STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

FAU 2721 221 RS COOK CONTRACT NO. 62R41

D-91-132-22

LOCATION OF SECTION INDICATED THUS: -

SUBMITTED March 18 20 24

STATE OF ILLINOIS

May 10, 2024

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

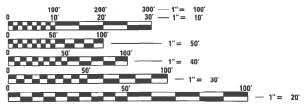
THE PROJECT IS LOCATED IN THE CITIES OF HICKORY HILLS AND PALOS HILLS.

TRAFFIC DATA: KEAN AVE. 2022 ADT = 3,000 POSTED SPEED LIMIT = 35 - 40 MPH

> DESIGN DESIGNATION: MINOR COLLECTOR

HMA OVERLAY OMISSIONS: STA. 39+92 TO STA. 41+08 STA. 69+00 TO STA. 71+00

STA. 90+00 TO STA. 96+70



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

JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS 1-800-892-0123

PROJECT ENGINEER: LUKASZ POCIECHA (847) 705-4255

PROJECT MANAGER: VESELIN VELICHKOV

PROPOSED HIGHWAY PLANS

F.A.U. ROUTE 2721: KEAN AVE

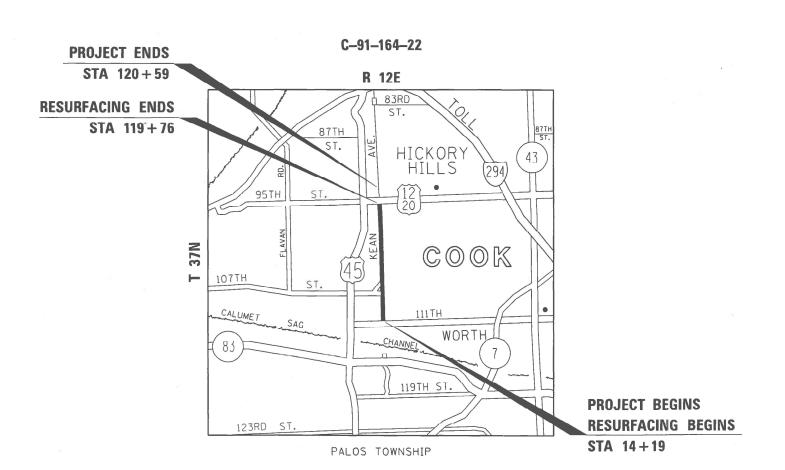
FROM: US-12/20 (95TH ST) TO 111TH ST

SECTION: FAU 2721 221 RS

DESIGNED OVERLAY, ADA IMPROVEMENTS,

AND RUMBLE STRIPS

COOK COUNTY



GROSS LENGTH = 10,640 FT. = 2.02 MILES **NET LENGTH = 9.571 FT. = 1.83 MILES**

CONTRACT NO. 62R41

INDEX OF SHEETS

HIGHWAY STANDARDS

SHEET NO.	DESCRIPTION
1	COVER SHEET
2-3	INDEX OF SHEETS, HIGHWAY STANDARDS, AND GENERAL NOTES
4-7	SUMMARY OF QUANTITIES
8-9	TYPICAL SECTIONS
10-13	ROADWAY AND PAVEMENT MARKING PLANS
14-18	LANDSCAPING PLANS
19-20	ADA RAMP DESIGNS AND STANDARD DETAILS
21-25	DETECTOR LOOP AND APS PLANS
26	DETAILS FOR FRAMES AND LIDS ADJUSTMENTS WITH MILLING (BD-08)
27	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT (BD-22)
28	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT (BD-24)
29	BUTT JOINT AND HMA TAPER DETAILS (BD-32)
30	RUMBLE STRIPS FOR CENTERLINE, NON-FREEWAY (BD-55)
31	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS (TC-10)
32	TYPICAL APPLICATION(S) FOR RAISED REFLECTIVE PAVEMENT MARKERS (TC-11)
33	DISTRICT 1 TYPICAL PAVEMENT MARKING(S) (TC-13)
34	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TC-14)
35	SHORT TERM PAVEMENT MARKING LETTERS AND SYMBOLS (TC-16)
36	ARTERIAL ROAD INFORMATION SIGN (TC-22)
37-43	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAIL (TS-07)
44	DISTRICT 1 - DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING (TS-07)

STANDARD NO.	DESCRIPTION
000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
424001-11	PERPENDICULAR CURB RAMPS FOR SIDEWALKS
424011-04	CORNER PARALLEL RAMPS FOR SIDEWALKS
424021-06	DEPRESSED CORNER RAMPS FOR SIDEWALKS
442201-03	CLASS C AND D PATCHES
604001-05	FRAMES AND LIDS TYPE 1
604056-04	FRAME AND GRATE TYPE 11
604091-05	FRAME AND GRATE TYPE 24
606001-08	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
642006-01	SHOULDER RUMBLE STRIPS, 8 IN.
701001-02	OFF ROAD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5m) AWAY
701006-05	OFF ROAD OPERATIONS, 2L, 2W, 15' (4.5m) TO 24" (600mm) FROM PAVEMENT EDGE
701011-04	OFF ROAD MOVING OPERATIONS, 2L, 2W, DAILY
701101-05	OFF-RD OPERATIONS, MULTILANE, 15' (4.5 M) TO 24" (600 MM) FROM PAVEMENT EDGE
701106-02	OFF-RD OPERATIONS, MULTILANE, MORE THAN 15' (4.5 M) AWAY
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS DAY ONLY
701427-05	LANE CLOSURE, MULTILANE, TINTERMITTENT OR MOVING OPER. FOR SPEED < OR = 40 MPH
701501-06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701701-10	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-06	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901-09	TRAFFIC CONTROL DEVICES
780001-05	TYPICAL PAVEMENT MARKINGS
886001-01	DETECTOR LOOP INSTALLATIONS

GENERAL NOTES

- 1. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE (or TOLLWAY) PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT (or ISTHA).
- 2. 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.
- 3. BUTT JOINTS SHALL 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.
- 4. ALL PAVEMENT PATCHING LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- 5. 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.
- 6. 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.
- 7. SIDEWALK REMOVAL AND P.C.C. SIDEWALK 5" LOCATIONS SHALL BE DETERMINED BY THE ENGINEER.
- 8. DRAINAGE ADJUSTMENT OR RECONSTRUCTION LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- 9. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
- 10. 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.
- 11. STORM SEWER CONSTRUCTED UNDER THE ROADWAY SHALL BE BACKFILLED ACCORDING TO METHOD 1
 OF ARTICLE 550.07 OF THE STANDARD SPECIFICATIONS.
- 12. THE CONTRACTOR SHALL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF PLATED STRUCTURES BY STATION AND OFFSET LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT.
- 13. 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.
- 14. 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.
- 15. FOR WORK OUTSIDE THE LIMITS OF BRIDGE APPROACH PAVEMENT, ALL REFERENCES IN THE HIGHWAY STANDARDS AND STANDARD SPECIFICATIONS FOR REINFORCEMENT, DOWEL BARS AND TIE BARS IN PAVEMENT, SHOULDERS, CURB, GUTTER, COMBINATION CURB AND GUTTER AND MEDIAN, AND CHAIR SUPPORTS FOR CRC PAVEMENT, SHALL BE EPOXY COATED, UNLESS NOTED ON THE PLAN.
- 16. THE CONTRACTOR SHALL CONTACT KALPANA KANNAN-HOSADURGA, THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT KALPANA.KANNAN-HOSADURGA@LLLINOIS.GOV A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.

USER NAME = Alan.Parayno	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 3/29/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

		•	•	•) 111TH ST) General Notes
SCALE:	SHEET	OF	SHEETS	STA.	TO STA.

GENERAL NOTES (CONTINUED...)

- 17. THE RESIDENT ENGINEER SHALL CONTACT PATRICE HARRIS, AREA TRAFFIC FIELD ENGINEER, VIA E-MAIL AT PATRICE.HARRIS@ILLINOIS.GOV, A MINIMUM OF 2 WEEKS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKINGS.
- 18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION OF ALL EMERGENCY SERVICES, SCHOOL DISTRICTS, I.D.O.T.'S COMMUNICATIONS CENTER, SPRINGFIELD TRUCK PERMIT SECTION AND OTHER AGENCIES AFFECTED BY THE CLOSURE. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR POSTING SIGNS THAT WILL INDICATE THE DATES THE CLOSURE WILL BE IN PLACE.
- 19. PAVEMENT MARKING TAPE, TYPE IV SHALL BE USED FOR SHORT TERM PAVEMENT MARKINGS ON ALL FINAL SURFACES.
- 20. 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.
- 22. CONTACT THE IDOT ROADSIDE DEVELOPMENT UNIT AT 847-705-4171 AT LEAST TWO WEEKS PRIOR TO BEGINNING LANDSCAPE AND FORESTRY WORK FOR LAYOUT.
- 23. TREES (3) INCHES OR GREATER IN DIAMETER AT BREAST HEIGHT WILL NOT BE CLEARED BETWEEN APRIL 1 AND OCTOBER 31.
- 24. THE "ROAD CONSTRUCTION AHEAD" SIGNS SHALL REMAIN INSTALLED UNTIL THE COMPLETION OF THE PROJECT OR WHEN NO ROADWAY HAZARDS REMAIN WITHIN THE WORK ZONE.

USER NAME = Alan Parayno	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 100.0000 / in.	CHECKED -	REVISED -	
PLOT DATE = 3/29/2024	DATE -	REVISED -	

SCALE:

INDEX C	F SHEET	S, STATI	E STANDA	RDS & G	ENERAL NOTES	F.A.U. RTE	SECT	ION		COUNTY	TOTAL SHEETS	SHEET NO.
	c	KEAN A	VE (95TH	to 111TH	١	2721	FAU 272	221 R	ŝ	соок	44	3
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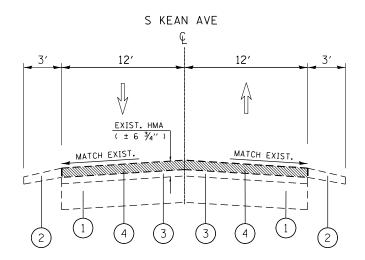
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Company Comp	CODE	N TYPE CO	NSTRUCTIC	CO				AADY OF QUANTITIES	CUMMAN	ION TYPE CODE	CONSTRUCTION				ARY OF QUANTITIES	SLIMAMAE	
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Section Sect					3367	3367	TON	PHALT BINDER COURSE, IL-9.5,	5 HOT-MIX ASPH			30	30	UNIT	(6 TO 15 UNITS DIAMETER)	TREE REMOVAL (20100110
2000000 10 10 10 10 10 10									N70								
2000000												20	20	EACH	(OVER 10 INCH DIAMETER)	TREE PRUNING (20101350
21/00/25 TRANSIS AND PLACE, 4" 50 TO 547 777					2946	2946	TON	PHALT SURFACE COURSE, IL-9.5,	2 HOT-MIX ASPH			53	53	SO YD	FABRIC FOR GROUND STABILIZATION	GEOTECHNICAL FA	21001000
2400020 SEEDING, CLASS 26 AND SAD 0, 5 50 SAD SAD SAD SAD SEEDING, CLASS 26 SAD								170	MIX "D", N70			220	220	CU YD	FION	EARTH EXCAVATI	20200100
2500010 SEEDING, CLASS 2A APRIL 0.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0					220	220	SO YD	: COAT	O PROTECTIVE C			747	747	SO YD	SH AND PLACE, 4"	TOPSOIL FURNIS	21101615
2500010 SEEDING, CLASS 2A APRIL 0.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0																	
2500310 INTERSERBING, CLASS 4 ACRE 6.9 6.9 6.9 6.9 4400005 INTERSERBING, CLASS 4 ACRE 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9					750	750	SO FT	EMENT CONCRETE SIDEWALK 5 INCH	O PORTLAND CEN			540	540	FOOT	SHAPING DITCHES	GRADING AND SH	21400100
2500310 INTERSERBING, CLASS 4 ACRE 6.9 6.9 6.9 6.9 4400005 INTERSERBING, CLASS 4 ACRE 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9																	
25100630 EROSION CONTROL BLAMET 50 TO 1077 1071					30	30	SO FT	WARNINGS	O DETECTABLE W			0.3	0.3	ACRE	SS 2A	SEEDING, CLASS	25000210
25200100 SOUDING, SALT TOLERANT SO 70 20 20 44201789 CLASS 0 PATCHES, TYPE 11, 12 INCH SO 70 924 924 420 420 420 420 420 420 420 420 420 4					30061	30061	SO YD	SPHALT SURFACE REMOVAL, 3 3/4"	4 HOT-MIX ASPH			6. 9	6. 9	ACRE	CLASS 4	INTERSEEDING.	25003310
25200100 S0001MG, SALT TOLERANT S0 YO 20 20 44201789 CLASS 0 PATCHES, TYPE 11, 12 INCH S0 YO 924 924 4201789 CLASS 0 PATCHES, TYPE 11, 12 INCH S0 YO 603 603 403 44201789 CLASS 0 PATCHES, TYPE 111, 12 INCH S0 YO 603 603 403 44201789 CLASS 0 PATCHES, TYPE 111, 12 INCH S0 YO 603 603 403 44201789 CLASS 0 PATCHES, TYPE 111, 12 INCH S0 YO 603 603 44201789 CLASS 0 PATCHES, TYPE 111, 12 INCH S0 YO 603 603 44201789 CLASS 0 PATCHES, TYPE 111, 12 INCH S0 YO 250 250 44201789 CLASS 0 PATCHES, TYPE 111, 12 INCH S0 YO 250 250 44201789 CLASS 0 PATCHES, TYPE 111, 12 INCH S0 YO 603 603 603 44201789 CLASS 0 PATCHES, TYPE 111, 12 INCH S0 YO 603 603 603 44201789 CLASS 0 PATCHES, TYPE 111, 12 INCH S0 YO 603 603 603 44201789 CLASS 0 PATCHES, TYPE 111, 12 INCH S0 YO 603 603 603 44201789 CLASS 0 PATCHES, TYPE 111, 12 INCH S0 YO 603 603 603 603 44201789 CLASS 0 PATCHES, TYPE 111, 12 INCH S0 YO 603 6																	
25202200 SUPPLEMENTAL WATERING UNIT 1 1 1 1 44201794 CLASS D PATCHES, TYPE III, 12 INCH SO YD 603 603 603 400 44201794 CLASS D PATCHES, TYPE III, 12 INCH SO YD 603 603 603 400 40000000 BITIMINOUS MATERIALS (TACK COAT) POUND 20292 20292 40 44201796 CLASS D PATCHES, TYPE IV, 12 INCH SO YD 250 250 250 40 442					750	750	SO FT	REMOVAL	O SIDEWALK REN			1077	1077	SO YD	ROL BLANKET	EROSION CONTRO	25100630
25202200 SUPPLEMENTAL WATERING UNIT 1 1 1 1 44201794 CLASS D PATCHES, TYPE III, 12 INCH SO YD 603 603 603 400 44201794 CLASS D PATCHES, TYPE III, 12 INCH SO YD 603 603 603 400 40000000 BITIMINOUS MATERIALS (TACK COAT) POUND 20292 20292 40 44201796 CLASS D PATCHES, TYPE IV, 12 INCH SO YD 250 250 250 40 442																	
40600290 BITUMINOUS MATERIALS (TACK COAT) POUND 20292 20292					924	924	SO YD	ATCHES, TYPE II, 12 INCH	9 CLASS D PATO			20	20	SO YD	TOLERANT	SODDING, SALT	25200110
40600370 LONGITUDINAL JOINT SEALANT FOOT 14480 14480 48102100 AGGREGATE WEDGE SHOULDER, TYPE B TON 647 647 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4					603	603	SO YD	ATCHES, TYPE III, 12 INCH	4 CLASS D PATO			1	1	UNIT	WATERING	SUPPLEMENTAL W	25200200
40600370 LONGITUDINAL JOINT SEALANT FOOT 14480 14480 48102100 AGGREGATE WEDGE SHOULDER, TYPE B TON 647 647 40600370 MIXTURE FOR CRACKS, JOINTS, AND TON 91 91 91 60252800 CATCH BASINS TO BE RECONSTRUCTED EACH 1 1 40600382 HOT-MIX ASPHALT SURFACE REMOVAL - BUTT SO YD 521 521 60300105 FRAMES AND GRATES TO BE ADJUSTED EACH 4 4 40600382 HOT-MIX ASPHALT SURFACE REMOVAL - BUTT SO YD 521 521 60300105 FRAMES AND GRATES TO BE ADJUSTED EACH 4 60300105 FRAM																	
40600400 MIXTURE FOR CRACKS, JOINTS, AND TON 91 91					250	250	SO YD	TCHES, TYPE IV, 12 INCH	6 CLASS D PATO			20292	20292	POUND	ATERIALS (TACK COAT)	BITUMINOUS MAT	40600290
FLANGE WAYS 60300105 FRAMES AND GRATES TO BE ADJUSTED EACH 4 4					647	647	TON	WEDGE SHOULDER, TYPE B	O AGGREGATE WE			14480	14480	FOOT	JOINT SEALANT	LONGITUDINAL J	40600370
FLANGE WAYS 60300105 FRAMES AND GRATES TO BE ADJUSTED EACH 4 4																	
# = SPECIALTY ITEMS FILE NAME = USER NAME - MANAGE OF DESIGNED - REVISED -					1	1	EACH	NS TO BE RECONSTRUCTED	O CATCH BASINS			91	91	TON	CRACKS, JOINTS, AND	1	40600400
# = SPECIALTY ITEMS FILE NAME = USER NAME AND ADDRESSOR OF USER NAM					4	4	EACH	GRATES TO BE ADJUSTED	5 FRAMES AND G							F LANGE WATS	
* = SPECIALTY ITEMS *FILE NAME = USER NAME = Alon-Parayro												521	521	SO YD	ALT SURFACE REMOVAL - BUTT	HOT-MIX ASPHAL	40600982
FILE NAME : USER NAME : Alan-Paraytro DESIGNED - REVISED - STATE OF ILLINOIS KEAN AVE (US-12/20 (95TH ST) TO 111TH ST) F,A.U. REVISED - REVISED - STATE OF ILLINOIS																JOINT	
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	SUMMARY OF QUANTITIES			1	CONSTRU	CTION	TYPE CODE		1	CUMALA	OV OF QUANTITIES			1	СО	NSTRUCTIO	N TYPE C	DDE	
	SUMMART OF QUANTITIES	1		0005	002					SUMMAI	RY OF QUANTITIES			0005		0021			
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	100% STATE ROADWAY	100% S Traf Sign				CODE NO		ITEM	UNIT	TOTAL QUANTITIES	100% STATE ROADWAY		100% STATE TRAFFIC SIGNALS			
60300305	FRAMES AND LIDS TO BE ADJUSTED	EACH	1	1					70102640	TRAFFIC CONT	ROL AND PROTECTION,	L SUM	1	1					
										STANDARD 701	801								
60920012	PIPE CULVERTS TO BE CLEANED 12"	FOOT	393	393															
									70300100	SHORT TERM P	AVEMENT MARKING	FOOT	22701	22701					
64200108	SHOULDER RUMBLE STRIPS, 8 INCH	FOOT	9190	9190															
									70300150	SHORT TERM P	AVEMENT MARKING REMOVAL	SO FT	9459	9459					
* 66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	220	220															
									70300211	TEMPORARY PA	VEMENT MARKING LETTERS AND	SO FT	37	37					
* 66900530	SOIL DISPOSAL ANALYSIS	EACH	3	3						SYMBOLS - PA	INT								
* 66901001	REGULATED SUBSTANCES PRE-CONSTRUCTION	L SUM	1	1					70300221	TEMPORARY PA	VEMENT MARKING - LINE 4"-	FOOT	31366	31366					
	PLAN									PAINT				1					
* 66901003	REGULATED SUBSTANCES FINAL CONSTRUCTION	L SUM	1	1					70300241	TEMPORARY PA	VEMENT MARKING - LINE 6"-	FOOT	729	729					
	REPORT		1							PAINT									
* 66901006	REGULATED SUBSTANCES MONITORING	CAL DA	20	20					70300251	TEMPODADY DA	VEMENT MARKING - LINE 8"-	FOOT	180	180					
* 66301006	REGULATED SUBSTANCES MONITORING	CAL DA	20						70300251	PAINT	VEMENT MARKING - LINE 0 -	1001	180	180					
67100100	MOBILIZATION	L SUM	1	1															
									70300261	TEMPORARY PA	VEMENT MARKING - LINE 12"-	FOOT	870	870					
70102620	TRAFFIC CONTROL AND PROTECTION,	L SUM	1	1						PAINT									
	STANDARD 701501																		
									70300281	TEMPORARY PA	VEMENT MARKING - LINE 24"-	FOOT	1 35	1 35					
70102625	TRAFFIC CONTROL AND PROTECTION,	L SUM	1	1						PAINT									
	STANDARD 701606																		
									70307120	TEMPORARY PA	VEMENT MARKING - LINE 4" -	FOOT	5676	5676					
70102635	TRAFFIC CONTROL AND PROTECTION.	L SUM	1	1						TYPE IV TAPE									
	STANDARD 701701																		
	* = SPECIALTY ITEMS													1					
FILE NAME =		SIGNED -		REVISED	-	\perp		CTATE OF :			KEAN AVE (US-12/2)	 (95TH ST)	TO 111TH S	 T)	F.A.U. RTE.	SECTIO		COUNTY SH	TOTAL SHEET HEETS NO.
pw:\\Vidot-pw.bentiey.co		ECKED -		REVISED REVISED	-			STATE OF I MENT OF TR			SUMMARY	OF QUANT	ITIES		2721	FAU 2721		CONTRACT I	44 (5
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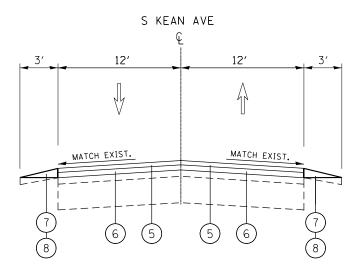
	SUMMARY OF QUANTITIES				CONSTRUCTIO	N TYPE CODE		SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	0005 100% STATE ROADWAY	0021 100% STATE TRAFFIC SIGNALS		CODE NO		TOTAL OUANTITI		0021 E 100% STATE TRAFFIC SIGNALS
78000100	THERMOPLASTIC PAVEMENT MARKING -	SO FT	37	37			* 87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO.	OOT 547		547
	LETTERS AND SYMBOLS							14 3C			
78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	44686	44686			* 87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. F	00T 111		111
								14 1 PAIR			
78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	729	729							
							* 87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT	00T 1086		1086
78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	180	180				GROUNDING CONDUCTOR, NO. 6 1C			
78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	870	870			* 87900200	DRILL EXISTING HANDHOLE E	ACH 4		4
78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	1 35	1 35			* 88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE,	ACH 2		2
78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	387	387				BRACKET MOUNTED WITH COUNTDOWN TIMER			
							* 88600100	DETECTOR LOOP, TYPE I	00T 136		136
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	194	194							
							* 89500200	RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	ACH 2		2
78300202	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	15385	15385			* 89502200	MODIFY EXISTING CONTROLLER	ACH 1		1
31028200	UNDERGROUND CONDUIT, GALVANIZED STEEL,	FOOT	45		45		* 89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	ACH 1		1
	2" DIA.						* 89502376	REBUILD EXISTING HANDHOLE	ACH 1		1
35000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL	EACH	1		1		* 03302316	NEBULED EXISTING HAMPHOLE	1		1
	INSTALLATION						K0026700	TREE CARE	ACH 17	17	
770:0:-											
37301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	539		539		X0320050	CONSTRUCTION LAYOUT (SPECIAL)	SUM 1	1	
							x0325222	WEED CONTROL, BASAL TREATMENT GA	LLON 40	40	
LE NAME =	* = SPECIALTY ITEMS USER NAME = AvanParayno DES:	IGNED -		REVISED -							IFAUL STOYIOU SOUNCE TO
	USER NAME = AlanParayno DES.			REVISED -		STATE	OF ILLINOIS	KEAN AVE (US-1220 (95 SUMMARY OF		ST)	F.A.U. RTE. SECTION COUNTY SHELL 2721 FAU 2721 221 RS COOK 4
:\\ildot-pw.bentley.com											

