STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
DEPARTMENT OF TRANSPORTATION
PROPOSED
HIGHWAY PLANS
F.A.U. ROUTE 1238: IL 176 (PARK AVENUE) CRESCENT KNOLL DR. TO WEST OF US 41
SECTION: 2019–087–RS&SR PROJECT: STP–SRTV(469)) OVERLAY, ADA IMPROVEMENT AND NEW SHOULDERS LAKE COUNTY
C-91-031-20
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	F.A.U. RTE	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.
1	1238	2019-087-RS&S	8	LAKE	37	1
			ILLINOIS	CONTRACT	NO. (52199





0-91-251-20

INDEX OF SHEETS

STATE STANDARDS

SHEET NO.	DESCRIPTION	STANDARD NO.	DESCRIPTION	1. BEFC "JUL
1	COVER SHEET	000001-07	TYPICAL SYMBOLS, ABBREVIATIONS AND PATTERNS	NET) (48
2	INDEX OF SHEETS	442201-03	CLASS C AND D PATCHES	3. THE COM
3-5	SUMMARY OF QUANTITIES	604001-05	FRAME AND LIDS, TYPE 1	4. THE FIEL
6-9	EXISTING AND PROPOSED TYPICAL SECTIONS	606001-07	CONCRETE CURB TYPE B AND COMBINATION CONCRETE	DEP/
10-14	ROADWAY AND PAVEMENT MARKING PLAN		CURB AND GUTTER	MARI AT
15-19	DETECTOR LOOP REPLACEMENT PLAN	701006-05	0FF-RD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24'' (600 mm) FROM PAVEMENT EDGE	6. BEF(
20	DRIVEWAY DETAILS - DISTANCE BETWEEB R.O.W. AND FACE OF CURB & EDGE OF SHOULDER >= 15' (4.5 m) (BD-01)	701011-04	OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY	PAVI STR THE
21	DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING (BD-8)	701101-05	OFF-RD OPERATIONS, MULTILANE, 15' (4.5 m) TO 24'' (600 mm)	7. ALL
22	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT (BD-22)		FROM PAVEMENT EDGE	WILL
23	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT (BD-24)	701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS	8. IT S CONI
24	BUTT JOINT AND HMA TAPER DETAILS (BD-32)	701426-09	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS > 45 MPH	9. FRAN IMPE
25	ENTRANCE AND EXIT RAMP CLOUSURE DETAILS (TC-08)	701427-05	LANE CLOSURE, MULTILANE, INTERMITTENT OR	THIS
26	TRAFFIC CONTROL AND PROTECTION FOR SIDE REOADS, INTERSECTIONS, AND DRIVEWAYS (TC-10)		MOVING OPER., FOR SPEEDS < 40 MPH	10. THE SUPE OF N
27	TYPICAL APPLICATIONS - RAISED REFLECTIVE PAVEMENT MARKERS (SNOW PLOW RESISTANT) (TC-11)	701501-06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED	11. THE FIEL WEE
		701311-03	LANE CLUSURE 2L, 2W, MOVING OPERATIONS-DAY ONL	12. THE
28	DISTRICT ONE TYPICAL PAVEMENT MARKINGS (TC-13)			BUR! THE WTLL
29	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) (TC-14)			13. EXIS
30	SHORT TERM PAVEMENT MARKING LETTERS AND SYMBOLS (TC-16)	701601-09	URBAN LANE CLOSURE, MULTILANE 1W OR 2W WITH Nontransversable median	FRA SPEC
31	ARTERIAL ROAD INFORMATION SIGN (TC-22)	701602-10	URBAN LANE CLOSURE, MULTILANE, 2W WITH Bidirectional left turn lane	14. DO 1
32	τυρίζαι συρριεμενίαι στονίης ανό ρανεμεντ μαρκίνο τρεατμεντ	701606-10	URBAN SINGLE LANE CLOSURE, MULTILANE,	TS: DOB "TYP RESI
02	FOR RAILROAD CROSSING (TC-23)		2W WITH MOUNTABLE MEDIAN	16. PAVI MARI
33	DRIVEWAY ENTRANCE SIGNING (TC-26)	701701-10	URBAN LANE CLOSURE, MULTILANE INTERSECTION	17. ANY
34	STANDARD TRAFFIC SIGNAL DESIGN DETAILS (TS-05)	701801-06	SIDEWALK, CORNER, OR CROSSWALK CLOSURE	EACH
35	DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING (TS-07)	701901-08	TRAFFIC CONTROL DEVICES	SEP/ 18 BUT
		780001-05	TYPICAL PAVEMENT MARKINGS	WITF
36	PROJECT DETAIL FOR SINGLE PERPENDICULAR CURB RAMPS (PD-01)	781001-04	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS	PLAN 19. ANY
37	PROJECT DETAIL FOR SINGLE PERPENDICULAR CURB RAMPS (PD-04)	814001-03	HANDHOLES	MILL REPI
		886001-01	DETECTOR LOOP INSTALLATIONS	20. THE AT
		000001 01		20. PROF

USER NAME = mesadoj	DESIGNED -	REVISED -		INDEX OF SHEETS	STATE	STANDA	RDS AND	GENERAL NOTES	F A U BTF	SECTION	COUNTY	TOTAL	SHEET NO.
	DRAWN -	REVISED -	STATE OF ILLINOIS		, 01/112 (; 01/112 (CENT VI		TO W/O US A1	1238	2019-087-RS&SR	LAKE	37	2
PLOT SCALE = 100.0000 / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION	IL 170) — UNL3			10 10/0 03 41	_		CONTRAC	T NO. 62	199
PLOT DATE = 12/13/2019	DATE -	REVISED -		SCALE SHEET	OF	SHEETS	STA.	TO STA.		ILLINOIS FED. A	ID PROJECT		

<u>GENERAL NOTES</u>

ORE STARTING ANY EXCAVATION THE CONTRACTOR SHALL CALL LIE" AT 800-892-0123 OR "CUAN" (CHICAGO UTILITY ALERT WORK) AT 312-744-7000 FOR FIELD LOCATIONS OF BURIED ELECTRIC, HOUR NOTIFICATION REQUIRED)

CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY PANIES, AND THE VILLAGE OF LIBERTYVILLE

CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR LD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION OF THE ARTMENT.

