### STATE OF ILLINOIS

**DEPARTMENT OF TRANSPORTATION** 

#### D-91-230-22

COOK

FOR INDEX OF SHEETS, SEE SHEET NO.

THE PROJECT IS LOCATED IN THE CITY OF DES PLAINS AND VILLAGE OF ROSEMONT

#### TRAFFIC DATA

0

0

0

US 12/45 MANNHEIM RD: 2023 ADT= 16739 POSTED SPEED LIMIT= 40 MPH

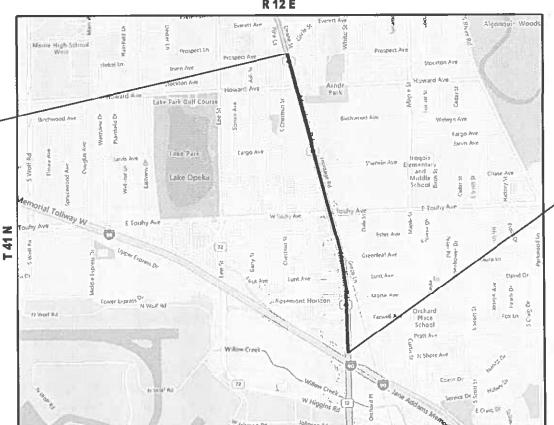
## **PROPOSED HIGHWAY PLANS**

F.A.P ROUTE 330: US 12 / 45 (MANNHEIM RD.) PROSPECT AVE. TO S. OF W HIGGINS RD.

**SECTION: FAP 0330 22 RS** PROJECT: NHPP-FKRD (170)

**DESIGN OVERLAY COOK COUNTY** 

C-91-283-22



**MAINE TOWNSHIP** 

PROJECT BEGINS STA. 19+71

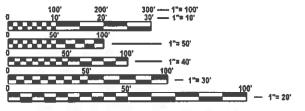
LOCATION OF SECTION INDICATED THUS: -

STATE OF ILLINOIS

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

STA, 94+00

PROJECT ENDS



**ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT** CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS

JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION 1-800-892-0123 OR 811

PROJECT MANAGER: ALAIN MIDY (847) 221 -3056 PROJECT ENGINEER: RODRIGO LEDEZMA (847) 705 -4580

CONTRACT NO. 62TO6

GROSS & NET LENGTH = 7429 FT. = 1.4 MILE

#### **INDEX OF SHEETS**

#### **STATE STANDARDS**

STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS

#### NO. **DESCRIPTION**

140.	DESCRIPTION
1	COVER SHEET
2	INDEX OF SHEETS, STATE STANDARDS & GENERAL NOTES
3–4	SUMMARY OF QUANTITIES
5	EXISTING AND PROPOSED TYPICAL SECTIONS
6-8	ROADWAY PLAN
9-25	DETECTOR LOOP REPLACEMENT AND APS PLANS
26-27	SIDEWALK DETAILS
28	ADA DETAIL FOR PARALLEL CURB RAMP (PD-6)
29	DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING (BD-08)
30	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT (BD-22)
31	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT (BD-24)
32	BUTT JOINT AND HMA TAPER DETAILS (BD-32)
33	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS (TC-10) $$
34	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW PLOW RESISTANT) (TC-11)
35	DISTRICT ONE TYPICAL PAVEMENT MARKINGS (TC-13)
36	SHORT TERM PAVEMENT MARKING LETTERS AND SYMBOLS (TC-16)
37	ARTERIAL ROAD INFORMATION SIGN (TC-22)
38	DISTRICT ONE DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING

#### STANDARD NO. **DESCRIPTION**

000001-08

000001 00	CITALD CHARGE, ABBREVIATIONS THE FAIR
424001-11	PREPENDICULAR CURB RAMPS FOR SIDEWALKS
424006-05	DIAGONAL CURB RAMPS FOR SIDEWALKS
424011-04	CORNER PARALLEL CURB RAMPS FOR SIDEWALKS
424021-06	DEPRESSED CORNER FOR SIDEWALKS
424031-02	MEDIAN PEDESTRIAN CROSSING
442201-03	CLASS C AND D PATCHES
606001-08	COMBINNATION CONCRETE CURB AND GUTTER
701427-05	LANE CLOSURE, MULTILANE, INTERMITTEN OR MOVING OPERATION, FOR SPEEDS < 40 MPH
701602-10	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701606-10	URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701611-01	URBAN HALF ROAD CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701101-05	OFF-ROAD OPERATIONS, MULTILANE, 15' (4.5M) TO 24" (600) FROM PAVEMENT EDGE
701701-10	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-06	SIDEWALK, CORNER OR CROSSWALK CLOSURE
886001-01	DETECTOR LOOP INSTALLATIONS
886006-01	TYPICAL LAYOUT FOR DETECTION LOOP
701901-09	TRAFFIC CONTROL DEVICED

#### **GENERAL NOTES**

- BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "C.U.A.N." AT (312) 744-7000, J.U.L.I.E. AT 1-800-892-0123, OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS UTILITIES. 48 HOUR NOTIFICATION IS REQUIRED.
- TEN (10) FOOT TRANSITIONS SHALL BE USED TO MATCH PROPOSED CURB AND GUTTER AND MEDIAN ITEMS OF WORK TO EXISTING CURBS AND GUTTER AND MEDIANS IN THE FIELD, UNLESS OTHERWISE SHOWN, THE TRANSITIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED THE WORK OF WORK OF THE PROPOSED THE WORK OF THE PROPOSED THE WORK OF THE PROPOSED THE
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, AND THE CITY OF DES PLAINES AND VILLAGE OF ROSEMONT.
- THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
- ANY PAVEMENT MARKINGS AND RAISED REFLECTIVE PAVEMENT MARKERS OBLITERATED BY MILLING AND RESURFACING OPERATIONS ON SIDE STREETS AND ENTRANCES SHALL BE REPLACED AND PAID FOR IN KIND.
- ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OR RAISED REFLECTIVE PAVEMENT MARKERS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT NO ADDITIONAL COST TO THE
- BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES (AND RAISED REFLECTIVE PAVEMENT MARKERS) IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING, EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
- 8. ALL PAVEMENT PATCHING LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- LOCATION OF COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT [OR COMBINATION CURB AND GUTTER], WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- 10. DRAINAGE ADJUSTMENT OR RECONSTRUCTION LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- 11. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
- 12. FRAMES AND GRATES ADJUSTMENT OF PRIVATE UTILITIES WITHIN THE LIMITS OF THE IMPROVEMENTS SHALL BE DONE BY THEIR RESPECTIVE OWNERS AND ARE NOT PART OF THIS CONTRACT.
- 13. THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR KALPANA KANNAN HOSADURGA AT KALPANA, KANNAN-HOSADURGA@ILLINOIS, GOV A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK,
- 14. THE ENGINEER SHALL CONTACT FADI SULTAN, AREA TRAFFIC FIELD ENGINEER, AT fadisultan@ILLINOIS.GOV A MINIMUM OF TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.
- 15. THESE PLANS HAVE BEEN PREPARED FROM NOTES RECEIVED FROM THE BUREAU OF CONSTRUCTION.
- THE THICKNESS OF THE HMA MIXTURE SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HMA MIXTURE IS PLACED.
- 17. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.
- 18. THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF PLATED STRUCTURES BY STATION AND OFFSET LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT.
- 19. EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR ACCORDING TO ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.
- 20. FOR FRAMES AND LIDS ADJUSTMENT WITHOUT MILLING, REUSE EXISTING FRAME AND LID UNLESS
- 21. DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

SCALE:

- 22. PAVEMENT MARKING TAPE, TYPE IV SHALL BE USED FOR SHORT TERM PAVEMENT MARKINGS ON ALL FINAL
- 23. WHEN THE MILLED PAVEMENT IS OPEN TO TRAFFIC THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1 1/2 INCHES (40 mm) WHERE THE SPEED LIMIT IS 40 MPH (80 km/h) OR LESS AND 1 INCH (25 mm) WHERE THE SPEED LIMIT IS GREATER THAN 40 MPH (80 km/h). WITH WRITTEN APPROVAL OF THE ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3 INCHES (75 mm) MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM 1:3 (V:H) OR A NOTCHED LONGITUDINAL
- BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF ALL RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT) ACCORDING TO THE "BUTT JOINT AND HOT-MIX ASPHALT TAPER DETAILS" SHEET INCLUDED IN THE PLANS, UNLESS OTHERWISE SPECIFIED.
- 25. OVERNIGHT LANE CLOSURES SHALL NOT BE ALLOWED FOR REHABILITATION PROJECTS INVOLVING DAYTIME MILLING AND RESURFACING OPERATIONS AND CLASS D PATCHING UNLESS OTHER CONDITIONS WARRANT EXTENDED LANE CLOSURES AS DETERMINED AND APPROVED IN WRITING BY THE ENGINEER OR AS PROVIDED FOR IN THE CONTRACT SPECIFICATIONS.
- 26. ALL MILLED SURFACES SHALL BE A UNIFORM CROSS SLOPE PER LANE AND FREE OF RIDGES BETWEEN PASSES. ANY DEVIATIONS SHALL BE CORRECTED AT NO COST TO THE DEPARTMENT.

GENERAL NOTES CONTINUE ON NEXT SHEET

USER NAME = addis.abebaw	DE SIGNED -	REVISID -
	DRAWN -	REVISED -
PLOT SCALE = 0.16666633 ' / in.	CHECKED -	REVISED -
PLOT DATE = 6/26/2024	DATE -	REVISED -

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

INDEX OF SHEETS, STATE STANDARDS						F. A.P R TE.	SECTION	COUNTY	TOTAL	SHE	
AND GENERAL NOTES						330	FAP 0330 22RS	соок	38	2	
	AND GENERAL NOTES							CONTRACT	NO. 62	T06	
	SHEET	OF 1	SHEETS	STA.	TO STA.	ILLINOIS   FED. AID PROJECT					

	SUMMARY OF QUANTITIES			0005 80 % FED 20 % STATE	0021 80 % FED 20 % STATE			SUMN			
Code No.	Item	Unit	Total Quantity				Code No.				
20200100	EARTH EXCAVATION	CUYD	18	18	0	0	60266600				
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	1070	1070	0	0	60300105	1			
25200110	SODDING, SALT TOLERANT	SQ YD	1070	1070	0	0	60300305				
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	32344	32344	0	0	60404950				
40600370	LONGITUDINAL JOINT SEALANT	FOOT	26250	26250	0	0	60406000				
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	73	73	0	0	60406100				
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	229	229	0	0	* 66900200				
40602985	HOT-MIX ASPHALT BINDER COURSE, IL-9.5, N70	TON	5367	5367	0	0	* 66900530				
40605026	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, 9.5, MIX "F", N80	TON	4696	4696	0	0	* 66901001	REGUL			
42001300	PROTECTIVE COAT	SQ YD	2016	2016	0	0	* 66901003	REGULAT			
42300200	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6 INCH	SQ YD	25	25	0	0	* 66901006	1			
42300400	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 8 INCH	SQ YD	255	255	0	0	67100100				
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	1220	1220	0	0	70102625	TRAFFIC			
42400800	DETECTABLE WARNINGS	SQ FT	87.9	87.9	0	0	70102632	TRAFFIC			
44000164	HOT-MIX ASPHALT SURFACE REMOVAL, 3 3/4"		HOT-MIX ASPHALT SURFACE REMOVAL, 3 3/4"	HOT-MIX ASPHALT SURFACE REMOVAL, 3 3/4"	SQ YD	47917	47917	0	0	70102634	TRAFFIC
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	225	225	0	0	70102635	TRAFFIC			
44000600	SIDEWALK REMOVAL	SQ FT	833	833	0	0	70102640	TRAFFIC			
44201773	CLASS D PATCHES, TYPE I, 11 INCH	SQ YD	15	15	0	0	70300100				
44201777	CLASS D PATCHES, TYPE III, 11 INCH		590	590	0	0	70300150	SH			
44201781			260	260	0	0	70300211	TEMPORARY			
44201783			220	220	0	0	70300221	TEMF			
60252800	CATCH BASINS TO BE RECONSTRUCTED	EACH	5	5	0	0	70300241	TEMP			
	USER NAME = addis.abebaw DESIGNED -	REVISED -									
	DRAWN -	REVISED -			200		F ILLINOIS				
	CHECKED -   PLOT DATE = 6/26/2024   DATE -	REVISED -			DEPA	KIWENI OF	TRANSPORTA	SCAL			
	DAIL -							SCAL			

	SUMMARY OF QUANTITIES			0005 80 % FED 20 % STATE	0021 80 % FI 20 % ST/			
Code No.	Item	Unit	Total Quantity					
60266600	VALVE BOXES TO BE ADJUSTED	EACH	4	4	0		0	
60300105	FRAMES AND GRATES TO BE ADJUSTED	EACH	49	49	0		0	_
								-
60300305	FRAMES AND LIDS TO BE ADJUSTED	EACH	6	6	0		0	-
60404950	FRAMES AND GRATES, TYPE 24	EACH	26	26	0		0	-
00404930	FRANCIS AND GRAILS, TIFE 24	LAGH	20	20				1
60406000	FRAMES AND LIDS, TYPE 1, OPEN LID	EACH	6	6	0		0	-
60406100	FRAMES AND LIDS, TYPE 1, CLOSED LID	EACH	22	22	0		0	
* 66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	15	15	0		0	
								1
* 66900530	SOIL DISPOSAL ANALYSIS	EACH	2	2	0		0	
* 66901001	REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN	L SUM	1	1	0		0	-
								-
* 66901003	REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT	L SUM	1	1	0		0	-
<b>*</b> 66901006	REGULATED SUBSTANCES MONITORING	CAL DA	2	2	0		0	-
* 66901006	REGULATED SUBSTAINCES INDIVITORING	CALDA			0			-
67100100	MOBILIZATION	L SUM	1	1	0		0	1
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1	1	0		0	1
								]
70102632	TRAFFIC CONTROL AND PROTECTION, STANDARD 701602	L SUM	1	1	0		0	
								-
70102634	TRAFFIC CONTROL AND PROTECTION, STANDARD 701611	L SUM	1	1	0		0	-
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1	0		0	-
70102030	THAT I IS CONTROLLAND I ROLLOTTON, STANDARD TOTAL		1	1				1
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	1	0		0	1
70300100	SHORT TERM PAVEMENT MARKING	FOOT	26395	26395	0		0	
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	4477	4477	0		0	-
70300211	TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS - PAINT	SQ FT	1334.4	1334.4	0		0	
7,00002				1221	-			-
70300221	TEMPORARY PAVEMENT MARKING - LINE 4"- PAINT	FOOT	83994	83994	0		0	
7000014	TELESCOLON CONTENTANTANT AND AND CONTENTANT		2250	2250				-
70300241	TEMPORARY PAVEMENT MARKING -LINE 6"-PAINT	FOOT	2958	2958	0		0	-
			F.A.P RTE.	SECTION		COUNTY	TOTAL SHEETS	SHE
ILLINOIS	SUMMARY OF QUANTITIES		330	FAP 0330 22 R		соок	38	3
RANSPORTATION					(	CONTRA	ACT NO. 6	2T06

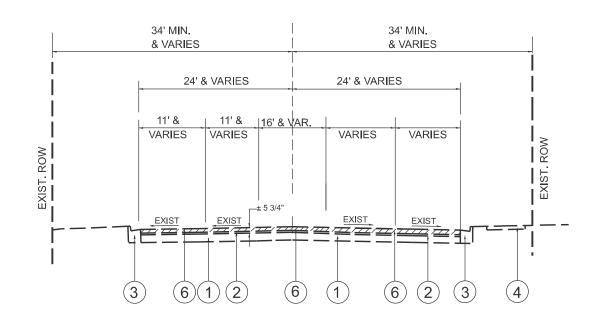
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SCALE:

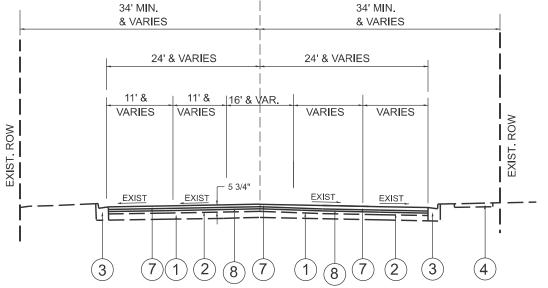
		SUMMARY OF QUANTITIES			0005 80 % FED 20 % STATE	0021 80 % FED 20 % STATE	
	Code No.	ltem	Unit	Total Quantity			
	70300251	TEMPORARY PAVEMENT MARKING - LINE 8"- PAINT	FOOT	1458	1458	0	0
	70300261	TEMPORARY PAVEMENT MARKING - LINE 12"- PAINT	FOOT	3816	3816	0	0
	70300281	TEMPORARY PAVEMENT MARKING - LINE 24"- PAINT	FOOT	1245	1245	0	0
*	78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	444.8	444.8	0	0
*	* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	27998	27998	0	0
	*					-	-
*	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	986	986	0	0
*	78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	486	486	0	0
*	* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	1272	1272	0	0
*	* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	415	415	0	0
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	798	798	0	0
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	639	639	0	0
	78300202	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	37343	37343	0	0
*	81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	64	0	64	0
*	<b>*</b> 85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	3	0	3	0
*	* 87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	346	0	346	0
*	* 87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1325	0	1325	0
*	* 87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	117	0	117	0
*	* 87900200	DRILL EXISTING HANDHOLE	EACH	4	0	4	0
	*						
*	88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4	0	4	0
*	88500100	INDUCTIVE LOOP DETECTOR	EACH	3	0	3	0
*	<b>*</b> 88600100	DETECTOR LOOP, TYPE I	FOOT	1017	0	1017	0
*	* 89502210	MODIFY EXISTING CONTROLLER CABINET	EACH	2	0	2	0

		SUMMARY OF QUANTITIES			0005 80 % FED 20 % STATE	0021 80 % FED 20 % STATE	0005 100 % STATE
ſ	Code No.	ltem .	Unit	Total Quantity			
ĸ	89502350	REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	59	0	59	0
*	* 89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	2	0	2	0
*	* 89502376	REBUILD EXISTING HANDHOLE	EACH	2	0	2	0
*	* X1400378	PEDESTRIAN SIGNAL POST, 5 FT.	EACH	1	0	1	0
	* X4060995	TEMPORARY RAMP (SPECIAL)	SQYD	806.5	806.5	0	0
	X100000		GQTB	3331	33313		, and the second
-	X4400501	COMBINATION CURB AND GUTTER REMOVAL AND REPLACEMENT LESS THAN OR EQUAL TO 10 FEET	FOOT	800	800	0	0
	X4400503	COMBINATION CURB AND GUTTER REMOVAL AND REPLACEMENT GREATER THAN 10 FEET	FOOT	4000	4000	0	0
-	X6030310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	27	27	0	0
	X6700407	ENGINEER'S FIELD OFFICE, TYPE A (D1)	CAL MO	12	12	0	0
	X8760200	ACCESSIBLE PEDESTRIAN SIGNALS	EACH	8	0	8	0
	* X8780012	CONCRETE FOUNDATION, TYPE A 12-INCH DIAMETER	FOOT	20	0	20	0
	*						, and the second
-	X03020050	CONSTRUCTION LAYOUT SPECIAL	LSUM	1	1	0	0
-	Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	120	0	0	120
	Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	102.8	102,8	0	0
-	Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1	0	0



#### **EXISTING TYPICAL SECTION**

US 12/45 (MANNHEIM RD.) STA. 19+71 TO STA. 94+00



US 12/45 (MANNHEIM RD.)

