDENTAL TO THIS ITEM OF WORK. THE DEPARTMENT WILL ALSO NOT MEASURE FURNISHING AND INSTALLING ELECTRICAL SERVICE CONDUCTORS, CONDUITS, ANCHORS, METER BASE, FUSED CUTOFF, FUSES, GROUND RODS, GROUND LUGS, AND GROUND WIRES FOR PAYMENT AND WILL CONSIDER THEM INCIDENTAL TO THIS ITEM OF WORK.

INSTALL RADAR PRESENCE DETECTOR TYPE A SHALL CONSIST OF INSTALLATION OF A POLE MOUNTED RADAR PRESENCE SENSOR, SENSOR MOUNTING BRACKET, SENSOR CABLES, INTERFACE BOXES, LEAD-IN CABLE, CONNECTORS (FURNISHED BY CONTRACTOR), AND CONTROLLER INTERFACE ASSEMBLY. RADAR PRESENCE DETECTOR TYPE A BID ITEM SHALL INCLUDE ALL LABOR REQUIRED TO PROVIDE A FUNCTIONAL DETECTION SYSTEM. RADAR PRESENCE DETECTOR TYPE A SHALL BE INSTALLED AND WIRED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. AFTER THE DETECTOR IS INSTALLED AND BEFORE THE DETECTOR IS POWERED ON, THE CONTRACTOR SHALL COORDINATE WITH DISTRICT TRAFFIC DIVISION'S REPRESENTATIVES TO SCHEDULE A TIME TO PERFORM THE DETECTOR SETUP. THE CONTRACTOR SHALL DOUBLE CHECK TO VERIFY THAT ALL WIRING IS CORRECTLY INSTALLED AND CONNECTED BEFORE SCHEDULING THE SETUP WORK. REPRESENTATIVES FROM KYTC AND/OR THE MANUFACTURER OR SALES REPRESENTATIVE WILL ASSIST WITH SETUP AND CALIBRATION. THE CONTRACTOR SHALL PROVIDE A BUCKET TRUCK AND OPERATORS AT THIS TIME FOR FINAL AIMING OF THE SENSORS. THE CONTRACTOR SHALL PROVIDE INDIVIDUALS CAPABLE OF OPERATING THE SETUP SOFTWARE AND LEARNING THE SETUP PROCESS SO THAT FUTURE INSTALLATIONS MAY BE COMPLETED WITHOUT ASSISTANCE FROM OTHERS.

INSTALL RADAR ADVANCE DETECTOR TYPE B SHALL CONSIST OF INSTALLATION OF A POLE MOUNTED RADAR PRESENCE SENSOR, SENSOR MOUNTING BRACKET, SENSOR CABLES, INTERFACE BOXES, LEAD-IN CABLE, CONNECTORS (FURNISHED BY CONTRACTOR), AND CONTROLLER INTERFACE ASSEMBLY. RADAR ADVANCE DETECTOR TYPE B BID ITEM SHALL INCLUDE ALL LABOR REQUIRED TO PROVIDE A FUNCTIONAL DETECTION SYSTEM. RADAR ADVANCE DETECTOR TYPE B SHALL BE INSTALLED AND WIRED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. AFTER THE DETECTOR IS INSTALLED AND BEFORE THE DETECTOR IS POWERED ON, THE CONTRACTOR SHALL COORDINATE WITH DISTRICT TRAFFIC DIVISION'S REPRESENTATIVES TO SCHEDULE A TIME TO PERFORM THE DETECTOR SETUP. THE CONTRACTOR SHALL DOUBLE CHECK TO VERIFY THAT ALL WIRING IS CORRECTLY INSTALLED AND CONNECTED BEFORE SCHEDULING THE SETUP WORK. REPRESENTATIVES FROM KYTC AND/OR THE MANUFACTURER OR SALES REPRESENTATIVE.

CONSTRUCTION AND MEASUREMENT NOTES THAT ARE CONTRARY TO SECTION 723

SUBSECTION: 03.02 POLES AND BASES INSTALLATION. B)
REVISION: REPLACE ENTIRE TABLE WITH THE FOLLOWING:

MAXIMUM SERVICE FORCES	DRILLED SHAFT DATA						VERTICAL BARS TOTAL	TIES OR SPIRAL BAR SIZE	SPACING OR PITCH (IN.)
	DIAMETER (IN.)	< 2:1 GROUND SLOPE		2:1 GROUND SLOPE*		ROCK			
		SOIL	ROCK	SOIL	ROCK				
0-9.9	36	6	6	6.5	6	6	#8	#4	
10-19.9	36	7	6	6.5	6	6	#8	#4	
20-29.9	36	8	6	6.5	6	6	#8	#4	
30-39.9	36	8.5	6	6.5	6	6	#8	#4	
40-49.9	36	9	6	6.5	6	6	#8	#4	
50-59.9	36	10	6	6.5	6	6	#8	#4	
60-69.9	36	11	6	6.5	6	6	#8	#4	
70-99.9	36	12.5	6	6.5	6	6	#8	#4	
100-149.9	36	14.5	6	6.5	6	6	#8	#4	
150-199.9	36	15.5	6	6.5	6	6	#8	#4	
200-249.9	36	17	6	6.5	6	6	#8	#4	
250-299.9	36	18.5	6	6.5	6	6	#8	#4	
300-399.9	36	21.5	6	6.5	6	6	#8	#4	
400-499.9	36	23.5	6	6.5	6	6	#8	#4	
500-600	48	22.5	7.5	7.5	7.5	7.5	#9	#4	

SUBSECTION: 03.12 WIRING INSTALLATION.
REVISION: SEE TRAFFIC OPERATIONS WEBSITE FOR WORD DOCUMENT TO REPLACE ALL CHARTS FOR WIRING TO SHOW CHANGES FOR EQUIPMENT GROUNDING.

SUBSECTION: 04.22 REMOVE SIGNAL EQUIPMENT. (CONSTRUCTION ONLY)
REVISION: REPLACE THE PARAGRAPH WITH THE FOLLOWING: THE DEPARTMENT WILL MEASURE THE QUANTITY BY EACH. THE DEPARTMENT WILL NOT MEASURE BACKFILLING AND THE DISPOSAL OR TRANSPORTATION OF EQUIPMENT AND MATERIALS ASSOCIATED WITH ANY STRUCTURAL OR ELECTRICAL COMPONENT OF THE SIGNAL SYSTEM INCLUDING, BUT NOT LIMITED TO POLE BASES, POLES, JUNCTION BOXES, CABINETS, AND WOOD POLES FOR PAYMENT AND WILL CONSIDER THEM INCIDENTAL TO THIS ITEM OF WORK.

MATERIAL NOTES THAT ARE CONTRARY TO SECTION 835

SUBSECTION: .21 WARNING TAPE.
REVISION: REPLACE FIRST SENTENCE WITH THE FOLLOWING IN 834.33: PROVIDE DETECTABLE TYPE TAPE THAT IS 6 INCHES WIDE AND 7.0 MILS (NOMINAL) THICK.

