○6-14-2○24 LETTING ITEM ○12

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STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

FAP 335 23 OVERLAY ILLINOIS CONTRACT NO. 62V07

D-91-145-23

FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROJECT BEGINS

OMISSION START

STA 88+16

THE PROJECT IS LOCATED WITHIN: CITY OF CRYSTAL LAKE

TRAFFIC DATA

2023 ADT - 12,800 - 15,100 POSTED SPEED LIMIT - 35 MPH OTHER PRINCIPAL ARTERIAL

PROPOSED HIGHWAY PLANS

F.A.P. ROUTE 335: IL 176 (TERRA COTTA AVE) **HICKORY DRIVE TO MISTWOOD LANE SECTION FAP 335 23 OVERLAY PROJECT NHPP-LAA9(599) DESIGNED OVERLAY, ADA IMPROVEMENTS MCHENRY COUNTY**

C-91-208-23

R 08 E LOCATION MAP (NOT TO SCALE) **PROJECT ENDS** STA 161+39 RESURFACING **OMISSION END**

STA 111+38

NUNDA TOWNSHIP

GROSS LENGTH = 13787.0 FT. = 2.61 MILE NET LENGTH = 11465.0 FT. = 2.17 MILE

STA 23+52 RESURFACING

ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT ENGINEER LUKASZ POCIECHA (847) 705 - 4255 **PROJECT MANAGER VESELIN VELICHKOV**

CONTRACT NO. 62V07

LOCATION OF SECTION INDICATED THUS: -STATE OF ILLINOIS May 10, 2024

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

INDEX OF SHEETS

DESCRIPTION

SHEET NO.

STATE STANDARDS

DESCRIPTION

STANDARD NO.

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2	INDEX OF SHEETS, STATE STANDARDS, AND GENERAL NOTES	424001-11	PERPENDICULAR CURB RAMPS FOR SIDEWALKS
3-6	SUMMARY OF QUANTITIES	442201-03	CLASS C AND D PATCHES
7	EROSION CONTROL PLANS	482011-03	HMA SHOULDER STRIPS WITH RESURFACING OR WIDENING & RESURFACING PROJECTS
8-9	EXISTING AND PROPOSED TYPICAL SECTIONS	604001-05	FRAME AND LIDS, TYPE 1
10-15	ROADWAY AND PAVEMENT MARKING PLANS	604091-05	FRAME AND GRATE, TYPE 24
16	DISTRICT 1 - MAST ARM MOUNTED STREET NAME SIGNS	606001-08	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
17-23	DISTRICT 1 - STANDARD TRAFFIC SIGNAL DESIGN DETAILS (TS-05)	701006-05	OFF-ROAD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
24-31	TRAFFIC SIGNAL DESIGN DETAILS AND PLANS	701011-04	OFF-ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY
32-35	PEDESTRIAN RAMP DESIGN DETAILS AND PLANS	701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
36	PROJECT DETAIL FOR SINGLE PERPENDICULAR CURB RAMPS (PD-02)	701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
37	PROJECT DETAIL FOR DOUBLE PERPENDICULAR CURB RAMPS (PD-03)	701501-06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
38	DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING (BD-08)	701502-09	URBAN LANE CLOSURE, 2L, 2W, WITH BIDIRECTIONAL LEFT TURN LANE
39	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT (BD-22)	701701-10	URBAN LANE CLOSURE, MULTILANE INTERSECTION
40	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT (BD-24)	701801-06	SIDEWALK, CORNER OR CROSSWALK CLOSURE
41	BUTT JOINT AND HMA TAPER DETAILS (BD-32)	701901-09	TRAFFIC CONTROL DEVICES
42	TRAFFIC CONTROL AND PROTECTION FOR SIDE RAODS, INTERSECTIONS,	780001-05	TYPICAL PAVEMENT MARKINGS
	AND DRIVEWAYS (TC-10)	781001-04	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
42	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT) (TC-11)	880006-01	DETECTOR LOOP INSTALLATIONS
44	DISTRICT ONE TYPICAL PAVEMEBT MARKINGS (TC-13)	886006-01	TYPICAL LAYPUT FOR DETECTOR LOOPS
45	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) (TC-14)		
46	SHORT TERM PAVEMENT MARKING LETTERS AND SYMBOLS (TC-16)		
47	ARTERIAL ROAD INFORMATION SIGN (TC-22)		
48	DRIVEWAY ENTRANCE SIGNING (TC-26)		
49	DISTRICT 1 - DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING (TS-07)		