	SUMMARY OF QUANTITIES						TYPE CODE	E ,		SUMMARY O	QUANTITIES				CO		TYPE CODE		
			TOTAL	0005		0021				22			TOTAL	0005		0021			
CODE NO	ITEM	UNIT	QUANTITIES	100% STATE ROADWAY		% STATE RAFFIC IGNALS			CODE NO		ITEM	UNIT	QUANTITIES	100% STATE ROADWAY		100% STATE TRAFFIC SIGNALS			
x0326898	CENTER LINE - RUMBLE STRIP - 16"	FOOT	4382	4382					* x8760200	ACCESSIBLE PEDES	RIAN SIGNALS	EACH	6			6			
X0327120	WEED CONTROL, NATIVE LANDSCAPE	ACRE	6. 9	6. 9					* X8780012	CONCRETE FOUNDAT	ON, TYPE A 12-INCH	FOOT	4			4			
	ENHANCEMENT									DIAMETER									
X1400367	PEDESTRIAN SIGNAL POST, 10 FT.	EACH	4			4			* X8860105	DETECTOR LOOP RE	PLACEMENT	FOOT	118			118			
X2020110	GRADING AND SHAPING SHOULDERS	UNIT	184	184					Z0018500	DRAINAGE STRUCTU	RES TO BE CLEANED	EACH	6	6					
V2503110	MOWING (SPECIAL)	ACRE	3 2	3.2					70070850	TEMPORARY INFORM	ATION CICNING	50.51	107	107					
X2503110	MONTHO (SI ECIAL)	ACRE	3. 2	3. 2					Z0030850	I EMIL ORAKT TAPOKM	TION STONING	SO FT	103	103					
X2503323	INTERSEEDING, CLASS 5A (MODIFIED)	ACRE	6. 9	6. 9					Z0064800	SELECTIVE CLEARI	IG .	UNIT	159	159					
x4060995	TEMPORARY RAMP (SPECIAL)	SO YD	267	267					x0324055	GEOCELL CONFININ	S SYSTEM	SO YD	53	53					
X4400501	COMBINATION CURB AND GUTTER REMOVAL AND	FOOT	50	50															
	REPLACEMENT LESS THAN OR EQUAL TO 10 FEET																		
x4400503	COMBINATION CURB AND GUTTER REMOVAL AND	FOOT	120	120															
	REPLACEMENT GREATER THAN 10 FEET																		
x5537800	STORM SEWERS TO BE CLEANED 12"	FOOT	175	175															
x6700407	ENGINEER'S FIELD OFFICE, TYPE A (D1)	CAL MO	12	12															
X7800815	HOT SPRAY THERMOPLASTIC PAVEMENT	FOOT	6862	6862															
	MARKING LINE - 4 INCH																		
Eli E MANTE	* = SPECIALTY ITEMS	CIONED		DEVICES											IF A !! !				(A) I CULL
FILE NAME = pw:\Vidot-pw.bentley.co	com:PWIDOT\Documents\DOT Offices\District NProjects\Dij3222\CADData\Design\Dij3222-sht-500 0j	SIGNED - NAWN - HECKED -		REVISED REVISED REVISED	-		DEP	STATE OF ARTMENT OF	ILLINOIS TRANSPORTAT	rion	KEAN AVE (US-12/2 SUMMARY	0 (95TH ST ' OF QUAN		T)	F.A.U. RTE. 2721	SECTION FAU 2721 22	1 RS C00	(44	TAL SHEE ETS NO. 4 7 0. 62R41



EXISTING TYPICAL SECTION

STA 14+19 - 36+00, 51+50 - 69+00, 71+00 - 90+00, 96+70 - 119+76



PRPOPOSED TYPICAL SECTION

STA 14+19 - 36+00, 51+50 - 69+00, 71+00 - 90+00, 96+70 - 119+76

NOTES:

- 1. THE CONTRACTOR SHALL MILL FIRST BEFORE PATCHING, PER BD-22 DETAIL.
- 2. THE LONGITUDINAL JOINT SEALANT SHALL BE PLACED OVER THE HMA BINDER COURSE, IL-9.5, N70.
- 3. PROPOSED SHOULDER RUMBLE STRIPS, 8" AND CENTERLINE RUMBLE STRIP 16" SHALL BE INSTALLED FROM STA 41+08 TO STA. 88+00.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

KEAN	I AVE (S C	F US 1	12/20 (95	TH ST)	TO 111TH ST)	F.A.U. RTE.	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.
	·	TVDIC	AL SECT	IUN .	•		FAU 2721 221 RS		COOK	44	8
		11110	AL SLU	IOIV					CONTRACT	NO. 62	2R41
	SHEET	OF	SHEETS	STA.	TO STA.		ILLINOIS	FED. AI	D PROJECT		

4% AT 70 GYR.

QC/QA

LEGEND

- (1) EXISTING PCC BASE COURSE (+/- 9")
- 2) EXISTING AGGREGATE SHOULDER
- (3) EXISTING HMA AFTER MILLING, 3"
- 4) PROPOSED HMA SURFACE REMOVAL, 3 3/4"
- (5) PROPOSED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N70, 1 3/4"
- (6) PROPOSED HOT-MIX ASPHALT BINDER COURSE, IL-9.5, N70, 2"
- 7) PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B
- (8) PROPOSED GRADING AND SHAPING SHOULDERS

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

AIR VOIDS @ N	QUALITY MANAGEMENT
DES DES	PROGRAM (QMP)
4% AT 70 GYR.	QCP
4% AT 70 GYR.	QCP
4% AT 70 GYR.	QC/QA
	4% AT 70 GYR.

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

MIXTURE NOTES:

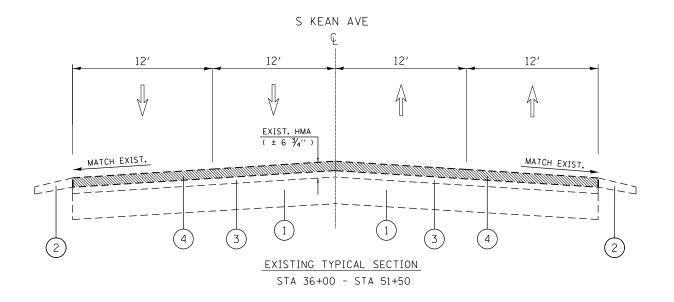
TEMPORARY RAMP, SPECIAL:

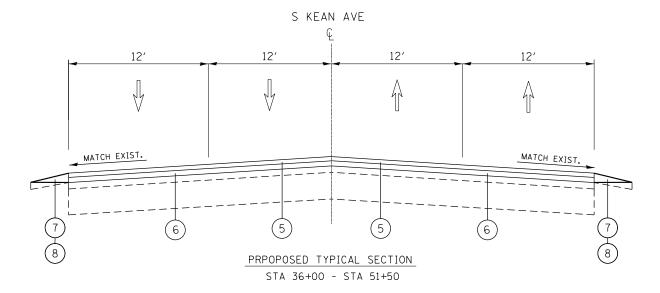
SCALE:

HMA BC IL-9.5 N70 (VARIABLE DEPTH)

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SO 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.





NOTES:

- 1. THE CONTRACTOR SHALL MILL FIRST BEFORE PATCHING, PER BD-22 DETAIL.
- 2. THE LONGITUDINAL JOINT SEALANT SHALL BE PLACED OVER THE HMA BINDER COURSE, IL-9.5, N70.
- 3. PROPOSED SHOULDER RUMBLE STRIPS, 8" AND CENTERLINE RUMBLE STRIP 16" SHALL BE INSTALLED FROM STA 41+08 TO STA. 88+00.

USER NAME = Alan Parayno DESIGNED REVISED DRAWN REVISED PLOT SCALE = 100,0002 ' / in CHECKED REVISED PLOT DATE = 3/29/2024 DATE REVISED

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

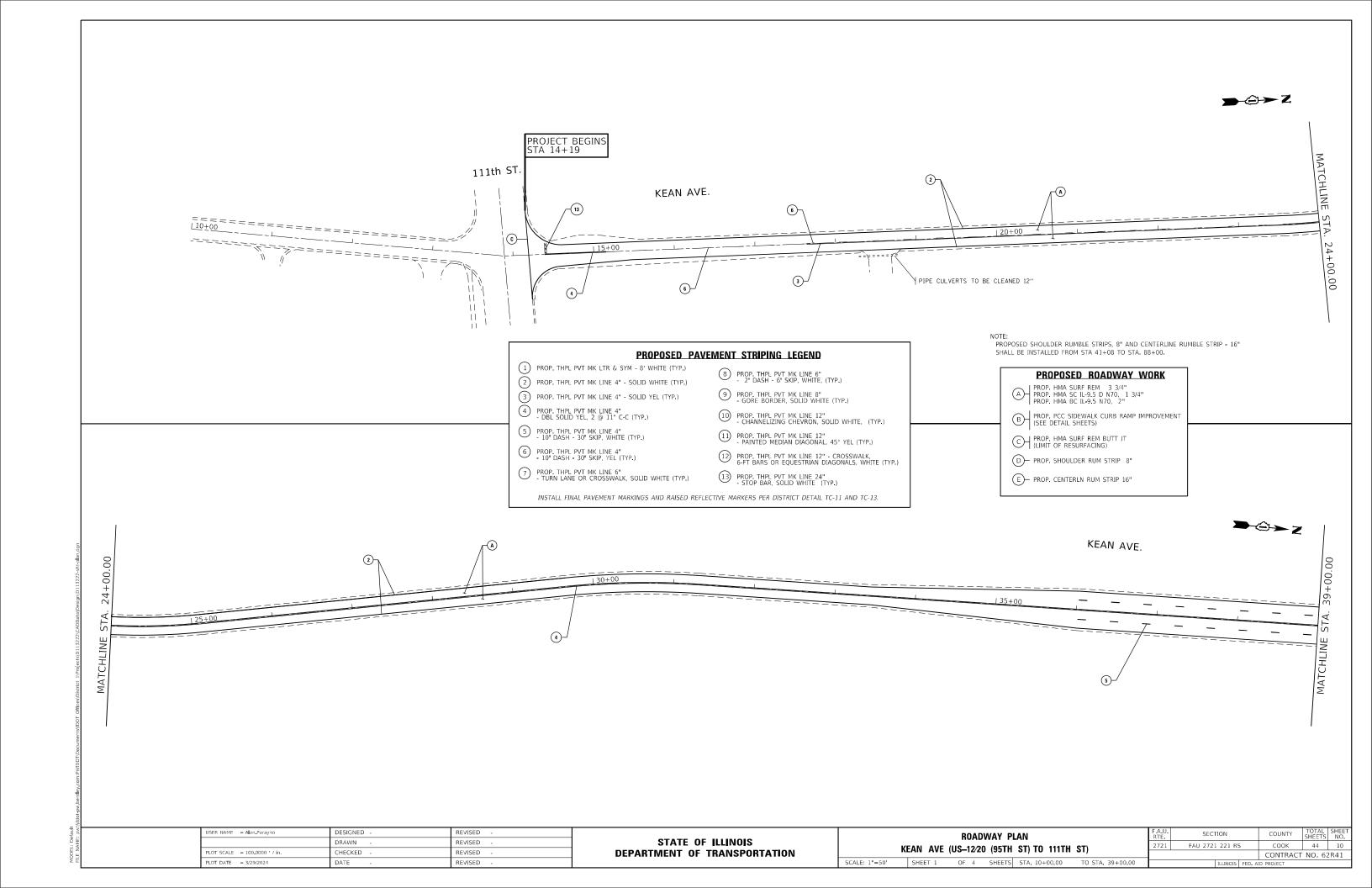
KEAN AVE (S OF US 12/20 (95TH ST) TO 111TH ST) F.A.U. RTE. SECTION TYPICAL SECTION SHEET OF SHEETS STA. TO STA. ILLINOIS FI