#### NOTE A:

THE LONGITUDINAL JOINT SEALANT SHALL BE PLACED OVER HMA BC, IL-9.5, N70

QMP Designation: Quality Control/Quality Assurance (QC/QA); Quality Control for Performance (QCP)	

MIXTURE REQUIREMENTS

MIXTURE USES

POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, SMA, 9.5, MIX F,N80

NOTE 1: THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQYD/IN

NOTE 2: THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY RECLAIMED MATERIAL SPECIFICATIONS.

THE CONTRACTOR SHALL MILL FIRST THEN PATCH

USER NAME = addis.abebaw	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 6/11/2024	DATE -	REVISED -

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION** 

PAVEMENT RESURFACING

CLASS D PATCHES (HMA BINDER, IL-19.0)

TEMPORARY RAMP

**PATCHING** 

HOT-MIX ASPHALT BINDER COURSE, IL- 9.5, N70, 2"

HOT-MIX ASPHALT BINDER COURSE, IL- 9.5, N70 (VAR. DEPTH)

								F.A.P SECTION COUNTY			SHEETS	SHEET NO.
								FAP 033	0 22RS	COOK	38	5
0101 1	U.S. KUUTE 12 (PRUSPECT AVE. TU S. UP W. HIGGINS KD.									CONTRACT	NO. 62	Г06
ALE:	SHEET	OF	1	SHEETS	STA.	TO STA.	ILLINOIS LEED AID PROJECT					

**LEGEND** 

1 EXIST. P.C.C. PAVEMENT ± 9"

(4) EXIST. SIDEWALK

(5) EXIST. MEDIAN

**VOIDS** 

@ Ndes

3.5% AT 80 GYR.

4% AT 70 GYR.

4% AT 70 GYR.

4% AT 70 GYR.

(2) EXIST. HOT-MIX ASPHALT PAVEMENT AFTER MILLING ± 2"

(3) EXIST. COMBINATION CONC. CURB AND GUTTER

(6) PROP. HOT-MIX ASPHALT SURFACE REMOVAL, 3 3/4"

(8) PROP. HMA BINDER COURSE, IL-9.5, N70, 2"

(7) PROP. POLY. HMA SURFACE COURSE, SMA, 9.5, MIX "F", N80, 1 3/4"

QUALITY MANAGEMENT

PROGRAM (QMP)

QCP

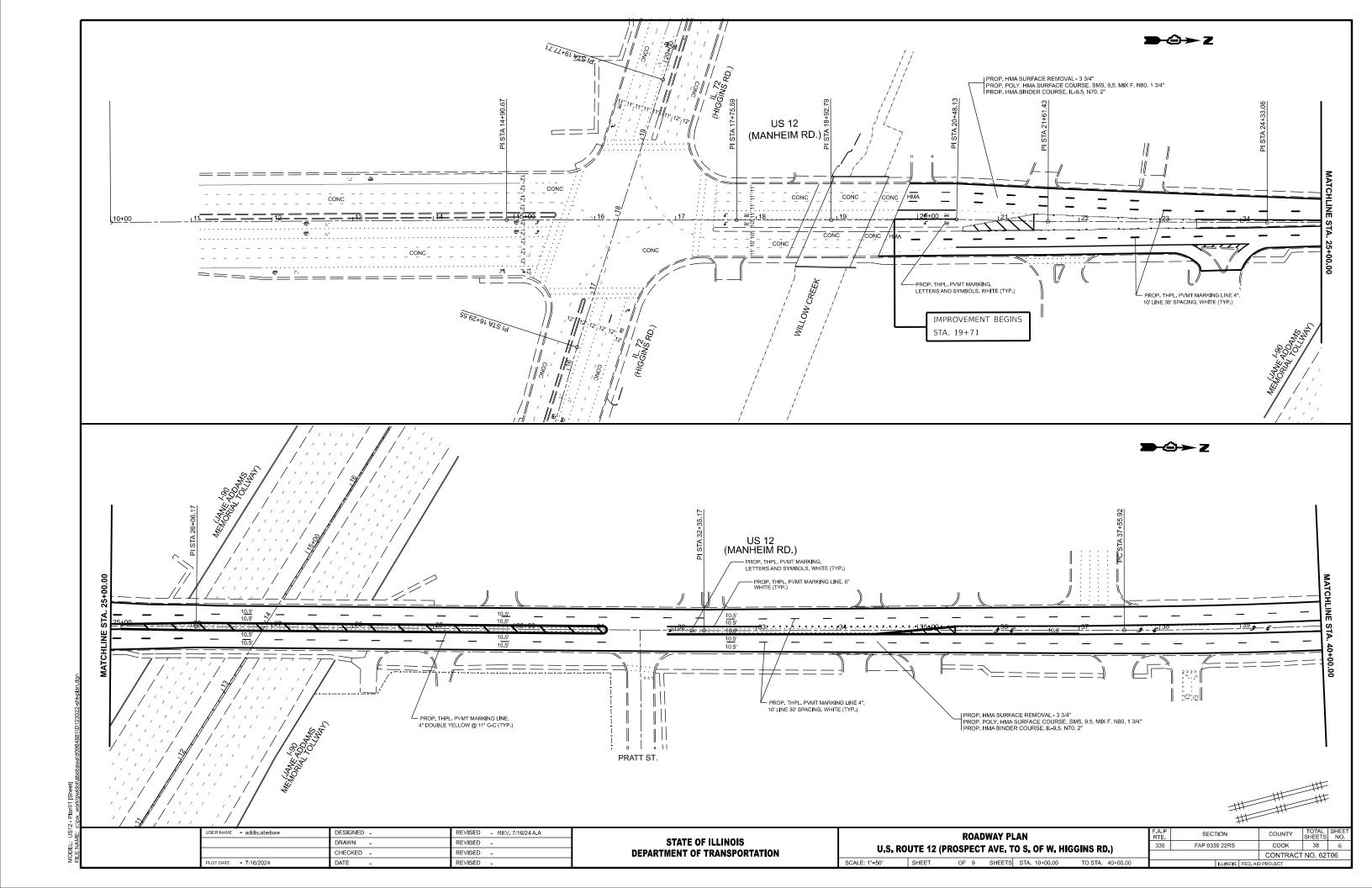
QCP

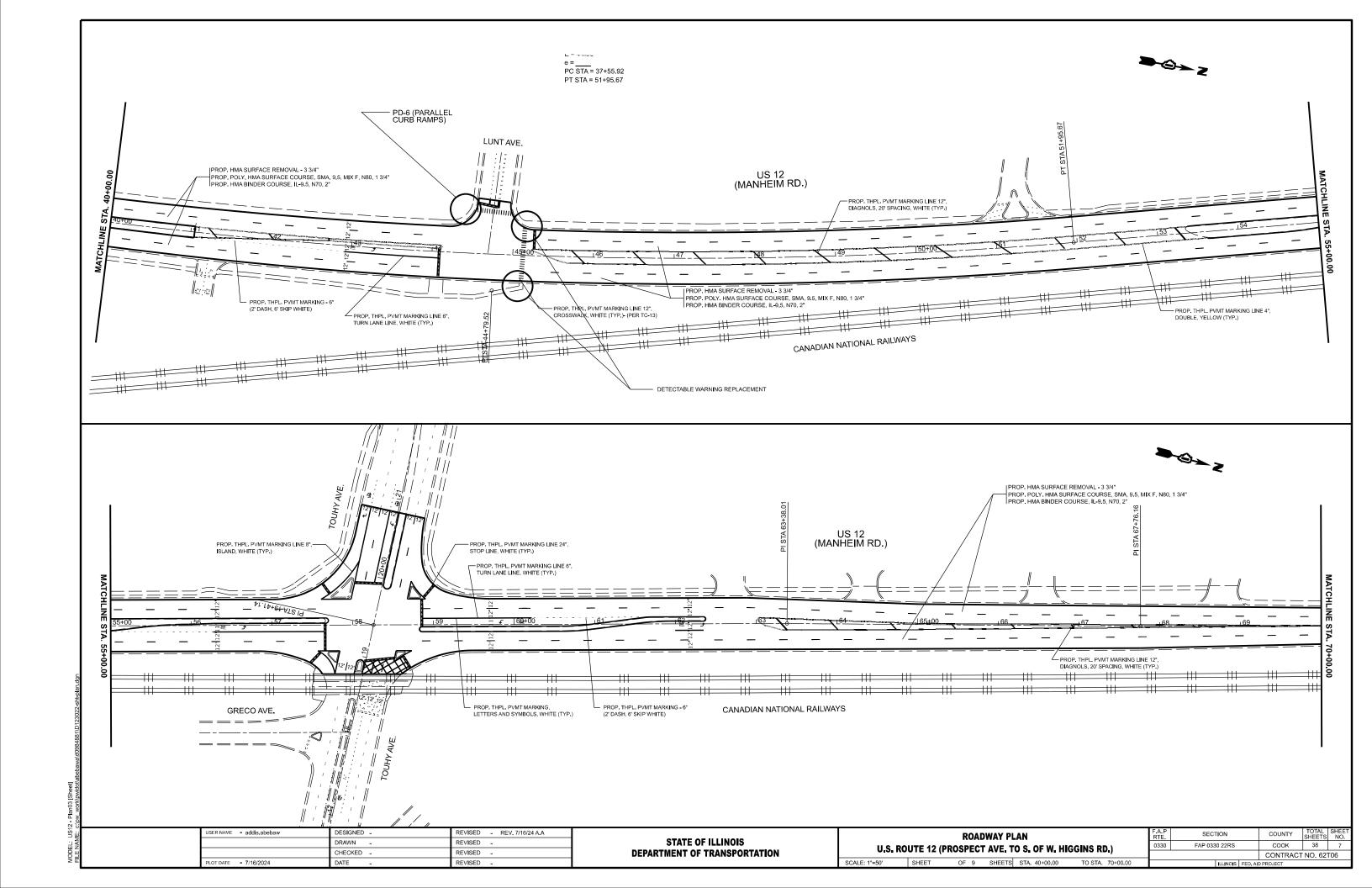
QC/QA

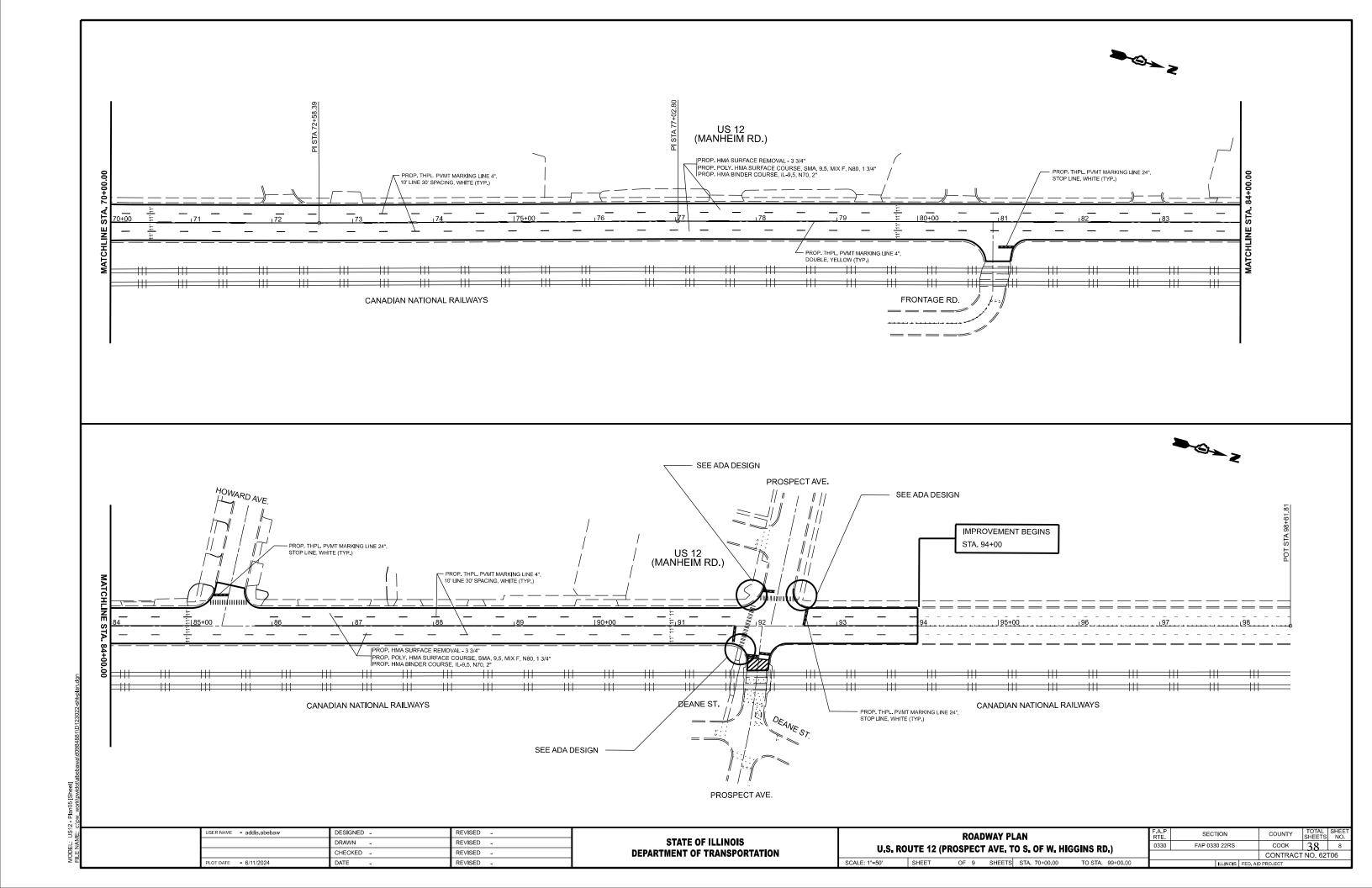
QC/QA

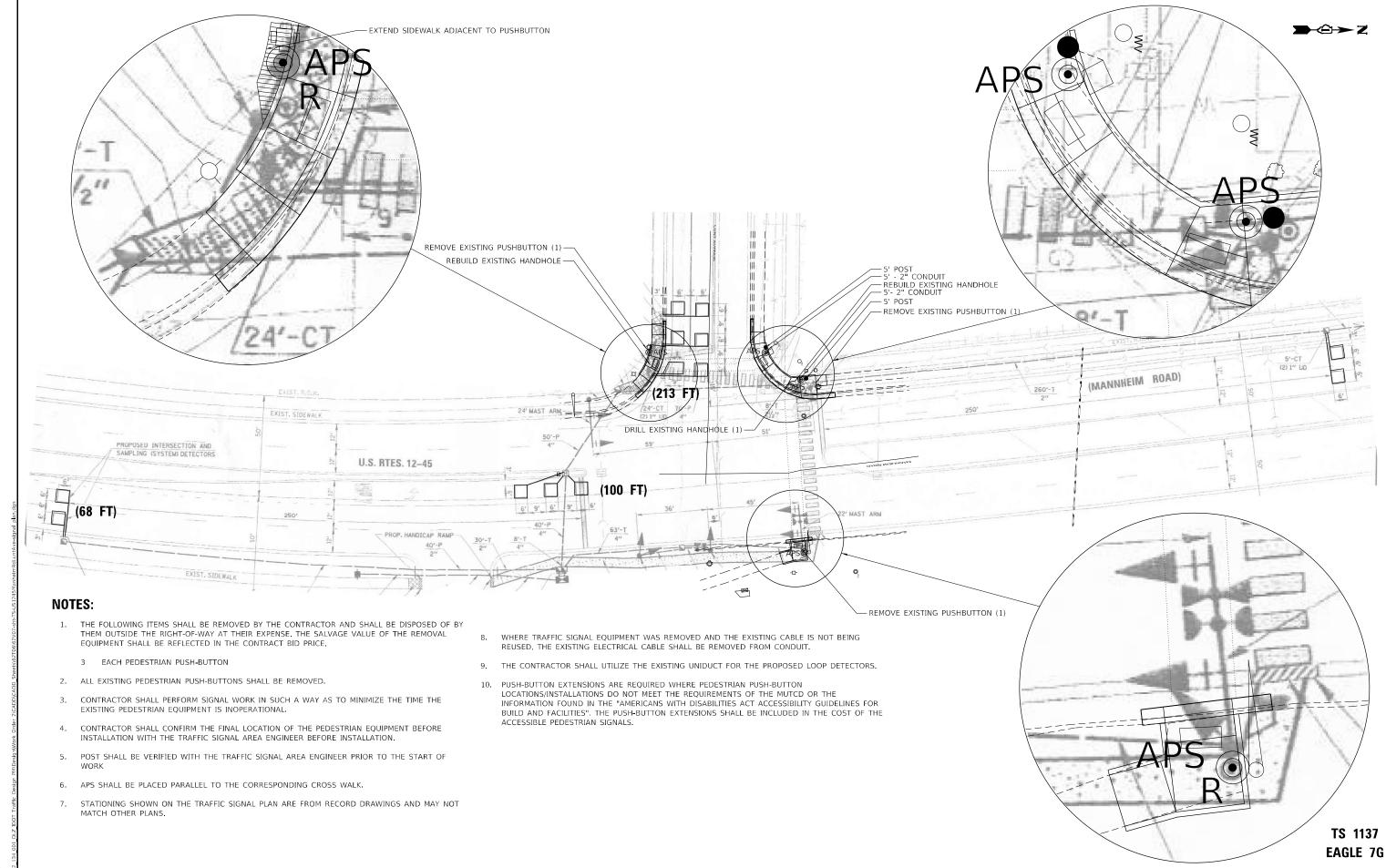
PROPOSED TYPICAL SECTION

STA. 19+71 TO STA. 94+00









TS SHT NO.9

563

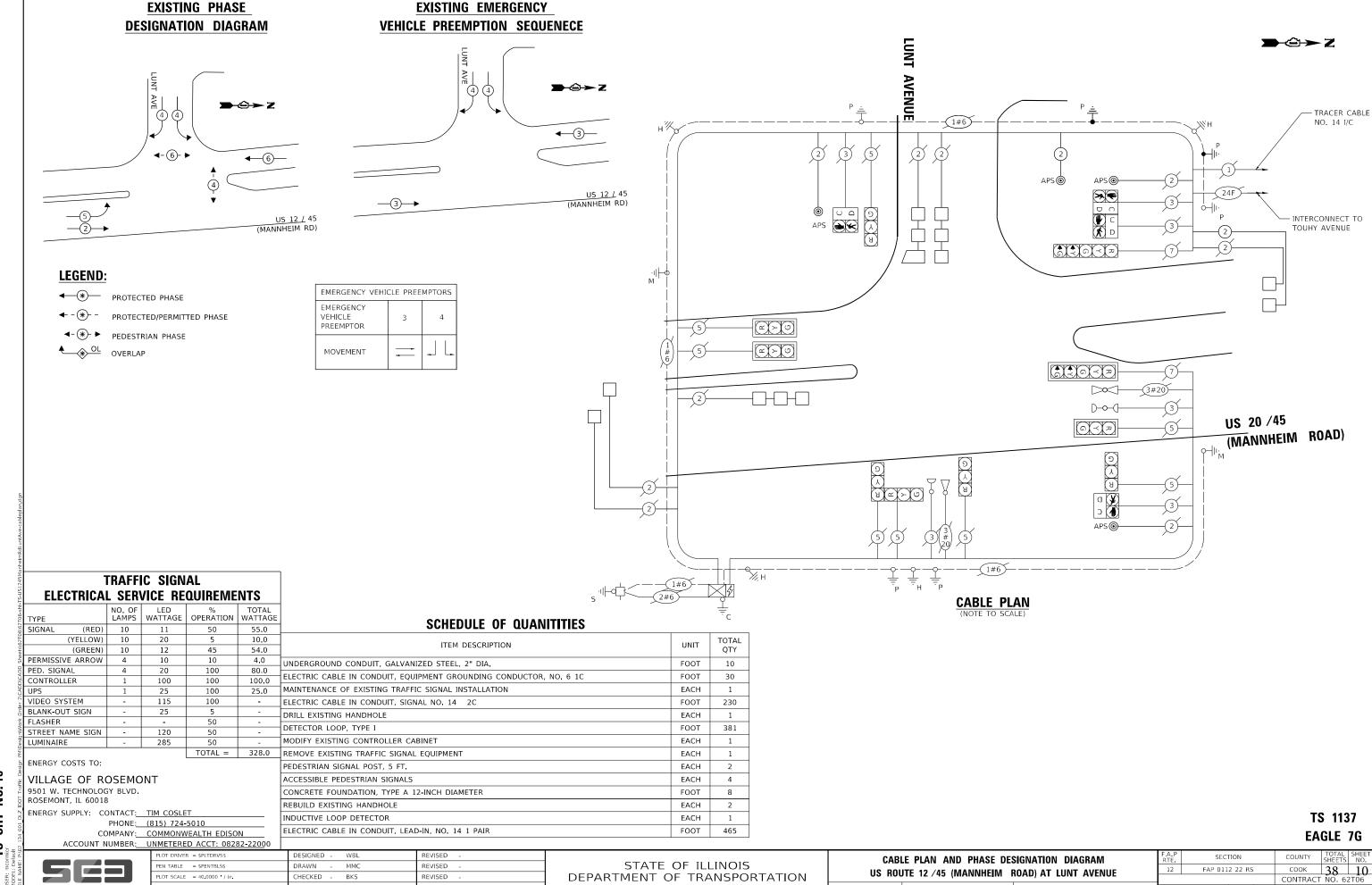
 PLOT DRIVER
 SPLITDRVSS
 DESIGNED
 WBL
 REVISED

 PEN TABLE
 = SPENTBLSS
 DRAWN
 MMC
 REVISED

 PLOT SCALE
 = 40,0000 ° / in.
 CHECKED
 BKS
 REVISED

 PLOT DATE
 = 6/20/2024
 1:58;36 PM
 DATE
 12/26/2023
 REVISED

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION TRAFFIC SIGNAL PLAN
US ROUTE 12 /45 MANNHEIM ROAD AT LUNT AVENUE



DEPARTMENT OF TRANSPORTATION

US ROUTE 12 /45 (MANNHEIM ROAD) AT LUNT AVENUE

OF SHEETS STA.

