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# STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

COUNTY TOTAL SHEET NO. SECTION COOK 42 1 ILLINOIS CONTRACT NO. 62X15

D-91-237-24

**PROPOSED** 

HIGHWAY PLANS **FAU ROUTE 2742: 5TH AVENUE** 

N RIVER ROAD TO IL 64 (NORTH AVENUE)

**SECTION: 2024–990–RS,SW** 

PROJECT: STP-ML0A(796)
DESIGNED OVERLAY, SMART OVERLAY, ADA IMPROVEMENTS
COOK COUNTY

C-91-298-24

# TRAFFIC DATA

2023 ADT = 12,400 VPDPOSTED SPEED LIMIT = 35 MPH **MAJOR COLLECTOR** 

FOR INDEX OF SHEETS AND HIGHWAY

THIS PROJECT IS LOCATED IN THE VILLAGES OF

STANDARDS, SEE SHEET NO. 2

RIVER GROVE & MELROSE PARK

**PROJECT ENDS** STA 12+60 R12E RAILROAD OMMISION STA 18 + 08 - 18 + 22 T40N LEYDEN TOWNSHIP

ALEXANDER CARL LANE 062-063261 Alex Lane ALEXANDER CARL LANE, P.E.

10/8/2024

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

PROJECT MANAGER: VESELIN VELICHKOV

GROSS LENGTH = 4,921 FT. = 0.93 MILE NET LENGTH = 4,907 FT. = 0.93 MILE



**PROJECT BEGINS** 

STA 61+79

CONTACT: ALEXANDER LANE (312) 477-0620

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION REGIONAL ENGINEER

LOCATION OF SECTION INDICATED THUS: -

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

**CONTRACT NO. 62X15** 

ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES, IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

PROJECT ENGINEER: LUKASZ POCIECHA (847) 705-4255

### **INDEX OF SHEETS**

8		
	SHEET NO.	TITLE
	1	COVER SHEET
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	3-5	SUMMARY OF QUANTITIES
	6	TYPICAL SECTIONS
	7-8	ROADWAY AND PAVEMENT MARKING PLANS
	9-16	ADA RAMP DETAILS
	17-18	TRAFFIC SIGNALS - HEMINGWAY DRIVE
	19-20	TRAFFIC SIGNALS - TRITON COLLEGE NORTH ENTRANCE
	21-22	TRAFFIC SIGNALS - RIVER RD
	23	DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING (BD-08)
	24	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT (80-22)
	25	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT (BD-24)
	26	BUTT JOINT AND HMA TAPER DETAILS (BD-32)
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	29	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT) (TC-11)
	30	TYPICAL PAVEMENT MARKINGS (TC-13)
	31	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) (TC-14)
	32	SHORT TERM PAVEMENT MARKING LETTERS AND SYMBOLS (TC-16)
	33	ARTERIAL ROAD INFORMATION SIGN (TC-22)
	34	DRI <b>VEW</b> AY ENTRANCE SIGNING (TC-26)
	35-41	STANDARD TRAFFIC SIGNAL DESIGN DETAILS (TS-05)
	42	DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING (TS-07)
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# **HIGHWAY STANDARDS**

STANDARD NO.	DRAWING NAME,
000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
424001-12	PERPENDICULAR CURB RAMPS FOR SIDEWALKS
442201-03	CLASSIC AND DIPATCHES
606001-08	CONCRETE CURBITYPE BIAND COMBINATION CONCRETE CURBIAND GUTTER
701006-05	OFF-RD OPERATIONS, 2L, 2W, 15" (4.5 M ) TO 24" (600 MM) FROM PAVEMENT EDGE
701101-05	OFF-RD OPERATIONS, MULTILANE, 15' (4.5 M) TO 24" (600 MM) FROM PAVEMENT EDGE
701427-05	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATION, FOR SPEEDS ≤ 40 MPH
701602-10	URBAN LANE CLOSURE, MULTILANE, 2W WITH BIDIRECTIONAL LEFT TURN LANE
701606-10	URBAN SINGLE LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701611-01	URBAN HALF ROAD CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701701-10	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-06	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901-10	TRAFFIC CONTROL DEVICES
780001-05	TYPICAL PAVEMENT MARKINGS
781001-04	TYPICAL APPLICATIONS RASIED REFELCTIVE PAVEMENT MARKERS
886001-01	DETECTOR LOOP INSTALLATIONS
886006-01	TYPICAL LAYOUTS FOR DETECTION LOOPS

# **GENERAL NOTES**

- 1. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
- 2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO BEGINNING CONSTRUCTION AND ORDERING MATERIALS.
- 3. THE CONTRACTOR SHALL CONTACT KALPANA KANNAN-HOSADURGA, THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT KALPANA, KANNAN-HOSADURGA@ILLINOIS, GOV A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
- 4. MILLING AND PAVING OPERATIONS MUST INCLUDE THE APPROACHES OF THE RAILROAD TRACKS, UP TO THE TRACK PANELS.
- 5. 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.
- 6. ALL PAVEMENT PATCHING LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- 7. LOCATION OF COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT [OR COMBINATION CURB AND GUTTER (THE TYPE SPECIFIED ON THE PLANS)], WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- 8. DRAINAGE ADJUSTMENT OR RECONSTRUCTION LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- 9. 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.
- 10. THE CONTRACTOR SHALL 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 SHALL DELIVER THE RECORD TO THE ENGINEER,
- 11. 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.
- 12. PAVEMENT MARKING TAPE, TYPE IV SHALL BE USED FOR SHORT TERM PAVEMENT MARKINGS ON ALL FINAL SURFACES.
- 13. THE RESIDENT ENGINEER SHALL CONTACT EMAD ALHUSSEINI, AREA TRAFFIC FIELD ENGINEER, VIA EMAIL AT EMAD.ALHUSSEINI@ILLINOIS.GOV A MINIMUM OF TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PACEMENT MARKINGS.
- 14. SIDEWALK REMOVAL AND P.C.C. SIDEWALK 5" LOCATION SHALL BE DETERMINED BY THE RESIDENT ENGINEER.
- 15. 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. EXCAT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE SHOWN ON THE PLANS OR AS DIRECTED BY THE RESIDENT ENGINEER.
- 16. OVERNIGHT LANE CLOSURES SHALL NOT BE ALLOWED FOR REHABILITAION PROJECTS INVOLVING DAYTIME MILLING AND RESURFACING OPERATIONS AND CLASS D PATCHINGINLESS OTHER CONDITIONS WARRANT EXTENDED LANE CLOSURES AS DETERMINED AND APPROVED IN WRITING BY THE RESIDENT ENGINEER OR AS PROVIDED IN THE CONTRACT SPECIFICATIONS.
- 17. 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.
- 18. THE CONTRACTOR SHALL CONTACT DIANE LEWIS, MANAGER PUBLIC WORKS, AT DIANE, LEWIS@CN.CA OR 248-296-0414 WHEN SUBMITTING THE RIGHT OF ENTRY APPLICATION FOR THE WISCONSIN CENTRAL LIMITED (WCL) RAILROAD TO HAVE THE APPLICATION FEE WAIVED.

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				C	ONSTRU	CTION CODE
			URBAN	0005 ROADWA	Y	0021 TRAFFIC SIGNAL
PAYITEM NUMBER	DESIGNATION	UNIT	TO TAL QUANTITY	80% FEDERAL 20% STATE	100% STATE	80% FEDERAL 20% STATE
20101400	NITROGEN FERTILIZER NUTRIENT	POUND	3	3		
20101400	THOO THE THE THOU THE	, odre	3			
20101500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	3	3		
20101600	POTASSIUM FERTILIZER NUTRIENT	POUND	3	3		
20200100	EARTH EXCA <b>VA</b> TION	CUYD	41	41		
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	63	63 3		
25000115	SEEDING, CLASS 18	ACRE	0.1	0.1		
25200110	SODDING, SALT TOLERANT	SQ YD	63	633		
25200200	SUPPLEMENTAL WATERING	UNIT	3.2	3.2		
1010010	SOLVED THE TAX TO THE	5,41	3.2	5.2		
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	17.6	17.6		
ZSCHOOLS .	MITTER X-	181	30	20		
3011111111	A KAN AN ANA KOURA, 1919 A	11.34	25	H4.		
35501316	HOT-MIX ASPHALT BASE COURSE, 8"	SQ YD	53	53		
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	19,192	19, 192		
40600370	LONGITUDINAL JOINT SEALANT	FOOT	19,684	19,684		
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	54	54		
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	675	675		
40602985	HOT-MIX ASPHALT BINDER COURSE, IL-9.5, N70	TON	1,658	1,658		
40604060	HOT-MIX ASPHALT SURFACE COURSE, IL-9:5, MIX "D", N50	TON	10	10		
40604062	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N70	TON	3,465	3,465		
42004200	DOTECTIVE COAT	90 M	2.275	2 242		
42001300	PROTECTIVE COAT	SQ Yb	1,096	1,096		
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	2,541	2,541		
42400800	DETECTABLE WARNINGS	SQ FT	293	293		
44000156	HOT-MIX ASPHALT SURFACE REMOVAL, 1 3/4"	SQ YD	20,649	20,649		

				CONSTRUCTION CODE			
	φ.	6881 3	URBAN	0005 ROADWA	Υ	0021 TRAFFIC SIGNAL	
PAY ITEM NUMBER	DESIGNATION	UNIT	TO TAL QUANTITY	80% FEDERAL 20% STATE	100% STATE	80% FEDERAL 20% STATE	
				24.700			
44000164	HOT-MIX ASPHALT SURFACE REMOVAL, 3 3/4"	SQ YD	14,706	14,706	-		
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	99	99	- 1	8	
44000200	and very mind and manager	04 15		33		8.	
44000600	SIDEWALK REMOVAL	SQ FT	2,410	2,410	1		
			2,110	2,110	8		
44201737	CLASS D PATCHES, TYPE I, 8 INCH	SQ YD	16	16			
		1					
44201741	CLASS D PATCHES, TYPE II, 8 INCH	SQ YD	604	604			
44201745	CLASS D PATCHES, TYPE III, 8 INCH	SQ YD	88	88	ĺ		
					ĺ	9	
44201747	CLASS D PATCHES, TYPE IV; 8 INCH	SQ YD	440	440			
						6	
44201761	CLASS D PATCHES, TYPE I, 10 INCH	SQ YD	14	14		50	
	L. 100 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		205		- 1	72	
44201765	CLASS D PATCHES, TYPE II, 10 INCH	SQ YD	205	205	15		
44004700	CLACC D DATCHEC TYPE III 40 INCH	SQ YD	400	100	- 4		
44201769	CLASS.D PATCHES, TYPE III, 10 INCH	SQ YD	123	123		20	
44201771	CLASS D. PATCHES, TYPE IV, 10 INCH	SQ YD	82	82	3	25	
44201771	DESCRIPTAGES, THE PR. TO HOST	302 10	02	02			
56109210	WATER VALVES TO BE ADJUSTED	EACH	5	5		2	
			-				
60252800	CATCH BASINS TO BE RECONSTRUCTED	EACH	1	1			
					1	2	
60257900	MANHOLES TO BE RECONSTRUCTED	EACH	1	1			
					65		
60262700	INLETS TO BE RECONSTRUCTED	EACH	1	1			
		îL.					
60300105	FRAMES AND GRATES TO BE ADJUSTED	EACH	20	20			
60300305	FRAMES AND LIDS TO BE ADJUSTED	EACH	7	7			
60300405	VALVE B●X FRAMES TO BE ADJUSTED	EACH	5	5			
CO 10 1255	EDAMES AND ODATES TYPE OF	5401		.41		19	
60404 <b>9</b> 50 66900200	FRAMES AND GRATES, TYPE 24	EACH	1	1	8	2	
60406100	NON-SPECIAL WASTE DISPOSAL	CU YD EACH	16	41	2		
66900530	FRAMES AND LIDS, TYPE 1, CLOSED LID  SOIL DISPOSAL ANALYSIS	EACH	16 4	16			
67100100	MOBILIZATION	L SUM	1	1			
66901001	REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN	L SUM	1	1	- 5		
// (100)	ICAC SECTION FROM	LIGHT	1	1	13		
66901003	REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT	L SUM	1	1	- 1		
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1	1			
66901006	REGULATED SUBSTANCES MONITORING	DAYS	8	8		1	

\* = SPECIALTY ITEM

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

5TH AVE [DES PLAINES RIVER RD TO IL 64 (NORTH AVE)]

SCALE: NTS STA. TO STA.

F.A.U.	SECTION	COUNTY	TOTAL SHEET	NO.
2742	2024-990-RS,SW	COOK	42	3
CONTRACT NO. 62X15		ILLINOIS	FED. AID PROJECT	

				CONSTRUCT		C IIGII CODE	
			URBAN	0005 ROADWA	·Υ	0021 TRAFFIC SIGNAL	
PAYITEM NUMBER	DESIGNATION	UNIT	TO TAL QUANTITY	80% FEDERAL 20% STATE	100% STATE	80% FEDERAL 20% STATE	
70102632	TRACEIC CONTROL AND PROTECTION STANDARD 70400	L SUM	4	1			
70 102632	TRAFFIC CONTROL AND PROTECTION, STANDARD 701602	L SUM	1			<u>.</u>	
70102634	TRAFFIC CONTROL AND PROTECTION, STANDARD 701611	L SUM	1	1			
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1			
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	1			
70300100	SHORT TERM PAVEMENT MARKING	FOOT	6,396	6,396			
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	2,132	2,132			
70300211	TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS - PAINT	SQ FT	1,720	1,720			
70300221	TEMPORARY PAVEMENT MARKING - LINE 4"- PAINT	FOOT	33,908	33,908			
70300241	TEMPORARY PAVEMENT MARKING - LINE 6"- PAINT	FOOT	4,198	4,198			
70300261	TEMPORARY PAVEMENT MARKING - LINE 12"- PAINT	FOOT	2,640	2,640			
	TEMPORARY PAVEMENT MARKING - LINE 24" - PAINT	FOOT	S No. Chart	2-501011			
70300201	I DUFORANT FAVOUENT INVARRAING - LINE 24 - FAINT	1001	1,890	1,890			
78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	860	860			
78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	16,954	16,954			
78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	2,099	2,099			
78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	1,320	1,320			
78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	945	945			
78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	498	498			
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	286	286			
78300202	PAVEMENT MARKING REMOVAL - WATER BLASTING	S <b>Q</b> FT	10,770	10,770			
81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA	FOOT	61			61	
81400200	HEAVY-DUTY HANDHOLE	EACH	1			1	
iy.							
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	2			2	
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO: 14 2C	FOOT	752			752	
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	20	<u> </u>	URBAN	0005 ROADWA	Υ	0021 TRAFFIC SIGNAL
PAY ITEM NUMBER	DESIGNATION	UNIT	TO TAL QUANTITY	80% FEDERAL 20% STATE	100% STATE	80% FEDERAL 20% STATE
87301225	ELECTRIC CADLE IN CONDUIT, SIGNAL NO: 14 3C	FOOT	487			487
	ELECTRIC CABLE IN CONDUIT, LEAD-IN NO. 14 1 PAIR	FOOT	364		i i	364
87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR,	FOOT	40			40
0110011000	NO 6 1C		40		1	40
87900200	DRILL EXISTING HANDHOLE	EACH	5			5
, and an experience					8	-
	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH	EACH	2		İ	2
0000000	DETECTOR LOOP TYPE 1	FOOT	105			105
X8860105	DETECTOR LOOP REPLACEMENT	FOOT	1,463	567		1,463
					13	,
89500200	RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	4			4
						· ·
89502350	REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	107			107
89502376	REBUILD EXISTING HANDHOLE	EACH	5			5
89502380	REMOVE EXISTING HANDHOLE	EACH	1			1
X0320050	CONSTRUCTION LAYOUT (SPECIAL)	L SUM	1	1		
X 1400367	PEDESTRIAN SIGNAL POST, 10 FT.	EACH	4			4
			10.00			
X1400423	REMOVE EXISTING PEDESTRIAN PUSH BUTTON	EACH	6			6
V. 100 150	DESTRUCTION OF THE PROPERTY OF	Evalu				
X1400450	REBUILD EXISTING HEAVY-DUTY HANDHOLE	EACH	3	3	72	10
X 1700087	REMOVE AND RE-ERECT BLOCK WALL	L SUM	1.0	1.0		18
X1700007	REGIONE AND RE-ERECT BEOCK WALL	L SUM	1.0	1.0	10	
X4060995	TEMP®RARY RAMP (SPECIAL)	SQ YD	477	477		
X4000333	TEMPORE TOWN (G. ESINE)	34 15	There is,	7,000		
X4400501	COMBINATION CURB AND GUTTER REMOVAL AND REPLACEMENT LESS	FOOT	74	74	- 1	
X1100001	THAN OR FOLIAL TO 10 FEFT	1001		1,7	19	
X4400503	COMBINATION CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	2,367	2,367		
	IGREATER THAN III FEET		2,507	2,507		
X5537800	STORM SEWERS TO BE CLEANED 12"	FOOT	918		918	
X6030310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	30	30		1/2
	*				i i	
X6700407	ENGINEER'S FIELD OFFICE, TYPE A (D1)	CAL MO	12	12	i i	
X8100863	INTERCEPT EXISTING CONDUIT	EACH	1			1
					1	
X8760200	ACCESSIBLE PEDESTRIAN SIGNALS	EACH	10			10
						0
	CONCRETE FOUNDATION, TYPE A 12-INCH DIAMETER	FOOT	16	1		16

DESIGNED - JCS REVISED \_ DRAWN - JCS REVISED \_ | CHECKED - ACL | DATE - 10/08/2024 REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

CONSTRUCTION CODE

SUMMARY OF QUANTITIES 5TH AVE [DES PLAINES RIVER RD TO IL 64 (NORTH AVE)] SCALE: NTS STA. TO STA.