RAILROAD COORDINATION NOTES

. THE CONTRACTOR MUST SECURE RAILROAD FLAGGING SERVICES WHEN WORKING IN THE VICINITYY OF THE UNION PACIFIC AT-GRADE CROSSING. THE FOLLOWING IS AN APPROVED LIST OF THIRD-PARTY FLAGGING COMPANIES AT LEAST 45 DAYS IN ADVANCE OF WORK NEAR THE CROSSING:

RAILPROS: EMAIL: UP.INFO@RAILPROS.COM

PHONE: 877-315-0513, EXT. 116

NATIONAL RAILRAOD SAFETY SERVICES:
EMAIL: UP.REQUEST@NRSSINC.NET

EMAIL: UP.REQUEST@NRSSINC.NET
PHONE: 877-984-6777
HTTPS://WWW.NRSSINC.NET/CONTACTS

- THE CONTRACTOR SHALL REFERENCE THE UNION PACIFIC FOLDER NUMBER 794241 IN ALL CORRESPONDENCE WITH THE UNION PACIFIC RAILROAD, ESPECIALLY WHEN SUBMITTING THE CONTRACTOR'S RIGHT-OF-WAY APPLICATION.
- 3. THE CONTRACTOR SHALL COMPLETE THE E-RAIL SAFE TRAINING PRIOR TO STARTING WORK ON THE UNION PACIFIC RIGHT-OF-WAY. INFORMATION ABOUT THE E-RAIL SAFE TRAINING CAN BE ACCESSED BY USING THE FOLLOWING LINK:

HTTPS://WWW.UP.COM/ABOUTUP/COMMUNITY/SAFETY/ERAILSAFE/UP-PAT/INDEX.HTM

4. THE CONTRACTOR SHALL REFERENCE THE FOLLOWING INFORMATION WHEN APPLYING FOR THE RIGHT-OF-ENTRY (ROE) PERMIT FROM THE UPRR:

UP AT IL 176 E/O PARK BLVD IN CRYSTAL LAKE. CROSSING NUMBER: DOT/AAR #: 178 803B CROSSING MILE POST: 58.85 RR SUBDIVISION: MCHENRY SUB REMS PROJECT #: 794241

UP OVER IL 176 W/O WALKUP ROAD IN CRYSTAL LAKE: CROSSING NUMBER: DOT/AAR #: 176 977R CROSSING MILE POST: 43.36 RR SUBDIVISION: HARVARD SUB REMS PROJECT #: 794241

OTHER UNION PACIFIC RAILROAD REQUIREMENTS CAN BE ACCESSED BY VISITING WWW.UP.COM

GENERAL NOTES

- TEN (10) FOOT TRANSITIONS SHALL BE USED TO MATCH PROPOSED CURB AND GUTTER AND MEDIAN ITEMS OF WORK TO EXISTING CURBS AND GUTTER AND MEDIANS IN THE FIELD, UNLESS OTHERWISE SHOWN.
- THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
- 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.
- ALL PAVEMENT PATCHING LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE RESIDENT ENGINEER.
- 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 RESIDENT ENGINEER.
- 6. DRAINAGE ADJUSTMENT OR RECONSTRUCTION LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE RESIDENT ENGINEER.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
- FRAMES AND GRATES ADJUSTMENT OF PRIVATE UTILITIES WITHIN THE LIMITS OF IMPROVEMENTS SHALL BE DONE BY THEIR RESPECTIVE OWNERS AND ARE NOT PART OF THIS CONTRACT.
- SIDEWALK REMOVAL AND P.C.C. SIDEWALK 5" LOCATIONS SHALL BE DETERMINED BY THE RESIDENT ENGINEER
- 10. THE CONTRACTOR SHALL CONTACT KALPANA KANNAN-HOSADURGA, THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR, AT KALPANA.KANNAN-HOSADURGA@ILLINOIS.GOV A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
- 11. THE RESIDENT ENGINEER SHALL CONTACT WALTER CZARNY, AREA TRAFFIC FIELD ENGINEER VIA EMAIL AT WALTER.CZARNY@ILLINOIS.GOV A MINIMUM OF TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.
- 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. PAVEMENT MARKING TAPE, TYPE IV SHALL BE USED FOR SHORT TERM PAVEMENT MARKINGS ON ALL FINAL SURFACES.
- 16. ALL PAVEMENT MARKINGS SHALL BE PLACED THROUGHOUT THE IMPROVEMENT ACCORDING TO THE DISTRICT 1 TYPICAL PAVEMENT MARKINGS.
- 17. ALL RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED THROUGHOUT THE IMPROVEMENT ACCORDING TO THE DISTRICT 1 TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)
- 18. BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES (AND RAISED REFLECTIVE PAVEMENT MARKERS) IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
- 19. BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF ALL RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT) ACCORDING TO THE "BUTT JOINT AND HOT-MIX ASPHALT TAPER DETAILS" SHEET INCLUDED IN THE PLANS, UNLESS OTHERWISE SPECIFIED.
- 20. OVERNIGHT LANE CLOSURES SHALL NOT BE ALLOWED FOR REHABILITAION PROJECTS INVLOLVING 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.
- 21. THE PROPOSED EXCAVATION, ANY NECESSARY SOIL TESTING, AS WELL AS THE PROPOSED INSTALLATION OF THE AGGREGATE AND/OR BASE COURSE FOR THE PAVEMENT WIDENING SHALL BE IMPLEMENTED IN A TIMELY MANNER SUCH THAT THE RESULTING DROP-OFF DEPTH AT THE END OF EACH DAY IS EQUAL TO OR LESS THAN ONE FOOT.