<u>8</u> SHT

LOT SCALE = 40.0000 / in.

LOT DATE = 6/20/2024

HECKED

DATE

BKS

12/26/2023

REVISED

TS SHT NO.
USER: mcormicr
MODEL: Default

565

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION TRAFFIC SIGNAL PLAN

US ROUTE 12 /45 MANNHEIM ROAD AT TOUHY AVENUE

SHEET OF SHEETS STA. TO STA.



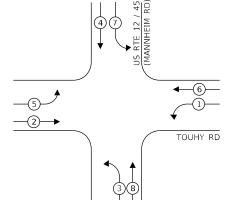
#### **LEGEND**:

**◆** PROTECTED PHASE

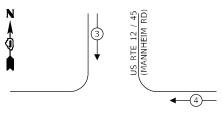
← - \*\* - PROTECTED/PERMITTED PHASE

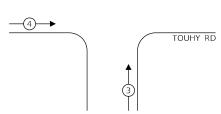
**◄- \*-** ► PEDESTRIAN PHASE

OL OVERLAP



#### **EXISTING EMERGENCY VEHICLE** PREEMPTION SEQUENCE





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

ТҮРЕ	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	18	11	50	99.0
(YELLOW)	18	20	5	18.0
(GREEN)	18	12	45	97.2
PERMISSIVE ARROW	24	10	10	24.0
PED. SIGNAL	0	20	100	-
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	115	100	-
BLANK-OUT SIGN	4	25	5	5.0
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	285	50	-
			TOTAL =	368.2

ENERGY COSTS TO:

#### VILLAGE OF ROSEMONT

9501 W. TECHNOLOGY BLVD. ROSEMONT, IL 60018

ENERGY SUPPLY: CONTACT: TIM COSLET

PHONE: (815) 724-5010
COMPANY: COMMONWEALTH EDISON
ACCOUNT NUMBER: UNMETERED ACCT: 60496-92222

#### SCHEDULE OF QUANITITIES

**TOUHY AVE** 

2#6

	ITEM DESCRIPTION	UNIT	TOTAL QTY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION EACH 1	DETECTOR LOOP, TYPE I	FOOT	416
	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
INDUCTIVE LOOP DETECTOR EACH 2	INDUCTIVE LOOP DETECTOR	EACH	2
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR FOOT 860	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	860

TS 1135

INTERCONNECT TO MAPLE ST. -

TRACER CABLE -

7-8000



PLOT DRIVER	= \$PLTDRVS\$		DESIGNED	-	WBL	REVISED	-
PEN TABLE	= \$PENTBLS\$		DRAWN	-	MMC	REVISED	-
PLOT SCALE	= 40.0000 / in.		CHECKED	-	BKS	REVISED	-
PLOT DATE	= 6/20/2024	1:59:10 PM	DATE	-	12/26/2023	REVISED	-

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

 LE PLAN JTE 12/45				 	
SHEET	OF	SHEETS	STA.	TO STA.	

CABLE PLAN (NOTE TO SCALE)

INDIVIDUALLY SHIELDED -

	F.A.P RTF	SECT	ION		COUNTY	TOTAL	SHE
	12	FAP 0112	2 22 RS		соок	38	12
					CONTRACT	NO. 62	2T06
ı			ILLINOIS	FED. AI	D PROJECT		

EAGLE 7G

NO. 12

SHT

MOVEMENT				5	و	· -	1					—6 —1		5-	<i>→</i>		2	<b>←</b>	6			ć					<b>a</b>	1 1			1	7			11		F
PHASE	T				1 4	- 5					1.	+ 6		2	+ 5			2 +	6				3 +	7			3 -	+ 8			4	+ 7			4 +	8	L
INTERVAL	1	2	34	I	38	3C	44	48	40	5	6A	68	60	7	8	9	10A	108	10C	100	11	12	13	14	15	16	17A	178	18	19	20A	208	21	22	23A	238	S
CHANGE TO	V	1+	6	:	2+5			2+6				2+6		/	2+6			3	+7 +8 +7 +8			3+8	4+7	2+5 2+6	1+5 1+6 4+8		2	+5 +6 +5 +6	4+8		1 2	+5 +6 +5 +6	4+8		1 2	+5 +6 +5 +6	H
U.S. RTE, 12-45 MANNEM RDJ N/8 FAR RIGHT MAST ARM SIGNAL	R	R	R	T	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	G	R	R	R	R	C	Y	R	R
U.S. RTE, 12-45 MANNEM ROJ N/8 FAR LEFT AND END MAST ARM SICHALS	R	R	R	T	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R → G	R → G	R	R	R TY	6	Y	R	G	R	R	R	R	C	Y	R	R
U.S. RTE 12-45 MANNHEM ROJ S/8 FAR RIGHT MAST ARM SIGNAL	R	R	R	T	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	G	G	Y	R	R
U.S. RTE. 12-45 GAMONEM ROJ S/8 FAR LEFT AND END MAST ARM SIGNALS	R	R	R	T	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R → G	R	R → G	R	R → Y	R	R	R	R	G → G	Y	R	G	G	Y	R	R
TOURY AVE. E/B MEAR RIGHT AND FAR RIGHT SIGNALS	R	R	R	T	R	R	R	R	R	R	R	R	R	G	G	G	G	G	Y	R	R G ➤	R G≠	R	R Y -	R	R G ♣	R Y →	R	R Y -	R	R	R	R	R	R	R	R
TOURY AVE. E/8 FAR RIGHT MAST ARM SIGNAL	R	R	R	T	R	R	R	R	R	R	R	R	R	G	G	G	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
TOURY AVE. E/8 FAR LEFT AND END MAST ARM SIGNALS	R	R	R	-1	R → G	R → G	R → G	R → G	R	R	R	R	R	G	G	G	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
TOURY AVE. EAST OF TRACES! W/	R	R	R	T	R	R	R	R	R	G	G	G	G	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
TOURY AVE. EAST OF TRACKS) W/I		R	R	Y	R	R	R → Y	R	R	G	G T	G	G	R	R	C	٧	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
TOURY AVE. MEST OF TRACKS) W/I FAR RIGHT MAST ARM SIGNAL	R	R	R	T	R	R	R	R	R	G	G	G	G	R	R	G	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
TOURY AVE. MEST OF TRACKS) W/S		R	R	- 1	R → G	R	R → G	R → G	R → Y	G → G	G → G	G → G	G	R	R	G	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R

RAILROAD PREEMPTION SEQUENCE	OF (	DPER	ATIO	N																PREEMPTOR NUMBER 2				
CHANGE FROM HORMAL SEQUENCE OF OPERATION INTERVAL HUMBER		1		5		7	Π	9	11	1	6	1	9	2	22									
CHANGE FROM EMERGENCY VEHICLE PREEMP SEQUENCE OF OPERATION INTERVAL NUMBER																	2		3					
RALIROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER		1A	18	10	10	1E	1F	16	1H	1,	1K	11	1M	1N	1P	10	1R	15	17	2	3	4	5	CLEAR
CHANCE TO RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER		2	10	2	1E	2	16	2	2	1K	2	111	Z	18	2	1R	z	11	2	3	4	5		MORMAL SEGUENCE
U.S. RTE. 12-45 MANDREW ROJ FAR RIGHT MAST ARM SIGNAL	N/B	R	R	R	R	R	R	R	R	٧	R	R	R	Y	R	R	R	Y	R	R	R	R	C	Δ
U.S. RTE. 12-45 MANDREW ROJ FAR LEFT AND END WAST ARM SIGNALS	N/B	R	R	R	R	R	R	R	R ⊸Y	Y	R	R	R	Y	R	R	R	۲	R	R	R	R	G	Δ
U.S. RTE. 12-45 MANONEM RO.) FAR RIGHT MAST ARM SIGNAL	S/8	R	R	R	R	R	R	R	R	R	R	Y	R	Y	R	R	R	Y	R	R	R	R	G	Δ
U.S. RTE. 12-45 MANONEM ROJ FAR LEFT AND DIO MAST ARM SIGNALS	\$/8	R	R	R	R	R	R	R	R ⊸Y	R	R	Y	R	Y	R	R	R	Y	R	R	R	R	G	Δ
TOURY AVE. HEAR RICHT AND FAR RICHT SICHALS	E/8	R	R	R	Y	R	Y	R	R Y ==	R	R	R	R	R	R	Y	R	R	R	R	R	R	R	Δ
TOUNY AVE. FAR RIGHT MAST ARM SIGNAL	E/8	R	R	R	Y	R	٧	R	R	R	R	R	R	R	R	Y	R	R	R	R	R	R	R	Δ
TOURY AVE. FAR LEFT AND END WAST ARM SIGNALS	E/8	R	R	R	Y	R	Y	R	R	R	R	R	R	R	R	Y	R	R	R	R	R	R	R	Δ
TOURY AVE. EAST OF TRACKS) NEAR RICHT AND RICHT MAST ARM SIGNALS	W/8	R	٧	R	R	R	Y	R	R	R	R	R	R	R	R	٧	R	R	R	R	R	R	R	Δ
TOURY AVE. EAST OF TRACKS) NEAR LEFT AND END MAST ARM SIGNALS	W/8	R → Y	Y	R	R	R	Y	R	R	R	R	R	R	R	R	Y	R	R	R	R	R	R	R	Δ
TOUNY AVE. MEST OF TRACKSI FAR RIGHT MAST ARM SIGNAL	W/8	R	G	G	R	R	G	G	R	R	R	R	R	R	R	G	G	R	R	G	Y	R	R	Δ
TOLINY AVE. MEST OF TRACKS) FAR LEFT AND END MAST ARM SIGNALS	11/8	R → G	G → G	G → G	R	R	G	G	R	R	R	R	R	R	R	G	G	R	R	G &	Υ	R	R	Δ
INTERNALLY ILLUMINATED INT SIGNS		NRT	NRT	MRT	NRT	NRT	NRT	MRT	NRT	NRT	NRT	NRT	NRT	NRT	MRT	MRT	NRT	NRT	NRT	MRT	NRT	MRT	NRT	Δ
INTERNALLY ELLIMINATED INLT SIGNS	1	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	MLT	NLT	MLT	NLT	NLT	MLT	NLT	NL T	Δ

PHASES 2+6 SHALL BE PLACED ON RECALL

A RAILROAD PREEMPTION SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY AN EMERGENCY VEHICLE INTERVAL (IF APPLICABLE) AFTER RAILROAD PREEMPTION INTERVAL 5 IS TERMINATED.

NRT = "NO RIGHT TURN" OR

MLT = "NO LEFT TURN" OR

DESIGNED - WBL REVISED PEN TABLE = \$PENTBLS\$ DRAWN - MMC REVISED CHECKED - BKS REVISED PLOT DATE = 6/20/2024 2:05:48 PM DATE - 12/26/2023

STATE OF ILLINOIS

CABLE PLAN AND PHASE DESIGNATION DIAGRAM US ROUTE 12/45 (MANNHEIM ROAD) AT TOUHY AVENUE SHEET OF SHEETS STA.

EAGLE 7G 
 COUNTY
 TOTAL SHEET NO.

 COOK
 38
 13

 CONTRACT NO. 62T06

TS 1135

SHT NO. 13 TS

SECTION

FAP 0112 22 RS

SHT	
TS SHT USER: mcormicr MODEL: Default FILE NAME: P:002_1134_001_DUZ_1IC	5E3

EMERGENCY VEHICLE PREEMPTION S	EQUE	NCE	OF O	PER/	ATION	!																								PREEMPTOR NUMBER 3	PREEMPTOR NUMBER 4	
CHANCE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER		1			5				5		7		7	9			9		11	11	1	6	16	1	9	19	2	2	22			CLEAR
EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1A	18	10	10	1E	1F	16	1H	1J	1K	1L	1M	1N	1P	10	1R	15	17	10	17	18	1 X	17	12	1AA	188	100	100	1EE	2	3	SEQUENC
CHANGE TO EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	18	10	ogr 3	18	1F	2	1H	1J	1K	3	2	1N	3	2	18	15	17	3	2	3	1X	2	3	1AA	2	3	100	2	3			<b>◊</b>
U.S. RTE, 12-45 MANNHEM RO.) N/B FAR RIGHT MAST ARM SIGNAL	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	G	R	R	R	Y	R	G	R	G	<b>◊</b>
U.S. RTE, 12-45 MANONEM ROJ N/B FAR LEFT AND END MAST ARM SIGNALS	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R → Y	R → Y	Y	R	G TY	R	R	R	Y	R	G	R	G	0
U.S. RTE, 12-45 GMANDREM ROJ S/B FAR RICHT MAST ARM SICHAL	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	G	Y	R	G	R	G	0
LLS. RTE. 12-45 MANDEM ROJ S/B FAR LEFT AND END MAST ARM SIGNALS	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R → Y	R → Y	R	R	R	Y	R	G Y	٧	R	C	R	С	٥
TOURY AVE. E/8 NEAR RIGHT AND FAR RIGHT SIGNALS	R	R	R	R	R	R	R	R	R	R	G	Y	R	G	G	G	Y	R	R Y ==	R Y -	R Y =	R	R Y -	R	R	R	R	R	R	G	R	•
TOUNY AVE. E/8 FAR RIGHT MAST ARM SIGNAL	R	R	R	R	R	R	R	R	R	R	G	Y	R	G	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	G	R	<b>◊</b>
TOURY AVE. E/B FAR LEFT AND END MAST ARM SIGNALS	R → G	R → G	R	R	R	R	R	R	R	R	G T	Y	R	G	G	G	۲	R	R	R	R	R	R	R	R	R	R	R	R	G	R	<b>◊</b>
TOURY AVE. EAST OF TRACKS) W/B NEAR RIGHT AND RIGHT MAST ARM SIGNALS	R	R	R	G	G	G	Y	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	R	<b>♦</b>
TOUNY AVE. EAST OF TRACKS) W/B NEAR LEFT AND END MAST ARM SIGNALS	R	R	R	G	G	G	Y	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	R	<b>♦</b>
TOURY AVE. (WEST OF TRACKS) W/E FAR RIGHT MAST ARM SIGNAL	R	R	R	G	G	G	G	G	Y	R	R	R	R	G	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	G	R	<b>◊</b>
TOURY AVE. WEST OF TRACKS! W/E FAR LEFT AND DIO MAST ARM SIGNALS		R → G	R	G	G	G	G	G	Y	R	R	R	R	G	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	C	R	•

♦ EMERGENCY VEHICLE SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY A DIFFERENT EMERGENCY INTERVAL AFTER EMERGENCY VEHICLE INTERVAL 2 OR 3 IS TERMINATED.

LOT DRIVER = \$PLTDRVS\$ DESIGNED - WBL REVISED DRAWN -PEN TABLE = \$PENTBLS\$ MMC REVISED DEPARTMENT OF TRANSPORTATION CHECKED -BKS REVISED PLOT DATE = 6/20/2024 REVISED 1:59:18 PM DATE 12/26/2023

CABLE PLAN AND PHASE DESIGNATION DIAGRAM US ROUTE 12/45 (MANNHEIM ROAD) AT TOUHY AVENUE

EAGLE 7G COUNTY TOTAL SHEET NO.