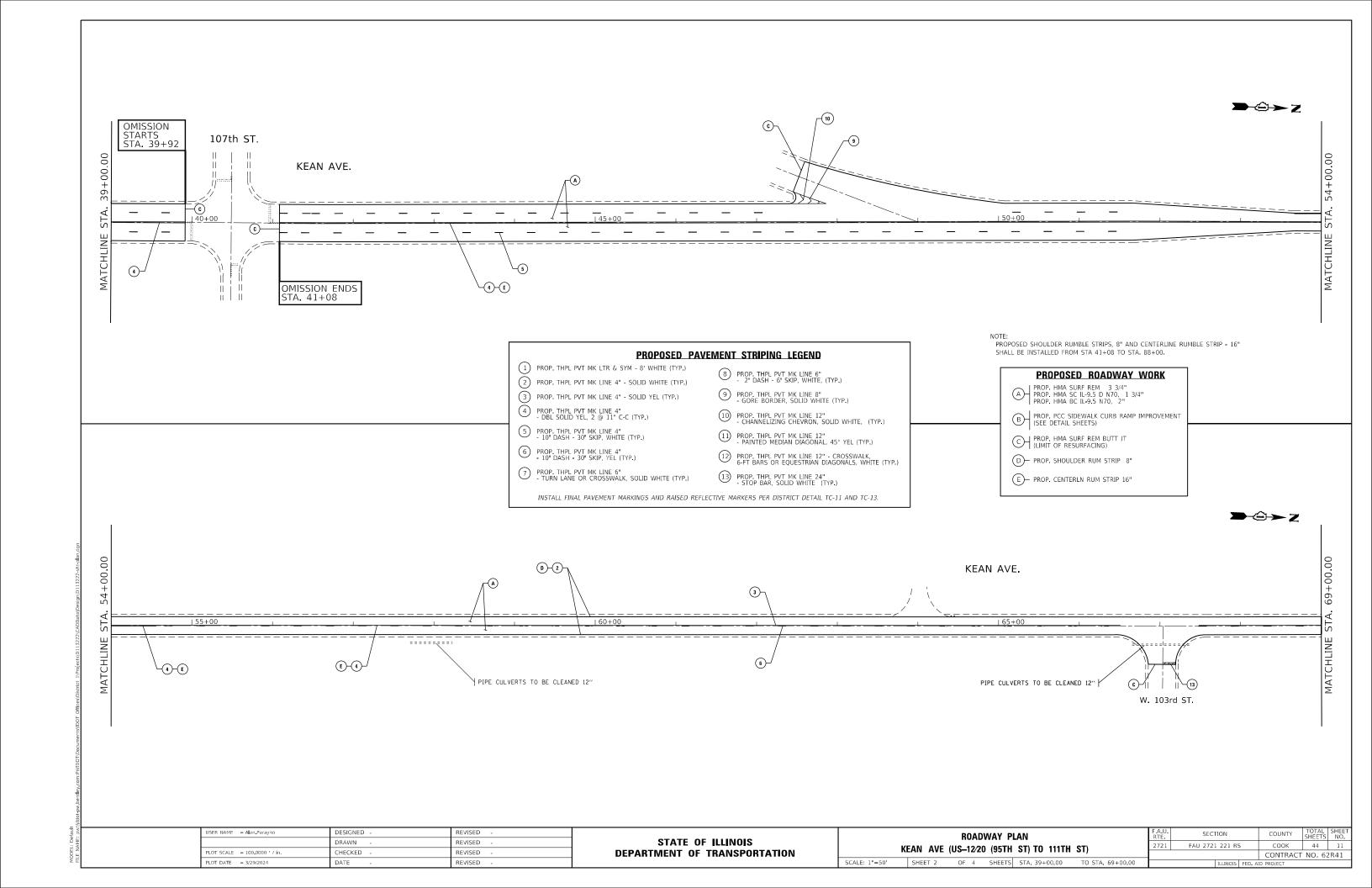
COOK 44 9

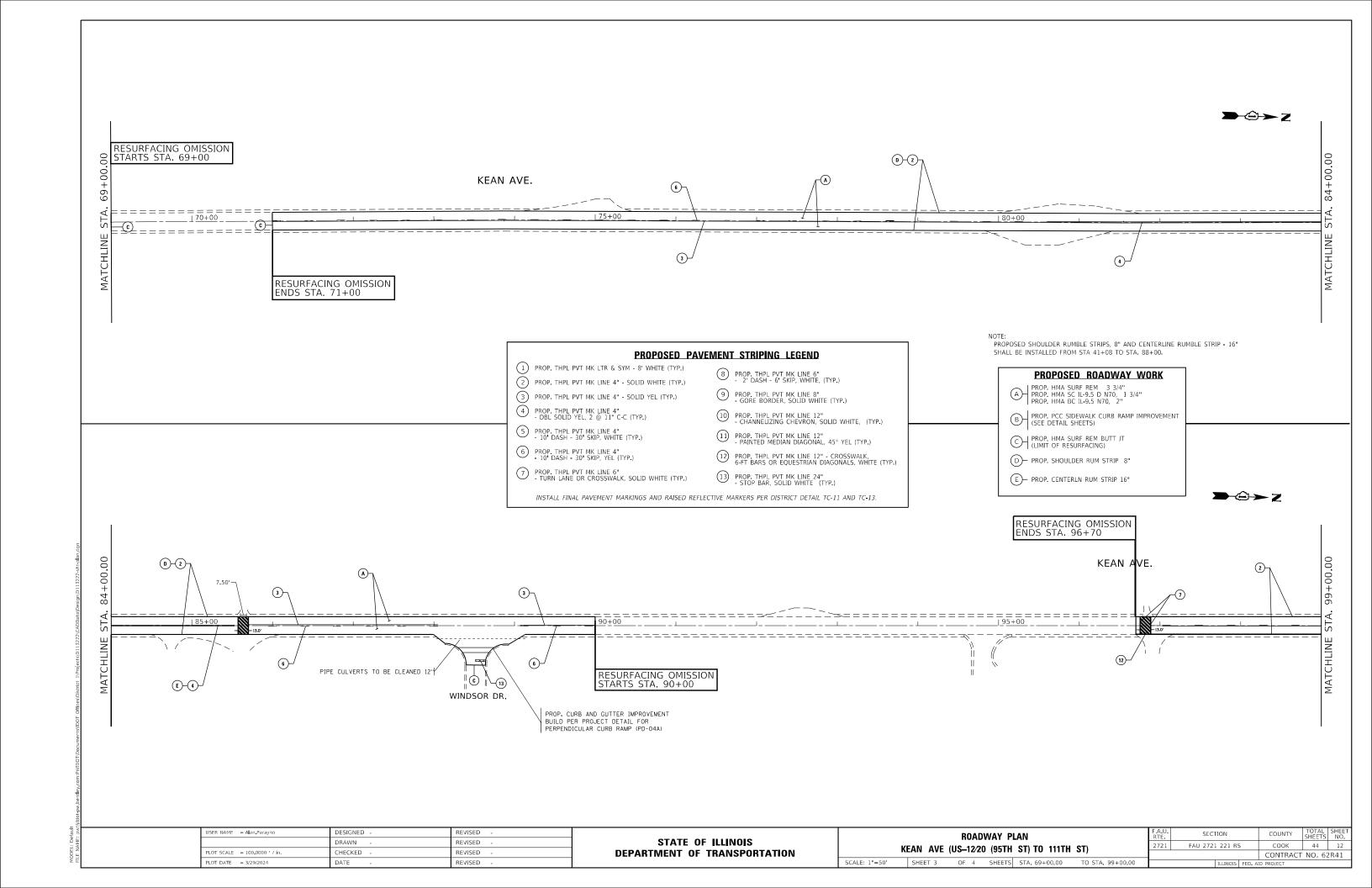
CONTRACT NO. 62R41

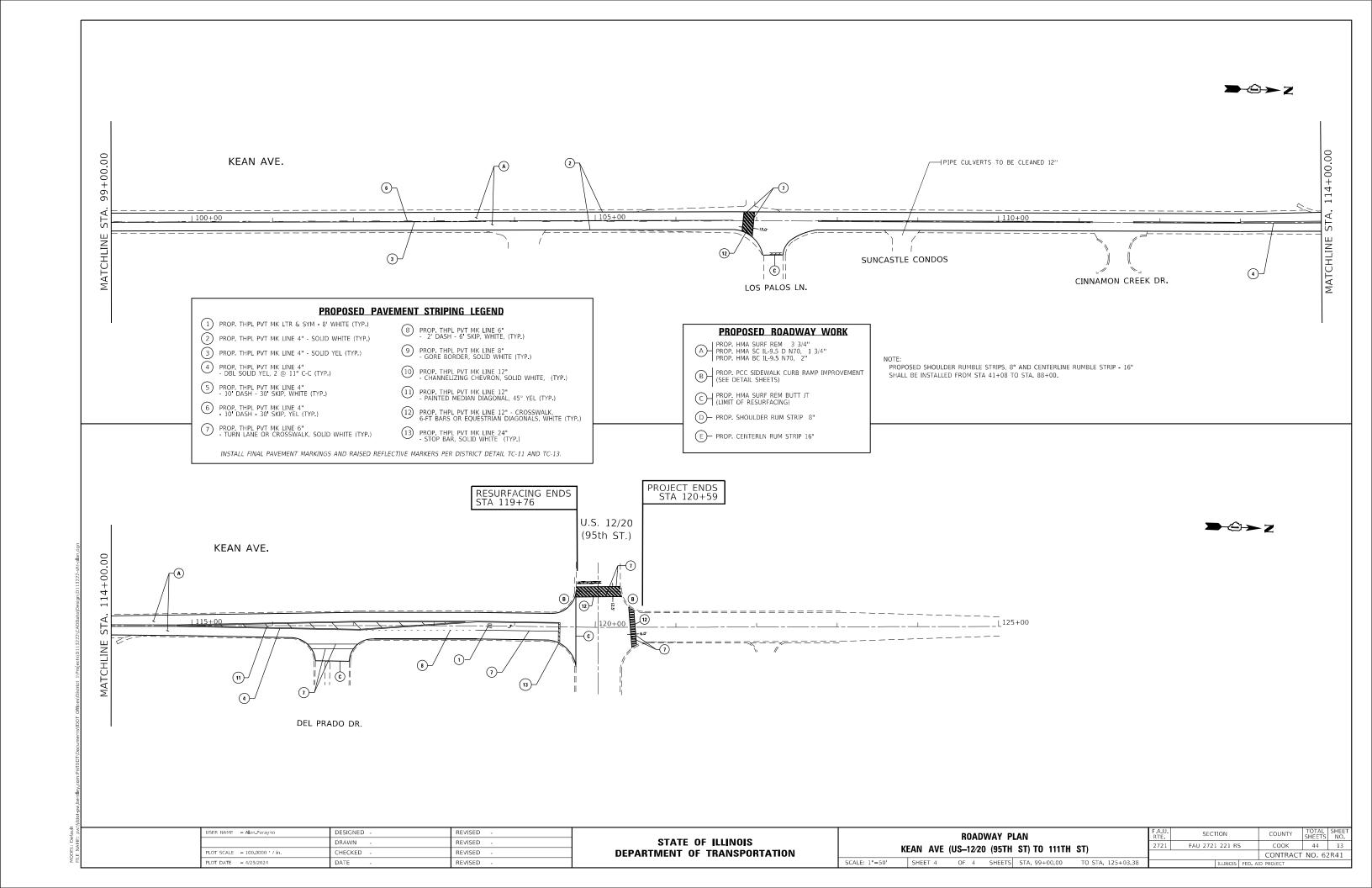
LEGEND

- 1) EXISTING PCC BASE COURSE (+/- 9")
- (2) EXISTING AGGREGATE SHOULDER
- (3) EXISTING HMA AFTER MILLING, 3"
- 4) PROPOSED HMA SURFACE REMOVAL, 3 3/4"
- (5) PROPOSED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N70, 1 3/4"
- (6) PROPOSED HOT-MIX ASPHALT BINDER COURSE, IL-9.5, N70, 2"
- 7) PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B
- (8) PROPOSED GRADING AND SHAPING SHOULDERS