USER NAME = Nicholas.Babul	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 0.16666633 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/25/2024	DATE -	REVISED -

INDEX OF SHEETS, STATE STANDARDS AND GENERAL NOTES								
ILR	IL ROUTE 176 (HICKORY DRIVE TO MISTWOOD LANE)							
SCALE:	SHEET 1	OF 1	SHEETS STA	A. TO STA.				

F.A.P. RTE.	SECTION		COUNTY	TOTAL SHEETS	SHE
335	FAP 335 23 OVERLAY		MCHENRY	49	2
			CONTRACT	NO. 62	/07
	ILLINOIS	FED. AII	PROJECT		

CODE	ITEM	UNIT	TOTAL QUANTITIES	0005 80% FED 20% STATE ROADWAY	0021 80% FED 20% STATE TRAFFIC SIGNALS	0005 100% STATE
20200100	EARTH EXCAVATION	CU YD	1870	1870		
21001000	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	685	685		
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	123	123		
21400100	GRADING AND SHAPING DITCHES	FOOT	50	50		
25200110	SODDING, SALT TOLERANT	SQ YD	123	123		
25200200	SUPPLEMENTAL WATERING	UNIT	1.9	1.9		
28000400	PERIMETER EROSION BARRIER	FOOT	786	786		
30300001	AGGREGATE SUBGRADE IMPROVEMENT	CU YD	229	229		
30300112	AGGREGATE SUBGRADE IMPROVEMENT, 12"	SQ YD	2738	2738		
35600709	HOT-MIX ASPHALT BASE COURSE WIDENING, 8 1/4"	SQ YD	2738	2738		
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	6159	6159		
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	38611	38611		
40600370	LONGITUDINAL JOINT SEALANT	FOOT	28862	28862		
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	81	81		
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT		475	475		
40602985	HOT-MIX ASPHALT BINDER COURSE, IL-9.5, N70	TON	6305	6305		
40605026	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, 9.5, MIX "F", N80	TON	5517	5517		
42001300	PROTECTIVE COAT	SQ YD	348	348		
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	1888	1888		
42400800	DETECTABLE WARNINGS	SQ FT	208	208		
44000164	HOT-MIX ASPHALT SURFACE REMOVAL, 3 3/4"	SQ YD	53552	53552		
44000600	SIDEWALK REMOVAL	SQ FT	1777	1777		
44201785	CLASS D PATCHES, TYPE I, 12 INCH	SQ YD	40	40		
44201789	CLASS D PATCHES, TYPE II, 12 INCH	SQ YD	825	825		
				+		
44201794	CLASS D PATCHES, TYPE III, 12 INCH		550	550		
1== 7.2.		SQ YD				
44201796	CLASS D PATCHES, TYPE IV, 12 INCH	SQ YD	300	300		
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				+		
			<u> </u>		1	<u> </u>
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* = SPECIALTY ITEMS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
IL ROUTE 176 (HICKORY DRIVE TO MISTWOOD LANE)

CALE: SHEET 1 OF 4 SHEETS STA. TO STA.