COOK 38 14

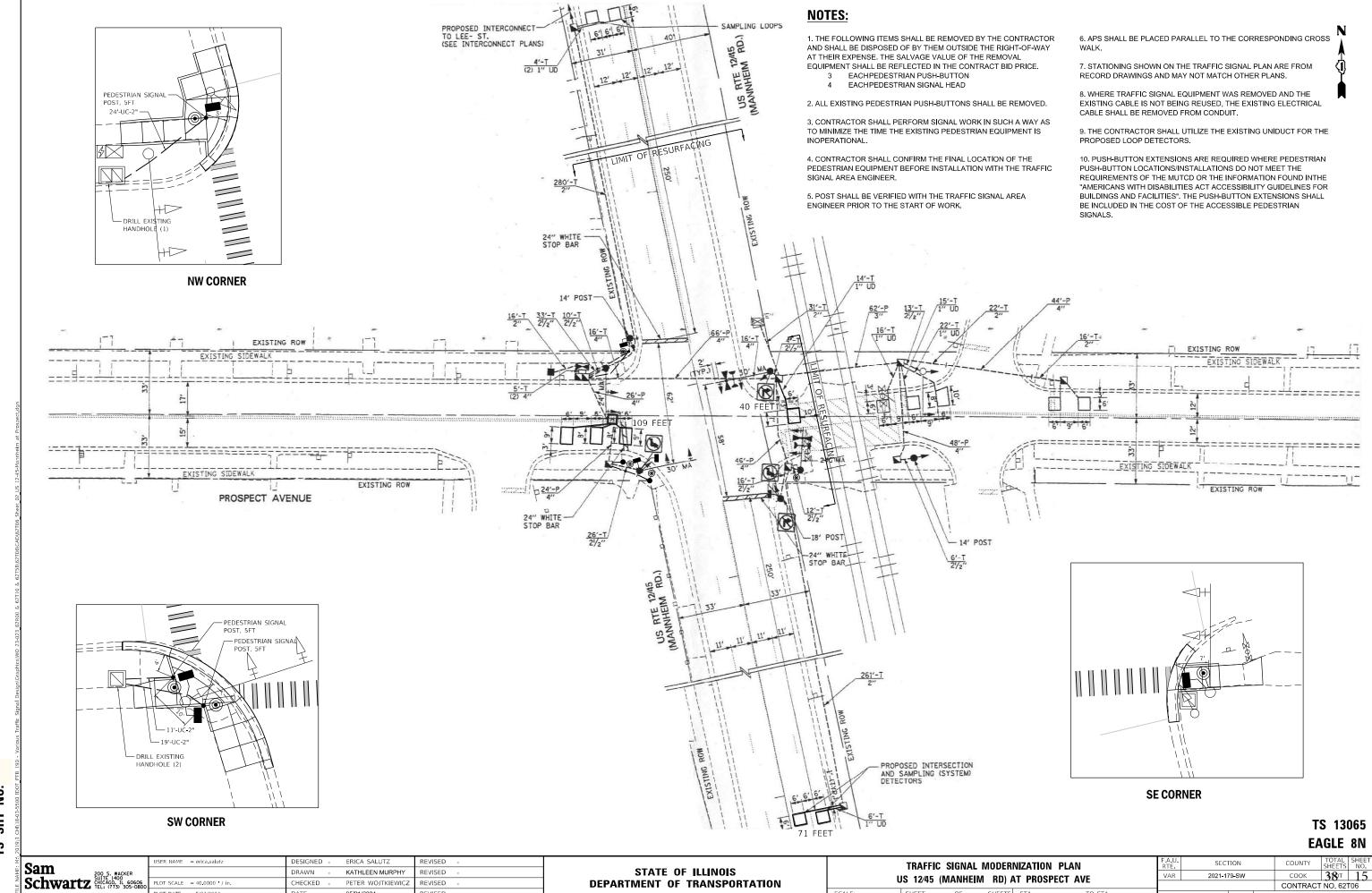
CONTRACT NO. 62706 FAP 0112 22 RS

TS 1135

STATE OF ILLINOIS

SECTION

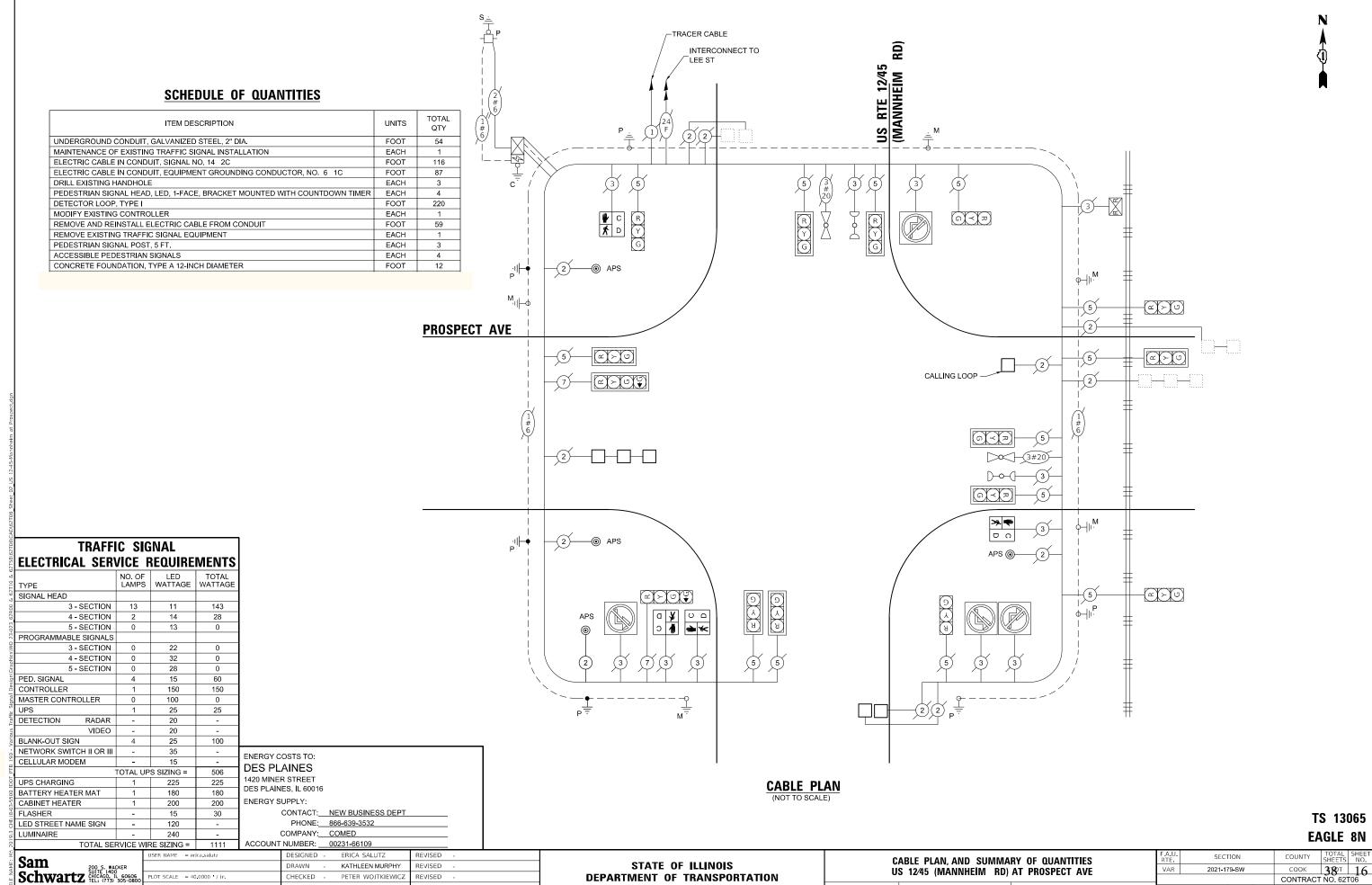
12



<u>N</u> SHT 2

DATE

05/21/2024



**DEPARTMENT OF TRANSPORTATION** 

SHEETS STA.

CHECKED

DATE

PLOT DATE = 5/21/2024

PETER WOJTKIEWICZ

05/21/2024

REVISED

#### SEQUENCE OF OPERATION

MOVEMENT N		• •	2				4-	8			F
PHASE		2+	5				4	1+8			A
INTERVAL	1	2	3A	3B	4	5	6A	6B	60	6D	S
CHANGE TO	/		4-	+8				2	+6		Н
US RTE. 12/45 (MANNHEIM RD.) N/B ALL SIGNALS	G	G	Y	R	R	R	R	R	R	R	R
US RTE. 12/45 (MANNHEIM RD.) S/B ALL SIGNALS	G	G	Y	R	R	R	R	R	R	R	R
PROSPECT AVE. (EAST OF TRACKS) W/B ALL SIGNALS	R	R	R	R	G	G	Υ	R	R	R	R
PROSPECT AVE. (WEST OF TRACKS) W/B FAR RIGHT MAST ARM SIGNAL	R	R	R	R	G	G	G	G	Υ	R	R
PROSPECT AVE. (WEST OF TRACKS) W/B FAR LEFT AND MAST ARM SIGNALS	R	R	R	R	G	G	G	G	Y .	R	R
PROSPECT AVE. E/B ALL SIGNALS	R	R	R	R	G	G	G	G	Y	R	R
PEDESTRIAN SIGNALS CROSSING PROSPECT AVE. ON WEST SIDE OF US RTE. 12/45	•W	DW	DW	DW	DW	DW	DW	DW	DW	DW	D A
PEDESTRIAN SIGNALS CROSSING US RTE. 12/45 ON SOUTH SIDE OF PROSPECT AVE.	DW	DW	DW	DW	-W	==FL DW	DW	DW	DW	DW	F

#### RAILROAD PREEMPTION SEQUENCE OF OPERATION

					PREEM NUMB		PREEM NUMBE		PREEMPTOR NUMBER 2				OF THE
CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	1		4			War.	2						
CHANGE FROM EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER					2		3		E.A.				
RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1A	1B	1C	10	1E	1F	16	1H	2	3	4	5	CLEAR TO NORMAL
CHANGE TO RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	18	2	1D	2	1F	2	1H	2	3	4	5		SEQUENCE
US RTE. 12/45 (MANNHEIM RD.) N/B ALL SIGNALS	Y	R	R	R	Y	R	R	R	R	R	R	G	Δ
US RTE. 12/45 (MANNHEIM RD.) S/B ALL SIGNALS	Y	R	R	R	Y	R	R	R	R	R	R	G	Δ
PROSPECT AVE. (EAST OF TRACKS) W/B ALL SIGNALS	R	R	Y	R	R	R	Υ	R	R	R	R	R	Δ
PROSPECT AVE. (WEST OF TRACKS) W/B FAR RIGHT MAST ARM SIGNAL	R	R	G	G	R	R	G	G	G	Y	R	R	Δ
PROSPECT AVE. (WEST OF TRACKS) W/B FAR LEFT AND MAST ARM SIGNALS	R	R	G	G	R	R	G	G	G G	Y	R	R	Δ
PROSPECT AVE. E/B ALL SIGNALS	R	R	Υ	R	R	R	Υ	R	R	R	R	R	Δ
PEDESTRIAN SIGNALS CROSSING PROSPECT AVE. ON WEST SIDE OF US RTE. 12/45	FL DW	DW	DW	DW	DW	DW	D₩	DW	DW	DW	DW	DW	Δ
PEDESTRIAN SIGNALS CROSSING US RTE. 12/45 ON SOUTH SIDE OF PROSPECT AVE.	DW	DW	FL DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	Δ
INTERNALLY ILLUMINATED NO RIGHT TURN SIGNS	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	Δ
INTERNALLY ILLUMINATED NO LEFT TURN SIGNS	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	Δ
												HOLD	

#### EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION

									PREEMPTOR NUMBER 3	PREEMPTOR NUMBER 4	
CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER			1	į.	1	4	1	4			CLEAR TO
EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER		1A	18	1C	1D	1E	1F	16	2	3	SEQUENCE
CHANGE TO EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER		18	2	1D	3	1F	2	3			
US RTE. 12/45 (MANNHEIM RD.) ALL SIGNALS	N/B	G	G	G	Y	R	R	R	G	R	$\Diamond$
US RTE. 12/45 (MANNHEIM RD.) ALL SIGNALS	S/B	G	G	G	Y	R	R	R	G	R	<b>♦</b>
PROSPECT AVE. (EAST OF TRACKS) ALL SIGNALS	W/B	R	R	R	R	Y	R	G	R	G	$\Diamond$
PROSPECT AVE. (WEST OF TRACKS) FAR RIGHT MAST ARM SIGNAL	W/B	R	R	R	R	Y	R	G	R	G	$\Diamond$
PROSPECT AVE. (WEST OF TRACKS) FAR LEFT AND MAST ARM SIGNALS	W/B	R	R	R	R	Y	R	G	R	G	<b>♦</b>
PROSPECT AVE. ALL SIGNALS	E/B	R	R	R	R	Y	R	G	R	G	$\Diamond$
PEDESTRIAN SIGNALS CROSSING PROSPECT AVE. ON WEST SIDE OF US RTE. 12/45		FL DW	DW	FL DW	DW	DW	DW	DW	W	DW	<b>♦</b>
PEDESTRIAN SIGNALS CROSSING US RTE. 12/45 ON SOUTH SIDE OF PROSPECT AVE.		DW	DW	DW	DW	FL DW	DW	FL DW	W	DW	$\Diamond$

- . TO APPEAR ONLY UPON PUSHBUTTON ACTUATION
- •• FLASHING "IS TO TERMINATE AT THE COMPLETION OF THE PEDESTRIAN INTERVAL CLEARANCE.
- □ = EMERGENCY VEHICLE SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY A DIFFERENT EMERGENCY VEHICLE INTERVAL AFTER EMERGENCY VEHICLE INTERVAL 2 OR 3 IS TERMINATED.

- = RAILROAD PREEMPTION SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY AN EMERGENCY VEHICLE INTERVAL (IF APPLICABLE) AFTER RAILROAD PREEMPTION INTERVAL 5 IS TERMINATED.
  - W = ILLUMINATED PERSON = WALK
  - FL = ILLUMINATED FLASHING HAND = FLASHING DON'T WALK
  - DW = ILLUMINATED SOLID HAND = DON'T WALK

#### **NOTES:**

1. \*DURING RAILROAD PREEMPTION, THE APS SYSTEM IS TO PLAY A VERBAL MESSAGE ABOUT SHORTENED WALK TIMES.

TS 13065 **EAGLE 8N** 

Sam
Schwartz

200 S. WACKER
SUITE 1400
CHICACO, IL 60606
TEL: (773) 305-0800

ERICA SALUTZ DESIGNED -REVISED DRAWN KATHLEEN MURPHY REVISED PETER WOJTKIEWICZ REVISED

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

SEQUENCE OF OPERATION, EMERGENCY VEHICLE PREEMPTION SEQUENCE AND RAILROAD PREEMPTION SEQUENCE US 12/45 (MANHEIM RD) AT PROSPECT AVE SHEETS STA.

SECTION COOK 38T 17
CONTRACT NO. 62T06 2021-179-SW

SHT NO.

2

NRT = "NO RIGHT TURN" OR

NLT = "NO LEFT TURN" OR

## TRAFFIC SIGNAL LEGEND (NOT TO SCALE)

	<u>EXISTING</u>	PROPOSED	<u>ITEM</u>	<u>existing</u>	PROPOSED	<u>ITEM</u>	<u>EXISTING</u>	PROPOSED
ONTROLLER CABINET			HANDHOLE -SQUARE -ROUND			SIGNAL HEAD -(P) PROGRAMMABLE SIGNAL HEAD	R R Y Y	R R Y
MMUNICATION CABINET	ECC	СС	HEAVY DUTY HANDHOLE				<b>30000</b>	Y G G G 4Y 4Y 4G
ASTER CONTROLLER	EMC	MC	-SQUARE -ROUND	H ®	⊞ ⊕		P	<b>4</b> Y <b>4</b> Y <b>4</b> G <b>P</b>
ASTER MASTER CONTROLLER	ЕммС	ммс	DOUBLE HANDHOLE			SIGNAL HEAD WITH BACKPLATE	R R	RRR
IINTERRUPTABLE POWER SUPPLY	<b>₹</b>	<b>9</b>	JUNCTION BOX		0	-(P) PROGRAMMABLE SIGNAL HEAD -(RB) RETROREFLECTIVE BACKPLATE		
RVICE INSTALLATION	- <u>-</u> -	- <b>■</b> -P	RAILROAD CANTILEVER MAST ARM	X <del>OX X</del>	YeX X			<del>                                    </del>
) POLE MOUNTED		_	RAILROAD FLASHING SIGNAL	<del>∑⊙</del> ∑	X•X		P RB	P RI
RVICE INSTALLATION  GROUND MOUNTED  MALENTED METERED	$\boxtimes^{G}\boxtimes^{GM}$	<b>⊠</b> <sup>G</sup> <b>⊠</b> <sup>GM</sup>	RAILROAD CROSSING GATE	<del>₹0</del> ₹>	X•X-			(m)
M) GROUND MOUNTED METERED  EPHONE CONNECTION	ET	Т	RAILROAD CROSSBUCK	否	*	PEDESTRIAN SIGNAL HEAD AT RAILROAD INTERSECTIONS	<b>(P)</b>	<b>₩</b>
EL MAST ARM ASSEMBLY AND POLE	<u> </u>	•	RAILROAD CONTROLLER CABINET			PEDESTRIAN SIGNAL HEAD	<b>₽</b> C <b>★</b> D	<b>₽</b> C <b>★</b> D
JMINUM MAST ARM ASSEMBLY AND POLE		•	UNDERGROUND CONDUIT (UC),	<del>===</del>		WITH COUNTDOWN TIMER	<b>(A)</b> D	★ □
EEL COMBINATION MAST ARM SEMBLY AND POLE WITH LUMINAIRE	<u>0</u> —	•**	GALVANIZED STEEL  TEMPORARY SPAN WIRE,  TETHER WIRE, AND CABLE			ILLUMINATED SIGN "NO LEFT TURN"/"NO RIGHT TURN"		
SNAL POST		• • DM	SYSTEM ITEM	S	SP	NUMBER OF CONDUCTORS, ELECTRIC	$\prec$	
M) BARREL MOUNTED - TEMPORARY	0	● ● BM	INTERSECTION ITEM	I	IP	CABLE NO. 14, UNLESS NOTED OTHERWISE. ALL DETECTOR LOOP CABLE TO BE SHIELDED		
OOD POLE	$\otimes$	•	REMOVE ITEM		R	GROUND CABLE IN CONDUIT,		
Y WIRE	>-	>-	RELOCATE ITEM		RL	NO. 6 SOLID COPPER (GREEN)  ELECTRIC CABLE IN CONDUIT, TRACER	,	
NAL HEAD	→>	-	ABANDON ITEM		А	NO. 14 1/C		(1)
NAL HEAD WITH BACKPLATE	+->	+▶	CONTROLLER CABINET AND		RCF	COAXIAL CABLE	— <u>c</u>	—c—
SNAL HEAD OPTICALLY PROGRAMMED	-⊳ <sup>P</sup> +⊳ <sup>P</sup>	→ P + P	FOUNDATION TO BE REMOVED  MAST ARM POLE AND			VENDOR CABLE		
ASHER INSTALLATION S) SOLAR POWERED	o-⊳ <sup>F</sup> o-⊳ <sup>FS</sup>	•► <sup>F</sup> •► <sup>FS</sup>	FOUNDATION TO BE REMOVED		RMF	COPPER INTERCONNECT CABLE,	•	
.,	□→ FS □→ FS	<b>■→</b> <sup>F</sup> ■→ FS	SIGNAL POST AND FOUNDATION TO BE REMOVED		RPF	NO. 18, 3 PAIR TWISTED, SHIELDED	6#18	<u></u>
DESTRIAN SIGNAL HEAD	-	-1	DETECTOR LOOP, TYPE I			FIBER OPTIC CABLE -NO. 62.5/125, MM12F	— 12F	—(12F)—
DESTRIAN PUSH BUTTON PS) ACCESSIBLE PEDESTRIAN PUSH BUTTON			PREFORMED DETECTOR LOOP	PP	PP	-NO. 62.5/125, MM12F SM12F -NO. 62.5/125, MM12F SM24F		—(24F)—
DAR DETECTION SENSOR	R	R	SAMPLING (SYSTEM) DETECTOR	S S	s s			—(36F)—
DEO DETECTION CAMERA	V D	<b>V</b> .■	INTERSECTION AND SAMPLING (SYSTEM) DETECTOR	IS (IS)	IS (IS)			
DAR/VIDEO DETECTION ZONE			QUEUE AND SAMPLING	QS QS	QS QS	GROUND ROD -(C) CONTROLLER	<u> </u>	$\dot{\stackrel{:}{=}}^{C}  \dot{\stackrel{:}{=}}^{M}  \dot{\stackrel{:}{=}}^{P}$
N, TILT, ZOOM (PTZ) CAMERA	PTZ	PTZ	(SYSTEM) DETECTOR WIRELESS DETECTOR SENSOR	<b>®</b>	<b>®</b>	-(M) MAST ARM -(P) POST -(S) SERVICE		
ERGENCY VEHICLE LIGHT DETECTOR	$\bowtie$	<b>~</b>	WIRELESS ACCESS POINT		_			
NFIMATION BEACON	o-()	•-(	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		_			
RELESS INTERCONNECT	o <del>.₁   </del>	•+ <del>    </del>						
RELESS INTERCONNECT RADIO REPEATER	ERR	RR						
ELESS INTERCONNECT KADIO KEPEATEK	[EKK]	[ 17 ]						

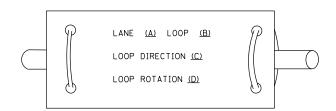
STATI	E 01	F ILLINOIS
DEPARTMENT	0F	TRANSPORTATION

SCALE: NONE

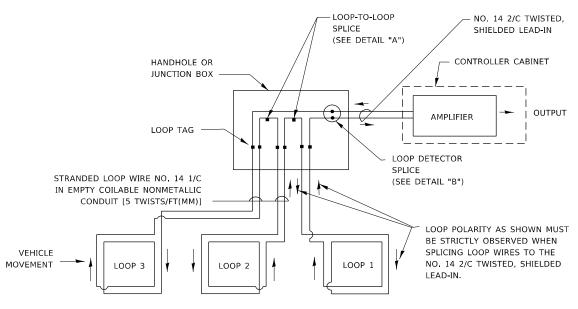
DISTRICT ONE	F.A.P. RTE	SECTION	COUNTY	TOTAL SHEET NO.
STANDARD TRAFFIC SIGNAL DESIGN DETAILS	12	FAP 0112 22 RS	соок	38 18
STANDAND THATTIC SIGNAL DESIGN DETAILS		TS-05	CONTRAC	Г NO. 62T06
SHEET 1 OF 7 SHEETS STA. TO	STA.	ILLINOIS FED. A	ID PROJECT	

- 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

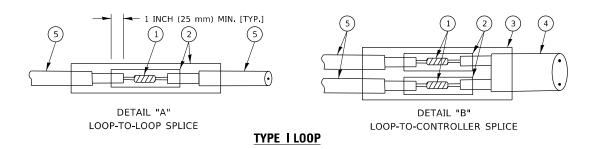


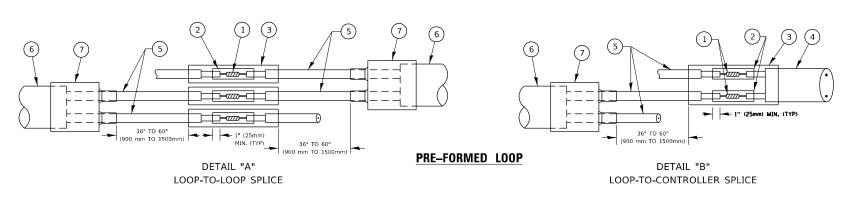
- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.