F.A.U. SECTION 2742 2024-990-RS,SW

		- 1	I			
Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	51		51	
Z0030850	TEMPORARY INFORMATION SIGNING	S@ FT	121	121		
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	Н		
0033044	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	2	2		
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			4			
		1				
			51			
				-		
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		1				
		11				

\* = SPECIALTY ITEM

\* = SPECIALTY ITEM

PAY ITEM

NUMBER

Z0001110 GAS VALVE TO BE ADJUSTED

DESIGNATION

USER NAME = ALane DESIGNED - JCS REVISED \_ USERNAME = ALane

INFRASTRUCTURE

ENGINEERING | INCOLPORATE

1 South Wacker | Suite 2550 | Chicago, IL 60606

P 112 (25.5890 | P 312 (45.5894 | www.infastructure-eng con DRAWN - JCS REVISED -CHECKED - ACL REVISED -DATE - 10/08/2024

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

CONSTRUCTION CODE

0021

TRAFFIC SIGNAL

80% FEDERAL

20% STATE

0005

ROADWAY

80% FEDERAL 100%

10

20% STATE STATE

URBAN

TOTAL

QUANTITY

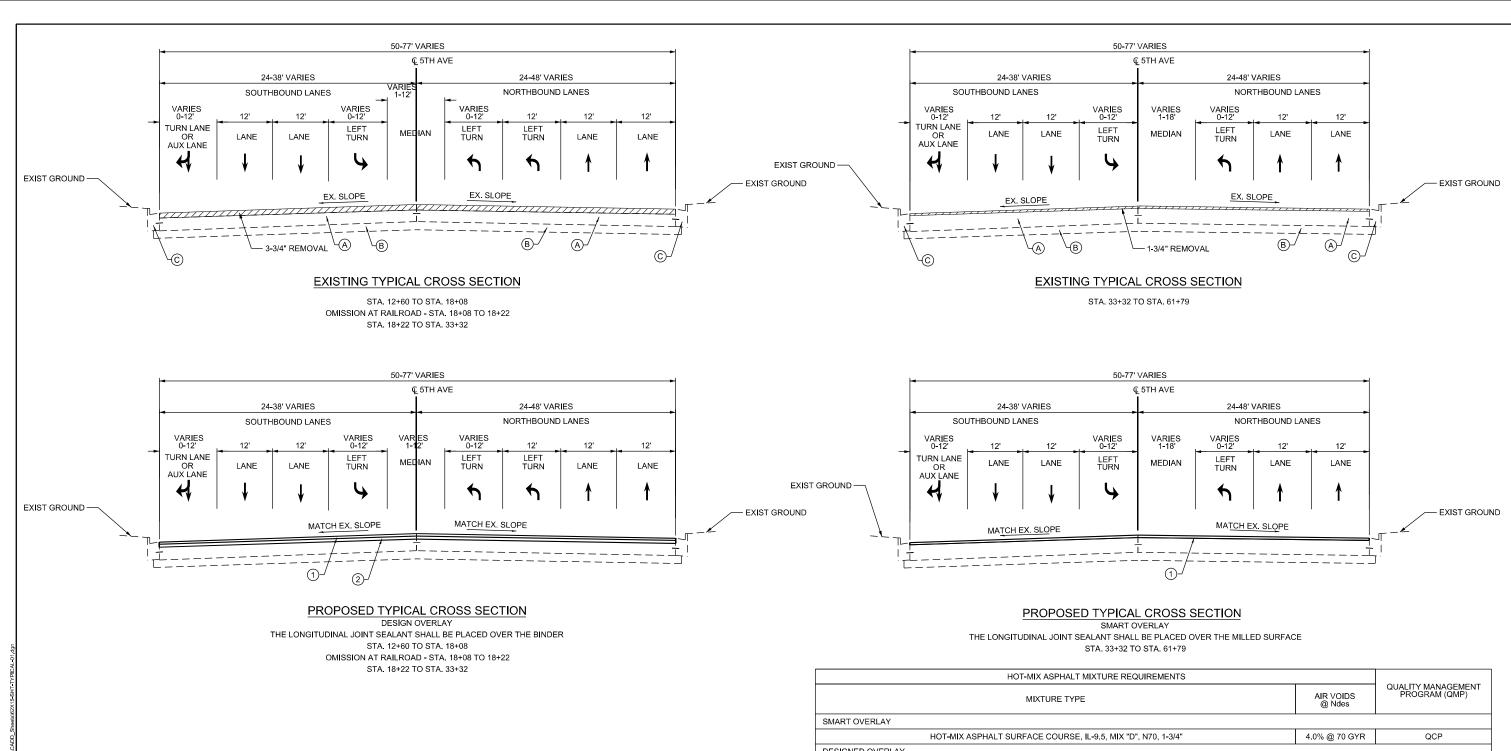
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UNIT

EACH

SUMMARY OF QUANTITIES 5TH AVE [DES PLAINES RIVER RD TO IL 64 (NORTH AVE)] SCALE: NTS STA.

F.A.U. SECTION RTE. SECTION 2742 2024-990-RS,SW SECTION



# LEGEND

- A EXISTING HOT-MIX ASPHALT, +/- 11-1/2"
- B EXISTING P.C.C. BASE COURSE, +/- 9"
- (C) EXISING COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24
- 1 HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N70, 1 3/4"
- HOT-MIX ASPHALT BINDER COURSE, IL-9.5, N70, 2" (2)



HOT-MIX ASPHALT REMOVAL

# **NOTES**

1. THE CONTRACTOR SHALL MILL FIRST THEN PATCH.

HOT-MIX ASPHALT MIXTURE REQUIREMEN	TS	QUALITY MANAGEMENT
MIXTURE TYPE	MIXTURE TYPE  AIR VOIDS @ Ndes	
SMART OVERLAY	•	
HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N70, 1-3/	4" 4.0% @ 70 GYR	QCP
DESIGNED OVERLAY		
HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N70, 1-3/	4" 4.0% @ 70 GYR	QCP
HOT-MIX ASPHALT BINDER COURSE, IL-9.5, N70, 2"	4.0% @ 70 GYR	QCP
PATCHING		
CLASS D PATCHES (HMA BINDER IL-19.0)	4.0% @ 70 GYR	QC/QA
DRIVEWAYS		
HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N50, 2"	4.0% @ 50 GYR	QC/QA
HOT-MIX ASPHALT BASE COURSE, 8" (HMA BINDER IL-19.0)	4.0% @ 50 GYR	QC/QA
TEMPORARY RAMP, SPECIAL		
HOT-MIX ASPHALT BINDER COURSE, IL-9.5, N70, VARIABLE DEP	TH 4.0% @ 70 GYR	QC/QA

- THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.
  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 MATERIALS SPECIFICATIONS.

SECTION

2024-990-RS,SW

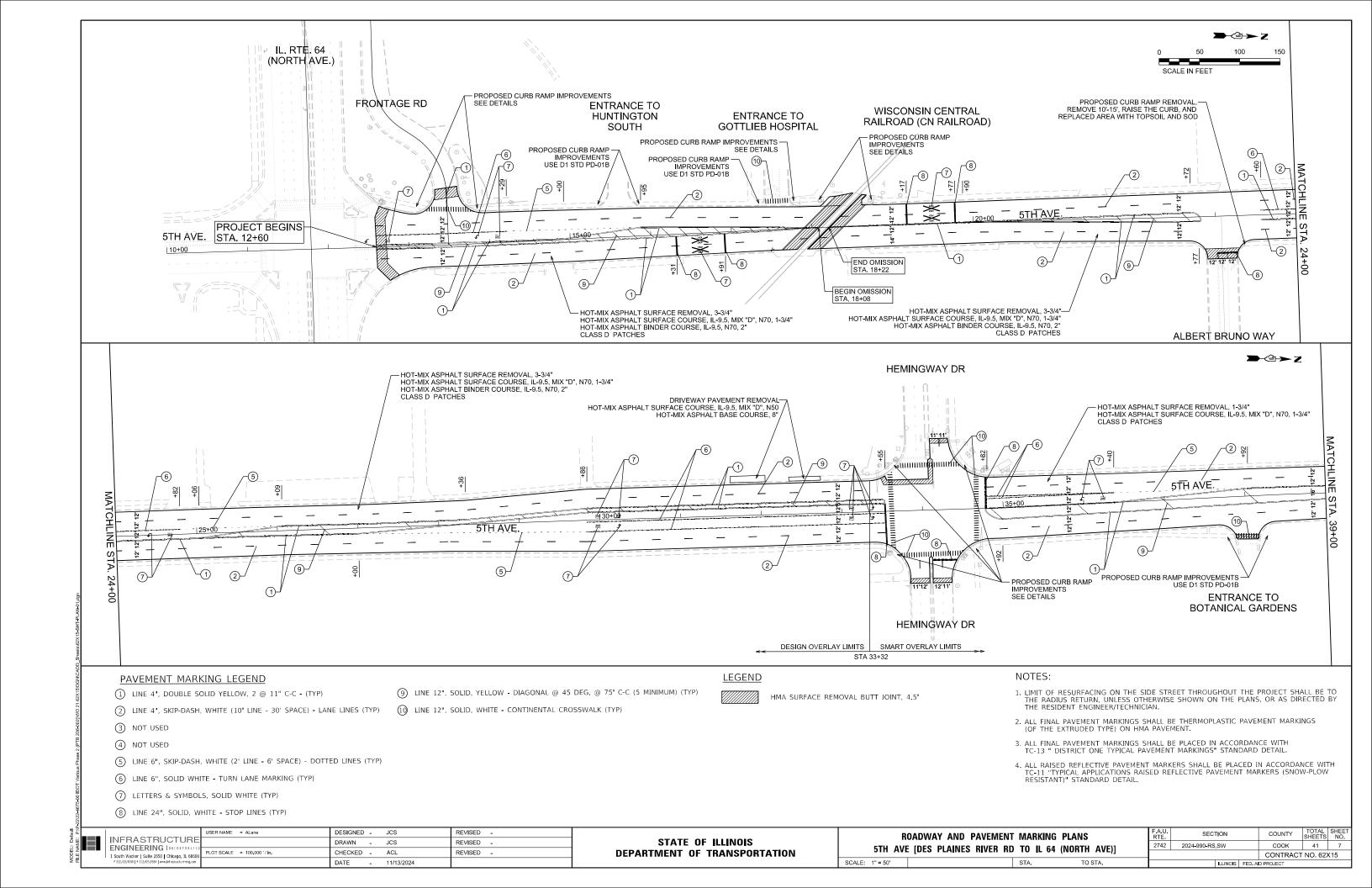
COUNTY

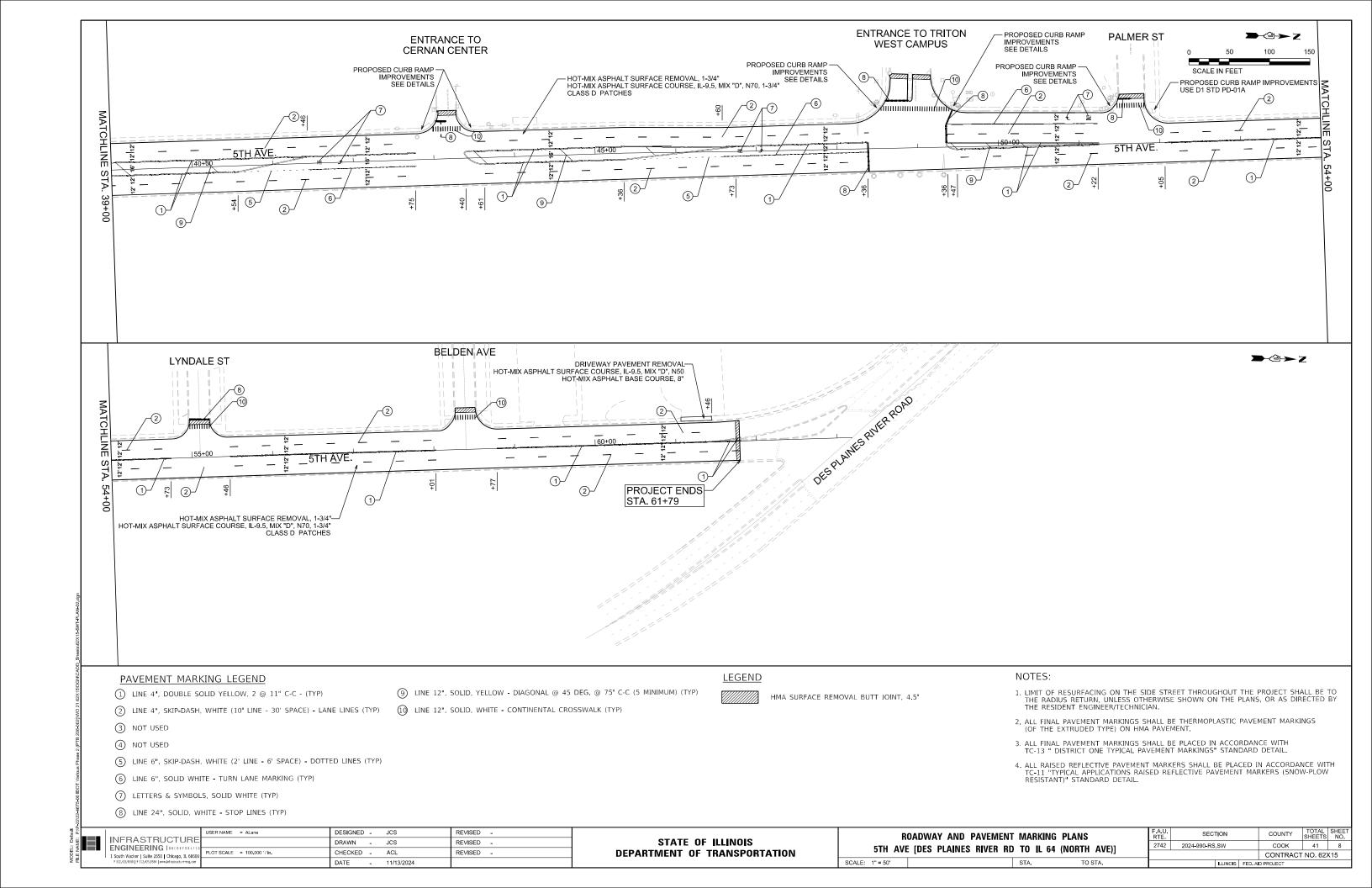
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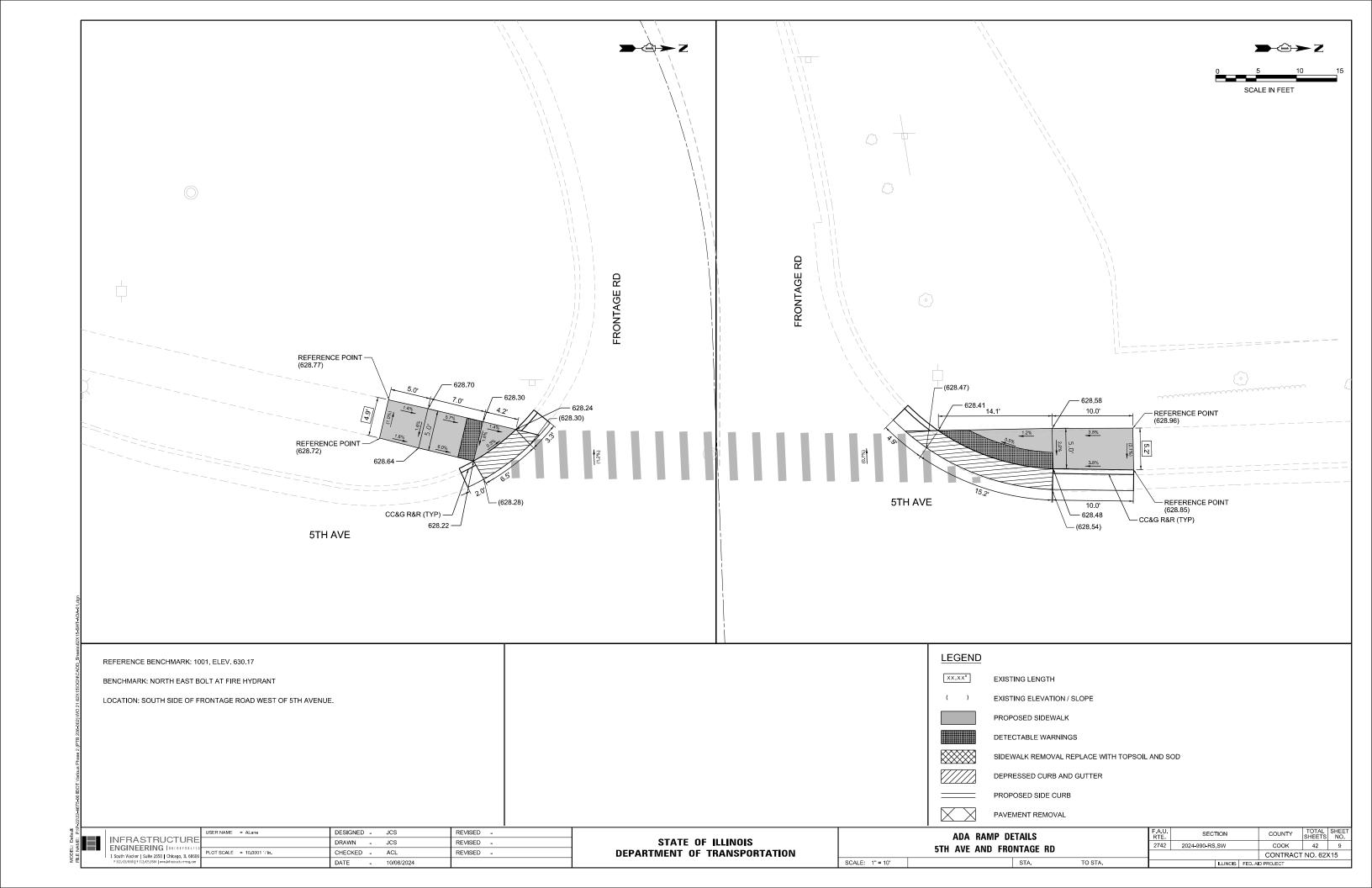
CONTRACT NO. 62X15