	DRAWN -		REVISED -		STATE OF IL	LINOIS			
USER NAME = nicholas.babul	DESIGNED -		REVISED -						•
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									_
	70300100		OHORT TERM	V LIVILIN	T IM WALLIA	1001	20100	20130	_
	70300100		SHORT TERM	PAVEMEN	T MARKING	FOOT	26150	26150	_
	15.025.5					2 30		· ·	_
	70102640		TRAFFIC CONTROL AND F	PROTECTI	ON. STANDARD 701801	L SUM	1	1	_
	15.52550								_
	70102635		TRAFFIC CONTROL AND F	PROTECTI	ON. STANDARD 701701	L SUM	1	1	_
									_
	70102622		TRAFFIC CONTROL AND F	ROTECTI	ON, STANDARD 701502	L SUM	1	1	_
									_
	70102620		TRAFFIC CONTROL AND F	PROTECTI	ON, STANDARD 701501	L SUM	1	1	_
									_
	67100100		MOE	BILIZATIO	N	L SUM	1	1	_
									_
	* 66901006		REGULATED SUB	STANCES	MONITORING	CAL DA	6	6	_
	3333,330				THE OWNER OF THE OWNER OF THE OWNER OF THE OWNER OF THE OWNER OWNE	200		· ·	
	* 66901003		REGULATED SUBSTANCES	S FINAL CO	DNSTRUCTION REPORT	L SUM	1	1	_
	- 00301001		NEGULATED SUBSTANC	LO FRE-U	ONG INDU HON FLAIN	L SUIVI	1	-	_
	* 66901001		REGULATED SUBSTANC	ES DDE O	CONSTRUCTION DI AN	L SUM	1	1	_
	* 66900530		SOIL DISF	OSAL AN	ALTOIO	EACH	8	8	_
	* 66900200		NON-SPECIA	L WASTE	DISPOSAL	CUYD	1115	1115	
									_
	60920015		PIPE CULVERTS	S TO BE C	CLEANED 15"	FOOT	160	160	_
									_
	60920012		PIPE CULVERTS	S TO BE C	LEANED 12"	FOOT	150	150	
	60406100		FRAMES AND LID	S, TYPE 1	I, CLOSED LID	EACH	1	1	
									_

ITEM

SAW CUTS

AGGREGATE WEDGE SHOULDER, TYPE B

CATCH BASINS TO BE ADJUSTED

CATCH BASINS TO BE RECONSTRUCTED

MANHOLES TO BE RECONSTRUCTED

FRAMES AND GRATES TO BE ADJUSTED

FRAMES AND GRATES, TYPE 24

FRAMES AND LIDS, TYPE 1, OPEN LID

* = SPECIALTY ITEMS

CODE

NO

44213200

48102100

60250200

60252800

60257900

60300105

60404950

60406000

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
IL ROUTE 176 (HICKORY DRIVE TO MISTWOOD LANE)

CALE: SHEET 2 OF 4 SHEETS STA. TO STA.