DESIGNED BY: JRG
 DATE SUBMITTED: 8/1/2024

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS
 COUNTY OF

WARREN

PROJECT: FD04 I14 031W 020-023
 NUMBERS: STP 5082024

TRAFFIC SIGNAL
 ESTIMATE OF QUANTITIES
 MEASUREMENT, CONST, AND MISC NOTES

TRAFFIC SIGNAL ESTIMATE OF QUANTITIES

TOTAL	UNITS	CODE	ITEM DESCRIPTION
80	LIN FT	4820	TRENCHING AND BACKFILLING
1-150	LIN FT	4845	CABLE-NO. 14/7C
650	LIN FT	4886	MESSENGER-15400 LB
4	EACH	4932	INSTALL STEEL STRAIN POLE
1	EACH	24955ed	REMOVE SIGNAL EQUIPMENT
16	EACH	4953	TEMPORARY RELOCATION OF SIGNAL HEAD
7	EACH	20188NS835	INSTALL SIGNAL-3 SECTION LED
1	EACH	20266ES835	INSTALL SIGNAL-4 SECTION LED
1	EACH	20390NS835	INSTALL COORDINATING UNIT
20	CU YD	23157EN	TRAFFIC SIGNAL POLE BASE
80	LIN FT	2490IEC	PVC CONDUIT - 2 INCH - SCHEDULE 80
1	EACH	24908EC	INSTALL SIGNAL CONTROLLER-TY ATC
3	EACH	26119EC	INSTALL RADAR PRESENCE DETECTOR TYPE A
2	EACH	26120EC	INSTALL RADAR Advance DETECTOR TYPE B
500	LIN FT	24528ED	TEETHER WIRE

THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION, AND OTHER SPECIAL NOTES AND SPECIFICATIONS WILL APPLY ON THIS PROJECT. SEE SECTION 706, 723, AND I12 FOR MEASUREMENT AND OTHER DETAILS. SEE SECTION 602 FOR SPIRAL REINFORCEMENT SPLICING.

THE CONTRACTOR SHALL MAKE AN INSPECTION OF THE PROJECT SITE PRIOR TO SUBMITTING A BID AND SHALL BE THOROUGHLY FAMILIARIZED WITH EXISTING CONDITIONS. SUBMISSIONS OF A BID WILL BE CONSIDERED AN AFFIRMATION OF THIS INSPECTION HAVING BEEN COMPLETED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PICKING UP MATERIALS FOR INSTALL ITEMS AT KYTC'S DIVISION OF EQUIPMENT WAREHOUSE (1239 WILKINSON BOULEVARD, FRANKFORT, KY 40622). THE FOLLOWING PROCEDURES SHALL BE FOLLOWED FOR MATERIAL RELEASE. FAILURE TO FOLLOW THESE PROCEDURES MAY RESULT IN LONG DELAYS OR REFUSAL TO DISTRIBUTE MATERIALS UPON ARRIVAL.

- CONTRACTOR SHALL SECURE THE SIGNATURES OF KYTC'S PROJECT ENGINEER AND THE ELECTRICAL CONTRACTOR'S FOREMAN ON THE PROJECT MATERIALS RELEASE FORM. IF THE RELEASE FORM IS NOT IN THE PROPOSAL, CONTACT KIM STAMPER OR KERRY DECKER WITH THE DIVISION OF TRAFFIC OPERATIONS BY PHONE (502-782-8994/502-782-5536) OR EMAIL (KIM.STAMPER@KY.GOV/KERRY.DECKER@KY.GOV).
- CONTRACTOR SHALL CONTACT THE WAREHOUSE TO PREARRANGE PICK UP OF MATERIALS. CONTRACTOR SHALL EMAIL THE PROJECT MATERIALS RELEASE FORM WITH REQUIRED SIGNATURES TO THE WAREHOUSE AT KIM.STAMPER@KY.GOV AND SHALL NOTIFY THE WAREHOUSE BY PHONE (502-782-8994/502-330-8153) OR EMAIL KIM.STAMPER@KY.GOV AT LEAST TWO (2) WORKING DAYS PRIOR TO ARRIVAL.
- CONTRACTOR SHALL ALSO CONTACT THE SIGNAL SYSTEM BRANCH OF THE DIVISION OF TRAFFIC OPERATIONS BY PHONE (502-782-5543/502-782-5547) OR EMAIL (JOE.THOMPSON@KY.GOV/LARRY.IRISH@KY.GOV) AT LEAST TWO (2) WORKING DAYS PRIOR TO ARRIVAL TO FACILITATE PROGRAMMING OF ROUTERS.
- CONTRACTOR SHALL ARRIVE AT THE KYTC'S DIVISION OF EQUIPMENT WAREHOUSE (1239 WILKINSON BOULEVARD, FRANKFORT, KY 40622) AT THE PREARRANGED DATE/TIME FOR MATERIAL PICK UP. TO FACILITATE THIS PROCESS, ENSURE CONTRACTOR'S DELIVERY DRIVER HAS A COPY OF THE PROJECT MATERIALS RELEASE FORM WITH THE REQUIRED SIGNATURES.

ADD SENTENCE TO SECTION 835.17: ALL WIRE SHALL HAVE WORDING ADDED TO THE OUTER JACKET THAT STATES : *PROPERTY OF KENTUCKY TRANSPORTATION CABINET 502 564 0501*.

MATERIAL NOTES IN ADDITION TO SECTION 835

- SUBSECTION:**
ADDITION:
 16.07 SIGNAL TETHER CABLE PROVIDE TETHER CABLE THAT CONSISTS OF "CLASS A" ZINC-COATED, COMMON GRADE STEEL AND EXTRA GALVANIZED PER ASTM 457-03. PROVIDE A MINIMUM 1/4 INCH DIAMETER WITH 7 STRANDS AND MINIMUM BREAKING STRENGTH OF 1,900 POUNDS.
- SUBSECTION:**
ADDITION:
 16.08 SIGNAL TETHER STRANDWISE PROVIDE A STRANDWISE THAT HAS AN AUTOMATIC JAW TYPE DEAD-END FOR 1/4 INCH GALVANIZED STEEL MESSENGER. USE HUBBELL GDE5200L OR APPROVED EQUAL.
- SUBSECTION:**
ADDITION:
 16.09 SIGNAL TETHER STRANDLINK PROVIDE A STRANDLINK THAT IS A SPLICE FOR 1/4 INCH GALVANIZED STEEL MESSENGER. USE HUBBELL GLS5000 OR APPROVED EQUAL.

MEASUREMENT NOTES THAT ARE IN ADDITION TO SECTION 723

INSTALL SIGNAL CONTROLLER TYPE ATC. THE DEPARTMENT WILL MEASURE THE QUANTITY AS EACH INDIVIDUAL UNIT INSTALLED. THE DEPARTMENT WILL NOT MEASURE THE CONCRETE BASE, MOUNTING THE CABINET, CONNECTING THE SIGNAL AND DETECTORS, EXCAVATION, BACKFILLING, RESTORATION, ANY NECESSARY POLE MOUNTING HARDWARE, ELECTRIC SERVICE, ELECTRICAL INSPECTION FEES, AND REQUIRED BUILDING FEES INVOLVING UTILITY SECONDARY/PRIMARY SERVICE FOR PAYMENT AND WILL CONSIDER THEM INCIDENTAL TO THIS ITEM OF WORK. THE DEPARTMENT WILL ALSO NOT MEASURE CONNECTING THE INDUCTION LOOP AMPLIFIERS, PEDESTRIAN ISOLATORS, LOAD SWITCHES, MODEL 400 MODEM CARD FOR PAYMENT AND WILL CONSIDER THEM INCIDENTAL TO THIS ITEM OF WORK. THE DEPARTMENT WILL ALSO NOT MEASURE FURNISHING AND INSTALLING ELECTRICAL SERVICE CONDUCTORS, CONDUITS, ANCHORS, METER BASE, FUSED CUTOUT, FUSES, GROUND RODS, GROUND LUGS, AND GROUND WIRES FOR PAYMENT AND WILL CONSIDER THEM INCIDENTAL TO THIS ITEM OF WORK.