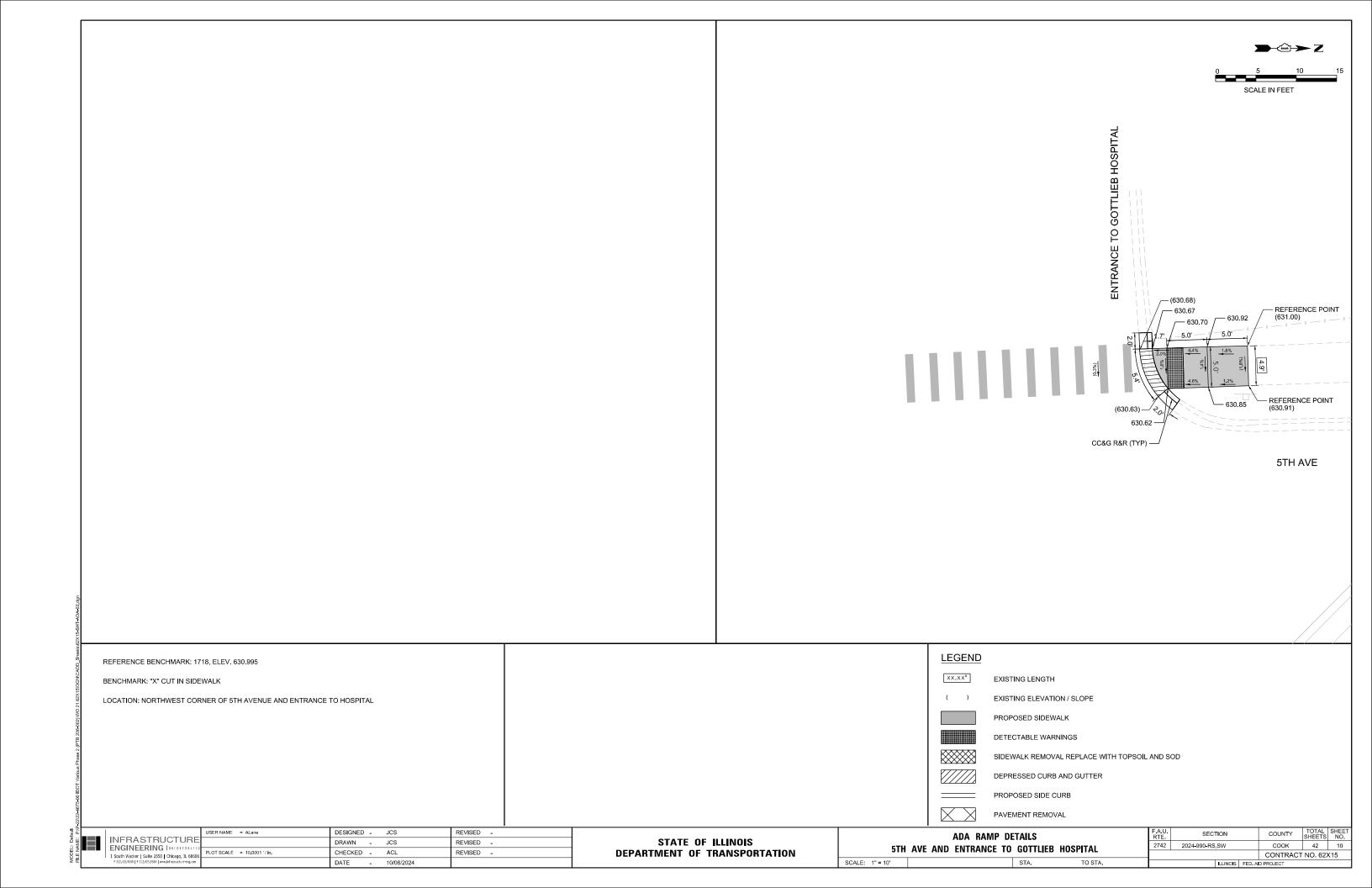
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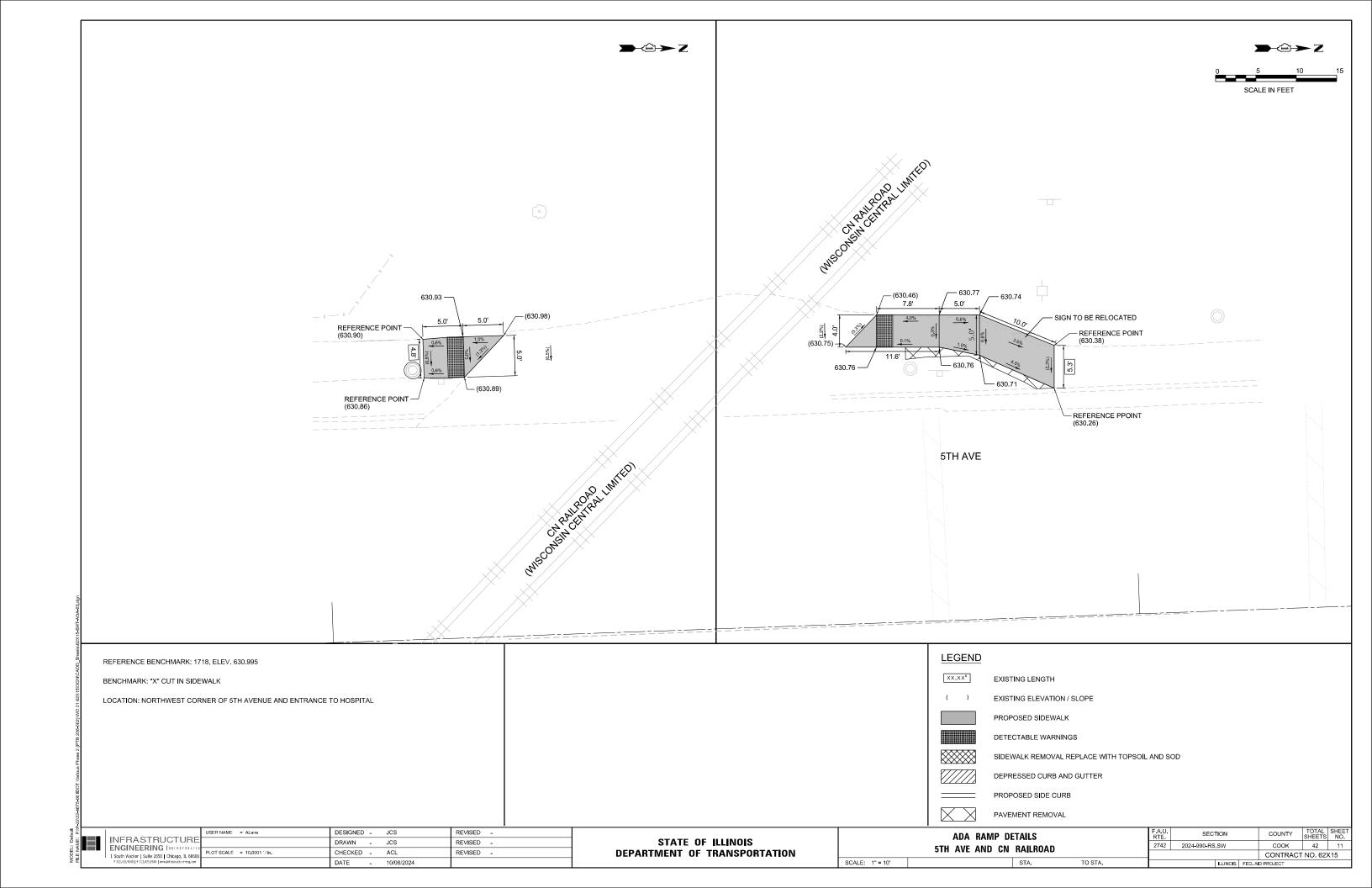
	USER NAME = ALane	DESIGNED - JCS	REVISED -			TYPICAL SECT	ONG		F.A.U.
INFRASTRUCTU	JRE	DRAWN - JCS	REVISED -	STATE OF ILLINOIS					
1 South Wacker   Suite 2650   Chicago,	PLOT SCALE = 20.000'/in.	PLOT SCALE = 20.000 '/ in. CHECKED - ACL REVISED -	DEPARTMENT OF TRANSPORTATION	5TH AVE [DES PLAINES RIVER RD TO IL 64 (NORTH AVE)]					
P 312 425 9560   F 312 425 9564   www.infrastructu	reng.com	DATE - 11/13/2024			SCALE: 1" = 10'		STA.	TO STA.	