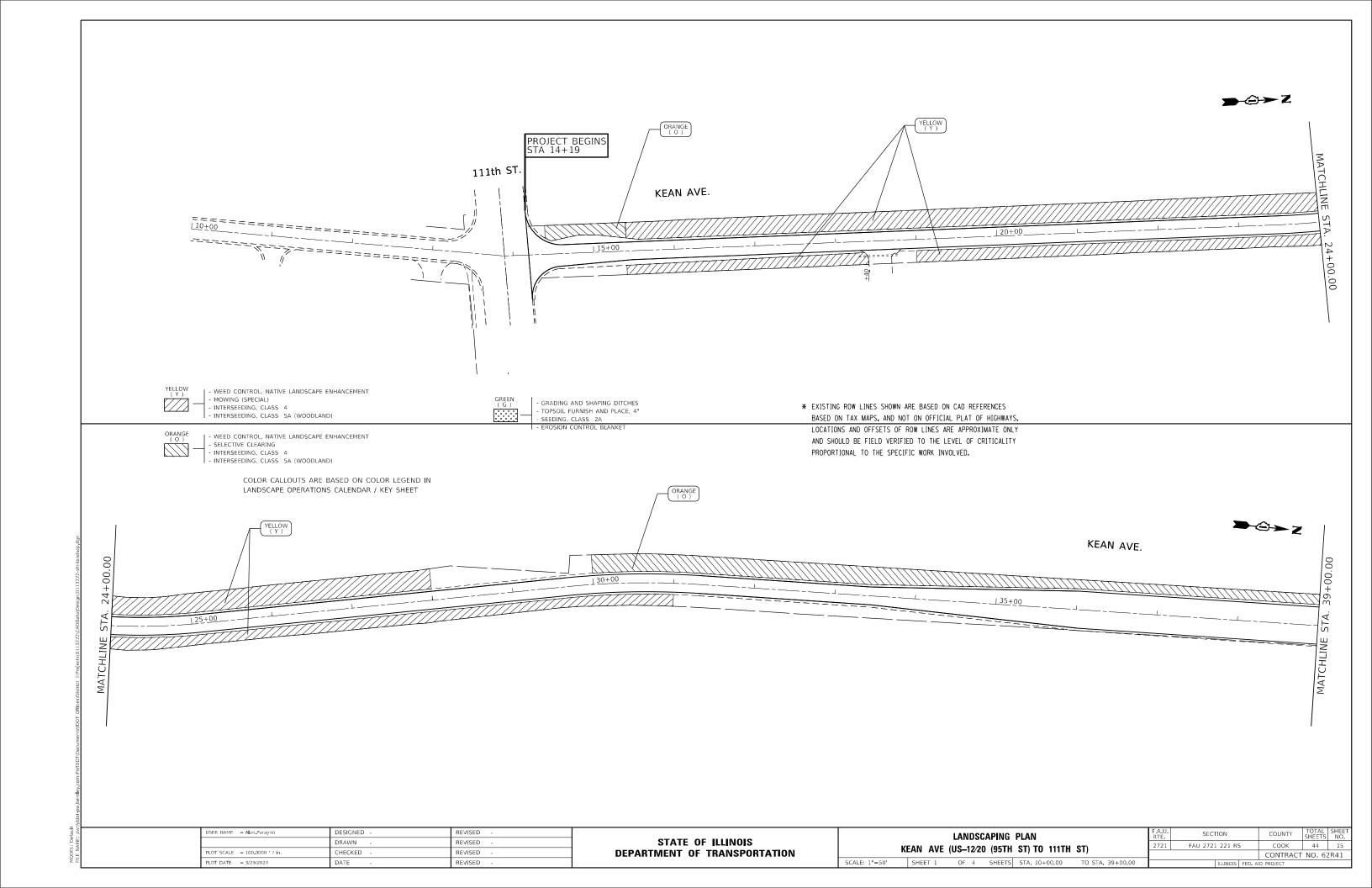


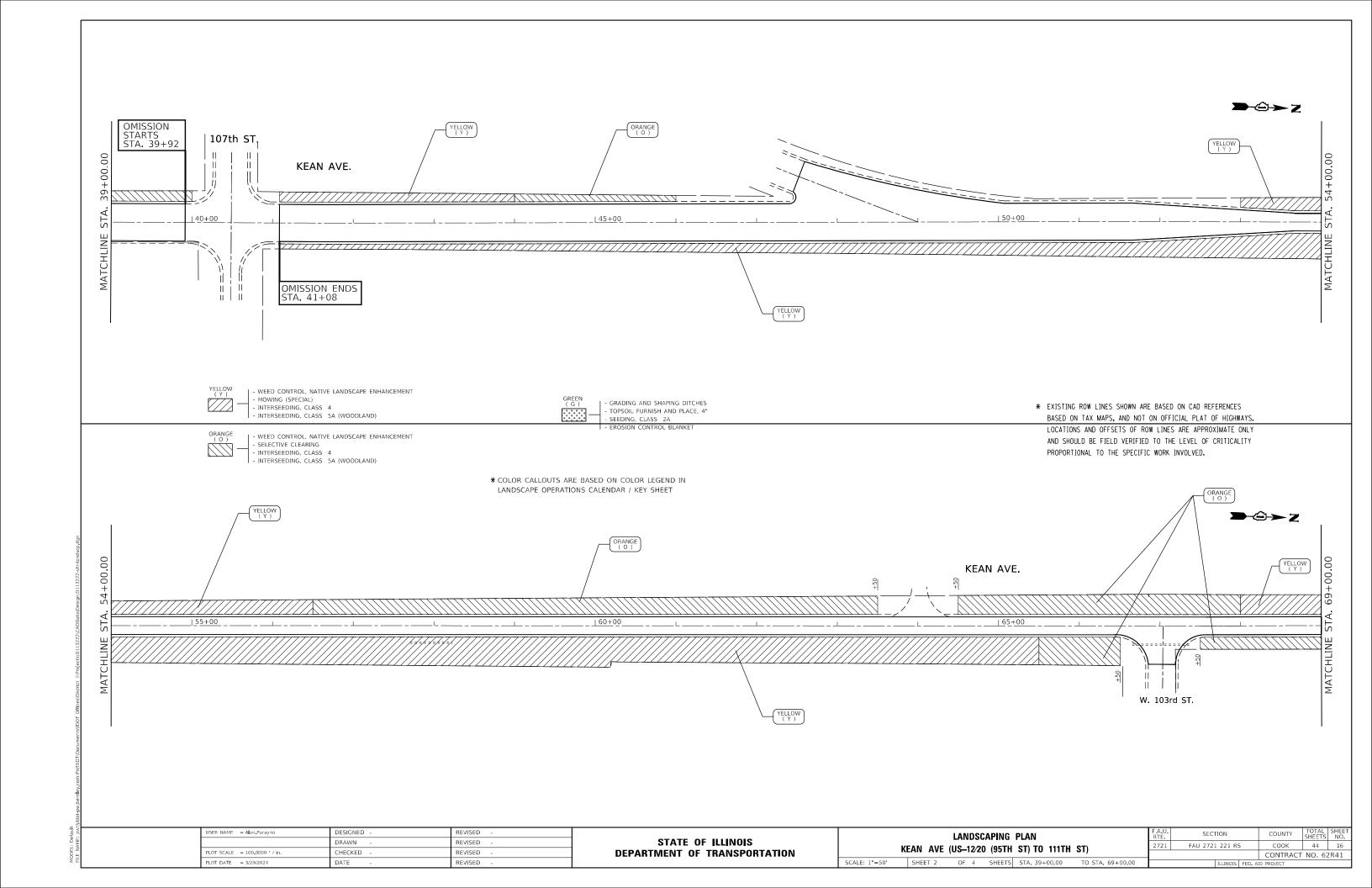


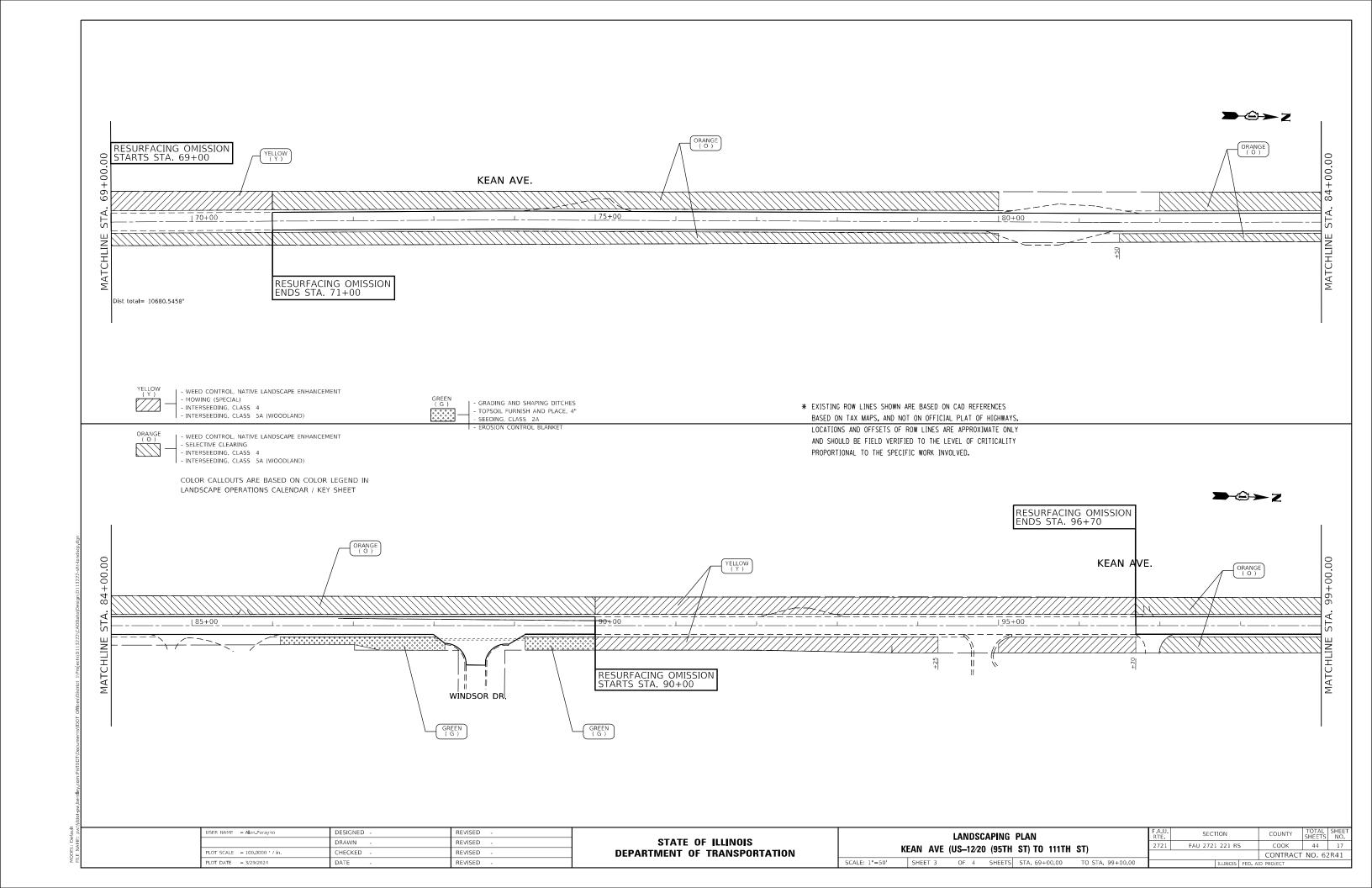
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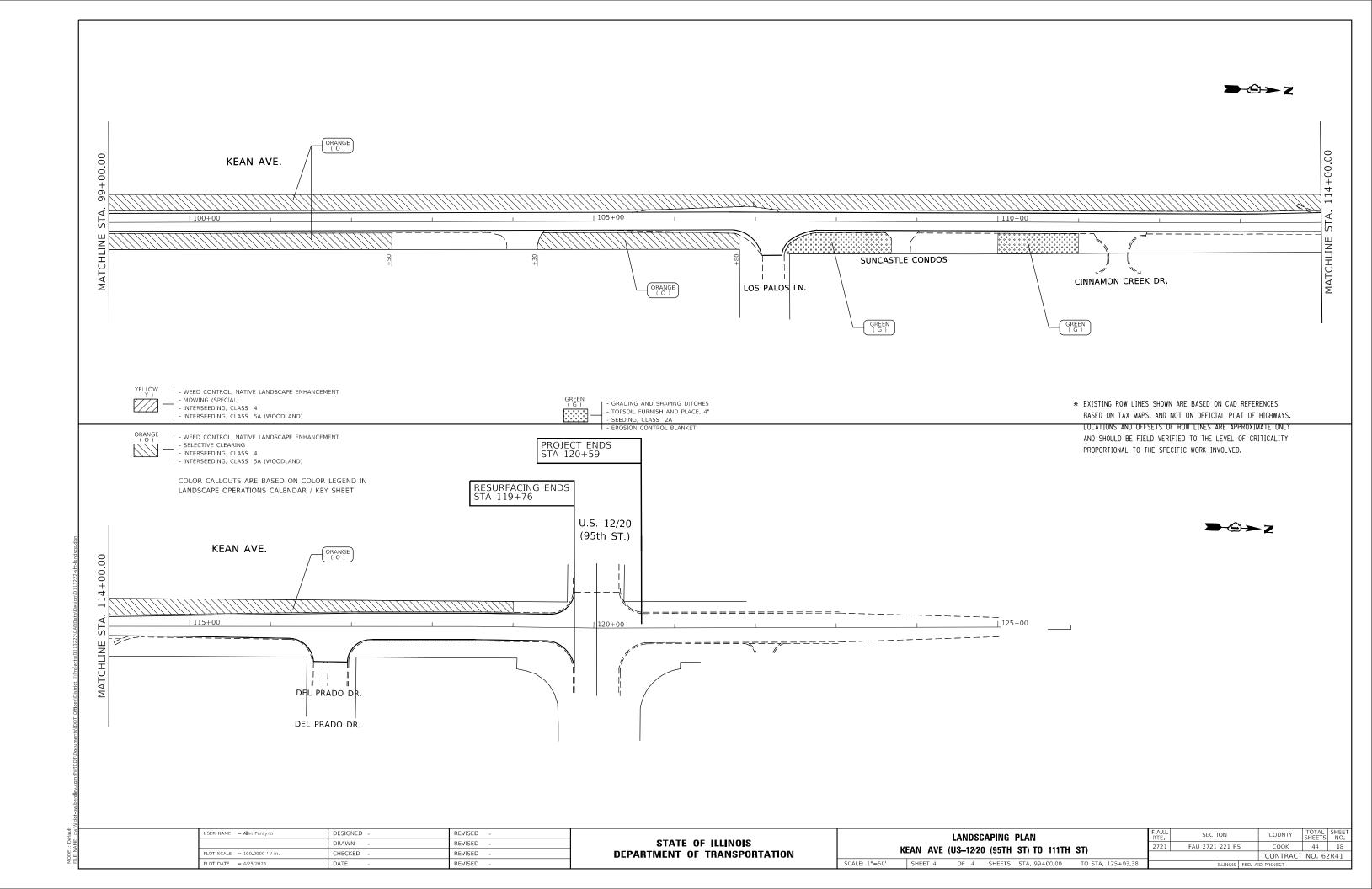
THE TOTAL OF THE QUANTITIES FOR EACH OF THE SPECIFIC PAY ITEMS ON THIS SHEET ARE EXPRESSED IN THE SOQ SHEETS AS VALUES TAKEN TO THE APPROPRIATE DEGREE OF ACCURACY FOR THE TYPE OF PAY ITEM, ACCORDING TO BDE MANUAL SECTION 64.1.04, "UNITS OF MEASUREMENT", AND THE CHARTS IN FIGURE 64-1.A.

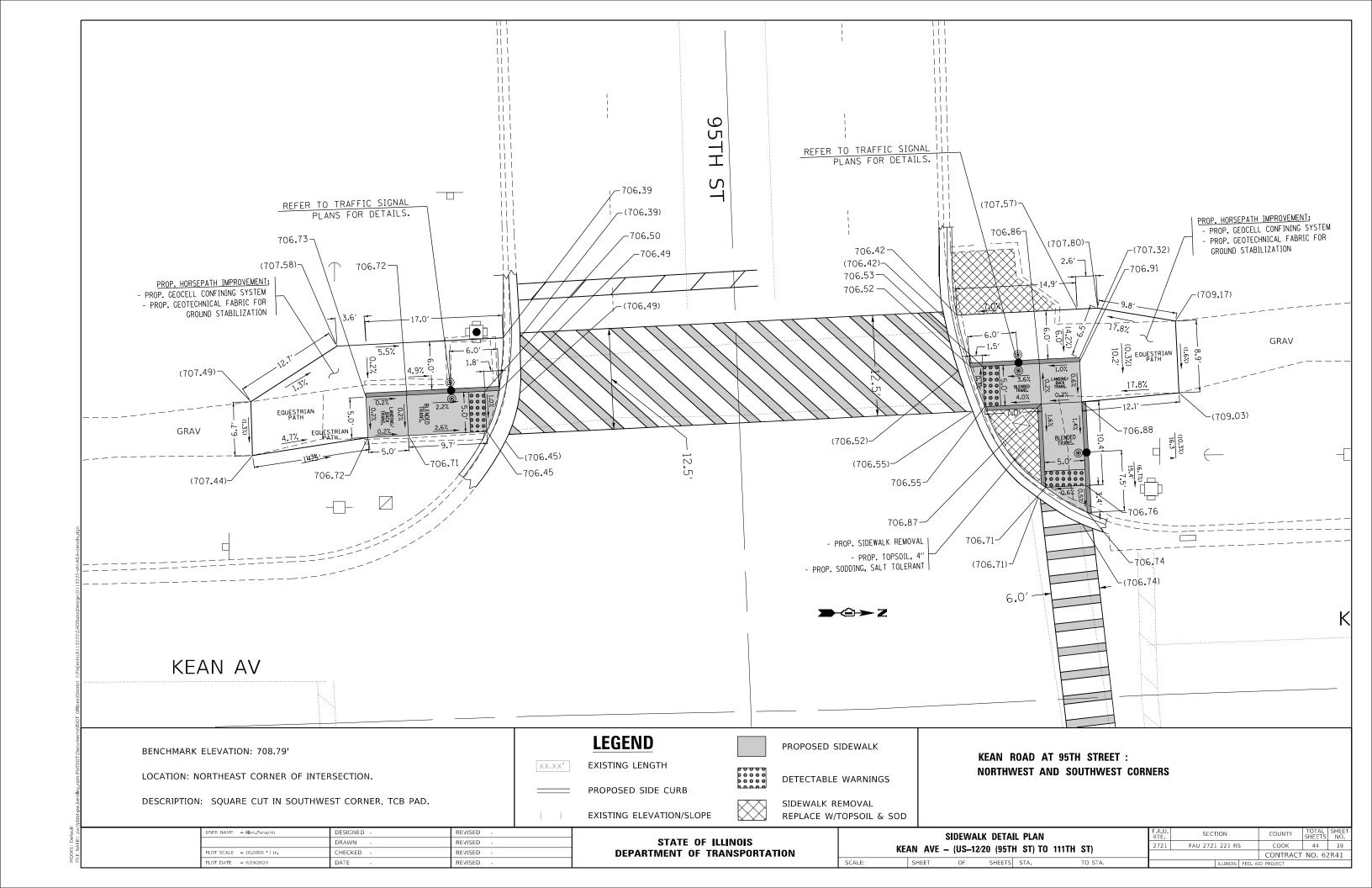
USER NAME = Alan.Parayno	DESIGNED -	REVISED -				LANDS	CAPING	ΡΙΔΝ		F.A.U. BTF	SECTION	COUNTY	TOTAL	SHEET
	DRAWN -	REVISED -	STATE OF ILLINOIS	.,	FAN AVE				AATII OT\	2721	FAU 2721 221 RS	соок	44	14
PLOT SCALE = 100.0000 / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION	K	EAN AVE	(US-12/2	2U (951H	ST) TO 1	111H SI)			CONTRACT	T NO. 6	2R41
PLOT DATE = 3/29/2024	DATE -	REVISED -		SCALE: 1"=50'	SHEET	OF	SHEETS	STA.	TO STA.		ILLINOIS FED	AID PROJECT		