0021

80% FED

20% STATE

TRAFFIC

SIGNALS

0005

100% STATE

0005

80% FED

20% STATE

ROADWAY

6839

519

6

2

2

1

2

2

TOTAL

QUANTITIES

6839

519

6

2

2

1

2

2

UNIT

FOOT

TON

EACH

EACH

EACH

EACH

EACH

EACH

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

 335
 FAP 335 23 OVERLAY
 MCHENRY 49 4
 4

 CONTRACT NO. 62V07

 ILLINOIS FED. AID PROJECT

	DRAWN		REVISED -	STATE OF I	ILLINOIS		SU	MMARY OF QU	ANTITIES
USER NAME = nicholas.babul	DESIGNE	' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	REVISED -		1	1	<u>'</u>		
	* 89	502210	MODIFY EXISTING CONTRO	OLLER CABINET	EACH	3		3	
	* 88	600100	DETECTOR LOOP,	TYPE 1	FOOT	3140		3140	
	* 87	900200	DRILL EXISTING HA	NDHOLE	EACH	7		7	
	* 85	000200	MAINTENANCE OF EXISTING TRAFF	IC SIGNAL INSTALLATION	EACH	3		3	
	* 81	028200	UNDERGROUND CONDUIT, GALV	ANIZED STEEL, 2" DIA.	FOOT	120		120	
	78	300200	RAISED REFLECTIVE PAVEMEN	T MARKER REMOVAL	EACH	623	623		
	* 78	100100	RAISED REFLECTIVE PAVE	MENT MARKER	EACH	624	624		
	H								
	* 78	009004	MODIFIED URETHANE PAVEMEN	NT MARKING - LINE 4"	FOOT	12	12		
			THE MIND LACTIO LACENENT		1.001	322	022		
	* 78	000650	THERMOPLASTIC PAVEMENT	MARKING - LINE 24"	FOOT	622	622		
	^ /8	000600	HEMMOPLASTIC PAVEMENT	VINITATIO - LINE 12	FOOT	2601	2601		
	* 78	000600	THERMOPLASTIC PAVEMENT	MADVING LINE 12"	FOOT	2601	2601		
	* 78	000500	THERMOPLASTIC PAVEMENT	MARKING - LINE 8"	FOOT	212	212		
	* 78	000400	THERMOPLASTIC PAVEMENT	MARKING - LINE 6"	FOOT	2070	2070		
	* 78	000200	THERMOPLASTIC PAVEMENT	MARKING - LINE 4"	FOOT	65166	65166		
	* 78	000100	THERMOPLASTIC PAVEMENT MARKING	G - LETTERS AND SYMBOLS	SQ FT	1516	1516		
	70	307120	TEMPORARY PAVEMENT MARKING	- LINE 4" - TYPE IV TAPE	FOOT	13075	13075		
	70	300281	TEMPORARY PAVEMENT MARK	NG - LINE 24"- PAINT	FOOT	622	622		
	70	300261	TEMPORARY PAVEMENT MARK	NG - LINE 12"- PAINT	FOOT	2601	2601		

ITEM

SHORT TERM PAVEMENT MARKING REMOVAL

TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS - PAINT

TEMPORARY PAVEMENT MARKING - LINE 4"- PAINT

TEMPORARY PAVEMENT MARKING - LINE 6"- PAINT

TEMPORARY PAVEMENT MARKING - LINE 8"- PAINT

* = SPECIALTY ITEMS

CODE

NO

70300150

70300211

70300221

70300241

70300251

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION SUMMARY OF QUANTITIES
IL ROUTE 176 (HICKORY DRIVE TO MISTWOOD LANE)

ALE: SHEET 3 OF 4 SHEETS STA. TO STA.

0021

80% FED

20% STATE

TRAFFIC

SIGNALS

0005

100% STATE

0005

80% FED

20% STATE

ROADWAY

4211

65166

2070

TOTAL

QUANTITIES

4211

1516

65166

2070

212

UNIT

SQ FT

SQ FT

FOOT

FOOT

FOOT

	CODE NO	ITEM	UNIT	TOTAL QUANTITIES	0005 80% FED 20% STATE ROADWAY	0021 80% FED 20% STATE TRAFFIC SIGNALS	0005 100% STATE
*	89502350	REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	165		165	
*	89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	3		3	
	X0320050	CONSTRUCTION LAYOUT (SPECIAL)	L SUM	1	1		
*	X1400378	PEDESTRIAN SIGNAL POST, 5 FT.	EACH	5		5	
	X2020110	GRADING AND SHAPING SHOULDERS	UNIT	47	47		
	X4060995	TEMPORARY RAMP (SPECIAL)	SQ YD	703	703		
	X4400501	COMBINATION CURB AND GUTTER REMOVALAND REPLACEMENT LESS THAN OR EQUAL TO 10 FEET	FOOT	33	33		
	X4400503	COMBINATION CURB AND GUTTER REMOVAL AND REPLACEMENT GREATER THAN 10 FEET	FOOT	563	563		
	X6030310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	41	41		
	X6350120	DELINEATOR REMOVAL	EACH	3	3		
	X6700407	ENGINEER'S FIELD OFFICE, TYPE A (D1)	CAL MO	6	6		
*	X8760200	ACCESSIBLE PEDESTRIAN SIGNALS	EACH	12		12	
*	X8780012	CONCRETE FOUNDATION, TYPE A 12-INCH DIAMETER	FOOT	20		20	
*	Z0033044	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	3		3	
	Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	54			54
	7000050	TTI PODDI DI INTORNI TIONI GIOVINO	20.55	400	400		
	Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	463	463		
	Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1		
	20048005	NAILROAD FROTECTIVE LIABILITY INSURANCE	L SUM	'	'		
	DESIG	NED DEVISED			 		