#### **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. PRE-FORMED LOOP
- (6) XL POLYOLEFIN 2 CONDUCTOR
- (7) BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

DISTRIBUTER	= \$RLOTOR#5\$		DESIGNED	-	REVISED	-
PEN TABLE	= \$PENTBLS\$		DRAWN	-	REVISED	-
PLOT SCALE	= 50.0000 / in.		CHECKED	-	REVISED	-
PLOT DATE	= 6/20/2024	1:58:26 PM	DATE	-	REVISED	-

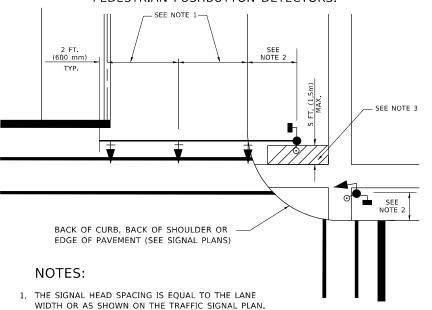
STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

DISTRICT ONE FAP 0112 22 RS STANDARD TRAFFIC SIGNAL DESIGN DETAILS SHEET 2 OF 7 SHEETS STA.

#### TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

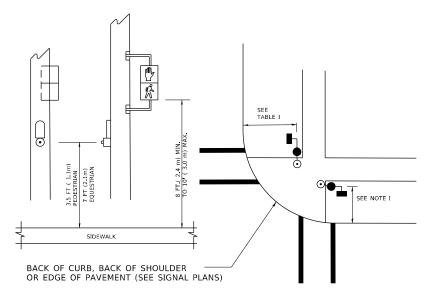
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND

PEDESTRIAN PUSHBUTTON DETECTORS.



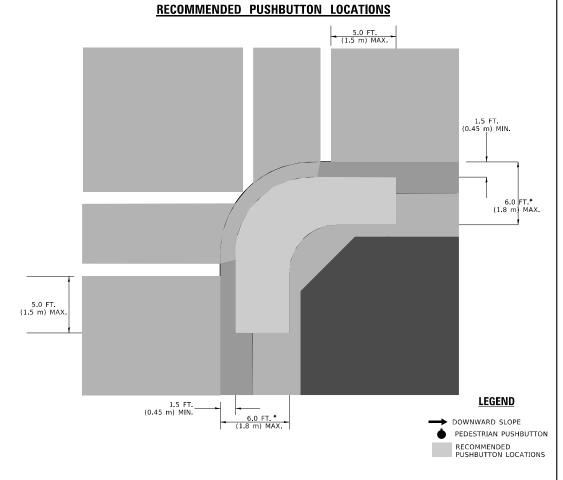
- 2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
- 3. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR
- 4. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO 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 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



- \* 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 BOTTOM 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 HIGHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAVEMENT.

#### TRAFFIC SIGNAL EQUIPMENT OFFSET

•				
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.

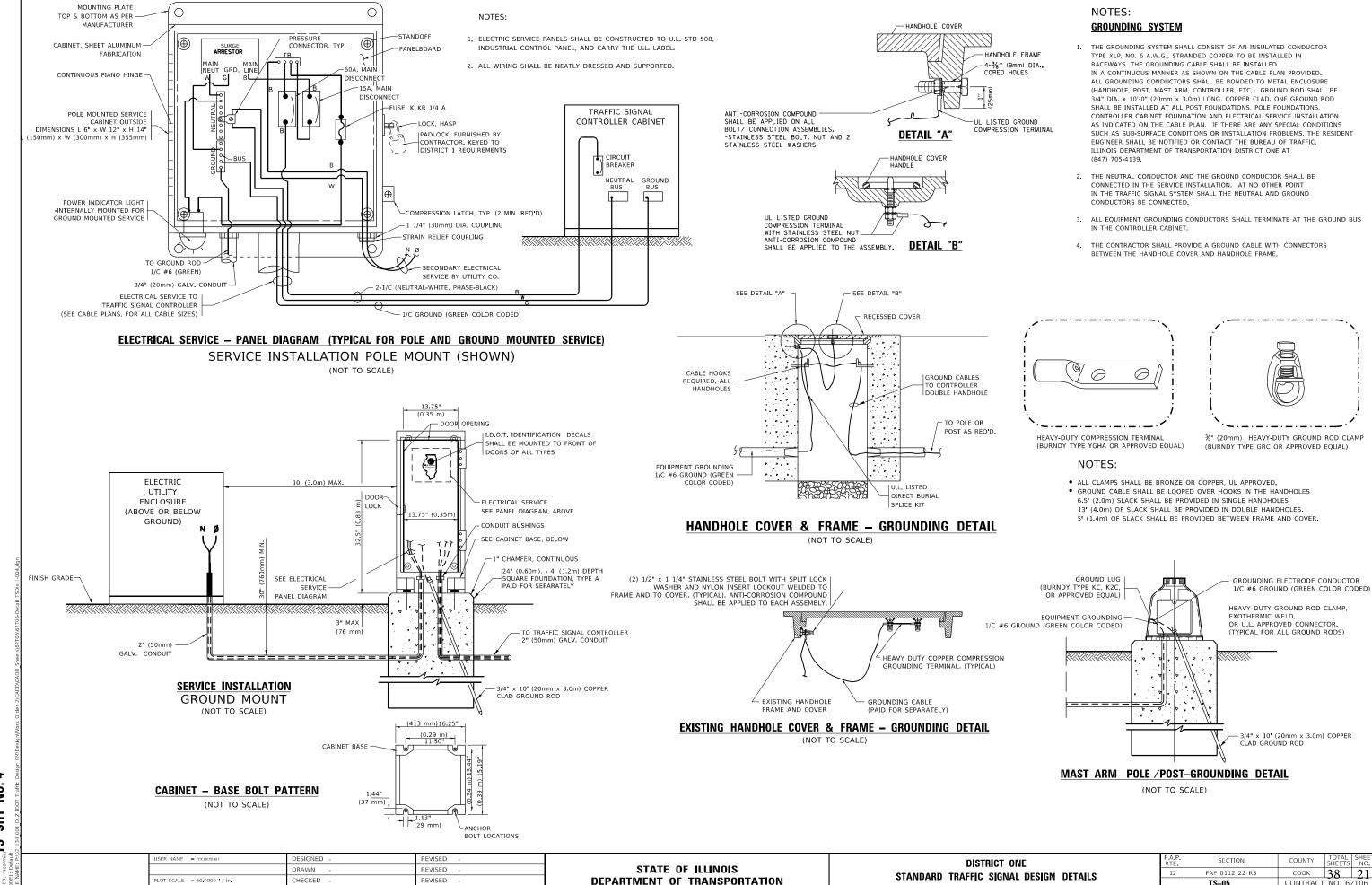
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PLOT SCALE = 50.0000 / in.	CHECKED -	REVISED -
PLOT DATE = 6/20/2024	DATE -	REVISED -

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

DISTRICT ONE	F.A.P. RTE	SECTION	COUNTY	TOTAL SHEET SHEETS NO.
STANDARD TRAFFIC SIGNAL DESIGN DETAILS	12	FAP 0112 22 RS	соок	38 20
STANDAND HIATTO SIGNAL DESIGN DETAILS		TS-05	CONTRAC	T NO. 62T06
SHEET 3 OF 7 SHEETS STA. TO STA.		ILLINOIS FED A	ID PROJECT	

<u>8</u> SHT



CONTRACT NO. 62T06

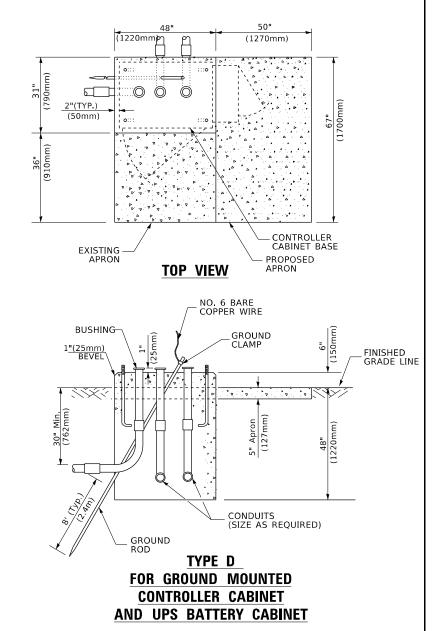
OF 7 SHEETS STA.

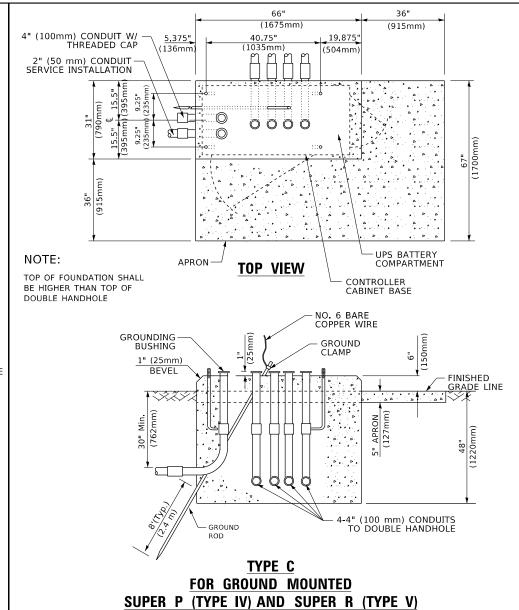
2 SHT IS

PLOT DATE = 6/20/2024

DATE

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**CONTROLLER CABINETS** 

SEE NOTE 5-
2" x 6" (51mm x 152mm) WOOD FRAMING (TYP.)
TRAFFIC SIGNAL — CONTROLLER CABINET
74" (19mm) TREATED PHYWOOD DECK
2" x 6" (51mm x 152mm) TREATED WOOD
NOTES:  NOTES:

- 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
- BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25" (406mm x 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 THROUGH 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
----------	-------	--------

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**

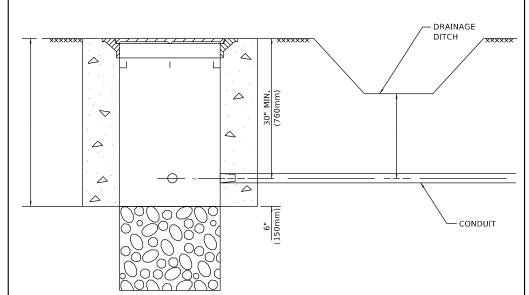
Mast Arm Length	① Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30′ (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
30' (9.1 m) and less than 40' (12.2 m)	11'-0'' (3.4 m)	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'' (4.6 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:

- 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 (Ou) > 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" (1060 mm) diameter foundations
- 4. For most arm assemblies with dual arms refer to state standard 878001.

#### **DEPTH OF MAST ARM FOUNDATIONS, TYPE E**

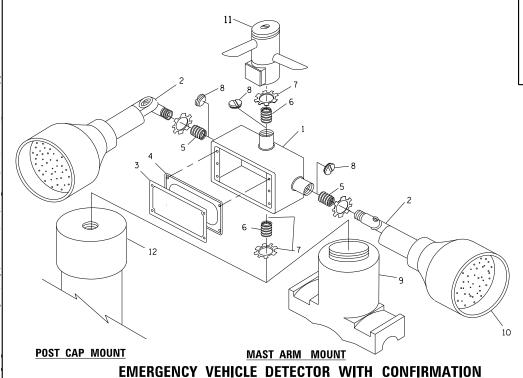
USER NAME = mcormier	DESIGNED -	REVISED -	<u>.</u>			DIS	TRICT O	NF		F.A.P. RTF	SECTION	COUNTY	TOTAL SHEET
	DRAWN -	REVISED -	STATE OF ILLINOIS	e	TANDARD			L DESIGN	DETAIL C	12	FAP 0112 22 RS	СООК	38 22
PLOT SCALE = 50.0000 / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION	ა	IANDAND	INAFFIC	C SIGNA	T DESIGN	DETAILS		TS-05	CONTRACT	T NO. 62T06
PLOT DATE = 6/20/2024	DATE -	REVISED -		SCALE: NONE	SHEET 5	OF 7	SHEETS	STA.	TO STA.		ILLINOIS FED. A	D PROJECT	



#### NOTES:

- CONDUIT DEPTH SHALL BE A MINIMUM OF 30" (760mm) BELOW THE BOTTOM OF THE DRAINAGE DITCH OR ANY SLOPING GROUND
- 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

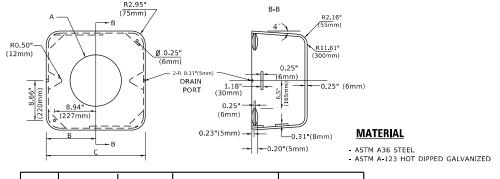


(1675mm) (915mm) 19.875" (1035mm) <u>\_\_\_</u> 0 CONTROLLER CABINET BASE PROPOSED-**TOP VIEW** APRON -NO. 3 DOWEL 18" (450mm NO. 6 BARE COPPER WIRE LONG (8 REQ.) BUSHING-\_GROUND CLAMP EXISTING-ANCHOR BOLTS FINISHED GRADE LINE 1"(25mm) BEVEL (300 mm)(300 mm)12" (300mm) (225mm) -EXISTING CONDUITS EXISTING GROUND ROD 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 ¾"(19 mm) HOLE PLUG 9 SADDLE BRACKET - SALV. 10 6 WATT PAR 38 LED FLOOD LAMP 11 DETECTOR UNIT 12 POST CAP [18 FT. (5.4 m) POST MIN.]

#### NOTES:

- 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
- 3. WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 3/4 "(19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.

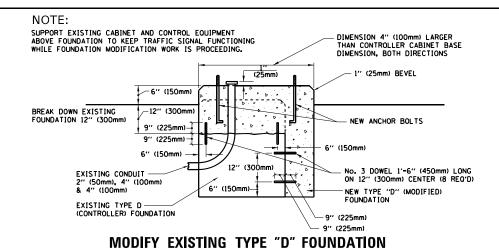


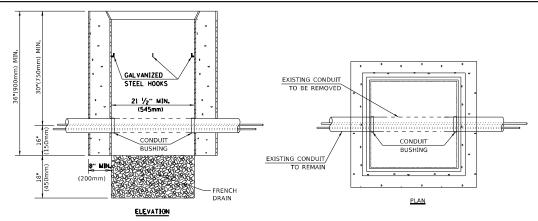
Α	В	С	HEIGHT	WEIGHT
VARIES	9.5"(241mm)	53 lbs (24kg)		
VARIES	10.75"(273mm)	21.5"(546mm)	7" (178mm) - 12" (300mm)	68 lbs (31 kg)
VARIES	13.0"(330mm)	26"(660mm)	7" (178mm) - 12" (300mm)	81 lbs (37 kg)
VARIES	18.5"(470mm)	37"(940mm)	7" (178mm) - 12" (300mm)	126 <b>l</b> bs (57 kg)

#### **SHROUD**

#### NOTES:

- 1. 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

 USER NAME
 = mcornier
 DESIGNED
 REVISED

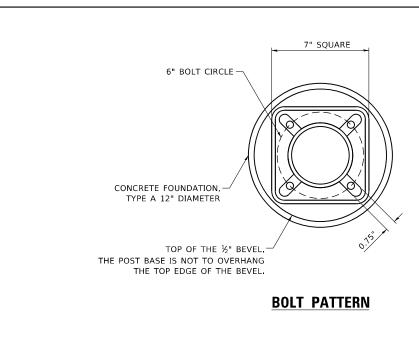
 DRAWN
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 PLOT SCALE
 = 50,0000 / in.
 CHECKED
 REVISED

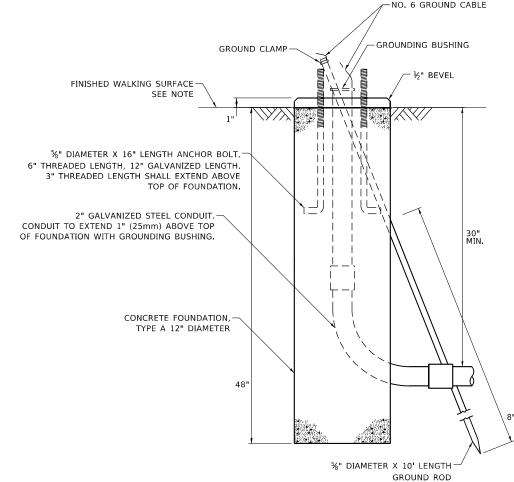
 PLOT DATE
 = 6/20/2024
 DATE
 REVISED

**BEACON MOUNTING DETAIL** 

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



1. IF THE PEDESTRIAN SIGNAL POST FOUNDATION IS INSTALLED WITHIN OR BEHIND A BARRIER CURB, THE TOP OF THE FOUNDATION SHALL BE INSTALLED FLUSH WITH THE TOP OF THE BARRIER CURB.