DAMAGE TO EXISTING PAVEMENT MARKINGS OR RAISED REFLECTIVE PAVEMENT KERS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS WILL BE REPLACED THE CONTRACTOR'S EXPENSE.

ORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR URE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES (AND RAISED REFLECTIVE 'EMENT MARKERS) IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR IPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS DIRECTED BY ENGINEER.

PAVEMENT PATCHING, CURB AND GUTTER REMOVAL AND REPLACEMENT, EWALK REMOVAL, P.C.C. SIDEWALK 5", AND DRAINAGE ADJUSTMENT LOCATIONS L BE DETERMINED IN THE FIELD BY THE ENGINEER.

SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND DITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING MATERIALS.

MES AND GRATES ADJUSTMENT OF PRIVATE UTILITIES WITHIN THE LIMITS OF THE ROVEMENTS SHALL BE DONE BY THEIR RESPECTIVE OWNERS AND ARE NOT PART OF 5 CONTRACT.

CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL ERVISOR AT KALPANA.KANNAN-HOSADURGA@ILLINOIS.GOV A MINIMUM OF 72 HOURS WORK.

E RESIDENT ENGINEER SHALL CONTACT WALTER CZARNY, ARTERIAL TRAFFIC LD ENGINEER, AT WALTER.CZARNY@ILLINOIS.GOV A MINIMUM OF TWO (2) EKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.

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

STING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE ITRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENCINEER. REPLACEMENT MES AND LIDS WILL BE PAID FOR ACCORDING TO ARTICLE 109.04 OF THE STANDARD CIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

JBLE LANE MARKERS ARE TO BE USED AS SHOWN ON THE DISTRICT ONE DETAIL (PICAL APPLICATIONS - RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW SISTANT)'' SHOWN IN THE PLANS.

EMENT MARKING TAPE, TYPE III SHALL BE USED FOR SHORT TERM PAVEMENT KINGS ON ALL FINAL SURFACES.

V LOOSE MATERIAL DEPOSITED IN THE FLOW LINE OF CURB OR DRAINAGE STRUCTURES, CH OBSTRUCTS THE NATURAL FLOW OF WATER, SHALL BE REMOVED AT THE CLOSE OF CH WORKING DAY. PRIOR TO ACCEPTANCE OF THE IMPROVEMENT. ALL DRAINAGE RUCTURES SHALL BE FREE OF DIRT AND DEBRIS. THIS WORK WILL NOT BE PAID FOR PARATELY BUT SHALL BE CONSIDERED AS INCIDENTAL.

T JOINTS WILL BE INSTALLED AT THE ENDS OF ALL RESURFACING ERE RESURFACING MEETS EXISTING PAVEMENT), IN ACCORDANCE H THE "BUTT JOINT AND HMA TAPER DETAILS" SHEET INCLUDED IN THE NS, UNLESS OTHERWISE SPECIFIED.

PAVEMENT MARKINGS AND RAISED REFLECTIVE PAVEMENT MARKERS OBLITERATED BY ING AND RESURFACING OPERATIONS ON SIDE STREETS AND ENTRANCES SHALL BE ACED AND PAID FOR IN KIND.

CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.

PROPOSED SIDEWALK RAMPS SHALL CONFORM TO CURRENT ADA REQUIREMENTS AND APPLICABLE STATE HIGHWAY STANDARDS OR AS DETERMINED BY THE ENGINEER.

21. THE CONTRACTOR SHALL MAINTAIN PEDESTRIAN ACCESS AT ALL TIMES

THE CONTRACTOR SHALL MAINTAIN PEDESTRIAN ACCESS AT ALL TIMES DURING CONSTRUCTION.

