

Civil Engineering Design

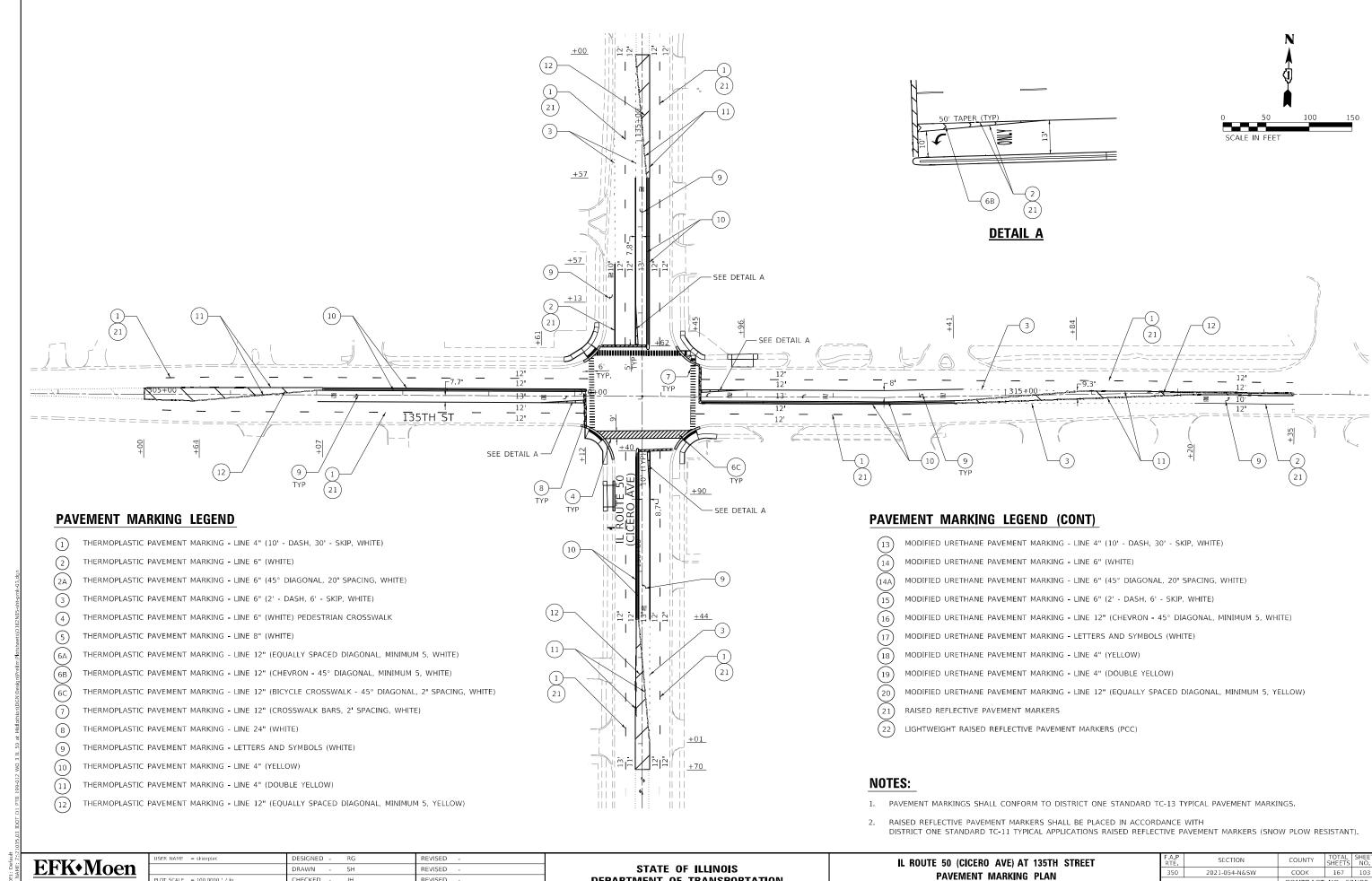
OT SCALE = 100.0000 / in. HECKED REVISED LOT DATE = 11/21/2022 REVISED DATE 8/5/2022

**DEPARTMENT OF TRANSPORTATION** 

SCALE:

IL ROL	JTE 50	(CICERO	AVE) AT N	/IIDLOTHIAN	TURNPIKE		F.A.P RTE		
PAVEMENT MARKING PLAN									
PAVEINENT IMARKING PLAN									
	SHEET	OF	SHEETS	STA	TO STA.				

2021-054-N&SW 167 102 CONTRACT NO. 62N85

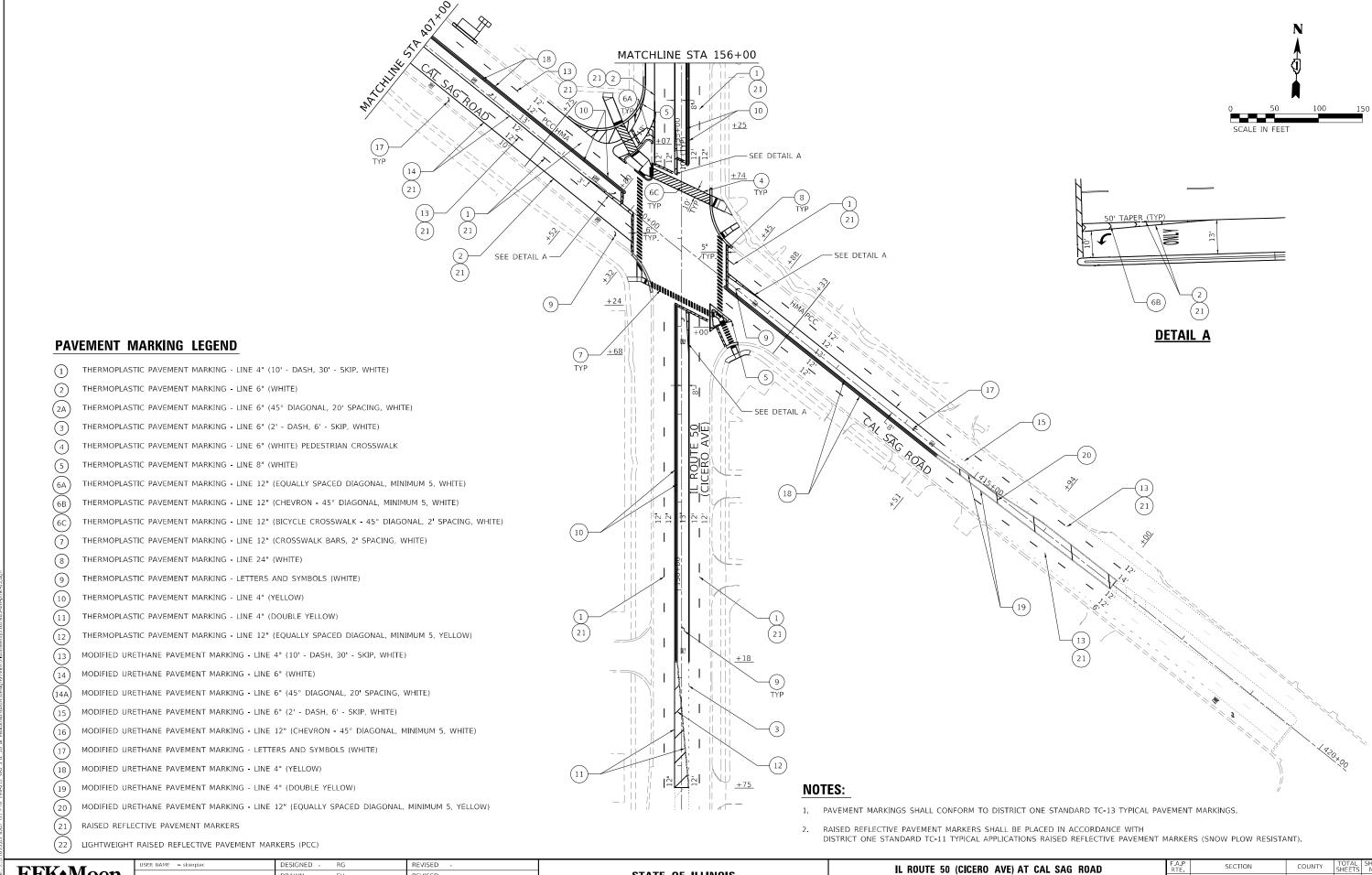


Civil Engineering Design

OT SCALE = 100.0000 / in. HECKED REVISED

**DEPARTMENT OF TRANSPORTATION** 

CONTRACT NO. 62N85



STATE OF ILLINOIS

**DEPARTMENT OF TRANSPORTATION** 

2021-054-N&SW

PAVEMENT MARKING PLAN

167 104

CONTRACT NO. 62N85

EFK•Moen Civil Engineering Design

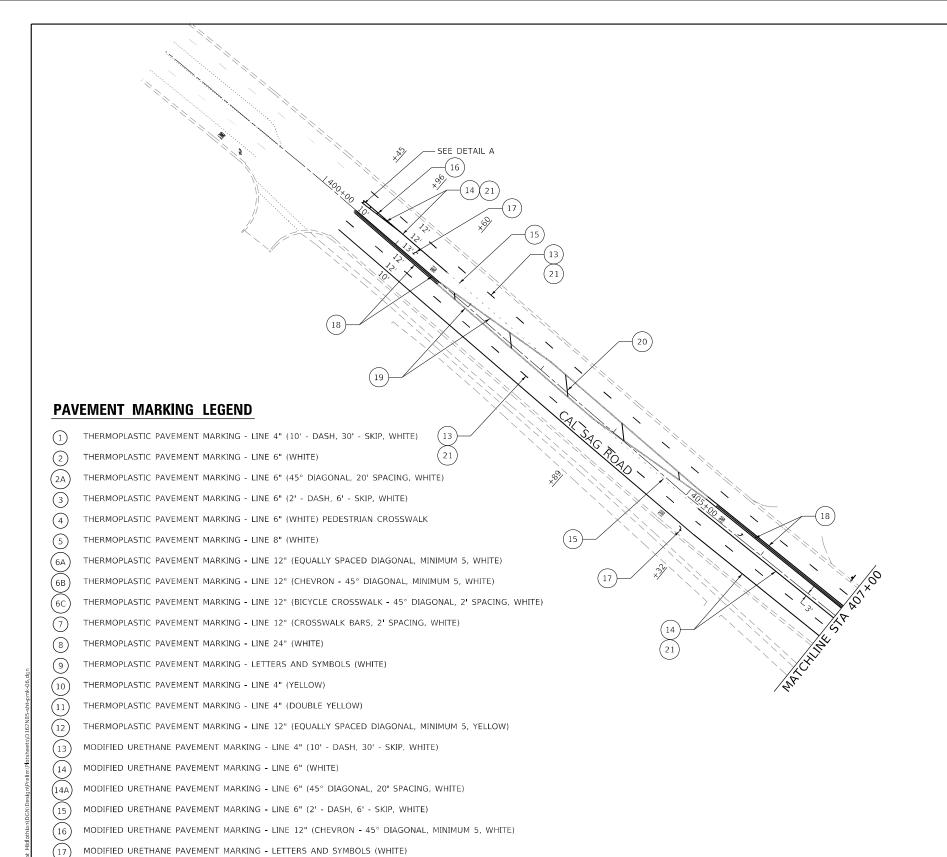
DRAWN

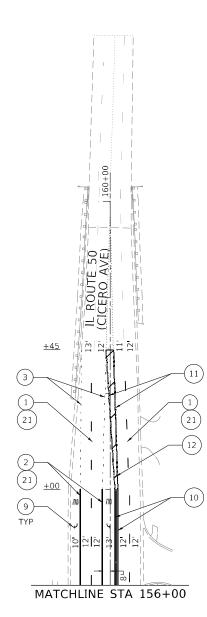
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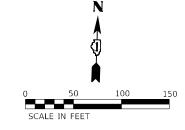
OT SCALE = 100.0000 / in.

REVISED

REVISED







### **NOTES:**

SCALE:

- 1. PAVEMENT MARKINGS SHALL CONFORM TO DISTRICT ONE STANDARD TC-13 TYPICAL PAVEMENT MARKINGS.
- RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH DISTRICT ONE STANDARD TC-11 TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW PLOW RESISTANT).

EFK•Moen
Civil Engineering Design

MODIFIED URETHANE PAVEMENT MARKING - LINE 4" (YELLOW)

LIGHTWEIGHT RAISED REFLECTIVE PAVEMENT MARKERS (PCC)

RAISED REFLECTIVE PAVEMENT MARKERS

MODIFIED URETHANE PAVEMENT MARKING - LINE 4" (DOUBLE YELLOW)

MODIFIED URETHANE PAVEMENT MARKING - LINE 12" (EQUALLY SPACED DIAGONAL, MINIMUM 5, YELLOW)

DRAWN - SH	USER NAME = skierpiec	DESIGNED - RG	REVISED -
		DRAWN - SH	REVISED -
BLOT DATE - 11/01/2022 DATE 9/5/2022 DEVICED	PLOT SCALE = 100.0000 / in.	CHECKED - JH	REVISED -
PEOT BATE = 11/21/2022 BATE - 8/5/2022 REVISED -	PLOT DATE = 11/21/2022	DATE - 8/5/2022	REVISED -

IL	ROUTE	50 (CICERO	AVE)	AT CAL	F.A.P RTE				TOTAL SHEETS	SHEET NO.				
		350	2021-054-N&SW			COOK	167	105						
	PAVEMENT MARKING PLAN									CONTRACT	NO. 62N85			
	SHEET	OF	SHEETS	STA.	TO STA.			ILLINOIS	FED. AI	D PROJECT				

EFK Moen Civil Engineering Design

	USER NAME = skierpiec	DESIGNED	-	RG	REVISED -
1		DRAWN	-	SK	REVISED -
=	PLOT SCALE = 100.0000 / in.	CHECKED	-	JH	REVISED -
.1	PLOT DATE = 11/21/2022	DATE	-	8/5/2022	REVISED -

# STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

	IL RO		) (CICER Chedule	O AVENU S	E)
SCALE:	SHEET	OF	SHEETS	STA.	TO STA.

 
 F.A.P. RTE.
 SECTION
 COUNTY
 TOTAL SHEET NO.
 SHEET SHEET SHEET

 350
 2021-054-N&SW
 COOK
 167
 106

 CONTRACT
 NO. 6≥NS5

 ILLINOIS
 FED. AID PROJECT

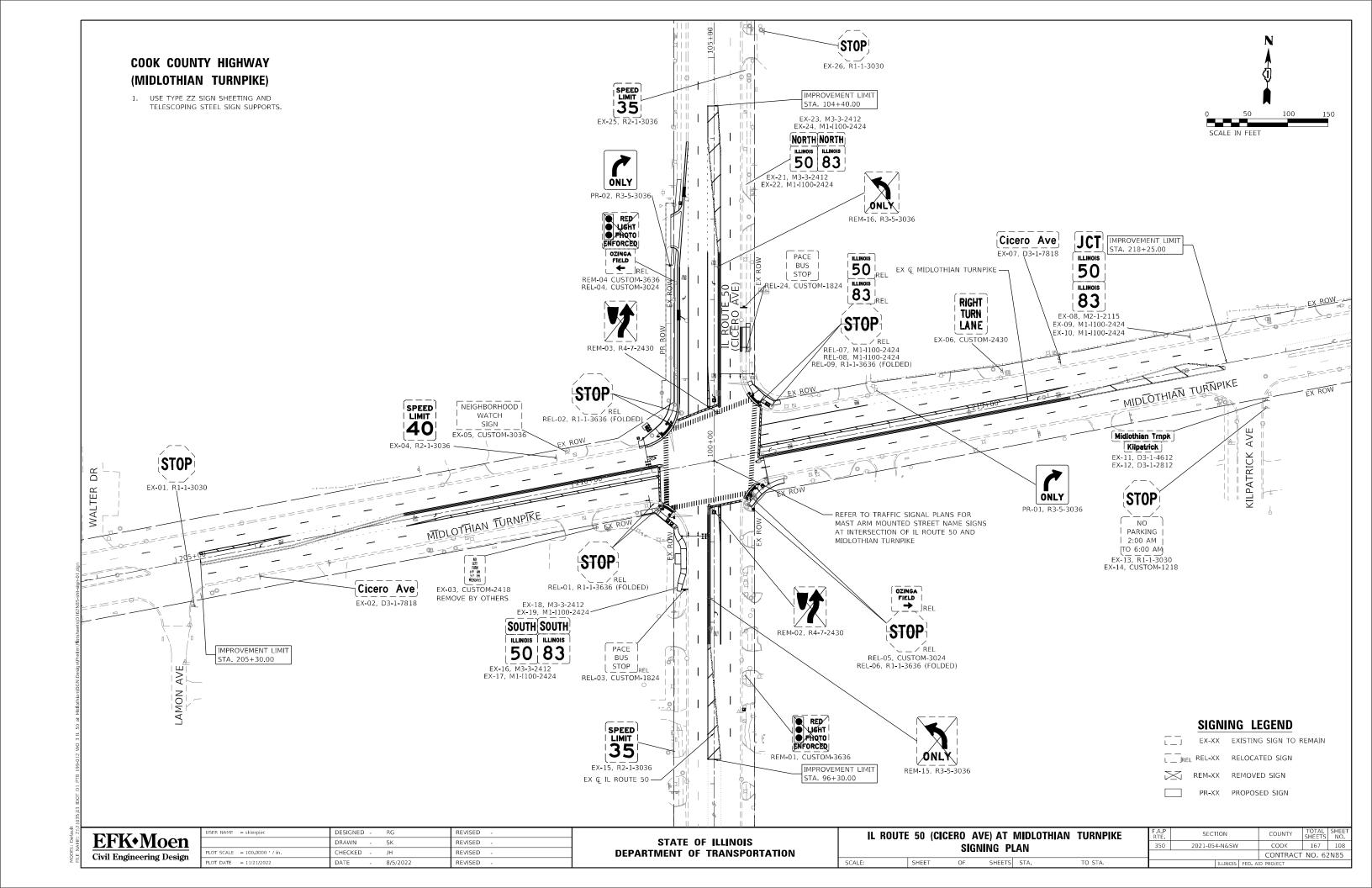
							EXISTING SIGNING SCHEDULI	E							
S I GN NUMBER	EXISTING STATION	EXISTING OFFSET	RELOCATE STATION	RELOCATE OFFSET	RELOCATE MOUNTING TYPE	DESIGNATION	DESCRIPTION		PANEL HEIGHT	PANEL AREA	REMOV SIN PAN ASSY TB	REMOV SIGN PANEL T1	RELOC SIN PAN ASSY TB	RELOC SIGN PANEL T1	TELES STL SIN SUPPORT (FOOT)
								(IN)	(IN)	(SQ FT)	(EA)	(SQ FT)	(EA)	(SQ FT)	P 1
F.V. 0.1	205.12	EZI DE				D 1 1	IL 50 AT MIDLOTHIAN TURNPI		20	6.3	1	-			
EX-01 EX-02	205+12 205+98	57' RT 35' RT				R1 - 1 D3 - 1	STOP STREET NAME	30 78	30 18	6.3 9.8		-		-	
EX-03	210+19	54' RT				CUSTOM	NO LEFT TURN	24	18	3.0					
EX-04	209+87	41' LT				R2 - 1	SPEED LIMIT	30	36	7.5					
EX-05	210+01	45' LT				CUSTOM	NEIGHBORHOOD WATCH	30	36	7.5					
EX-06 EX-07	215+50 216+23	42' LT 42' LT			-	CUSTOM D3 - 1	RIGHT TURN LANE STREET NAME	24 78	30 18	5.0 9.8				-	
EX-07	217+87	41' LT			-	M2 - 1	JUNCTION	21	15	2.2		<del> </del>		-	
EX-09	217+87	41' LT				M1 - I 100	INTERSTATE ROUTE SIGN	24	24	4.0					
EX-10	217+87	41' LT				M1 - I 100	INTERSTATE ROUTE SIGN	24	24	4.0					
EX-11	218+65	55' RT				D3 - 1	STREET NAME	46	12	3.8					
EX-12 EX-13	218+65 218+63	55' RT 64' RT				D3 - 1 R1 - 1	STREET NAME STOP	28 30	12 30	2.3 6.3		-			
EX-14	218+63	64 ' RT				CUSTOM	NO PARKING	12	18	1.5		-			
EX - 15	96+40	49' LT				R2 - 1	SPEED LIMIT	30	36	7.5					
EX-16	98+42	48' LT				M3 - 3	CARDINAL DIRECTION - SOUTH	24	12	2.0					
EX-17	98+42	48' LT			-	M1 - I 100	INTERSTATE ROUTE SIGN	24	24	4.0					-
EX-18 EX-19	98+42 98+42	48' LT 48' LT	<del>                                     </del>	1	+	M3 - 3 M1 - I 100	CARDINAL DIRECTION - SOUTH INTERSTATE ROUTE SIGN	24	12 24	2.0 4.0					+
EX-21	103+42	39' RT		1		M3 - 1	CARDINAL DIRECTION - NORTH	24	12	2.0					
EX-22	103+42	39' RT				M1 - I 100	INTERSTATE ROUTE SIGN	24	24	4.0					
EX - 23	103+42	39' RT				M3 - 1	CARDINAL DIRECTION - NORTH	24	12	2.0					
EX - 24 EX - 25	103+42 104+84	39' RT 39' RT				M1 - I 100 R2 - 1	INTERSTATE ROUTE SIGN SPEED LIMIT	24 30	24 36	4.0 7.5					
EX-25	105+32	62' RT				R1 - 1	STOP	30	30	6.3					
REM-01	97+35	38' RT				CUSTOM	RED LIGHT PHOTO ENFORCED	36	36	9.0		9.0			
REM-02	99+44	5' LT				R4 - 7	KEEP RIGHT	24	30	5.0		5.0			
REM-03	100+59	5 ' RT				R4 - 7	KEEP RIGHT	24	30	5.0		5.0			
REM- 04 REM- 15	102+22 98+30	49' LT 5' LT				CUSTOM R3-5	RED LIGHT PHOTO ENFORCED  MANDATORY MOVEMENT LANE CONTROL	36 30	36 36	9.0		9.0		-	
REM-16	102+41	5 ' RT				R3-5	MANDATORY MOVEMENT LANE CONTROL	30	36	7.5		7.5			
REL-01	99+43	67' LT	99+43	78' LT	TRAFFIC SIGNAL	R1 - 1	STOP (FOLDED)	36	36	9.0		9.0		9.0	
REL - 02	100+59	41' LT	100+48 98+41	58' LT	TRAFFIC SIGNAL	R1-1	STOP (FOLDED)	36	36	9.0		9.0		9.0	
REL - 03	101+02 102+22	36' LT 49' LT	102+22	37' LT 49' LT	GROUND LIGHT POLE	CUSTOM CUSTOM	PACE BUS STOP OZINGA FIELD	18 30	24	3.0 5.0		3.0 5.0		3.0	-
REL - 05	99+48	40' RT	99+56	46' RT	TRAFFIC SIGNAL	CUSTOM	OZINGA FIELD	30	24	5.0	1	5.70	1		
REL - 06	99+48	40' RT	99+56	46' RT	TRAFFIC SIGNAL	R1 - 1	STOP (FOLDED)	36	36	9.0			-	-	
REL - 07	100+67 100+67	71' RT 71' RT	100+73 100+73	58' RT 58' RT	TRAFFIC SIGNAL	M1 - I 100 M1 - I 100	INTERSTATE ROUTE SIGN INTERSTATE ROUTE SIGN	24	24	4.0	1		1	-	
REL - 09	100+67	71' RT	100+73	58 ' RT	TRAFFIC SIGNAL	R1 - 1	STOP (FOLDED)	36	36	9.0	-		•		
REL - 24	101+34	39' RT	101+90	37' RT	GROUND	CUSTOM	PACE BUS STOP	18	24	3.0		3.0		3.0	15.0
							IL 50 AT MIDLO	THIAN T	URNPIKE	SUBTOTAL	2	72	2	29	15
EX-27	307+26	38' LT		ī		W4 - 2	LANE ENDS	36	36	9.0					
EX - 28	307+40	53' LT				R1 1	STOP	30	30	6.3					
EX-29	308+46	39' LT				R2 - 1	SPEED LIMIT	30	36	7.5					
EX-30	311+69	39' LT				CUSTOM	PACE BUS STOP	18	24	3.0					
EX-31 EX-32	314+09 314+90	60' LT 37' LT			-	R1-1 CUSTOM	STOP PICKUP SIGN	30 24	30 18	6.3 3.0					
EX-32	313+48	37' RT			-	W4 - 2	LANE ENDS	36	36	9.0		<u> </u>		-	
EX-34	313+48	37 ' RT				CUSTOM	PACE BUS STOP	18	24	3.0					
EX-36	130+69	48' LT				M3 - 3	CARDINAL DIRECTION - SOUTH	24	12	2.0					
EX-37	130+69	48' LT	-		-	M1 - I 100	INTERSTATE ROUTE SIGN	24	24	4.0				+	
EX-38 EX-39	130+69 130+69	48' LT 48' LT	<del>                                     </del>	<del> </del>	<del>                                     </del>	M3 - 3 M1 - I 100	CARDINAL DIRECTION - SOUTH INTERSTATE ROUTE SIGN	24	12 24	2.0		<del>                                     </del>		+	+
EX-40	129+76	39' RT				I - 8	LIBRARY	24	24	4.0		<u> </u>		<del> </del>	
EX-41	129+76	39' RT				M6 - 1	DIRECTIONAL ARROW	21	15	2.2					
EX-42	130+91	46' RT				CUSTOM	PACE BUS STOP	18	24	3.0				1	
EX-43 EX-44	132+81 132+81	58' LT	+	-		I - 8 M6 - 1	LIBRARY	24	24 15	4.0		<del>                                     </del>		+	+
EX-44	132+81	58' LT 66' LT	<del>                                     </del>	<del> </del>	<del>                                     </del>	NO - 1 R1 - 1	DIRECTIONAL ARROW STOP	36	36	9.0		<del>                                     </del>		<u> </u>	+
EX-46	133+88	66' LT				R3 - 5	MANDATORY MOVEMENT LANE CONTROL	30	36	7.5					
EX-47	134+60	49' LT				CUSTOM	RIGHT TURN LANE	24	30	5.0					
EX-48	133+32	38 ' RT				M3 - 1	CARDINAL DIRECTION - NORTH	24	12	2.0					
EX-49 EX-50	133+32 133+32	38' RT 38' RT	-	-	<del>                                     </del>	M1 - I 100 M3 - 1	INTERSTATE ROUTE SIGN  CARDINAL DIRECTION - NORTH	24	24 12	4.0 2.0					+
EX-50	133+32	38 KT	<del> </del>			M1 - I 100	INTERSTATE ROUTE SIGN	24	24	4.0					+
REM- 05	310+16	5' LT				R4 - 7	KEEP RIGHT	24	30	5.0		5.0			
REM-06	311+39	5 ' RT				R4 - 7	KEEP RIGHT	24	30	5.0		5.0			
REM-07	312+92	45' LT	-			CUSTOM	RED LIGHT PHOTO ENFORCED	36	36	9.0		9.0		-	-
REM- 08	129+76 131+45	39' RT 4' LT	+	-		CUSTOM R4 - 7	RED LIGHT PHOTO ENFORCED KEEP RIGHT	36 24	36 30	9.0 5.0		9.0		+	+
IVEINI- 03	131743	- LI	1	ı	ı	17.4 - 1	KLEF KIGHT	24	1 20	J. U	I	5.0	1	1	