INSTALL RADAR PRESENCE DETECTOR TYPE A SHALL CONSIST OF INSTALLATION OF A POLE MOUNTED RADAR PRESENCE SENSOR, SENSOR MOUNTING BRACKET, SENSOR CABLES, INTERFACE BOXES, LEAD-IN CABLE, CONNECTORS (FURNISHED BY CONTRACTOR), AND CONTROLLER INTERFACE ASSEMBLY. RADAR PRESENCE DETECTOR TYPE A BID ITEM SHALL INCLUDE ALL LABOR REQUIRED TO PROVIDE A FUNCTIONAL DETECTION SYSTEM. RADAR PRESENCE DETECTOR TYPE A SHALL BE INSTALLED AND WIRED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. AFTER THE DETECTOR IS INSTALLED AND BEFORE THE DETECTOR IS POWERED ON, THE CONTRACTOR SHALL COORDINATE WITH DISTRICT TRAFFIC DIVISION'S REPRESENTATIVES TO SCHEDULE A TIME TO PERFORM THE DETECTOR SETUP. THE CONTRACTOR SHALL DOUBLE CHECK TO VERIFY THAT ALL WIRING IS CORRECTLY INSTALLED AND CONNECTED BEFORE SCHEDULING THE SETUP WORK. REPRESENTATIVES FROM KYTC AND/OR THE MANUFACTURER OR SALES REPRESENTATIVE WILL ASSIST WITH SETUP AND CALIBRATION. THE CONTRACTOR SHALL PROVIDE A BUCKET TRUCK AND OPERATORS AT THIS TIME FOR FINAL AIMING OF THE SENSORS. THE CONTRACTOR SHALL PROVIDE INDIVIDUALS CAPABLE OF OPERATING THE SETUP SOFTWARE AND LEARNING THE SETUP PROCESS SO THAT FUTURE INSTALLATIONS MAY BE COMPLETED WITHOUT ASSISTANCE FROM OTHERS.

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CONSTRUCTION AND MEASUREMENT NOTES THAT ARE CONTRARY TO SECTION 723

SUBSECTION:03.02 POLES AND BASES INSTALLATION. B) REVISION:REPLACE ENTIRE TABLE WITH THE FOLLOWING:

MAXIMUM SERVICE FORCES	DRILLED SHAFT DATA						VERTICAL BARS TOTAL	TIES OR SPIRAL BAR SIZE	SPACING OR PITCH (IN.)
	DIAMETER (IN.)	< 2:1 GROUND SLOPE		2:1 GROUND SLOPE*		ROCK			
		SOIL	ROCK	SOIL	ROCK				
0-9.9	36	6	6	6.5	6	6	#8	#4	
10-19.9	36	7	6	6.5	6	6	#8	#4	
20-29.9	36	8	6	6.5	6	6	#8	#4	
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40-49.9	36	9	6	6.5	6	6	#8	#4	
50-59.9	36	10	6	6.5	6	6	#8	#4	
60-69.9	36	11	6	6.5	6	6	#8	#4	
70-99.9	36	12.5	6	6.5	6	6	#8	#4	
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150-199.9	36	15.5	6	6.5	6	6	#8	#4	
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400-499.9	36	21.5	6	6.5	6	6	#8	#4	
500-600	48	22.5	6	6.5	6	6	#9	#4	

SUBSECTION:
 REVISION:
 03.12 WIRING INSTALLATION. SEE TRAFFIC OPERATIONS WEBSITE FOR WORD DOCUMENT TO REPLACE ALL CHARTS FOR WIRING TO SHOW CHANGES FOR EQUIPMENT GROUNDING.

SUBSECTION:
 REVISION:
 04.22 REMOVE SIGNAL EQUIPMENT. (CONSTRUCTION ONLY) REPLACE THE PARAGRAPH WITH THE FOLLOWING: THE DEPARTMENT WILL MEASURE THE QUANTITY BY EACH. THE DEPARTMENT WILL NOT MEASURE BACKFILLING AND THE DISPOSAL OR TRANSPORTATION OF EQUIPMENT AND MATERIALS ASSOCIATED WITH ANY STRUCTURAL OR ELECTRICAL COMPONENT OF THE SIGNAL SYSTEM INCLUDING, BUT NOT LIMITED TO POLE BASES, POLES, JUNCTION BOXES, CABINETS, AND WOOD POLES FOR PAYMENT AND WILL CONSIDER THEM INCIDENTAL TO THIS ITEM OF WORK.

MATERIAL NOTES THAT ARE CONTRARY TO SECTION 835

SUBSECTION:
 REVISION:
 .21 WARNING TAPE. REPLACE FIRST SENTENCE WITH THE FOLLOWING IN 834.33: PROVIDE DETECTABLE TYPE TAPE THAT IS 6 INCHES WIDE AND 7.0 MILS (NOMINAL)THICK.

DESIGNED BY: JRG
 DATE SUBMITTED: 8/1/2024

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS
 COUNTY OF
WARREN

PROJECT NUMBERS: FD04 I14 031W 020-023
 STP 5082024

TRAFFIC SIGNAL ESTIMATE OF QUANTITIES
 MEASUREMENT, CONST, AND MISC NOTES

FLASHING YELLOW ARROW SIGNAL WIRING AND SPECIAL REQUIREMENTS

CONNECTION	COLOR	OUTPUT FILE CONNECTION FOR FTA ON PHASE 1	OUTPUT FILE CONNECTION FOR FTA ON PHASE 5
RED ARROW	RED	PHASE 1 RED	PHASE 5 RED
STEADY YELLOW ARROW	ORANGE	PHASE 1 YELLOW	PHASE 5 YELLOW
FLASHING YELLOW ARROW	BLACK	PHASE 1 GREEN	PHASE 5 GREEN
GREEN ARROW	BLUE	PED YELLOW PHASE 2	PED YELLOW PHASE 6
NEUTRAL	WHITE	WHITE	WHITE
EQUIPMENT GROUND	GREEN		
NOT USED	WHITE/TRACER		

THE CONTRACTOR SHALL CONNECT THE CONNECTOR LABELED "2PY 4PY 6PY 8PY" TO CONNECTOR "CMU 13,16,R,U" BEHIND THE OUTPUT PANEL. IF IT IS A SOLID STATE CABINET (SIEMENS) ONLY HAVE 2 CONNECTORS WHICH SIMPLY NEED TO BE CONNECTED TOGETHER.

DETECTION ZONE SCHEDULE

DETECTION ZONE	PHASE	SLOT	CHANNEL	SIZE	DIST. FROM STOP BAR
1	1	11	1	6x30	0'
2A	2	12	1	6x6	222'
2B	2	12	1	6x6	222'
2C	2	12	2	6x6	394'
2D	2	12	2	6x6	394'
4A	4	16	1	6x30	0'
4B	4	16	2	6x30	0'
5	5	11	1	6x30	0'
6A	6	J2	1	6x6	222'
6B	6	J2	1	6x6	222'
6C	6	J2	2	6x6	394'
6D	6	J2	2	6x6	394'

- INSTALL STEEL STRAIN POLE B AT STA. 109+65.22, 81.17' RT.
- INSTALL TYPE ATC 2070 CONTROLLER IN MODEL 332 BASE MOUNT CABINET.
- INSTALL 4-2" PVC SCHEDULE 80 CONDUITS FROM CONTROLLER TO POLE B.
- INSTALL ROUTER, ANTENNA, POWER SUPPLY AND CABLING AS SHOWN ON THE SPECIFICATIONS SHEET FOR CABINET ON POLE B.
- INSTALL RADAR UNIT TYPE A WITH BRACKET AND APPROPRIATE CABLING ON POLE A.