[SUMMARY OF QUANTITIES		LIRBAN	CONST	TRUCTION TYPE CODE		SUMM	MARY OF QUANTITIES		URBAN	C	ONSTRUCTIO	ON TYPE C	ODE	
	CODE NO	ITEM	UNIT	TOTAL	0005 0005 80% FED 0% FED 20% STATE 100% STATE		CODE	NO	ITEM	UNIT	TOTAL	0005 0005 80% FED 0% FED 20% STATE 100% STAT	E			
	20200100	EARTH EXCAVATION	CU YD	333	333		440001	64 HOT-MIX ASF	PHALT SURFACE REMOVAL, 3	SQ YD	80207	80207				
								3/4"								
*	20201200	REMOVAL AND DISPOSAL OF UNSUITABLE	CU YD	459	459											
		MATERIAL					440006	00 SIDEWALK RE	EMOVAL	SQ FT	410	410				
	21400100	GRADING AND SHAPING DITCHES	FOOT	6080	6080		44201	89 CLASS D PAT	TCHES, TYPE II, 12 INCH	SQ YD	401	401				
	40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	54140	54140		44201	94 CLASS D PAT	TCHES, TYPE III, 12 INCH	SQ YD	802	802				<u> </u>
	40600400	MIXTURE FOR CRACKS, JOINTS, AND	TON	118	118		44201	96 CLASS D PA	TCHES, TYPE IV, 12 INCH	SO YD	401	401				
		FLANGEWAYS														
							442018	51 CLASS D PA	TCHES, TYPE II, 17 INCH	SQ YD	402	402				
	40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT	SQ YD	288	288											
		JOINT					442018	55 CLASS D PA	TCHES, TYPE III, 17 INCH	SQ YD	802	802				
	40602985	HOT-MIX ASPHALT BINDER COURSE, IL-9.5,	TON	8983	8983		442018	57 CLASS D PA	TCHES, TYPE IV, 17 INCH	SQ YD	402	402				
		N70														
							482030	29 HOT-MIX ASI	PHALT SHOULDERS, 8"	SQ YD	3561	3561				
	40605026	POLYMERIZED HOT-MIX ASPHALT SURFACE	TON	7861	7861											
		COURSE, STONE MATRIX ASPHALT, 9.5, MIX					603001	05 FRAMES AND	GRATES TO BE ADJUSTED	EACH	5	5				
		"F" . N80														
							603003	05 FRAMES AND	LIDS TO BE ADJUSTED	EACH	5	5				
	42001300	PROTECTIVE COAT	SQ YD	343	343											
							* 669002	00 NON-SPECIA	L WASTE DISPOSAL	CU YD	800	800				
	42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5	SO FT	6.4	6.4											
		INCH					* 669005	30 SOIL DISPO	SAL ANALYSIS	EACH	10	10				
*	42400800	DETECTABLE WARNINGS	SO FT	50	50		* 669010	01 REGULATED 5	SUBSTANCES PRE-CONSTRUCTION	LSUM	1	1				
								PLAN								
	44000100	PAVEMENT REMOVAL	SO YD	551	551											
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		PLOT DATE = 12/13/2019 DA	ATE -		REVISED -		ST THANGEU		SCALE: SHEET NO. OF	SHEETS ST		TO STA. FED.	OAD DIST. NO. 1 I	LLINOIS FED. AID	PROJECT	NO. 02133

*= SPECIALTY ITEM

REV. 1/29/20

	SUMMARY OF QUANTITIES		URBAN	0005	C0	NSTRUCTI	ON TYPE (CODE		_		SUMM	ARY OF QUANTITIES	
CODE NO	ITEM	UNIT	TOTAL	80% FED 20% STATE	0005 0% FED 100% STATE						CODE NO		ITEM	10
66901003	REGULATED SUBSTANCES FINAL CONSTRUCTION	LSUM	1	1							70300210	TEMPORARY P	AVEMENT MARKING LETTERS AND	so
	REPORT											SYMBOLS		
66901006	REGULATED SUBSTANCES MONITORING	CAL DA	20	20							70300220	TEMPORARY P	AVEMENT MARKING - LINE 4"	FC
67000400	ENGINEER'S FIELD OFFICE. TYPE A	CAL MO	6	6							70300240	TEMPORARY P	AVEMENT MARKING - LINE 6"	FC
67100100			1	1						-	70300250	TEMPORARY P	AVEMENT MARKING - LINE 8"	F(
				·						-	10300230			
70102620	TRAFFIC CONTROL AND PROTECTION,	L SUM	1	1						-	70300260	TEMPORARY P	AVEMENT MARKING - LINE 12"	FC
	STANDARD 701501													
											70300280	TEMPORARY P	AVEMENT MARKING - LINE 24"	FC
70102625	TRAFFIC CONTROL AND PROTECTION.	L SUM	1	1										
	STANDARD 701606										70300520	PAVEMENT MA	RKING TAPE, TYPE III 4"	FC
70102630	TRAFFIC CONTROL AND PROTECTION,	L SUM	1	1						*	78000100	THERMOPLAST	IC PAVEMENT MARKING -	so
	STANDARD 701601											LETTERS AND	SYMBOLS	
70102632	TRAFFIC CONTROL AND PROTECTION,	L SUM	1	1						*	78000200	THERMOPLAST	IC PAVEMENT MARKING - LINE	FC
	STANDARD 701602											4"		
70102635	TRAFFIC CONTROL AND PROTECTION.	L SUM	1	1						*	78000400	THERMOPLAST	IC PAVEMENT MARKING - LINE	FC
	STANDARD 701701											6"		
70102640	TRAFFIC CONTROL AND PROTECTION,	L SUM	1	1						*	78000500	THERMOPLAST	IC PAVEMENT MARKING - LINE	FC
	STANDARD 701801											8"		
70300100	SHORT TERM PAVEMENT MARKING	FOOT	42181	42181						*	78000600	THERMOPLAST	IC PAVEMENT MARKING - LINE	FC
												12"		
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SO FT	18497	18497										_
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	UNDAN	0005	00	005					
	TOTAL	80% FED	0%	FED					
11	QUANTITIES	ZUA STATE	100%	STATE					
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	11105	11105						_	
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от	660	660							
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				RTE.	SECTIO		COUNTY	SHEE	TS NO.
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REV. 1/29/20