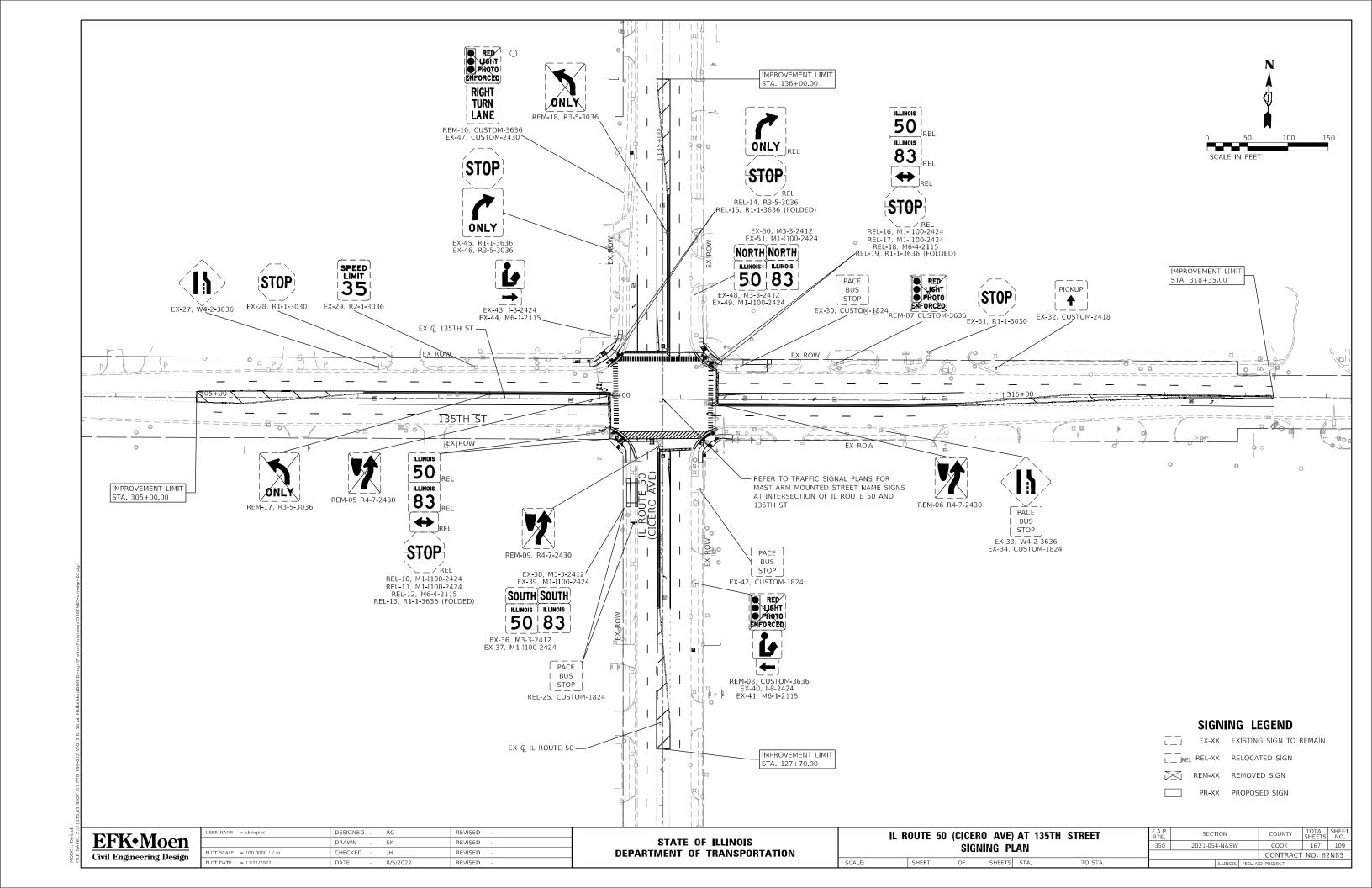
					PROPOSED SIGNING SCHEDULE							
SIGN NUMBER	PROPOSED STATION	PROPOSED OFFSET	PROPOSED MOUNTING TYPE	DESIGNATION	DESCRIPTION	PANEL WIDTH	PANEL HE I GHT	PANEL AREA	SIGN PANEL T1	METAL POST TY A (FT)		
						(IN)	(IN)	(SQ FT)	(SQ FT)	P1 P2	P3	
	IL 50 AT MIDLOTHIAN TURNPIKE											
PR - 01	213+92	49' LT	LIGHT POLE	R3-5	MANDATORY MOVEMENT LANE CONTROL	30	36	7.5	7.5			
PR - 02	102+43	55' LT	GROUND	R3-5	MANDATORY MOVEMENT LANE CONTROL	30	36	7.5	7.5	13.5 13.	5	
					IL 50 AT MIDLO	THIAN T	URNPIKE	SUBTOTAL	15	27		
					IL 50 AT CAL SAG RD							
PR - 03	407+56	43' RT	GROUND	R3-5	MANDATORY MOVEMENT LANE CONTROL	30	36	7.5	7.5	13.5 13.	5	
					IL 50	AT CAL	SAG RD	SUBTOTAL	8	27		
			·					TOTAL	23	54		

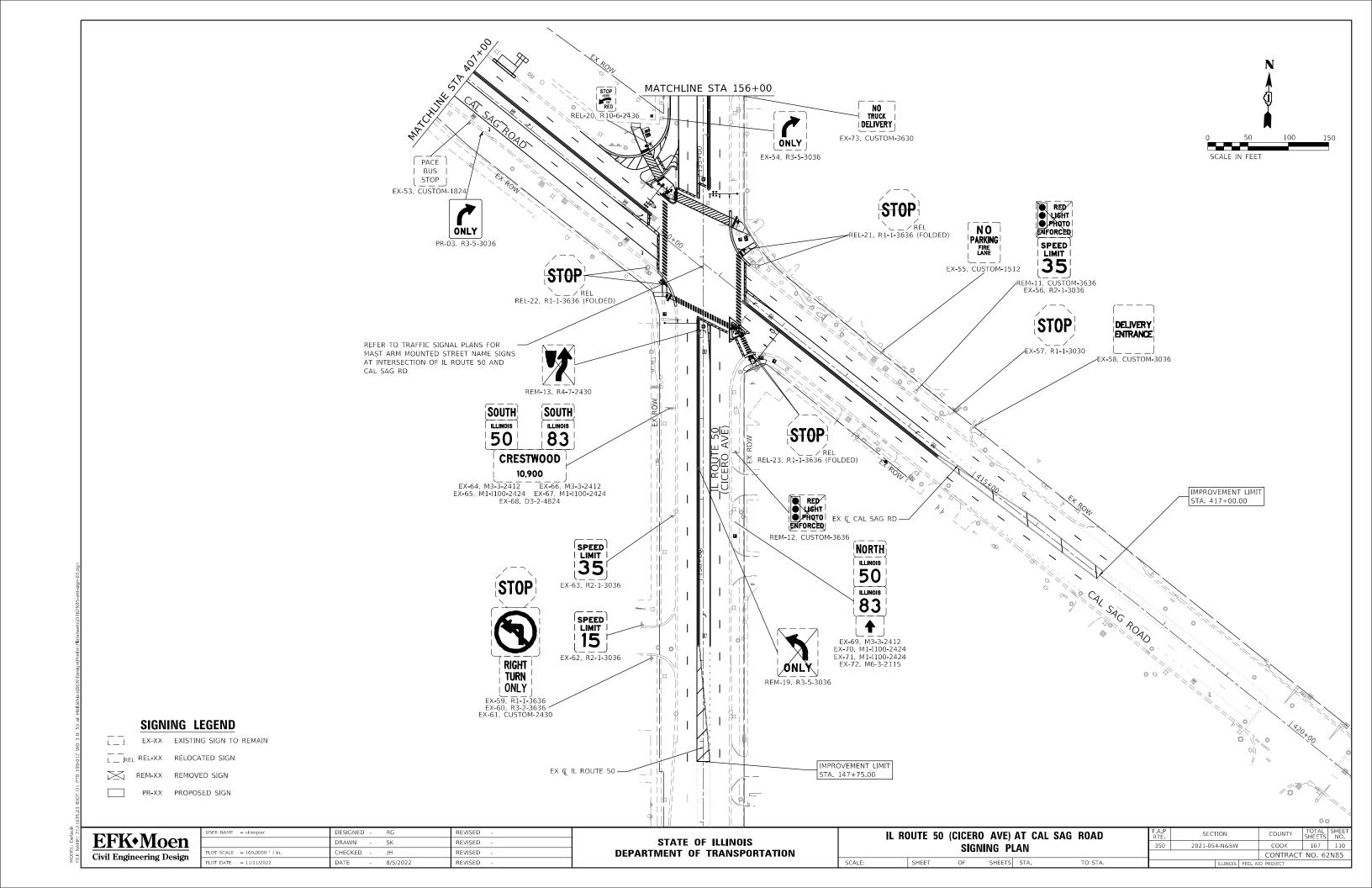
EFK•Moen
Civil Engineering Design

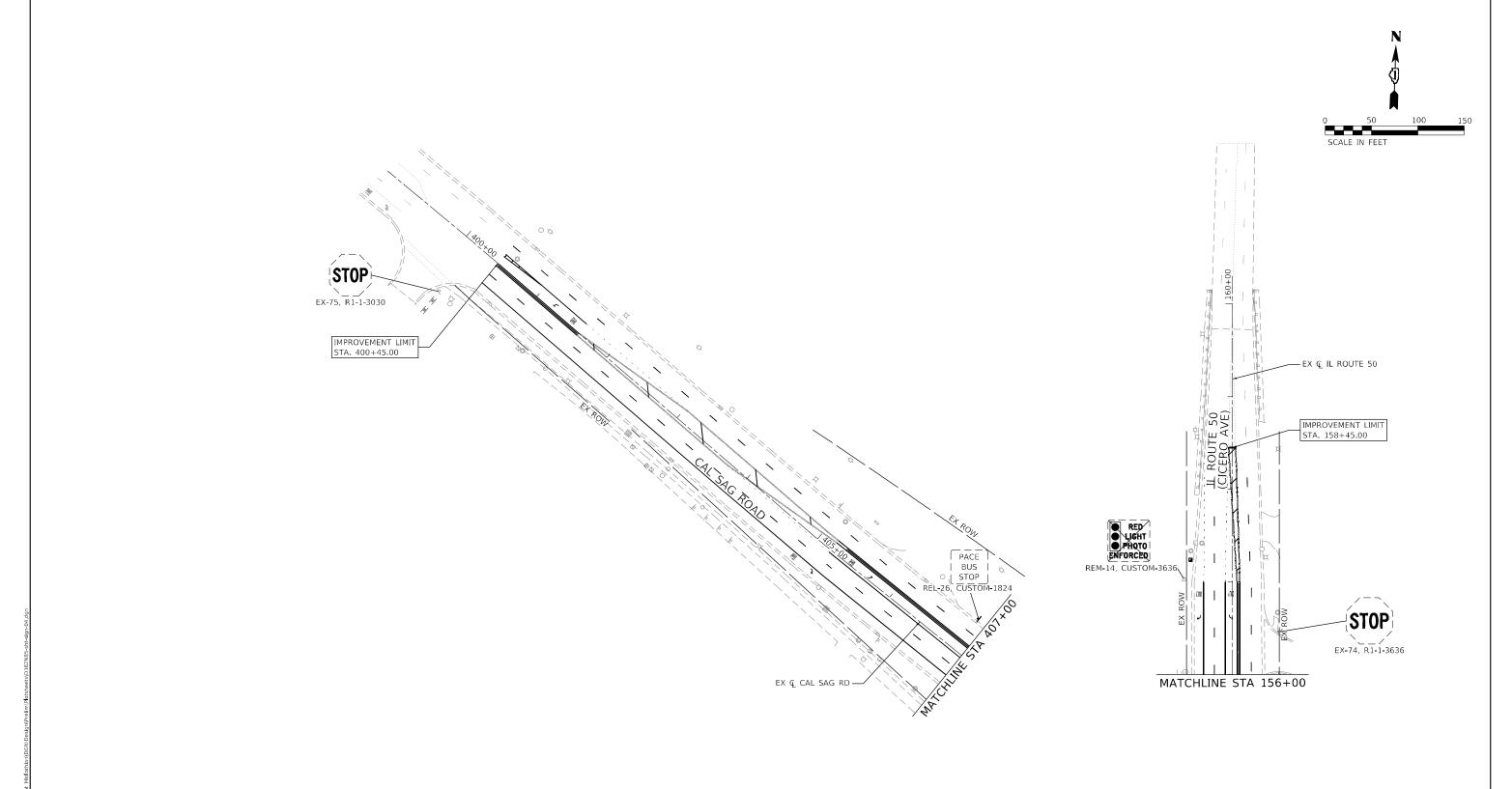
USER NAME = skierpiec	DESIGNED - RG	REVISED -
	DRAWN - SK	REVISED -
PLOT SCALE = 100.0000 / in.	CHECKED - JH	REVISED -
PLOT DATE = 11/21/2022	DATE - 8/5/2022	REVISED -

IL RO	UTE 50	(CICER	O AVEN	IUE)	F.A.P RTE				SHEET NO.		
SCHEDULES						2021-054-N&SW	СООК	167	107		
SCHEDULES							CONTRAC	CONTRACT NO. 62N8!			
SHEET	OF	SHEETS	STA.	TO STA.		ILLINOIS FED. AID PROJECT					









### SIGNING LEGEND

EX-XX EXISTING SIGN TO REMAIN

L \_ JREL REL-XX RELOCATED SIGN

REM-XX REMOVED SIGN

PR-XX PROPOSED SIGN

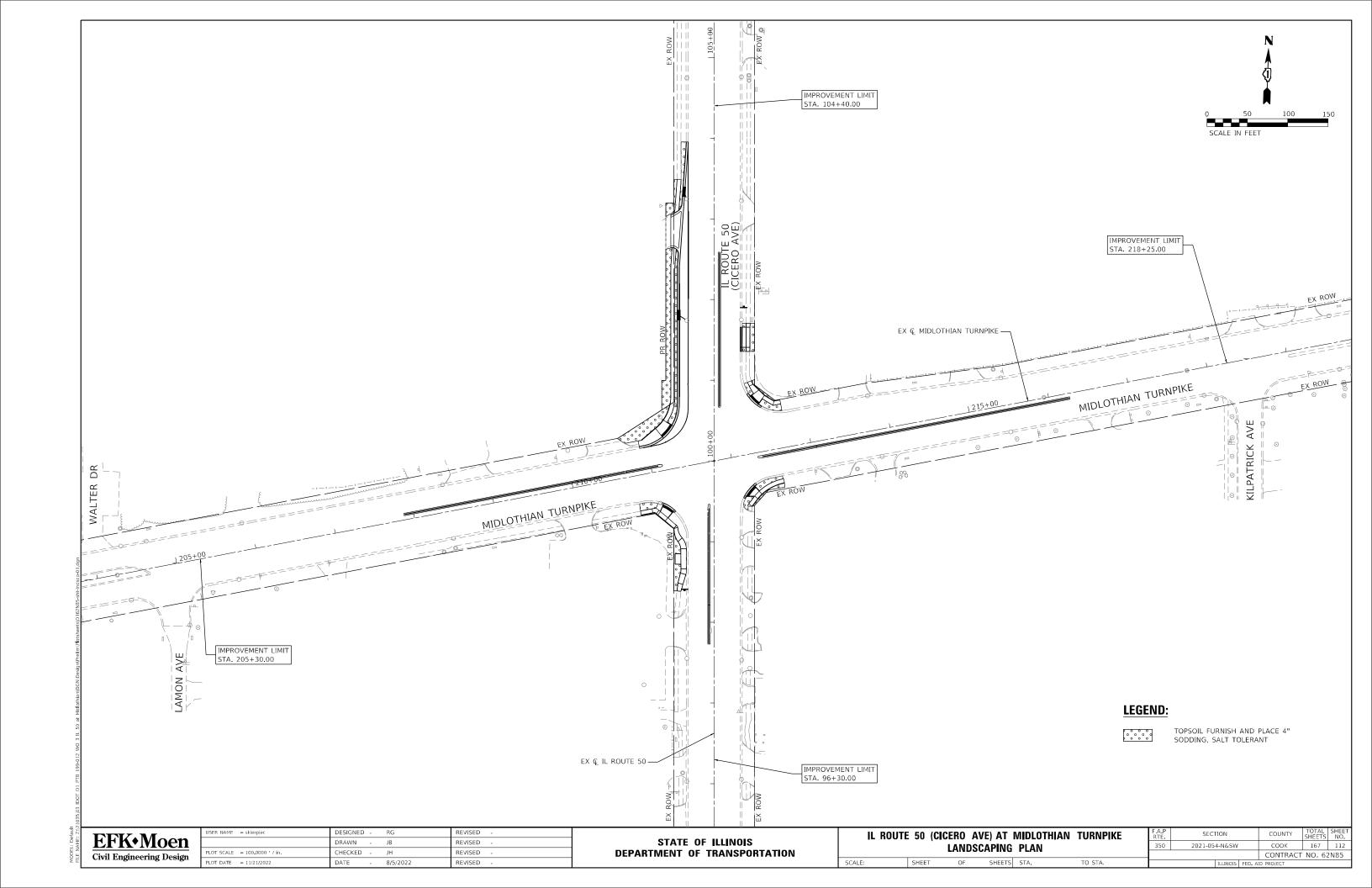
EFK•Moen	
Civil Engineering Design	

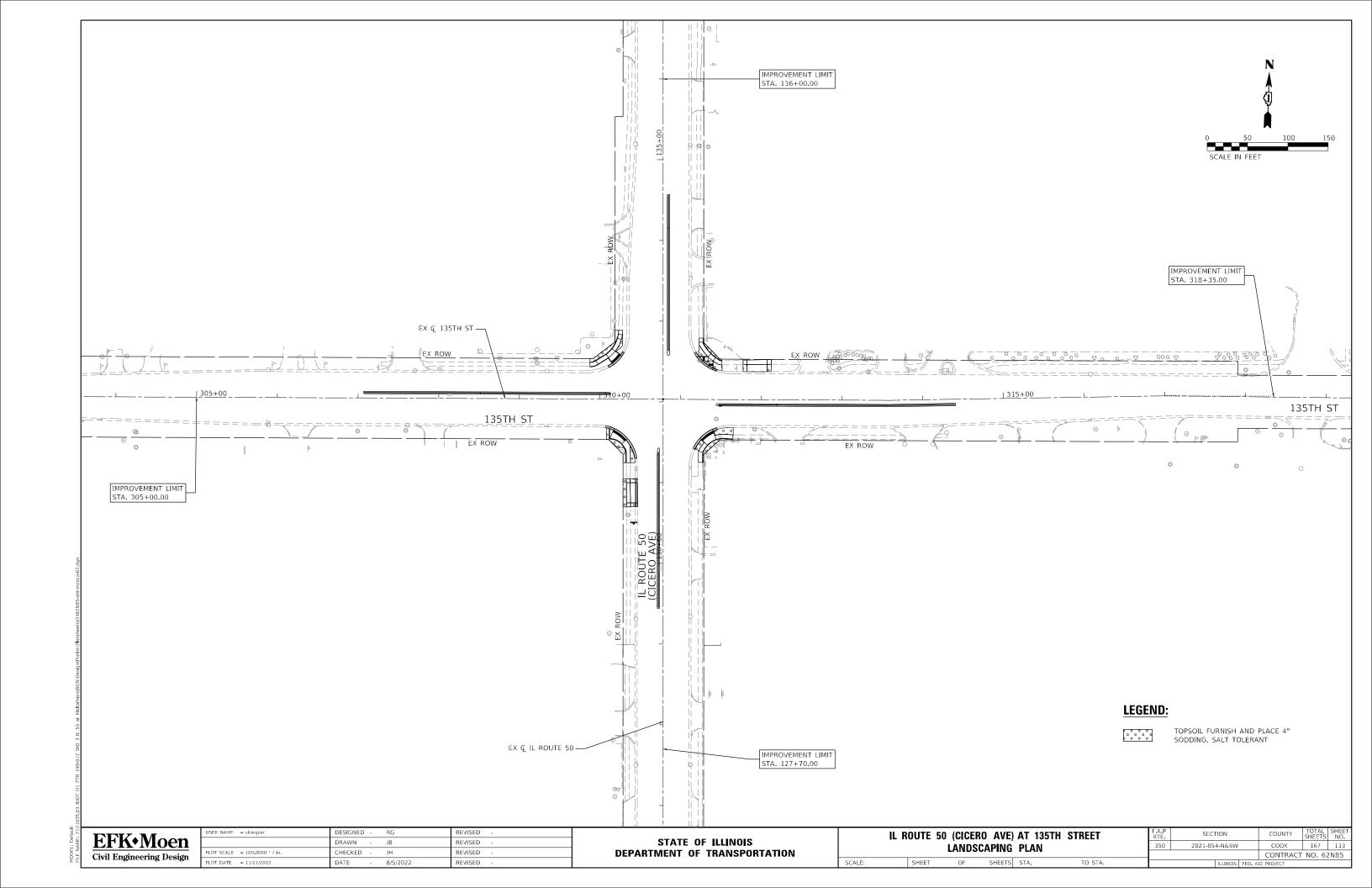
	DRAWN - SK	REVISED -
PLOT SCALE = 100.0000 / in	CHECKED - JH	REVISED -
PLOT DATE = 11/21/2022	DATE - 8/5/2022	REVISED -

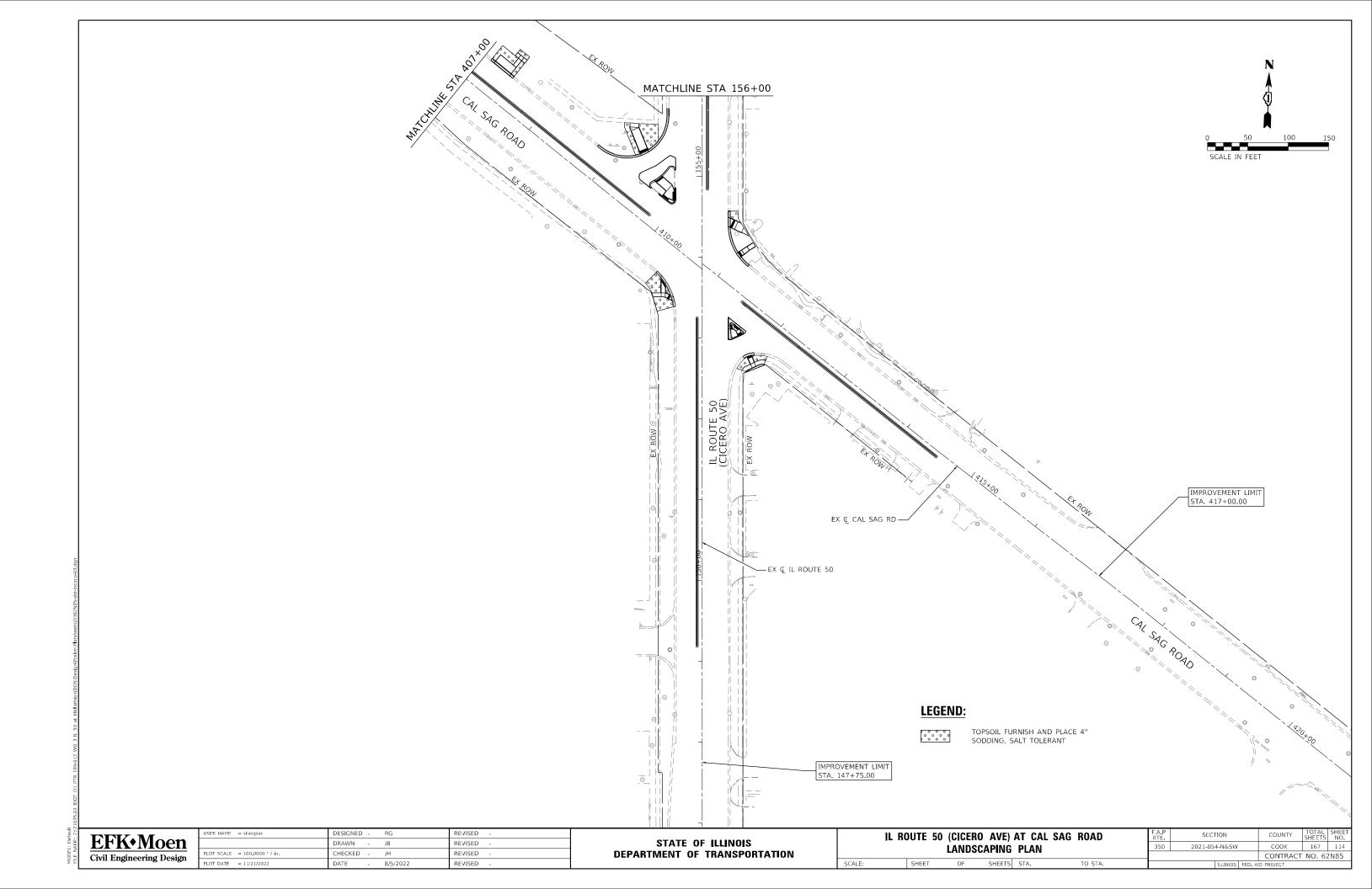
STATE OF ILLINOIS				
DEPARTMENT O	OF TRANSPORTATION			

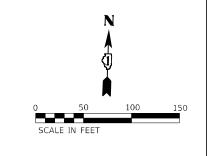
IL ROUTE 50 (CICERO AVE) AT CAL SAG ROAD							SECTION
SIGNING PLAN							2021-054-N&SW
		•••••					
	SHEET	OF	SHEETS	STA.	TO STA.		ILLINOIS FEI

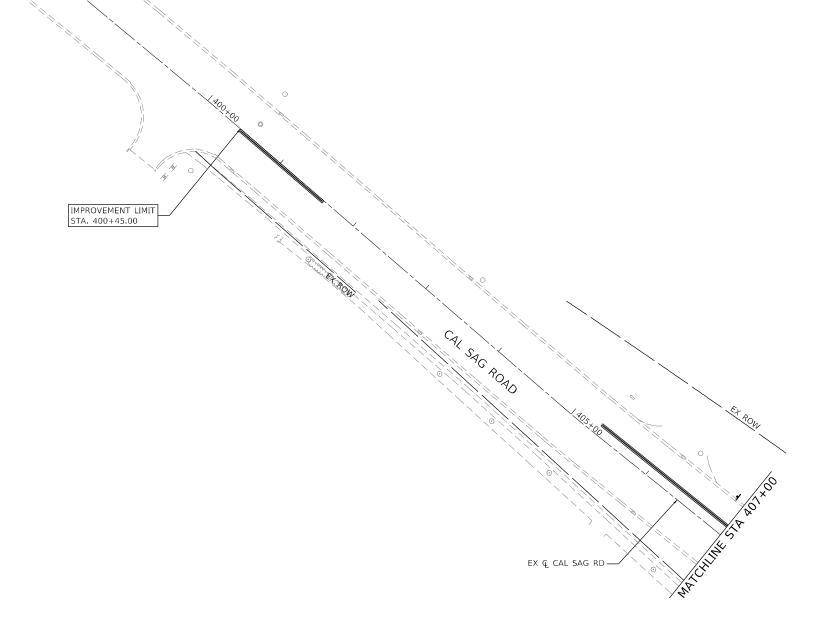
F.A.P RTE	SECTION	COUNTY	TOTAL SHEETS	SHEE NO.	
350	2021-054-N&SW	соок	167	111	
			CONTRACT	NO. 62	2N85
	ILLINOIS	FED. A	ID PROJECT		

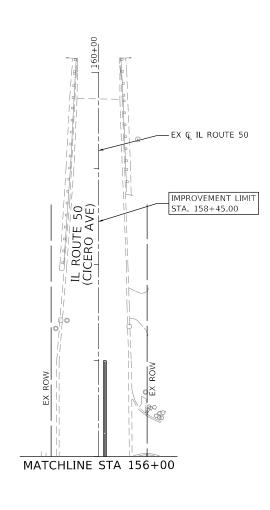












### **LEGEND**:

TOPSOIL FURNISH AND PLACE 4" SODDING, SALT TOLERANT

EFK•Moen Civil Engineering Design

USER NAME = skierpiec	DESIGNED -	RG	REVISED -
	DRAWN -	JB	REVISED -
PLOT SCALE = 100.0000 / in.	CHECKED -	JH	REVISED -
PLOT DATE = 11/21/2022	DATE -	8/5/2022	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL RO		(CICERO LANDSC	•	AT CAL SAG Plan	ROAD
	SHEET	OF	SHEETS	STA.	TO STA.