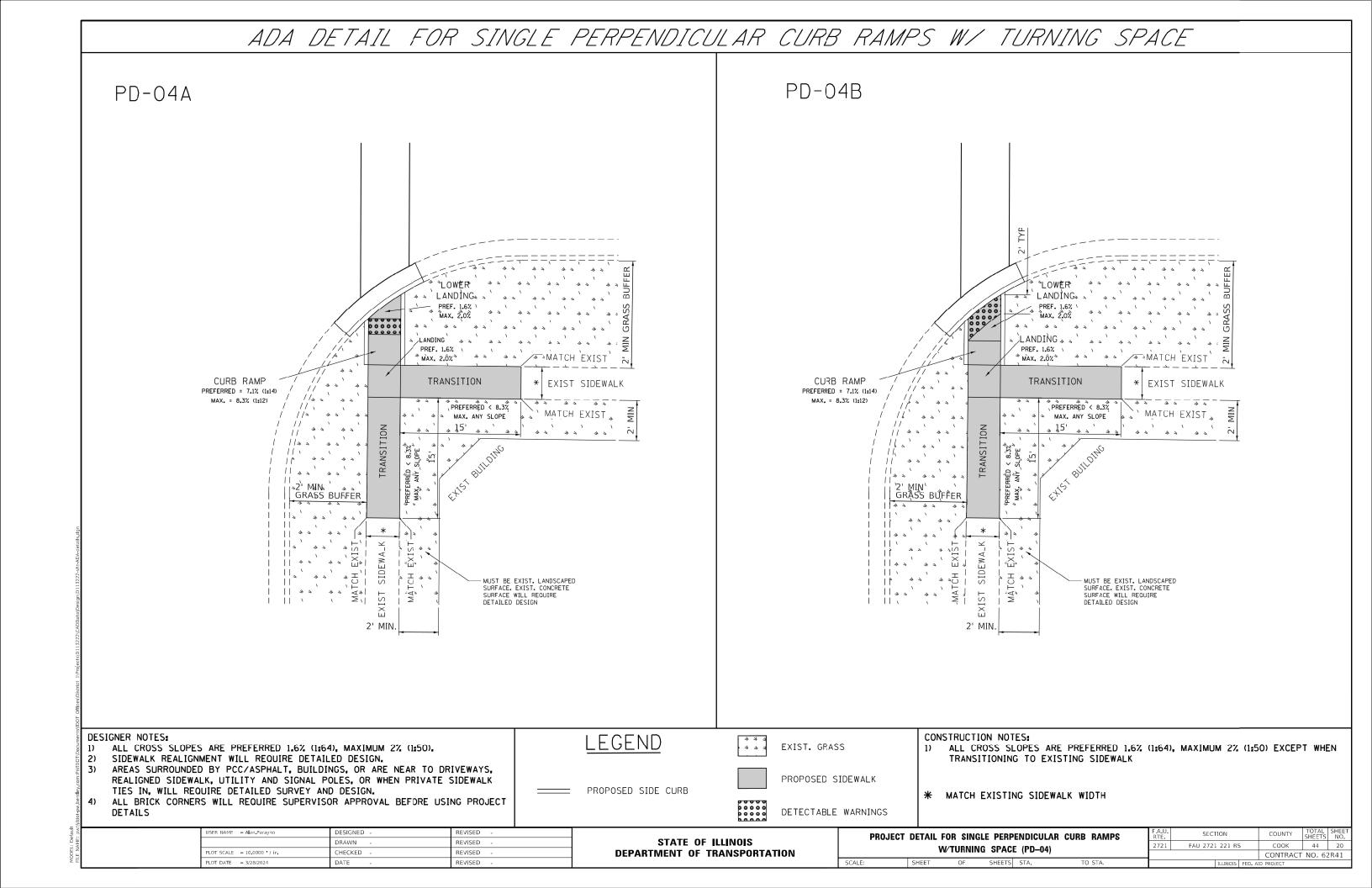


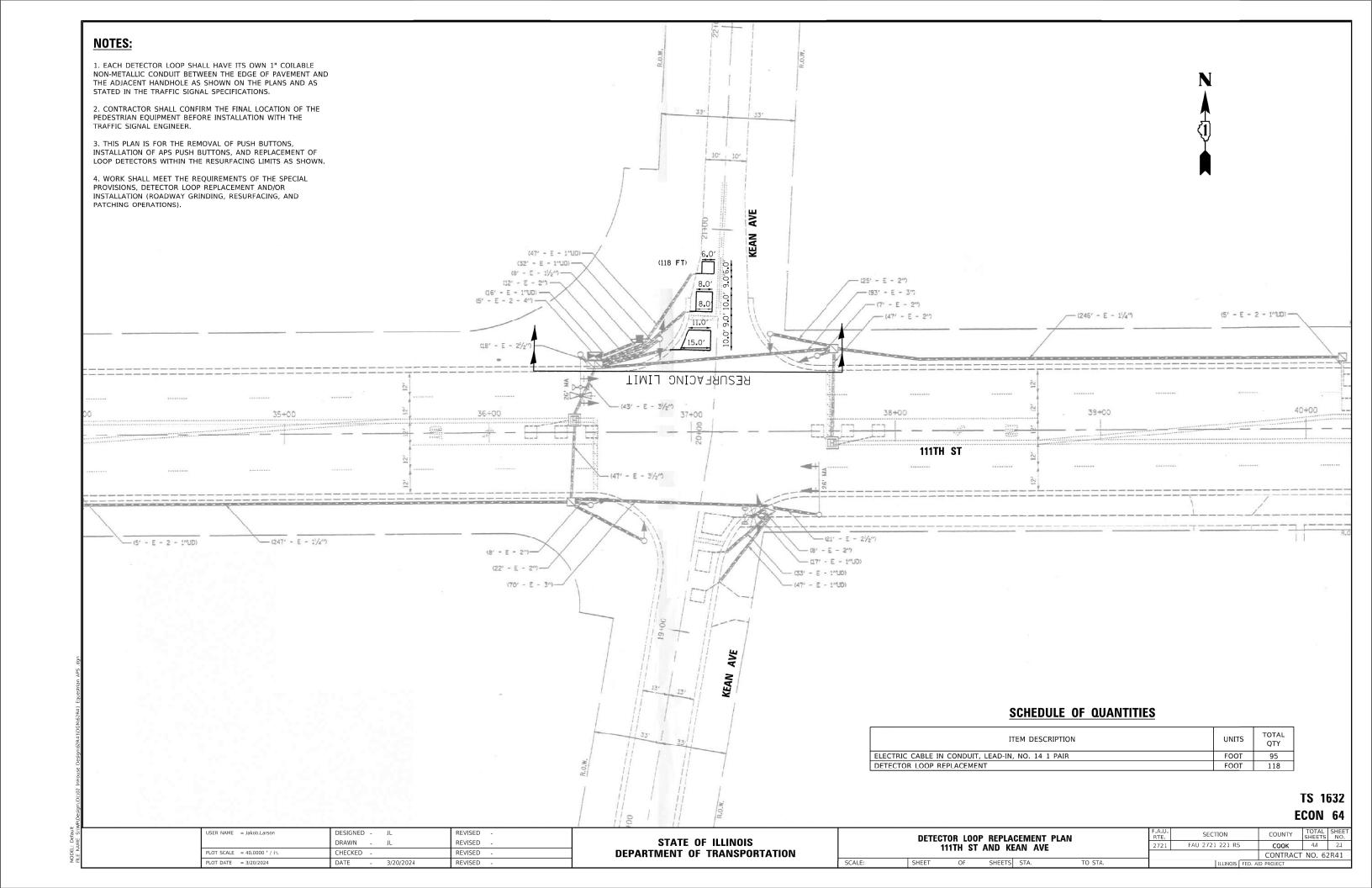


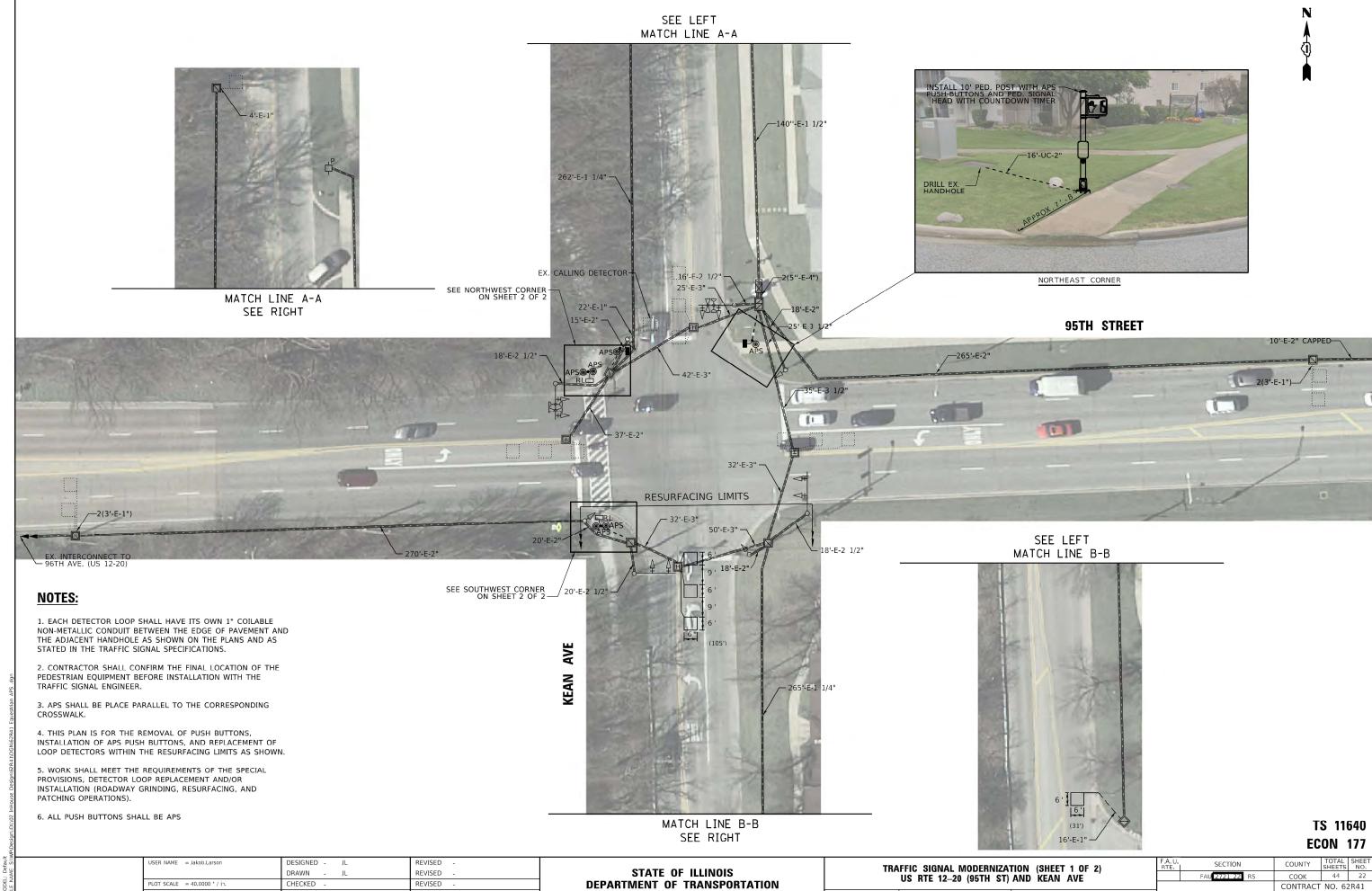




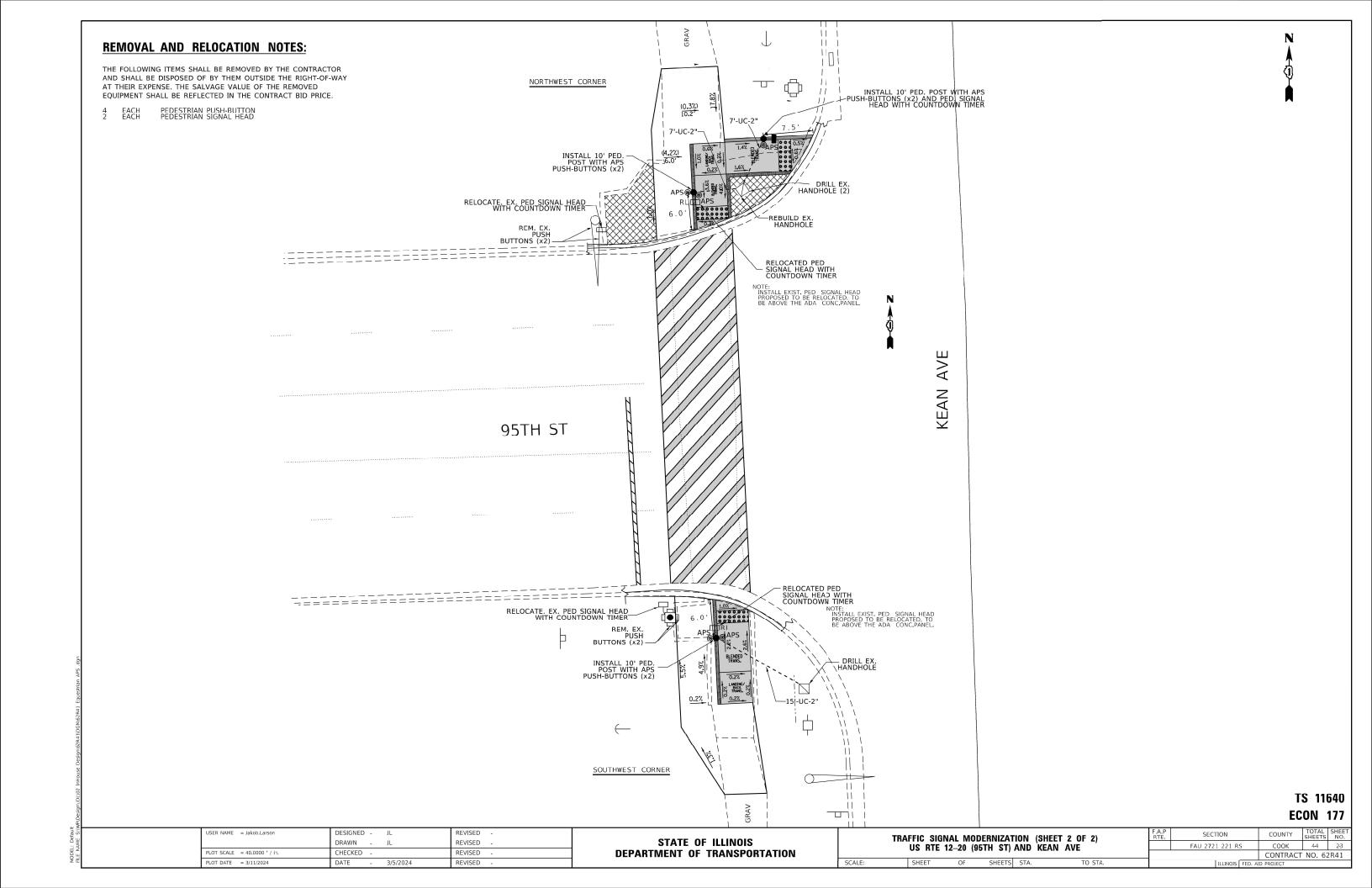




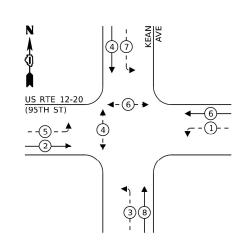




OF SHEETS STA.



PROPOSED CONTROLLER SEQUENCE



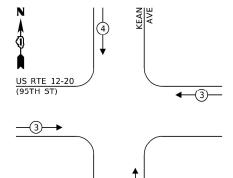
LEGEND:

◆ * PROTECTED PHASE

← - (*)- - PROTECTED/PERMITTED PHASE

√-(*)- ► PEDESTRIAN PHASE

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



TRAFFIC SIGNAL **ELECTRICAL SERVICE REQUIREMENTS**

	TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
	SIGNAL (RED)	12	11	50	66.0
	(YELLOW)	12	20	5	12.0
	(GREEN)	12	12	45	64.8
	PERMISSIVE ARROW	16	10	10	16.0
	PED. SIGNAL	4	20	100	80.0
ì	CONTROLLER	1	100	100	100.0
	UPS	1	25	100	25.0
	VIDEO SYSTEM	-	150	100	-
1	BLANK-OUT SIGN	-	25	5	-
	FLASHER	-	-	50	-
	STREET NAME SIGN	-	120	50	-
5	LUMINAIRE	-	-	-	-
				TOTAL =	363.8

ENERGY COSTS TO:

CITY OF HICKORY HILLS

8652 W. 95TH STREET

HICKORY HILLS, IL 60457 ENERGY SUPPLY: CONTACT: PAUL EDWARDS

PHONE: 779-573-8637

COMPANY: COMMONWEALTH EDISON

ACCOUNT NUMBER:

DESIGNED - JL REVISED JSER NAME = Jakob.Larsor REVISED DRAWN PLOT SCALE = 40.0000 ' / in. CHECKED REVISED PLOT DATE = 3/18/2024

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** CABLE PLAN. PHASE DESIGNATION DIAGRAM.
AND EMERGENCY VEHICLE PREEMPTION SEQUENCE US RTE 12-20 (95TH ST) AND KEAN AVE

SECTION COUNTY COOK 44 24 FAU 2721 221 RS CONTRACT NO. 62R41

TS 11640

ECON 177

3#20 US RTE 12-20 (95TH ST) EX. INTERCONNECT-TO 96TH AVE. (US 12-20) EX. TRACER CABLE -**CABLE PLAN**

SCHEDULE OF QUANTITIES

	1	
ITEM DESCRIPTION	UNITS	TOTAL QTY
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA	FOOT	45
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION.	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	539
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	547
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	16
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	1086
DRILL EXISTING HANDHOLE	EACH	4
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
DETECTOR LOOP, TYPE 1	FOOT	136
RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	2
MODIFY EXISTING CONTROLLER	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REBUILD EXISTING HANDHOLE	EACH	1
PEDESTRIAN SIGNAL POST, 10 FT	EACH	4
ACCESSIBLE PEDESTRIAN SIGNAL	EACH	6
CONCRETE FOUNDATION, TYPE A 12-INCH DIAMETER	FOOT	16

TS 11640 ECON 177

USER NAME = Jakob.Larson DESIGNED - JL REVISED - DRAWN - JL REVISED - DRAWN - JL REVISED - DRAWN - JL REVISED - DEPARTMENT OF TRANSPORTATION

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

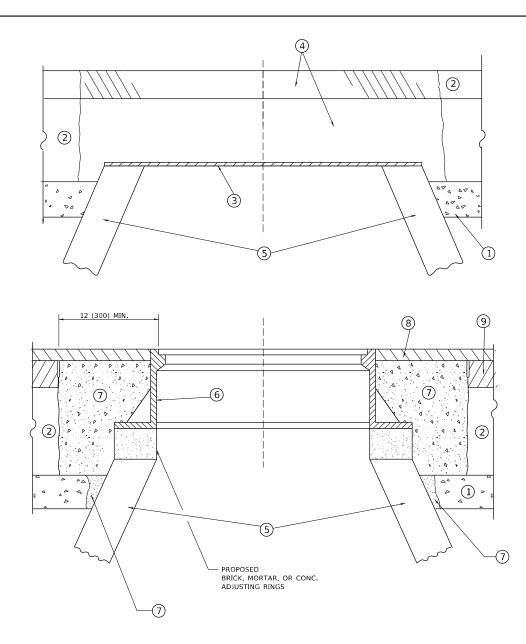
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: SHEET OF SHEETS STA. TO STA.

SCHEDULE OF QUANTITIES REVISED - REVISED - COUNTY SHEETS NO.

SCALE: SHEET OF SHEETS STA. TO STA.

SCALE: SHEET OF SHEETS STA. TO STA.



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
- _
- 4 PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- 8 PROPOSED HMA SURFACE COURSE
- (5) EXISTING STRUCTURE
- (9) PROPOSED HMA BINDER COURSE

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.
- 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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

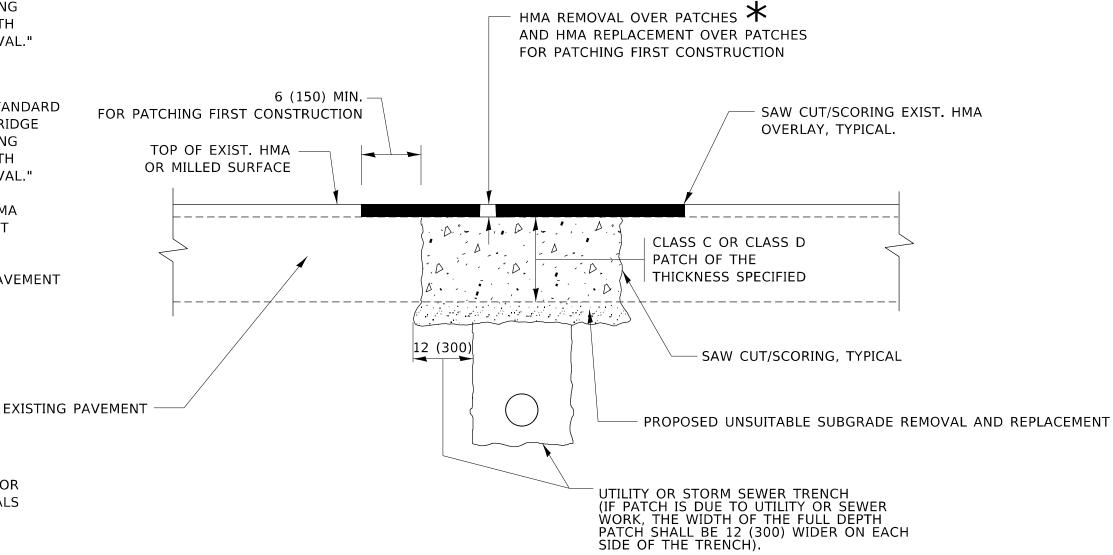
DETAILS FOR
FRAMES AND LIDS ADJUSTMENT WITH MILLING
SHEET 1 OF 1 SHEETS STA. TO STA.

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

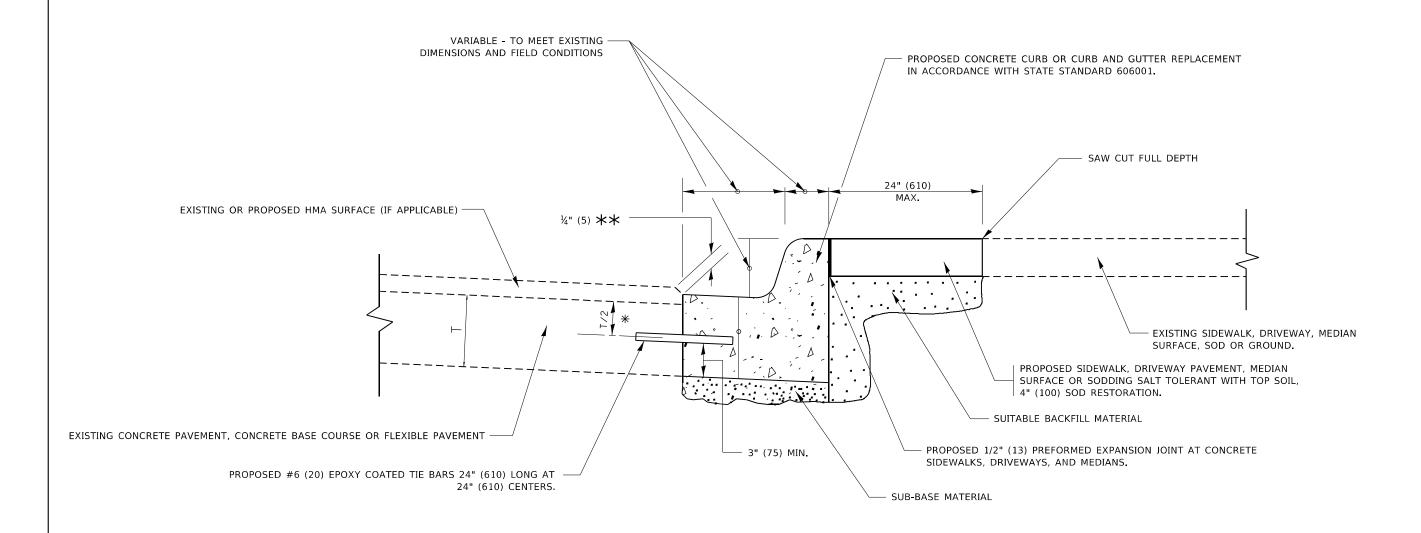
- 2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
- 3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

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 = Alan Parayno	DESIGNED - R. SHAH	REVISED - R. BORO 01-01-07			PAVEMENT PATCHING FOR		F.A.U. BTF	SECTION	COUNTY	TOTAL S	SHEET
	DRAWN -	REVISED - R. BORO 09-04-07	STATE OF ILLINOIS		HMA SURFACED PAVEMENT		2721	FAU 2721 221 RS	СООК	44	27
PLOT SCALE = 100.0000 / in.	CHECKED -	REVISED - K. ENG 10-27-08	DEPARTMENT OF TRANSPORTATION		HIMA SUKFACED PAVEINENT			D400-04 (BD-22)		T NO. 62	2R41
PLOT DATE = 3/28/2024	DATE - 10-25-94	REVISED - K. SMITH 11-18-22		SCALE: NONE	SHEET 1 OF 1 SHEETS STA.	TO STA.		ILLINOIS FED. A	ID PROJECT		-