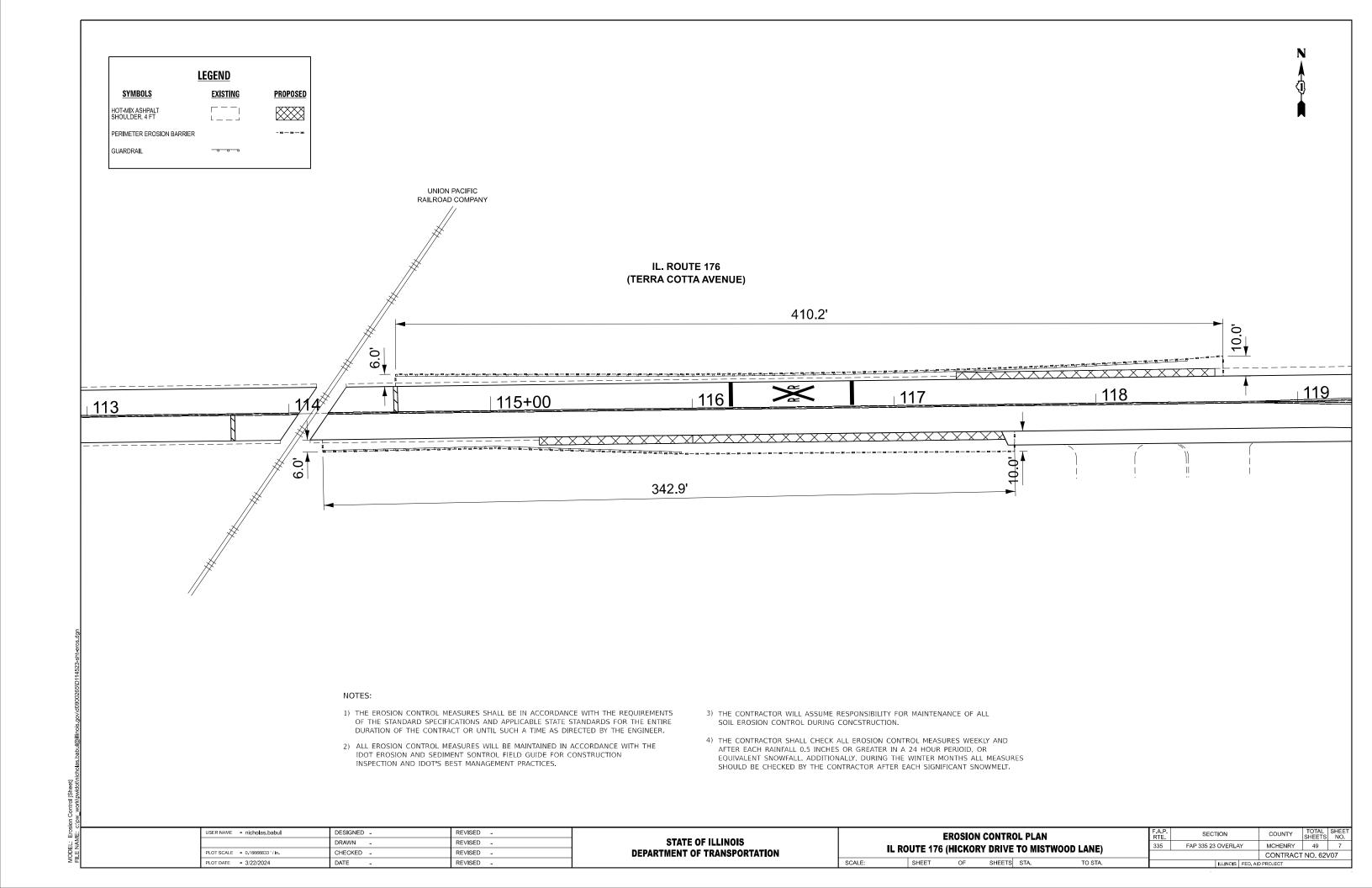
* = SPECIALTY ITEMS

USER NAME = nicholas.babul	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 0.16666633 ' / in.	CHECKED -	REVISED -
PLOT DATE = 3/22/2024	DATE -	REVISED -

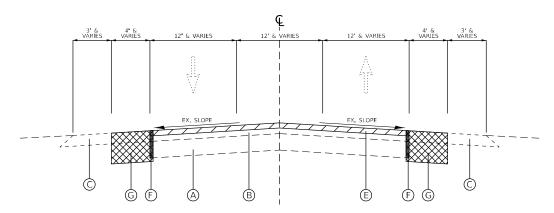
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
IL ROUTE 176 (HICKORY DRIVE TO MISTWOOD LANE)

ALE: SHEET 4 OF 4 SHEETS STA. TO STA.