F.A.P RTE	SECTION	COUNTY	TOTAL SHEETS	SHEE NO.	
350	2021-054-N&SW	COOK	167	115	
			CONTRACT	NO. 62	2N85
	ILLINOIS	FED. A	D PROJECT		

### **HIGHWAY STANDARDS**

STD. NO. TITLE

886001-01

720001-01 SIGN PANEL MOUNTING DETAIL

805001-01 ELECTRICAL SERVICE INSTALLATION DETAILS

814001-03 HANDHOLES

814006-02 DOUBLE HANDHOLES

857001-01 STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES

862001-01 UNINTERRUPTABLE POWER SUPPLY

873001-02 TRAFFIC SIGNAL GROUNDING & BONDING 877001-08 STEEL MAST ARM ASSEMBLY AND POLE 16' THROUGH 55'

DETECTOR LOOP INSTALLATIONS

878001-10 CONCRETE FOUNDATION DETAILS 880006-01 TRAFFIC SIGNAL MOUNTING DETAILS

886001-01 TYPICAL LAYOUTS FOR DETECTION LOOPS

# Transmart<sup>\*\*</sup> 100 South Wacker Drive Suite 400 Chicago, Illinois 60606

USER NAME = Afreeman	DESIGNED -	A. FREEMAN	REVISED -
	DRAWN -	A. FREEMAN	REVISED -
PLOT SCALE = 40.0000 / in.	CHECKED -	S. ADHIKARI	REVISED -
PLOT DATE = 2/25/2022	DATE	3/28/2022	REVISED

### **GENERAL NOTES**

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT (800) 892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS. 48 HOUR NOTIFICATION IS REQUIRED.

THE CONTRACTOR SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470, 72 HOURS IN ADVANCE OF BEGINNING WORK.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION. THIS SHALL INCLUDE LOCATING THE MAST ARM FOUNDATIONS AND VERIFYING THE MAST ARM LENGTHS.

ALL EXISTING R.O.W. SHOWN IS APPROXIMATE AND MAY NEED TO BE VERIFIED IN THE FIELD. ANY R.O.W. CONFLICTS SHALL BE COORDINATED WITH THE RESIDENT ENGINEER.

THE EXACT LOCATION OF ALL UTILITES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE ORDERING ANY MATERIALS AND STARTING ANY WORK. FOR LOCATIONS OF UTILITIES, LOCALLY OWNED EQUIPMENT, LEASED ENFORCEMENT CAMERA SYSTEM FACILITIES AND IDOT UNDERGROUND FACILITIES, CONTACT THE LOCAL COUNTIES, MUNICIPALITIES AND IDOT FOR LOCATES. THE CONTRACTOR SHALL CALL "JULIE" AT (800) 892-0123 OR 811, IN THE CITY OF CHICAGO CONTACT DIGGER AT (312) 744-7000 FOR FIELD LOCATIONS OF BURIED UTILITIES (48 HOURS NOTIFICATION REQUIRED).

IF THIS CONTRACT REQUIRES THE SERVICES OF AN ELECTRICAL CONTRACTOR, THE CONTRACTOR SHALL BE RESPONSIBLE AT HIS/HER OWN EXPENSE FOR LOCATING EXISTING IDOT ELECTRICAL FACILITIES PRIOR TO PERFORMING ANY WORK. IF THIS CONTRACT DOES NOT REQUIRE THE SERVICES OF AN ELECTRICAL CONTRACTOR, THE CONTRACTOR MAY REQUEST ONE FREE LOCATE FOR EXISTING IDOT ELECTRICAL FACILITIES FROM THE DISTRICT ONE ELECTRICAL MAINTENANCE CONTRACTOR PRIOR TO THE START OF ANY WORK, ADDITIONAL REQUESTS MAY BE AT THE EXPENSE OF THE CONTRACTOR. THE LOCATION OF UNDERGROUND TRAFFIC FACILITIES DOES NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY TO REPAIR ANY FACILITIES DAMAGED DURING CONSTRUCTION AT THEIR EXPENSE.

THE CONTRACTOR SHALL CHECK THE PROPOSED TRAFFIC SIGNAL EQUIPMENT LOCATIONS FOR UNDERGROUND AND OVERHEAD UTILITY CONFLICTS. THE CONTRACTOR SHALL NOTIFY THE AREA ENGINEER, THE RESIDENT ENGINEER AND ANY IMPACTED UTILITY COMPANY OF THE CONFLICT, AND SHALL COORDINATE AND RESOLVE THE ISSUE PRIOIR TO ORDERING MATERIALS, AND PRIOR TO POURING FOUNDATIONS.

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES AND IDOT.

RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCLUDED IN THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

PARTIAL PAYMENT AS DESCRIBED IN ARTICLE 109.07(b) OF THE STANDARD SPECIFICATIONS WILL NOT BE ALLOWED FOR ITEMS INCLUDED IN THIS CONTRACT.

LOCATIONS WITH PEDESTRIAN EQUIPMENT HAVE BEEN DESIGNED TO BE ADA COMPLIANT. ANY DEVIATION FROM THE PLANS FOR TRAFFIC SIGNAL MAST ARM/POSTS THAT HAVE PEDESTRIAN EQUIPMENT WILL HAVE TO BE APPROVED BY THE ENGINEER TO INSURE ADA COMPLIANCE.

TRAFFI	C SIGNAL	INSTA	LLATION	PLAN	I GENERAL	NOTES
IL RTE 50 /83 (CICERO AVE) Midlothian TPK to Cal Sag RD						
				U/ 12	0710 110	
	SHEET	OF	SHEETS	STA.		TO STA.

# TRAFFIC SIGNAL LEGEND (NOT TO SCALE)

				(NOT TO SCALE)				
ITEM	EXISTING	<u>PROPOSED</u>	ITEM	EXISTING	PROPOSED	ITEM	EXISTING	PROPOSED
CONTROLLER CABINET	$\boxtimes$		HANDHOLE -SQUARE			SIGNAL HEAD -(P) PROGRAMMABLE SIGNAL HEAD	RR	RRV
COMMUNICATION CABINET	ECC	CC	-ROUND HEAVY DUTY HANDHOLE					R
MASTER CONTROLLER	EMC	MC	-SQUARE -ROUND	H	⊞ ⊕			<b>€</b> G <b>€</b> G
MASTER MASTER CONTROLLER	ЕММС	ммс	DOUBLE HANDHOLE			SIGNAL HEAD WITH BACKPLATE	6 6 6 6	R R R
UNINTERRUPTABLE POWER SUPPLY	<b>3</b>	<b>3</b>	JUNCTION BOX		•	-(P) PROGRAMMABLE SIGNAL HEAD -(RB) RETROREFLECTIVE BACKPLATE		Y Y G G G
SERVICE INSTALLATION -(P) POLE MOUNTED	-□- <sup>P</sup>	<b>-</b> ₽	RAILROAD CANTILEVER MAST ARM	X <del>OX X</del>	X <del>-1                                    </del>			4Y 4G 4G 4G
SERVICE INSTALLATION			RAILROAD FLASHING SIGNAL	$X \rightarrow X$	X•X		P RB	P RB
-(G) GROUND MOUNTED -(GM) GROUND MOUNTED METERED	$\boxtimes^{G} \boxtimes^{GM}$	<b>⊠</b> <sup>G</sup> <b>⊠</b> <sup>GM</sup>	RAILROAD CROSSING GATE	<del>∑0</del> ∑>	X+X-	PEDESTRIAN SIGNAL HEAD		
TELEPHONE CONNECTION	ET	T	RAILROAD CROSSBUCK	查	*	AT RAILROAD INTERSECTIONS	<b>©</b>	Ā
STEEL MAST ARM ASSEMBLY AND POLE	0	•——	RAILROAD CONTROLLER CABINET		>∢	PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER	<b>●</b> C <b>★</b> D	<b>₽</b> C <b>A</b> D
ALUMINUM MAST ARM ASSEMBLY AND POLE	0		UNDERGROUND CONDUIT (UC), GALVANIZED STEEL					-
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE	o-¤—	•**	TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE			ILLUMINATED SIGN "NO LEFT TURN"/"NO RIGHT TURN"		
SIGNAL POST -(BM) BARREL MOUNTED - TEMPORARY	0	● ● BM	SYSTEM ITEM	S	SP	NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE. ALL DETECTOR LOOP CABLE TO BE SHIELDED		
WOOD POLE	$\otimes$	0	INTERSECTION ITEM REMOVE ITEM	I	IP R	GROUND CABLE IN CONDUIT,	(1#6)	(1*6)
GUY WIRE	>-	>-	RELOCATE ITEM		RL	NO. 6 SOLID COPPER (GREEN)		
SICNAL HEAD	<b>→</b>	<b>→</b>	ABANDON ITEM		A	ELECTRIC CABLE IN CONDUIT, TRACER NO. 14 1/C		_1_
SIGNAL HEAD WITH BACKPLATE	# <b>&gt;</b>	+ <b>►</b> P P	CONTROLLER CABINET AND FOUNDATION TO BE REMOVED		RCF	COAXIAL CABLE	<u></u>	— <u>c</u> —
SIGNAL HEAD OPTICALLY PROGRAMMED FLASHER INSTALLATION	-12' +12' 0-15' 0-15'	→ +→ FS	MAST ARM POLE AND FOUNDATION TO BE REMOVED		RMF	VENDOR CABLE		<u></u>
-(FS) SOLAR POWERED		F FS	SIGNAL POST AND FOUNDATION TO BE REMOVED		RP <b>F</b>	COPPER INTERCONNECT CABLE, NO. 18, 3 PAIR TWISTED, SHIELDED	<u></u>	<del></del>
PEDESTRIAN SIGNAL HEAD	-0	-1	DETECTOR LOOP, TYPE I			FIBER OPTIC CABLE -NO. 62.5/125, MM12F		
PEDESTRIAN PUSH BUTTON -(APS) ACCESSIBLE PEDESTRIAN PUSH BUTTON	⊚ ⊚ APS		PREFORMED DETECTOR LOOP	[P] (P)	P P	-NO. 62.5/125, MM12F SM12F -NO. 62.5/125, MM12F SM24F		—(24F)—
RADAR DETECTION SENSOR	LR 1	R	SAMPLING (SYSTEM) DETECTOR	$[\underline{s}]$ $(\widehat{s})$	s s		36F	—(36F)—
VIDEO DETECTION CAMERA	[V]  ☐	<b>₩</b>	INTERSECTION AND SAMPLING (SYSTEM) DETECTOR	[15] (15)	[5] (S)	GROUND ROD	C M D C	C N B S
RADAR/VIDEO DETECTION ZONE			QUEUE AND SAMPLING (SYSTEM) DETECTOR	[05] (05)	as as	-(C) CONTROLLER -(M) MAST ARM	$\frac{\underline{\underline{a}}^{C}}{\overline{b}} \frac{\underline{\underline{a}}^{M}}{\overline{b}} \frac{\underline{\underline{a}}^{P}}{\overline{b}} \frac{\underline{\underline{a}}^{S}}{\overline{b}}$	† † † † †
PAN, TILT, ZOOM (PTZ) CAMERA	PTZ	PTZ¶	WIRELESS DETECTOR SENSOR	<b>(1)</b>	<b>®</b>	-(P) POST -(S) SERVICE		
EMERGENCY VEHICLE LIGHT DETECTOR	$\propto$	₩	WIRELESS ACCESS POINT					
CONFIMATION BEACON	o()	<b>⊢</b>						
WIRELESS INTERCONNECT	<b>○+   </b>	•••						
WIRELESS INTERCONNECT RADIO REPEATER	ERR	RR						

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EL: Default NAME: S:V	Transmart  100 South Wacker Drive Suite 400

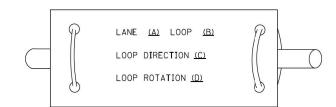
USER NAME = Afreeman	DESIGNED	-	A. FREEMAN	REVISED -	
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PLOT SCALE = 40.0000 / in.	CHECKED	-	S. ADHIKARI	REVISED -	
PLOT DATE = 2/25/2022	DATE	-	3/28/2022	REVISED -	

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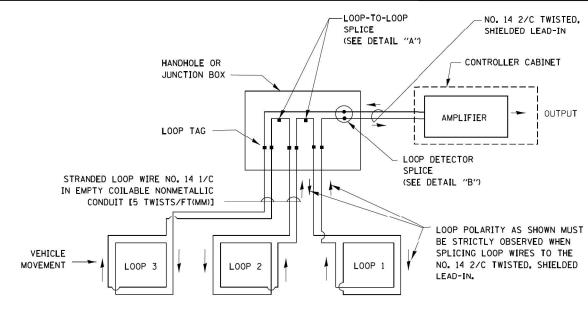
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- 1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
- 2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
- 3. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
- 4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
- 5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
- 6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
- 7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

#### LOOP LEAD-IN CABLE TAG

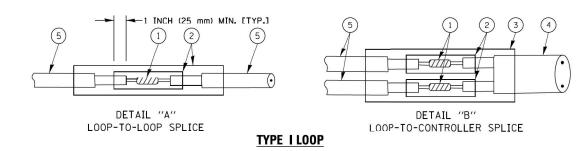


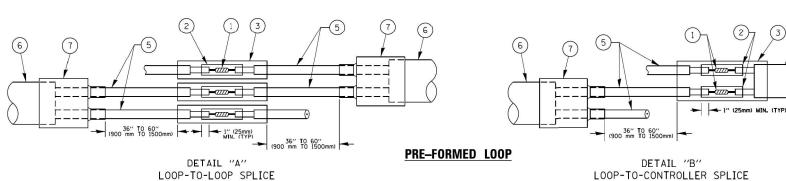
- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP \*1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.



### **DETECTOR LOOP WIRING SCHEMATIC**

- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm). IF IN CONCRETE, THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.





### LOOP DETECTOR SPLICE

- (1) WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH. THE WESTERN UNION SPLICES SHALL BE STAGGERED.
- (2) WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- (3) WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGHT 6" (150 mm), UNDERWATER GRADE.
- (4) NO. 14 2/C TWISTED, SHIELDED CABLE.

- 5 LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.
- (6) PRE-FORMED LOOP
- XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

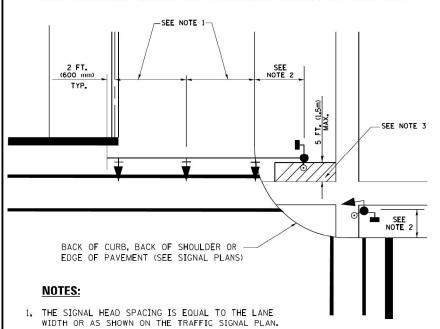


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PLOT SCALE = 40.0000 / in.	CHECKED	-	S. ADHIKARI	REVISED	-
PLOT DATE = 2/25/2022	DATE	-	3/28/2022	REVISED	-

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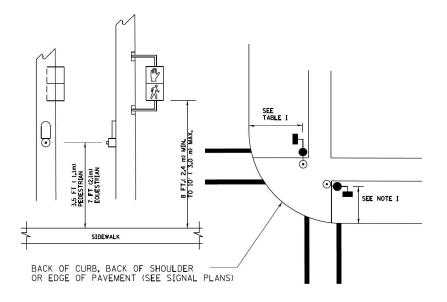
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# TRAFFIC SIGNAL MAST ARM AND SIGNAL POST MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALKBICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



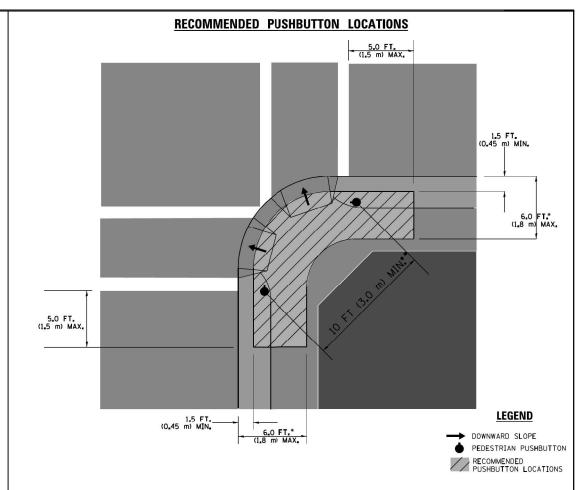
- 2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
- 3. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR THE SIGNAL POST
- 4. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
- 5. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

# PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



#### NOTES:

- 1. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
- 2. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE PEDESTRIAN SIGNAL POST OR THE PEDESTRIAN PUSH BUTTON POST.
- 3. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
- 4. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."



- WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT (1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
- •• WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

### **NOTES:**

- 1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE DOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
- 2. THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) OF A VEHICULAR SIGNAL FACE THAT IS NOT LOCATED OVER A HIGHWAY SHALL BE AT LEAST 8 FT (2.4 m) BUT NOT MORE THAN 19 FT (5.8 m) ABOVE THE SIDEWALK OR, IF THERE IS NO SIDEWALK, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.
- 3. THE BOTTOM OF THE SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001, 877002, 877006, 877011 AND 877012 WITH A MINIMUM OF 16 FT (5.0 m) AND A MAXIMUM OF 18 FT. (5.5 m) FROM THE HIGHEST POINT OF PAVEMENT.
- 4. THE BOTTOM OF THE TEMPORARY SPAN WIRE MOUNTED SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARD 880001 WITH A MINIMUM OF 17 FT (5.18 m) FROM THE HIGHEST POINT OF PAVEMENT.
- 5. THE TOP OF THE SIGNAL HOUSING OF A SIGNAL FACE LOCATED OVER ANY PORTION OF A HICHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAVEMENT.

#### TRAFFIC SIGNAL EQUIPMENT OFFSET

THAT IS STOWN EACH MENT OF SET					
TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)			
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)			
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)			
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0,6m), MINIMUM 10 FT (3,0m)			
PEDESTRIAN PUSHBUTTON POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0,6m), MINIMUM 10 FT (3,0m)			
TEMPORARY WOOD POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)			
CONTROLLER CABINET	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.			
SERVICE INSTALLATION, GROUND MOUNT	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.			

#### NOTES:

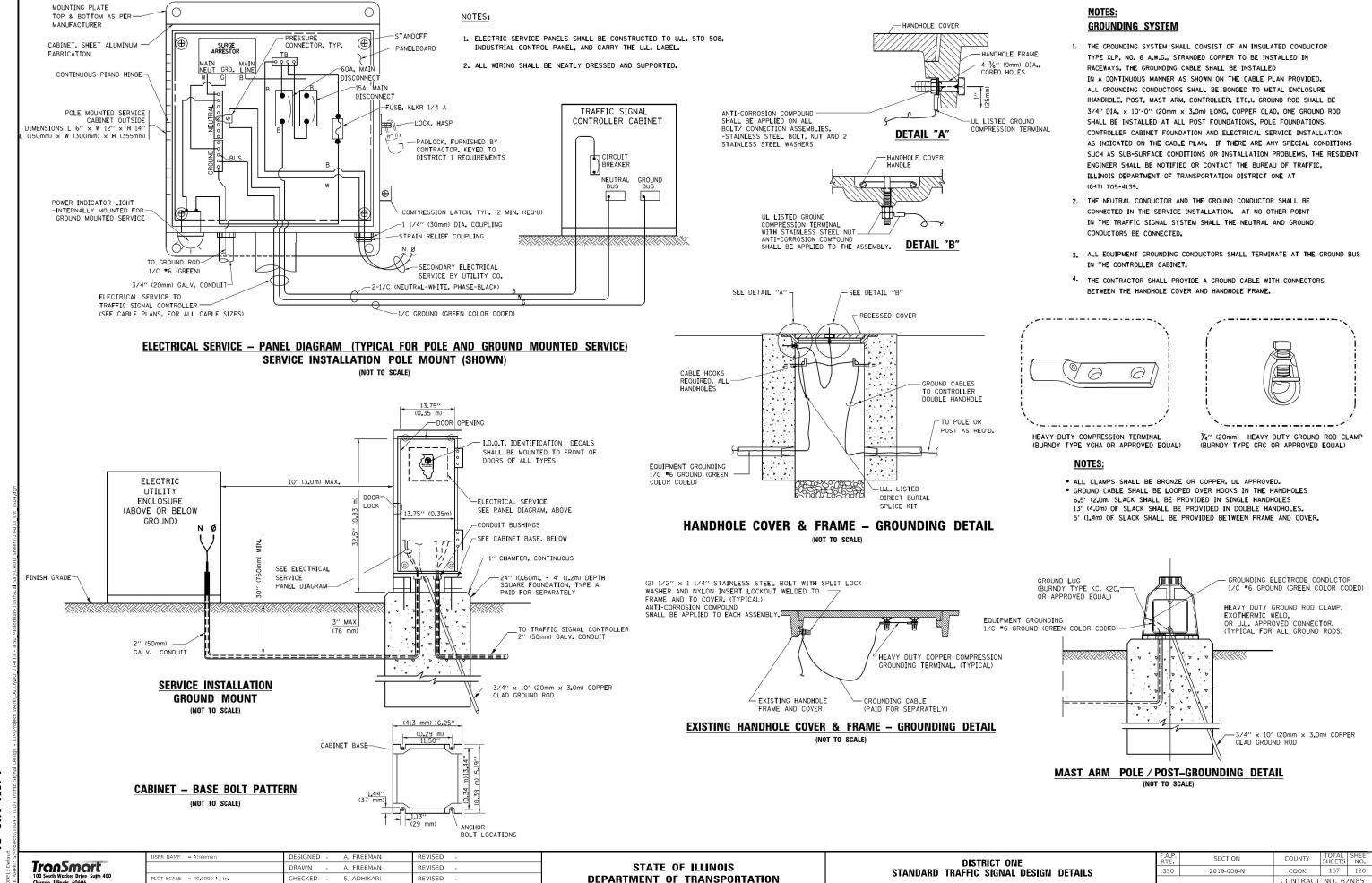
- 1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
- 2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
- 3. MINIMUM DISTANCE FROM THE EDGE OF PAVEMENT TOTHE ROADWAY SIDE OF THE FOUNDATION.
- 4. ANY CHANGES TO THE OFFSETS OF THE FOUNDATIONS, FROM THE MINIMUM DISTANCES LISTED IN THE "TRAFFIC SIGNAL EQUIPMENT OFFSET" CHART AND THE TRAFFIC SIGNAL INSTALLATION PLAN, COULD EFFECT THE PLACEMENT OF THE SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND THE PEDESTRIAN PUSHBUTTONS. THE SIGNAL HEAD PLACEMENT ON THE MAST ARMS SHALL REMAIN AS PER THE TRAFFIC SIGNAL INSTALLATION PLAN AND THE "TRAFFIC SIGNAL MAST ARM AND SIGNAL POST" DETAIL ABOVE. THE PROPOSED MAST ARM LENGTHS MAY NEED TO BE REVISED TO MEET THE ABOVE REQUIREMENTS. THE PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS MUST MEET THE REQUIREMENTS UNDER THE DETAILS ON THIS SHEET.