		SUMMA	ARY OF QUANTITIES		URBAN	0005	CC	NSTRUCTI	ON TYPE C	ODE			SUMM	ARY OF QUANTI	TIES	
	CODE NO		ITEM	UNIT	TOTAL QUANTITIES	80% FED 20% STATE	0% FED 100% STATE					CODE 1	10	ITEM		UN
*	78000650	THERMOPLASTIC	C PAVEMENT MARKING - LINE	FOOT	702	702										
		24														<u> </u>
*	78100100	RAISED REFLEC	CTIVE PAVEMENT MARKER	EACH	766	766										
	78300200	RAISED REFLEC	CTIVE PAVEMENT MARKER	EACH	390	390										
		REMOVAL														
	88600600	DETECTOR LOOP	P REPLACEMENT	FOOT	1930	1930										
	X0320050	CONSTRUCTION	LAYOUT (SPECIAL)	L SUM	1	1										<u> </u>
	x5537800	STORM SEWERS	TO BE CLEANED 12"	FOOT	100		100									
	X6030310	FRAMES AND L	IDS TO BE ADJUSTED	EACH	5	5										
		(SPECIAL)														
	x7030005	TEMPORARY PAN	VEMENT MARKING REMOVAL	S0 FT	27213	27213										
	Z0004562	COMBINATION (CONCRETE CURB AND GUTTER	FOOT	3580	3580										
		REMOVAL AND F	REPLACEMENT													-
	Z0018500	DRAINAGE STRU	JCTURES TO BE CLEANED	EACH	5		5									
	70070850				E1 4	E1.4										-
	20030850	IEMPORART INF	ORMATION SIGNING	30 FT	51.4	51.4										
	Z0033700	LONGITUDINAL	JOINT SEALANT	FOOT	38909	38909										
	Z0048665	RAILROAD PROT	TECTIVE LIABILITY INSURANCE	L SUM	1	1										
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πт		20% STATE	100%	STATE				
41.1	QUANTITIES	2012 01112		02				
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UANTI	TIES			1238	2019-087-	RS&SR	LAKE	37 5
STA.	T	D STA.		FED. RO.	AD DIST. NO. 1 IL	LINOIS FED. AID	PROJECT	NO" P5133

REV. 1/29/20



EXISTING TYPICAL SECTION

STA 15+00 TO STA 32+90 STA 138+00 TO STA 146+05



LEGEND - EXISTING:

- (A) CONCRETE PAVEMENT ±9"
- (B) HOT MIX ASPHALT SURFACE REMOVAL 3.75"
- C COMBINATION CURB & GUTTER, TYPE B-6.24
- D CONCRETE SIDEWALK
- E EARTH SHOULDER REMOVAL 0'-4'
- (F) HOT MIX ASPHALT SURFACE 12"±

LEGEND – PROPOSED

- (2) HOT MIX ASPHALT BINDER COURSE, IL-9.5, N70, 2"
- (3) HMA SHOULDER 8"

NOTE 2: THE "AC TYPE" FOR F HMA THE "AC TYPE" S FOR USE OF RECYCLED NOTE 3: QUALITY MANAGEMENT APPLIES TO THE HMA NOTE 4: THE CONTRACTOR SHAL NOTE 5: THE LONGITUDINAL JO	NOTE 1:	THE UNIT WEIGHT USE
FOR USE OF RECYCLED NOTE 3: QUALITY MANAGEMENT APPLIES TO THE HMA NOTE 4: THE CONTRACTOR SHAL NOTE 5: THE LONGITUDINAL JO	NOTE 2:	THE "AC TYPE" FOR P HMA THE "AC TYPE" S
NOTE 3: QUALITY MANAGEMENT APPLIES TO THE HMA NOTE 4: THE CONTRACTOR SHAL NOTE 5: THE LONGITUDINAL JO		FOR USE OF RECYCLED
NOTE 4: THE CONTRACTOR SHAL	NOTE 3:	QUALITY MANAGEMENT APPLIES TO THE HMA
NOTE 5: THE LONGITUDINAL JO	NOTE 4:	THE CONTRACTOR SHAL
	NOTE 5:	THE LONGITUDINAL JOI

HOT-MIX ASPHALT MIXTURE TY PAVEMENT RESURFACING POLYMERIZED HOT-MIX ASPHALT SURFACE 9.5, MIX "F", N80, 1 3/4" HOT MIX ASPHALT BINDER COURSE, IL-SHOULDERS HOT-MIX ASPHALT SURFACE COURSE, MI HOT-MIX ASPHALT BINDER COURSE, IL-PATCHING CLASS D PATCHES (HMA BINDER IL-19 m QMP DESIGNATION: QUALITY CONTROL/QUALI

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PLOT DATE = 12/13/2019	DATE -	REVISED -		SCALE:	SHEET 1	OF 4	SHEETS

(1) POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, 9.5, MIX "F", N80, 13/4"

ED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.

POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. MATERIALS SEE SPECIAL PROVISIONS.

PROGRAM (QMP) IDNTIFIES THE PARTICULAR QUALITY CONTROL SPECIFICATION THAT MIXTURE.

LL MILL FIRST.

NINT SEALANT SHALL BE PLACED OVER THE HMA BINDER COURSE.

DIDS S PROGRAM (QMP
80 GYR. QCP
O GYR. QCP
O GYR. OC/OA
O GYR. QC/QA
O GYR. QC/QA
NCE (QCP)
(

	TYPICAL SECTIONS		F.A.U. RTE	F.A.U. SECTION				TOTAL SHEETS	SHEET NO.
v	VENUE		1238	2019-08	7-RS&SF	٦	LAKE	37	6
							CONTRACT	NO. 62	2199
5	STA.	TO STA.			ILLINOIS	FED. A	ID PROJECT		









STA 72+15 TO STA 112+50

USER NAME = mesadoj	DESIGNED -	REVISED -		E	XISTING A	ND PRO	POSED	TYPICAL S	ECTIONS	F.A.U. RTE	SECTION	COUNTY	TOTAL	SHEET
	DRAWN -	REVISED -	STATE OF ILLINOIS	-		II 1764		/ENILIE		1238	2019-087-RS&SR	LAKE	37	7
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION			IL 170/	PARK A	/ENUE				CONTRAC [®]	г NO. 6	j2J99
PLOT DATE = 12/13/2019	DATE -	REVISED -		SCALE:	SHEET 2	OF 4	SHEETS	STA.	TO STA.		ILLINOIS FED. A	ID PROJECT		-