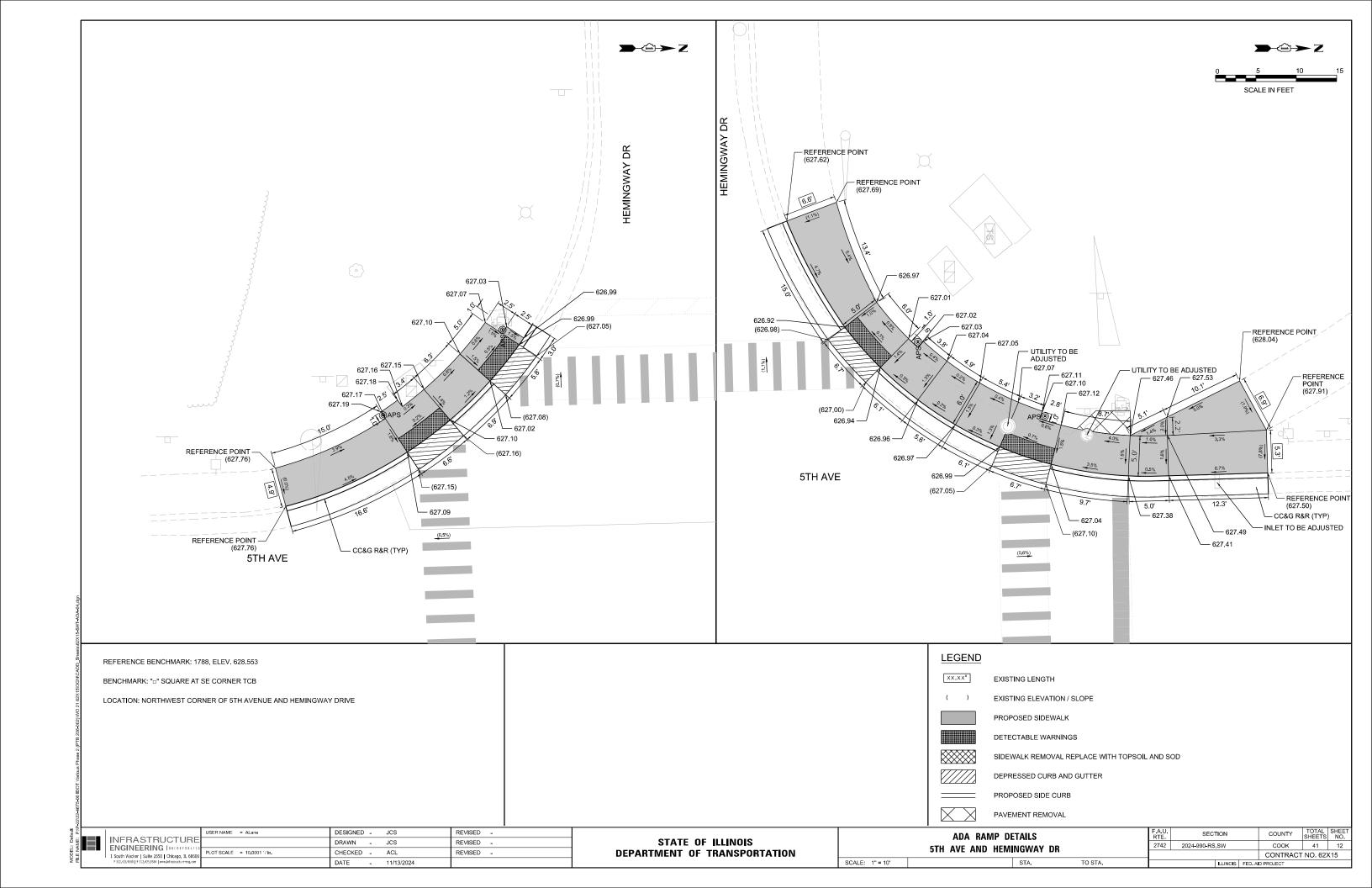


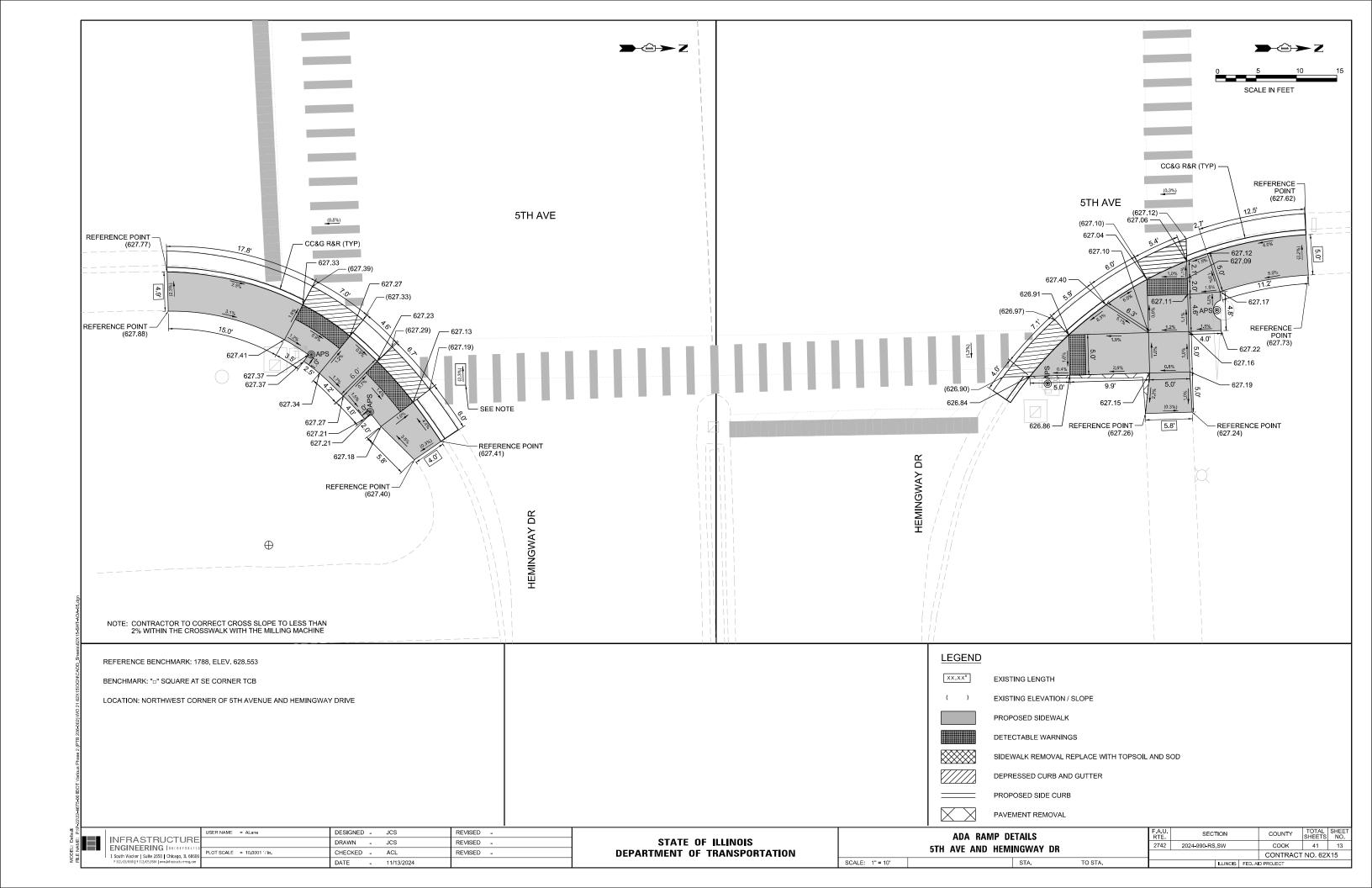


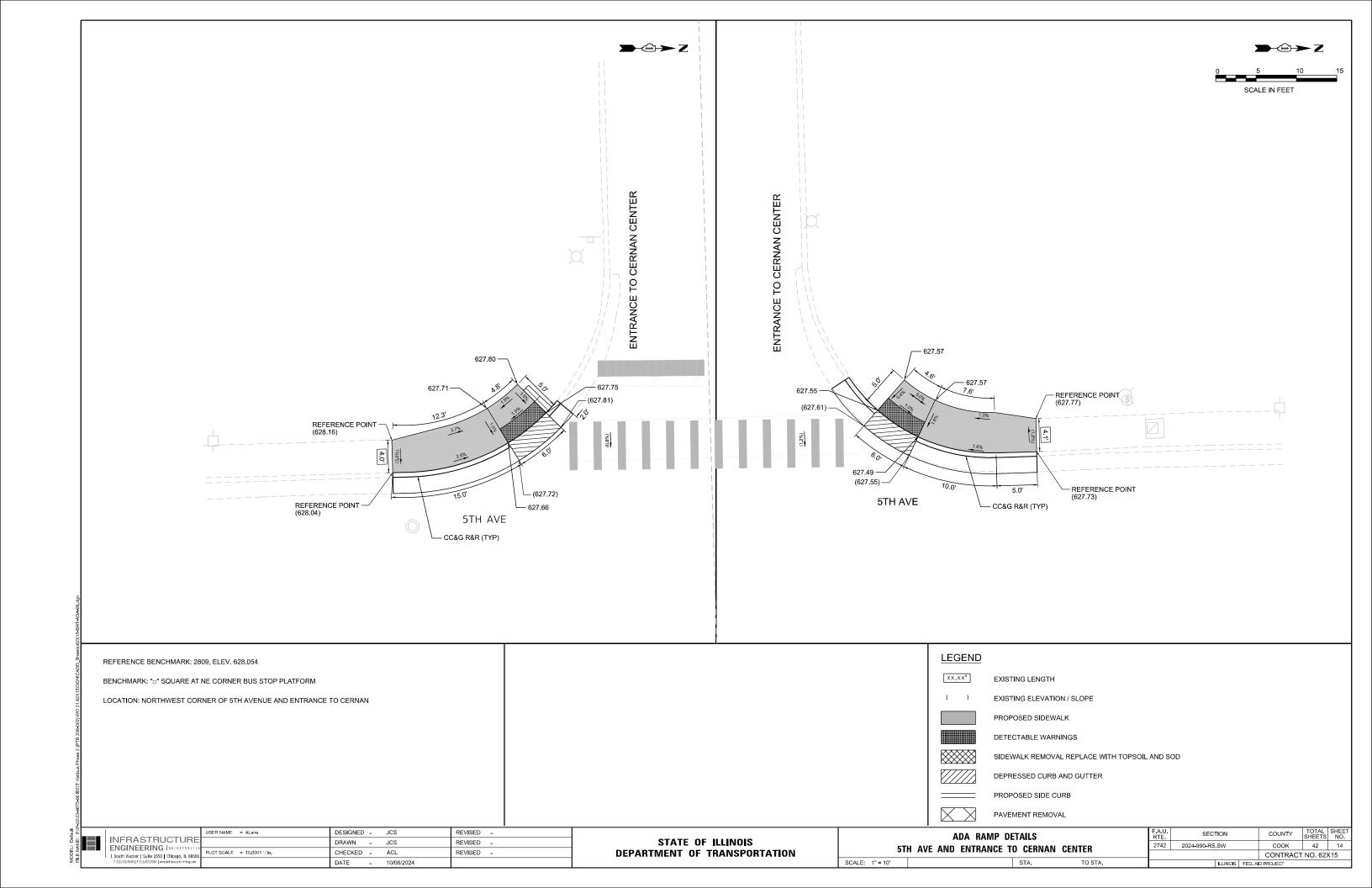


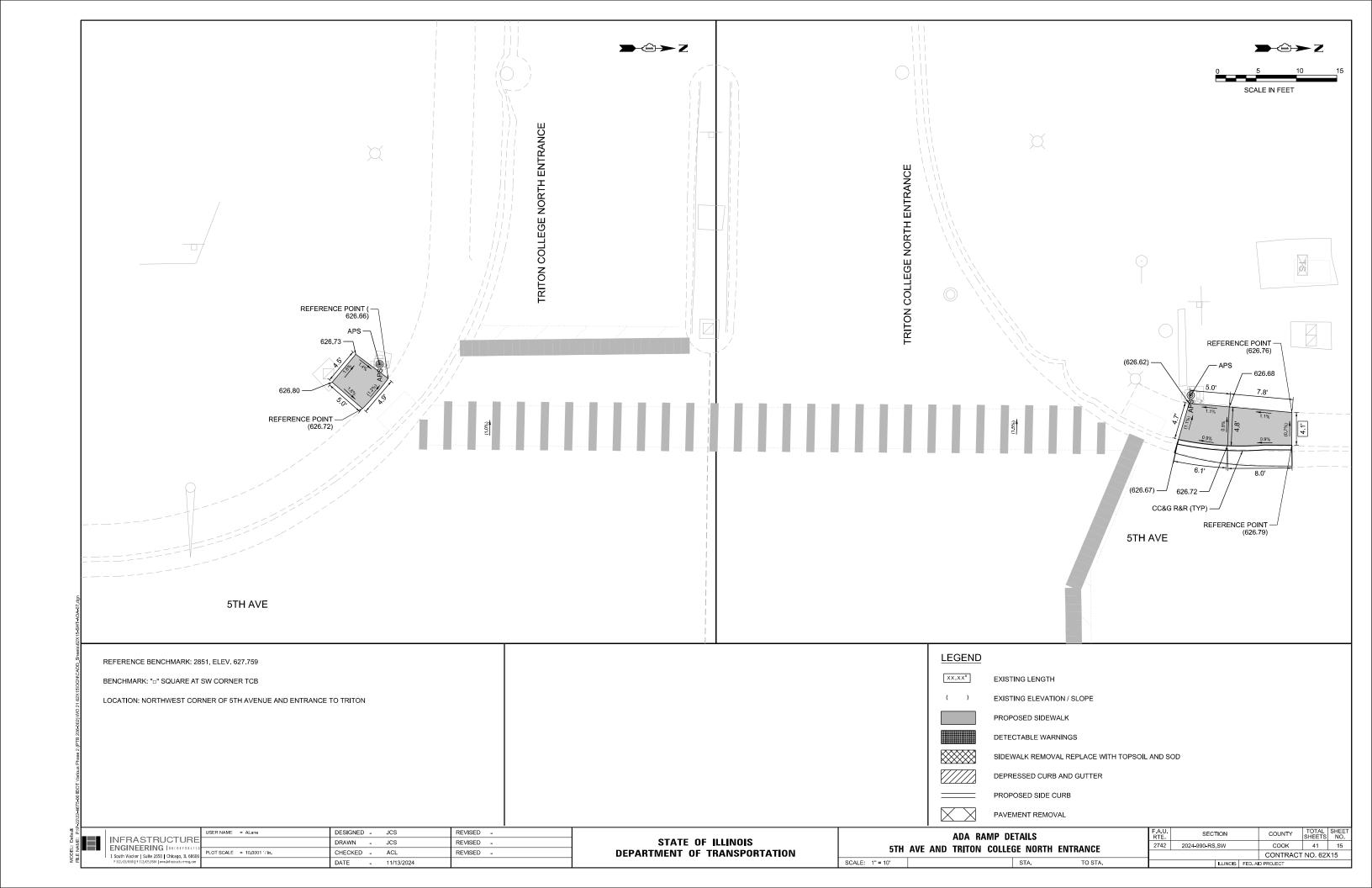


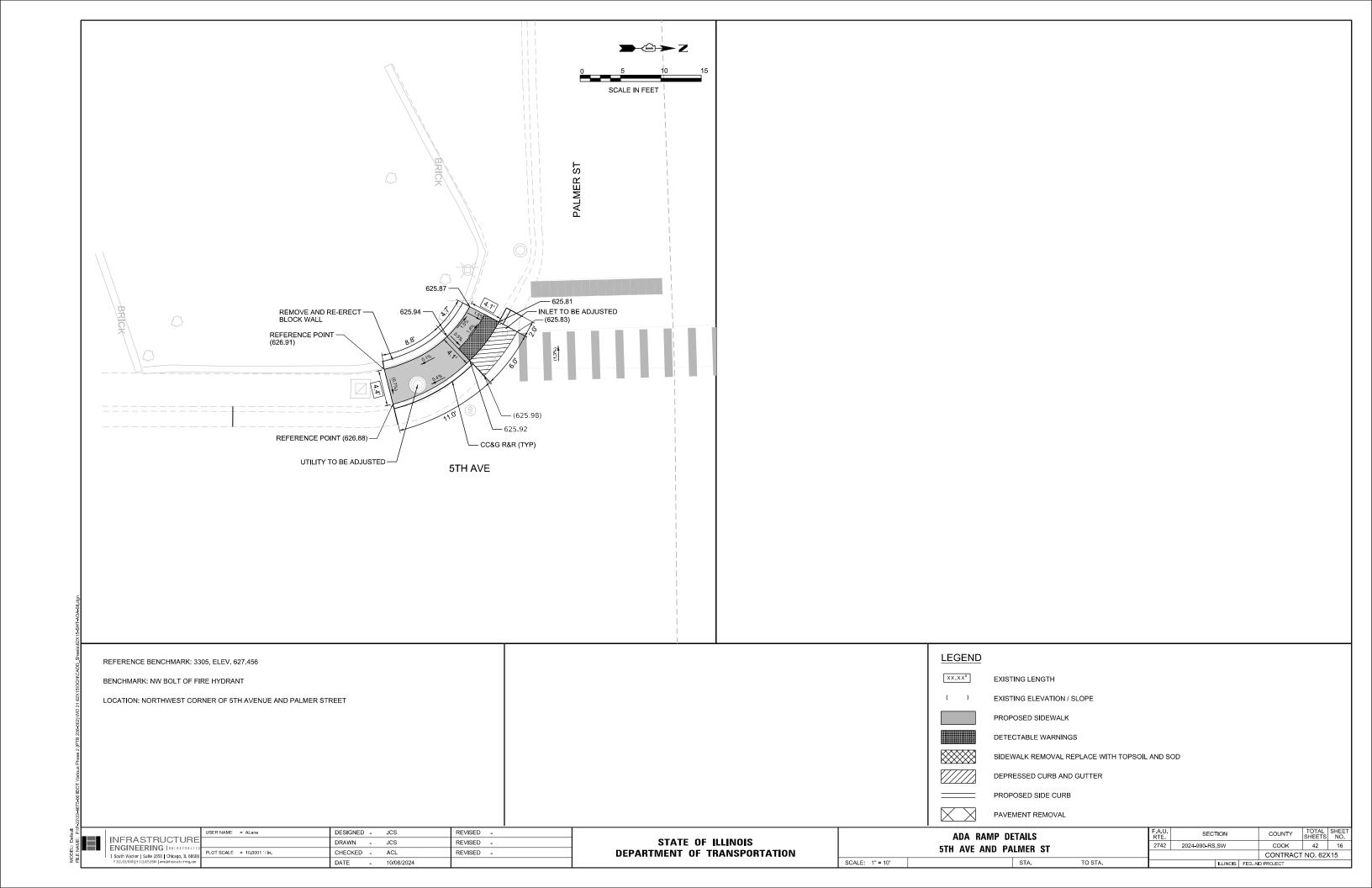


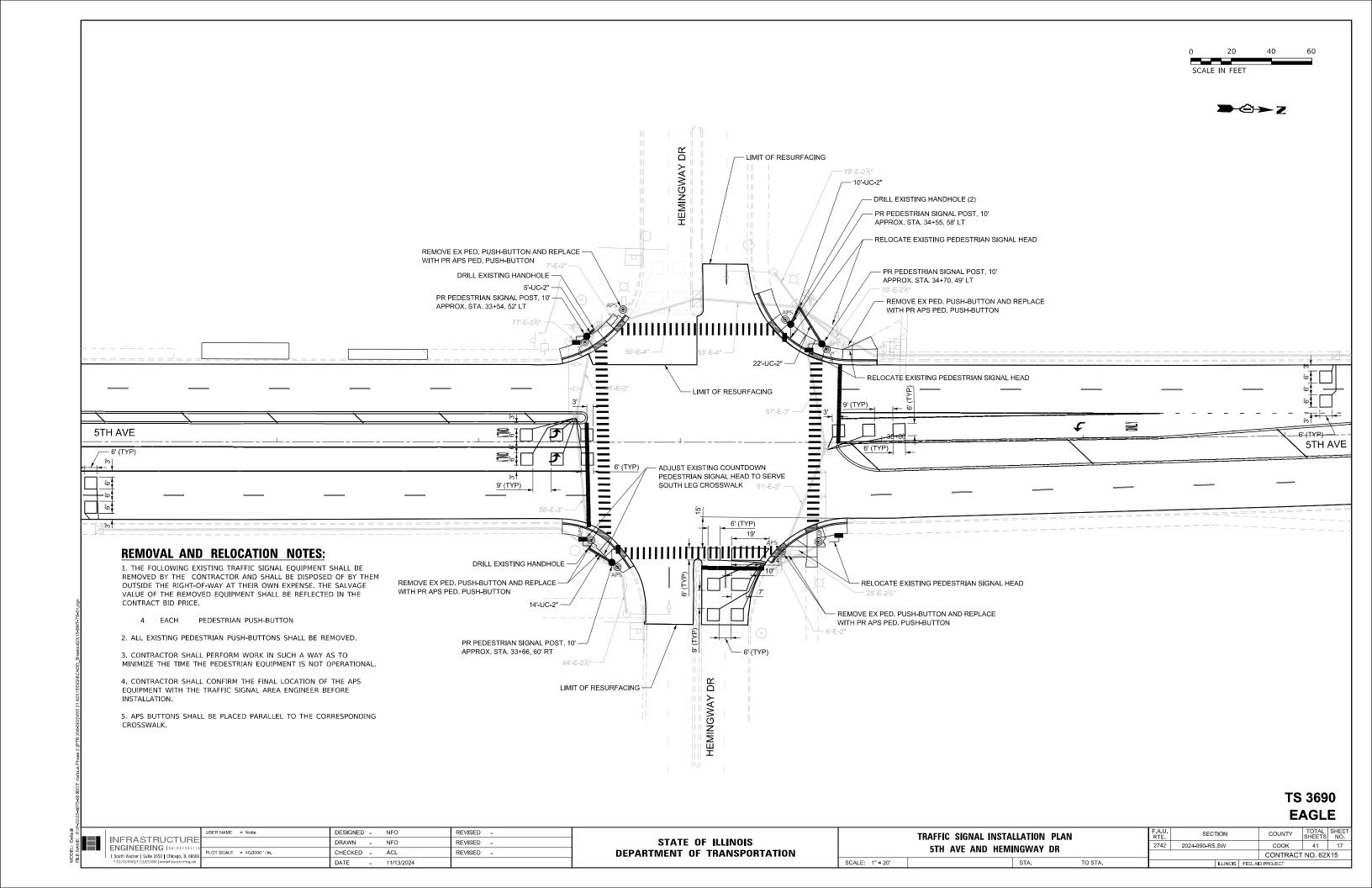


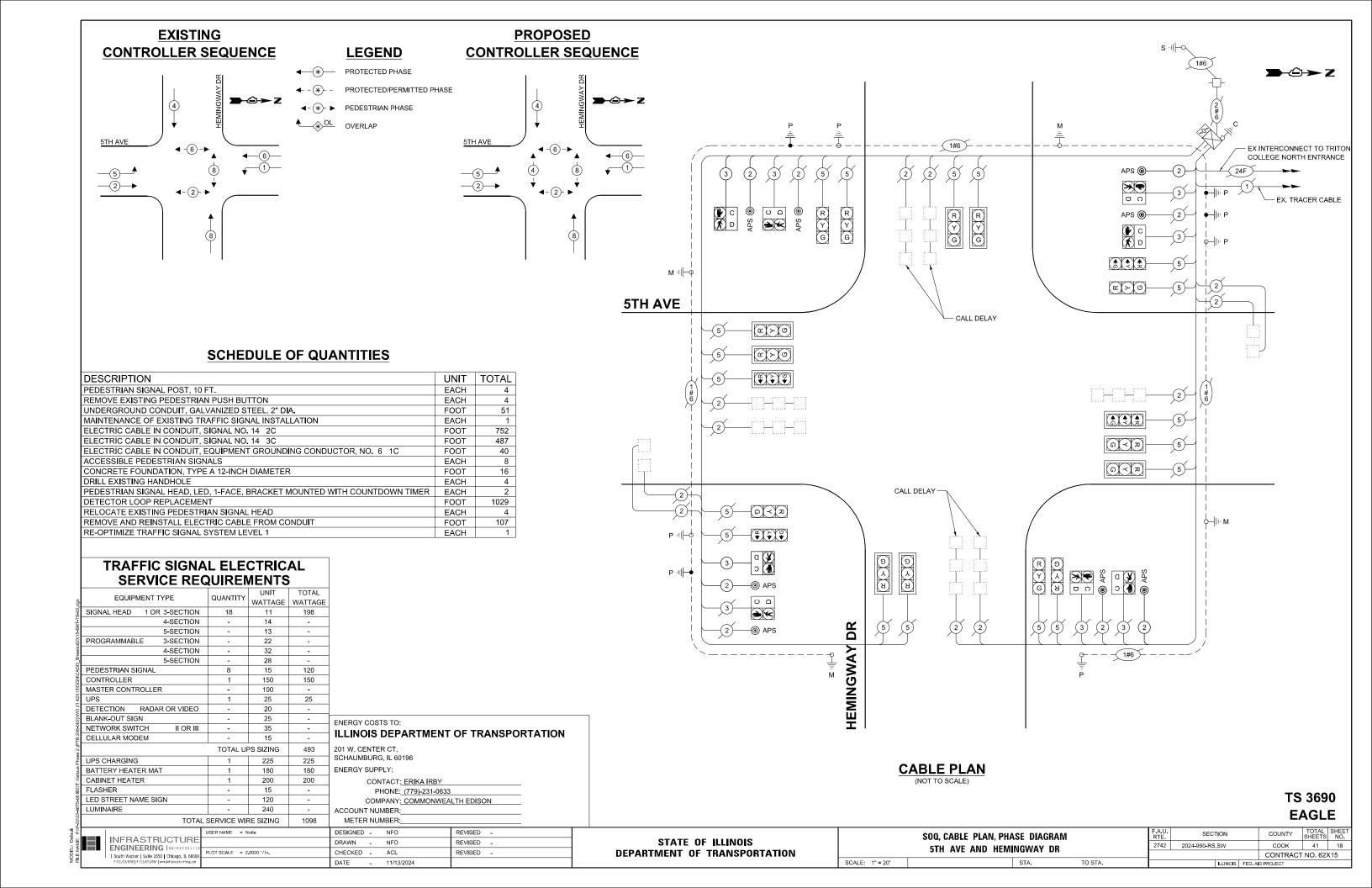


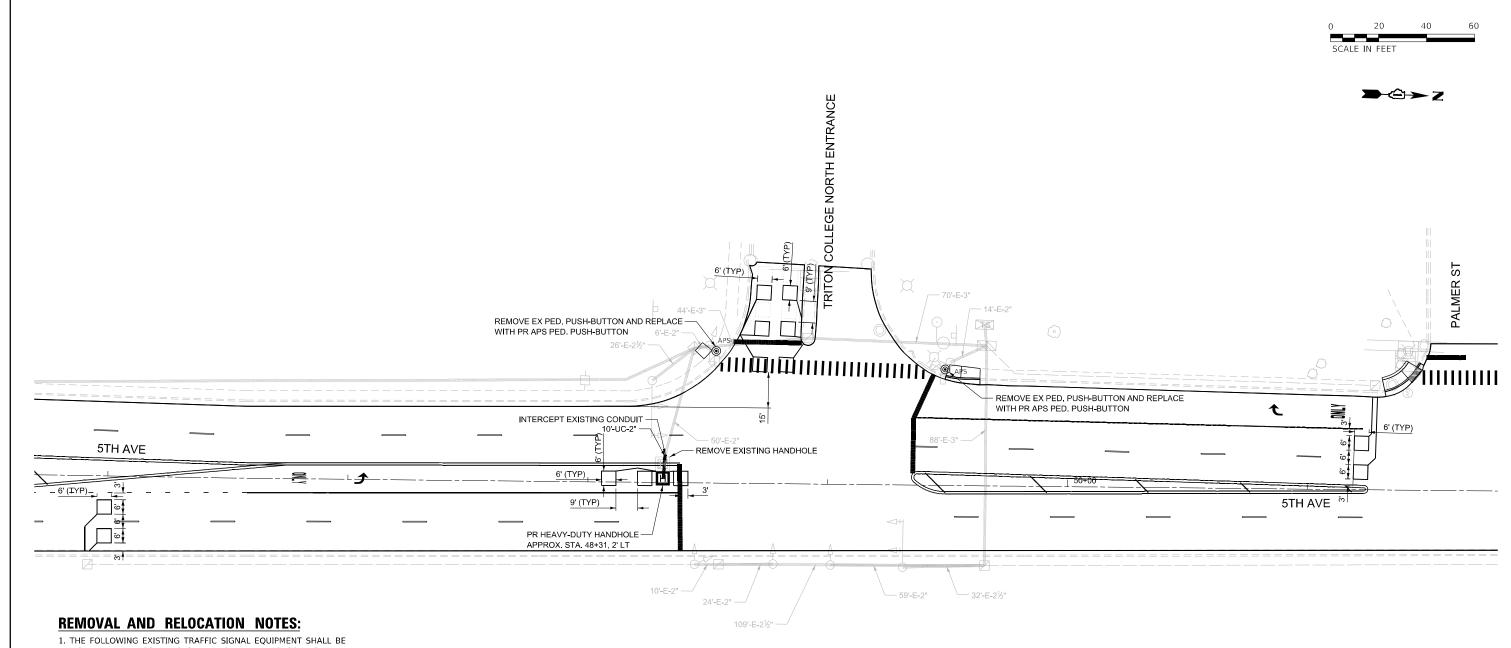












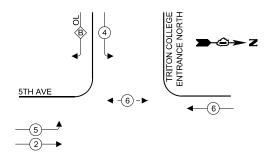
- 1. THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR OWN EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.
  - 2 EACH PEDESTRIAN PUSH-BUTTON
- 2. ALL EXISTING PEDESTRIAN PUSH-BUTTONS SHALL BE REMOVED.
- 3. CONTRACTOR SHALL PERFORM WORK IN SUCH A WAY AS TO MINIMIZE THE TIME THE PEDESTRIAN EQUIPMENT IS NOT OPERATIONAL.
- 4. CONTRACTOR SHALL CONFIRM THE FINAL LOCATION OF THE APS EQUIPMENT WITH THE TRAFFIC SIGNAL AREA ENGINEER BEFORE INSTALLATION.
- 5. APS BUTTONS SHALL BE PLACED PARALLEL TO THE CORRESPONDING CROSSWALK.

# TS 3685 EAGLE

COUNTY TOTAL SHEET NO.