SCALE:

TranSmart<sup>\*\*\*</sup>
100 South Wacker Drive Suite 400
Chicago, Illinois 60606

USER NAME = Afreeman	DESIGNED - A. FREEMAN	REVISED -
	DRAWN - A. FREEMAN	REVISED -
PLOT SCALE = 40.0000 / in.	CHECKED - S. ADHIKARI	REVISED -
PLOT DATE = 2/25/2022	DATE - 3/28/2022	REVISED -

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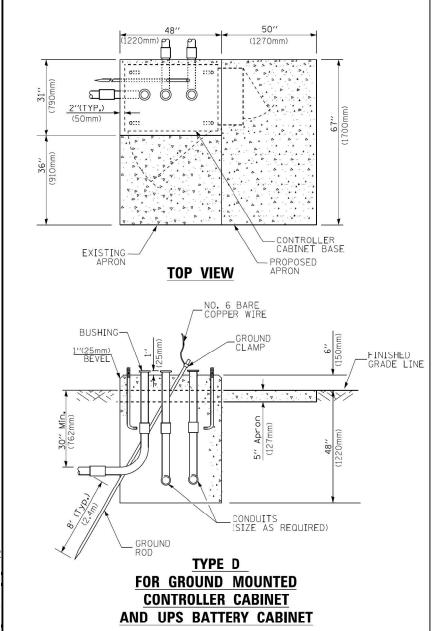
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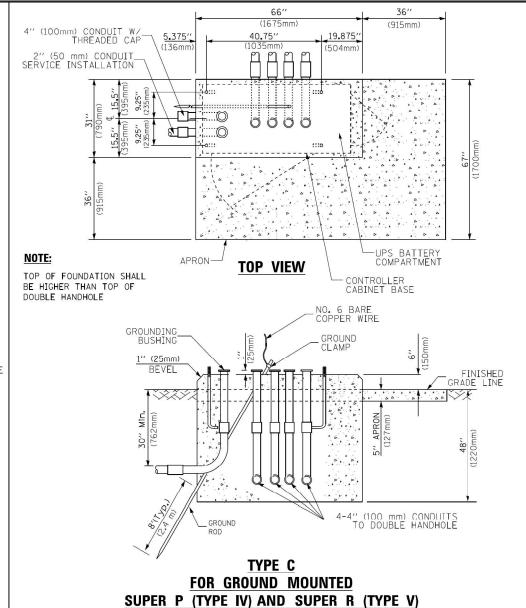
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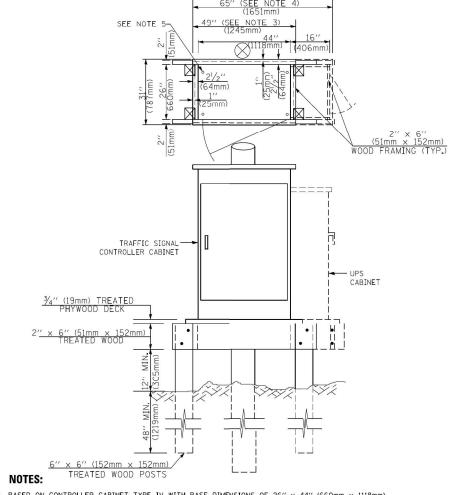
3/28/2022

REVISED





**CONTROLLER CABINETS** 



- BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm).
   ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED
- 2. BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF  $16'' \times 25''$  (406mm  $\times$  635mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
- 3. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
- 4. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
- 5. DRILLED HOLES IHROUGH THE PLATFORM BASE TO MATCH THE CONTROLLER CABINET BOLT TEMPLATE, FASTEN THE CONTROLLER CABINET TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS AND NUTS.
- 6. FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION.

# TEMPORARY SIGNAL CONTROLLER WOOD SUPPORT PLATFORM

CABLE SLACK LENGTH	FEET	METER
HANDHOLE	6.5	2.0
DOUBLE HANDHOLE	13.0	4.0
SIGNAL POST	2.0	0.6
MAST ARM	2.0	0.6
CONTROLLER CABINET	1.5	0.5
FIBER OPTIC AT CABINET	13.0	4.0
ELECTRIC SERVICE AT (CABINET OR SERVICE LOCATION)	1.5	0.5
GROUND CABLE (SIGNAL POST, MAST ARM, CABINET)	1.5	0.5
GROUND CABLE (BETWEEN FRAME AND COVER)	5.0	1.6

**CABLE SLACK** 

VERTICAL CABLE LENGTH	FEET	METER
MAST ARM POLE ( MAST ARM MOUNTED SIGNAL HEAD)		
(L = MAST ARM LENGTH - DISTANCE TO SIGNAL HEAD FROM END OF ARM)	20.0+L	6.0+L
BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE)	13.0	4.0
PEDESTRIAN PUSH BUTTON	6.0	2.0
SERVICE INSTALLATION POLE MOUNT TO SERVICE DROP	13.5	4.1
SERVICE INSTALLATION POLE MOUNT TO GROUND	13.5	4.1
SERVICE INSTALLATION GROUND MOUNT	6.0	2.0
FOUNDATION (SIGNAL POST, MAST ARM POLE, CONTROLLER CABINET, SERVICE-GROUND MOUNT)	3.0	1.0

VERTICAL	CABLE	LENGTH
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FOUNDATION	DEPTH		
TYPE A - Signal Post	4'-0" (1.2m)		
TYPE C - CONTROLLER W/ UPS	4'-0" (1.2m)		
TYPE D - CONTROLLER	4'-0" (1.2m)		
SERVICE INSTALLATION, GROUND MOUNT, TYPE A - SQUARE	4'-0'' (1.2m)		

#### **DEPTH OF FOUNDATION**

Mast Arm Length	① Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to	13'-6" (4 <b>.</b> 1 m)	30" (750mm)	24" (600mm)	8	6(19)
30' (9.1 m) and less than 40' (12.2 m)	11'-0'' (3-4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	15'-0'' (4 <b>.</b> 6 m)	36'' (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 56' (16.8 m) and less than 65' (19.8 m)	21'-0" (6.4 m)	42'' (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	25'-0'' (7 <b>.</b> 6 m)	42" (1060mm)	36" (900mm)	16	8(25)

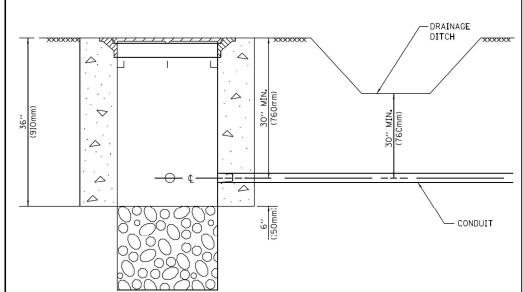
#### NOTES:

- 1. These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (Qu) > 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & structures should be contacted for a revised design if other conditions are encountered.
- 2. Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
- 3. Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use  $42^{\prime\prime}$  (1060 mm) diameter foundations
- 4. For most arm assemblies with dual arms refer to state standard 878001..

### DEPTH OF MAST ARM FOUNDATIONS, TYPE E

USER NAME = Afreeman	DESIGNED	-	A. FREEMAN	REVISED -	
	DRAWN	-	A. FREEMAN	REVISED -	
PLOT SCALE = 40.0000 / in.	CHECKED	-	S. ADHIKARI	REVISED -	
PLOT DATE = 2/25/2022	DATE	-	3/28/2022	REVISED -	

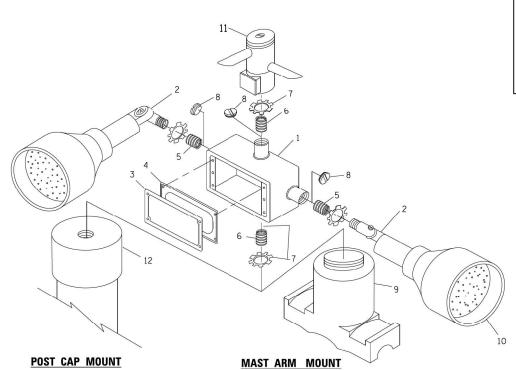
			-							_	
		DIS	TRICT O	NE		F.A.P. RTE	SEC	TION		COUNTY	TOTA
S	TANDARD		C SIGNA		I DETAILS	350	2019-	006-N		СООК	16
_										CONTRAC	T NO.
	SHEET	OF	SHEETS	STA.	TO STA.			ILLINOIS	FED. A	D PROJECT	

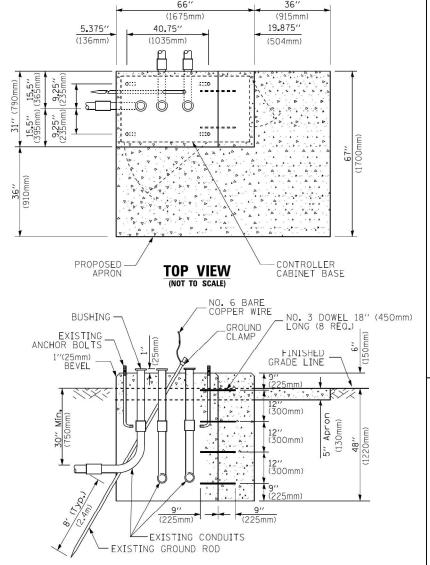


#### NOTES:

- 1. CONDUIT DEPTH SHALL BE A MINIMUM OF 30" (/60mm) BELOW THE BOTTOM OF THE DRAINAGE DITCH OR ANY SLOPING CROUND
- 2. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL CONDUIT PLACED UNDER ROADWAY PAVEMENT, MULTI-USE PATHS, SIDEWALKS AND SOIL SURFACES.
- 3. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL HANDHOLES, HEAVY DUTY HANDHOLES AND DOUBLE HANDHOLES.

## HANDHOLE WITH MINIMUM CONDUIT DEPTH (NOT TO SCALE)





# MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION

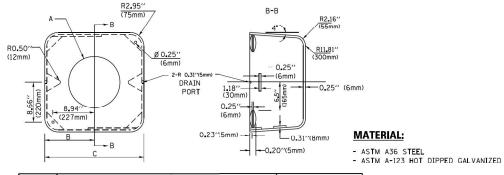
(NOT TO SCALE)

ITEM	NO. IDENTIFICATION
1	OUTLET BOX- GALV. 21 CU.IN. (0.000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	¾''(19 mm) CLOSE NIPPLE
7	¾′′(19 mm) LOCKNUT
8	¾4"(19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

#### NOTES:

- 1. ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
- 2. ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT
  ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT
  ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
- POST CAP MOUNT

  MAST ARM MOUNT

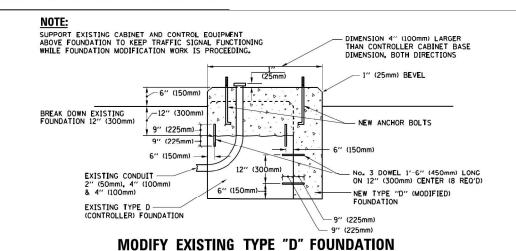


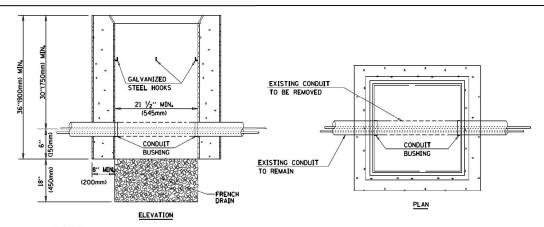
Α	В	С	HEIGHT	WEIGHT
VARIES	9 <b>.</b> 5′′(241mm)	19''(483mm)	7" (178mm) - 12" (300mm)	53 lbs (24kg)
VARIES	10.75"(273mm)	21.5"(546mm)	7" (178mm) - 12" (300mm)	68 lbs (31 kg)
VARIES	13.0"(330mm)	26''(660mm)	7" (178mm) - 12" (300mm)	81 lbs (37 kg)
VARIES	18 <b>.</b> 5''(470mm)	37''(940mm)	7" (178mm) - 12" (300mm)	126 lbs (57 kg)

### **SHROUD**

#### NOTES:

- DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD.
  THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
- 2. THE SUPPLIER SHALL VERIFIED THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
- 3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.





#### NOTES:

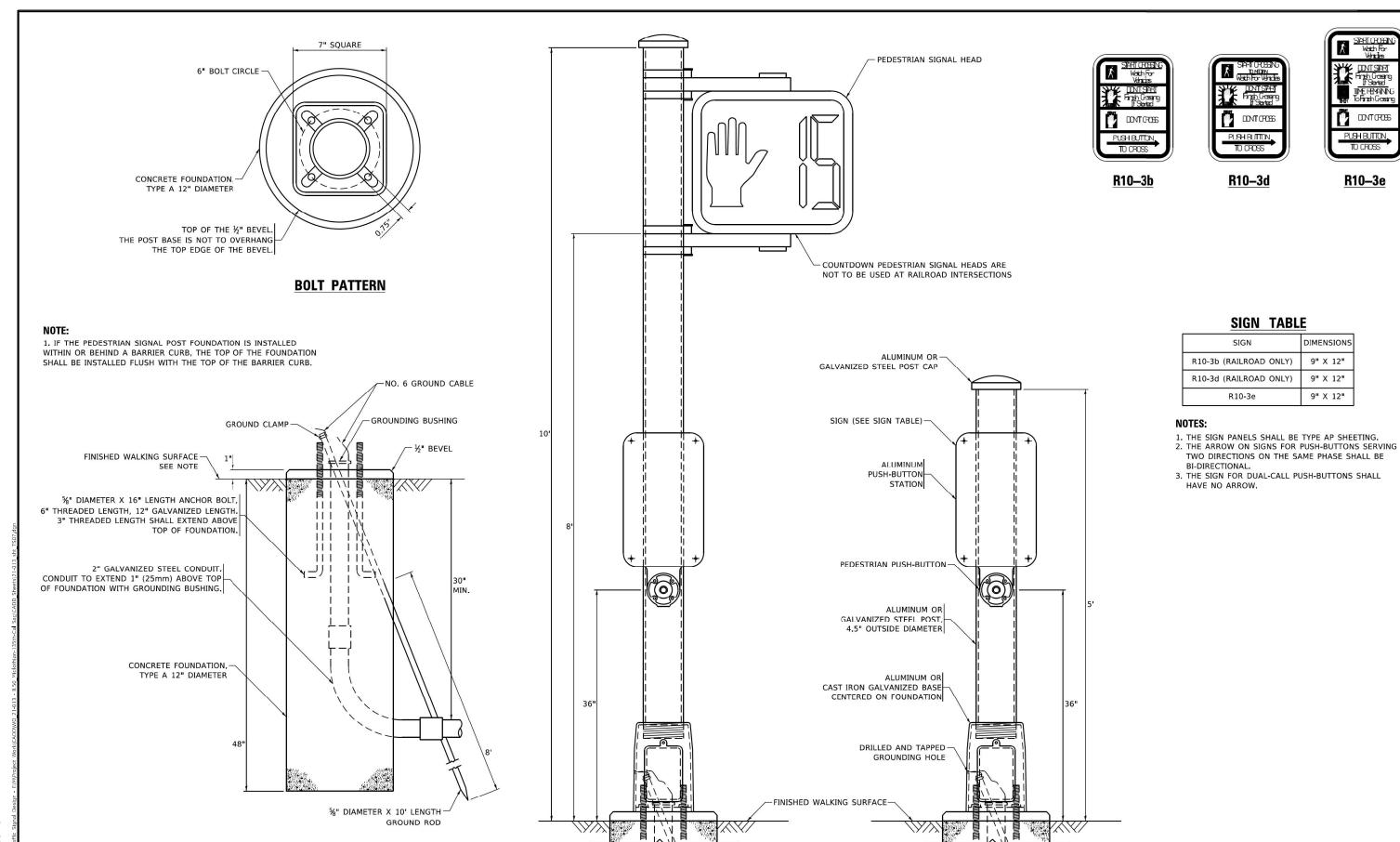
- 1. HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
- 2. REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCLUDED WITH THE COST OF THE HANDHOLE.

### HANDHOLE TO INTERCEPT EXISTING CONDUIT

# Transmart 100 South Wacker Drive Suite 400

	USER NAME = Afreeman	DESIGNED - A. FREEM	AN REVISED -	
mart"		DRAWN - A. FREEM	AN REVISED -	
er Drive Suite 400 60606	PLOT SCALE = 40.0000 / in.	CHECKED - S. ADHIKA	ARI REVISED -	
	PLOT DATE = 2/25/2022	DATE - 3/28/2022	REVISED -	

DISTRICT ONE					F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
S.	STANDARD TRAFFIC SIGNAL DESIGN DETAILS					350	2019-006-N	СООК	167	122
CIVILD IIIVII TO GIGINAL DEGIGIA DE IVILEO						CONTRACT	F NO. 62	2N85		
	SHEET	OF	SHEETS	STA.	TO STA.		ILLINOIS FED. A	ID PROJECT		



2 SHT TS

TYPE A 12-INCH DIAMETER

DESIGNED - A. FREEMAN REVISED DRAWN A. FREEMAN REVISED CHECKED S. ADHIKARI REVISED PLOT DATE = 2/25/2022 REVISED DATE 3/28/2022

CONCRETE FOUNDATION,

PEDESTRIAN SIGNAL POST, 10 FT.

PEDESTRIAN SIGNAL POST, 5 FT.

LLINOIS	STAN
ANSPORTATION	SIAN

SCALE:

DISTRICT ONE Standard traffic signal design details							
	SHEET	OF	SHEETS	STA.	TO STA		

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
350	2019-006-N	СООК	167	123	
			CONTRACT	NO. 62	2N85
	ILLINOIS	FED. A	ID PROJECT		

DONTSPART

First Gosard IFSarted IMEHEMANN ToFinst Gosard

DONT CPOSE

TO CROSS

R10-3e

DIMENSIONS

9" X 12"

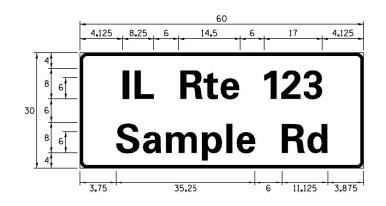
9" X 12"

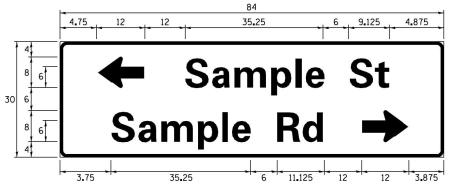
9" X 12"

TranSmart

### SIGN PANEL - TYPE 1 OR TYPE 2

## 3.75 35.25 6 11.125 3.875 Sample





DESIGN	AREA	SIGN PANEL	SHEETING	QTY.
SERIES	(SQ FT)	TYPE	TYPE	REQUIRED
D OR C	-	1 OR 2	ZZ	

ALL DIMENSIONS ARE IN INCHES EXCEPT NOTED OTHERWISE

### **COMMON STREET NAME ABBREVIATIONS AND WIDTHS**

		W.T.D.T.I.		
NAME	ARRREVATION	WIDTH (INCH) SERIES "C" SERIES		
NAME	NAME ABBREVATION		SERIES "D"	
AVENUE	Ave	15.000	18.250	
BOULEVARD	Blvd	17.125	20.000	
CIRCLE	Cir	11.125	13.000	
COURT	C†	8. 250	9.625	
DRIVE	Dr	8.625	10.125	
HIGHWAY	Hwy	18.375	22.000	
ILLINOIS	IL	7. 000	8. 250	
LANE	Ln	9.125	10.750	
PARKWAY	Pkwy	23. 375	27.375	
PLACE	PI	7. 125	7. 750	
ROAD	Rd	9.625	11.125	
ROUTE	Rte	12.625	14.500	
STREET	S†	8. 000	9.125	
TERRACE	Ter	12.625	14.625	
TRAIL	Tr	7. 750	9.125	
UNITED STATES	US	10.375	12.250	

### **GENERAL NOTES**

- 1. WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED, THE MAST ARM ASSEMBLY AND POLES SHALL BE DESIGNED TO SUPPORT THE LOADINGS CALLED FOR ON STANDARDS 877001, 877002, 877006, 877011 AND 877012, AS APPLICABLE, PLUS TWO (2) SIGN PANELS 2'-6" x 8'-0" MOUNTED AS SHOWN. THE DESIGN SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS FOR 80 M.P.H. WIND VELOCITY.
- 2. ALL SIGNS SHALL CONSIST OF A WHITE LEGEND AND BORDER (TYPE ZZ SHEETING) ON A GREEN BACKGROUND (TYPE ZZ
- 3. THE SIGN LENGTH SHALL BE IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHALL NOT EXCEED 8'-O". ALL BORDERS SHALL BE 34" WIDE. CORNER RADIUS SHALL BE 1-7/8". THE SPACING BETWEEN THE WORDS SHOULD BE 6". IF POSSIBLE, BUT MAY BE REDUCED TO 5" WHEN SPACING IS CRITICAL. A MINIMUM OF 2-1/2" SHALL BE INCLUDED BETWEEN THE WORD AND THE RIGHT AND LEFT EDGES OF THE SIGN.
- 4. A PREFERRED METHOD FOR THE SIGN DESIGN IS TO USE SERIES "D" LETTER ON A ONE-LINE SIGN 18" IN HEIGHT AND A MAXIMUM OF 8'-0" IN WIDTH. IF SERIES "D" DOES NOT FIT ON A 8"-0" SIGN, THEN SERIES "C" SHOULD BE TRIED. IF SERIES "C" DOES NOT FIT ON A 8'-O" SIGN, A 30" HIGH TWO-LINE SIGN CAN BE USED. THE CROSSROAD DESIGNATION AS TO STREET, AVENUE, ETC. SHOULD BE SPELLED OUT ON THE SECOND LINE, IF THE ABBREVIATION CANNOT FIT ON THE FIRST LINE.
- 5. LED ILLUMINATED STREET NAME SIGNS CAN BE USED IN PLACE OF REGULAR SIGN PANELS BUT ANY SPECIAL WORDING AND SYMBOLOGY MUST BE APPROVED BY THE DEPARTMENT. GENERAL DESIGN REQUIREMENT AS LISTED ABOVE (COLOR, FONT, SIZE, ETC.) MUST BE FOLLOWED.
- 6. SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND

AL	SUPPLIERS:	PARTS LISTING:

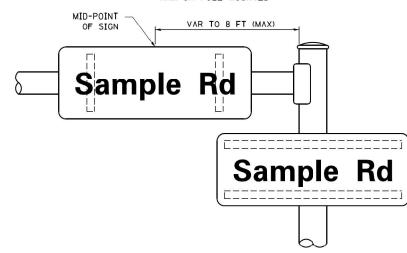
- J.O. HERBERT COMPANY, INC SIGN CHANNEL PART #HPN053 (MED. CHANNEL) MIDLOTHIAN, VA SIGN SCREWS 1/4"  $\times$  14  $\times$  1" H<sub>a</sub>W<sub>a</sub>H<sub>a</sub> \*3 SELF TAPPING WITH NEOPRENE WASHER - WESTERN REMAC, INC. BRACKETS PART #HPN034 (UNIVERSAL)

CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING WOODRIDGE, IL

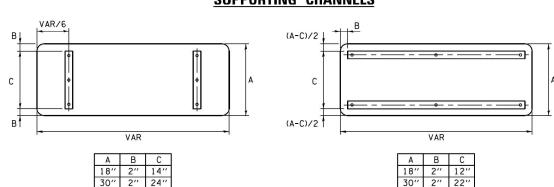
OTHER BRANDS OF MOUNTING HARDWARE ARE ACCEPTABLE, BASED UPON THE DEPARTMENT'S APPROVAL AND COMPATIBILITY WITH THE CHANNEL/BRACKET OF THE ABOVE PRODUCT.