LEGEND - EXISTING:

- (A) CONCRETE PAVEMENT ±9"
- (B) HOT MIX ASPHALT SURFACE REMOVAL 3.75"
- © COMBINATION CURB & GUTTER, TYPE B-6.24
- D CONCRETE SIDEWALK
- E EARTH SHOULDER REMOVAL 0'-4'
- (F) HOT MIX ASPHALT SURFACE 12"±

LEGEND – PROPOSED

- (2) HOT MIX ASPHALT BINDER COURSE, IL-9.5, N70, 2"
- 3 HMA SHOULDER 8"

() POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, 9.5, MIX "F", N80, $1\frac{3}{4}$ "



EXISTING TYPICAL SECTION

STA 32+90 TO STA 72+15 STA 117+50 TO STA 135+00



PROPOSED TYPICAL SECTION

STA 32+90 TO STA 72+15 STA 117+50 TO STA 135+50

E EARTH SHOULDER REMOVAL 0'-4' (F) HOT MIX ASPHALT SURFACE 12"±

LEGEND – PROPOSED

(A) CONCRETE PAVEMENT ±9"

(D) CONCRETE SIDEWALK

(1) POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, 9.5, MIX "F", N80, 1³/₄" (2) HOT MIX ASPHALT BINDER COURSE, IL-9.5, N70, 2"

(3) HMA SHOULDER 8"

USER NAME = mesadoj	DESIGNED -	REVISED -		FXISTING AND PROPOSED TY	PICAL SECTIONS	F.A.U. BTE	SECTION	COUNTY	TOTAL	SHEET
USER NAME DESIGNED REVISED REVISED STATE OF ILLINOIS PLOT SCALE 100.0000 '/ in. CHECKED REVISED CHECKED REVISED CHECKED REVISED CHECKED REVISED CHECKED SCALE SCALE SHEET 3 OF 4 SHEET 3 STATE STATE SCALE SCALE SHEET 3 OF 4 SHEET 3 STATE STATE SCALE STATE STATE SCALE SCALE STATE STATE STATE STATE SCALE SCALE STATE STATE		1238	2019-087-RS&SR	LAKE	37	8				
PLOT SCALE = 100.0000 ' / in.	= mesadoj DESIGNED REVISED REVISED AND PROPOSED DRAWN - REVISED - REVISED - It 176/PARK A = 100.0000 / in. CHECKED - REVISED - - It 176/PARK A = 12/13/2019 DATE - REVISED - <th></th> <th></th> <th>CONTRAC</th> <th>F NO. 6</th> <th>2199</th>			CONTRAC	F NO. 6	2199				
PLOT DATE = 12/13/2019	DATE -	REVISED -	SCALE:	SHEET 3 OF 4 SHEETS S	STA. TO STA.		ILLINOIS FED. A	ID PROJECT		

LEGEND - EXISTING:

B HOT MIX ASPHALT SURFACE REMOVAL 3.75" C COMBINATION CURB & GUTTER, TYPE B-6.24



EXISTING TYPICAL SECTION

STA 112+50 TO STA 117+50 STA 148+50 TO STA 153+30



PROPOSED TYPICAL SECTION

STA 112+50 TO STA 117+50 STA 148+50 TO STA 153+30

B CAL SECTION LEGEND - PROPOSED (1) POLYMERIZED HOT-MIX ASPH (2) HOT MIX ASPHALT BINDER (3) (3) HMA SHOULDER 8"

USER NAME = mesadoj	DESIGNED -	REVISED -		E	XISTING AND PROPOSED TYPICAL SECTIONS	F.A.U. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN -	REVISED -	STATE OF ILLINOIS	_		1238	2019-087-RS&SR	LAKE	37	9
PLOT SCALE = 100.0000 / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION		IL TOTAR AVENUE		·	CONTRAC [®]	FNO. 6	2199
PLOT DATE = 12/13/2019	DATE -	REVISED -		SCALE:	SHEET 4 OF 6 SHEETS STA. TO STA.		ILLINOIS FED. A	ID PROJECT		

LEGEND - EXISTING:

(A) CONCRETE PAVEMENT ±9"

(D) CONCRETE SIDEWALK

(B) HOT MIX ASPHALT SURFACE REMOVAL 3.75"
 (C) COMBINATION CURB & GUTTER, TYPE B-6.24

E EARTH SHOULDER REMOVAL 0'-4'
 HOT MIX ASPHALT SURFACE 12"±

(1) POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, 9.5, MIX "F", N80, $1\frac{3}{4}$ " (2) HOT MIX ASPHALT BINDER COURSE, IL-9.5, N70, 2"

















FILE NAME =	USER NAME = mesadoj	DESIGNED -	SN	REVISED -			DETECTO		P RFPI
S:\WP\PLANPREP\SQUAD_2\Des_OM\Projects	2019\5-62J99_IL 176 Crescent Knoll Dr to US	4DRANNAJuests\~2_T	r ⊳\$N c∖03 TS 20375 - IL	178E∀ISEaDdley-Dr\01 TS 925 - IL 176 @ I 9	Tri State Tlwy West Ramp.dgn STATE OF ILLINOIS			ANC AT	
	PLOT SCALE = 40.0000 '/ in.	CHECKED -	SN	REVISED -	DEPARTMENT OF TRANSPORTATION	ILLINUIS RIE. 1	76 (PARK A	AV.) AI	⊢ 94 I
Default	PLOT DATE = 12/3/2019	DATE -	10/25/2019	REVISED -		SCALE:	SHEET	OF	SHEET

NOTES:

1. WORK SHALL MEET THE REQUIREMENTS OF THE SPECIAL PROVISION, "DETECTOR LOOP REPLACEMENT AND/OR INSTALLATION (ROADWAY GRINDING, RESURFACING & PATCHING OPERATIONS.