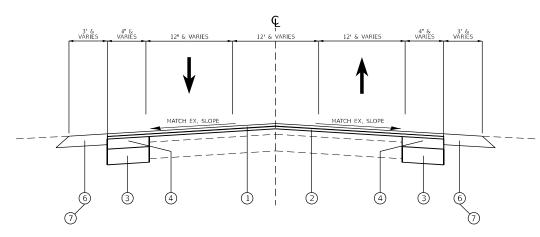
IL 176 (TERRA COTTA AVENUE)



EXISTING TYPICAL SECTION

STA. 23+52 TO STA. 42+50 STA. 49+50 TO STA. 65+50 STA. 115+25 TO STA. 144+25 STA. 151+50 TO STA. 161+39

IL 176 (TERRA COTTA AVENUE)



PRPOSED TYPICAL SECTION

STA. 23+52 TO STA. 42+50 STA. 49+50 TO STA. 65+50 STA. 115+25 TO STA. 144+25 STA. 151+50 TO STA. 161+39

LEGEND - EXISTING:

- (A) CONCRETE PAVEMENT ±9"
- (B) HOT MIX ASPHALT SURFACE BEFORE MILLING, ±6"
- © EXISTING AGGREGATE SHOULDER, 6"
- (D) COMBINATION CONCRETE CURB & GUTTER, TYPE B-6.12
- (E) HOT MIX ASPHALT SURFACE REMOVAL 3-3/4"
- (F) FULL DEPTH PAVEMENT REMOVAL, SAW CUT ±6" INTO PAVEMENT TO ESTABLISH EDGE FOR WIDENING
- G EARTH EXCAVATION, 24" LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER

LEGEND - PROPOSED:

- (1) POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, 9.5, MIX "F", N80, 1-3/4"
- (2) HOT-MIX ASPHALT BINDER COURSE, IL-9.5, N70, 2"
- 3 AGGREGATE SUBBASE IMPROVEMENT,12"
- 4) HOT-MIX ASPHALT BASE COURSE WIDENING, 8 1/4"
- (5) COMBINATION CONCRETE CURB & GUTTER REMOVAL AND REPLACEMENT, LOCATIONS DETERMINED BY THE ENGINEER
- 6 AGGREGATE WEDGE SHOULDER, TYPE B
- (7) GRADING AND SHAPING SHOULDERS

NOTES:

- 1. THE CONTRACTOR SHALL MILL FIRST BEFORE PATCHING.
- 2. THE LONGITUDINAL JOINT SEALANT SHALL BE PLACED OVER THE HMA BINDER COURSE IL-9.5.

HOT-MIX ASPHALT MIXTURE REQUIREMENTS	QUALITY MANAGEMENT					
MIXTURE TYPE	AIR VOIDS(%) @ Ndes	PROGRAM (QMP)				
PAVEMENT RESURFACING						
POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, 9.5, MIX "F", N80, 1-3/4"	3.5% @ 70 GYR.	QCP				
HOT-MIX ASPHALT BINDER COURSE, IL-9.5, N70, 2"	4% @ 70 GYR.	QCP				
HMA SHOULDER						
POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, 9.5, MIX "F", N80, 1-3/4"	3.5% @ 70 GYR.	QCP				
HOT-MIX ASPHALT BINDER COURSE, IL-9.5, N70, 2"	4% @ 70 GYR.	QCP				
HMA BASE COURSE WIDENING (HMA BINDER IL-19.0), 8 1/4"	4% @ 70 GYR.	QC/QA				
PATCHING						
CLASS D PATCHES (HMA BINDER IL-19.0)	4% @ 70 GYR.	QC/QA				
TEMPORARY RAMP (SPECIAL)						
HOT-MIX ASPHALT BINDER COURSE, IL-9.5, N70	4% @ 70 GYR.	QC/QA				
QMP DESIGNATION: QUALITY CONTROL/QUALITY ASSURANCE (QC/QA); QUALITY C PAY FOR PERFORMANCE (PFP)	QMP DESIGNATION: QUALITY CONTROL/QUALITY ASSURANCE (QC/QA); QUALITY CONTROL FOR PERFORMANCE (QCP); PAY FOR PERFORMANCE (PFP)					

- NOTE 1: THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.
- NOTE 2: THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY RECLAIMED MATERIALS SPECIFICATIONS.