### **MOUNTING LOCATION**

ARM OR POLE MOUNTED



### **SUPPORTING CHANNELS**



SCALE:

#### STANDARD ALPHABETS SPACING CHART

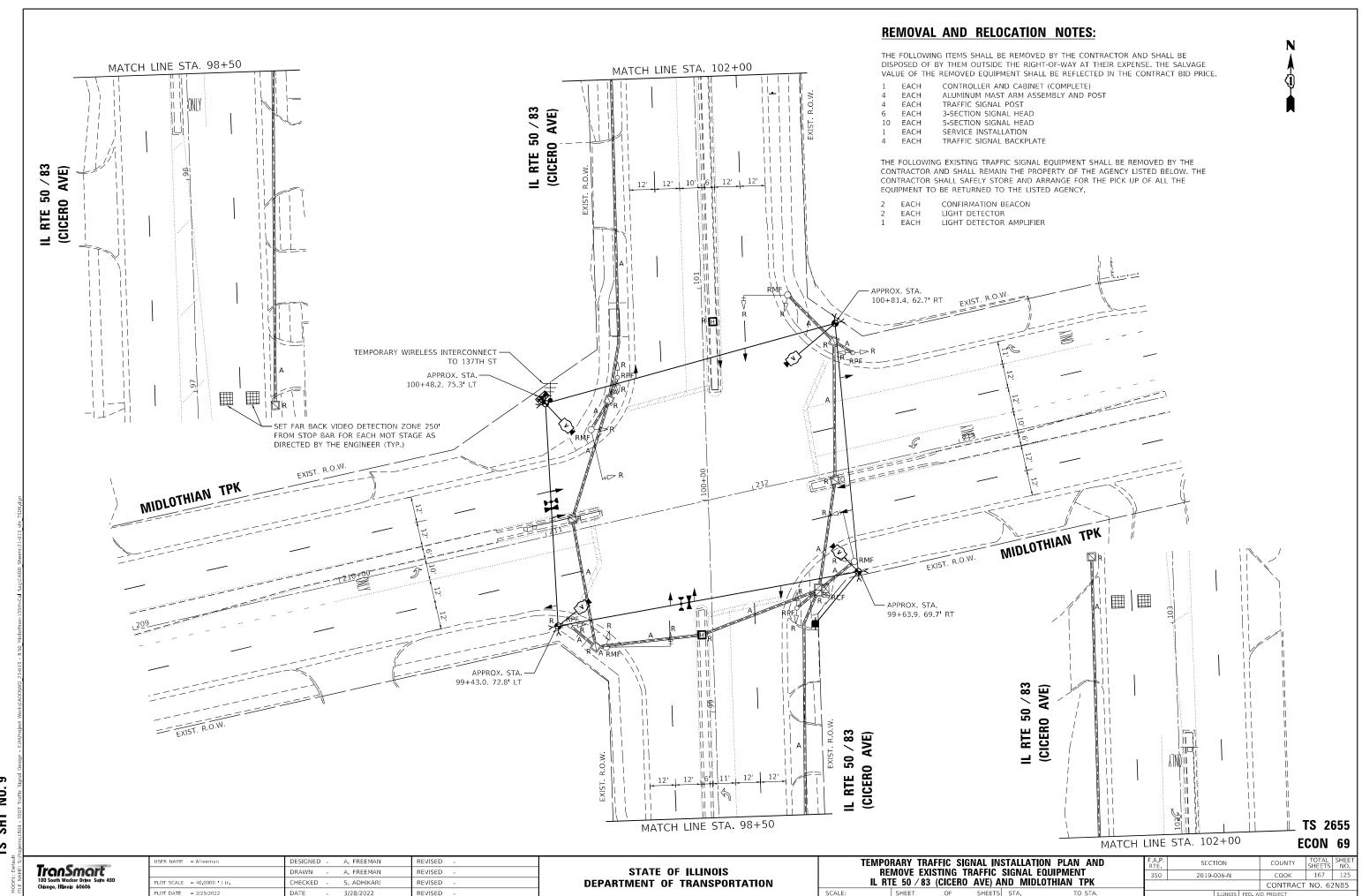
(8") UPPER CASE AND (6") LOWER CASE

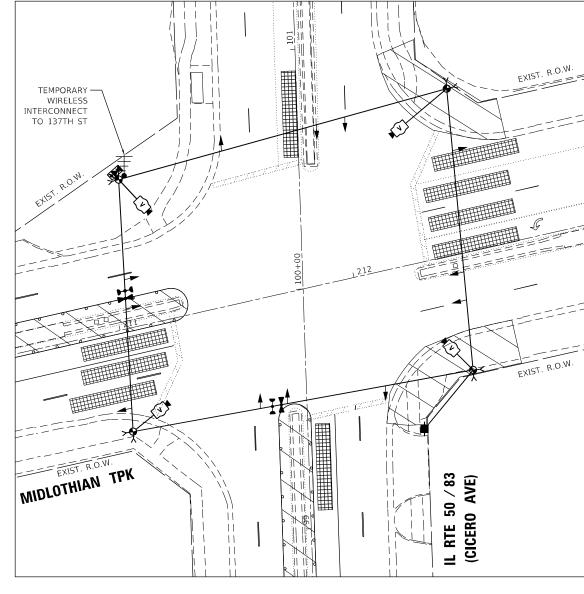
FHWA SERIES "C"				FHWA SERIES "D"					
CHARACTER	LEFT SPACING (INCH)	WIDTH	RIGHT SPACING (INCH)	CHARACTER	LEFT SPACING (INCH)	WIDTH (INCH)	RIGHT SPACING (INCH)		
Α	0, 240	5. 122	0.240	Α	0.240	6. 804	0.240		
В	0.880	4.482	0.480	В	0.960	5.446	0.400		
С	0.720	4.482	0.720	С	0.800	5.446	0.800		
D	0.880	4.482	0.720	D	0.960	5.446	0.800		
E	0.880	4.082	0.480	E	0.960	4.962	0.400		
F	0.880	4.082	0.240	F	0.960	4. 962	0.240		
G	0.720	4.482	0.720	G	0.800	5.446 5.446	0.800		
H I	0.880 0.880	4. 482 1. 120	0.880 0.880	H I	0.960 0.960	1. 280	0.960 0.960		
J	0.240	4.032	0.880	J	0. 240	5. 122	0.960		
K	0.880	4. 482	0.480	K	0.960	5.604	0.400		
L	0.880	4.082	0.240	L	0.960	4.962	0.240		
М	0.880	5. 284	0.880	М	0.960	6. 244	0.960		
N	0.880	4.482	0.880	N	0.960	5.446	0.960		
0	0.720	4.722	0.720	0	0.800	5.684	0.800		
P	0.880	4.482	0.720	P	0.960	5. 446	0.240		
Q	0.720	4.722	0.720	0	0.800	5. 684	0.800		
R S	0.880 0.480	4.482 4.482	0.480	R S	0.960 0.400	5. 446 5. 446	0.400		
	0.480	4.482	0.480	T	0. 400	4. 962	0.400		
Ü	0.880	4.482	0.880	Ü	0.960	5. 446	0.960		
٧	0.240	4. 962	0.240	٧	0.240	6.084	0.240		
W	0.240	6.084	0.240	W	0.240	7. 124	0.240		
Χ	0.240	4.722	0.240	Χ	0.400	5.446	0.400		
Y	0.240	5.122	0.240	Υ	0.240	6.884	0.240		
Z	0.480	4.4 <u>82</u>	0.480	Z	0.400	5.446	0.400		
а	0.320	3.842	0.640	a	0.400	4.562	0.720		
Ь	0.720	4.082	0.480	b	0.800	4.802	0.480		
С	0.480	4.002	0.240	С	0.480	4. 722	0.240		
d	0.480	4.082	0.720	d	0.480	4.802	0.800		
e f	0.480	4.082 2.480	0.320	e f	0.480 0.320	4. 722 2. 882	0.320		
g	0.480	4. 082	0.720	g	0.480	4. 802	0.800		
h	0.720	4.082	0.640	h	0.800	4. 722	0.720		
i	0.720	1.120	0.720	i	0.800	1.280	0.800		
j	0.000	2. 320	0.720	j	0.000	2.642	0.800		
k	0.720	4.322	0.160	k	0.800	5.122	0.160		
l	0.720	1.120	0.720	- 1	0.800	1.280	0.800		
m	0.720	6. 724	0.640	m	0.800	7. 926	0.720		
n	0.720	4.082	0.640	n	0.800	4. 722	0.720		
0	0.480	4.082	0.480	0	0.480	4.882	0.480		
P Q	0.720 0.480	4.082 4.082	0.480	P q	0.800 0.480	4.802 4.802	0.480		
r	0. 720	2.642	0.160	r	0.480	3.042	0.160		
s	0.320	3. 362	0.240	s	0.320	3. 762	0.240		
t	0.080	2.882	0.080	t	0.080	3. 202	0.080		
u	0.640	4.082	0.720	u	0.720	4.722	0.800		
٧	0.160	4.722	0.160	٧	0.160	5. 684	0.160		
W	0.160	7. 524	0.160	w	0.160	9.046	0.160		
×	0.000	5. 202	0.000	×	0.000	6. 244	0.000		
<u>у</u>	0.160	4.962	0.160 0.240	у 7	0.160 0.240	6.004 4.002	0.160		
2 1	0. 240 0. 720	3. 362 1. 680	0. 240	2 1	0. 240	2.000	0.240		
2	0. 120	4. 482	0.480	2	0.800	5. 446	0.800		
3	0.480	4.482	0.480	3	1.440	5. 446	0.800		
4	0.240	4.962	0.720	4	0.160	6.004	0.960		
5	0.480	4.482	0.480	5	0.800	5.446	0.800		
6	0.720	4.482	0.720	6	0.800	5.446	0.800		
7	0.240	4.482	0.720	7	0.560	5.446	0.560		
8	0.480	4.482	0.480	8	0.800	5.446	0.800		
9	0.480	4.482	0.480	9	0.800	5.446	0.800		
0	0.720	4. 722	0.720	0	0.800	5. 684	0.800		
-	0.240	2.802	0.240	-	0.240	2.802	0.240		

TranSmart

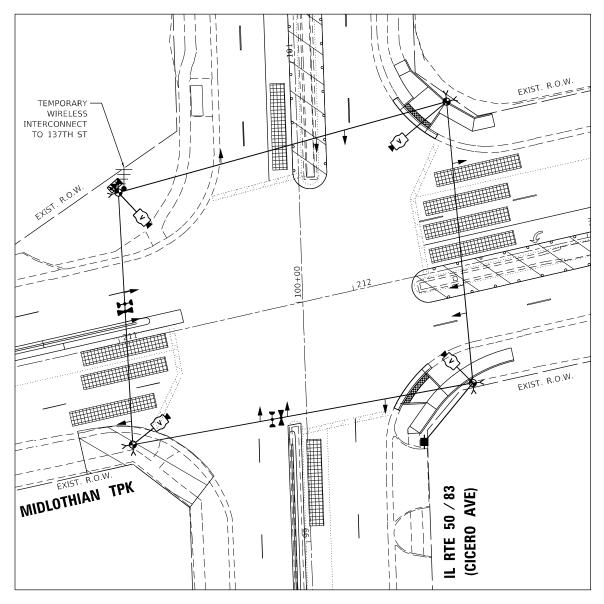
USER NAME = Afreeman	DESIGNED	-	A. FREEMAN	REVISED	-
	DRAWN	-	A. FREEMAN	REVISED	-
PLOT SCALE = 40.0000 / in.	CHECKED	-	S. ADHIKARI	REVISED	-
PLOT DATE = 2/25/2022	DATE	-	3/28/2022	REVISED	-

		DISTRIC	CT ON	JE		F.A.P. RTE	SECTION
S	STANDARD TRAFFIC SIGNAL DESIGN DETAILS					350	2019-006-N
_							









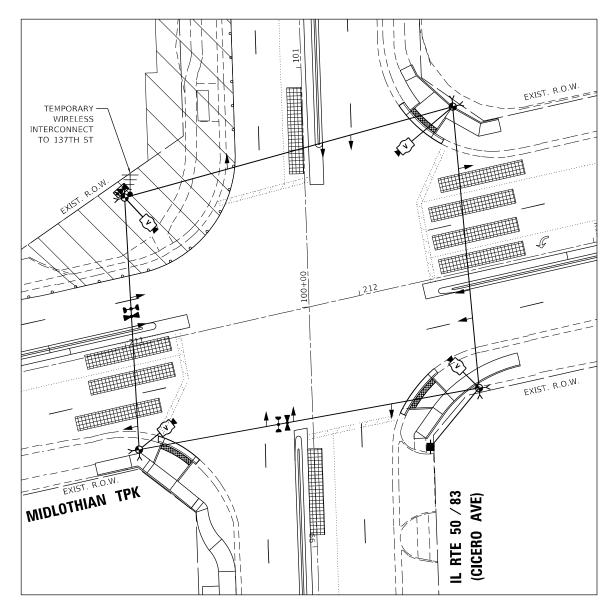
TEMPORARY SIGNAL LAYOUT
STAGE 2

TS 2655 ECON 69



USER NAME = Afreeman	DESIGNED	-	A. FREEMAN	REVISED	-
	DRAWN	-	A. FREEMAN	REVISED	-
PLOT SCALE = 40.0000 / in.	CHECKED	-	S. ADHIKARI	REVISED	-
PLOT DATE = 2/25/2022	DATE	-	3/28/2022	REVISED	-

		(STA	SIGNAL INSTALLATION PLAN GE 1 & 2) AVE) AND MIDLOTHIAN TPK			
SCALE:	SHEET	OF	SHEETS		TO STA.	



**TEMPORARY SIGNAL LAYOUT** STAGE 3

Transmart

100 South Wacker Drive Suite 400
Chicago, Illinois 60606

A. FREEMAN REVISED DRAWN -A. FREEMAN REVISED PLOT SCALE = 40.0000 ' / in. CHECKED -S. ADHIKARI REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN (STAGE 3)

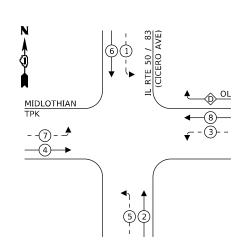
IL RTE 50 / 83 (CICERO AVE) AND MIDLOTHIAN TPK

SHEET OF SHEETS STA. TO STA.

ECON 69 COUNTY TOTAL SHEET NO.

COOK 167 127 CONTRACT NO. 62N85

TS 2655 SECTION 2019-006-N



### LEGEND:

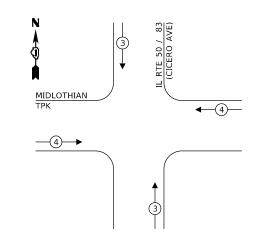
**◆** PROTECTED PHASE

← - (\*)- - PROTECTED/PERMITTED PHASE

◆- (\*)- ► PEDESTRIAN PHASE

OL OVERLAP

# TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE



TRAFFIC SIGNAL							
<b>ELECTRICAL SERVICE REQUIREMENTS</b>							
	NO OF	LED	%	TOT			

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	11	50	66.0
(YELLOW)	12	20	5	12.0
(GREEN)	12	12	45	64.8
PERMISSIVE ARROW	16	10	10	16.0
PED. SIGNAL	-	20	100	-
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-		50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-		-	-
	-		TOTAL =	283.8

ENERGY COSTS TO:

VILLAGE OF CRESTWOOD

COMPANY: ACCOUNT NUMBER: 03110-60036

OSER MAINE - AITCOMON	DESIGNED		A. INCLUAN	INLVISED	-
	DRAWN	-	A. FREEMAN	REVISED	-
PLOT SCALE = 40.0000 / in.	CHECKED	-	S. ADHIKARI	REVISED	-
PLOT DATE = 2/25/2022	DATE	-	3/28/2022	REVISED	-

TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM, AND TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE IL RTE 50 / 83 (CICERO AVE) AND MIDLOTHIAN TPK

SCALE: SHEET OF SHEETS STA. TO STA.

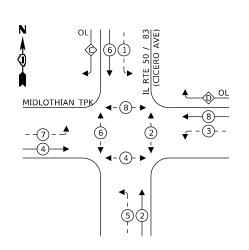
TEMP. INTERCONNECT TO (SEE TEMPORARY INTERCONNECT)	137TH ST ONNECT PLANS)	IL RTE 50 / 83 (CICERO AVE)
V	7 7 7	
MIDLOTHIAN TPK		5 ~ 0
(2 # 6 3#20		*
3 <b>- - - - - - - - - -</b>		
G ≺ ⊅ 5		
V	5+	
	2#6	S P P II.S
	TEMPORARY CABLE PL	

TS 2655 ECON 69

Transmart

100 South Wacker Drive Suite 400
Chicago, Illinois 60606

### PROPOSED CONTROLLER SEQUENCE



### **LEGEND:**

**◆** PROTECTED PHASE

← - (\*)- - PROTECTED/PERMITTED PHASE

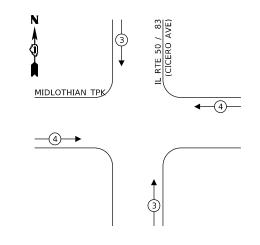
√- \*- PEDESTRIAN PHASE

OL OVERLAP

### **RIGHT TURN OVERLAP** PHASE DESIGNATION:

OVERLAP		PERMISSIVE	PROTECTE	
LETTER		PHASE		PHASE
С	=	6	+	7
D	=	8	+	1

### PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



### TRAFFIC SIGNAL **ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	20	11	50	110.0
(YELLOW)	20	20	5	20.0
(GREEN)	20	12	45	108.0
PERMISSIVE ARROW	24	10	10	24.0
PED. SIGNAL	8	20	100	160.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
	•		TOTAL =	547.0

ENERGY COSTS TO:

NO. 14

SHT

VILLAGE OF CRESTWOOD

ENERGY SUPPLY: CONTACT: COMPANY: ACCOUNT NUMBER: 03110-60036

DESIGNED - A. FREEMAN REVISED DRAWN -A. FREEMAN REVISED CHECKED -S. ADHIKARI REVISED PLOT DATE = 2/25/2022 REVISED DATE 3/28/2022

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**  CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE IL RTE 50 / 83 (CICERO AVE) AND MIDLOTHIAN TPK OF SHEETS STA.

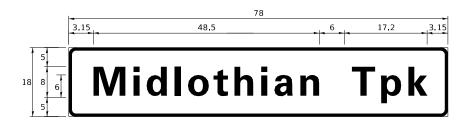
SECTION COUNTY 2019-006-N COOK 167 130 CONTRACT NO. 62N85

c			PROP. TRACER CABLE
GM    2	P <sub>≐</sub> 222	IL RTE 50 / 83	P T T T T T T T T T T T T T T T T T T T
SUPER P C C C C C C C C C C C C C C C C C C	2 3 777	2 7 5 5 2 R R R Y G G G APS	3 3 5 0 1 1 1 1 1 1
MIDLOTHIAN  TPK  7  2  3#20  3#20			② 2 APS 7 (#6)
1	\		R V 5 5 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
3 0 1	APS	9	© 2   I P   P   P   P   P   P   P   P   P
		BLE PLAN	2#6 P S

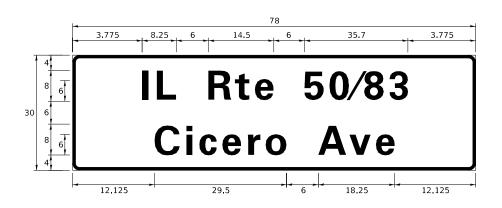
TS 2655 ECON 69

Transmart \*\*\*
100 South Wacker Drive Suite 400
Chicago, Illinois 60606

ALL DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE



-	DESIGN	AREA	SIGN PANEL	SHEETING	QTY
١	SERIES	(SQ FT)	TYPE	TYPE	REQUIRED
Ì	D	9.75	2	ZZ	2



DESIGN	AREA	SIGN PANEL	SHEETING	QTY
SERIES	(SQ FT)	TYPE	TYPE	REQUIRED
D	16,25	2	ZZ	2

### **SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
SIGN PANEL - TYPE 2	SQ FT	52
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	1,019
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	144
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	540
HANDHOLE	EACH	5
HEAVY-DUTY HANDHOLE	EACH	2
DOUBLE HANDHOLE	EACH	2
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1,417
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1,860
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2,075
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	2,538
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	2,123
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	212
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	791
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	3
STEEL MAST ARM ASSEMBLY AND POLE, 14 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	2
STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.	EACH	2
CONCRETE FOUNDATION, TYPE A	FOOT	16
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	50.5
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	13
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	7
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	5
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	7
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	14
INDUCTIVE LOOP DETECTOR	EACH	6
DETECTOR LOOP, TYPE I	FOOT	353
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	9
REMOVE EXISTING DOUBLE HANDHOLE	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	9
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	317
FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL)	EACH	1
SERVICE INSTALLATION, GROUND MOUNTED, METERED	EACH	1
RADAR VEHICLE DETECTION SYSTEM, SINGLE APPROACH, STOP BAR	EACH	2
PEDESTRIAN SIGNAL POST, 10 FT.	EACH	5
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
ACCESSIBLE PEDESTRIAN SIGNALS	EACH	8
CONCRETE FOUNDATION, TYPE A 12-INCH DIAMETER	EACH	20
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1
* 100% COST TO THE VILLAGE OF CRESTWOOD	LACII	

\* 100% COST TO THE VILLAGE OF CRESTWOOD

STATE OF ILLINOIS

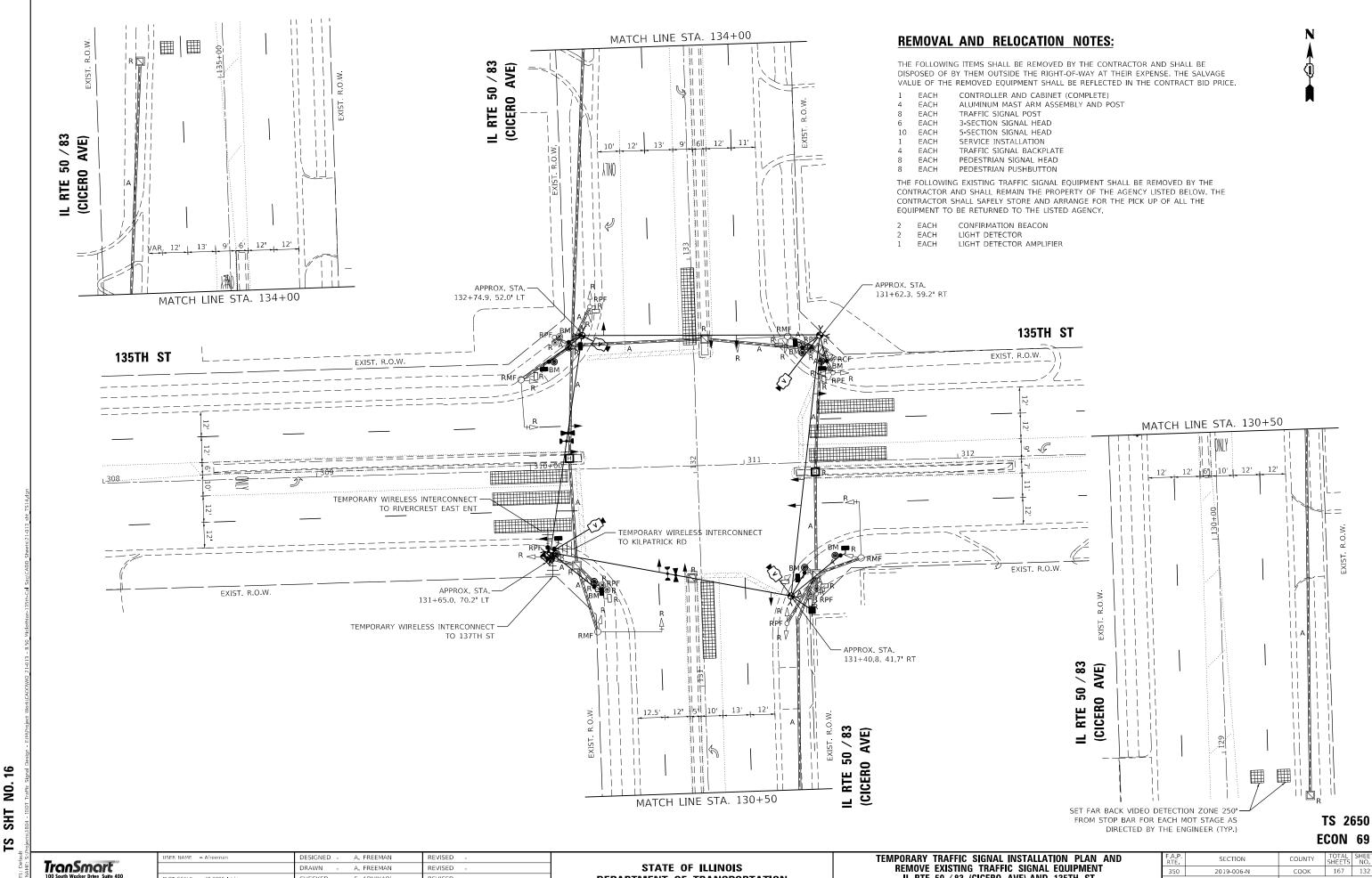
**DEPARTMENT OF TRANSPORTATION** 

TS 2655 ECON 69

Transmart

100 South Wacker Drive Suite 400
Chicago, Illinois 60606

USER NAME = Afreeman	DESIGNED -	A. FREEMAN	REVISED -
	DRAWN -	A. FREEMAN	REVISED -
PLOT SCALE = 39.9988 / in.	CHECKED -	S. ADHIKARI	REVISED -
PLOT DATE = 2/25/2022	DATE -	3/28/2022	REVISED -



HECKED S. ADHIKARI REVISED LOT DATE = 2/25/2022

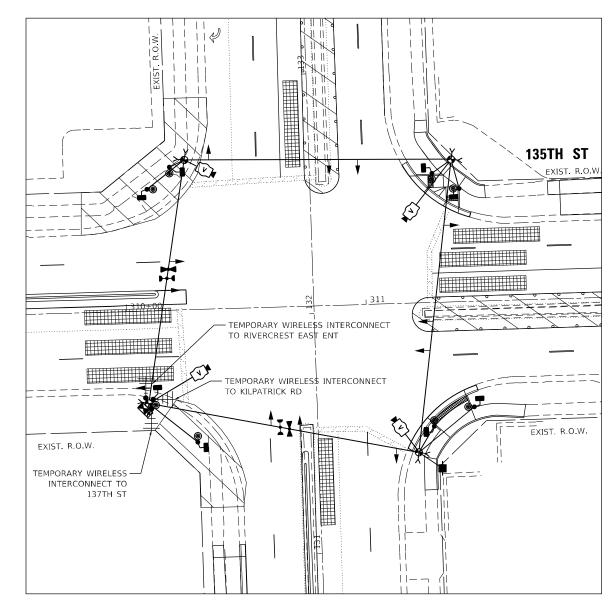
**DEPARTMENT OF TRANSPORTATION** 

TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN AND REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT IL RTE 50 / 83 (CICERO AVE) AND 135TH ST SHEETS STA.

167 132 CONTRACT NO. 62N85

TEMPORARY SIGNAL LAYOUT

STAGE 1



TEMPORARY SIGNAL LAYOUT

STAGE 2

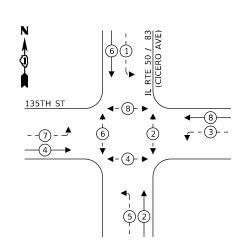
TS 2650 ECON 69



USER NAME = Afreeman	DESIGNED	-	A. FREEMAN	REVISED -
	DRAWN	-	A. FREEMAN	REVISED -
PLOT SCALE = 40.0000 / in.	CHECKED	-	S. ADHIKARI	REVISED -
PLOT DATE = 2/25/2022	DATE	-	3/28/2022	REVISED -

TEM	PORARY				LATION PLAN	Ľ
(STAGE 1 & 2) IL RTE 50 / 83 (CICERO AVE) AND 135TH ST						
I	L RIE 50	/ 83 (CI	CERO AV	E) AND	1351H SI	┰
SCALE:	SHEET	OF	SHEETS	STA.	TO STA.	