COOK 41 19 DESIGNED - NFO REVISED -USER NAME = ALane SECTION COUNTY TRAFFIC SIGNAL INSTALLATION PLAN **INFRASTRUCTURE** STATE OF ILLINOIS DRAWN - NFO REVISED -2742 2024-990-RS,SW ENGINEERING LINCORPOR 5TH AVE AND TRITON COLLEGE NORTH ENTRANCE CHECKED - ACL **DEPARTMENT OF TRANSPORTATION** 1 South Wacker | Suite 2650 | Chicago, IL 60606 CONTRACT NO. 62X15 DATE - 11/13/2024





# **LEGEND**



# √ − (\*) − PEDESTRIAN PHASE OVERLAP OVERLAP EX INTERCONNECT

TO HEMINGWAY DR

EX. TRACER CABLE

**5TH AVE** 

# **EXISTING PHASE DESIGNATION DIAGRAM**

OVERLAP PERMISSIVE PROTECTED LETTER PHASE PHASE B = 4 + 5

# **SCHEDULE OF QUANTITIES**

DESCRIPTION	UNIT	TOTAL
REMOVE EXISTING PEDESTRIAN PUSH BUTTON	EACH	2
INTERCEPT EXISTING CONDUIT	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	10
HEAVY-DUTY HANDHOLE	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	672
ACCESSIBLE PEDESTRIAN SIGNALS	EACH	2
DETECTOR LOOP, TYPE I	FOOT	105
DETECTOR LOOP REPLACEMENT	FOOT	364
REMOVE EXISTING HANDHOLE	EACH	1
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	1

# TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

	EQUIDMENT TYPE	CHANTITY	UNIT	TOTAL				
dgn	EQUIPMENT TYPE	QUANTITY	WATTAGE	WATTAG				
5-12	SIGNAL HEAD 1 OR 3-SECTION	8	11	88				
Ę	4-SECTION	-	14	-				
15-SI	5-SECTION	2	13	26				
\62X	PROGRAMMABLE 3-SECTION	-	22	-				
eets	4-SECTION	-	32	-				
ပ်	5-SECTION	-	28	-				
CAD	PEDESTRIAN SIGNAL	2	15	30				
Š	CONTROLLER	1	150	150				
115/0	MASTER CONTROLLER	-	100	-				
62	UPS	1	25	25				
0 2	DETECTION RADAR OR VIDEO	-	20	-				
)2)W	BLANK-OUT SIGN	-	25	-				
0-90	NETWORK SWITCH II OR III	-	35	-				
TB 2	CELLULAR MODEM	-	15					
e 2 (P	TOTAL UPS SIZING							
Phas	UPS CHARGING	1	225	225				
ions	BATTERY HEATER MAT	1	180	180				
ſ ∨ar	CABINET HEATER	1	200	200				
0	FLASHER	-	15	-				
5-00	LED STREET NAME SIGN	-	120	-				
467	LUMINAIRE	-	240	-				
P. 22/22-4675-00 IDOT Various Phase 2 (PTB 206-002)/WO 21 62X15/DGNICADD_Sheets/62X15-SHT-TS-12.dgn	TOTAL	SERVICE WIF	RE SIZING	924				
		ISER NAME = A	l ano					

INFRASTRUCTURE

1 South Wacker | Suite 2650 | Chicago, IL 60606

# **ILLINOIS DEPARTMENT OF TRANSPORTATION**

SCHAUMBURG, IL 60196

DATE - 11/13/2024

CONTACT: ERIKA IRBY PHONE: (779)-231-0633 COMPANY: COMMONWEALTH EDISON ACCOUNT NUMBER:\_

METER NUMBER: DESIGNED - NFO REVISED -DRAWN - NFO REVISED -REVISED -

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

SOQ, CABLE PLAN, PHASE DIAGRAM 5TH AVE AND TRITON COLLEGE NORTH ENTRANCE

SECTION COUNTY 2742 2024-990-RS,SW COOK 41 20 CONTRACT NO. 62X15

- EX INTERCONNECT TO DESPLAINES RIVER ROAD CUT-OFF

— EX. TRACER CABLE

**→** 

**CABLE PLAN** (NOT TO SCALE)

1#6

TRITON COLLEGE ENTRANCE NORTH

(A)

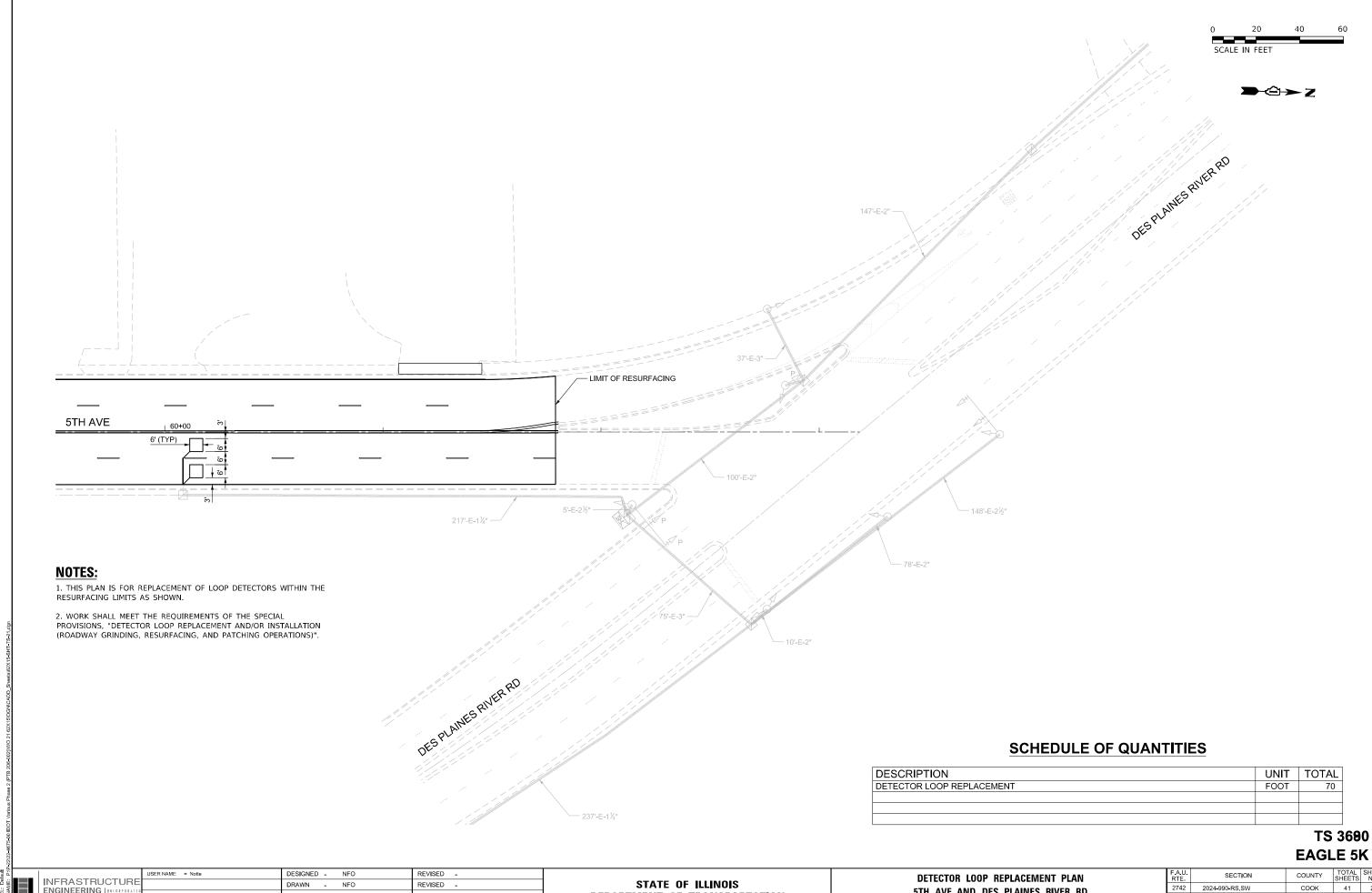
2

- CALL DELAY

TS 3685	
FAGLE	

(x)\(\frac{1}{2}\)

201 W. CENTER CT, ENERGY SUPPLY:



INFRASTRUCTURE ENGINEERING | INCORPORATED 1 South Wacker | Suite 2650 | Chicago, IL 60606 P312-253-560 | F912-2455-564 | www.inferserrecture-region

CHECKED - ACL DATE - 11/13/2024

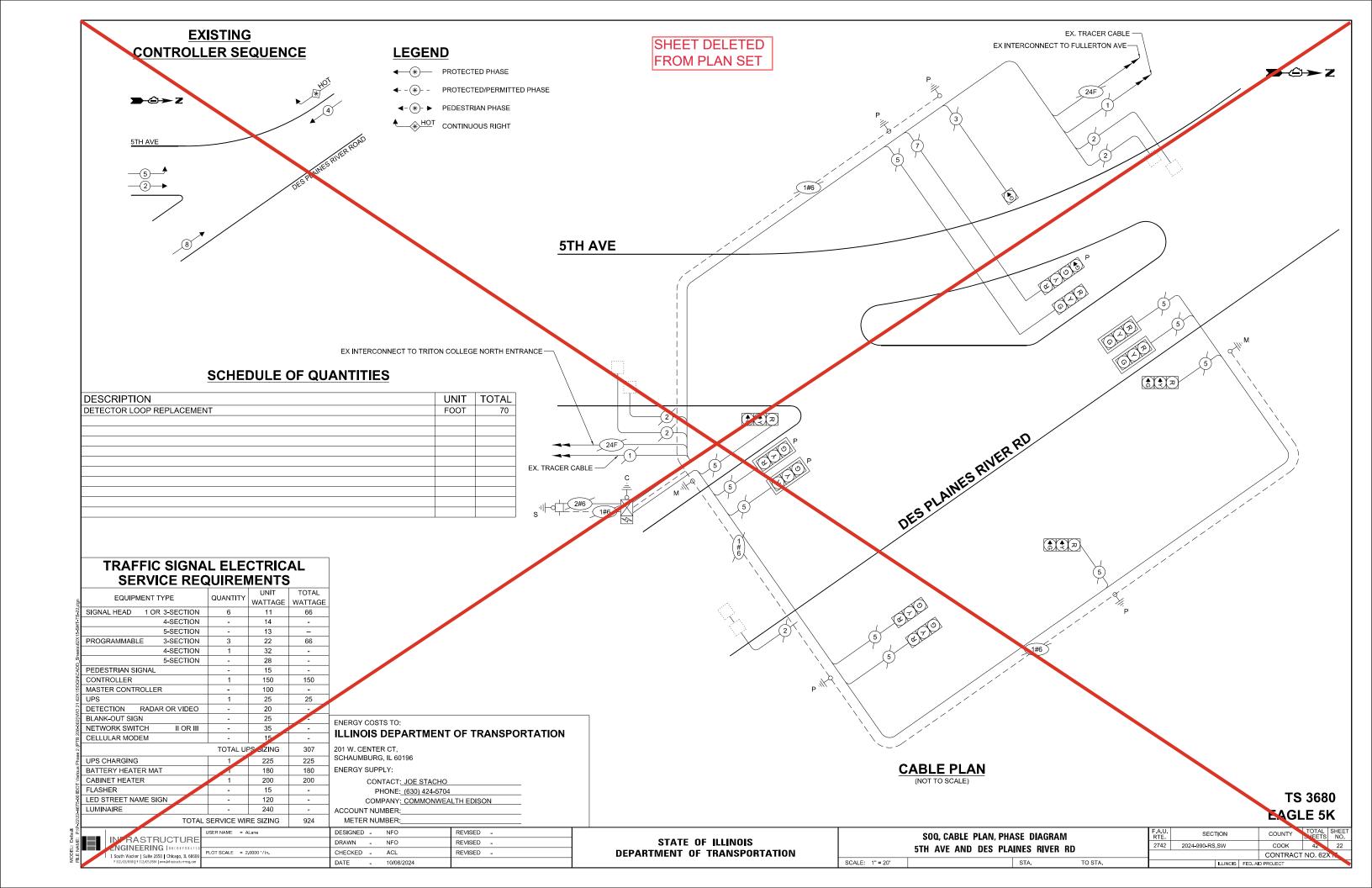
**DEPARTMENT OF TRANSPORTATION** 

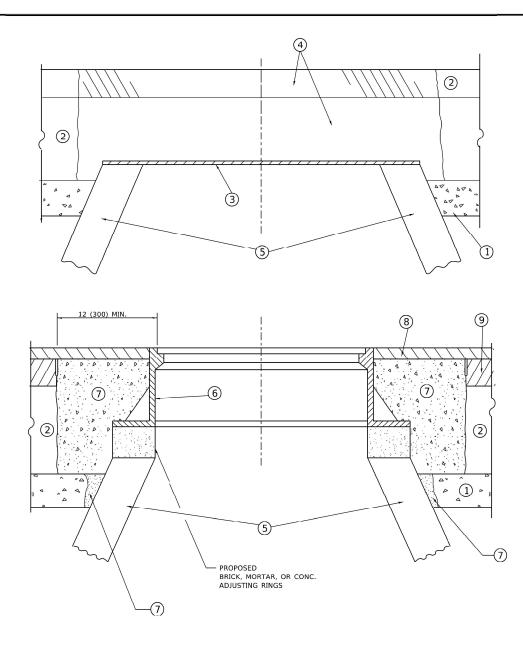
5TH AVE AND DES PLAINES RIVER RD

SCALE: 1" = 20'

COUNTY TOTAL SHEETS NO.

COOK 41 21 2742 2024-990-RS,SW CONTRACT NO. 62X15





# DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

# **NOTES**

- 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.
- 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.
- 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

4 PROPOSED CRUSHED STONE AND HMA SURFACE MIX

(9) 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)."
- THIS WORK WILL NOT BE PAID FOR WHEN DRAINAGE AND UTILITY STRUCTURES ARE SPECIFIED FOR PAYMENT AS STRUCTURE RECONSTRUCTION.
- 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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMES AND LIDS ADJUSTMENT WITH MILLING

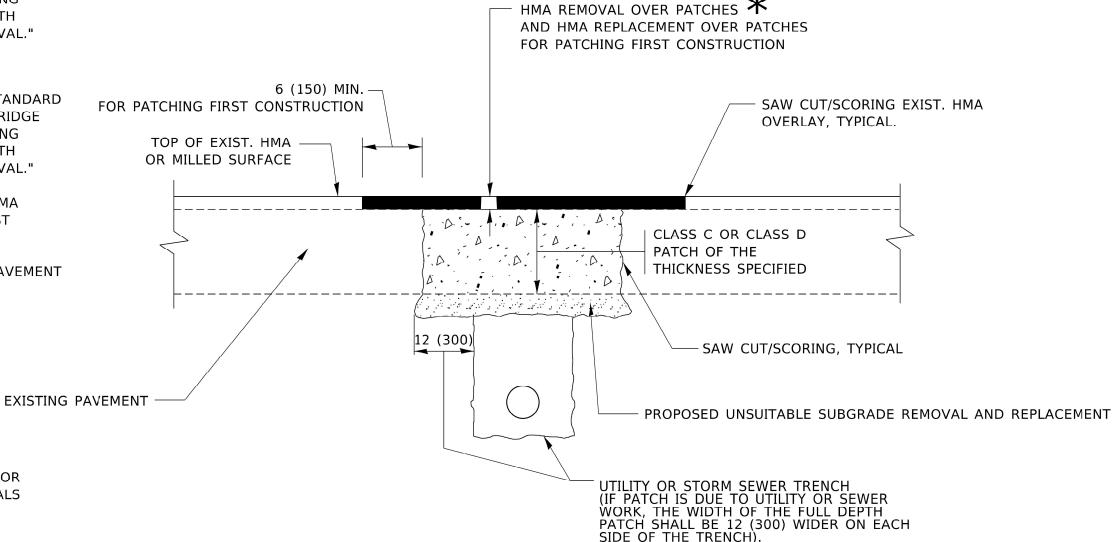
SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

# METHOD OF MEASUREMENT

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

# **BASIS OF PAYMENT**

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



# SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

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

SEE TYPICAL SECTIONS FOR

THICKNESS AND MATERIALS

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

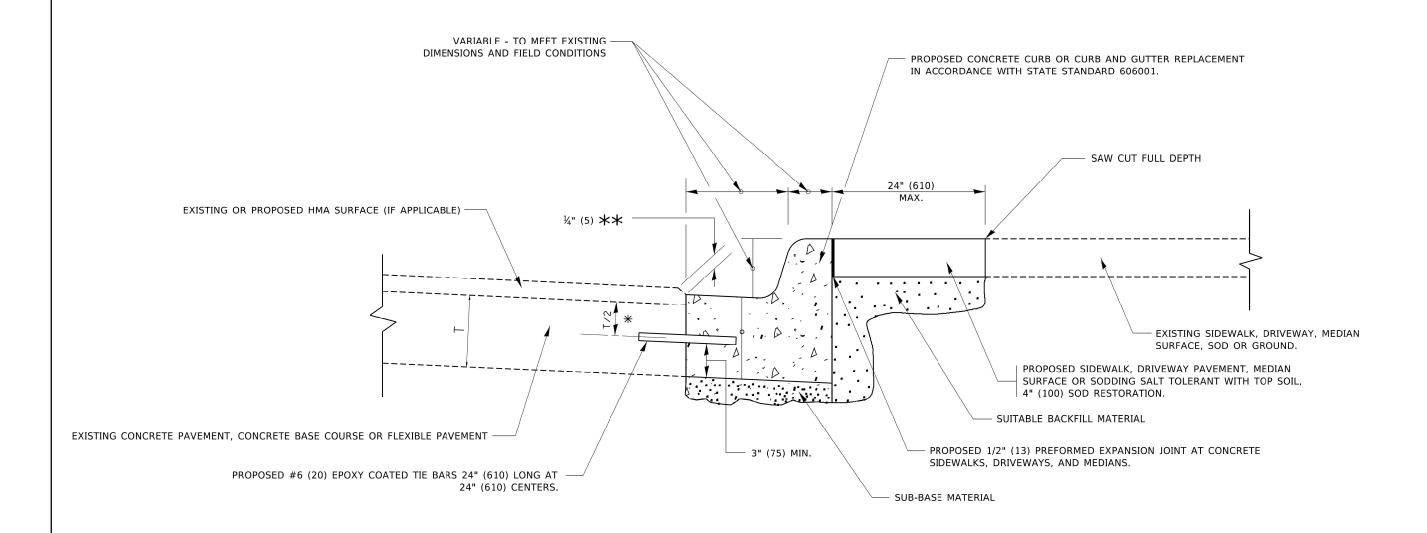
# **SEQUENCE OF CONSTRUCTION (MILLING FIRST)**

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

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

USER NAME = Lawrence,DeManche	DESIGNED - R. SHAH	REVISED - R. BORO 01-01-07	OTATE OF HAMOIO	PAVEMENT PATCHING FOR	A.U. SECTION	COUNTY TOTAL SHEET NO.
	DRAWN -	REVISED - R. BORO 09-04-07	STATE OF ILLINOIS	HMA SURFACED PAVEMENT	2742 2024-990-RS,SW	COOK 42 24
PLOT SCALE = 100,0000 ' / in.	CHECKED -	REVISED - K. ENG 10-27-08	DEPARTMENT OF TRANSPORTATION	IIIWA SUNIACED PAVEINENT	BD400-04 (BD-22)	CONTRACT NO. 62X15
PLOT DATE = 11/18/2022	DATE - 10-25-94	REVISED - K. SMITH 11-18-22		SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.	JULINOIS FED. AU	D PROJECT

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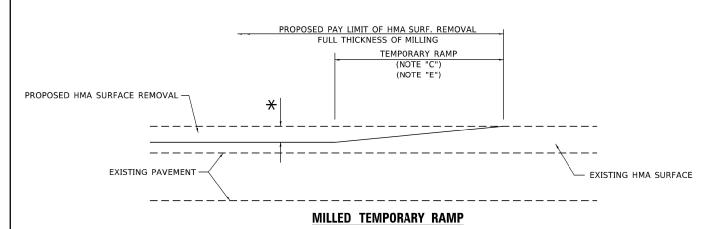


- 💥 3" (75) MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.
- \*\* IF THE FINAL SURFACE OF THE PAVEMENT IS CONCRETE, THE GUTTER IS TO BE FLUSH WITH THE PAVEMENT.

# CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

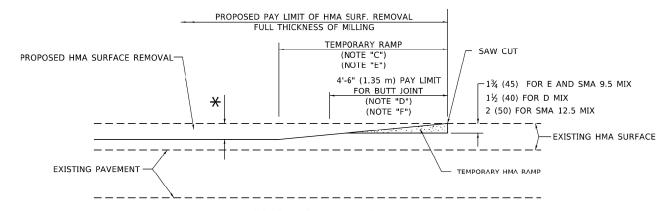
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

USER NAME = footemj	DESIGNED - A. HOUSEH	REVISED - A. ABBAS 03-21-97	0747F 0F HUINOIG		CURB OR CURB AND GUTTER		RTE.	SECTION	COUNTY	SHEETS	SHEET NO.
	DRAWN -	REVISED - M. GOMEZ 01-22-01	STATE OF ILLINOIS		REMOVAL AND REPLACEMENT		2742	2024-990-RS,SW	соок	42	25
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED - R. BORO 12-15-09	DEPARTMENT OF TRANSPORTATION		HEIWOVAL AND HEI LAGEWENT			BD600-06 (BD-24)	CONTRAC	T NO. 6	∂2X15
PLOT DATE = 7/11/2019	DATE - 03-11-94	REVISED - K. SMITH 07-11-19		SCALE: NONE	SHEET 1 OF 1 SHEETS STA.	TO STA.		ILLINOIS FE	D. AID PROJECT		



(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

# OPTION 1

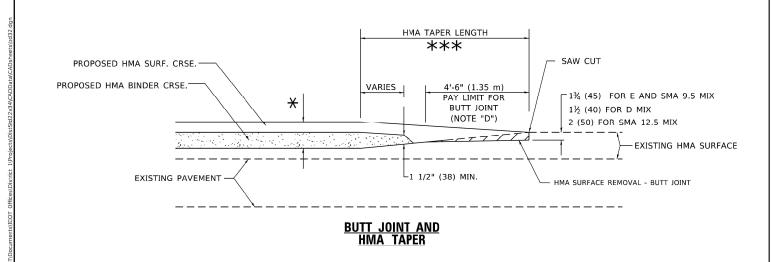


# HMA CONSTRUCTED TEMPORARY RAMP

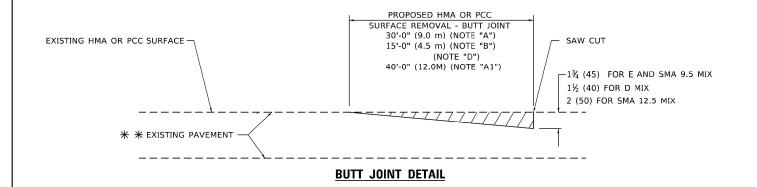
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

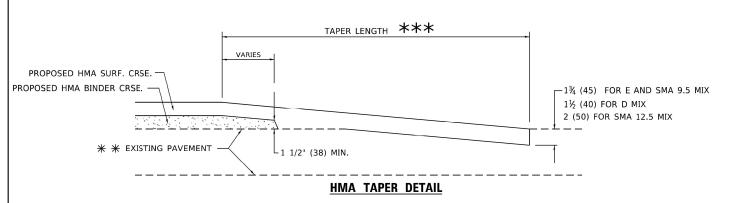
# OPTION 2

# TYPICAL TEMPORARY RAMP



# TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING





# **TYPICAL BUTT JOINT AND HMA TAPER** FOR RESURFACING ONLY

\*\* 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.

SHEET 1

- \* 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"
- 2. THE TEMPORARY RAMP AND SAW CUT SHALL BE INCLUDED IN THE UNIT COST FOR HMA OR PCC SURFACE REMOVAL-BUTT JOINT

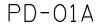
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

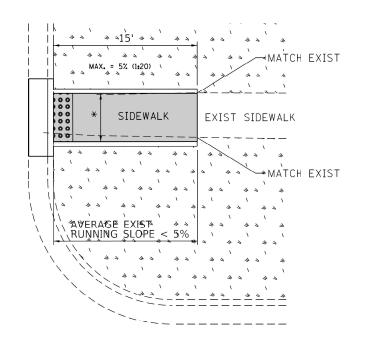
USER NAME = Lawrence.DeManche	DESIGNED - M. DE YCNG	REVISED	-	A. ABBAS 03-21-97
	DRAWN -	REVISED	-	M. GOMEZ 04-06-01
PLOT SCALE = 100,0000 ' / in.	CHECKED -	REVISED	-	R. BORO 01-01-07
PLOT DATE = 11/18/2022	DATE - 06-13-90	KEVISED	-	K. SMITH 11-18-22

STATI	E OF	ILLINOIS
<b>DEPARTMENT</b>	0F	TRANSPORTATION

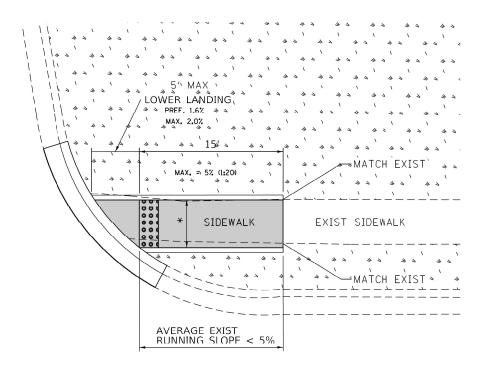
BUTT JOINT AND		F.A.U. RTE.	SEC	TION		COUNTY	TOTAL SHEETS	SHI
MA TAPER DETAILS		2742	2024-990-RS	s,sw		соок	42	2
INA TATEIT DETAILS			BD400-05	BD-32		CONTRACT	NO. 6	52X1
OF I SHEETS STA	10.514			THIMOTO	EED AT	D BROJECT		

# ADA DETAIL FOR SINGLE PERPENDICULAR CURB RAMPS W/ EXIST. 5% OR LESS RUN. SLOPE

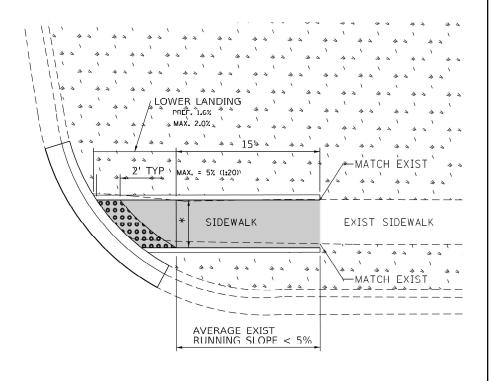




# PD-01B



# PD-01C



### DESIGNER NOTES:

- ALL CROSS SLOPES ARE PREFERRED 1.6% (1:64), MAXIMUM 2% (1:50).
- SIDEWALK REALIGNMENT WILL REQUIRE DETAILED DESIGN.
- AREAS SURROUNDED BY PCC/ASPHALT, BUILDINGS, OR ARE NEAR TO DRIVEWAYS, REALIGNED SIDEWALK, UTILITY AND SIGNAL POLES, OR WHEN PRIVATE SIDEWALK TIES IN, WILL REQUIRE DETAILED SURVEY AND DESIGN.
- ALL BRICK CORNERS WILL REQUIRE SUPERVISOR APPROVAL BEFORE USING PROJECT

# LEGEND

PROPOSED SIDE CURB



EXIST. GRASS

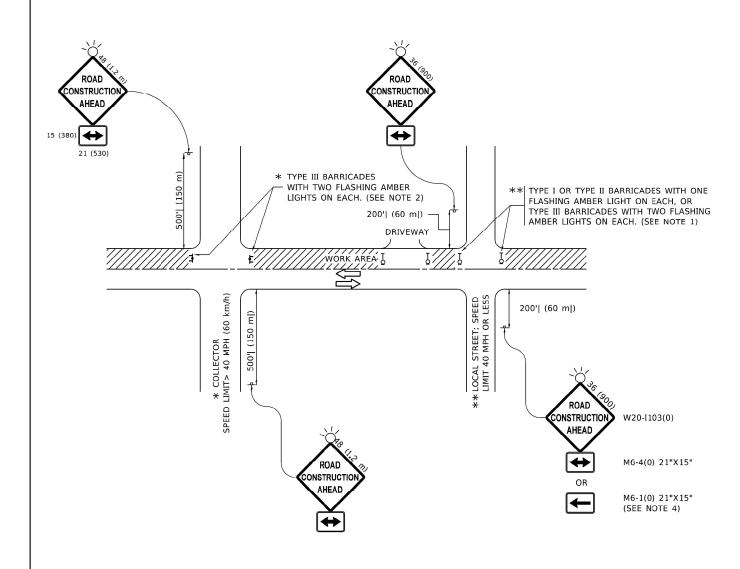


DETECTABLE WARNINGS

- CONSTRUCTION NOTES:
  - 1) ALL CROSS SLOPES ARE PREFERRED 1.6% (1:64), MAXIMUM 2% (1:50) EXCEPT WHEN TRANSITIONING TO EXISTING SIDEWALK
- \* MATCH EXISTING SIDEWALK WIDTH

L										
	FILE NAME =	USER NAME = ledezmarm	DESIGNED/	REVISED -		PROJECT D	ETAII EO	B CINIC	IE DERDI	ENDICHI
	S:\WP\PLANPREP\SQUAD_1\Des_RL\Typical A	A details\Typical-ADA-sht-plan.dgn	DRAWN - RL 11/12/2019	REVISED -	STATE OF ILLINOIS	PROSECT D	LIAIL I			LINDICOLA
		PLOT SCALE = 10.0000 '/ in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION				(PD-01)	
	Default	PLOT DATE = 12/17/2019	DATE -	REVISED -		SCALE: S	HEET	OF	SHEETS	STA.
_										

COUNTY TOTAL SHEETS NO.
COOK 42 27 SECTION ILAR CURB RAMPS 2742 2024-990-RS,SW CONTRACT NO. 62X15 PD-01



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

- 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 = Lawrence.DeManche	DESIGNED - L.H.A.	REVISED - T. RAMMACHER 01-06-00
	DRAWN -	REVISED - A. SCHUETZE 07-01-13
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED - A. SCHUETZE 09-15-16
PLOT DATE = 5/3/2024	DATE - 06-89	REVISED - D. SENDERAK 05-03-24

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

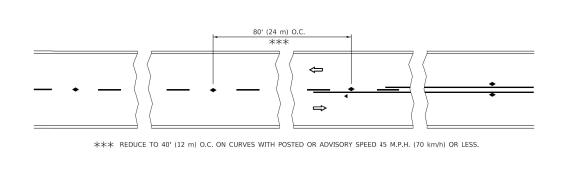
TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

SHEET 1 OF 1 SHEETS STA. TO ST

 
 FAU. RTE.
 SECTION
 COUNTY
 TOTAL SHEETS
 SHEETS NO.

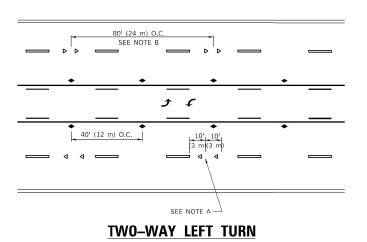
 2742
 2024-990-RS,SW
 COOK
 42
 28

 TC-10
 CONTRACT
 NO.
 62X15



# LANE REDUCTION TRANSITION

SEE FIGURE 3B-14 MUTCD



SYMBOLS

ONE-WAY AMBER MARKER

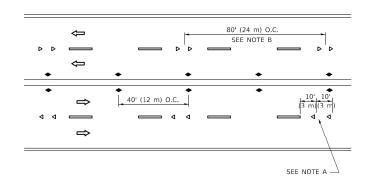
TWO-WAY AMBER MARKER

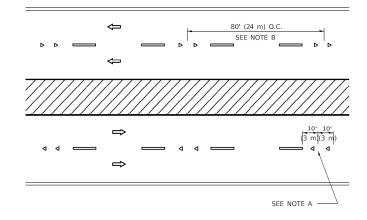
ONE-WAY CRYSTAL MARKER (W/O)

YELLOW STRIPE

── WHITE STRIPE

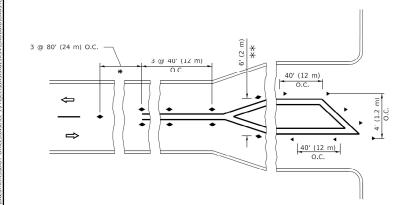
# TWO-LANE/TWO-WAY

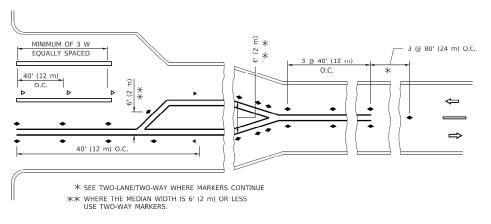




# MULTI-LANE/UNDIVIDED







# **TURN LANES**

# **GENERAL NOTES**

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

# LANE MARKER NOTES

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

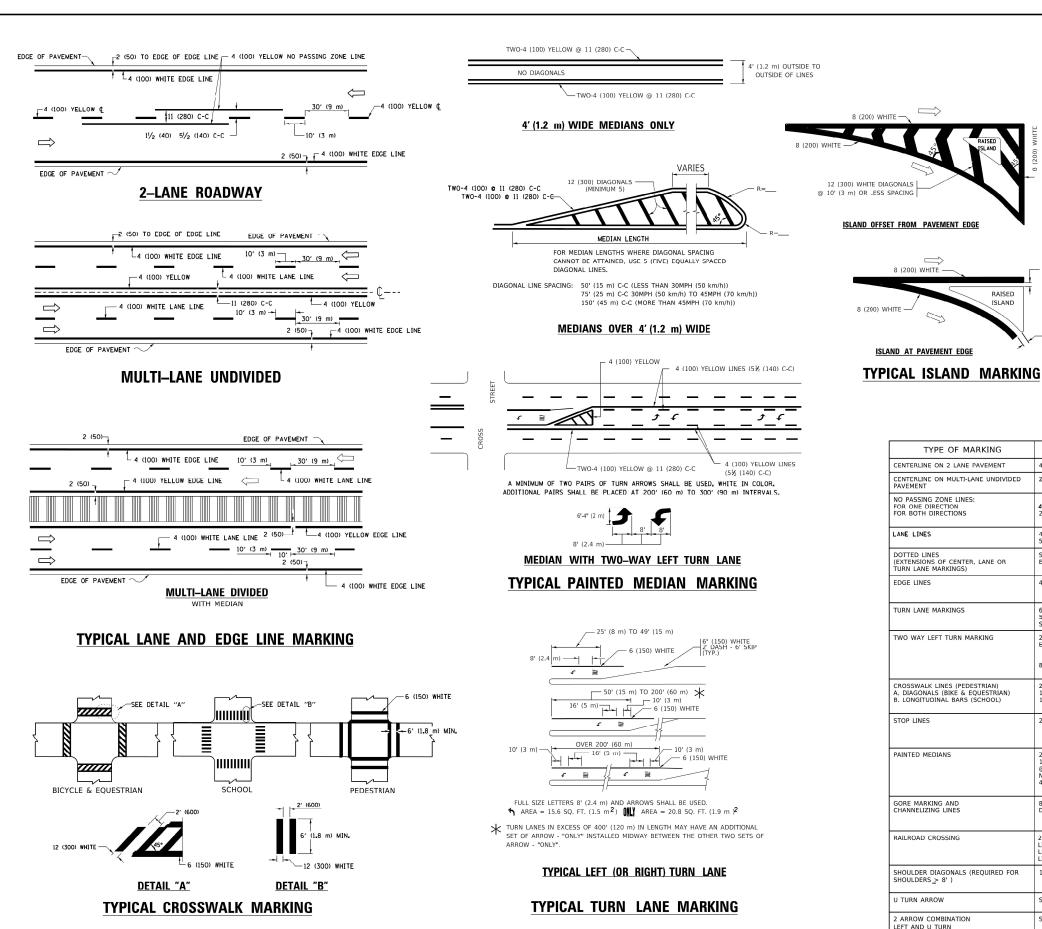
# **DESIGN NOTES**

- 1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
- 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 DEING USED.
- MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.

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

REVISED - T. RAMMACHER 03-12-99 DESIGNED -USER NAME = footemi SECTION COUNTY TYPICAL APPLICATIONS STATE OF ILLINOIS DRAWN REVISED - T. RAMMACHER 01-06-00 2742 2024-990-RS.SW COOK 42 29 RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT) PLOT SCALE = 50.0000 ' / in. CHECKED -REVISED - C. JUCIUS 09-09-09 **DEPARTMENT OF TRANSPORTATION** CONTRACT NO. 62X15 SHEET 1 OF 1 SHEETS STA. C. JUCIUS 07-01-13 DATE

MODEL: Default



345 425 580 45 665 50 750 55 **COMBINATION** LEFT AND U-TURN 5'-4" (1620) √ 32 R (810) LANE REDUCTION TRANSITION \* LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OR GREATER OR WHEN SPECIFIED IN PLANS. **U-TURN** WIDTH OF LINE PATTERN COLOR SPACING / REMARKS SKIP-DASH 5½ (140) C C FROM SKIP DASH CENTERLINE 11 (280) C-C YELLOW OMIT SKIP-DASH CENTERLINE BETWEEN SKIP-DASH 10' (3 m) LINE WITH 30' (9 m) SPACE SKIP-DASH SKIP-DASH SAME AS LINE BEING 2' (600) LINE WITH 6' (1.8 m) SPACE

D(FT)

SPEED LIMIT

TYPE OF MARKING NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS 4 (100) 2 @ 4 (100) LANE LINES 4 (100) 5 (125) ON FREEWAYS DOTTED LINES SAME AS LINE BEING EXTENDED EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS EDGE LINES SOLID 4 (100) YELLOW-LEFT OUTLINE MEDIANS IN YELLOW 6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m) TURN LANE MARKINGS SOLID SEE TYPICAL TURN LANE MARKING DETAIL WHITE 10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL TWO WAY LEFT TURN MARKING 2 @ 4 (100) EACH DIRECTION YELLOV 8' (2.4m) LEFT ARROW CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EOUESTRIAN) NOT LESS THAN 6' (1.8 m) APART 2' (600) APART B. LONGITUDINAL BARS (SCHOOL) SEE TYPICAL CROSSWALK MARKING DETAILS PLACE 4' (1.2 m) IN ADVANCE OF AND STOP LINES 24 (600) SOLID WHITE PARALLEL TO CROSSWALK, IF PRESENT.
OTHERWISE, PLACE AT DESIRED STOPPING
POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE
POSSIBLE 2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS 11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING. PAINTED MEDIANS SOLID YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC 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)) SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m PEACH "X"=54.0 SQ. FT. (5.0 m P 24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X" RAILROAD CROSSING SOLID WHITE 50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h)) SHOULDER DIAGONALS (REQUIRED FOR SHOULDERS > 8') 12 (300) @ 45° SOLID WHITE - RIGHT YELLOW - LEFT SOLID U TURN ARROW SEE DETAIL WHITE 2 ARROW COMBINATION LEFT AND U TURN SOLID 30.4 SF

— 2 (50)

2 (50)

RAISED

8 (200) WHITE -

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

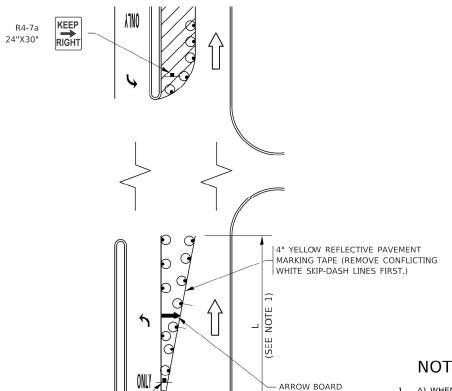
PLOT DATE = 3/4/2019	DATE	-	03-19-90	REVISED	-	C. JUCIUS 04-12-16
DLOT DATE - 2/4/2010	DATE		02.10.00	REVISED		C. JUCIUS 04-12-16
PLOT SCALE = 50.0000 ' / in.	CHECKED	-		REVISED	-	C. JUCIUS 12-21-15
	DRAWN	-		REVISED	-	C. JUCIUS 07-01-13
USER NAME = footemj	DESIGNED	-	EVERS	REVISED	-	C. JUCIUS 09-09-09

 $m{\star}$  MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

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	••••	UAL I	^,					TC-13	CONTRACT	NO. 6	2X15
SHEET	1	OF	2	SHEETS	STA.	TO STA.		ILLINOIS FED. A	ID PROJECT		

# TURN BAY ENTRANCE AT START OF LANE CLOSURE TAPER





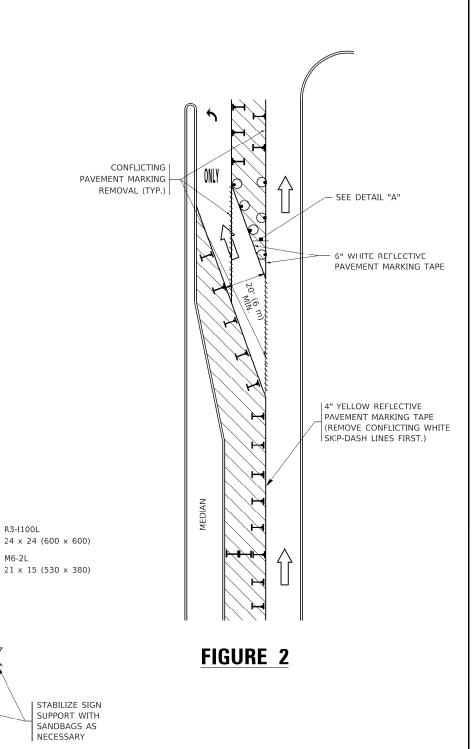
SEE DETAIL "A" -

# **LEGEND** WORK AREA LANE OPEN TO TRAFFIC ARROW BOARD TYPE I OR II BARRICADE OR DRUM WITH STEADY BURN LIGHT DRUM WITH STEADY BURN LIGHT SIGN ASSEMBLY TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

# NOTES:

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

# TURN BAY ENTRANCE WITHIN A LANE CLOSURE



**DETAIL A** 

TURN

LANE

K

All dimensions are in Inches (millimeters) unless otherwise shown

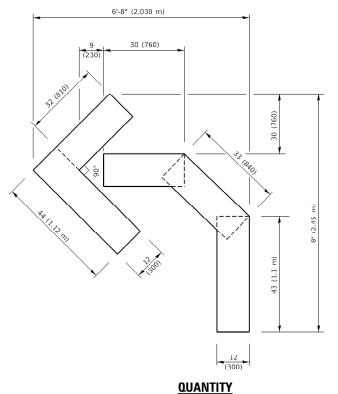
USER NAME = footemi DESIGNED -T. RAMMACHER 09-08-94 REVISED - R. BORO 09-14-09 - A. HOUSEH 11-07-95 CHECKED -A. HOUSEH 10-12-96 PLOT DATE = 3/4/2019 - T. RAMMACHER 01-06-00 REVISED

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION** 

TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SCALE: NONE SHEET 1 OF 1 SHEETS STA.