## TYPE A 12-INCH DIAMETER

#### PEDESTRIAN SIGNAL POST, 10 FT.

36"

#### PEDESTRIAN SIGNAL POST, 5 FT.

-FINISHED WALKING SURFACE-

DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS

FAP 0112 22 RS

DON'T CROSS

- PEDESTRIAN SIGNAL HEAD

-COUNTDOWN PEDESTRIAN SIGNAL HEADS ARE NOT TO BE USED AT RAILROAD INTERSECTIONS

ALUMINUM OR-

ALUMINUM-PUSH-BUTTON STATION

PEDESTRIAN PUSH-BUTTON

GALVANIZED STEEL POST, 4.5" OUTSIDE DIAMETER

CAST IRON GALVANIZED BASE

CENTERED ON FOUNDATION

ALUMINUM OR-

ALUMINUM OR-

DRILLED AND TAPPED -GROUNDING HOLE

GALVANIZED STEEL POST CAP

SIGN (SEE SIGN TABLE) -





R10-3e

R10-3b

R10-3d

#### SIGN TABLE

SIGN	DIMENSIONS
R10-3b (RAILROAD ONLY)	9" X 12"
R10-3d (RAILROAD ONLY)	9" X 12"
R10-3e	9" X 15"

#### NOTES:

- 1. THE SIGN PANELS SHALL BE TYPE AP SHEETING.
- 2. THE ARROW ON SIGNS FOR PUSH-BUTTONS SERVING TWO DIRECTIONS ON THE SAME PHASE SHALL BE BI-DIRECTIONAL.
- 3. THE SIGN FOR DUAL-CALL PUSH-BUTTONS SHALL HAVE NO ARROW.

-NO. 6 GROUND CABLE

**CONCRETE FOUNDATION,** 

REVISED REVISED

REVISED

STATE OF ILLINOIS

OF 7 SHEETS STA.

COOK 38 24
CONTRACT NO. 62T06

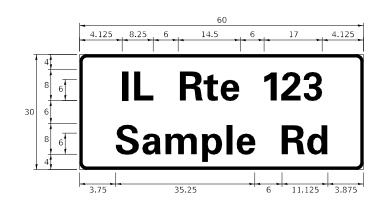
<u>S</u> SHT

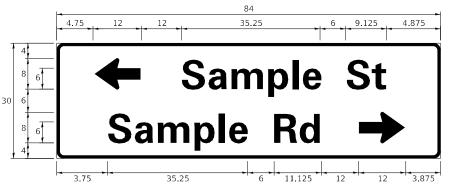
DESIGNED -DRAWN LOT SCALE = 50.0000 / in.

**DEPARTMENT OF TRANSPORTATION** 

#### SIGN PANEL – TYPE 1 OR TYPE 2

#### 35.25 11.125 3.875 Sample Rd





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

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

NAME	ABBREVATION	WIDTH	(INCH)	
NAME	ADDREVATION	SERIES "C"	SERIES "D"	
AVENUE	Ave	15.000	18.250	
BOULEVARD	Blvd	17.125	20.000	
CIRCLE	Cir	11.125	13.000	
COURT	Ct	8. 250	9.625	
DRIVE	Dr	8.625	10.125	
HIGHWAY	Hwy	18.375	22.000	
ILLINOIS	ΙL	7.000	8.250	
LANE	Ln	9.125	10.750	
PARKWAY	Pkwy	23. 375	27.375	
PLACE	PΙ	7. 125	7. 750	
ROAD	Rd	9.625	11.125	
ROUTE	Rte	12.625	14.500	
STREET	St	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'-0". ALL BORDERS 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'-0" 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 POSTS.

LOCAL SUPPLIERS: PARTS LISTING:

- I.O. HERBERT COMPANY, INC. PART #HPN053 (MED. CHANNEL) SIGN CHANNEL MIDLOTHIAN, VA 1/4" x 14 x 1" H.W.H. #3 SIGN SCREWS

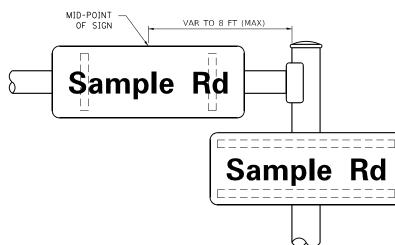
SELF TAPPING WITH NEOPRENE WASHER - WESTERN REMAC, INC. BRACKETS PART #HPN034 (UNIVERSAL) WOODRIDGE, IL

CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING

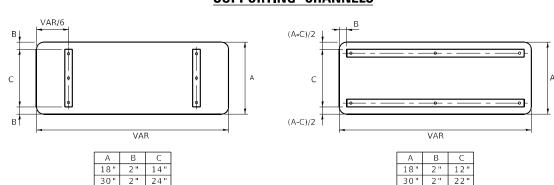
OTHER BRANDS OF MOUNTING HARDWARE ARE ACCEPTABLE, BASED UPON THE DEPARTMENT'S APPROVAL AND COMPATIBILITY WITH THE CHANNEL/BRACKET OF THE ABOVE PRODUCT.

#### **MOUNTING LOCATION**

ARM OR POLE MOUNTED



#### **SUPPORTING CHANNELS**



#### STANDARD ALPHABETS SPACING CHART

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

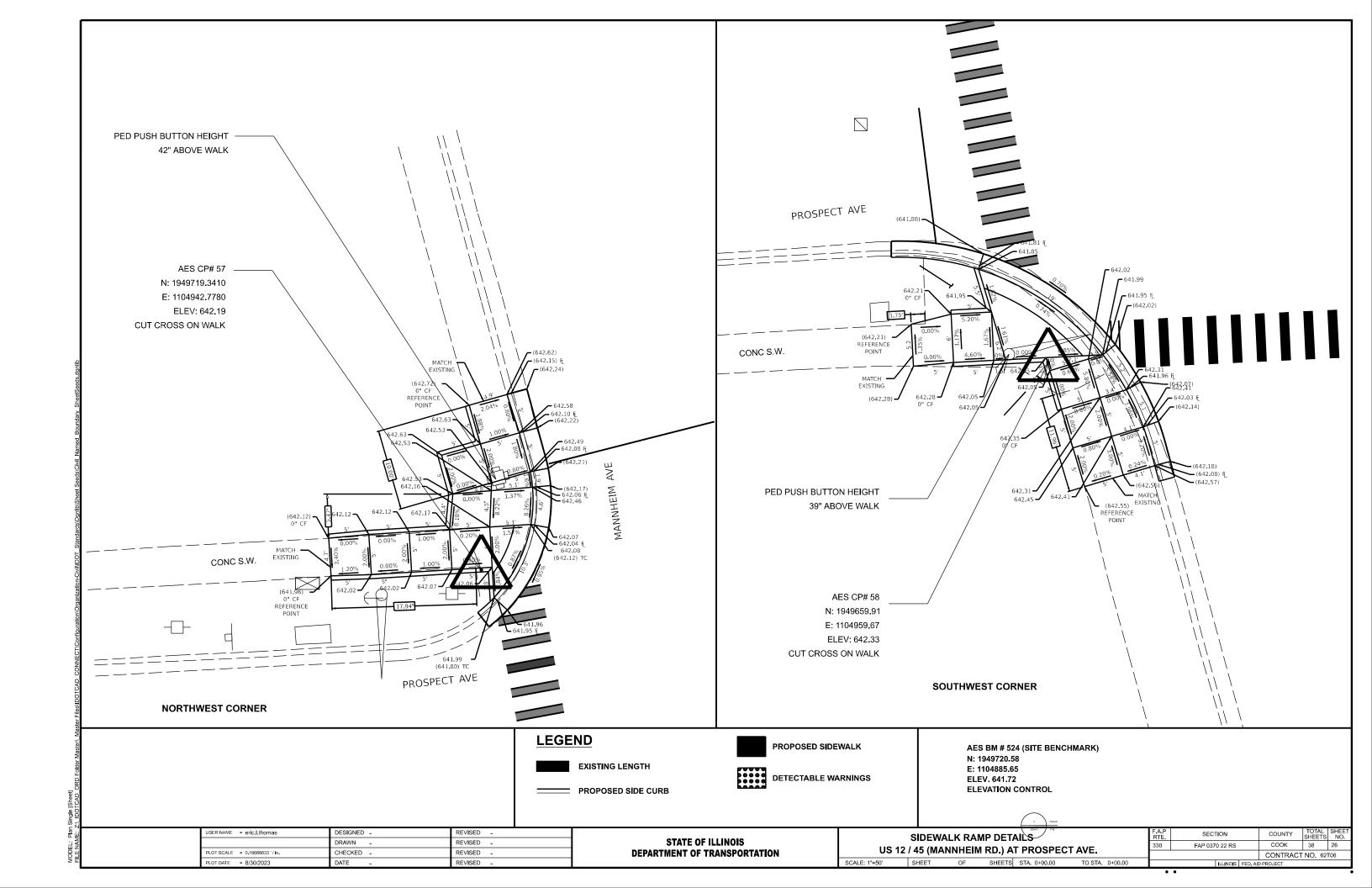
	FHWA SEF	RIES "C"			FHWA SEF	RIES "D"	
CHARACTER	LEFT SPACING (INCH)	WIDTH (INCH)	RIGHT SPACING (INCH)	CHARACTER	LEFT SPACING (INCH)	WIDTH (INCH)	RIGHT SPACINO (INCH)
Α	0.240	5.122	0.240	А	0.240	6.804	0.240
В	0.880	4.482	0.480	В	0.960	5.446	0.400
С	0.720	4.482	0.720	С	0.800	5.446	0.800
D	0.880	4.482	0.720	D	0.960	5.446	0.800
<u>E</u>	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	0.800
H I	0.880	4. 482 1. 120	0.880	H	0.960 0.960	5.446 1.280	0.960
	0.880	4.082	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
Р	0.880	4.482	0.720	Р	0.960	5.446	0.240
Q	0.720	4.722	0.720	Q	0.800	5.684	0.800
R	0.880	4.482	0.480	R	0.960	5.446	0.400
<u>S</u>	0.480	4.482	0.480	S	0.400	5.446	0.400
T	0.240	4.082	0.240	T	0.240	4.962	0.240
U	0.880	4.482	0.880	U	0.960	5.446	0.960
V 	0.240	4. 962 6. 084	0.240	V W	0.240	6.084 7.124	0.240
X	0.240	4. 722	0.240	X	0.400	5.446	0.400
	0.240	5.122	0.240	Y	0. 240	6.884	0.240
Z	0.480	4.482	0.480	Z	0.400	5.446	0.400
	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
е	0.480	4.082	0.320	е	0.480	4.722	0.320
f	0.320	2.480	0.160	f	0.320	2.882	0.160
g	0.480	4.082	0.720	g	0.480	4.802	0.800
<u>h</u>	0.720	4.082	0.640	h	0.800	4.722	0.720
·	0.720	1.120	0.720	i	0.800	1.280	0.800
j	0.000 0.720	2. 320 4. 322	0.720 0.160	j	0.000	2.642 5.122	0.800
k I	0.720	1.120	0.720	k I	0.800	1. 280	0. 160
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	0.720	4.082	0.480	р	0.800	4.802	0.480
q	0.480	4.082	0.720	q	0.480	4.802	0.800
r	0.720	2.642	0.160	r	0.800	3.042	0.160
s	0.320	3.362	0.240	S	0.320	3.762	0.240
+	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
V	0.160	4. 722	0.160	V	0.160	5.684	0.160
w	0.160	7.524	0.160	W	0.160	9.046	0.160
×	0.000 0.160	5.202	0.000	X	0.000 0.160	6. 244	0.000
y z	0.160	4. 962 3. 362	0.160	y z	0.160	6.004 4.002	0.160
1	0.720	1.680	0.880	1	0.800	2.000	0.240
2	0.480	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

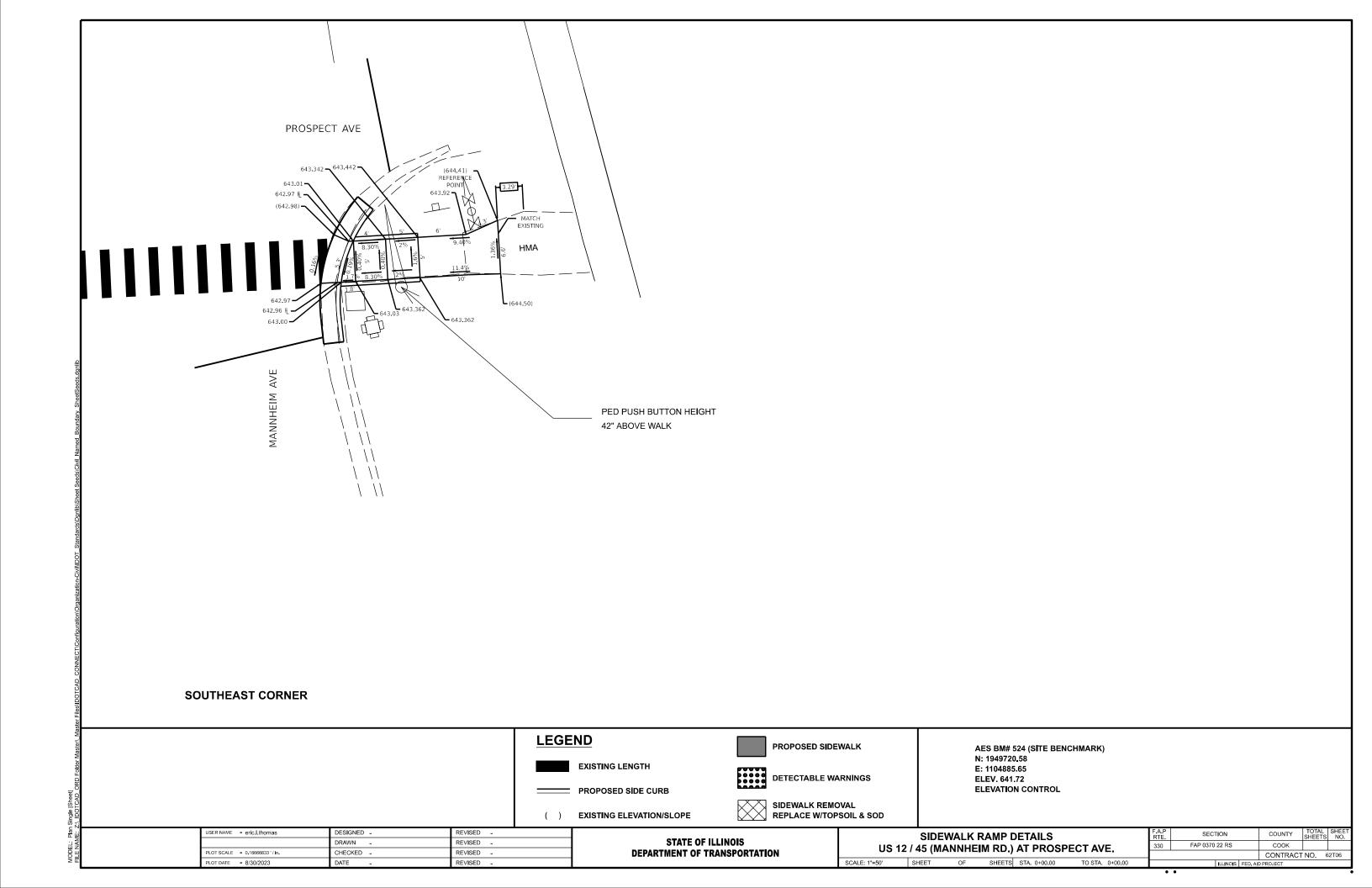
LP 07/01/2015 DESIGNED -REVISED DRAWN LP REVISED HECKED REVISED PLOT DATE = 6/20/2024 10/01/2014 DATE

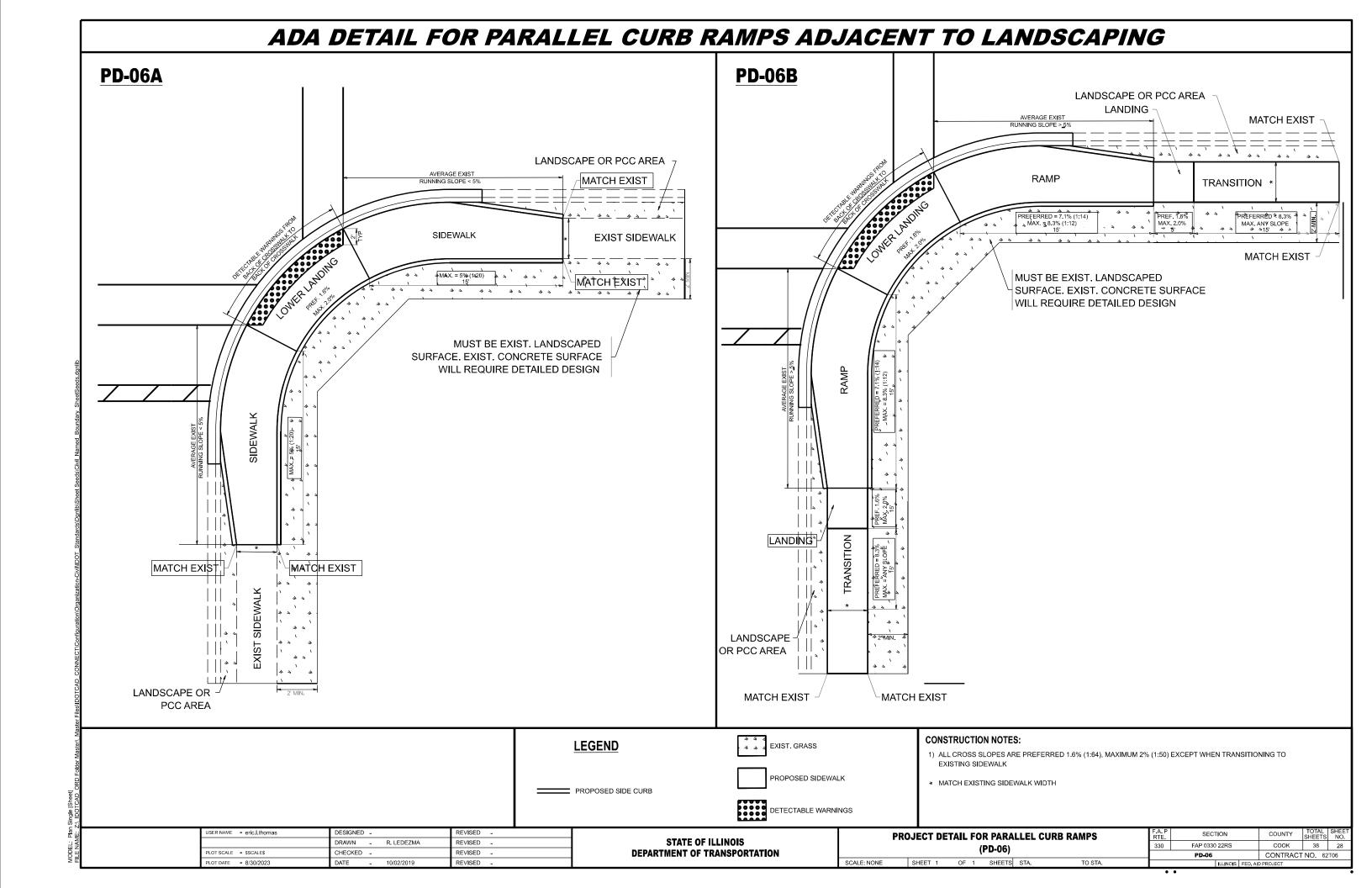
STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

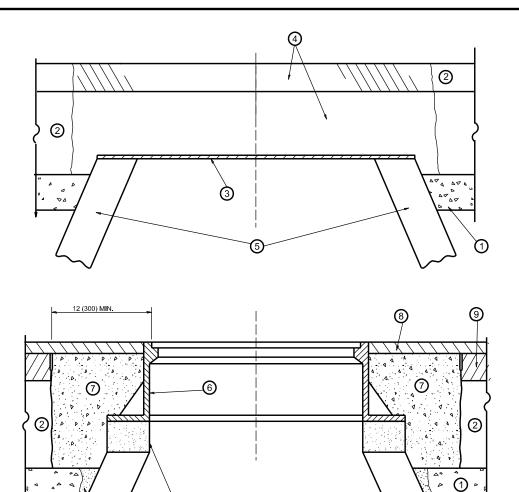
SECTION DISTRICT ONE соок 38 25 FAP 0112 22 RS MAST ARM MOUNTED STREET NAME SIGNS TS-02 CONTRACT NO. 62T06 SHEETS STA.