### TEMPORARY CONTROLLER SEQUENCE



### **LEGEND**:

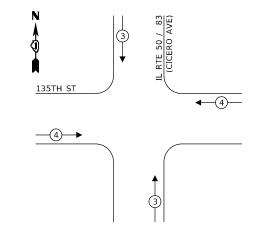
**◆** PROTECTED PHASE

← - (\*)- - PROTECTED/PERMITTED PHASE

√- \*- PEDESTRIAN PHASE

OL OVERLAP

### **TEMPORARY EMERGENCY VEHICLE** PREEMPTION SEQUENCE



## TRAFFIC SIGNAL **ELECTRICAL SERVICE REQUIREMENTS**

ТҮРЕ	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	11	50	66.0
(YELLOW)	12	20	5	12.0
(GREEN)	12	12	45	64.8
PERMISSIVE ARROW	16	10	10	16.0
PED. SIGNAL	8	20	100	160.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
			TOTAL =	443.8

ENERGY COSTS TO:

VILLAGE OF CRESTWOOD

ENERGY SUPPLY: CONTACT:

COMPANY: ACCOUNT NUMBER: 03110-60036

Transmart \*\*\*
100 South Wacker Drive Suite 400
Chicago, Illinois 60606

USER NAME = Afreeman	DESIGNED	-	A. FREEMAN	KEVISED	-
	DRAWN	-	A. FREEMAN	REVISED	-
PLOT SCALE = 40.0000 / in.	CHECKED	-	S. ADHIKARI	REVISED	-
PLOT DATE = 2/25/2022	DATE	-	3/28/2022	REVISED	-

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**  TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM, AND TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE IL RTE 50 / 83 (CICERO AVE) & 135TH ST OF SHEETS STA.

SECTION COUNTY 2019-006-N COOK 167 134 CONTRACT NO. 62N85

TS 2650

ECON 69

135TH ST  135TH	CICERO AVE)  (CICERO AVE)
TEMP. INTERCONNECT TO RIVERCREST EAST ENT. AND CAL SAG RD (SEE TEMP. INTERCONNECT PLANS)  TEMP. INTERCONNECT TO KILPATRICK AVE (SEE TEMP. INTERCONNECT TO 137TH ST AND MIDLOTHIAN TPK (SEE TEMP. INTERCONNECT PLANS)	TEMPORARY CABLE PLAN (NOT TO SCALE)

NO. 18

SHT

STATE OF ILLINOIS

**DEPARTMENT OF TRANSPORTATION** 

SECTION

2019-006-N

COOK

167 135

CONTRACT NO. 62N85

TRAFFIC SIGNAL MODERNIZATION PLAN

IL RTE 50 / 83 (CICERO AVE) AND 135TH ST

SHT TS

Transmart"
100 South Wacker Drive Suite 40

DRAWN

HECKED

LOT SCALE = 40.0000 / in.

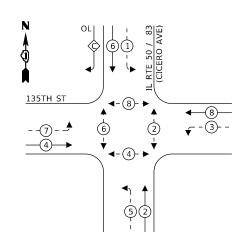
A. FREEMAN

S. ADHIKARI

REVISED

REVISED

### PROPOSED CONTROLLER SEQUENCE



### **LEGEND:**

**◆ PROTECTED PHASE** 

← - \*\*- - PROTECTED/PERMITTED PHASE

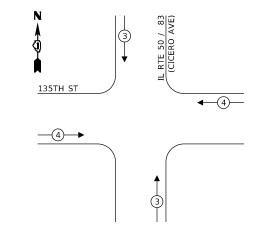
◆- \*- PEDESTRIAN PHASE

OL OVERLAP

# RIGHT TURN OVERLAP PHASE DESIGNATION:

OVERLAP		PERMISSIVE		PROTECTED	
LETTER		PHASE		PHASE	
С	-	6	+	7	

# PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



# TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

'n۱							
Julian I-1.	TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE		
2	SIGNAL (RED)	20	11	50	110.0		
3	(YELLOW)	20	20	5	20.0		
-	(GREEN)	20	12	45	108.0		
5	PERMISSIVE ARROW	20	10	10	20.0		
7	PED. SIGNAL	8	20	100	160.0		
Á	CONTROLLER	1	100	100	100.0		
Š	UPS	1	25	100	25.0		
2	VIDEO SYSTEM	-	150	100	-		
	BLANK-OUT SIGN	-	25	5	-		
Ď	FLASHER	-	-	50	-		
JAIN L	STREET NAME SIGN	-	120	50	-		
ı	LUMINAIRE	-	-	-	-		
i di	·	·		TOTAL =	543.0		

ENERGY COSTS TO:

VILLAGE OF CRESTWOOD

ENERGY SUPPLY: CONTACT:\_\_\_\_\_\_\_PHONE:\_\_\_\_\_\_COMPANY:

ACCOUNT NUMBER: 03110-60036

TranSmart \*\*\*

USER NAME =

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM,
AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
IL RTE 50 / 83 (CICERO AVE) & 135TH ST

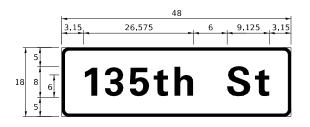
SHEET OF SHEETS STA. TO STA.

PROP. INTERCONNECT TO RIVERCREST EAST ENT. PROP. TRACER CABLE SUPER R CABINET (2) R Y G **4**Y **4**G R Y G U □ APS R **4**9 X**≯** Y R Y G **>> ₹ 4**Υ λ 135TH ST ⊚– APS -PROP. INTERCONNECT TO KILPATRICK AVE R 9 X A G 8 APS → ← 572 PROP. TRACER CABLE PROP. INTERCONNECT TO 137TH ST PROP. TRACER CABLE TS 2650 **CABLE PLAN** ECON 69

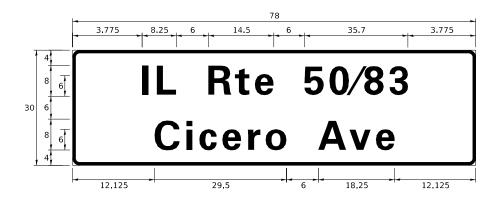
**TS SHT NO. 20** 

# SIGN PANEL - TYPE 1 OR TYPE 2

ALL DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE



DESIGN	AREA	SIGN PANEL	SHEETING	QTY
SERIES	(SO FT)	TYPE	TYPE	REOUIRED
D	6	1	ZZ	2



DESIGN	AREA	SIGN PANEL	SHEETING	QTY
SERIES	(SQ FT)	TYPE	TYPE	REQUIRED
D	16.25	2	ZZ	2

# **SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
SIGN PANEL - TYPE 1	SQ FT	12
SIGN PANEL - TYPE 2	SQ FT	32.5
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	918
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	116
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	586
HANDHOLE	EACH	5
HEAVY-DUTY HANDHOLE	EACH	2
DOUBLE HANDHOLE	EACH	2
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1,572
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1,972
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2,372
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	2,129
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	2,113
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	246
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	873
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	4
STEEL MAST ARM ASSEMBLY AND POLE, 44 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 44 FT.	EACH	2
	EACH	
STEEL MAST ARM ASSEMBLY AND POLE, 50 FT.		1
CONCRETE FOUNDATION, TYPE A	FOOT	20
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	54
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	7
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	5
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	5
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	12
INDUCTIVE LOOP DETECTOR	EACH	6
DETECTOR LOOP, TYPE I	FOOT	330
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	9
REMOVE EXISTING DOUBLE HANDHOLE	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	13
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	366
FULL-ACTUATED CONTROLLER AND TYPE SUPER R CABINET (SPECIAL)	EACH	1
SERVICE INSTALLATION, GROUND MOUNTED, METERED	EACH	1
RADAR VEHICLE DETECTION SYSTEM, SINGLE APPROACH, STOP BAR	EACH	2
PEDESTRIAN SIGNAL POST, 5 FT.	EACH	1
PEDESTRIAN SIGNAL POST, 10 FT.	EACH	2
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
ACCESSIBLE PEDESTRIAN SIGNALS	EACH	8
CONCRETE FOUNDATION, TYPE A 12-INCH DIAMETER	EACH	12
	EACH	12
* 100% COST TO THE VILLAGE OF CRESTWOOD	LEACH	1

\* 100% COST TO THE VILLAGE OF CRESTWOOD

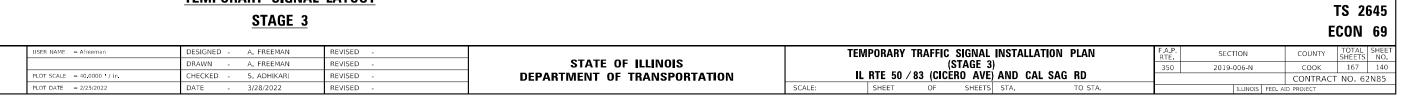
TS 2650 ECON 69

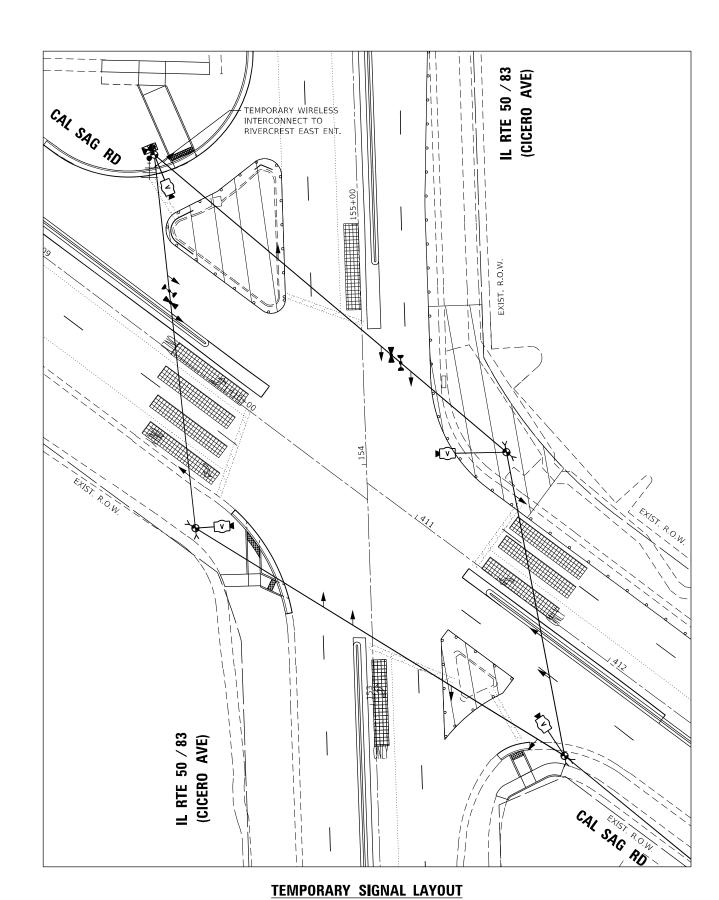
Transmart

100 South Wacker Drive Suite 400
Chicago, Illinois 60606

USER NAME = Afreeman	DESIGNED	-	A. FREEMAN	REVISED -
	DRAWN	-	A. FREEMAN	REVISED -
PLOT SCALE = 39.9988 / in.	CHECKED	-	S. ADHIKARI	REVISED -
PLOT DATE = 2/25/2022	DATE	-	3/28/2022	REVISED -

**TS SHT NO. 23** 

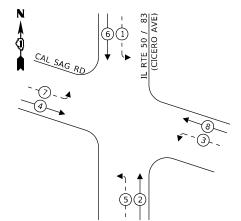




Transmart

100 South Wacker Drive Suite 400
Chicago, Illinois 60606





# LEGEND:

**◆**PROTECTED PHASE

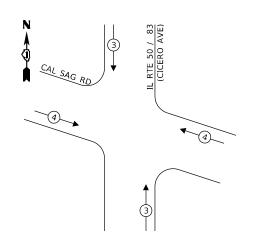
← - (\*)- - PROTECTED/PERMITTED PHASE

◆- \*\*- ► PEDESTRIAN PHASE

OL OVERLAP

TEMP. INTERCONNECT T RIVERCREST EAST EN (SEE TEMP. INTERCONNECT PLANS

# TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE



TRAFFIC SIGNAL							
ELECTRICA	L S	ER۱	VICE RE	QUIREME	NTS		
	NO	OF	LED	0/	TOT		

ТҮРЕ	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	14	11	50	77.0
(YELLOW)	14	20	5	14.0
(GREEN)	14	12	45	75.6
PERMISSIVE ARROW	16	10	10	16.0
PED. SIGNAL	-	20	100	-
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
	•		TOTAL =	307.5

ENERGY COSTS TO:

VILLAGE OF CRESTWOOD

ACCOUNT NUMBER: 03110-60036

USER NAME =

USER NAME =

100 South Wacker Prive Suite 400
Chicago, Illinois 60606

PLOT SCALE =

USER NAME = Afreeman	DESIGNED	-	A. FREEMAN	REVISED	-
	DRAWN	-	A. FREEMAN	REVISED	-
PLOT SCALE = 40.0000 / in.	CHECKED	-	S. ADHIKARI	REVISED	-
PLOT DATE = 2/25/2022	DATE	_	3/28/2022	REVISED	_

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM, AND TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE

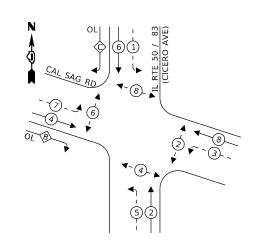
IL RTE 50 / 83 (CICERO AVE) & CAL SAG RD

SCALE: SHEET OF SHEETS STA. TO STA.

INTERCONNECT TO  WITHOUT TO  W	
TEMPORARY CABLE PLAN  (NOT TO SCALE)	TS 2645 ECON 69

S SHT NO. 25

# PROPOSED CONTROLLER SEQUENCE



# **LEGEND**:

**◆** PROTECTED PHASE

← - (\*)- - PROTECTED/PERMITTED PHASE

√
\*

PEDESTRIAN PHASE

Output

Description

PEDESTRIAN

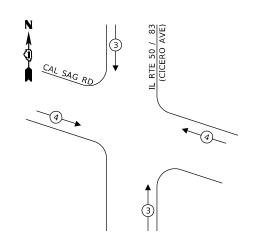
PED

OL OVERLAP

# RIGHT TURN OVERLAP PHASE DESIGNATION:

OVERLAP		PERMISSIVE		PROTECTED
LETTER		PHASE		PHASE
В	=	4	+	5
C	=	6	+	7

# PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



# TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

ТҮРЕ	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	22	11	50	121.0
(YELLOW)	22	20	5	22.0
(GREEN)	22	12	45	118.8
PERMISSIVE ARROW	26	10	10	26.0
PED. SIGNAL	12	20	100	240.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
			TOTAL =	652.8

ENERGY COSTS TO:

Transmart<sup>\*\*</sup>
100 South Wacker Drive Suite 40
Chicago, Illinois 60606

VILLAGE OF CRESTWOOD

ENERGY SUPPLY: CONTACT:\_\_\_\_\_\_\_PHONE:\_\_\_\_\_\_

COMPANY:\_\_\_\_ ACCOUNT NUMBER: 03110-60036

USER NAME = Afreeman	DESIGNED	-	A. FREEMAN	REVISED -
	DRAWN	-	A. FREEMAN	REVISED -
PLOT SCALE = 40.0000 / in.	CHECKED	-	S. ADHIKARI	REVISED -
PLOT DATE = 2/25/2022	DATE	-	3/28/2022	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM,
AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
IL RTE 50 / 83 (CICERO AVE) & CAL SAG RD

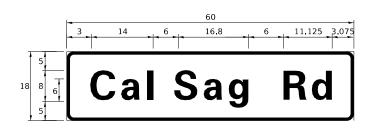
SHEET OF SHEETS STA. TO STA.

	22	IL RTE 50 /83 (CICERO AVE)		<b>N</b> ♠
$\begin{array}{c} C \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ $	3 2 3	2 (146) (146) (2) (2) (2) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4		•
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		APS		
© APS  APS  O □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	(2		3 @ APS 2 ***/6/**/**/7	1
p = (1*/6)	7 5 7 2	APS	PS (0) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1	
	CABLE PLAN (NOT TO SCALE)	2 2 PF	ROP. TRACER CABLE  TO RIVERCREST EAST ENT  I F.A.P. SECTION	TS 2645 ECON 69

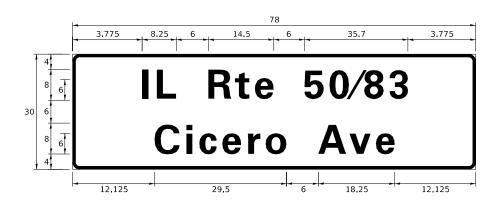
S SHT NO. 27

# SIGN PANEL - TYPE 1 OR TYPE 2

ALL DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE



DESIGN	AREA	SIGN PANEL	SHEETING	QTY
SERIES	(SQ FT)	TYPE	TYPE	REQUIRED
D	7.5	1	ZZ	2



DESIGN	AREA	SIGN PANEL	SHEETING	QTY
SERIES	(SQ FT)	TYPE	TYPE	REQUIRED
D	16.25	2	ZZ	2

# **SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
SIGN PANEL - TYPE 1	SQ FT	15
SIGN PANEL - TYPE 2	SQ FT	32.5
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	1,259
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	300
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	631
HANDHOLE	EACH	5
HEAVY-DUTY HANDHOLE	EACH	2
DOUBLE HANDHOLE	EACH	3
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	2,687
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	3,181
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2,671
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	2,069
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	2,146
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	546
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	1,382
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	5
STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	2
STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	24
CONCRETE FOUNDATION, TIPE A	FOOT	4
CONCRETE FOUNDATION, TIPE C  CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	53
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	6
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MASI-ARM MOUNTED	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED  SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	7
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	6
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	12
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC		12
	EACH	
INDUCTIVE LOOP DETECTOR	EACH	6
DETECTOR LOOP, TYPE I	FOOT	360
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	8
REMOVE EXISTING DOUBLE HANDHOLE	EACH	2
REMOVE EXISTING CONCRETE FOUNDATION	EACH	8
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	417
FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL)	EACH	1
SERVICE INSTALLATION, GROUND MOUNTED, METERED	EACH	1
RADAR VEHICLE DETECTION SYSTEM, SINGLE APPROACH, STOP BAR	EACH	2
PEDESTRIAN SIGNAL POST, 5 FT.	EACH	1
PEDESTRIAN SIGNAL POST, 10 FT.	EACH	2
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
ACCESSIBLE PEDESTRIAN SIGNALS	EACH	12
CONCRETE FOUNDATION, TYPE A 12-INCH DIAMETER	EACH	12
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1
* 100% COST TO THE VILLAGE OF CRESTWOOD		

TS 2645 ECON 69

Transmart

100 South Wacker Drive Suite 400
Chicago, Illinois 60606

USER NAME = Afreeman	DESIGNED	-	A. FREEMAN	REVISED	-
	DRAWN	-	A. FREEMAN	REVISED	-
PLOT SCALE = 39.9988 / in.	CHECKED	-	S. ADHIKARI	REVISED	-
PLOT DATE = 2/25/2022	DATE	-	3/28/2022	REVISED	-

ECON 69 COUNTY COOK 167 147 CONTRACT NO. 62N85

DESIGNED - A. FREEMAN REVISED DRAWN -A. FREEMAN REVISED PLOT SCALE = 100.0000 / in CHECKED -S. ADHIKARI REVISED

TEMPORARY INTERCONNECT PLAN IL RTE 50 / 83 (CICERO AVE) MIDLOTHIAN TPK TO CAL SAG RD (3 OF 3)

OF SHEETS STA.

2019-006-N

Transmart

100 South Wacker Drive Suite 400
Chicago, Illinois 60606

PLOT DATE = 2/25/2022 REVISED DATE

KILPATRICK AVE

TEMPORARY WIRELESS INTERCONNECT TO 135TH ST

**DEPARTMENT OF TRANSPORTATION** 

STATE OF ILLINOIS

135TH ST

SECTION

МАТСН

135TH ST

1. THE CONSULTANT WILL DETERMINE THE LOCATION OF THE SYSTEM DETECTORS.

IL RTE 50 / 83 (CICERO AVE) CAL SAG RD **RIVERCREST** EAST ENT. **|||** 135TH ST KILPATRICK AVE 137TH ST MIDLOTHIAN TPK IL RTE 50 / 83 (CICERO AVE)

ECON 69

Transmart

100 South Wacker Drive Suite 400
Chicago, Illinois 60606

DESIGNED -A. FREEMAN REVISED DRAWN -A. FREEMAN REVISED PLOT SCALE = 40.0000 '/ in. CHECKED -S. ADHIKARI REVISED PLOT DATE = 2/25/2022 DATE REVISED

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**  TEMPORARY INTERCONNECT SCHEMATIC IL RTE 50 /83 (CICERO AVE) MIDLOTHIAN TPK TO CAL SAG RD SHEETS STA.

SECTION COUNTY 
 COUNTY
 TOTAL SHEETS NO.

 COOK
 167
 148

 CONTRACT NO. 62N85
 2019-006-N

Transmart

100 South Wacker Drive Suite 400
Chicago, Illinois 60606

ECON 69 COUNTY COOK 167 151 CONTRACT NO. 62N85

DESIGNED - A. FREEMAN REVISED DRAWN -A. FREEMAN REVISED PLOT SCALE = 100.0000 / in CHECKED -S. ADHIKARI REVISED PLOT DATE = 2/25/2022 DATE REVISED

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**  PROPOSED INTERCONNECT PLAN IL RTE 50 / 83 (CICERO AVE) MIDLOTHIAN TPK TO CAL SAG RD (3 OF 3)

OF SHEETS STA.

SECTION 2019-006-N

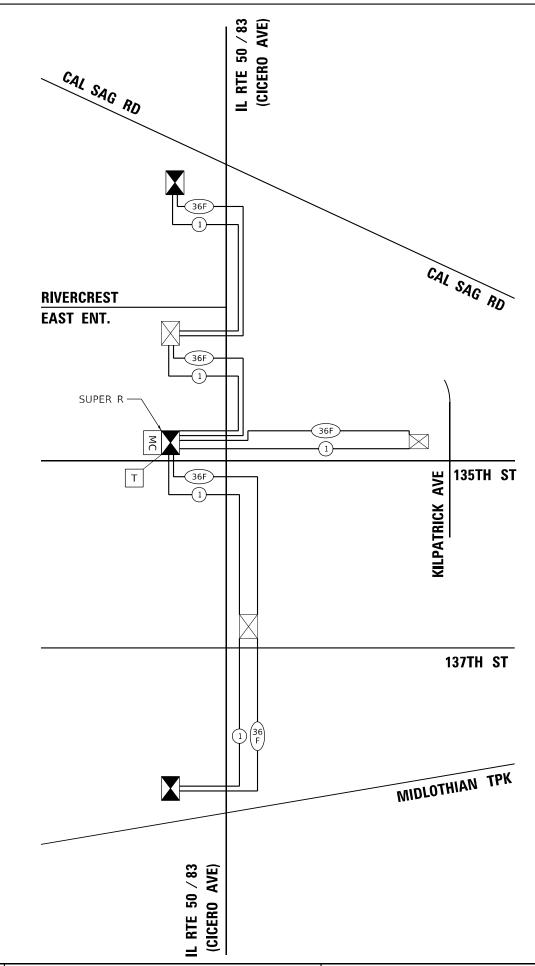
KILPATRICK AVE МАТСН — 128-E-2" — 226-E-2" 135TH ST 135TH ST DRILL EX. HANDHOLE — 462-UC-2" —

1. THE CONSULTANT WILL DETERMINE THE LOCATION OF THE SYSTEM DETECTORS.

# **SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION  UNITS  TOTAL OTY  UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.  MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION  EACH 3  TRANSCEIVER - FIBER OPTIC  ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C  DRILL EXISTING HANDHOLE  REMOVE ELECTRIC CABLE FROM CONDUIT  ROD AND CLEAN EXISTING CONDUIT  FOOT  FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F  FOOT  FOOT  RELOCATE EXISTING MASTER CONTROLLER  TOTAL OTTAL OTT				
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION  EACH 3  TRANSCEIVER - FIBER OPTIC EACH 3  ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C FOOT 7000  DRILL EXISTING HANDHOLE EACH 5  REMOVE ELECTRIC CABLE FROM CONDUIT FOOT 14000  * ROD AND CLEAN EXISTING CONDUIT FOOT 5800  FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F FOOT 7000		ITEM DESCRIPTION	UNITS	
TRANSCEIVER - FIBER OPTIC  ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C  DRILL EXISTING HANDHOLE  REMOVE ELECTRIC CABLE FROM CONDUIT  ROD AND CLEAN EXISTING CONDUIT  FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F  FOOT 7000		UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	1487
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C  DRILL EXISTING HANDHOLE  REMOVE ELECTRIC CABLE FROM CONDUIT  ROD AND CLEAN EXISTING CONDUIT  FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F  FOOT 7000		MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	3
DRILL EXISTING HANDHOLE         EACH         5           REMOVE ELECTRIC CABLE FROM CONDUIT         FOOT         14000           * ROD AND CLEAN EXISTING CONDUIT         FOOT         5800           FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F         SM24F         FOOT         7000		TRANSCEIVER - FIBER OPTIC	EACH	3
REMOVE ELECTRIC CABLE FROM CONDUIT         FOOT         14000           * ROD AND CLEAN EXISTING CONDUIT         FOOT         5800           FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F         SM24F         FOOT         7000		ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	7000
* ROD AND CLEAN EXISTING CONDUIT FOOT 5800 FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F FOOT 7000		DRILL EXISTING HANDHOLE	EACH	5
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F FOOT 7000		REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	14000
1.2.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1	*	ROD AND CLEAN EXISTING CONDUIT	FOOT	5800
RELOCATE EXISTING MASTER CONTROLLER EACH 1		FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	FOOT	7000
		RELOCATE EXISTING MASTER CONTROLLER	EACH	1
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2 EACH 6		RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2	EACH	6