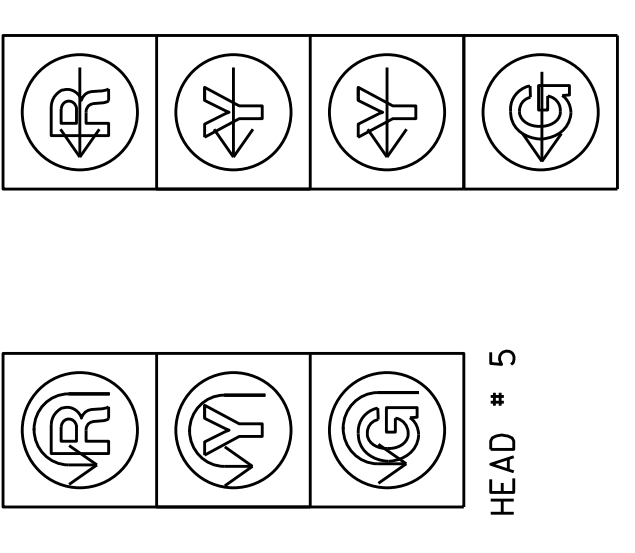
WIRING SCHEDULE

CABLE	ORIGIN	ENDING	CONNECTING
1-#14/7C	CONTROLLER	SH 1	SH 1
1-#14/7C	CONTROLLER	SH 2B	SH 2A & 2B
1-#14/7C	CONTROLLER	SH 4B	SH 4A & 4B
1-#14/7C	CONTROLLER	SH 5	SH 5
1-#14/7C	CONTROLLER	SH 6A	SH 6A & 6B
RADAR CABLE	CONTROLLER	POLE A	RADAR A
RADAR CABLE	CONTROLLER	POLE A	RADAR A (GES)
RADAR CABLE	CONTROLLER	POLE B	RADAR B
RADAR CABLE	CONTROLLER	POLE C	RADAR C (GES)
RADAR CABLE	CONTROLLER	POLE D	RADAR D

HEADS # 2A, 2B, 4A, 4B, 6A & 6B

HEAD # 5

HEAD # 1



ALL INDICATIONS I.E.D. ALL SIGNAL HEADS WILL HAVE REFLECTIVE BACKPLATES

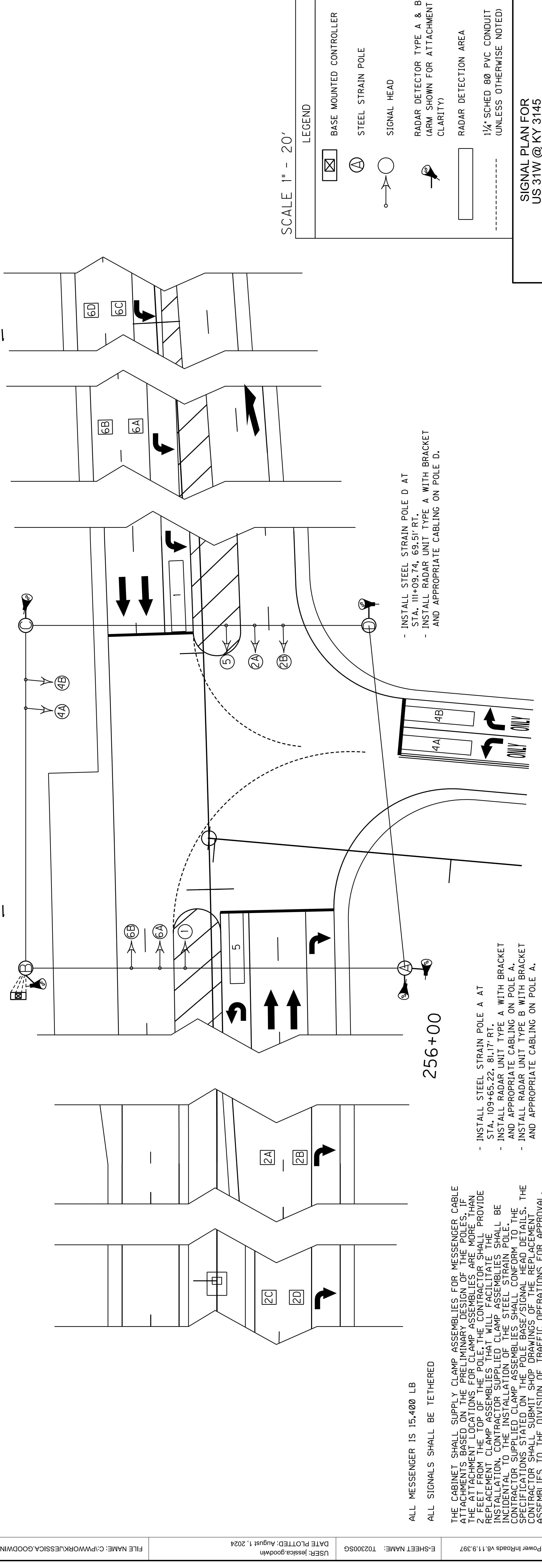
STEEL STRAIN POLES

POLE	HEIGHT	SPAN	ATT. HI.	CALC. SERV. MOMENT	SAG
A	38'	A-B	37'	199.83 k-ft	5%
B	38'	B-A	36'	221.29 k-ft	5%
C	38'	B-C	27'		
		C-B	30'	220.76 k-ft	5%
D	38'	C-D	37'		
		D-C	37'	186.99 k-ft	5%

115+00

110+00

- INSTALL STEEL STRAIN POLE C AT STA. 111+14.23, 71.67' LT.
- INSTALL RADAR UNIT TYPE B WITH BRACKET AND APPROPRIATE CABLING ON POLE C.



ALL MESSENGER IS 15,400 LB
ALL SIGNALS SHALL BE TETHERED

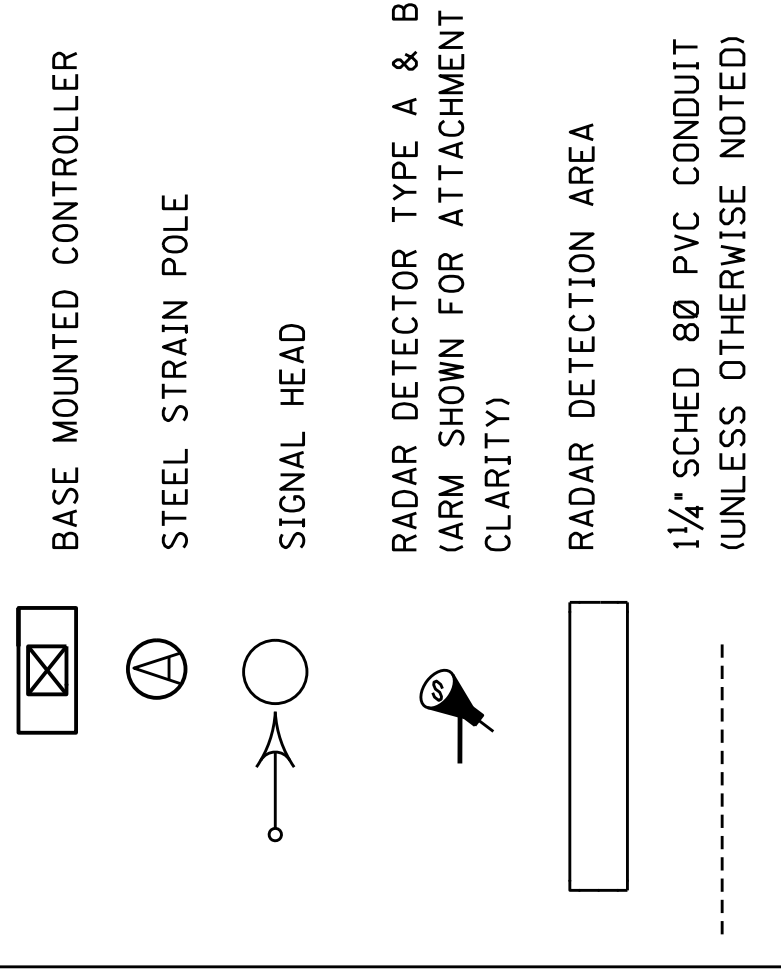
THE CABINET SHALL SUPPLY CLAMP ASSEMBLIES FOR MESSENGER CABLE ATTACHMENTS BASED ON THE PRELIMINARY DESIGN OF THE POLES. IF THE ATTACHMENT LOCATIONS FOR CLAMP ASSEMBLIES ARE MORE THAN 2 FEET FROM THE TOP OF THE POLE, THE CONTRACTOR SHALL PROVIDE REPLACEMENT CLAMP ASSEMBLIES THAT WILL FACILITATE THE INSTALLATION OF THE MESSENGER CABLE TO THE POLE. THE CONTRACTOR SHALL BE IDENTICAL TO THE INSTALLATION OF THE STEEL STRAIN POLE. THE CONTRACTOR SHALL CONFORM TO THE SPECIFICATIONS STATED ON THE POLE BASE/SIGNAL HEAD DETAILS. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF THE REPLACEMENT ASSEMBLIES TO THE DIVISION OF TRAFFIC OPERATIONS FOR APPROVAL.