SHT NO. IS









#### **DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING**

BRICK, MORTAR, OR CONC.

#### <u>NOTES</u>

- 1. EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.
- 2. IF THE EXISTING LIDS ARE OPEN, THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAVEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.
- 3. CITY OF CHICAGO CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY FOR REMOVAL AND DISPOSITION OF THE CASTINGS.
- 4. THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.
- 5. THE CONTRACTOR SHALL REMOVE ALL TRAFFIC CONTROL DEVICES BY THE END OF EACH WORK SHIFT.

#### CONSTRUCTION PROCEDURES

**STAGE 1** (BEFORE PAVEMENT MILLING)

A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.

- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE. C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
- D) BACKFILL WITH CRUSHED STONE AND HMA SURFACE MIX APPROVED BY THE ENGINEER. (MIN. 3 (80) HMA TO REMAIN AFTER MILLING).

**STAGE 2** (AFTER PAVEMENT MILLING)

A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE. B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.

C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS PP-2 \* CONCRETE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

\* UNLESS OTHERWISE SPECIFIED IN THE PLANS.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS EXCEPT THAT "THE CONTRACTOR SHALL ADJUST THE STRUCTURES TO THE FINISHED PAVEMENT ELEVATION NO MORE THAN 5 CALENDAR DAYS PRIOR TO PLACEMENT OF THE FINAL LIFT OF SURFACE UNLESS APPROVED BY THE ENGINEER."

#### **LEGEND**

① SUB-BASE GRANULAR MATERIAL

(6) FRAME AND LID (SEE NOTES)

2 EXISTING PAVEMENT

7 CLASS PP-2\* CONCRETE

3 36 (900) DIAMETER METAL PLATE

8 PROPOSED HMA SURFACE COURSE

PROPOSED CRUSHED STONE AND HMA SURFACE MIX

PROPOSED HMA BINDER COURSE

(5) EXISTING STRUCTURE

#### **LOCATION OF STRUCTURES**

THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

#### BASIS OF PAYMENT

- 1. REMOVING FRAMES AND LIDS ON DRAINAGE AND UTILITY STRUCTURES IN THE PAVEMENT PRIOR TO MILLING, AND ADJUSTING TO FINAL GRADE PRIOR TO PLACING THE SURFACE COURSE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR "FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)."
- 2. THIS WORK WILL NOT BE PAID FOR WHEN DRAINAGE AND UTILITY STRUCTURES ARE SPECIFIED FOR PAYMENT AS STRUCTURE RECONSTRUCTION.
- 3. NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.
- 4. WHEN STRUCTURES ARE TO BE ADJUSTED OR RECONSTRUCTED. THE LOWERING AND RAISING OF THE FRAMES AND LIDS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE CORRESPONDING PAY ITEM.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

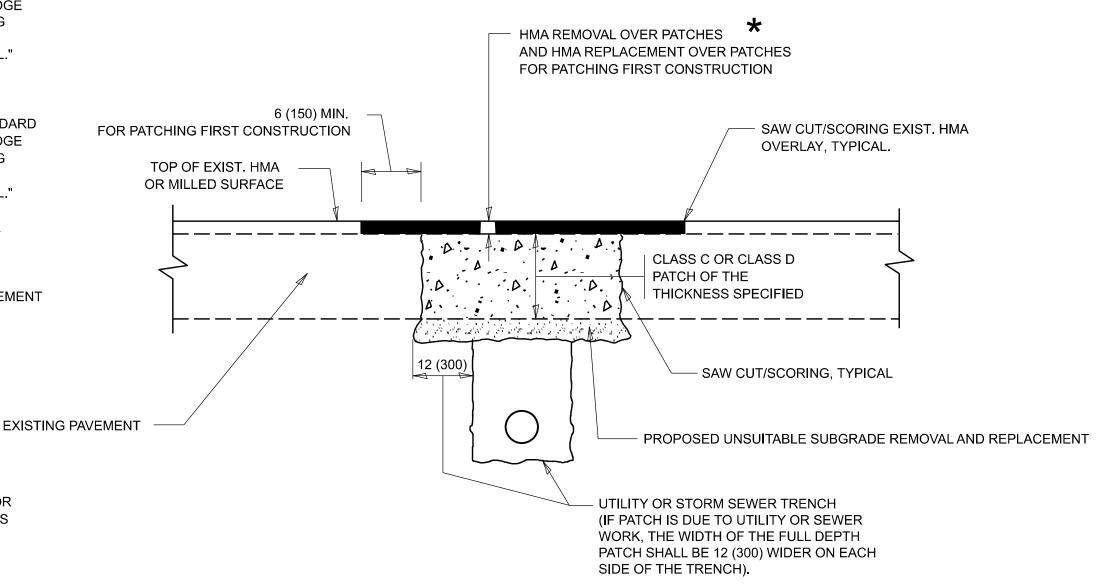
DESIGNED - R. SHAH JSER NAME = eric.l.thomas REVISED - R. BORO 03-09-11 COUNTY **DETAILS FOR** STATE OF ILLINOIS DRAWN REVISED - R. BORO 12-06-11 COOK 38 29 330 EAP 0330 22RS FRAMES AND LIDS ADJUSTMENT WITH MILLING LOT SCALE = 0.16666633 ' / in. CHECKED -REVISED - K. SMITH 11-18-22 **DEPARTMENT OF TRANSPORTATION** CONTRACT NO. 62T06 BD600-03 (BD-08) SCALE: NONE SHEET 1 OF 1 SHEETS STA. OT DATE = 8/30/2023 DATE 10-25-94 REVISED - K. SMITH 09-15-23

#### **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."
- 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.



\* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

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

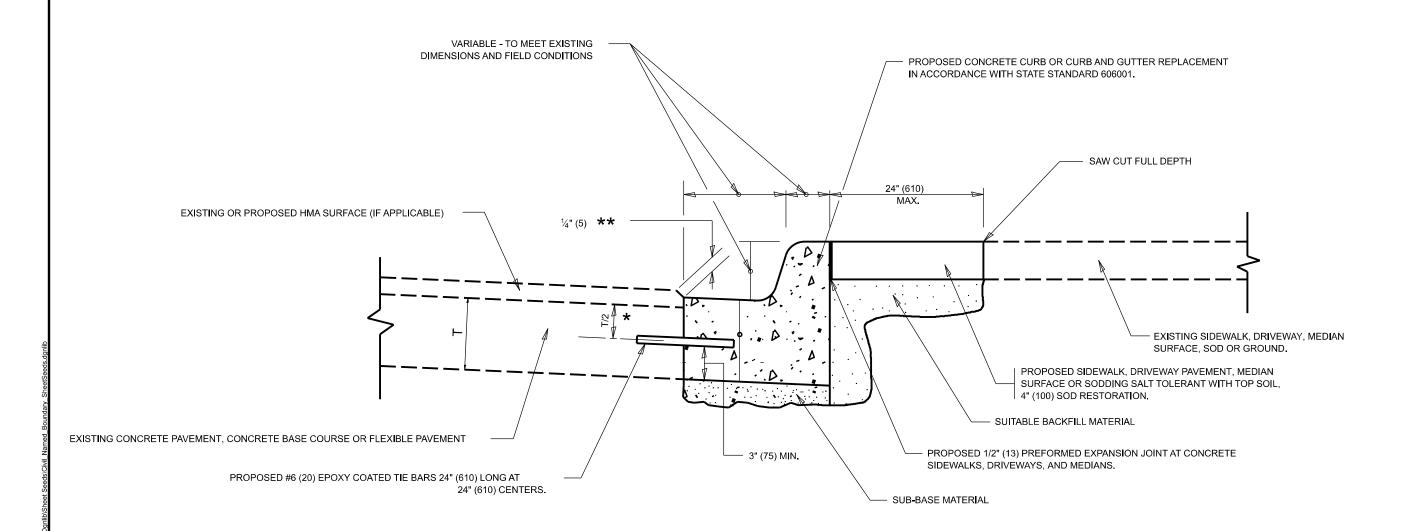
- 1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
- 2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
- 3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

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

- 1. MILL HMA FIRST IF THERE IS AT LEAST 4 ½ 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 = eric.l.thomas	DESIGNED - R. SHAH	REVISED - R. BORO 01-01-07			ΡΔ	VEMENT	Г РАТСН	ING FOR		F.A.P RTE	SECTION	COUNTY	TOTAL S	HEET NO
	DRAWN -	REVISED - R. BORO 09-04-07	STATE OF ILLINOIS							330	FAP 0330 22RS	соок	38	30
PLOT SCALE = 0.16666633 '/in.	CHECKED -	REVISED - K. ENG 10-27-08	DEPARTMENT OF TRANSPORTATION		HIVI	A SUKF	ACED PA	VEMENT		В	D400-04 (BD-22)		NO. 62T0	3
PLOT DATE = 8/30/2023	DATE - 10-25-94	REVISED - K. SMITH 11-18-22		SCALE: NONE	SHEET 1	OF 1	SHEETS	STA.	TO STA.	<del>ऻ</del>	ILLINOIS FED	. AID PROJECT		-

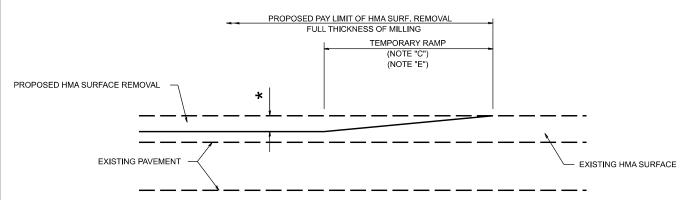


- \* 3" (75) MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.

## **CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT**

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

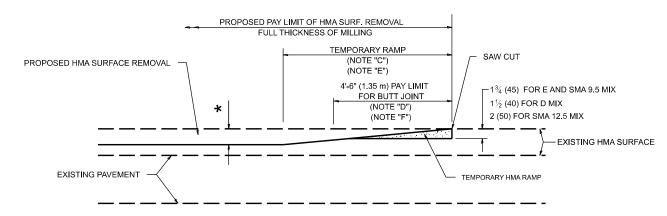
USER NAME = eric.l.thomas	DESIGNED - A. HOUSEH	REVISED - A. ABBAS 03-21-97			CURI	B OR C	URB AN	ID GUTTER		F.A.P RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN -	REVISED - M. GOMEZ 01-22-01	STATE OF ILLINOIS					LACEMENT		330	FAP 0330 22RS	соок	38	31
PLOT SCALE = 0.16666633 ' / in.	CHECKED -	REVISED - R. BORO 12-15-09	DEPARTMENT OF TRANSPORTATION		KEIVIC	VAL A	ND KEP	LACEMENI			BD600-06 (BD-24)	CONTRAC	T NO. 627	r06
PLOT DATE = 8/30/2023	DATE - 03-11-94	REVISED - K. SMITH 07-11-19		SCALE: NONE	SHEET 1	OF 1	SHEETS	STA.	TO STA.		ILLINOIS FED. A	D PROJECT		



#### **MILLED TEMPORARY RAMP**

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

#### **OPTION 1**

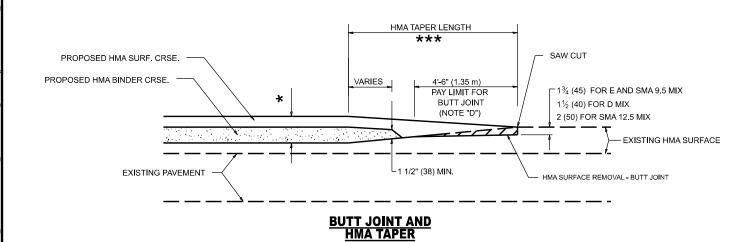


#### **HMA CONSTRUCTED TEMPORARY RAMP**

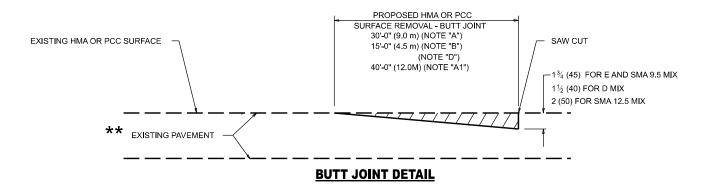
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

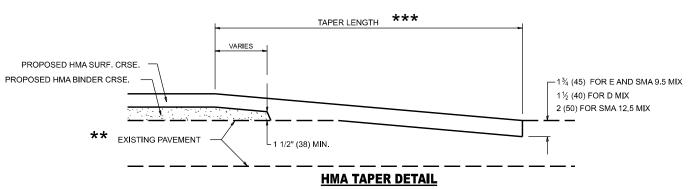
#### **OPTION 2**

#### **TYPICAL TEMPORARY RAMP**



## TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING





## TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

 $\star\star$  PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

#### **GENERAL NOTES**

- A. MAINLINE ARTERIAL ROADWAYS AND MAJOR SIDE ROADS.
- A1. INTERSTATES
- B. MINOR SIDE ROADS.
- C. THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
- D. THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
- E. TAPER THE TEMP. RAMP AT A RATE OF 3' 4" (1.02m) PER 1 INCH (25 mm) OF MILLING THICKNESS.
  - \* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- F. SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".

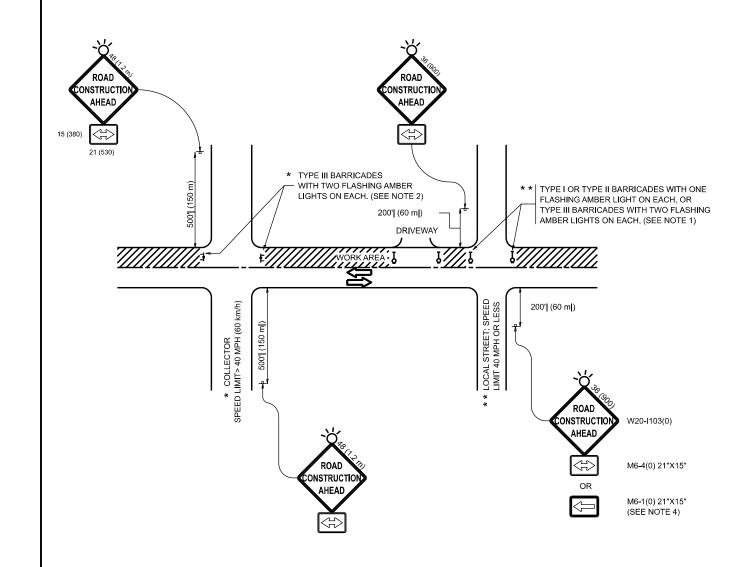
20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A") 10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

#### BASIS OF PAYMENT

- THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".
- THE TEMPORARY RAMP AND SAW CUT SHALL BE INCLUDED IN THE UNIT COST FOR HMA OR PCC SURFACE REMOVAL-BUTT JOINT.

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

JSER NAME = eric.l.thomas DESIGNED - M. DE YONG COUNTY **BUTT JOINT AND STATE OF ILLINOIS** DRAWN M. GOMEZ 04-06-01 COOK FAP 0330 22RS 38 **HMA TAPER DETAILS** CHECKED -R. BORO 01-01-07 **DEPARTMENT OF TRANSPORTATION** BD400-05 BD-32 CONTRACT NO. 62T06



#### 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.
- b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY 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) IN HEIGHT
- 4. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

- 5. 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.
- 7. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

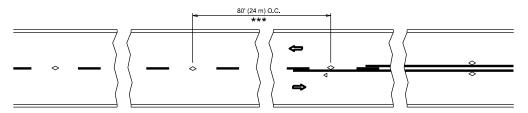
All dimensions are in inches (millimeters) unless otherwise shown.

USER NAME = eric.l.thomas	DESIGNED - L.H.A.	REVISED - T. RAMMACHER 01-06-00
	DRAWN -	REVISED - A. SCHUETZE 07-01-13
PLOT SCALE = 0.16666633 ' / in.	CHECKED -	REVISED - A. SCHUETZE 09-15-06
PLOT DATE = 8/30/2023	DATE - 06-89	REVISED _ D. SENDERAK 05-03-24

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

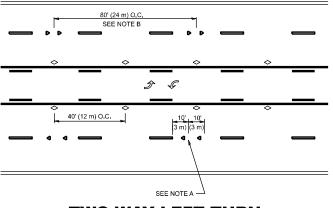
| SHEET OF SHEETS STA. TO STA.



\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

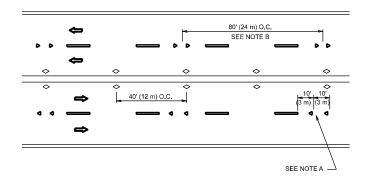
# LANE REDUCTION TRANSITION

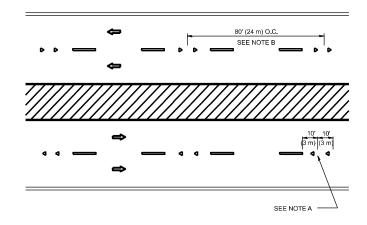
SEE FIGURE 3B-14 MUTCO



**TWO-WAY LEFT TURN** 

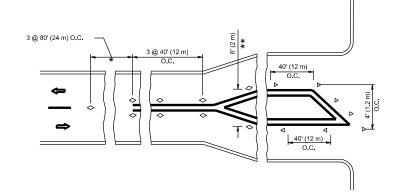
#### TWO-LANE/TWO-WAY

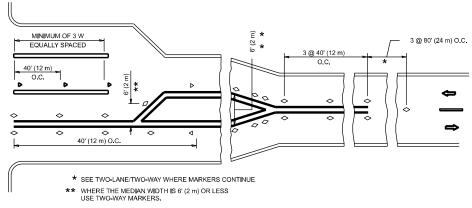




#### MULTI-LANE/UNDIVIDED

#### **MULTI-LANE/DIVIDED**





#### **TURN LANES**

#### **GENERAL NOTES**

- MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
- MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
- 3. 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

#### **SYMBOLS**

YELLOW STRIPE

WHITE STRIPE

- ONE-WAY CRYSTAL MARKER (W/O)
- TWO-WAY AMBER MARKER

#### **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**

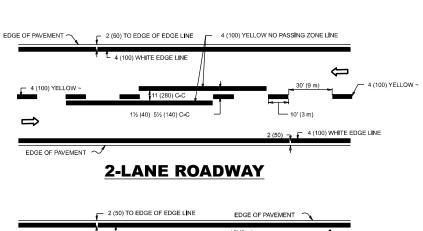
- 1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
- EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT

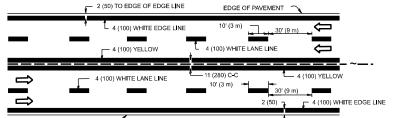
  RAMP DETAIL. MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
- 3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHALL BE INCLUDED IN THE PLANS WHEN STANDARD SPECIFICATIONS ARE NOT BEING USED.
- 4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.