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

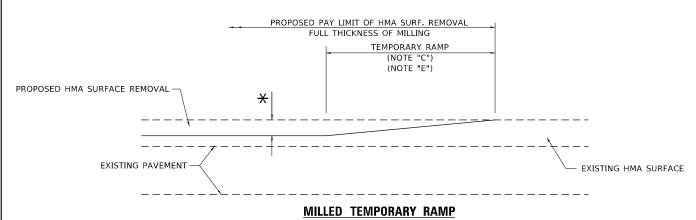
CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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

USER NAME = Alan.Parayno	DESIGNED - A. HOUSEH	REVISED - A. ABBAS 03-21-97	
	DRAWN -	REVISED - M. GOMEZ 01-22-01	ST
PLOT SCALE = 100.0000 / in.	CHECKED -	REVISED - R. BORO 12-15-09	DEPARTMEI
PLOT DATE = 3/28/2024	DATE - 03-11-94	REVISED - K. SMITH 07-11-19	

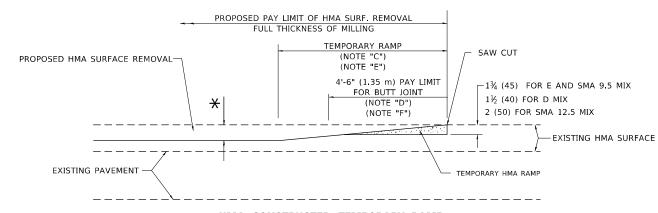
SCALE: NONE

URI	3 OF	R C	URB AN	ID GUTTI	:R	F.A.U. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
EN/	nνλ	١ ٨	NN RED	LACEMEN	IT	2721	FAU 2721 221 RS	соок	44	28
ILIVI	UVA	LA	ND NLF	LAGLIVILI	'		BD600-06 (BD-24)	CONTRACT	NO.	52R41
1	OF	1	SHEETS	STA.	TO STA.		ILLINOIS FED.	AID PROJECT		



(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 1

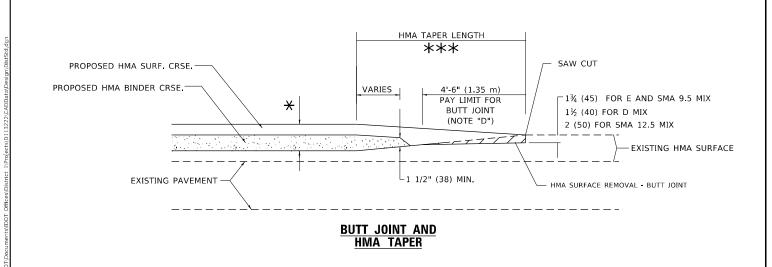


HMA CONSTRUCTED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 2

TYPICAL TEMPORARY RAMP



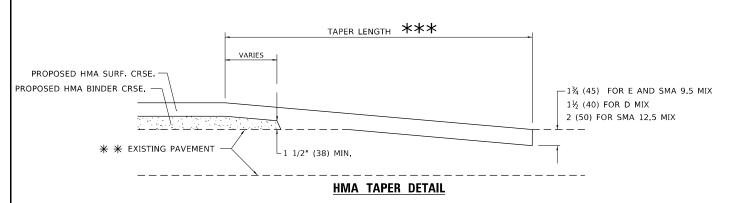
TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING

* EXISTING PAVEMENT

| 30'-0" (9.0 m) (NOTE "A") | 15'-0" (4.5 m) (NOTE "B") | (NOTE "B") | (NOTE "A1") | 1½ (40) FOR E AND SMA 9.5 MIX | 1½ (40) FOR D MIX | 2 (50) FOR SMA 12.5 MIX | 1½ (40) FOR SMA 12.5 MIX | 1½ (40) FOR D MIX | 1½ (40) FOR SMA 12.5 MIX | 1½ (40) FOR SMA 12.5 MIX | 1½ (40) FOR D MIX |

PROPOSED HMA OR PCC

SURFACE REMOVAL - BUTT JOINT



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

- igstar 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

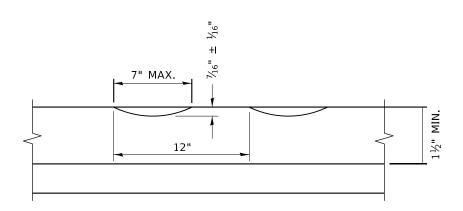
- THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL- BUTT JOINT"
- 2. THE TEMPORARY RAMP AND SAW CUT SHALL BE INCLUDED IN THE UNIT COST FOR HMA OR PCC SURFACE REMOVAL-BUTT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

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

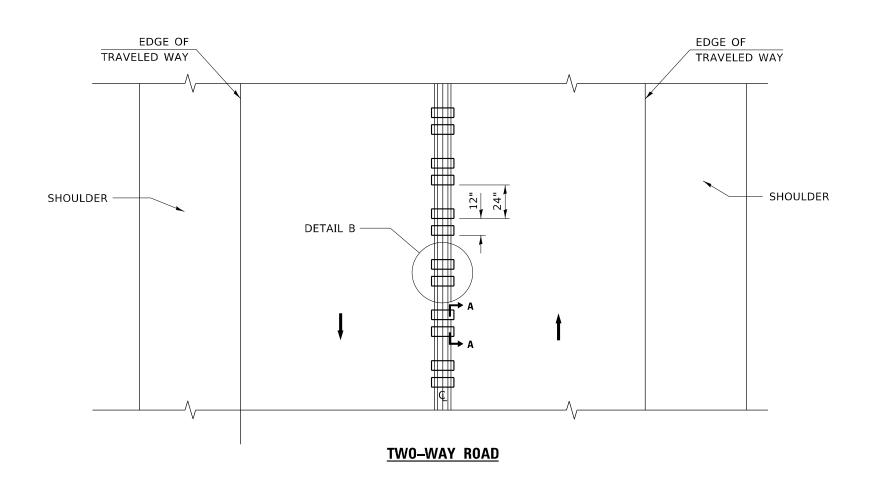
USER NAME = Alan Parayno	DESIGNED - M. DE YONG	REVISED	-	A. ABBAS 03-21-97
	DRAWN -	REVISED	-	M. GOMEZ 04-06-01
PLOT SCALE = 100.0000 / in.	CHECKED -	REVISED	-	R. BORO 01-01-07
PLOT DATE = 3/28/2024	DATE - 06-13-90	REVISED	-	K. SMITH 11-18-22

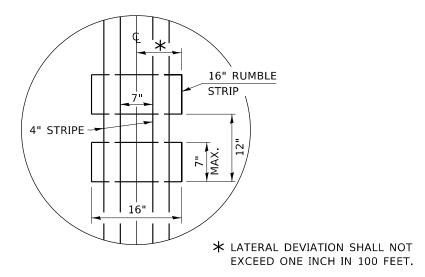
STAT	E OI	F ILLINOIS	
DEPARTMENT	0F	TRANSPORTATION	NO

BUTT JOINT AND	F.A.U. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEE
HMA TAPER DETAILS	2721	FAU 2721 221 RS	соок	44	29
IIIVIA TALEII DETAJES		BD400-05 BD-32	CONTRACT	NO.	62R4
OF 1 CHEETE CTA	TO CTA	TURNOTE SER	AID DDOIEGE		



SECTION A-A





DETAIL B

GENERAL NOTES

- 1. CENTERLINE RUMBLE STRIPS SHALL BE CONSTRUCTED ACCORDING TO SECTION 642 ALONG THE CENTERLINE OF PAVEMENT.
- 2. SEE STANDARD 780001 FOR OTHER STRIPING LAYOUTS.
- 3. RUMBLE STRIPS SHALL NOT BE PLACED ON BRIDGES.
- 4. ALL RUMBLE STRIPS SHALL BE MILLED.
- 5. CENTERLINE RUMBLE STRIPS SHALL BE CONTINUOUS THROUGH CONNECTIONS OF SIDEROADS WITH NO LEFT TURN LANES.
- 6. DISCONTINUE CENTERLINE RUMBLE STRIPS THROUGH THE LIMITS OF ALL LEFT TURN LANES, INCLUDING ANY LANE TAPER SECTIONS.
- 7. AFTER RUMBLE STRIPS ARE INSTALLED, THE PAVEMENT SURFACE SHALL BE SWEPT CLEAN PRIOR TO THE PLACEMENT OF THE NEW PAVEMENT MARKINGS.
- 8. WHERE USED, ADJUST SPACING OF RAISED REFLECTIVE PAVEMENT MARKERS TO FALL IN WIDER GAP BETWEEN RUMBLE STRIPS.

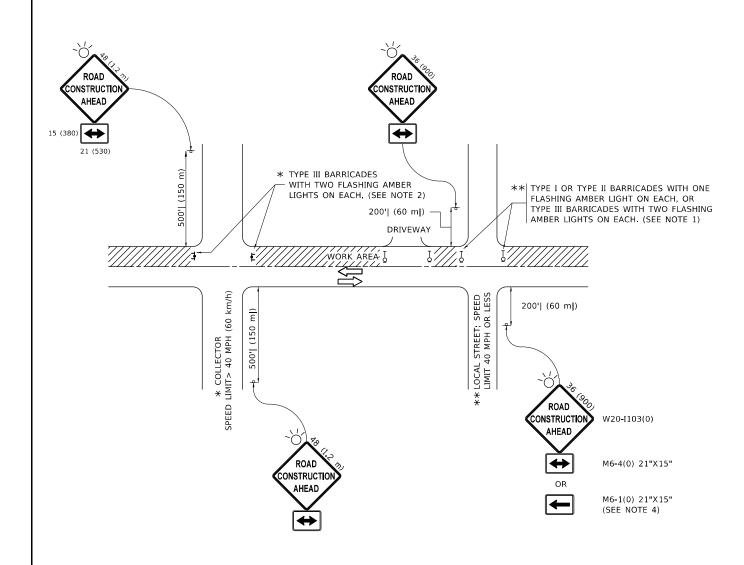
BASIS OF PAYMENT

- 1. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR CENTERLINE-RUMBLE STRIP OF THE WIDTH SPECIFIED.
- 2. HOT-SPRAY THERMOPLASTIC PAVEMENT MARKING WILL BE USED OVER THE RUMBLE STRIPS, AND WILL BE PAID FOR SEPARATELY.

USER NAME = Alan Parayno	DESIGNED	-	R. BORO	REVISED	-	K. SMITH 11-18-22
	DRAWN	-		REVISED	-	
PLOT SCALE = 100.0000 / in.	CHECKED	-		REVISED	-	
PLOT DATE = 3/28/2024	DATE	-	08-06-2012	REVISED	-	

SCALE: NONE

				_						F.A.U. RTE	•	SECT	LION			COUNTY	TOTA	
KUI	MRTF 3	SIK	IPS	H	UK	CENTER	KLINE, NO	ION-FF	REEWAY	2721	FAU	2721	221	RS		COOK	44	
											ВІ) –55				CONTRACT	NO.	-
	SHEET	1	()F	1	SHEETS	STA.		TO STA.				ILLINO	IS F	FED. All	D PROJECT		Т



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

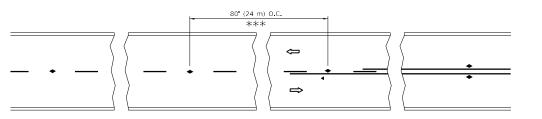
All dimensions are in inches (millimeters) unless otherwise shown.

USER NAME = Alan.Parayno	DESIGNED - L.H.A.	REVISED - A. HOUSEH 10-15-96
	DRAWN -	REVISED - T. RAMMACHER 01-06-00
PLOT SCALE = 100.0000 / in.	CHECKED -	REVISED - A. SCHUETZE 07-01-13
PLOT DATE = 3/28/2024	DATE - 06-89	REVISED _ A. SCHUETZE 09-15-16

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

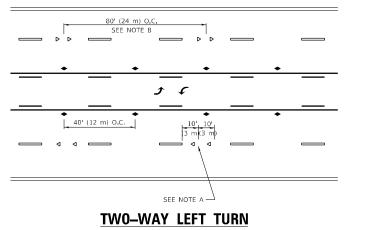
SHEET 1 OF 1 SHEETS STA. TO ST



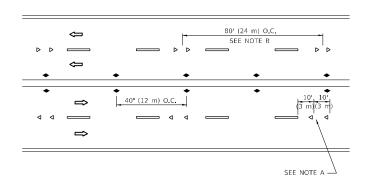
*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

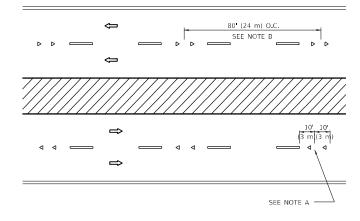
\Rightarrow LANE REDUCTION TRANSITION

SEE FIGURE 3B-14 MUTCD



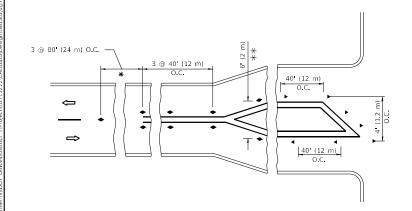
TW0-LANE/TW0-WAY

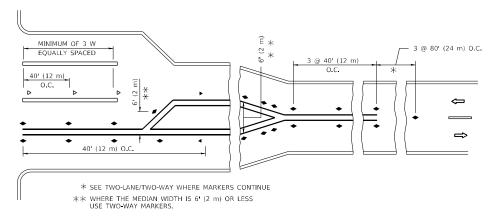




MULTI-LANE/UNDIVIDED







TURN LANES

GENERAL NOTES

- 1. 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.
- 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

LANE MARKER NOTES

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

DESIGN NOTES

- 1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
- 2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
- INVOLVED.

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

JSER NAME = Alan Parayno DESIGNED REVISED - T. RAMMACHER 03-12-99 DRAWN REVISED - T. RAMMACHER 01-06-00 CHECKED REVISED PLOT DATE = 3/28/2024 C. JUCIUS 07-01-13 DATE REVISED -

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT) SHEET 1 OF 1 SHEETS STA.

SECTION 2721 FAU 2721 221 RS COOK 44 32 TC-11 CONTRACT NO. 62R41

SYMBOLS

ONE-WAY AMBER MARKER

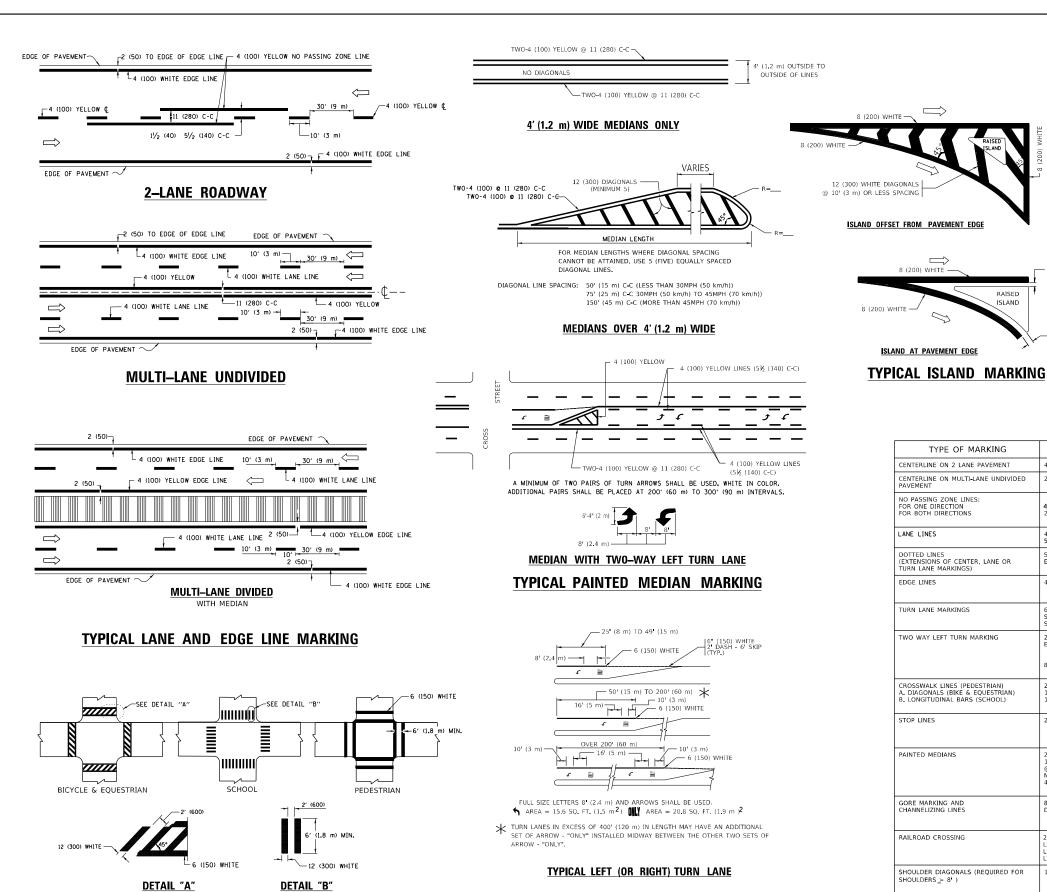
TWO-WAY AMBER MARKER

ONE-WAY CRYSTAL MARKER (W/O)

YELLOW STRIPE

■ WHITE STRIPE

- 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



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

SCALE: NONE

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

D(FT)

665

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

SPACING / REMARKS

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

SPEED LIMIT

50

USER NAME = Mail Parayilo	DESIGNED	-	EVENS	KENIZED	-	C. JUCIUS 09-09-09
	DRAWN	-		REVISED	-	C. JUCIUS 07-01-13
PLOT SCALE = 100.0000 / in.	CHECKED	-		REVISED	-	C. JUCIUS 12-21-15
PLOT DATE = 3/28/2024	DATE	-	03-19-90	REVISED	-	C. JUCIUS 04-12-16

TYPICAL CROSSWALK MARKING

* MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

TYPICAL TURN LANE MARKING

DISTRICT ONE		F.A.U. RTE	SEC	ПОИ		COUNTY	TOTAL SHEETS	
TYPICAL PAVEMENT MARKINGS	2721 FAU 2721 221 RS			s	соок	44	33	
TIFICAL FAVLIVILIVI IVIANKIIVOS		TC-13			CONTRACT	NO.	62R41	
SHEET 1 OF 2 SHEETS STA.	TO STA.			ILLINOIS	FED. AI	D PROJECT		

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	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 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 DESIRED 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: "R"=3.6 SQ, FT. (0.33 m PEACH "X"=54.0 SQ, FT. (5.0 m PEACH
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

COMBINATION

LEFT AND U-TURN

5'-4" (1620)

√ 32 R (810)

U-TURN

COLOR

PATTERN

SKIP-DASH

WIDTH OF LINE

RAISED

TYPE OF MARKING

ENTERLINE ON 2 LANE PAVEMENT

TURN BAY ENTRANCE AT START OF LANE CLOSURE TAPER

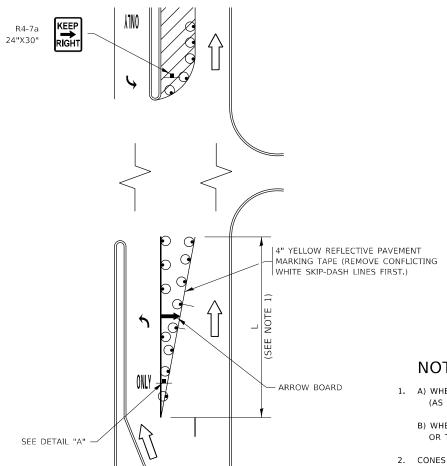


FIGURE 1

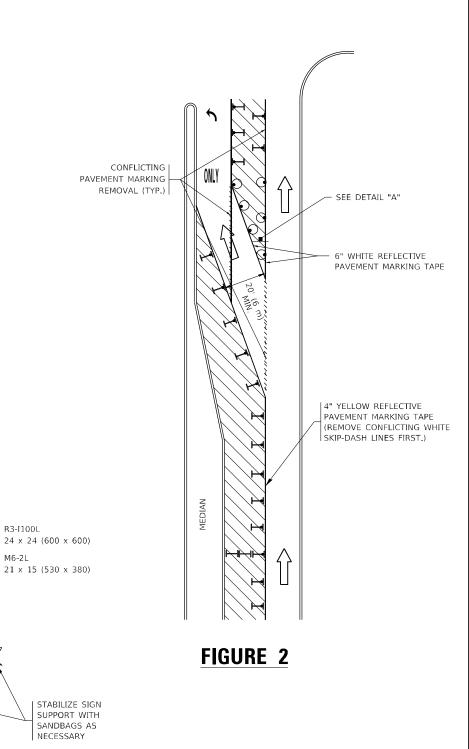
LEGEND WORK AREA LANE OPEN TO TRAFFIC ARROW BOARD TYPE I OR II BARRICADE OR DRUM WITH STEADY BURN LIGHT DRUM WITH STEADY BURN LIGHT SIGN ASSEMBLY

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 PREOUIREMENTS.
- 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

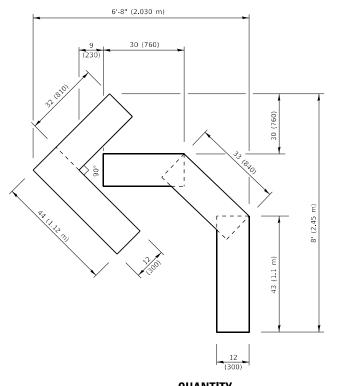
All dimensions are in inches (millimeters) unless otherwise shown.