- INSTALL STEEL STRAIN POLE A AT STA. 109+65.22, 81.17' RT.
- INSTALL RADAR UNIT TYPE A WITH BRACKET AND APPROPRIATE CABLING ON POLE A.
- INSTALL RADAR UNIT TYPE B WITH BRACKET AND APPROPRIATE CABLING ON POLE A.

- INSTALL STEEL STRAIN POLE D AT STA. 111+09.74, 69.51' RT.
- INSTALL RADAR UNIT TYPE A WITH BRACKET AND APPROPRIATE CABLING ON POLE D.

SCALE 1" = 20'

LEGEND

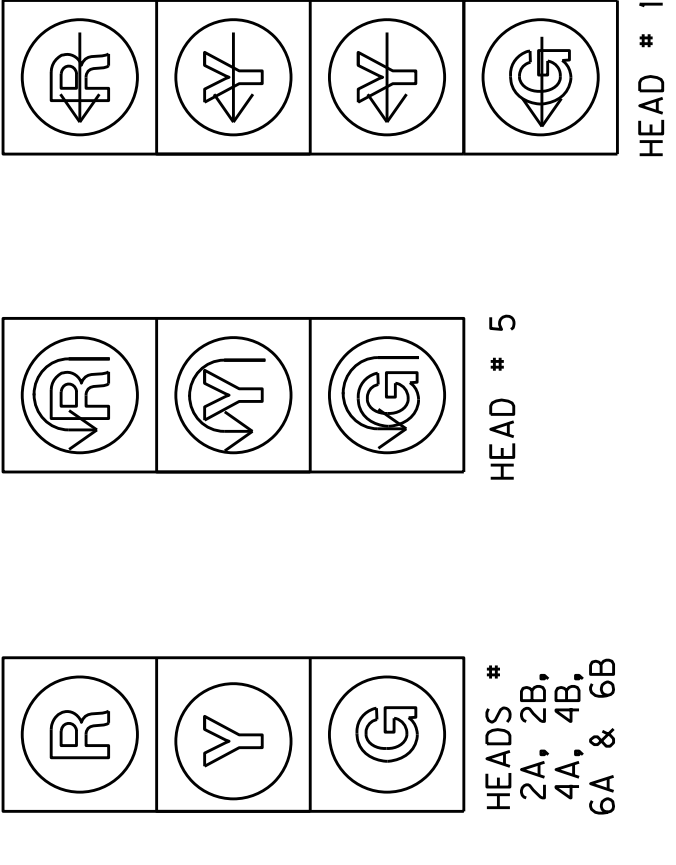


SIGNAL PLAN FOR US 31W @ KY 3145

COUNTY OF	WARREN	ITEM NO.	3-8905.00	SHEET NO.	T023
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WIRING SCHEDULE

CABLE	ORIGIN	ENDING	CONNECTING
1-#14/7C	CONTROLLER	SH 1	SH 1
1-#14/7C	CONTROLLER	SH 2B	SH 2A & 2B
1-#14/7C	CONTROLLER	SH 4B	SH 4A & 4B
1-#14/7C	CONTROLLER	SH 5	SH 5
1-#14/7C	CONTROLLER	SH 6A	SH 6A & 6B
RADAR CABLE	CONTROLLER	POLE A	RADAR A
RADAR CABLE	CONTROLLER	POLE A	RADAR A (GES)
RADAR CABLE	CONTROLLER	POLE B	RADAR B
RADAR CABLE	CONTROLLER	POLE C	RADAR C (GES)
RADAR CABLE	CONTROLLER	POLE D	RADAR D



DETECTION ZONE SCHEDULE

DETECTION ZONE	PHASE	SLOT	CHANNEL	SIZE	DIST. FROM STOP BAR
1	1	J1	1	6x30	0'
2A	2	J2	1	6x6	222'
2B	2	J2	1	6x6	222'
2C	2	J2	2	6x6	394'
2D	2	J2	2	6x6	394'
4A	4	J6	1	6x30	0'
4B	4	J6	2	6x30	0'
5	5	J1	1	6x30	0'
6A	6	J2	1	6x6	222'
6B	6	J2	1	6x6	222'
6C	6	J2	2	6x6	394'
6D	6	J2	2	6x6	394'

THE CONTRACTOR SHALL CONNECT THE CONNECTOR LABELED *2PY 4PY 6PY 8PY* TO CONNECTOR *CMU 13,16,R,U* BEHIND THE OUTPUT PANEL. IF IT IS A SOLID STATE CABINET (SIEMENS) ONLY HAVE 2 CONNECTORS WHICH SIMPLY NEED TO BE CONNECTED TOGETHER.

- INSTALL STEEL STRAIN POLE B AT STA. 109+65.22, 81.17' RT.
- INSTALL TYPE ATC 2070 CONTROLLER IN MODEL 332 BASE MOUNT CABINET.
- INSTALL 4-2" PVC SCHEDULE 80 CONDUITS FROM CONTROLLER TO POLE B.
- INSTALL ROUTER, ANTENNA, POWER SUPPLY AND CABLING AS SHOWN ON THE SPECIFICATIONS SHEET FOR CABINET ON POLE B.
- INSTALL RADAR UNIT TYPE A WITH BRACKET AND APPROPRIATE CABLING ON POLE A.

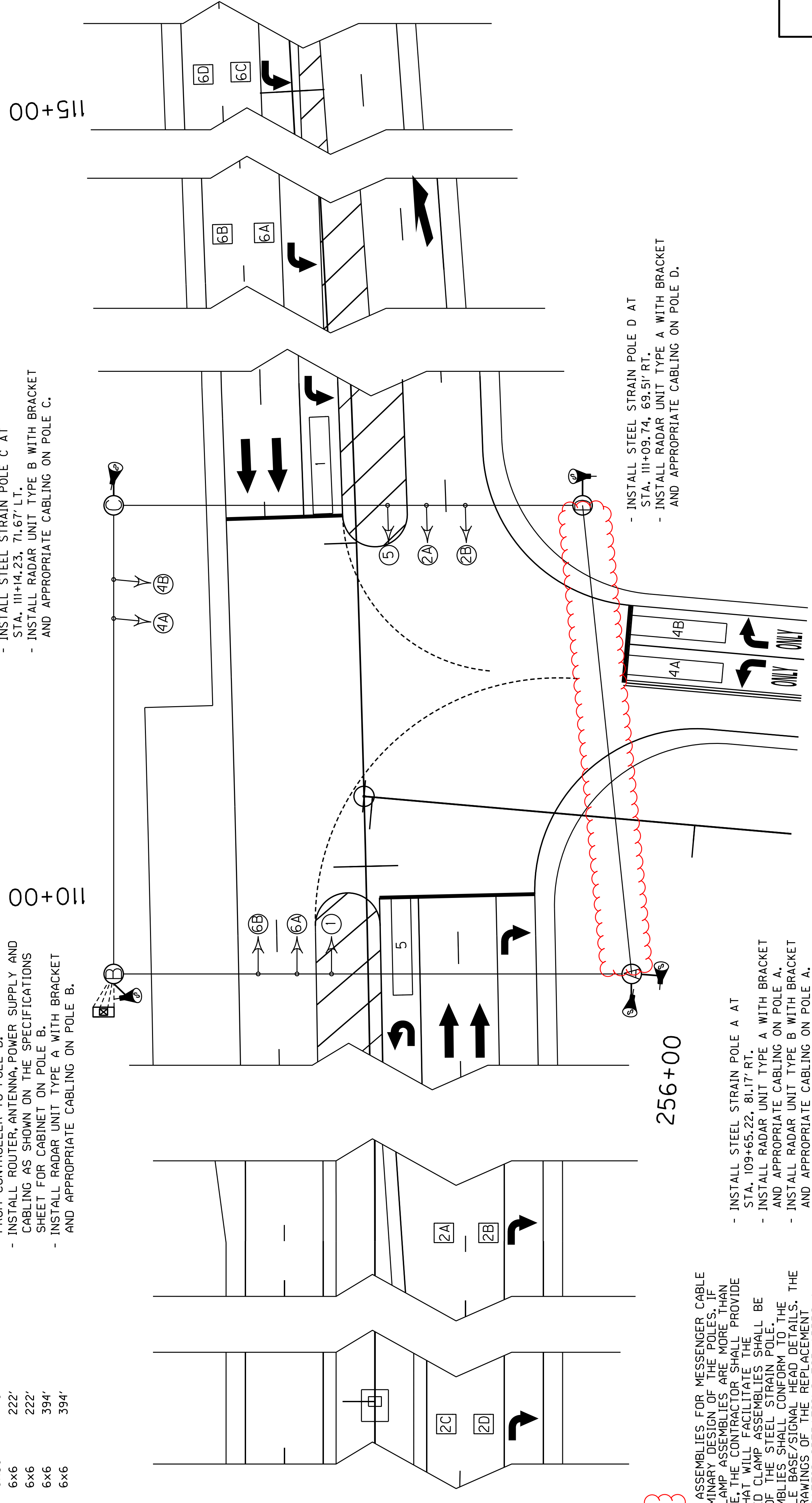
- INSTALL STEEL STRAIN POLE C AT STA. 111+14.23, 71.67' LT.
- INSTALL RADAR UNIT TYPE B WITH BRACKET AND APPROPRIATE CABLING ON POLE C.