<sup>\*</sup>NOMINAL QUANTITY TO BE USED AS NEEDED AND AS APPROVED BY THE ENGINEER



ECON 69

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100 South Wacker Drive Suite 400
Chicago, Illinois 60606

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

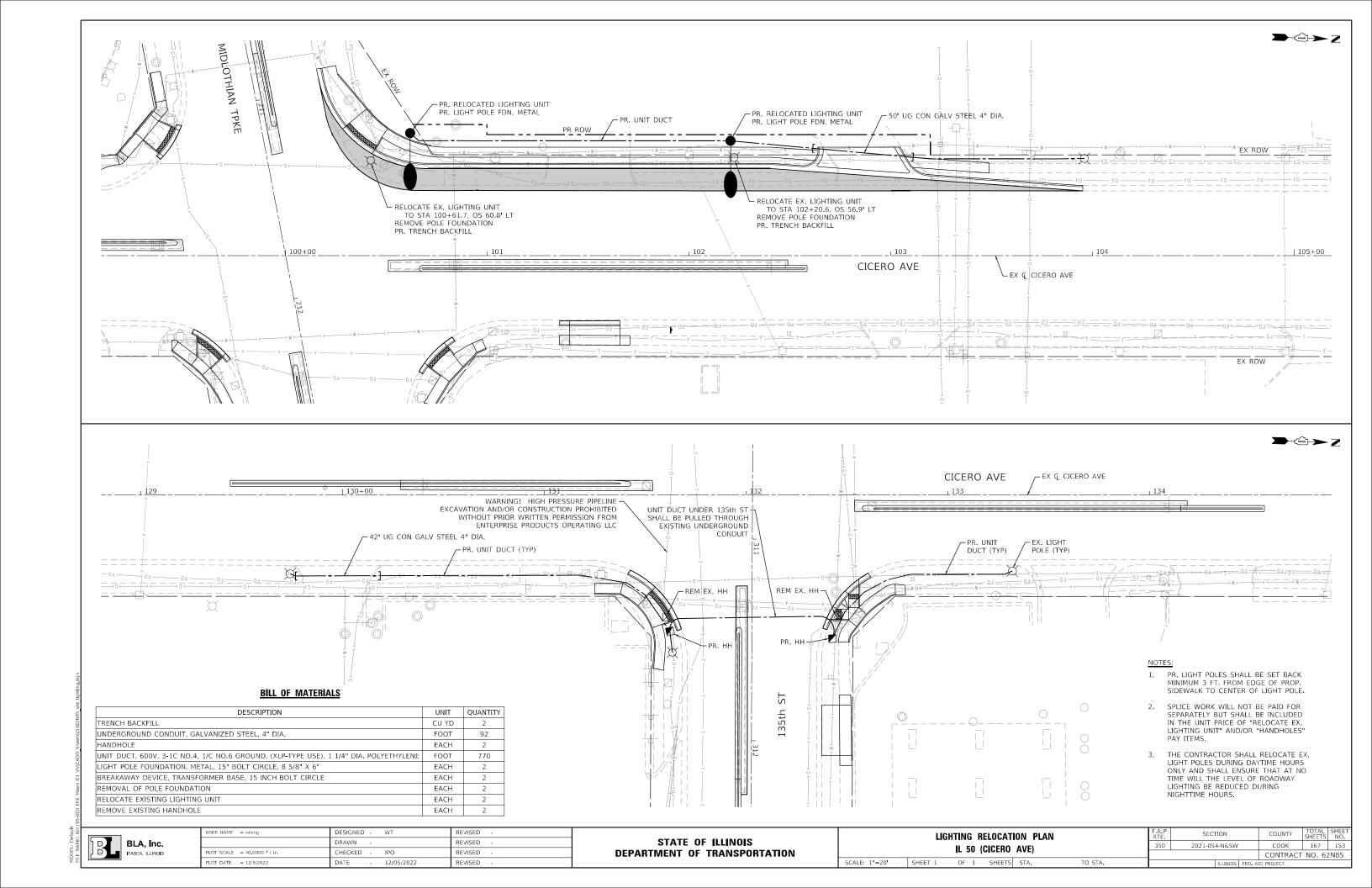
PROPOSED INTERCONNECT SCHEMATIC AND SCHEDULE OF QUANTITIES

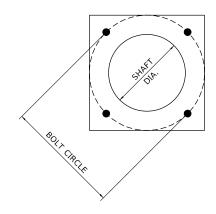
IL RTE 50 / 83 (CICERO AVE)

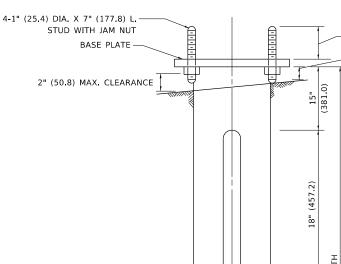
MIDLOTHIAN TPK TO CAL SAG RD

SCALE: SHEET OF SHEETS STA. TO STA.

TS SHT NO. 36





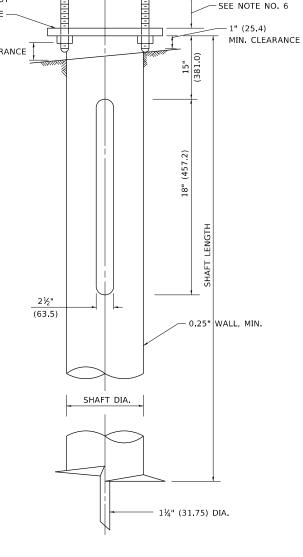


# **HELIX FOUNDATION SIZE**

POLE MOUNTING HEIGHT	BOLT CIRCLE	SHAFT DIAMETER	SHAFT LENGTH	BASEPLATE
30 FT.	11½"	8%"	6 FT.	12"x12"x1"
31 FT35 FT.	11½"	8%"	6 FT.	12"x12"x1"
36 FT40FT.	15"	8%"	6 FT.	15"x15"x1¾"
41 FT45 FT.	15"	8%"	6 FT.	15"x15"x1¾"
46 FT50 FT.	15"	10"	8 FT.	15"x15"x1¾"

# METAL HELIX FOUNDATION MATERIALS

ITEM	MATERIAL REQUIREMENT
BASEPLATE	AASHTO M 270M, GRADE 36 (M270M, GRADE 250)
SHAFT	ASTM A 252, GRADE 2 (PHOSPHOROUS 0.04% MAXIMUM, SULFUR 0.05% MAXIMUM)
HELIX SCREW	AASHTO M 183 (ASTM A 635)
PILOT POINT	AASHTO M 270 (ASTM A 575)
ANCHOR RODS/STUDS	AASHTO M 314 (ASTM F 1554)
HEXAGON NUTS	AASHTO M 291M (ASTM A 563) GRADE DH, OR AASHTO M 292 (ASTM A 194) GRADE 2H
WASHERS	AASHTO M 293 (ASTM F 436)



### **NOTES**

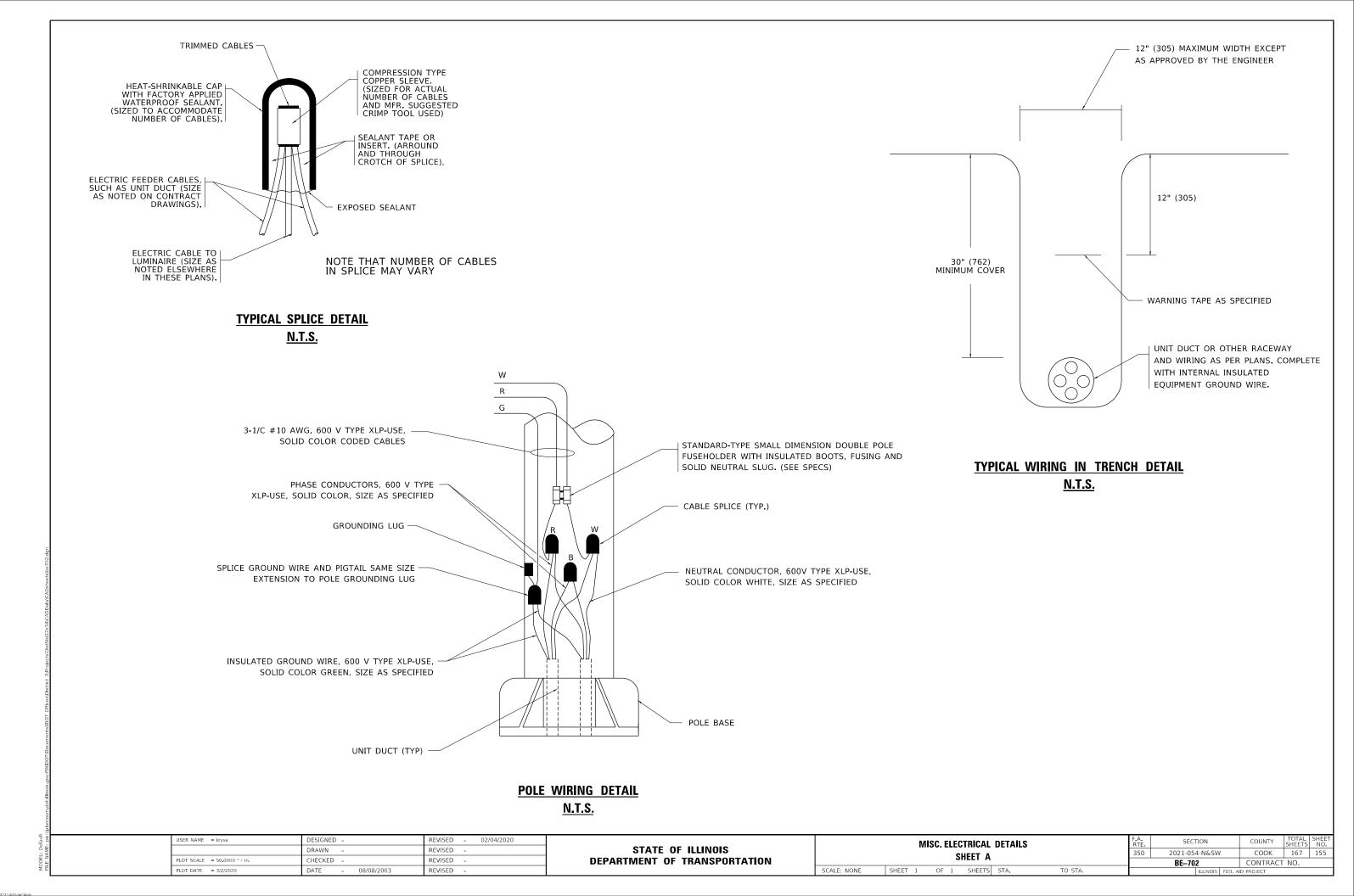
- 1. ALL DIMENSION IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- 2. ALL MATERIAL SHALL BE GALVINIZED ACCORDING TO AASHTO M111, UNLESS OTHERWISE SPECIFIED.
- 3. ALL WELDS SHALL BE CONTINUOUS AND NOT LESS THAN 1#4" (6.35 mm) FILLET WELDS. THE WELDED FOUNDATION SHALL BE CAPABLE OF WITHSTANDING 10,000 FT/LBS (13558.18 n.m) OF INSTALLATION TORQUE APPLIED ABOUT THE AXIS OF THE FOUNDATION.
- 4. THE HELIX FOUNDATION SHAFT SHALL BE INSTALLED VERTICAL AND THE BASE PLATE SHALL BE IN LEVEL. THE BREAKAWAY COUPLINGS AND HARDWARE SHALL NOT BE USED TO ALIGN THE POLE INSTALLATION.
- 5. THE CABLE TRENCH SHALL BE BACKFILLED AND FIRMLY COMPACTED BEFORE THE INSTALLATION OF THE LIGHT POLE.
- 6. THE CONTRACTOR SHALL COORDINATE EXTENSION OF ANCHOR BOLTS ABOVE TOP OF THE BASE PLATE WITH THE BREAKAWAY DEVICE MANUFACTURER'S REQUIREMENTS.
- 7. ANY VOIDS WITHIN THE METAL FOUNDATION SHALL BE FILLED WITH FINE AGGREGATE.
- 8. METAL FOUNDATIONS SHALL BE INSTALLED IN UNDISTURBED SOIL. PREDRILLING A PILOT HOLE AND/OR BACKFILLING AROUND THE FOUNDTION IS NOT ALLOWED.
- 9. THE METAL FOUNDATION SHALL NOT BE INSTALLED TO A TORQUE WHICH EXCEEDS THE MANUFACTURER'S MAXIMUM TORQUE RATING NOR SHALL IT BE INSTALLED TO AN INSTALLATION TORQUE VALUE OF LESS THAN 3,500 FT LB (4,750 KNM). METAL FOUNDATIONS THAT ARE NOT INSTALLED TO FULL INSTALLATION DEPTH OR DO NOT ACHIEVE THE MINIMUM INSTALLATION TORQUE SHALL BE REMOVED AND REPLACED WITH A CONCRETE FOUNDATION AT NO ADDITIONAL COST.
- 10. THE BASEPLATE SHALL BE PERPENDICULAR TO THE SHAFT AXIS ( $\pm$  1 $^{\circ}$  ) AND THE HOLE CENTERLINE SHALL BE CONCENTRIC (± 0.188) TO THE SHAFT AXIS.
- 11. THE PILOT POINT AND SHAFT AXIS SHALL BE CONCENTRIC (± 0.125) AND IN LINE  $(\pm 2^{\circ})$ .
- 12. THE BASEPLATE SHALL BE STAMPED WITH THE MANUFACTURERS NAME AND DATE OF MANUFACTURE.

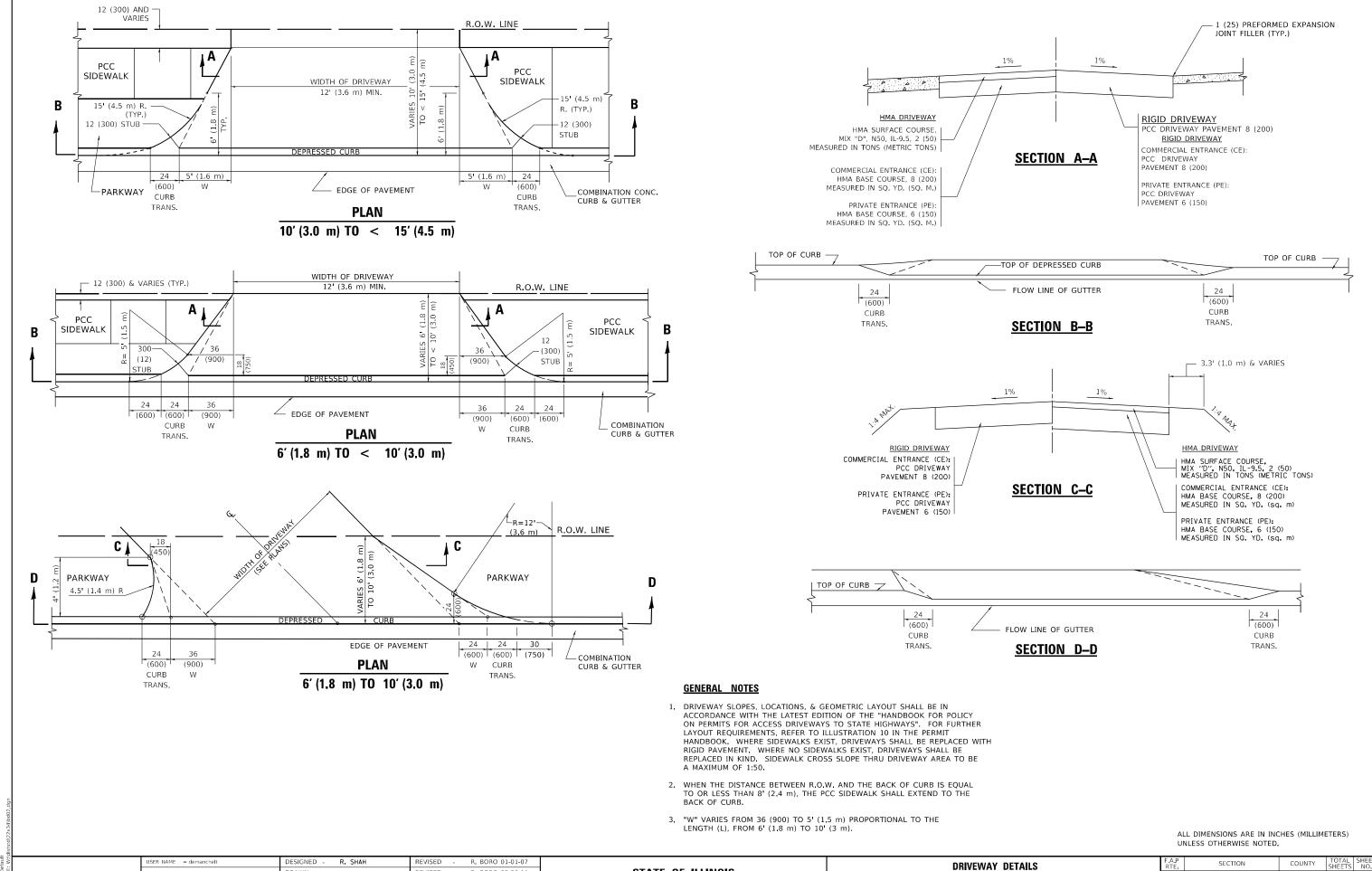
USER NAME = footemj	DESIGNED -	-		REVISED	-
	DRAWN -	-	DLB	REVISED	-
PLOT SCALE = 50.0000 / in.	CHECKED -	-		REVISED	-
PLOT DATE = 4/19/2019	DATE -	-	02-27-07	REVISED	-

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

SCALE: NONE

	LICHT DOLE COUNDATION METAL							F.A. SECTION COU			TOTAL SHEET NO.	
	LIGHT POLE FOUNDATION, METAL					350	2021-054-N&SW	COOK	167	154		
BE-305 CONTRACT NO					NO.							
	SHEET	1	OF	1	SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT				





STATE OF ILLINOIS

**DEPARTMENT OF TRANSPORTATION** 

2021-054-N&SW

BD400-02 (BD-02)

DISTANCE BETWEEN ROW AND FACE OF CURB < 15' (4.5m)

OF 1 SHEETS STA.

COOK 167 156

CONTRACT NO.

MODEL: Default

DRAWN

DATE

HECKED

11-06-95

LOT SCALE = 100.0000 / in.

PLOT DATE = 2/2/2022

REVISED

REVISED

R. BORO 09-06-11

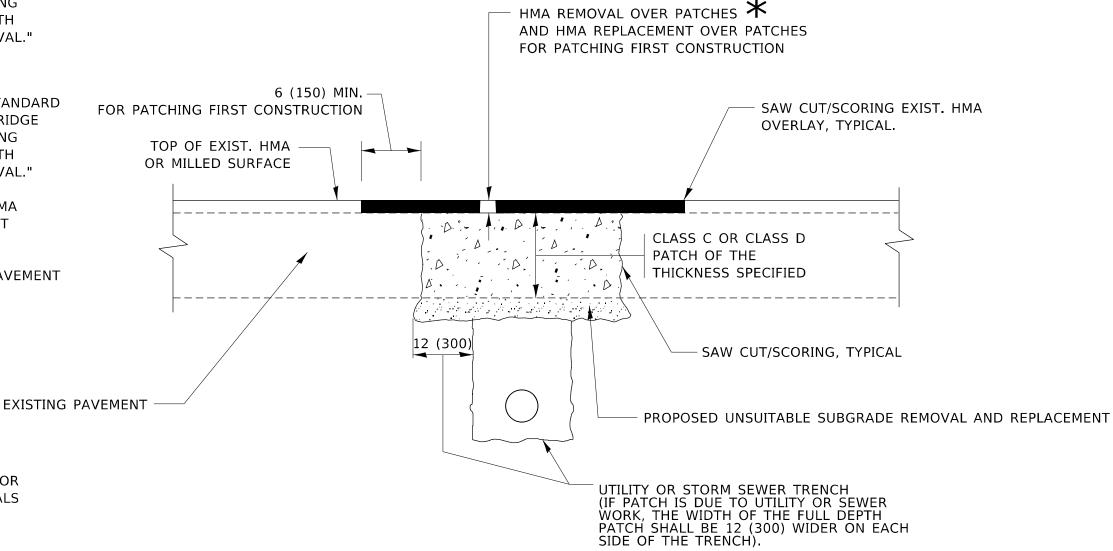
K. SMITH 02-01-22

# METHOD OF MEASUREMENT

REFER TO SECTION 442 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL."

# **BASIS OF PAYMENT**

- 1. REFER TO SECTION 442 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL."
- 2. SAW CUT/SCORING OF EXISTING HMA OVERLAY IS INCLUDED IN THE COST OF PAVEMENT PATCHING.
- 3. SAW CUT/SCORING OF EXISTING PAVEMENT IS INCLUDED IN THE COST OF PAVEMENT PATCHING.



# **SEQUENCE OF CONSTRUCTION (PATCHING FIRST)**

1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.

SEE TYPICAL SECTIONS FOR

THICKNESS AND MATERIALS

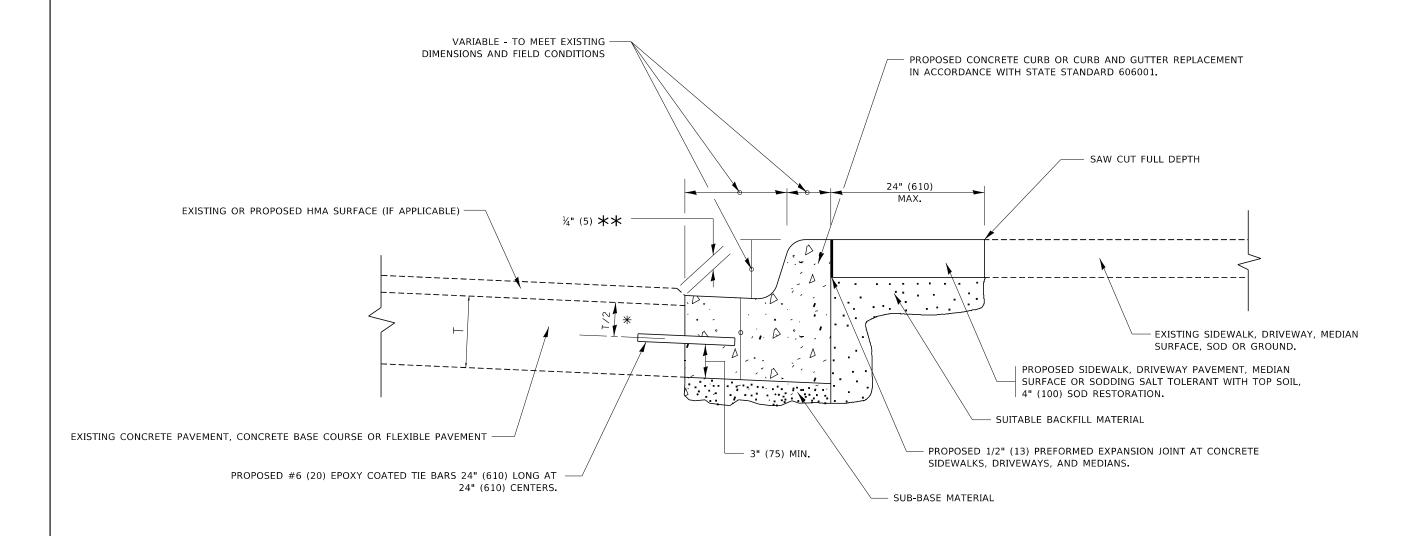
- 2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
- 3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

# **SEQUENCE OF CONSTRUCTION (MILLING FIRST)**

- 1. MILL HMA FIRST IF THERE IS AT LEAST  $4\frac{1}{2}$  INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
- 2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

USER NAME = demanchelt	DESIGNED - R. SHAH	REVISED - R. BORO 01-01-07		PAVEMENT PATCHING FOR			F.A.P RTE	SECTION	COUNTY	TOTAL	SHEET NO.
	DRAWN -	REVISED - R. BORO 09-04-07	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	HMA SURFACED PAVEMENT			350	2021-054-N&SW	СООК	167	157
PLOT SCALE = 100.0000 / in.	CHECKED -	REVISED - K. ENG 10-27-08			IIIVIA JUNIAGLU FAVLIVILINI			BD400-04 (BD-22)		CONTRACT NO.	
PLOT DATE = 2/2/2022	DATE - 10-25-94	REVISED - K. SMITH 02-01-22		SCALE: NONE	SHEET 1 OF 1 SHEETS STA. TO ST	ΓA.		ILLINOIS FED. A	D PROJECT		



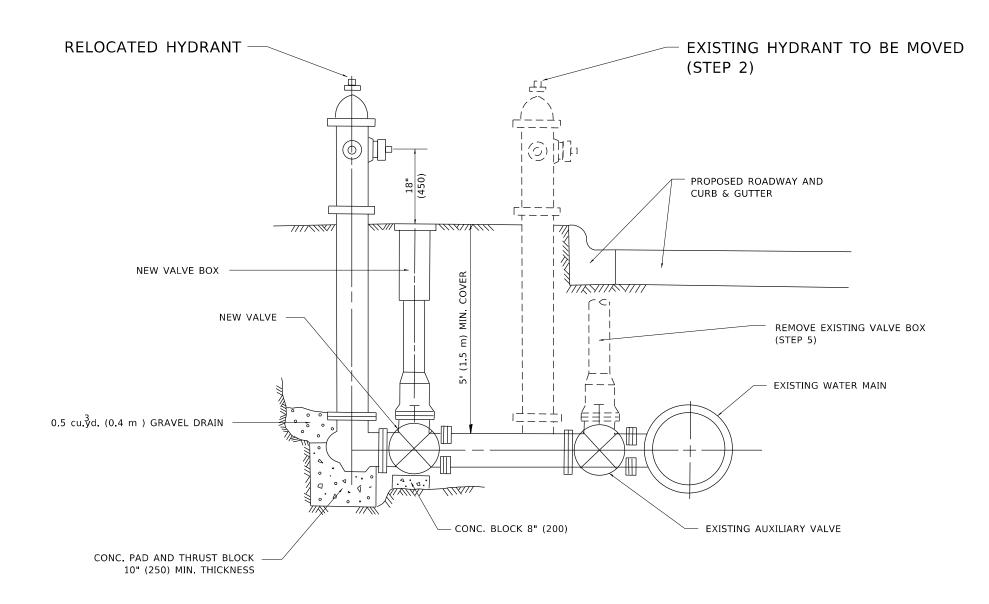
- 💥 3" (75) MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.
- $\ensuremath{\boldsymbol{\star}}\ensuremath{\boldsymbol{\star}}$  IF THE FINAL SURFACE OF THE PAVEMENT IS CONCRETE, THE GUTTER IS TO BE FLUSH WITH THE PAVEMENT.

# CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

	USER NAME = footemj	DESIGNED - A. HOUSEH	REVISED - A. ABBAS 03-21-97	07-77 OF W.W.O.O	CURB OR CURB AND GUTTER	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEET!	SHEET NO.
		DRAWN -	REVISED - M. GOMEZ 01-22-01	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	REMOVAL AND REPLACEMENT	350	2021-054-N&SW	соок	167	158
	PLOT SCALE = 50.0000 / in.	CHECKED -	REVISED - R. BORO 12-15-09		HEINOVAL AND HEI EAGENIENT	BD600-06 (BD-24)		CONTRACT NO.		
	PLOT DATE = 7/11/2019	DATE - 03-11-94	REVISED - K. SMITH 07-11-19		SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.		ILLINOIS FEE	AID PROJECT		

MODEL: Default



# SEQUENCE OF CONSTRUCTION:

- CLOSE EXISTING VALVE.
- 2. REMOVE EXISTING HYDRANT.
- 3. INSTALL HYDRANT EXTENSION AND NEW VALVE.
- 4. RELOCATE EXISTING HYDRANT.
- 5. OPEN EXISTING VALVE, REMOVE BOX.
- 6. BACKFILL.
- 7. FLUSH AND TEST FOR CHLORIDE RESIDUAL AND PROVIDE TEST.

# NOTE:

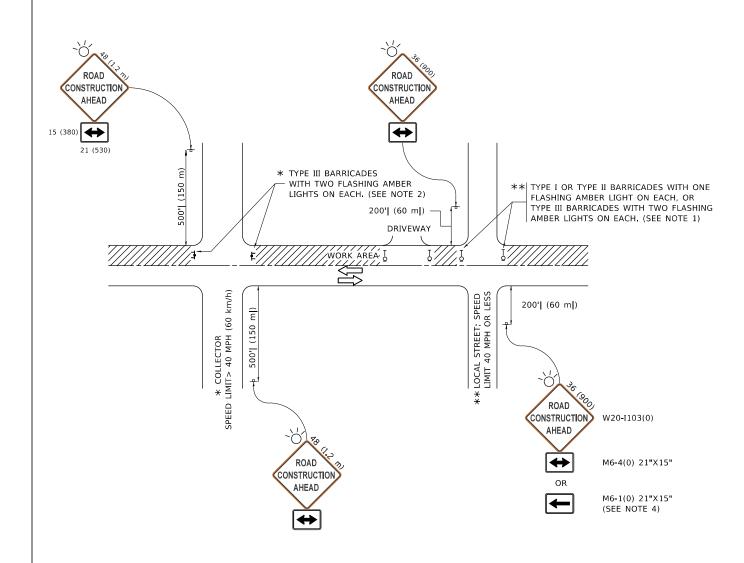
ALL WORK TO BE DONE IN ACCORDANCE WITH SECTION 564 OF THE STANDARD SPECIFICATIONS. NEW VALVE AND BOX SHALL BE SAME MAKE AND MODEL AS EXISTING.

# FIRE HYDRANT TO BE MOVED

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

USER NAME = demanchelt	DESIGNED -	REVISED	-	R. SHAH 09-09-94
	DRAWN -	REVISED	-	R. SHAH 10-25-94
PLOT SCALE = 100.0000 / in.	CHECKED -	REVISED	-	K. SMITH 02-01-22
PLOT DATE = 2/2/2022	DATE -	REVISED	-	

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | Fire | Hydrant to | Be Moved | Fire | Hydrant to | Be Moved | Fire | Fire | Hydrant to | Be Moved | Fire | Fire | Hydrant to | Be Moved | Fire | Fi



### NOTES:

- 1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
- a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 36 x 36 (900x900) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
- b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
- SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
- a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE,
- THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY
  b) BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION
  OF THE CLOSED PORTION.
- 3. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710)
- WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE
  4. SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL
  BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

- WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARD(S). THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.
- 6. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER
- THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

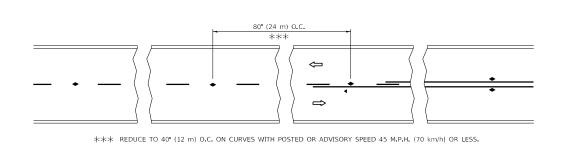
All dimensions are in inches (millimeters) unless otherwise shown.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

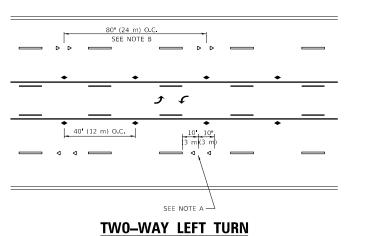
| SHEET 1 OF 1 SHEETS STA. TO STA

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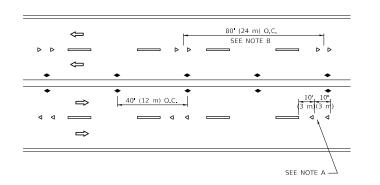


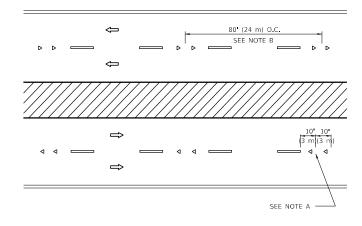
# LANE REDUCTION TRANSITION

SEE FIGURE 3B-14 MUTCD



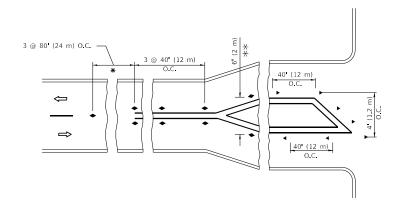
# TWO-LANE/TWO-WAY

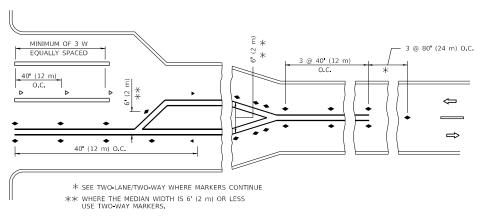




# MULTI-LANE/UNDIVIDED







# **TURN LANES**

# **GENERAL NOTES**

- MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
- 2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
- MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.
- 4. MARKERS ARE TO BE USED ADJACENT TO BOTH SOLID WHITE LINES IN DUAL LEFT TURN LANES

# LANE MARKER NOTES

- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- B. REDUCE TO 40 (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.

# **DESIGN NOTES**

- 1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
- 2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
- 3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHALL BE INCLUDED IN THE PLANS WHEN STANDARD SPECIFICATIONS ARE NOT BEING USED.
- MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.

All dimensions are in inches (millimeters) unless otherwise shown.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL APPLICATIONS
RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

P. SECTION COUNTY TOTAL SHEETS NO.

10 2021-054-N&SW COOK 167 161

TC-11 CONTRACT NO.

**SYMBOLS** 

ONE-WAY AMBER MARKER

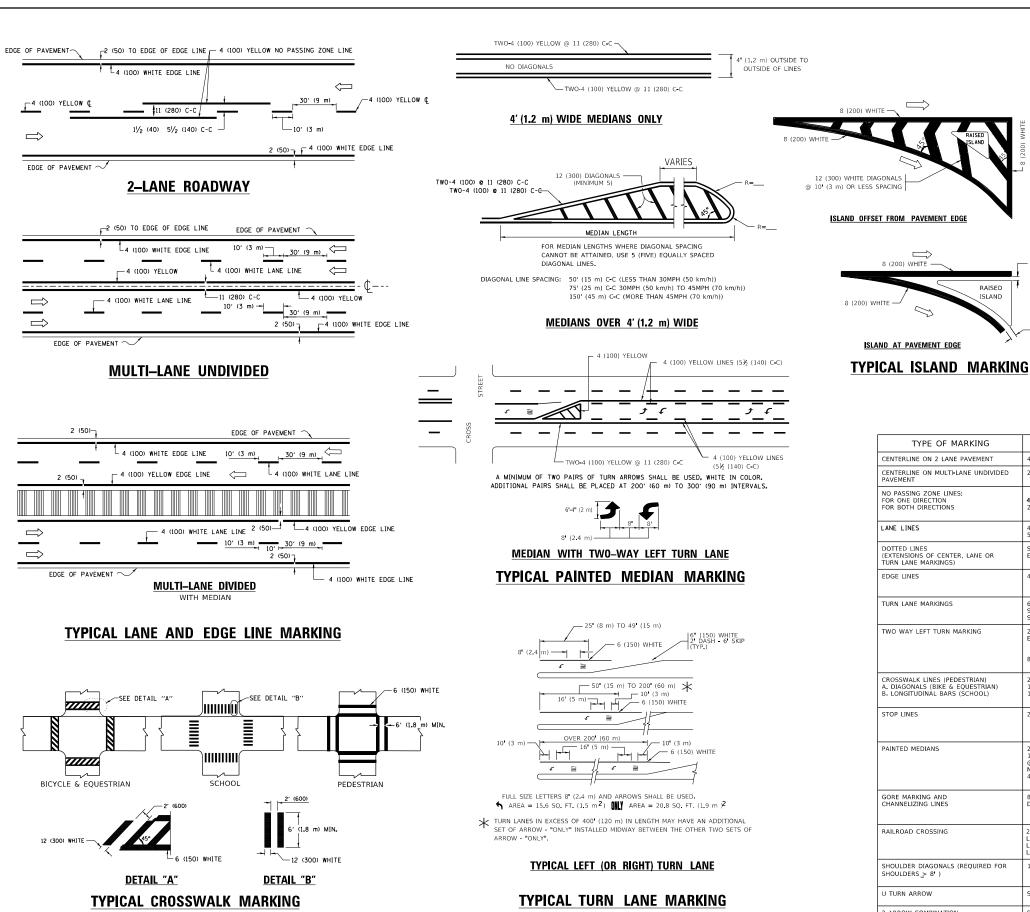
TWO-WAY AMBER MARKER

ONE-WAY CRYSTAL MARKER (W/O)

YELLOW STRIPE

■ WHITE STRIPE

MODEL: Default



DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS) SAME AS LINE BEING EXTENDED SKIP-DASH SAME AS LINE BEING EXTENDED 2 (600) LINE WITH 6 (1.8 m) SPACE EDGE LINES 4 (100) SOLID OUTLINE MEDIANS IN YELLOW YELLOW-LEFT WHITE-RIGHT 6 (150) LINE, FULL SIZE LETTERS & SYMBOLS (8' (2.4m) SEE TYPICAL TURN LANE MARKING DETAIL TURN LANE MARKINGS 10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL TWO WAY LEFT TURN MARKING 2 @ 4 (100) EACH DIRECTION YELLOW 8 (2.4m) LEFT ARROW 2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90° CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) NOT LESS THAN 6 (1.8 m) APART 2 (600) APART LONGITUDINAL BARS (SCHOOL) SOLID WHITE ' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS. PLACE 4 (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE PAGESTID IS STOP LINES 24 (600) SOLID WHITE 2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° PAINTED MEDIANS SOLID 11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING. YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h)) 24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X" RAILROAD CROSSING SOLID WHITE SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m PEACH "X"=54.0 SQ. FT. (5.0 m )2 50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h)) SHOULDER DIAGONALS (REQUIRED FOR 12 (300) @ 45° SOLID WHITE - RIGHT YELLOW - LEFT SHOULDERS > 8') U TURN ARROW SEE DETAIL SOLID WHITE 2 ARROW COMBINATION LEFT AND U TURN SOLID 30.4 SF

COMBINATION

LEFT AND U-TURN

32 R (810)

**U-TURN** 

COLOR

YELLOW

YELLOW

YELLOW YELLOW

PATTERN

SKIP-DASH

SKIP-DASH SKIP-DASH

SOLID

— 2 (50)

2 (50)

WIDTH OF LINE

4 (100) 5 (125) ON FREEWAYS

**4 (100)** 2 @ 4 (100)

RAISED

STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO

SCALE: NONE

8 (200) WHITE -

ISLAND AT PAVEMENT EDGE

TYPE OF MARKING

CENTERLINE ON 2 LANE PAVEMENT

NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS

LANE LINES

All dimensions are in inches (millimeters unless otherwise shown.

D(FT)

580

665

LANE REDUCTION TRANSITION \* LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OF GREATER OR WHEN SPECIFIED IN PLANS.

SPACING / REMARKS

10' (3 m) LINE WITH 30' (9 m) SPACE

OMIT SKIP-DASH CENTERLINE BETWEEN

10' (3 m) LINE WITH 30' (9 m) SPACE

11 (280) C-C

SPEED LIMIT

45

50

55

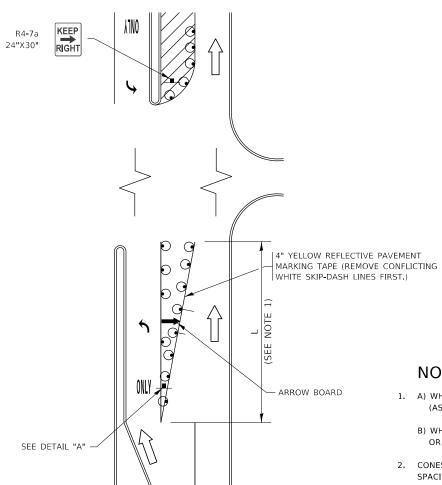
USER NAME = footemj	DESIGNED - EVERS	REVISED	-	C. JUCIUS 09-09-09
	DRAWN -	REVISED	-	C. JUCIUS 07-01-13
PLOT SCALE = 50.0000 / in.	CHECKED -	REVISED	-	C. JUCIUS 12-21-15
PLOT DATE = 3/4/2019	DATE - 03-19-90	REVISED	-	C. JUCIUS 04-12-16

\* MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

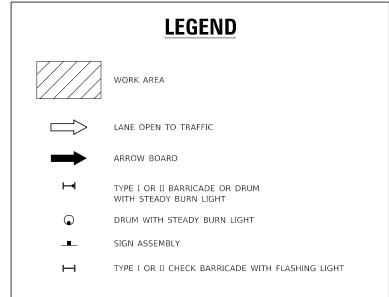
SECTION COUNTY DISTRICT ONE 350 2021-054-N&SW COOK 167 162 TYPICAL PAVEMENT MARKINGS CONTRACT NO. OF 2 SHEETS STA TO STA. SHEET 1

# TURN BAY ENTRANCE AT START OF LANE CLOSURE TAPER



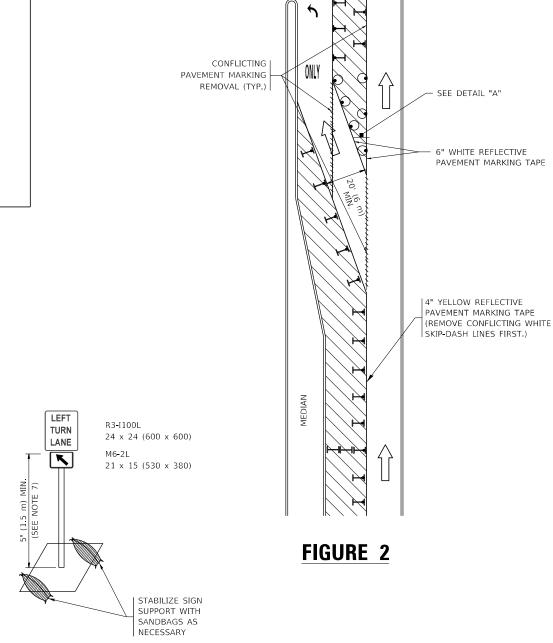
# FIGURE 1

# TURN BAY ENTRANCE WITHIN A LANE CLOSURE



### NOTES:

- 1. A) WHEN "L" IS  $\leq$  THE STORAGE LENGTH OF THE TURN LANE (AS SHOWN IN FIG. 1), USE FIGURE 1.
  - B) WHEN "L" IS > THE STORAGE LENGTH OF THE TURN LANE
    OR THE TURN LANE IS WITHIN THE LANE CLOSURE, USE FIGURE 2.
- CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
- LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
- 4. REFLECTIVE TEMPORARY PAVEMENT MARKINGS SHALL BE PLACED THROUGHOUT THE BARRICADED AREAS OF EACH TURN BAY AS SHOWN WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN (14) DAYS.
- 5. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-I100R 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
- THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
- THE SIGNS SHALL BE MOUNTED ABOVE THE BARRICADES/DRUMS ON SEPARATE SIGN SUPPORTS THAT MEET NCHRP 350 OR MASH PREOUIREMENTS.
- TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.



**DETAIL A** 

All dimensions are in inches (millimeters) unless otherwise shown.

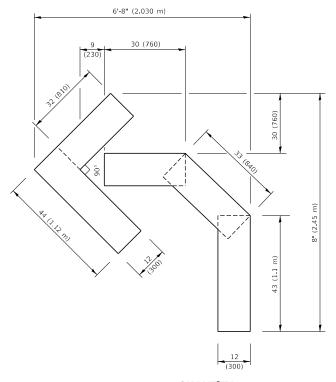
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

 TRAFFIC CONTROL AND PROTECTION AT TURN BAYS
 FAP RTE.
 SECTION
 COUNTY
 TOTAL SHEET NO.

 (TO REMAIN OPEN TO TRAFFIC)
 350
 2021-054-N&SW
 COOK
 167
 163

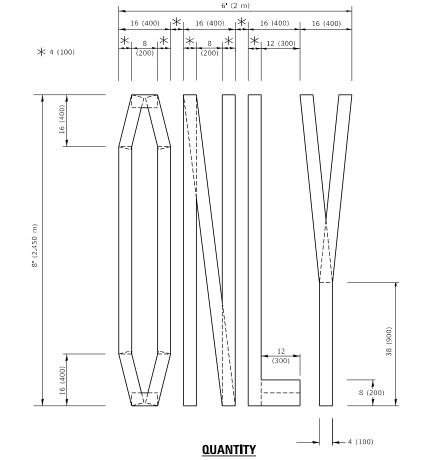
 SCALE: NONE
 SHEET 1
 OF 1
 SHEETS STA.
 TO STA.
 TC-14
 CONTRACT NO.

MODEL: Default

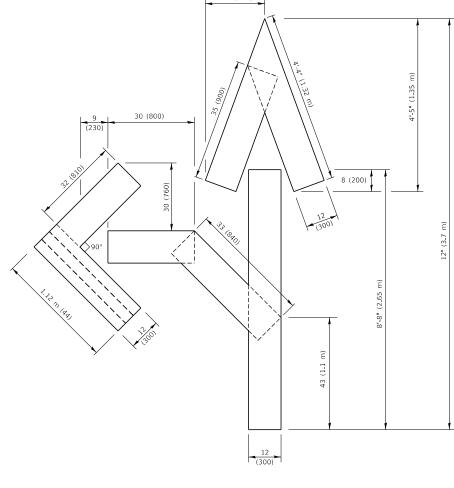


# QUANTITY

4 (100) LINE = 45.5 ft. (13.9 m) 15.2 sq. ft. (1.41 sq. m)



4 (100) LINE = 64.1 ft. (19.5 m) 21.4 sq. ft. (1.99 sq. m)

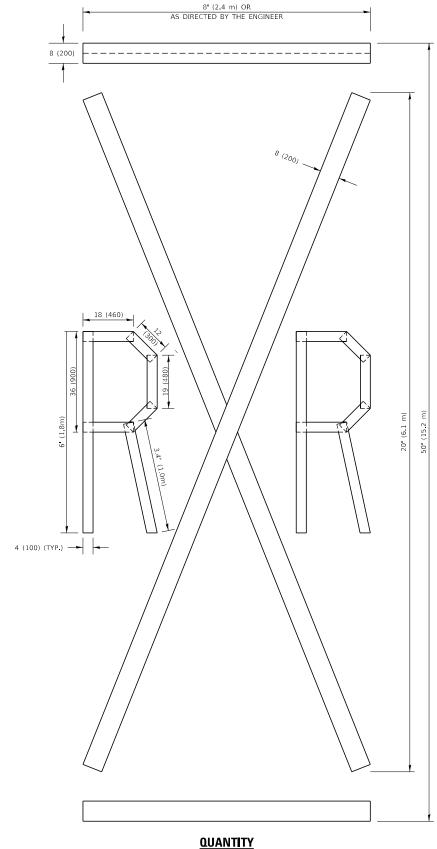


### QUANTITY

4 (100) LINE = 82.5 ft. (25.1 m) 27.5 sq. ft. (2.53 sq. m)

### NOTE:

ALL QUANTITIES OF PLACEMENT ARE REPRESENTED IN LINEAR FEET OF 4" LINES TO MATCH THE 4" TEMPORARY TAPE PAY ITEM AND REPRESENTS THE TOTAL QUANTITY OF 4" TAPE REQUIRED.



4 (100) LINE = 225.9 ft. (68.9 m) 75.3 sq. ft. (6.99 sq. m)

> All dimensions are in inches (millimeters) unless otherwise shown.

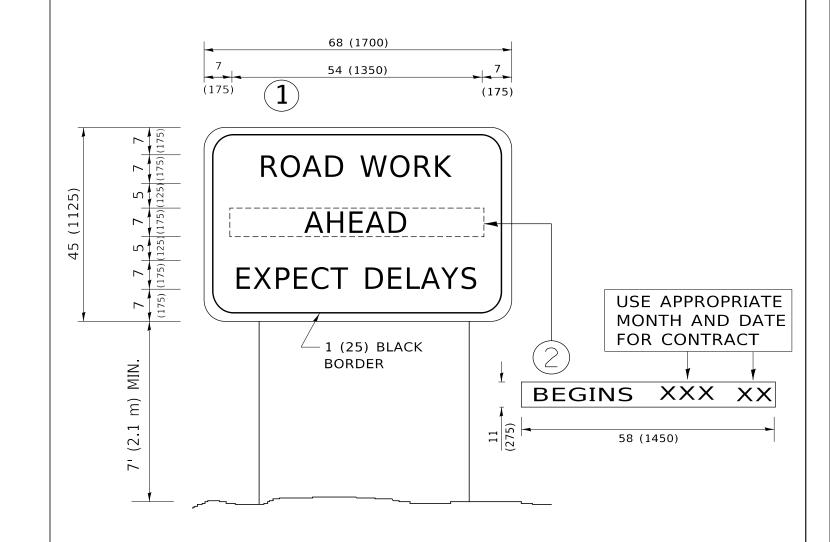
USER NAME = footemj	DESIGNED -	REVISED	- T. RAMMACHER 03-02-98		
	DRAWN -	REVISED	- E. GOMEZ 08-28-00		
PLOT SCALE = 50.0068 / in.	CHECKED -	REVISED	- E. GOMEZ 08-28-00		
PLOT DATE = 3/4/2019	DATE - 09-18-94	REVISED	- A. SCHUFTZF 09-15-16		

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

SHORT TERM PAVEMENT MARKING LETTERS AND SYMBOLS SCALE: NONE SHEET 1 OF 1 SHEETS STA.

COUNTY TOTAL SHEET NO.

COOK 167 164 SECTION 350 2021-054-N&SW TC-16 CONTRACT NO.



# NOTES:

- 1. USE BLACK LETTERING ON ORANGE BACKGROUND.
- 2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
- 3. ERECT SIGN 1 WITH INSTALLED PANEL 2 ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
- 4. REMOVE PANEL(2)SOON AFTER THE START OF CONSTRUCTION.
- 5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
- 6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
- 7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

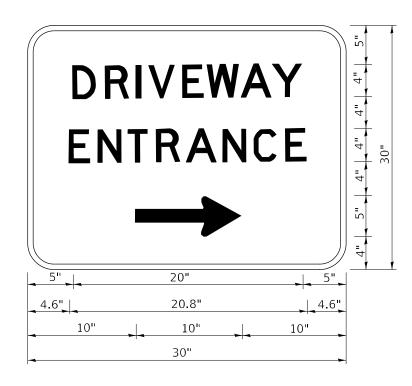
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

2021-054-N&SW

TC-22

COOK 167 165 CONTRACT NO.

	USER NAME = footemj	DESIGNED -	REVISED - R. MIRS 09-15-97		ARTERIAL ROAD INFORMATION SIGN					RTE	ı
		DRAWN -	REVISED - R. MIRS 12-11-97	STATE OF ILLINOIS						350	
	PLOT SCALE = 50.0000 / in.	CHECKED -	REVISED -T. RAMMACHER 02-02-99	DEPARTMENT OF TRANSPORTATION							
	PLOT DATE = 3/4/2019	DATE -	REVISED - C. JUCIUS 01-31-07		SCALE: NONE	SHEET 1	OF 1	SHEETS STA.	TO STA.		



3.0" RADIUS, 0.5" BORDER, WHITE ON GREEN; REFLECTORIZED "DRIVEWAY" D; "ENTRANCE" D; STANDARD ARROW CUSTOM 12.0" x 5.0"

# NOTES:

- 1. HALF OF THE SIGNS WILL REQUIRE A LEFT HAND FACING ARROW.
- 2. TWO SIGNS SHALL BE USED AT EACH COMMERCIAL ENTRANCE PLACED BACK-TO-BACK: ONE WITH A RIGHT HAND ARROW (SHOWN) SHALL BE PLACED ON THE NEAR RIGHT SIDE THE DRIVEWAY AND ONE WITH A LEFT HAND ARROW SHALL BE PLACED ON THE FAR LEFT SIDE OF THE DRIVEWAY.
- 3. SIGNS TO BE PAID FOR AS ITEM "TEMPORARY INFORMATION SIGNING".

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE: NONE

| F.A.P | SECTION | COUNTY | STALE | SHEET | STALE | SHEET | STALE | SHEET | STALE | SHEET | STALE | STALE | STALE | STALE | STALE | SHEET | STALE | STALE | STALE | SHEET | SHEET | STALE | S