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

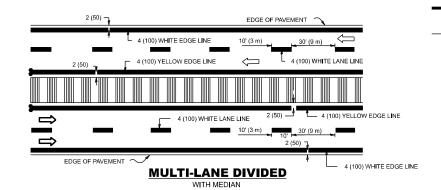
DESIGNED -REVISED - T. RAMMACHER 03-12-99 JSER NAME = eric.l.thomas SECTION COUNTY **TYPICAL APPLICATIONS** STATE OF ILLINOIS DRAWN REVISED - T. RAMMACHER 01-06-00 соок FAP 0330 22RS 38 RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT) LOT SCALE = 0.16666633 '/ in. CHECKED -REVISED - C. JUCIUS 09-09-09 **DEPARTMENT OF TRANSPORTATION** TC-11 CONTRACT NO. 62T06 SHEET 1 OF 1 SHEETS STA. LOT DATE = 8/30/2023 DATE C. JUCIUS 07-01-13

Z: IDU I CAD URD Folder Master, Master Files/IDU I CAD CONNECT (Comiguration

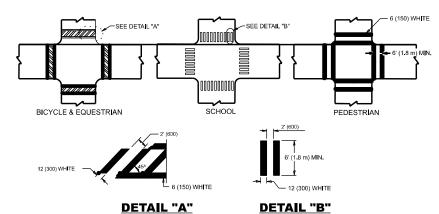




#### **MULTI-LANE UNDIVIDED**



#### **TYPICAL LANE AND EDGE LINE MARKING**

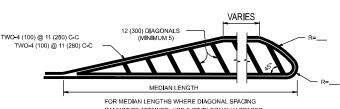


TYPICAL CROSSWALK MARKING

★ MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES

## TWO-4 (100) YELLOW @ 11 (280) C-C NO DIAGONALS 4' (1.2 m) OUTSIDE TO OUTSIDE OF LINES TWO-4 (100) YELLOW @ 11 (280) C-C

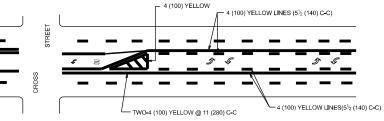
#### 4' (1.2 m) WIDE MEDIANS ONLY



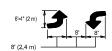
CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

\_LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

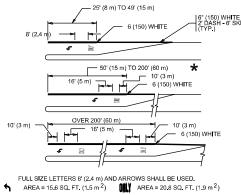
#### MEDIANS OVER 4' (1.2 m) WIDE



A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR, ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



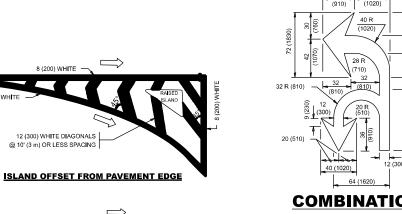
## MEDIAN WITH TWO-WAY LEFT TURN LANE TYPICAL PAINTED MEDIAN MARKING

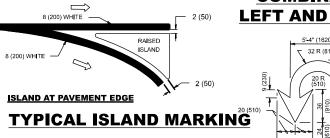


★ TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW—"ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF

#### TYPICAL LEFT (OR RIGHT) TURN LANE

#### TYPICAL TURN LANE MARKING





LANE REDUCTION
TRANSITION

U-TURN \* LANE REDUCTION ARROWS REQ.

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

SPEED LIMIT

				GREATER OR WHEN SPECIFIED IN PLANS.
TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
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 YELLOW-LEFT WHITE-RIGHT OL		OUTLINE MEDIANS IN YELLOW	
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW	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
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART 5' (500) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4" (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESINED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	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))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "X"=3.6 SQ, FT. (0.33 m <sup>2</sup> ) EACH "X"=54.0 SQ, FT. (5.0 m <sup>2</sup> )
SHOULDER DIAGONALS (REQUIRED FOR SHOULDERS ≥ 8')	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	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))
U TURN ARROW	SEE DETAIL	SOLID	WHITE	16,3 SF
2 ARROW COMBINATION LEFT AND U TURN	SEE DETAIL	SOLID	WHITE	30.4 SF

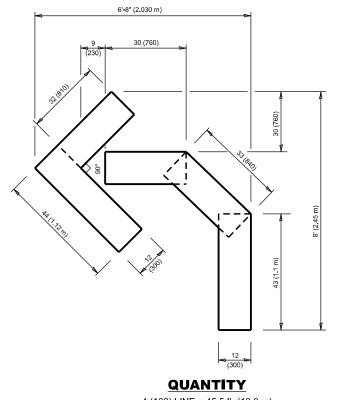
FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

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

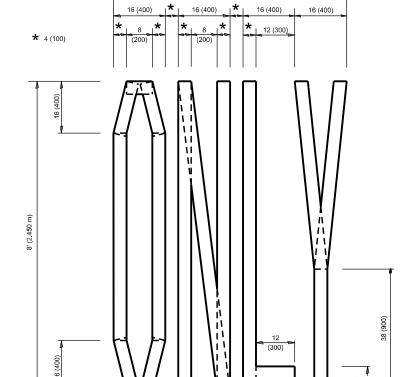
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AD ORD Folder Master, Master Files/IDOTCAD CONNECT/Comiguration/Orga

AME: Z:\ IDOTCAD ORD Folder Maste

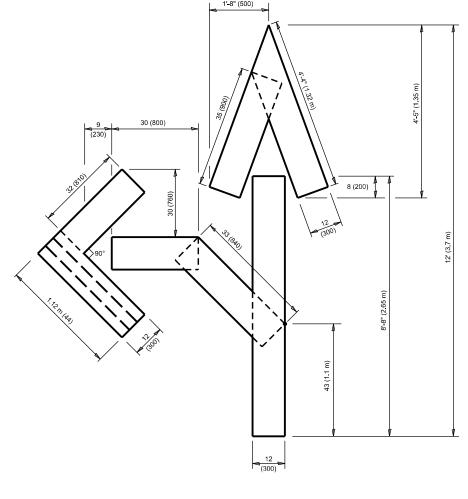


4 (100) LINE = 45.5 ft. (13.9 m) 15.2 sq. ft. (1.41 sq. m)



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

**QUANTITY** 

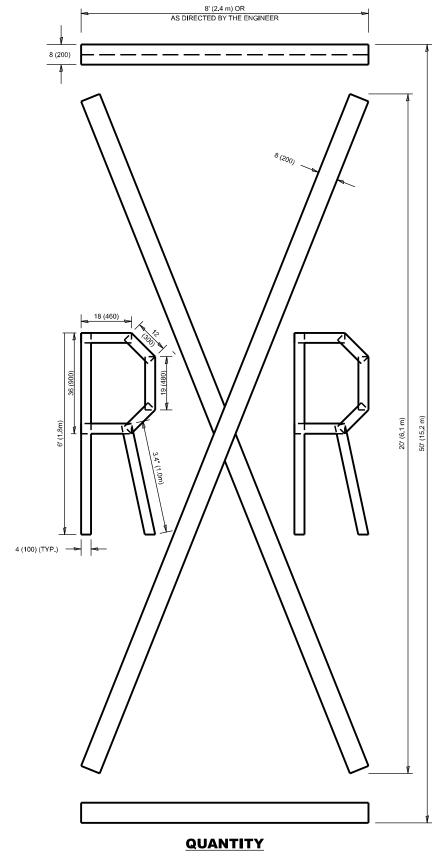


#### **QUANTITY**

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) L**I**NE = 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
 = eric.I.thomas
 DESIGNED
 REVISED
 - T. RAMMACHER 03-02-98

 DRAWN
 REVISED
 - E. GOMEZ 08-28-00

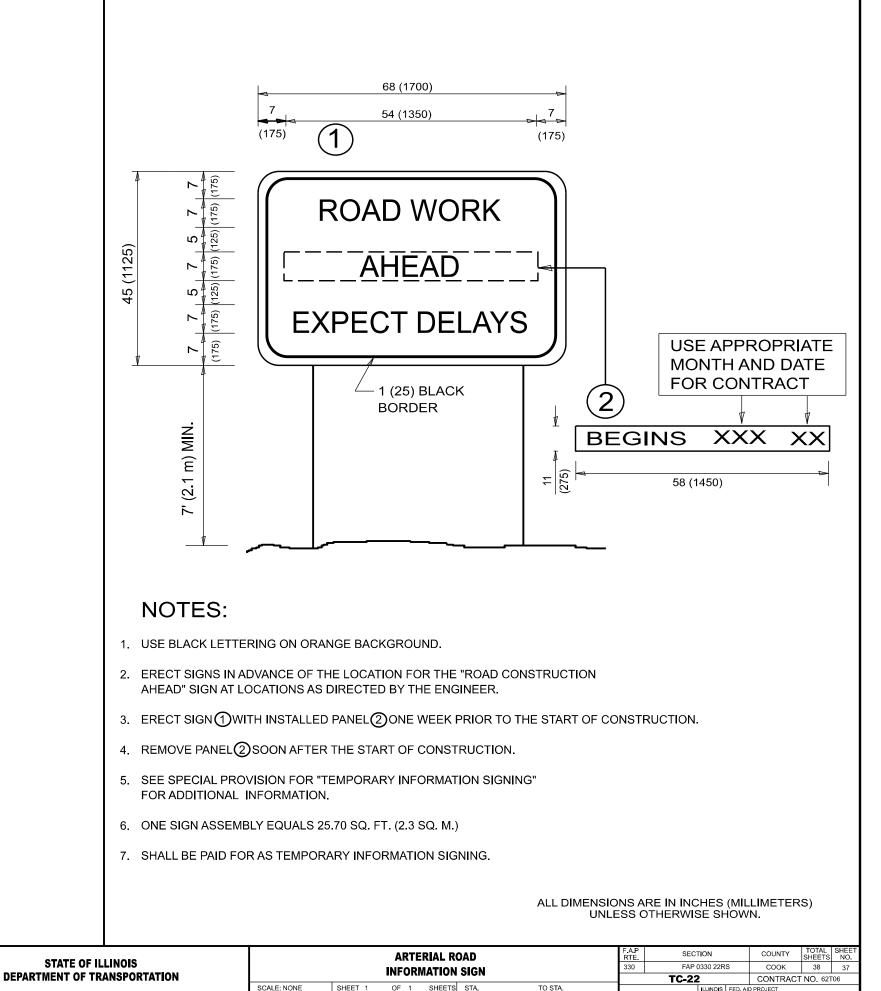
 PLOT SCALE
 = 0.166666833 '/in.
 CHECKED
 REVISED
 - E. GOMEZ 08-28-00

 PLOT DATE
 = 8/30/2023
 DATE
 09-18-94
 REVISED
 - A. SCHUETZE 09-15-16

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

 SHORT TERM PAVEMENT MARKING LETTERS AND SYMBOLS
 F.A.P. RTE.

 330
 F. SCALE: NONE
 SHEET 1
 OF 1
 SHEETS
 STA.
 TO STA.
 TO STA.



IDO I CAD UKD Folder Master Master Files/IDO I CAD CONNECT/Comiguration/Crgar

SER NAME = eric.l.thomas

PLOT SCALE = 0.16666633 '/ in.

OT DATE = 8/30/2023

DESIGNED -

DRAWN -

CHECKED -

DATE

REVISED - R. MIRS 09-15-97

REVISED - R. MIRS 12-11-97

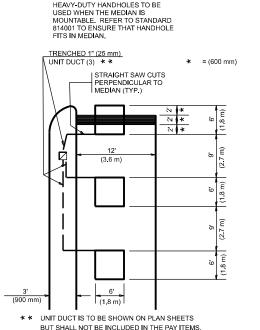
REVISED - T. RAMMACHER 02-02-99

REVISED - C. JUCIUS 01-31-07

## **LOOPS NEXT TO SHOULDERS** PROVIDE A PAVEMENT REPLACEMENT NOTE WHICH SHOULD EQUAL 3' (900 mm) X WIDTH OF PAVED SHOULDER. PAVED OR NON-PAVED SHOULDER (1.5 m) | (1.8 m) | (1.5 m) | I 1" (25 mm) UNIT DUCT-TRENCHED TO E/P \*\* (3.0 m) \* = (600 mm) \* \* UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS

BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

#### **LEFT TURN LANES WITH MEDIANS** VOLUME DENSITY ("FAR OUT" DETECTION) ON SAME APPROACH (PROTECTED / PERMITTED LEFT TURN PHASING) HANDHOLE LOCATION MAY VARY DEPENDING ON GEOMETRICS AND DESIGN OF TRAFFIC SIGNALS. HEAVY-DUTY HANDHOLES TO BE USED WHEN THE MEDIAN IS MOUNTABLE. REFER TO STANDARD



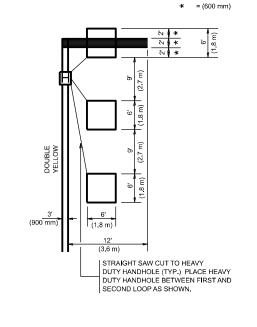
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO

PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

#### **LEFT TURN LANES WITHOUT MEDIANS**

VOLUME DENSITY ("FAR OUT" DETECTION) ON SAME APPROACH

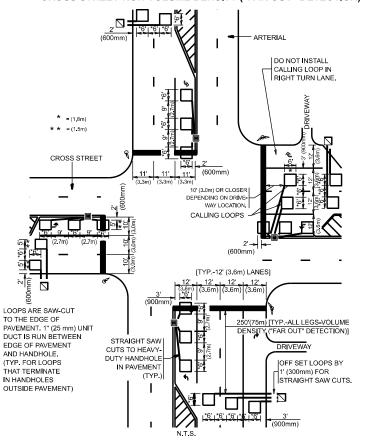
(PROTECTED / PERMITTED LEFT TURN PHASING)



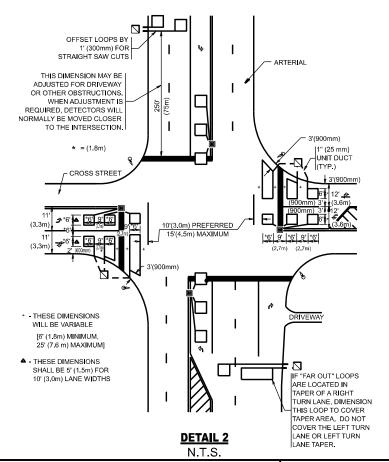
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

SCALE: NONE

#### ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION) CROSS STREET-NON VOLUME DENSITY ("FAR OUT" DETECTION)



#### ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION) CROSS STREET-NON VOLUME DENSITY ("UPTIGHT" PRESENCE DETECTION)



#### VEHICLES LOOP DETECTORS

- \* ALL LEAD IN CABLE SHALL BE TWO CONDUCTOR NO. 14 TWISTED,
- \* EACH DETECTOR LOOP SHALL HAVE ITS OWN SAW CUT FROM THE LOOP TO THE EDGE OF PAVEMENT OR TO A HANDHOLE IN THE
- \* EACH DETECTOR LOOP SHALL HAVE ITS OWN ONE INCH (25 mm) UNIT DUCT BETWEEN THE EDGE OF PAVEMENT AND THE FIRST HANDHOLE OR JUNCTION BOX. EACH UNIT DUCT RUN SHALL BE SHOWN ON THE PLANS BY THE DESIGNER, BUT SHALL NOT BE PAID FOR SEPARATLY. THIS ITEM IS INCIDENTAL TO THE PAY ITEM FOR DETECTOR LOOPS.
- \* ONE DIMENSION OF ALL DETECTOR LOOPS SHALL BE SIX FEET
- \* EACH LANE OF NON-LOCKING, PRESENCE DETECTION AND EACH LANE OF A DOUBLE LEFT TURN LANE REQUIRES A SEPARATE INDUCTIVE LOOP DETECTOR AND LEAD IN CABLE.
- \* WHEN NON-LOCKING, PRESENCE DETECTION IS USED, MORE THAN ONE LOOP PER LANE IS REQUIRED BEHIND THE STOP BAR (i.e. 1-1/2, 1-3/4, 2).
- \* WHEN SYSTEM LOOPS ARE REQUIRED ON AN APPROACH OF AN INTERSECTION, THE LOOPS USED FOR VOLUME DENSITY AND INTERSECTION TIMING SHALL ALSO BE USED AS SYSTEM DETECTORS. EACH ONE OF THESE TYPE OF LOOPS REQUIRES A SEPARATE TWO CONDUCTOR NO. 14 TWISTED SHIELDED CABLE AND A SEPARATE INDUCTIVE LOOP DETECTOR WHEN NEW CONTROLLERS ARE UTILIZED. THE DESIGNER SHALL LABEL THESE TYPES OF LOOPS AS "INTERSECTION AND SAMPLING (SYSTEM) DETECTORS" ON THE SIGNAL LAYOUT, THE INTERCONNECT PLAN AND THE SYSTEM CABLE PLAN. WHEN AN EXISTING CONTROLLER IS UTILIZED FOR THIS TYPE OF DETECTION, THE PAY ITEM "INDUCTIVE LOOP DETECTOR WITH SYSTEM OUTPUT" SHOULD BE USED.

#### PLACEMENT OF DETECTORS

THE FOLLOWING FIGURES REPRESENT THE MOST COMMON DETECTOR LOOP LOCATIONS AND SIZES. ADJUSTMENTS WILL BE NECESSARY FOR SPECIFIC GEOMETRIC CONSIDERATIONS.

LOCATIONS AND DEMENSIONS OF DETECTOR LOOPS ARE REQUIRED ON ALL SIGNAL LAYOUT PLAN SHEETS.

"FAR OUT" DETECTION REFERS TO LOCKING, PRESENCE TYPE DETECTION LOCATED IN THRU LANES, RIGHT TURN LANES, AND RIGHT TURN LANE TAPER AREAS (IF APPLICABLE), USUALLY 250' (75 m) IN ADVANCE OF STOP BARS. "UPTIGHT" DETECTION REFERS TO NON-LOCKING PRESENCE TYPE DETECTION LOCATED IN ALL LANES AND 10'-15' (3.0 m-4.5 m) BEHIND THE CROSSING STREET'S EDGE OF PAVEMENT EXTENDED.

#### NOTE:

ALL DETAILS AND NOTES SHOWN ARE FROM THE I.D.O.T. DISTRICT 1 TRAFFIC SIGNAL DESIGN GUIDELINES DATED JANUARY 1995

THIS DRAWING HAS BEEN PREPARED TO ASSIST THE RESIDENT ENGINEER FOR ALL ROADWAY RESURFACING OR S.M.A.R.T. PROJECTS WHERE THE DIMENSIONS ARE NOT SHOWN ON THE PLANS AND THE FINAL LOCATIONS FOR CROSSWALKS OR STOP BARS ARE NOT DETERMINED.

SER NAME = eric.l.thomas DESIGNED -REVISED DRAWN REVISED HECKED -R.K.F REVISED OT DATE = 8/30/2023 REVISED DATE

**DETAIL 1** 

N.T.S.

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**  **DISTRICT 1 - DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING** OF 1 SHEETS STA.

SECTION COUNTY FAP 0330 22RS COOK 38 CONTRACT NO. 62T06 TS-07