2. THIS PLAN IS FOR THE SOLE PURPOSE OF DETECTOR LOOP REPLACEMENT.



FILE NAME =	USER NAME = mesadoj	DESIGNED -	SN	REVISED -			DETECTO		
S:\WP\PLANPREP\SQUAD_2\Des_OM\Projects)	2019\5-62J99_IL 176 Crescent Knoll Dr to US	4DRANNAquests\-2_T	-a\$Nic∖03 ⊺S 20375 - IL	17 RE¥ISE£D eley–Dr∖0/2 TS 930 - IL 176 @ I9	4 Tri State Tlwy East Ramp.dgSTATE OF ILLINOIS				
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	SN	REVISED -	DEPARTMENT OF TRANSPORTATION	ILLINUIS RIE. 1/	/6 (РАКК А	VE.) AI	I-94
Default	PLOT DATE = 12/3/2019	DATE -	10/25/2019	REVISED -		SCALE:	SHEET	OF	SHEET
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ETS	STA.	TO STA.		ILLINOIS	FED. AI	D PROJECT	



1. WORK SHALL MEET THE REQUIREMENTS OF THE SPECIAL PROVISION, "DETECTOR LOOP REPLACEMENT AND/OR INSTALLATION (ROADWAY GRINDING, RESURFACING & PATCHING OPERATIONS.

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CONTRACT NO. 62J99

TULINOIS FED ATD PROJECT

2. THIS PLAN IS FOR THE SOLE PURPOSE OF DETECTOR LOOP REPLACEMENT.

PROPOSED CURB & GUTTER (2) 1"-CNC EXIST. R.O.W. <u>d</u>_____ ف PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTORS ف (117 FT) 176 (ROCKLAND RD) <u>3</u> 3 210' TO STOP E 6' 5 \geq EXISTING INTERCONNECT — TO U.S. RTE 41 WEST RAMP (SHAGBARK RD/WASHINGTON AVE) -1-P EXIST. PATH-(72'**-E-**1¹/₂'') EXIST. R.O.W. **REPLACE ALL DETECTOR LOOPS AS SHOWN** (WITHIN THE RESURFACING LIMITS) QUANTITY ITEM UNIT **DETECTOR LOOP REPLACEMENT** FOOT 183 COUNTY TOTAL SHEET SHEETS NO. LAKE 37 18 SECTION RTE. 2019-087-RS&SR

TO STA.



WEST RAMP	RAMP (SHAGRARK RD)	1238	2019-087-RS&SF	2	LAKE	37	19
WEOI					CONTRAC	T NO.	62J99
STA.	TO STA.		ILLINOIS	FED. A	ID PROJECT		





NOTES

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.

CITY OF CHICAGO CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY FOR REMOVAL AND DISPOSITION OF THE CASTINGS.

THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

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.

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

USER NAME = m PLOT SCALE = 10 PLOT DATE = 12	USER NAME = mesadoj	DESIGNED - R. SHAH	REVISED - R. WEDEMAN 05-14-04		DETAILS FOR	F.A.U. RTF	SECTION	COUNTY	SHEETS NO.
		DRAWN -	REVISED - R. BORO 01-01-07	STATE OF ILLINOIS	EDAMES AND LIDS AD HISTMENT WITH MILLING	1238	2019-087-RS&SR	LAKE	37 21
PLOT	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED - R. BORO 03-09-11	DEPARTMENT OF TRANSPORTATION	FRAMES AND LIDS ADJUSTMENT WITH MILLING		BD600-03 (BD-8)	CONTRAC	i NO. 62J99
	PLOT DATE = 12/13/2019	DATE - 10-25-94	REVISED - R. BORO 12-06-11		SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.		ILLINOIS FED. A	ID PROJECT	

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 A MINIMUM 1½ (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

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-1 * 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-1 * CONCRETE
3)	36 (900) DIAMETER METAL PLATE	8 PROPOSED HMA SURFACE COURSE
4)	PROPOSED CRUSHED STONE AND HMA SURFACE MIX	9
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

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.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN



USER NAME = mesadoj	DESIGNED - R. SHAH	REVISED A ABBAS 04-27-98			PAVEMENT PATCHING FOR		F.A.U. RTE	SECTION	COUNTY	TOTAL SHEET SHEETS NO.
	DRAWN -	REVISED - R. BORO 01-01-07	STATE OF ILLINOIS		HMA SUBEACED PAVEMENT		1238	2019-087-RS&SR	LAKE	37 22
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED - R BORO 09-04-07	DEPARTMENT OF TRANSPORTATION		IIIWA JONI AGED FAVEIMENT		BD	400–04 (BD–22)	CONTRACT	NO. 62J99
PLOT DATE = 12/13/2019	DATE - 10-25-94	REVISED K. ENG 10-27-08		SCALE: NONE	SHEET 1 OF 1 SHEETS STA.	TO STA.		ILLINOIS FED A	D PROJECT	

OVERLAY, TYPICAL (INCLUDED IN THE COST OF HMA REMOVAL OVER PATCHES FOR PATCHING FIRST CONSTRUCTION OR IN THE COST OF PAVEMENT PATCHING FOR MILL FIRST CONSTRUCTION).

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

2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

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



8. THE LOCATIONS OF REMOVAL AND REPLACEMENT OF EXISTING CURB OR CURB AND GUTTER SHALL BE DETERMINED BY THE RESIDENT ENGINEER AT THE TIME OF CONSTRUCTION.

CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

USER NAME = mesadoj	DESIGNED A HOUSEH	REVISED R SHAH 10-03-96			CURB OR CURB AN	ND GUTTER	F., R	A.U. TE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN -	REVISED - A ABBAS 03-21-97	STATE OF ILLINOIS				12	238	2019-087-RS&SR	LAKE	37	23
PLOT SCALE = 100.0000 / in.	CHECKED -	REVISED M. GOMEZ 01-22-01	DEPARTMENT OF TRANSPORTATION					BD6	00–06 (BD–24)	CONTRAC	T NO. 62	.199
PLOT DATE = 12/13/2019	DATE - 03-11-94	REVISED R BORO 12-15-09		SCALE: NONE	SHEET 1 OF 1 SHEETS	STA. TO STA.			ILLINOIS FED	AID PROJECT		

SAW CUT FULL DEPTH - INCLUDED IN THE COST OF SIDEWALK, DRIVEWAY OR MEDIAN SURFACE REMOVAL

EXISTING SIDEWALK, DRIVEWAY, MEDIAN SURFACE, SOD OR GROUND.

SURFACE OR SODDING SALT TOLERANT WITH TOP SOIL, 4" (100)



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



1	AND	AND		F.A.U. SECTION			COUNTY TOTAL SHEETS	
1	ET A II S		1238	2019-087-RS	&SR	LAKE	37	24
			_	BD400-05 BD3	2	CONTRACT	NO. 62	2199
5	STA.	TO STA.		ILLI	IOIS FED. A	ID PROJECT		



ROAD CONSTRUCTION AHEAD 15 (380) 21 (530) (E) (S) (S) (S) (S) (S) (S) (S) (S
* COLLECTOR SPEED LIMITS 40 MPH (60 km/h) HEAD
NOTES:
 SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 36 x 36 (900x900) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
 SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY b) BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
 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).

	USER NAME = mesadoj	DESIGNED - L.H.A.	REVISED - A. HOUSEH 10-15-96				F	A.U.	SECTION	COUNTY	TOTAL	SHEET
-		DRAWN -	REVISED - T. RAMMACHER 01-06-00	STATE OF ILLINOIS	s	IDE ROADS INTERSECTIONS AND DRIVEWAYS		1238	2019-087-RS&SR	LAKE	37	26
-	PLOT SCALE = 100.0000 ' / in. PLOT DATE = 12/13/2019	CHECKED - DATE - 06-89	REVISED - A. SCHUETZE 07-01-13 REVISED - A. SCHUETZE 09-15-16	DEPARTMENT OF TRANSPORTATION	SCALE: NONE	SHEET 1 OF 1 SHEETS STA. TO S	ita.		TC-10 ILLINOIS FED. A	CONTRAC	NO. 62.	199
	1201 01112 12/10/2010	0000	NEVI3ED		SCREE. NORE				IEEINOIS FED. A	ID PROJECT		_



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 = mesadoj	DESIGNED -	REVISED	- T. RAMMACHER 03-12-99				TYF	PICAL /	APPLIC/	ATIONS		F.A.U. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN -	REVISED	-T. RAMMACHER 01-06-00	STATE OF ILLINOIS				AENT P			A DECICTANT	1238	2019-087-RS&SR	LAKE	37	27
PLOT SCALE = 100.0000 / in	CHECKED -	REVISED	- C. JUCIUS 09-09-09	DEPARTMENT OF TRANSPORTATION		LECTIVE	. FAVEN		WANKE	N3 (311010-FLU	N RESISTANT		TC-11	CONTRAC [®]	F NO. 6	2199
PLOT DATE = 12/13/2019	DATE -	REVISED	- C. JUCIUS 07-01-13		SCALE: NONE	SHEET	1 0	OF 1	SHEETS	STA.	TO STA.		ILLINOIS FED. A	ID PROJECT		



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.
- 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.

SYMBOLS

- ----- YELLOW STRIPE
- WHITE STRIPE
- ONE-WAY AMBER MARKER
- ONE-WAY CRYSTAL MARKER (W/O) ۵
- TWO-WAY AMBER MARKER ٠

DESIGN NOTES

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

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





(1020)

U_TURN



LANE REDUCTION TRANSITION

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

LINE	PATTERN	COLOR	SPACING / REMARKS
	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
	SOLID	YELLOW	11 (280) C-C
	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
EWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
EING	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MEDIANS IN YELLOW
JLL .4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
N 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
	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.
	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT, OTHERWISE, PLACE AT DESINED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
TH NALS USED FOR MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
2 (300) 5°	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))
VERSE ' (1.8 m) 00)	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m ŶEACH "X"=54.0 SQ. FT. (5.0 m Ŷ
	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))
	SOLID	WHITE	16.3 SF
	SOLID	WHITE	30.4 SF

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

וכ	NE		F.A.U. RTE	SECT	TION		COUNTY	TOTAL SHEETS	SHEET NO.
г	MARKINGS		1238	2019-08	7-RS&SR		LAKE	37	28
	MAIIMUS			TC-13			CONTRACT	NO. 62	5199
5	STA.	TO STA.			ILLINOIS	FED. AI	ID PROJECT		





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" R3-1100R 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.