FLASHING YELLOW ARROW SIGNAL WIRING AND SPECIAL REQUIREMENTS

CONNECTION	COLOR	OUTPUT FILE CONNECTION FOR FYA ON PHASE 1	OUTPUT FILE CONNECTION FOR FYA ON PHASE 5
RED ARROW	RED	PHASE 1 RED	PHASE 5 RED
STEADY YELLOW ARROW	ORANGE	PHASE 1 YELLOW	PHASE 5 YELLOW
FLASHING YELLOW ARROW	BLACK	PHASE 1 GREEN	PHASE 5 GREEN
GREEN ARROW	BLUE	PED YELLOW PHASE 2	PED YELLOW PHASE 6
NEUTRAL	WHITE	WHITE	WHITE
EQUIPMENT GROUND	GREEN		
NOT USED	WHITE/TRACER		

STEEL STRAIN POLES

POLE	HEIGHT	SPAN	ATT. HI.	CALC. SERV. MOMENT	SAG
A	38'	A-B	37'	199.83 k-ft	5%
B	38'	B-A	36'	221.29 k-ft	5%
C	38'	B-C	27'		
		C-B	30'	220.76 k-ft	5%
D	38'	C-D	37'		
		D-C	37'	186.99 k-ft	5%



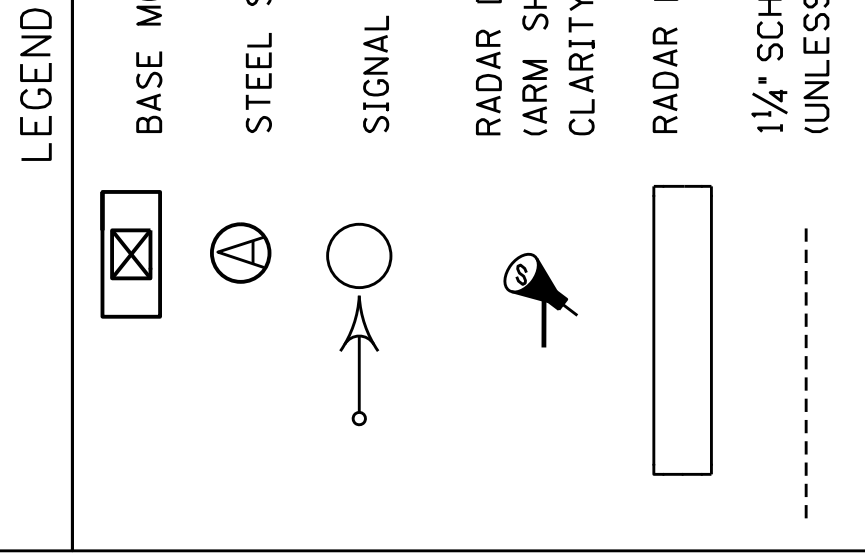
ALL MESSENGER IS 15,400 LB.
ALL SIGNALS SHALL BE TETHERED

THE CABINET SHALL SUPPLY CLAMP ASSEMBLIES FOR MESSENGER CABLE ATTACHMENTS BASED ON THE PRELIMINARY DESIGN OF THE POLES. IF THE ATTACHMENT LOCATIONS FOR CLAMP ASSEMBLIES ARE MORE THAN 2 FEET FROM THE TOP OF THE POLE, THE CONTRACTOR SHALL PROVIDE REPLACEMENT CLAMP ASSEMBLIES THAT WILL FACILITATE THE INSTALLATION OF THE STEEL STRAIN POLES. THE CONTRACTOR SHALL CONFORM TO THE SPECIFICATIONS STATED ON THE POLE BASE/SIGNAL HEAD DETAILS. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF THE REPLACEMENT ASSEMBLIES TO THE DIVISION OF TRAFFIC OPERATIONS FOR APPROVAL.

- INSTALL STEEL STRAIN POLE A AT STA. 109+65.22, 81.17' RT.
- INSTALL RADAR UNIT TYPE A WITH BRACKET AND APPROPRIATE CABLING ON POLE A.
- INSTALL RADAR UNIT TYPE B WITH BRACKET AND APPROPRIATE CABLING ON POLE A.

- INSTALL STEEL STRAIN POLE D AT STA. 111+09.74, 69.51' RT.
- INSTALL RADAR UNIT TYPE A WITH BRACKET AND APPROPRIATE CABLING ON POLE D.

SCALE 1" = 20'



SIGNAL PLAN FOR US 31W @ KY 3145

GENERAL SUMMARY

NOTES:

(1) INCLUDES VINYL GATE

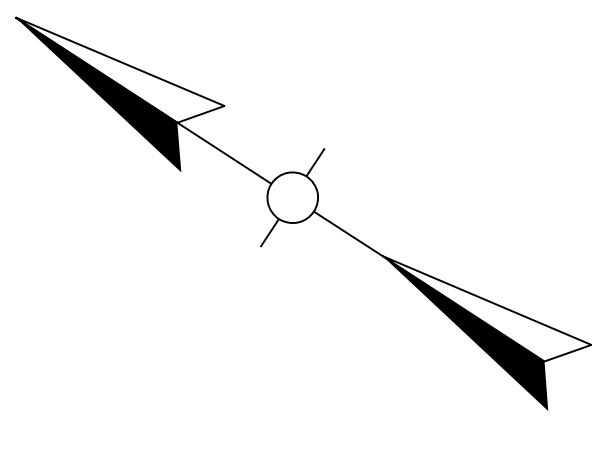
ITEM	DESCRIPTION	UNIT	US 31W	MCGINNIS QUARRY RD.	COMMON-WEALTH BLVD.	FRONTAGE RD. 99+50	KY 3145	FRONTAGE RD. 118+70	MIZPAH RD.										PROJECT TOTAL
6568	PAVE MARKING-THERMO STOP BAR-24IN	LF	106	12	69		24												211
6569	PAVE MARKING-THERMO CROSS-HATCH	SOFT	2206	91	4343														6640
6574	PAVE MARKING-THERMO CURV ARROW	EACH	33	2	3		6												44
6575	PAVE MARKING-THERMO COMB ARROW	EACH	20																20
6576	PAVE MARKING-THERMO ONLY	EACH		1	2		4												7
6578	PAVE MARKING-THERMO MERGE ARROW	EACH	2																2
6610	INLAID PAVEMENT MARKER-MW	EACH	140				6												146
6612	INLAID PAVEMENT MARKER-BY	EACH	248				6												254
6613	INLAID PAVEMENT MARKER-B W/R	EACH	150																150
8903	CRASH CUSHION TY VI CLASS BT TL3	EACH	4																4
10020NS	FUEL ADJUSTMENT	DOLL	76551																76551
10030NS	ASPHALT ADJUSTMENT	DOLL	96172																96172
20458ES403	CENTERLINE RUMBLE STRIPS	LF	866				226												1092
23158ES505	DETECTABLE WARNINGS	SOFT			37														37
23608EC	YELLOW PAINT FOR MEDIAN SAFETY NOSE	SOFT	3	9															12
23697EC	VINYL FENCE (1)	LF	1327																1327
24679ED	PAVE MARK THERMO CHEVRON	SOFT	479																479
24889EC	PAVE MARKING-THERMO U-TURN	EACH	4																4
24540	R/W MONUMENT TYPE 3	EACH		1															1

GENERAL SUMMARY

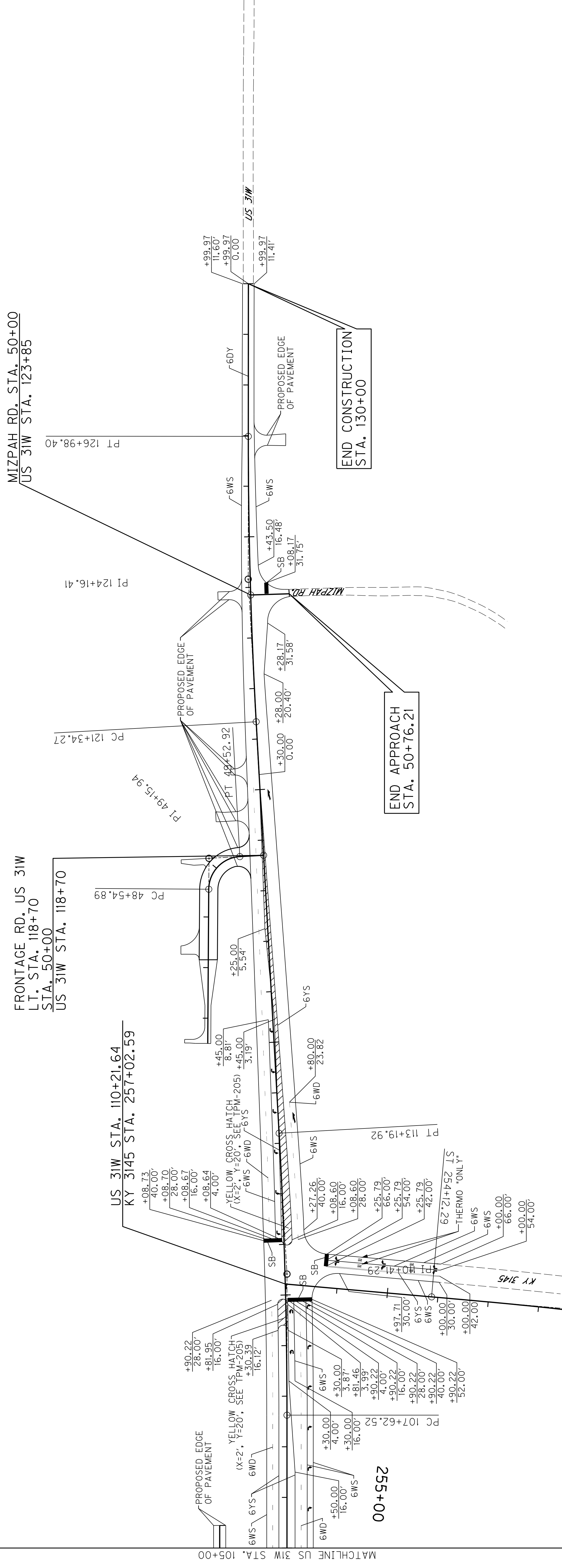
NOTES:

(1) INCLUDES VINYL GATE

ITEM	DESCRIPTION	UNIT	US 31W	MCGINNIS QUARRY RD.	COMMON-WEALTH BLVD.	FRONTAGE RD. 99+50	KY 3145	FRONTAGE RD. 118+70	MIZPAH RD.										PROJECT TOTAL
6568	PAVE MARKING-THERMO STOP BAR-24IN	LF	106	12	69		24												211
6569	PAVE MARKING-THERMO CROSS-HATCH	SOFT	2266	91	4343														6640
6574	PAVE MARKING-THERMO CURV ARROW	EACH	33	2	3		6												44
6575	PAVE MARKING-THERMO COMB ARROW	EACH	20																20
6576	PAVE MARKING-THERMO ONLY	EACH		1	2		4												
6578	PAVE MARKING-THERMO MERGE ARROW	EACH	2																2
6610	INLAID PAVEMENT MARKER-MW	EACH	140				6												146
6612	INLAID PAVEMENT MARKER-BY	EACH	248				6												254
6613	INLAID PAVEMENT MARKER-B W/R	EACH	150																150
8903	CRASH CUSHION TY VI CLASS BT TL3	EACH	4																4
10020NS	FUEL ADJUSTMENT	DOLL	76551																76551
10030NS	ASPHALT ADJUSTMENT	DOLL	96172																96172
20458ES403	CENTERLINE RUMBLE STRIPS	LF	866				226												1092
23158ES505	DETECTABLE WARNINGS	SOFT			37														37
23608EC	YELLOW PAINT FOR MEDIAN SAFETY NOSE	SOFT	3	9															12
23697EC	VINYL FENCE	LF	1327																1327
24679ED	PAVE MARK THERMO CHEVRON	SOFT	479																479
24889EC	PAVE MARKING-THERMO U-TURN	EACH	4																4
24540	R/W MONUMENT TYPE 3	EACH		1															4



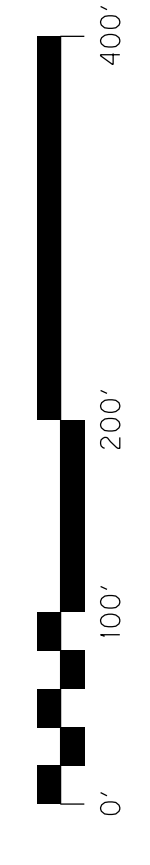
105+00 110+00 115+00 120+00 125+00 130+00



US 31W STRIPING QUANTITIES		
TYPE	UNIT	QUANTITY
PAVE STRIPING-THERMO-6 IN Y	L.F.	4842
PAVE STRIPING-THERMO-6 IN W	L.F.	7024
PAVE MARKING-THERMO STOP BAR-24IN	L.F.	106*
PAVE MARKING-THERMO CURV ARROW	EACH	12
PAVE MARKING-THERMO MERGE ARROW	EACH	2
PAVE MARKING-THERMO U-TURN	EACH	2
PAVE MARKING-THERMO CROSS-HATCH	SG.F.T.	2054
INLAID PAVEMENT MARKER-MW	EACH	28
INLAID PAVEMENT MARKER-BY	EACH	74
INLAID PAVEMENT MARKER-B W/R	EACH	26