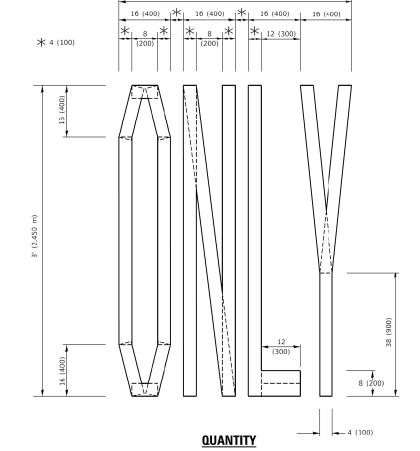
SECTION COUNTY 2742 2024-990-RS.SW COOK 42 31 TC-14 CONTRACT NO. 62X15

REVISED - A. SCHUETZE 07-01-13 REVISED - A. SCHUETZE 09-15-16

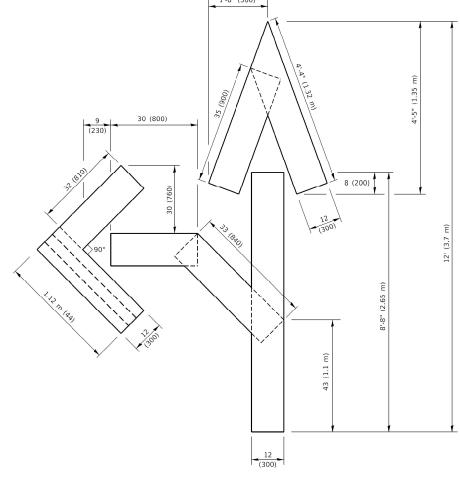


# <u>QUANTITY</u>

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



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

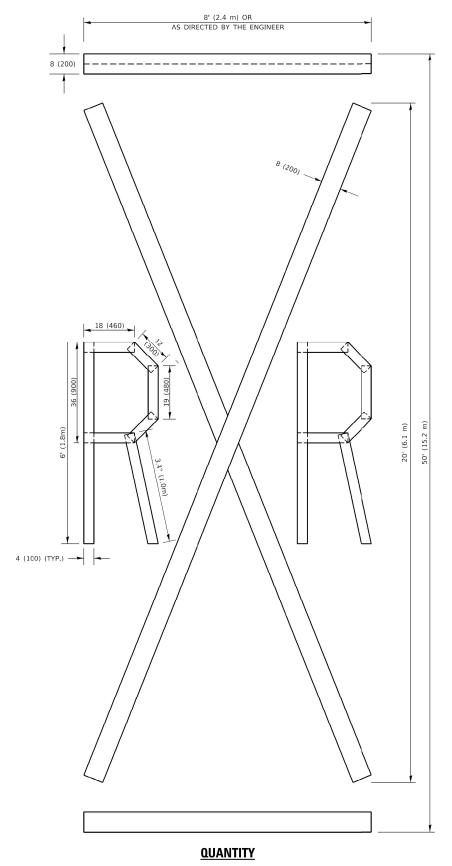


# QUANTITY

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

# NOTE:

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



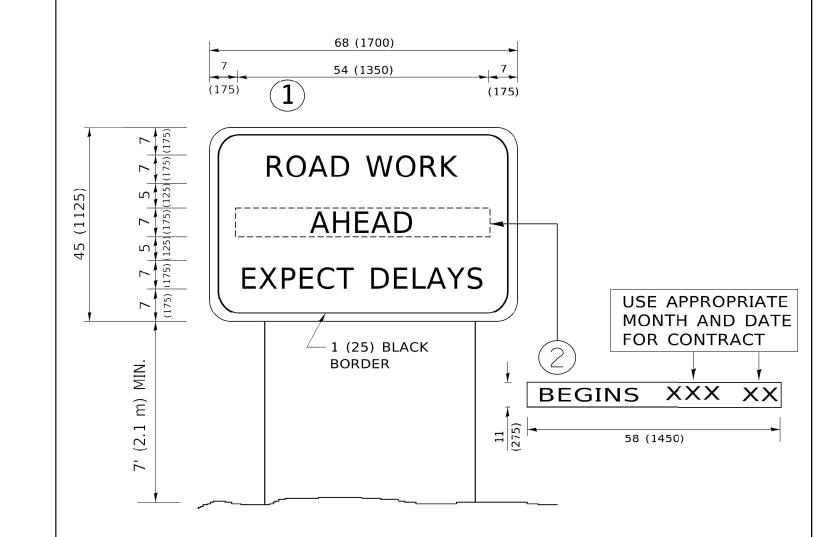
4 (100) LINE = 225.9 ft. (68.9 m) 75.3 sq. ft. (6.99 sq. m)

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHORT TERM PAVEMENT MARKING LETTERS AND SYMBOLS

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

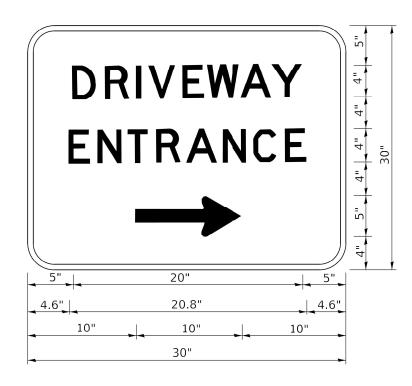


# NOTES:

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

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

USER NAME = footemj	DESIGNED -	REVISED - R. MIRS 09-15-97			ARTERIAL RO	DAD	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN -	REVISED - R. MIRS 12-11-97	STATE OF ILLINOIS		INFORMATION	CICN	2742	2024-990-RS,SW	соок	42	33
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED -T. RAMMACHER 02-02-99	DEPARTMENT OF TRANSPORTATION		INIONIVIATION	Sidiv		TC-22	CONTRAC	T NO. 6	2X15
PLOT DATE = 3/4/2019	DATE -	REVISED - C. JUCIUS 01-31-07		SCALE: NONE	SHEET 1 OF 1 SHEETS	STA. TO STA.		ILLINOIS FED.	AID PROJECT		



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

# NOTES:

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

# TRAFFIC SIGNAL LEGEND

(NOT TO SCALE)

	EXISTING	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
OMMUNICATION CABINET	ECC	СС	HEAVY DUTY HANDHOLE					G G 4Y 4Y 4G
ASTER CONTROLLER	ЕМС	MC	-SQUARE -ROUND	H (H)	⊞ ⊕		<b>€ €</b> P	<b>4</b> G <b>4</b> G <b>P</b>
MASTER MASTER CONTROLLER	EMMC	ммс	DOUBLE HANDHOLE			SIGNAL HEAD WITH BACKPLATE	(m) (m) (m)	
JNINTERRUPTABLE POWER SUPPLY	4	<b>9</b>	JUNCTION BOX		0	-(P) PROGRAMMABLE SIGNAL HEAD -(RB) RETROREFLECTIVE BACKPLATE		R
SERVICE INSTALLATION	P	- <b>■</b> -P	RAILROAD CANTILEVER MAST ARM	$X \circ \overline{X} \longrightarrow X$	XeX			<b>4</b> Y <b>4</b> Y <b>4</b> Y <b>4</b> G <b>4</b> G <b>4</b> G
(P) POLE MOUNTED SERVICE INSTALLATION			RAILROAD FLASHING SIGNAL	<del>∑⊖∑</del>	X•X		P RB	P RB
(G) GROUND MOUNTED (GM) GROUND MOUNTED METERED	$\boxtimes$ $\subseteq$	<b>⊠</b> <sup>G</sup> <b>⊠</b> <sup>GM</sup>	RAILROAD CROSSING GATE	X <del>0</del> X>	X•X-	PEDESTRIAN SIGNAL HEAD	<b>(P</b> )	
FELEPHONE CONNECTION	ET	Т	RAILROAD CROSSBUCK		*	AT RAILROAD INTERSECTIONS	<b>Š</b>	Ā
TEEL MAST ARM ASSEMBLY AND POLE	0	•——	RAILROAD CONTROLLER CABINET			PEDESTRIAN SIGNAL HEAD	(*) (*) D	<b>₩</b> C
ALUMINUM MAST ARM ASSEMBLY AND POLE			UNDERGROUND CONDUIT (UC), GALVANIZED STEEL			WITH COUNTDOWN TIMER		<b>*</b> D
STEEL COMBINATION MAST ARM SSEMBLY AND POLE WITH LUMINAIRE	0 <del>-</del> X	•*	TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE			ILLUMINATED SIGN "NO LEFT TURN"/"NO RIGHT TURN"		
SIGNAL POST	0	<ul> <li>● BM</li> </ul>	SYSTEM ITEM	S	SP	NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE.		
(BM) BARREL MOUNTED - TEMPORARY		2 2	INTERSECTION ITEM	I	IP	ALL DETECTOR LOOP CABLE TO BE SHIELDED		
VOOD POLE	$\otimes$	•	REMOVE ITEM		R	GROUND CABLE IN CONDUIT, NO. 6 SOLID COPPER (GREEN)		<u> </u>
GUY WIRE	<b>&gt;</b>	<b>&gt;</b>	RELOCATE ITEM		RL	ELECTRIC CABLE IN CONDUIT, TRACER	,	
SIGNAL HEAD		-	ABANDON ITEM		А	NO. 14 1/C		
SIGNAL HEAD WITH BACKPLATE	+t>>	+ <del></del>	CONTROLLER CABINET AND FOUNDATION TO BE REMOVED		RCF	COAXIAL CABLE	— <u>c</u> —	<u> </u>
SIGNAL HEAD OPTICALLY PROGRAMMED	>P +->P	P + P	MAST ARM POLE AND		RMF	VENDOR CABLE		
FLASHER INSTALLATION -(FS) SOLAR POWERED	o⊕ FS □⊕ FS □⊕ FS	•► <sup>F</sup> •► <sup>FS</sup>	FOUNDATION TO BE REMOVED SIGNAL POST AND		N-II	COPPER INTERCONNECT CABLE,		<del>(6#18)</del>
		<b>I</b> ► <b>I</b> ►	FOUNDATION TO BE REMOVED		RPF	NO. 18, 3 PAIR TWISTED, SHIELDED FIBER OPTIC CABLE		
PEDESTRIAN SIGNAL HEAD	-0	-	DETECTOR LOOP, TYPE I			-NO. 62.5/125, MM12F -NO. 62.5/125, MM12F SM12F	—	—(12F)—
PEDESTRIAN PUSH BUTTON -(APS) ACCESSIBLE PEDESTRIAN PUSH BUTTON	⊚		PREFORMED DETECTOR LOOP	P (P)	P (P)	-NO. 62.5/125, MM12F SM24F	<u>24F</u>	<u> 24F</u>
RADAR DETECTION SENSOR	R	R	SAMPLING (SYSTEM) DETECTOR	SS	S S			—(36F)—
VIDEO DETECTION CAMERA	[V]1	V	INTERSECTION AND SAMPLING (SYSTEM) DETECTOR	IS (IS)	IS (IS)			
RADAR/VIDEO DETECTION ZONE			QUEUE AND SAMPLING (SYSTEM) DETECTOR	QS QS	QS QS	GROUND ROD -(C) CONTROLLER -(M) MAST ARM	$\stackrel{\underline{\vdash}}{\downarrow}^{C}  \stackrel{\underline{\vdash}}{\downarrow}^{M}  \stackrel{\underline{\vdash}}{\downarrow}^{P}  \stackrel{\underline{\vdash}}{\downarrow}^{S}$	$\dot{\bar{\pm}}^C  \dot{\bar{\pm}}^M  \dot{\bar{\pm}}^P  \dot{\bar{\pm}}^S$
PAN, TILT, ZOOM (PTZ) CAMERA	PTZ]]	PTZ.	WIRELESS DETECTOR SENSOR	(W)	<b>®</b>	-(P) POST -(S) SERVICE		
EMERGENCY VEHICLE LIGHT DETECTOR	$\bowtie$	<b>~</b>	WIRELESS ACCESS POINT		_			
CONFIMATION BEACON	<b>○</b> —(]	•-1			_			
WIRELESS INTERCONNECT	o <del>•1   </del>	•++						
WIRELESS INTERCONNECT RADIO REPEATER	ERR	RR						

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PLOT DATE = 3/4/2019

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 9/29/2016

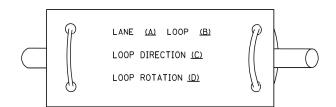
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

	DISTRICT ONE								
	STANDARD	TRAFFIC	SIGNAL	DESIGN	DETAILS				
SCALE: NONE	SHEET 1	OF 7	SHEETS	STA.	TO STA				

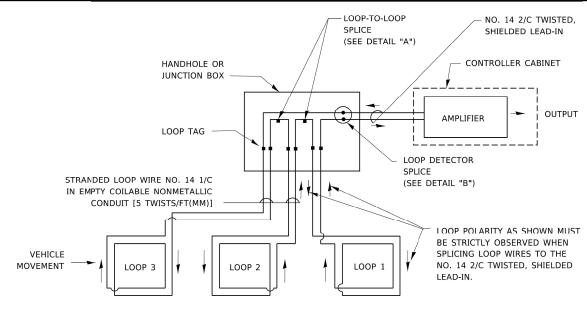
### LOOP DETECTOR NOTES

- EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
- 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.
- 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**

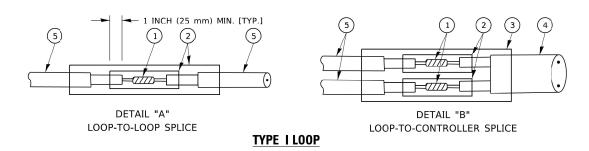


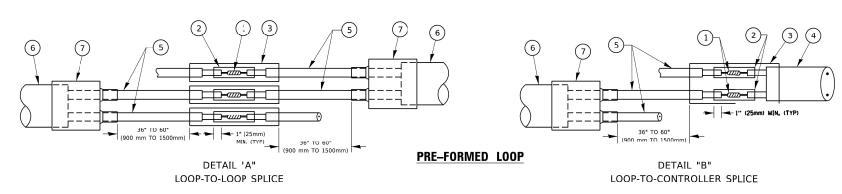
- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.



# **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

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PLOT DATE = 3/4/2019	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS
SHEET 2 OF 7 SHEETS STA. TO STA.

 F.A.U. NTE.
 SECTION
 COUNTY SHEETS
 SHEETS NO.

 2742
 2024-990-RS,SW
 COOK
 42
 36

 TS-05
 CONTRACT NO.
 62X15

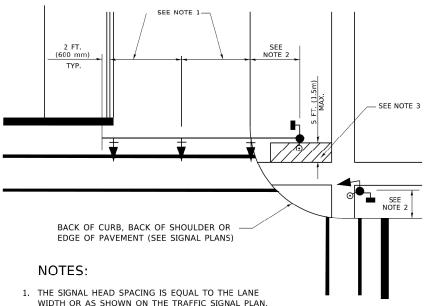
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# TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

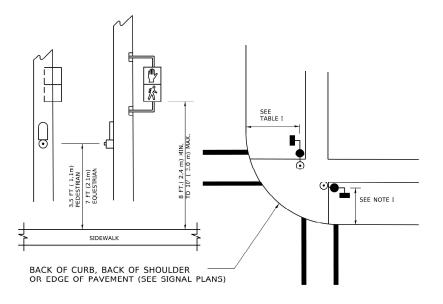
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND

PEDESTRIAN PUSHBUTTON DETECTORS.