USER NAME = Alan Parayno	DESIGNED	- T.	RAMMACHER	09-08-94	REVISED	-	R. BORO 09-14-09
	DRAWN	-	A. HOUSEH	11-07-95	REVISED	- A.	SCHUETZE 07-01-13
PLOT SCALE = 100.0000 / in.	CHECKED	-	A. HOUSEH	10-12-96	REVISED	- A.	SCHUETZE 09-15-16
PLOT DATE = 3/28/2024	DATE	- T.	RAMMACHER	01-06-00	REVISED	-	

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

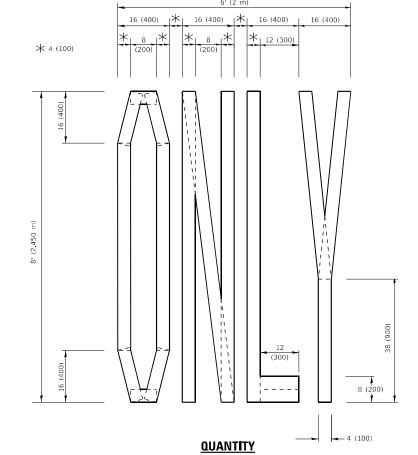
TRAFF					PROTEC OPEN		AT TURN BAYS (FFIC)
SCALE: NONE	SHEET	1	OF	1	SHEETS	STA.	TO STA.

SECTION FAU 2721 221 RS 2721 COOK 44 34 TC-14 CONTRACT NO. 62R41

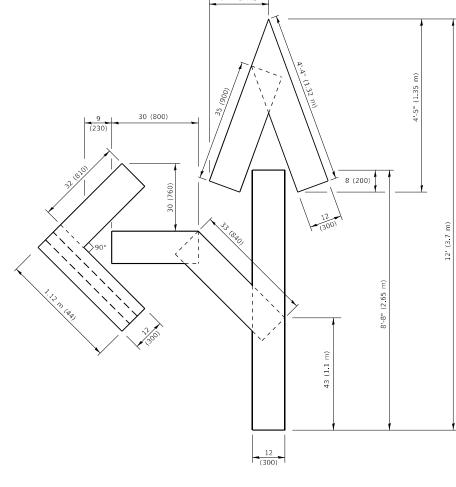


QUANTITY

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



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

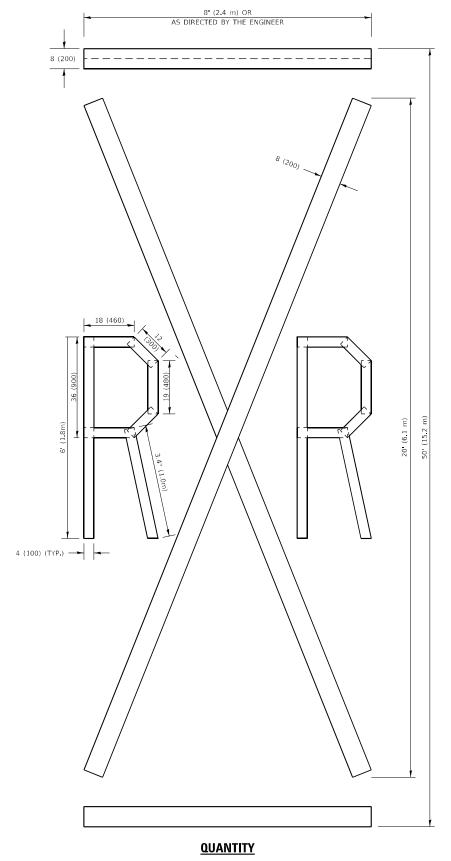


QUANTITY

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

NOTE:

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



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

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

 USER NAME
 = Alan,Parayno
 DESIGNED
 REVISED
 - T. RAMMACHER 03-02-98

 DRAWN
 REVISED
 - E. GOMEZ 08-28-00

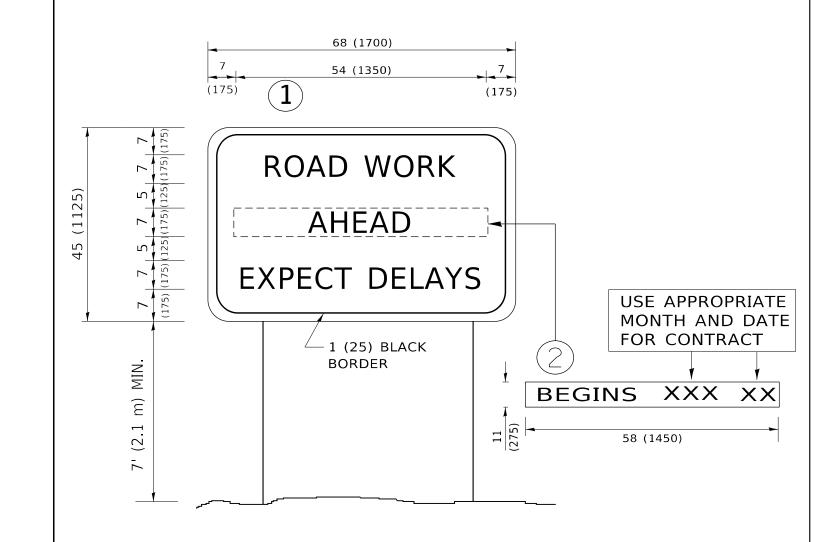
 PLOT SCALE
 = 100,0000 '/ in.
 CHECKED
 REVISED
 - E. GOMEZ 08-28-00

 PLOT DATE
 = 3/28/2024
 DATE
 09-18-94
 REVISED
 - A. SCHUETZE 09-15-16

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.

SHEET

6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)

SCALE: NONE

7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

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

USER NAME = Alan.Parayno	DESIGNED -	REVISED	-	R. MIRS 09-15-97
	DRAWN -	REVISED	-	R. MIRS 12-11-97
PLOT SCALE = 100.0000 / in.	CHECKED -	REVISED	- T.	RAMMACHER 02-02-99
PLOT DATE = 3/28/2024	DATE -	REVISED	-	C. JUCIUS 01-31-07

STATE	OF	: ILLINOIS
DEPARTMENT	0F	TRANSPORTATION

	ARTE	RIAL ROAD	F.A.U. RTE	SECTION	
	INFORM	MATION SIGN		2721	FAU 2721 221 RS
	IIII OIII	VIATION SIGN			TC-22
1	OF 1	SHEETS STA.	TO STA.		ILLINOIS FED

TE. SECTION COUNTY SHEETS NO.

721 FAU 2721 221 RS COOK 44 36

TC-22 CONTRACT NO. 62R41

ILLINOIS FED. AID PROJECT

TRAFFIC SIGNAL LEGEND

(NOT TO SCALE)

-(G) GROUND MOUNTED -(GM) GROUND MOUNTED METERED TELEPHONE CONNECTION STEEL MAST ARM ASSEMBLY AND POLE ALUMINUM MAST ARM ASSEMBLY AND POLE STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE SIGNAL POST -(BM) BARREL MOUNTED - TEMPORARY WOOD POLE GUY WIRE SIGNAL HEAD SIGNAL HEAD SIGNAL HEAD OPTICALLY PROGRAMMED FLASHER INSTALLATION -(FS) SOLAR POWERED	ECC EMC EMC S G G G O O O O O O O O O O	CC MC MMC MMC P P G M GM T BM BM	HANDHOLE -SQUARE -ROUND HEAVY DUTY HANDHOLE -SQUARE -ROUND DOUBLE HANDHOLE JUNCTION BOX RAILROAD CANTILEVER MAST ARM RAILROAD FLASHING SIGNAL RAILROAD CROSSING GATE RAILROAD CROSSBUCK RAILROAD CONTROLLER CABINET UNDERGROUND CONDUIT (UC), GALVANIZED STEEL TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE SYSTEM ITEM INTERSECTION ITEM		B B B B B B B B B B B B B B B B B B B	SIGNAL HEAD -(P) PROGRAMMABLE SIGNAL HEAD SIGNAL HEAD WITH BACKPLATE -(P) PROGRAMMABLE SIGNAL HEAD -(RB) RETROREFLECTIVE BACKPLATE PEDESTRIAN SIGNAL HEAD AT RAILROAD INTERSECTIONS PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER ILLUMINATED SIGN "NO LEFT TURN"/"NO RIGHT TURN"	ESCET P ESCENTION	R
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STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE SIGNAL POST -(BM) BARREL MOUNTED - TEMPORARY WOOD POLE GUY WIRE SIGNAL HEAD SIGNAL HEAD WITH BACKPLATE SIGNAL HEAD OPTICALLY PROGRAMMED FLASHER INSTALLATION -(FS) SOLAR POWERED	○○⊗>	● BM❸	GALVANIZED STEEL TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE SYSTEM ITEM INTERSECTION ITEM	 S		ILLUMINATED SIGN		
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GUY WIRE SIGNAL HEAD SIGNAL HEAD WITH BACKPLATE SIGNAL HEAD OPTICALLY PROGRAMMED FLASHER INSTALLATION -(FS) SOLAR POWERED	>-				ĮÞ	NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE. ALL DETECTOR LOOP CABLE TO BE SHIELDED		
-(FS) SOLAR POWERED		>-	REMOVE ITEM		R	GROUND CABLE IN CONDUIT,		— <u>(1#6)</u> —
SIGNAL HEAD WITH BACKPLATE SIGNAL HEAD OPTICALLY PROGRAMMED FLASHER INSTALLATION -(FS) SOLAR POWERED	>		RELOCATE ITEM		RL	NO. 6 SOLID COPPER (GREEN)	- /	
SIGNAL HEAD OPTICALLY PROGRAMMED FLASHER INSTALLATION -(FS) SOLAR POWERED		-	ABANDON ITEM		А	ELECTRIC CABLE IN CONDUIT, TRACER NO. 14 1/C		
FLASHER INSTALLATION -(FS) SOLAR POWERED	+	+-	CONTROLLER CABINET AND		RCF	COAXIAL CABLE	<u> </u>	— <u>c</u> —
-(FS) SOLAR POWERED	-⊳ ^P +⊳ ^P	- ▶ P	FOUNDATION TO BE REMOVED MAST ARM POLE AND			VENDOR CABLE		
(/	o-⊳ ^F o-⊳ ^{FS}	•► FS	FOUNDATION TO BE REMOVED		RMF	COPPER INTERCONNECT CABLE,	,	
	□→ FS	₽→ ^F ₽→ ^{FS}	SIGNAL POST AND FOUNDATION TO BE REMOVED		RPF	NO. 18, 3 PAIR TWISTED, SHIELDED	(6#18)	
PEDESTRIAN SIGNAL HEAD	-0	-1	DETECTOR LOOP, TYPE I			FIBER OPTIC CABLE -NO. 62.5/125, MM12F		
PEDESTRIAN PUSH BUTTON -(APS) ACCESSIBLE PEDESTRIAN PUSH BUTTON		⊚ ⊚ APS	PREFORMED DETECTOR LOOP	PP	PP	-NO. 62.5/125, MM12F SM12F -NO. 62.5/125, MM12F SM24F		
RADAR DETECTION SENSOR	R	R	SAMPLING (SYSTEM) DETECTOR	SS	s s			——36F)—
VIDEO DETECTION CAMERA	(V)	V ■	INTERSECTION AND SAMPLING (SYSTEM) DETECTOR	IS (IS)	IS (IS)			
RADAR/VIDEO DETECTION ZONE			QUEUE AND SAMPLING	QS QS	QS QS	GROUND ROD -(C) CONTROLLER	<u></u>	$\stackrel{\dot{=}}{\bar{\uparrow}}^C \stackrel{\dot{=}}{\bar{\uparrow}}^M \stackrel{\dot{=}}{\bar{\uparrow}}^P \stackrel{\dot{=}}{\bar{\uparrow}}^S$
PAN, TILT, ZOOM (PTZ) CAMERA	PTZ	PTZ	(SYSTEM) DETECTOR WIRELESS DETECTOR SENSOR	®	®	-(M) MAST ARM -(P) POST -(S) SERVICE		
EMERGENCY VEHICLE LIGHT DETECTOR	\bowtie	~	WIRELESS ACCESS POINT		—			
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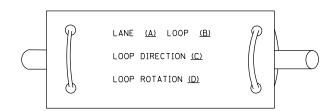
STATE 0	F ILLINOIS
DEPARTMENT OF	TRANSPORTATION

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61	STANDARD TRAFFIC SIGNAL DESIGN DETAILS					2721	FAU 2721 221 RS	
31	ANUAND	IIIAIIIO	SIGNAL	. DESIGN	DETAILS		TS-05	C
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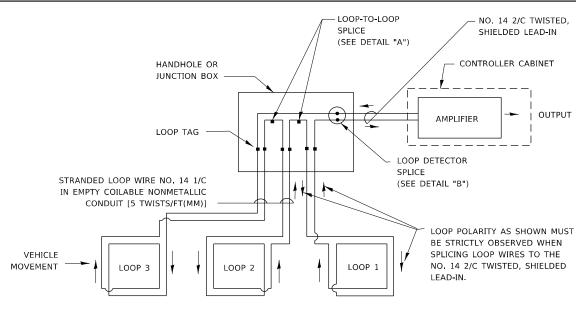
LOOP DETECTOR NOTES

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

LOOP LEAD-IN CABLE TAG

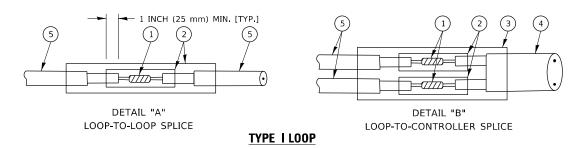


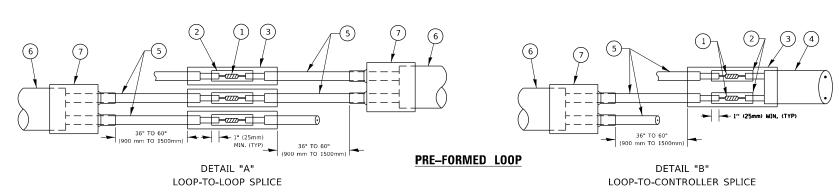
- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.



DETECTOR LOOP WIRING SCHEMATIC

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





LOOP DETECTOR SPLICE

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

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

USER NAME = Alan Parayno	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000 / in.	CHECKED -	REVISED -
PLOT DATE = 3/28/2024	DATE -	REVISED -

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

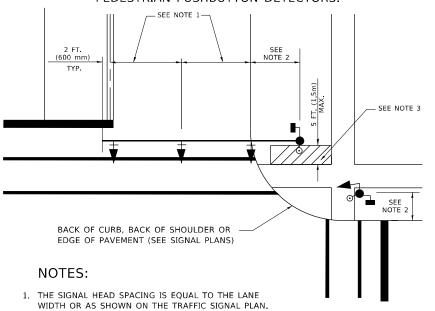
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SECTION FAU 2721 221 RS COOK 44 CONTRACT NO. 62R41

TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

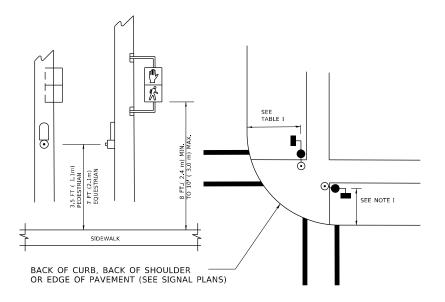
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND

PEDESTRIAN PUSHBUTTON DETECTORS.



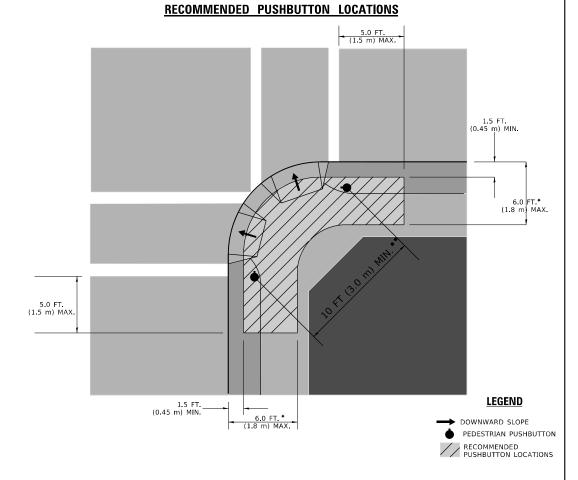
- 2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
- PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR THE SIGNAL POST.
- 4. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE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

PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



NOTES:

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



- * 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.
- 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.