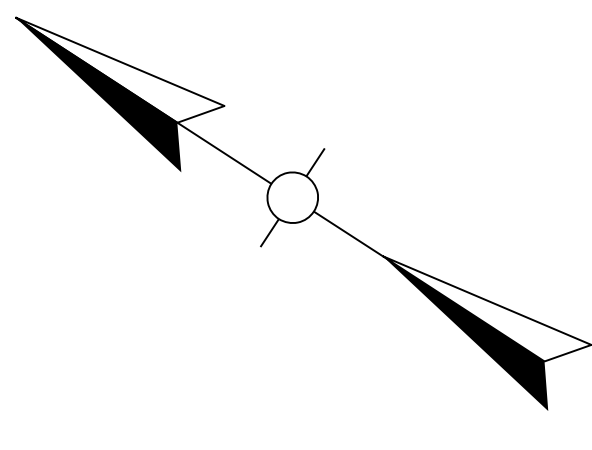
DESCRIPTION	LEGEND	ABBREV.
6" YELLOW-SOLID	(6YS)	(6YS)
6" YELLOW-DOUBLE	(6DY)	(6DY)
6" WHITE DASHED (10-30)	(6WD)	(6WD)
6" WHITE-SOLID	(6WS)	(6WS)
WHITE STOP BAR	(SB)	(SB)
THERMO CURVE ARROW		
THERMO MERGE ARROW		
THERMO U-TURN ARROW		
THERMO "ONLY"		

*INCLUDES MIZPAH RD STOP BAR.
 NOTE: REFER TO CURRENT EDITION OF MUTCD FOR LANE ARROW LOCATIONS. STOP BAR LOCATIONS ARE APPROXIMATE.

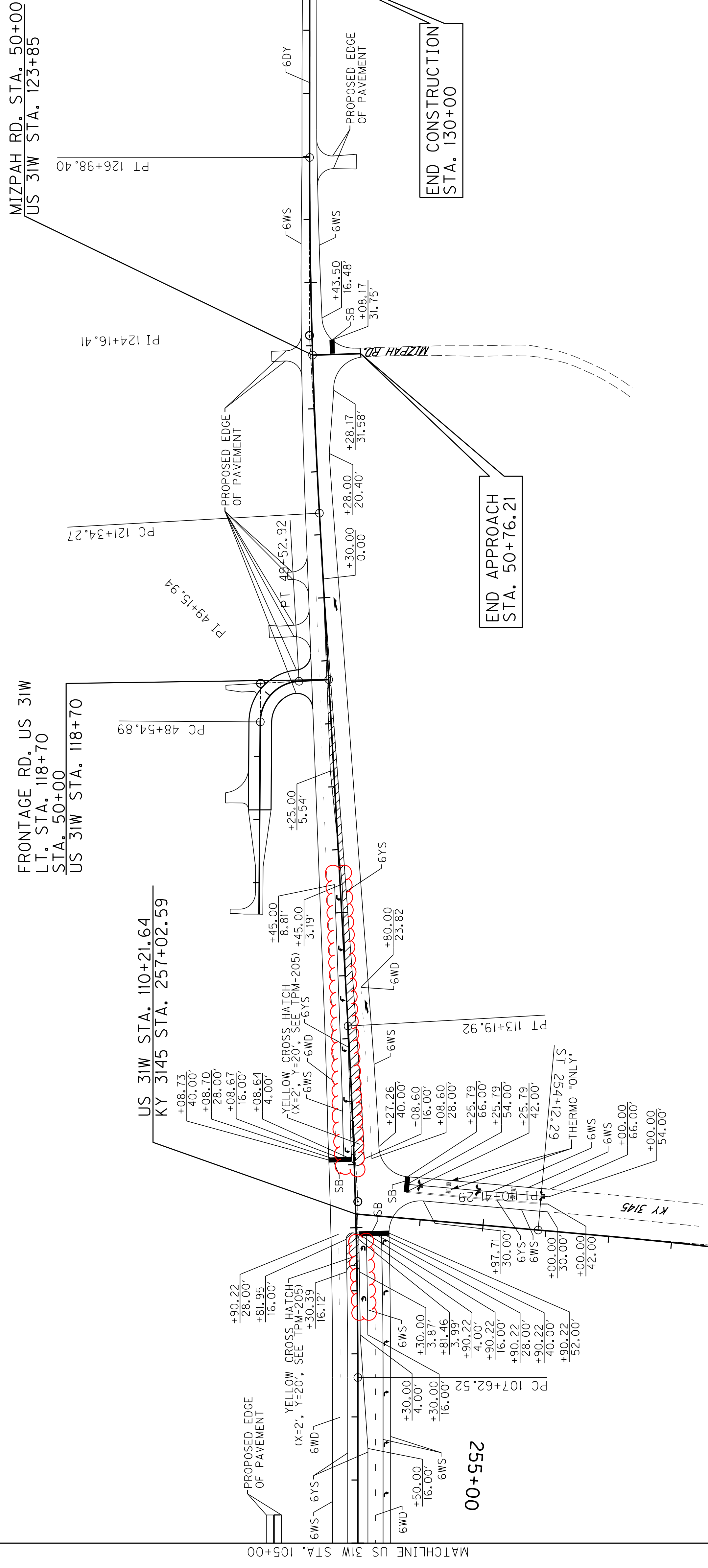


SCALE: 1"=100'

STRIPING PLAN
 US 31W
 STA. 105+00 TO STA. 130+00



105+00 110+00 115+00 120+00 125+00 130+00

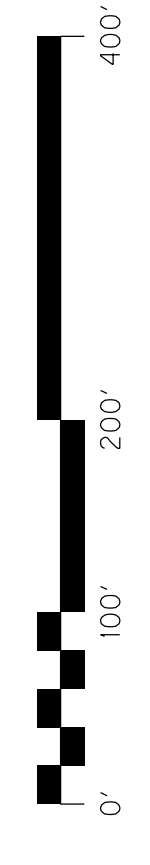


KY 3145 STRIPING QUANTITIES		
TYPE	UNIT	QUANTITY
PAVE STRIPING-THERMO-6 IN Y	L.F.	452
PAVE STRIPING-THERMO-6 IN W	L.F.	662
PAVE MARKING-THERMO STOP BAR-24IN	L.F.	24
PAVE MARKING-THERMO CURV ARROW	EACH	6
PAVE MARKING-THERMO ONLY	EACH	4
INLAID PAVEMENT MARKER-MW	EACH	6
INLAID PAVEMENT MARKER-BY	EACH	6

US 31W STRIPING QUANTITIES		
TYPE	UNIT	QUANTITY
PAVE STRIPING-THERMO-6 IN Y	L.F.	4842
PAVE STRIPING-THERMO-6 IN W	L.F.	7024
PAVE MARKING-THERMO STOP BAR-24IN	L.F.	106
PAVE MARKING-THERMO CURV ARROW	EACH	12
PAVE MARKING-THERMO MERGE ARROW	EACH	2
PAVE MARKING-THERMO U-TURN	EACH	2
PAVE MARKING-THERMO CROSS-HATCH	SQ.FT.	2054
INLAID PAVEMENT MARKER-MW	EACH	28
INLAID PAVEMENT MARKER-BY	EACH	74
INLAID PAVEMENT MARKER-B W/R	EACH	26

DESCRIPTION	ABBREV.
6" YELLOW-SOLID	(6YS)
6" YELLOW-DOUBLE	(6DY)
6" WHITE DASHED (10-30)	(6WD)
6" WHITE-SOLID	(6WS)
WHITE STOP BAR	(SB)
THERMO CURVE ARROW	
THERMO MERGE ARROW	
THERMO U-TURN ARROW	
THERMO "ONLY"	

*INCLUDES MIZPAH RD STOP BAR.
 NOTE: REFER TO CURRENT EDITION OF MUTCD FOR LANE ARROW LOCATIONS. STOP BAR LOCATIONS ARE APPROXIMATE.



SCALE: 1"=100'

STRIPING PLAN
 US 31W
 STA. 105+00 TO STA. 130+00