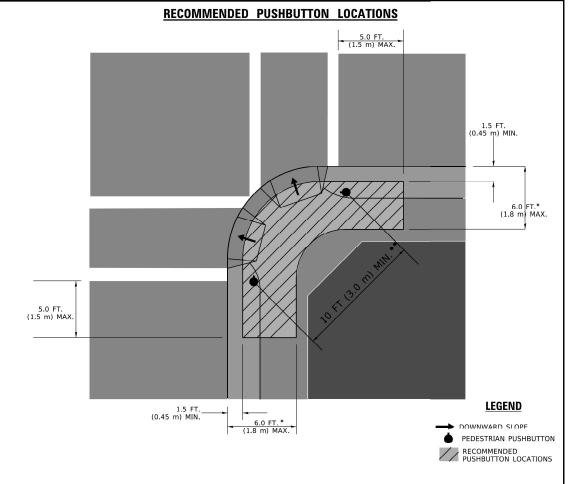
- 2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
- PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR THE SIGNAL POST.
- THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK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

# PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



# NOTES:

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



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

# NOTES:

- 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.
- 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:

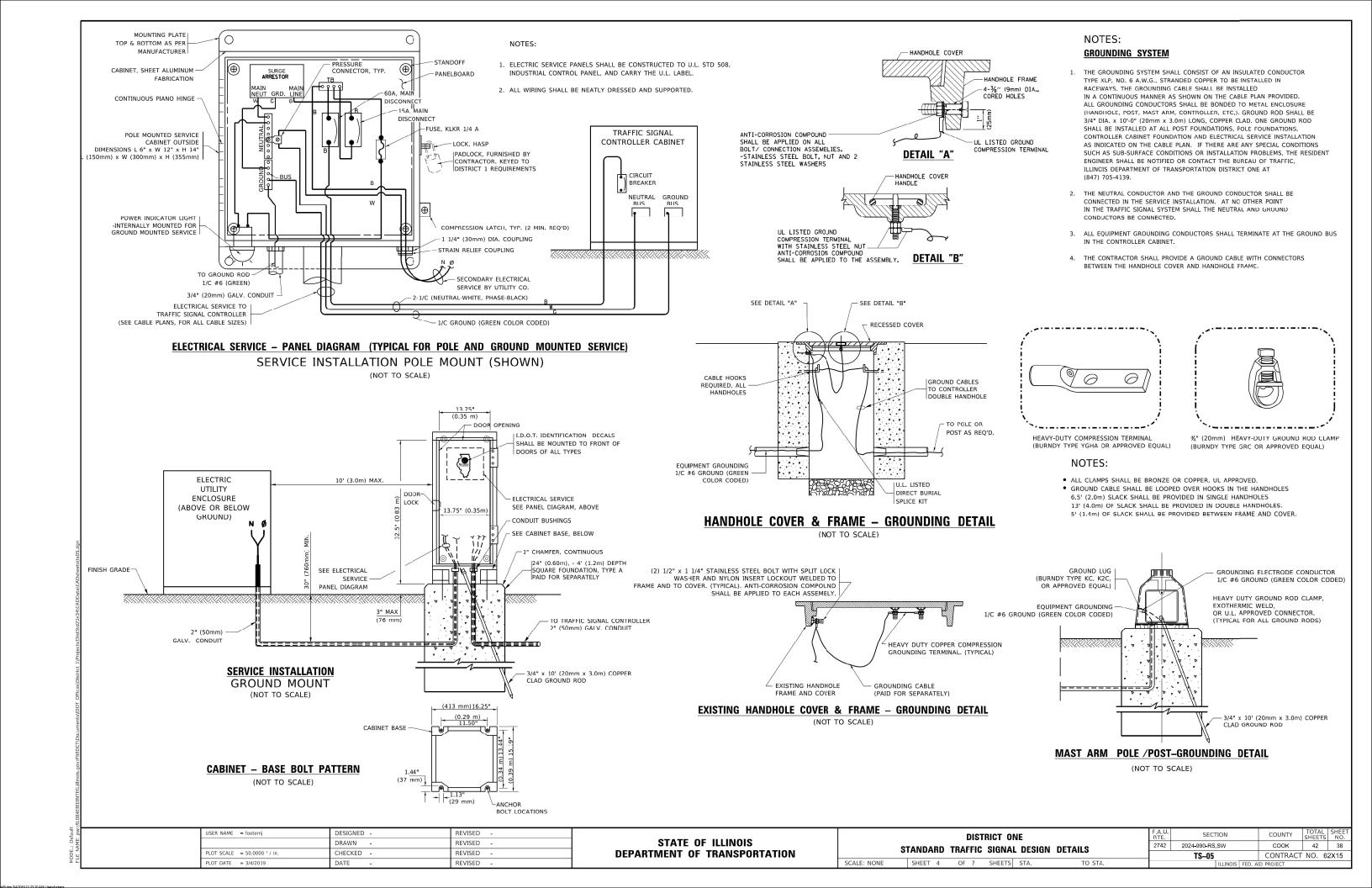
- 1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
- 2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
- 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.

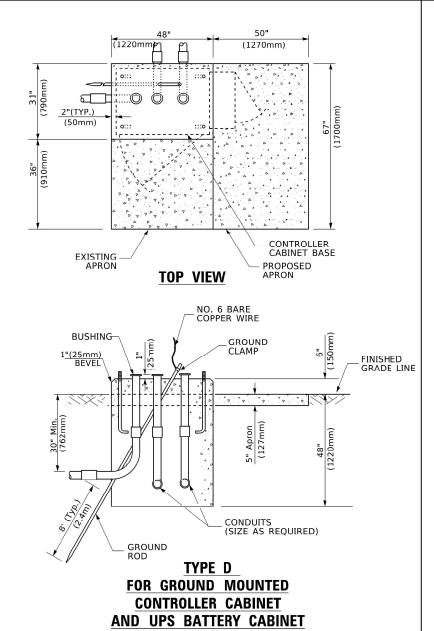
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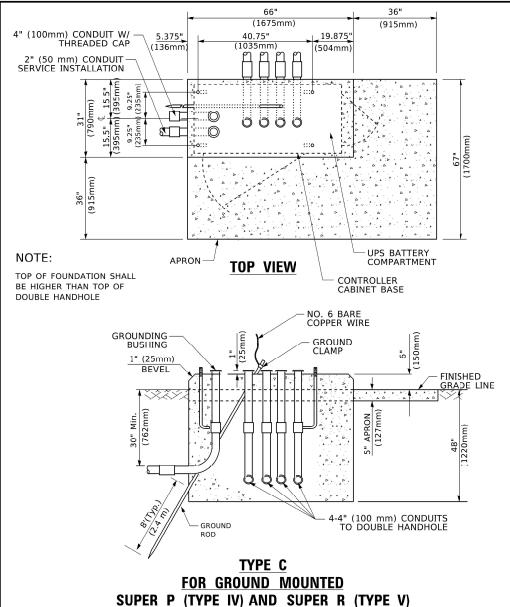
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
STANDARD TRAFFIC SIGNAL DESIGN	DETAILS	2742	2024-990-RS,SW	соок	42	37
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SHEET 3 OF 7 SHEETS STA	TO STA.		ILLINOIS EED A	D DDOIECT		







**CONTROLLER CABINETS** 

44" 118mm) 2" x 6" (51mm x 152mm) WOOD FRAMING (TYP. TRAFFIC SIGNAL -CONTROLLER CABINET ¾" (19mm) TREATED PHYWOOD DECK 2<u>" x 6</u>" (51mm x 152mm) TREATED WOOD 6" x 6" (152mm x 152mm) NOTES: TREATED WOOD POSTS 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.

65" (SEE NOTE 4) (1651mm)

49" (SEE NOTE 3) (1245mm)

SEE NOTE 5-

- 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

METER 2.0
4.0
0.6
0.6
0.5
4.0
0.5
0.5
1.6

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**

**CABLE SLACK** 

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**

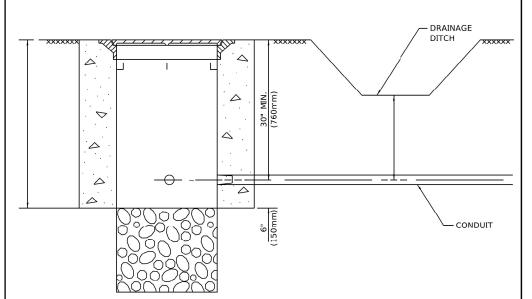
Mast Arm Length	① Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30' (9.1 m)	10'-0'' (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to	13'-6" (4 <sub>•</sub> 1 m)	30" (750mm)	24" (600mm)	8	6(19)
30' (9.1 m) and less than 40' (12.2 m)	11'-0'' (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 <sub>*</sub> 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" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)
NOTES	•	•	•		•

# <u>NOTES:</u>

- 1. These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (au) > 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 mast arm assemblies with dual arms refer to state standard 878001..

# DEPTH OF MAST ARM FOUNDATIONS, TYPE E

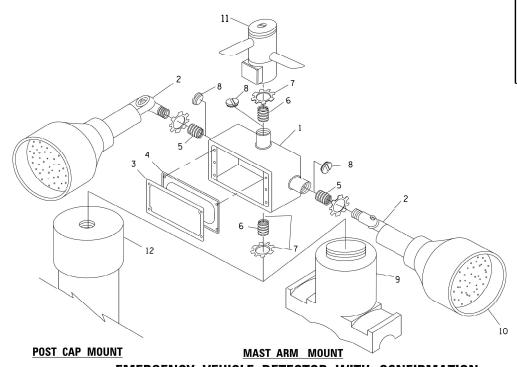
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	DRAWN -	REVISED -	STATE OF ILLINOIS						2742	2024-990-RS,SW	соок	42 39	
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION	STANDARD TRAFFIC SIGNAL DESIGN DETAILS				TS-05	CONTRAC	CT NO. 62X15			
PLOT DATE = 3/4/2019	DATE -	REVISED -		SCALE: NONE	SHEET 5	OF 7	SHEETS	STA.	TO STA.		ILLINOIS FED.	AID PROJECT	



### NOTES:

- 1. CONDUIT DEPTH SHALL BE A MINIMUM OF 30" (760mm) BELOW THE BOTTOM OF THE DRAINAGE DITCH OR ANY SLOPING GROUND
- 2. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL CONDUIT PLACED UNDER ROADWAY PAVEMENT, MULTI-USE PATHS, SIDEWALKS AND SOIL SURFACES.
- 3. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL HANDHOLES, HEAVY DUTY HANDHOLES AND DOUBLE HANDHOLES.

# HANDHOLE WITH MINIMUM CONDUIT DEPTH



**EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL** 

USER NAME = footemi REVISED DRAWN REVISED CHECKED REVISED PLOT SCALE = 50.0000 ' / in

(1675mm) (915mm) (1035mm) CONTROLLER CABINET BASE PROPOSED-**TOP VIEW** APRON -NO. 3 DOWEL 18" (450mm NO. 6 BARE COPPER WIRE LONG (8 REQ.) **BUSHING-**GROUND EXISTING-ANCHOR BOLTS GRADE LINE BEVEL (300mm) 12" (300mm) (225mm) (225mm) -EXISTING CONDUITS EXISTING GROUND ROD MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION (NOT TO SCALE)

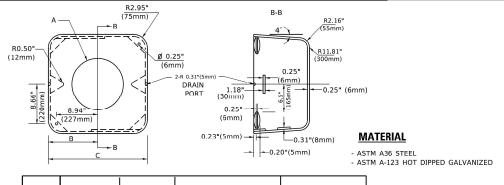
# IDENTIFICATION 1 OUTLET BOX- GALV. 21 CU.IN. (0.000344 CU-M) 2 LAMP HOLDER AND COVER 3 OUTLET BOX COVER 4 RUBBER COVER GASKET ¾"(19 mm) CLOSE NIPPL ¾"(19 mm) LOCKNUT ¾"(19 mm) HOLE PLUG SADDLE BRACKET - GALV. 6 WATT PAR 38 LED FLOOD LAMP POST CAP [18 FT. (5.4 m) POST MIN.]

# NOTES:

- 1. ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR
- 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.

STATE OF ILLINOIS

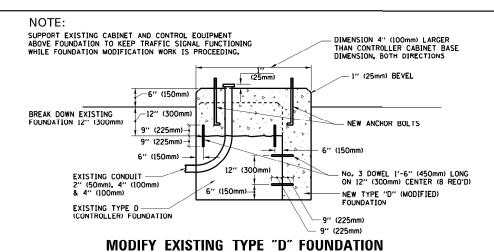
**DEPARTMENT OF TRANSPORTATION** 

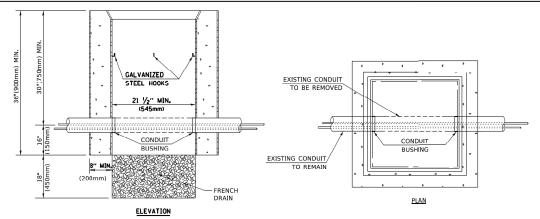


А	В	С	HEIGHT	WEIGHT
VARIES	9.5"(241mm)	19"(483mm)	7" (178mm) - 12" (300mm)	53 lbs (24kg)
VARIES	10.75"(273mm)	21.5"(546mm)	7" (178mm) - 12" (300mm)	68 lbs (31 kg)
VARIES	13.0"(330mm)	26"(660mm)	7" (178mm) - 12" (300mm)	81 lbs (37 kg)
VARIES	18.5"(470mm)	37"(940mm)	7" (178mm) - 12" (300mm)	126 lbs (57 kg)

# **SHROUD**

- 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.

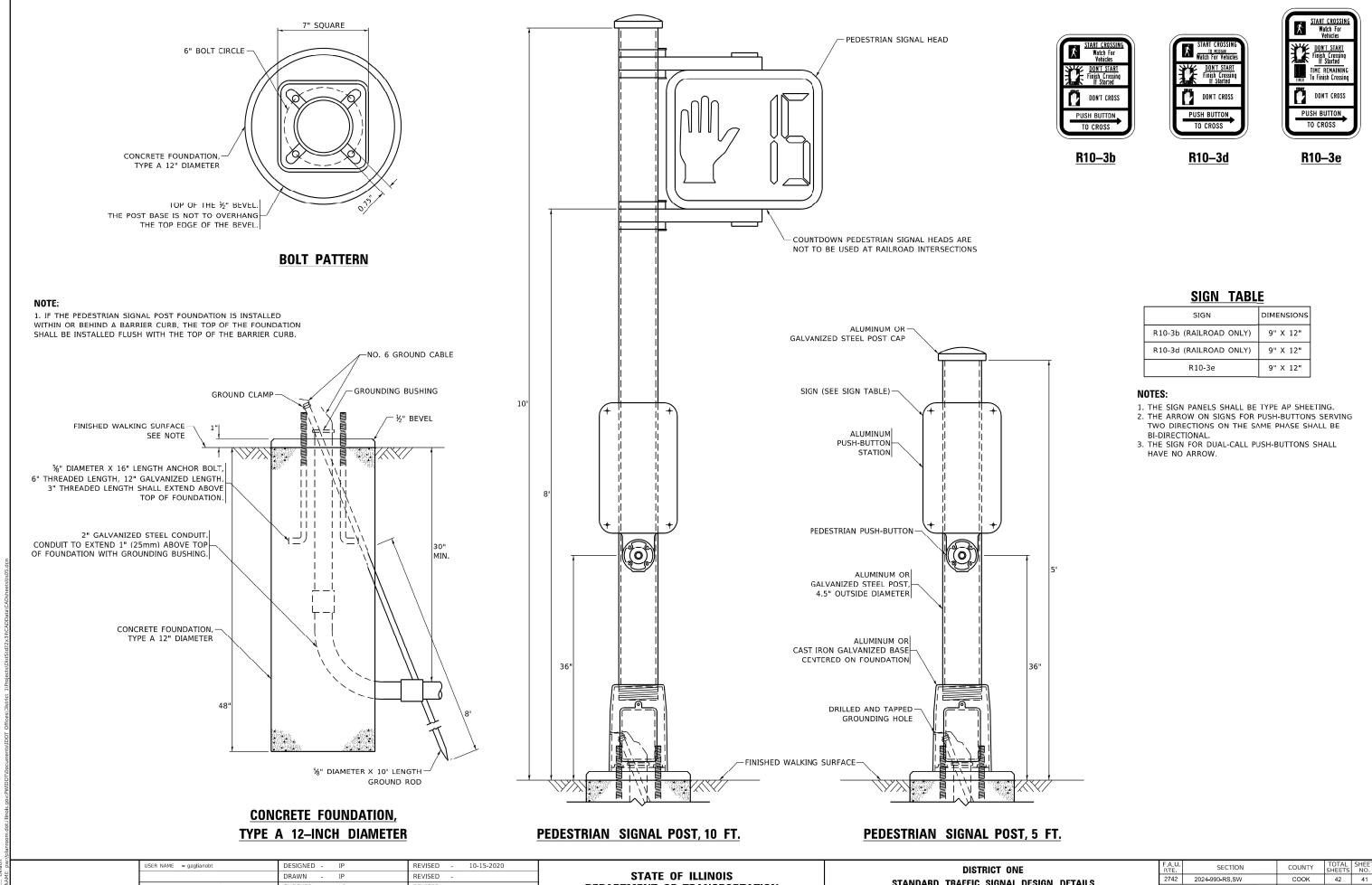




- 1. HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
- 2. REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCLUDED WITH THE COST OF THE HANDHOLE.

# HANDHOLE TO INTERCEPT EXISTING CONDUIT

DISTRICT ONE 2742 2024-990-RS.SW COOK 42 40 STANDARD TRAFFIC SIGNAL DESIGN DETAILS CONTRACT NO. 62X15 SHEET 6 OF 7 SHEETS STA.



STATE OF ILLINOIS

**DEPARTMENT OF TRANSPORTATION** 

2742 2024-990-RS,SW

STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SHEET 7 OF 7 SHEETS STA.

соок

CONTRACT NO. 62X15

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PLOT SCALE = 100.0000 ' / in.

CHECKED -

10-15-2018

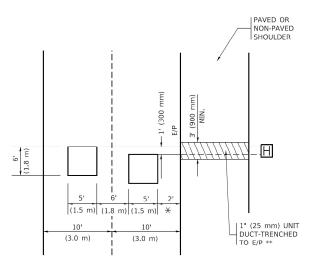
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# LOOPS NEXT TO SHOULDERS

PROVIDE A PAVEMENT REPLACEMENT NOTE WHICH SHOULD EQUAL 3' (900 mm) X WIDTH OF PAVED SHOULDER.



# = (600 mm)

\*\* UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS

BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS

JSER NAME = footemj

PLOT DATE = 3/4/2019

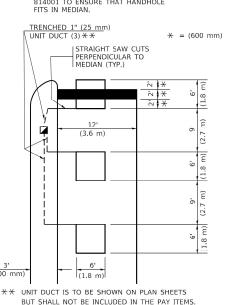
LOT SCALE = 50.0000 ' / in

### 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
814001 TO ENSURE THAT HANDHOLE
TETS IN MEDIAN



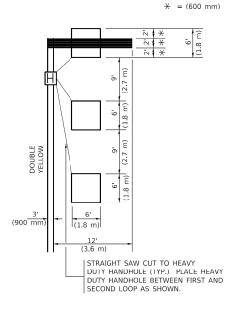
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO

PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

# LEFT TURN LANES WITHOUT MEDIANS

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

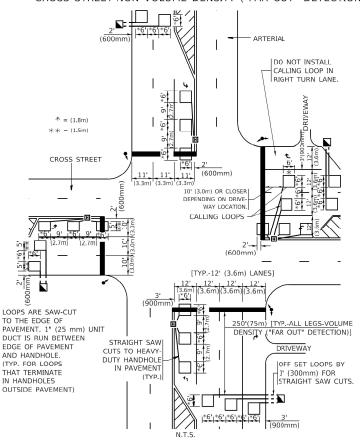
(PROTECTED / PERMITTED LEFT TURN PHASING)



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)



**DETAIL 1** 

N.T.S.

DATE

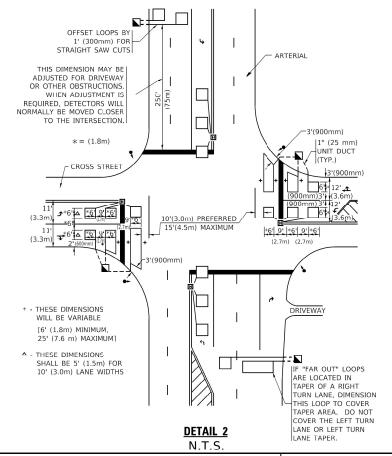
DESIGNED -

CHECKED -

R.K.F.

DRAWN

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



### NOTES

### VEHICLES LOOP DETECTORS

- \* ALL LEAD IN CABLE SHALL BE TWO CONDUCTOR NO. 14 TWISTED, SHIELDED.
- \* EACH DETECTOR LOOP SHALL HAVE ITS OWN SAW CUT FROM THE LOOP TO THE EDGE OF PAVEMENT OR TO A HANDHOLE IN THE PAVEMENT.
- \* 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 <u>ALL</u> DETECTOR LOOPS SHALL BE SIX FEET (1.8 m)
- \* EACH LANE OF NON-LOCKING, PRESENCE DETECTION AND FACH 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.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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	DETA	AILS	FOR	ROAD	WAY	RESUR	FACING		
	CHEET	1	ΩE	1 C	псстс	CTA		TO	CTA

F.A.U. RTE.	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.
2742 2024-990-RS,SW			соок	42	42
TS-07			CONTRACT NO. 62X15		
ILLINOIS FED. AID PROJECT					

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