SCALE: NONE

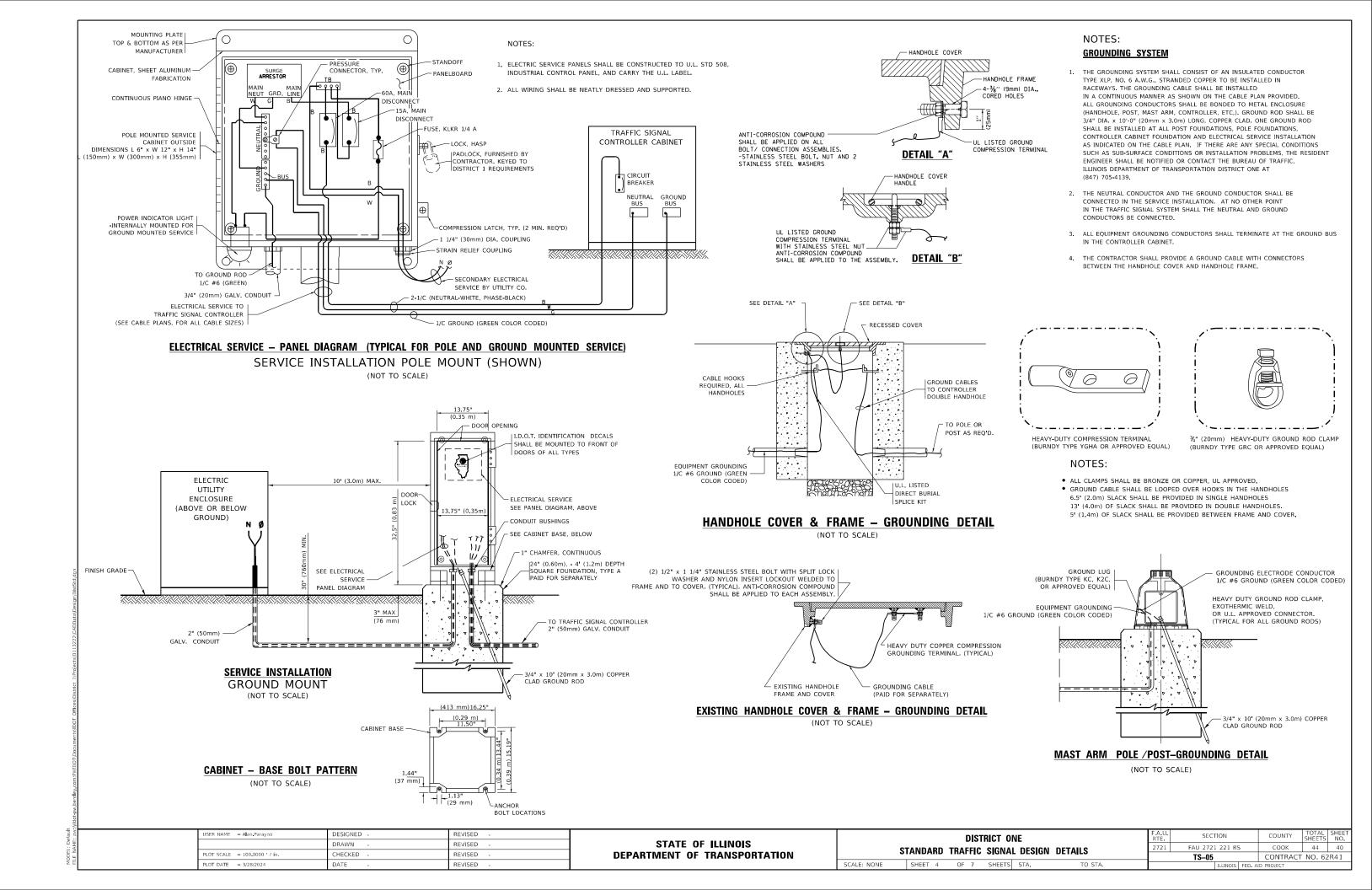
USER NAME = Alan Parayno	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000 / in.	CHECKED -	REVISED -
PLOT DATE = 3/28/2024	DATE -	REVISED -

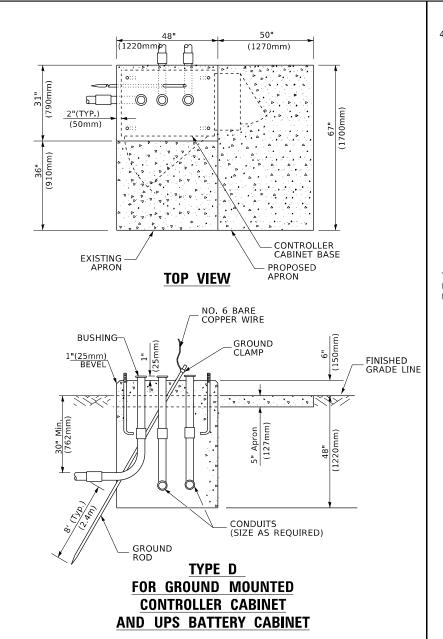
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

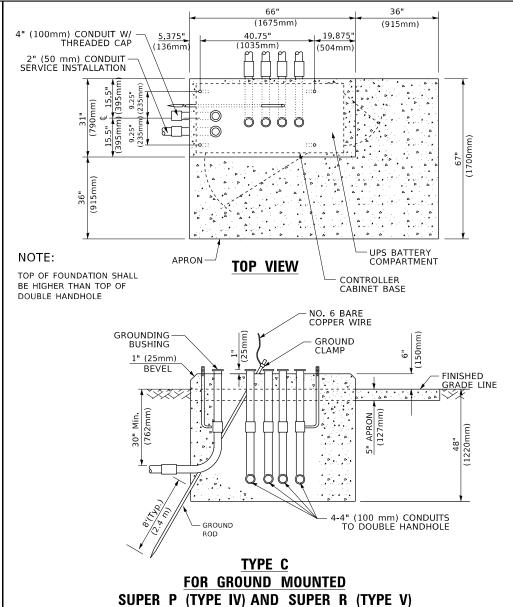
DISTRICT ONE	F.A.U. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STANDARD TRAFFIC SIGNAL DESIGN DETAILS	2721	FAU 2721 221 RS	COOK	44	39
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SHEET 3 OF 7 SHEETS STA. TO STA.		ILLINOIS FED. A	D PROJECT		

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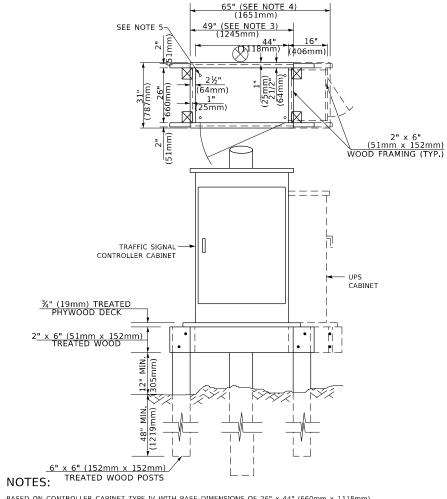
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CONTROLLER CABINETS



- BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm).
 ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED
- 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

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" (4.1 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" (7.6 m)	42'' (1060mm)	36" (900mm)	16	8(25)

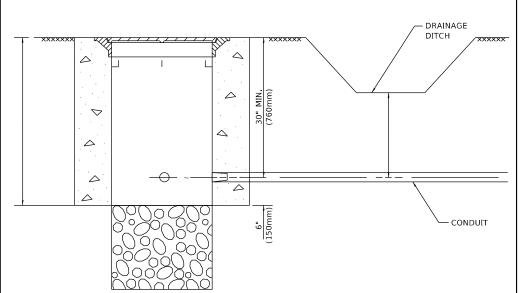
NOTES:

- 1. These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (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 = Alan Parayno	DESIGNED -	REVISED -	·		DISTRICT ONE	F.A.U. RTF	SECTION	COUNTY	TOTAL S	SHEET
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PLOT SCALE = 100,0000 / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION	3	TANDARD TRAFFIC SIGNAL DESIGN DETAILS		TS-05		T NO. 62R	₹41
PLOT DATE = 3/28/2024	DATE -	REVISED -		SCALE: NONE	SHEET 5 OF 7 SHEETS STA. TO STA.		ILLINOIS FED. AI	.ID PROJECT		

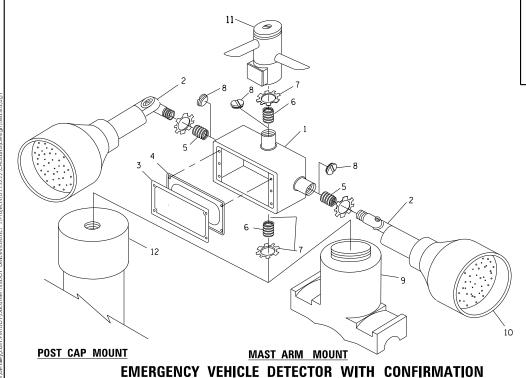
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NOTES:

- 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



BEACON MOUNTING DETAIL

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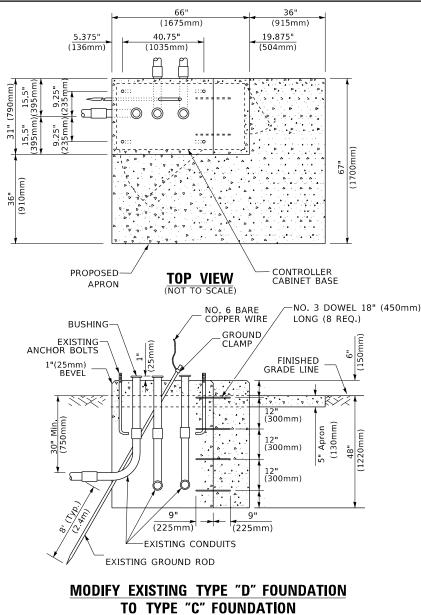
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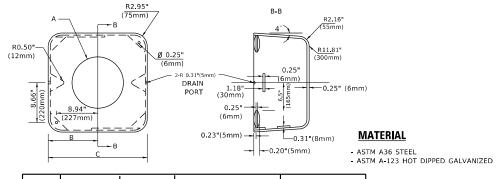
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(NOT TO SCALE) ITEM NO. IDENTIFICATION 1 OUTLET BOX- GALV. 21 CU.IN. (0.000344 CU-M) 2 LAMP HOLDER AND COVER 3 OUTLET BOX COVER 4 RUBBER COVER GASKET 5 REDUCING BUSHING 6 ¾"(19 mm) CLOSE NIPPLE 7 ¾"(19 mm) LOCKNUT 8 ¾"(19 mm) HOLE PLUG 9 SADDLE BRACKET - GALV. 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.

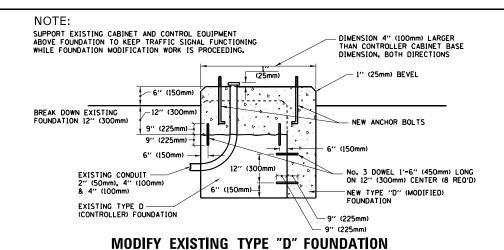


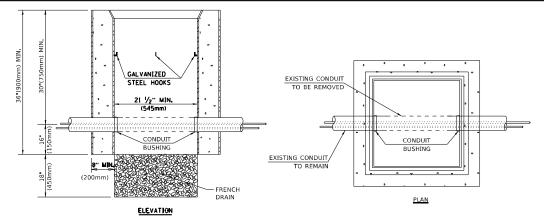
А	В	С	HEIGHT	WEIGHT
VARIES	9.5"(241mm)	19"(483mm)	7" (178mm) - 12" (300mm)	53 l bs (24kg)
VARIES	10.75"(273mm)	21.5"(546mm)	7" (178mm) - 12" (300mm)	68 lbs (31 kg)
VARIES	13.0"(330mm)	26"(660mm)	7" (178mm) - 12" (300mm)	81 lbs (37 kg)
VARIES	18.5"(470mm)	37"(940mm)	7" (178mm) - 12" (300mm)	126 l bs (57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



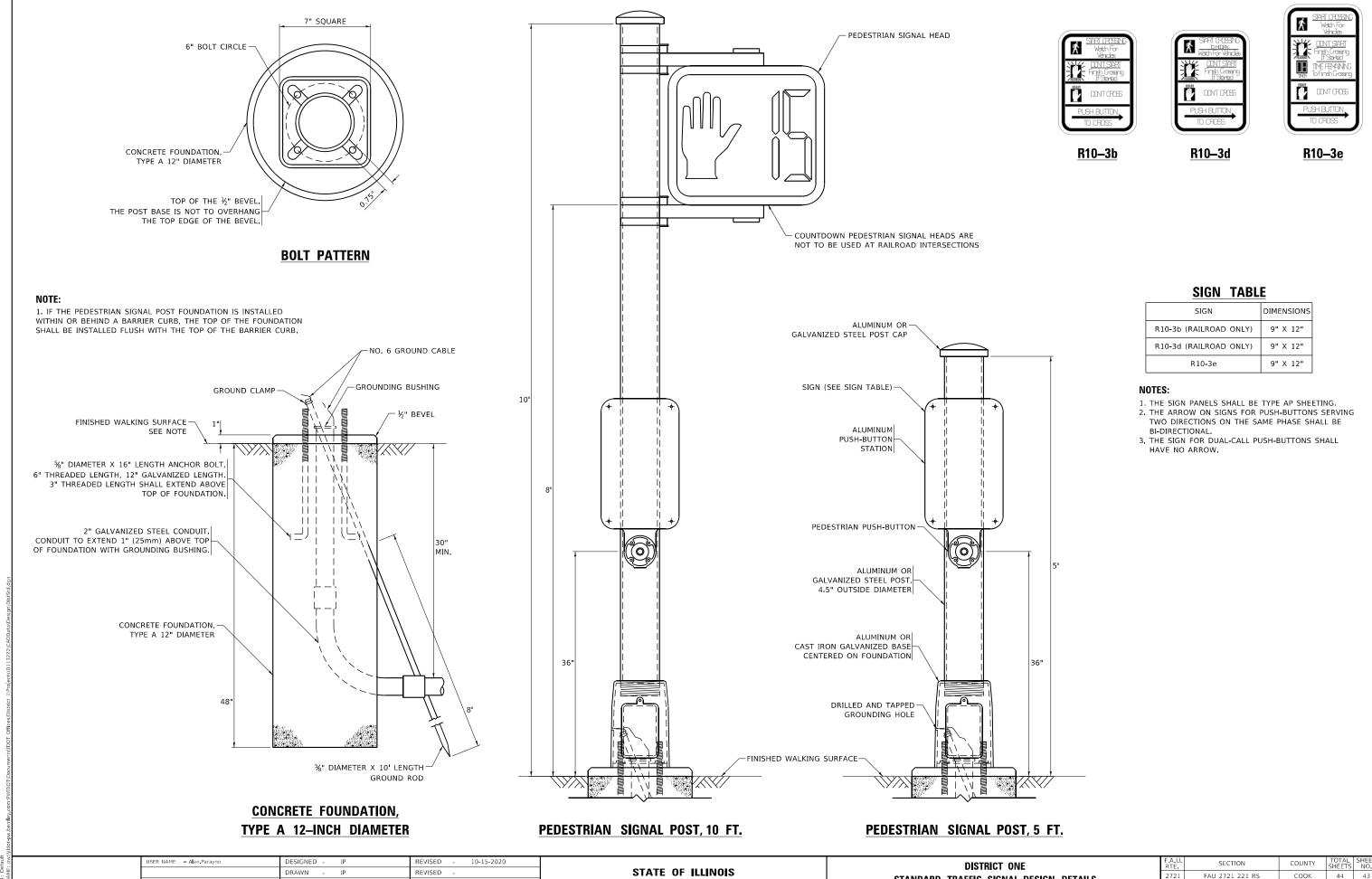


NOTES:

- 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

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | SHEET | 6 | OF | 7 | SHEETS | STANDARD | SHEETS | SHEETS | STANDARD | SHEETS | SHE



DEPARTMENT OF TRANSPORTATION

FAU 2721 221 RS

STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SHEET 7 OF 7 SHEETS STA.

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CONTRACT NO. 62R41

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LOOPS NEXT TO SHOULDERS

PROVIDE A PAVEMENT REPLACEMENT NOTE WHICH SHOULD EQUAL 3' (900 mm) X WIDTH OF PAVED SHOULDER. I PAVED OR NON-PAVED SHOULDER 11" (25 mm) UNIT DUCT-TRENCHED (3.0 m) (3.0 m)

* * UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS

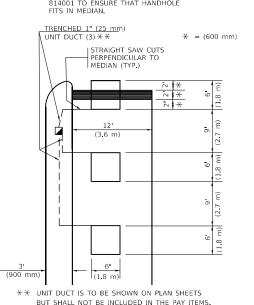
BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS

LEFT TURN LANES WITH MEDIANS

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

(PROTECTED / PERMITTED LEFT TURN PHASING)

HANDHOLF 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 HANDHOLL



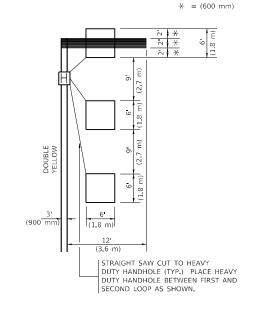
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO

PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

LEFT TURN LANES WITHOUT MEDIANS

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

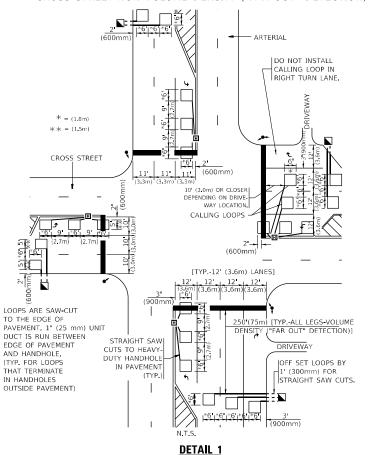
(PROTECTED / PERMITTED LEFT TURN PHASING)



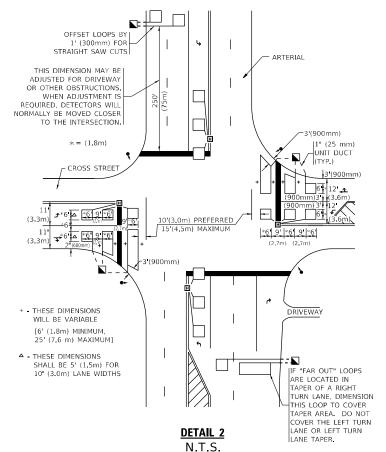
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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

- st 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 (1.8 m)
- * 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.

COUNTY

COOK 44 44

CONTRACT NO. 62R41

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

SER NAME = Alan Parayno

PLOT DATE = 3/28/2024

* = (600 mm)

N.T.S. DESIGNED DRAWN HECKED DATE

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