USER NAME = mesadoj	DESIGNED -T. RAMMACHER 09-08-94	REVISED R BORO 09-14-09		TDAC			DDAT
	DRAWN - A. HOUSEH 11-07-95	REVISED - A. SCHUETZE 07-01-13	STATE OF ILLINOIS	INAFF			PRUII
PLOT SCALE = 100.0000 ' / in.	CHECKED - A. HOUSEH 10-12-96	REVISED - A. SCHUETZE 09-15-16	DEPARTMENT OF TRANSPORTATION		(IO RE	EMAIN	OPEN
PLOT DATE = 12/13/2019	DATE -T. RAMMACHER 01-06-00	REVISED -		SCALE: NONE	SHEET 1	OF 1	SHEET

SECTION COUNTY FECTION AT TURN BAYS 2019-087-RS&SR 1238 LAKE 37 29 TO TRAFFIC) TC-14 CONTRACT NO. 62J99 TS STA. TO STA.



USER NAME = mesadoj	DESIGNED -	REVISED T. RAMMACHER 03-02-98				
	DRAWN -	REVISED - E. GOMEZ 08-28-00	STATE OF ILLINOIS	SHORT TE	RM PAVER	VENT M
PLOT SCALE = 100.0010 ' / In.	CHECKED -	REVISED - E. GOMEZ 08-28-00	DEPARTMENT OF TRANSPORTATION			
PLOT DATE = 12/13/2019	DATE - 09-18-94	REVISED - A. SCHUETZE 09-15-16		SCALE: NONE	SHEET 1	OF 1

			F.A.U. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
IAKKING	i LETTERS A	ND SYMBOLS	1238	2019-087-RS&SR	LAKE	37	30
				TC-16	CONTRACT	NO. 62	2199
SHEETS	STA.	TO STA.		ILLINOIS FED. A	ID PROJECT		



USER NAME = mesadoj	DESIGNED -	REVISED - R. MIRS 09-15-97				ARTE	RIAL F
	DRAWN -	REVISED - R. MIRS 12-11-97	STATE OF ILLINOIS				
PLOT SCALE = 100.0000 / in.	CHECKED -	REVISED -T. RAMMACHER 02-02-99	DEPARTMENT OF TRANSPORTATION			INFORM	VIATION
PLOT DATE = 12/13/2019	DATE -	REVISED C. JUCIUS 01-31-07		SCALE: NONE	SHEET 1	OF 1	SHEET

10	AD		F.A.U. RTE	SECT	TION		COUNTY	TOTAL SHEETS	SHEET NO.
ı	SIGN		1238	2019-08	7-RS&SR		LAKE	37	31
	Jun			TC-22			CONTRACT	NO. 62	2199
s	STA.	TO STA.			ILLINOIS	FED, AI	D PROJECT		



DRAWN - REVISED - 04-26-12 STATE OF ILLINOIS	Giviniu
	DALLD
PLOT SCALE = 100.0000 / in. CHECKED - REVISED - A.R. 07-11-16 DEPARTMENT OF TRANSPORTATION IRCALINICAL FOR	KAILK
PLOT DATE = 12/13/2019 DATE _ 12/13/2019 SCALE: NONE SHEET 1 0F 2	SHEETS



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".

USER NAME = mesadoj	DESIGNED -	REVISED - C. JUCIUS 02-15-07					F.A.U.	SECTION	COUNTY	TOTAL	. SHEET
	DRAWN -	REVISED -	STATE OF ILLINOIS		DRIVEWAY ENTRANCE SIGN	ING	1238	2019-087-RS&SR	LAKE	37	33
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION					TC-26	CONTRACT NO		ô2J99
PLOT DATE = 12/13/2019	DATE -	REVISED -		SCALE: NONE	SHEET 1 OF 2 SHEETS STA.	TO STA.		ILLINOIS FED.	AID PROJECT		

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



- 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.



DETAIL "A" LOOP-TO-LOOP SPLICE



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.

	USER NAME = mesadoj	DESIGNED -	REVISED -		DISTRICT ONE					F.A.U. BTE	SECTION	COUNTY	TOTAL	SHEET	
		DRAWN -	REVISED -	STATE OF ILLINOIS		CTANDADD	TDAC				1238	2019-087-RS&SR	LAKE	37	34
US PLC PLC	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION	STAINDARD TRAFFIC SIGNAL DESIGN DETAILS				DETAILS		TS-05	CONTRAC	T NO. 6	2199	
	PLOT DATE = 12/13/2019	DATE -	REVISED -		SCALE: NONE	SHEET 2	OF	7 SHEE	TS STA.	TO STA.		ILLINOIS FED. A	ID PROJECT		



LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



PRE-FORMED LOOP

DETAIL "B" LOOP-TO-CONTROLLER SPLICE

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



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 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, <u>MORE</u> 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. <u>EACH</u> ONE OF THESE TYPE OF LOOPS REQUIRES A <u>SEPARATE</u> TWO CONDUCTOR NO. 14 TWISTED SHIELDED CABLE AND A <u>SEPARATE</u> 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 <u>ALL</u> 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.

OOP INSTALLATION Y RESURFACING			F.A.U. RTE	SECTION			COUNTY	TOTAL SHEETS	SHEET NO.
			1238	2019-087-RS&SR			LAKE		35
			TS-07 CONTRACT NO						. 62J99
S	STA.	TO STA.			ILLINOIS	FED. AI	ID PROJECT		



-			EALL					τοται	CHEET		
PENDICULAR CURB RAMPS		RTE	RTE SECTION			COUNTY	SHEETS	NO.			
			1238	2019-087-RS&SR			LAKE	37	36		
			PD-01				CONTRACT NO. 62J99				
S	STA. TO) STA.			ILLINOIS	FED. AI	D PROJECT				



NDICULAR CURB RAMPS WITH		F.A.U. RTE	SECTION			COUNTY	TOTAL SHEETS	SHEET NO.	
		1238	2019-087-RS&SR			LAKE	37	37	
E (FD=04)			PD-04 CONTRACT NO. 62J99						
S	STA.	TO STA.				D PROJECT			