USER NAME = nicholas.babul	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 0.16666633 '/in.	CHECKED -	REVISED -
PLOT DATE = 3/22/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING AND PROPOSED TYPICAL SECTIONS

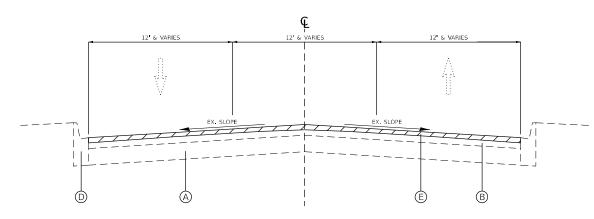
IL ROUTE 176 (HICKORY DRIVE TO MISTWOOD LANE)

SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.P. RTE. SECTION
335 FAP 335 23 OVERL.

MODEL: Typical Section-1 [Sheet]
FILE NAME: c:\pw_work\pwidot\nicholas.babul@illi

IL 176 (TERRA COTTA AVENUE)



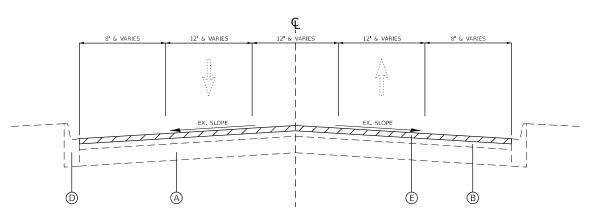
EXISTING TYPICAL SECTION

STA. 111+38 TO STA. 115+25 STA. 144+25 TO STA. 151+50

NOTES:

- 1. THE CONTRACTOR SHALL MILL FIRST BEFORE PATCHING
- THE LONGITUDINAL JOINT SEALANT SHALL BE PLACED OVER THE MILLED SURFACE

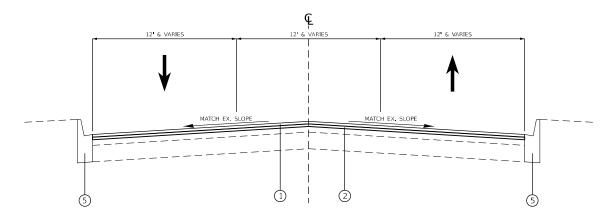
IL 176 (TERRA COTTA AVENUE)



EXISTING TYPICAL SECTION

STA. 42+50 TO STA. 49+50 STA. 65+50 TO STA. 88+16

IL 176 (TERRA COTTA AVENUE)



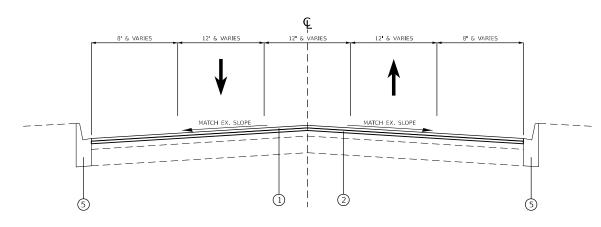
PRPOSED TYPICAL SECTION

STA. 111+38 TO STA. 115+25 STA. 144+25 TO STA. 151+50

LEGEND - EXISTING:

- (A) CONCRETE PAVEMENT ±9"
- (B) HOT MIX ASPHALT SURFACE BEFORE MILLING, ±6"
- © EXISTING AGGREGATE SHOULDER, 6"
- (D) COMBINATION CONCRETE CURB & GUTTER, TYPE B-6.12
- (E) HOT MIX ASPHALT SURFACE REMOVAL 3-3/4"
- FULL DEPTH PAVEMENT REMOVAL, SAW CUT ±6" INTO PAVEMENT TO ESTABLISH EDGE FOR WIDENING
- EARTH EXCAVATION, 24" LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER

IL 176 (TERRA COTTA AVENUE)



PRPOSED TYPICAL SECTION

STA. 42+50 TO STA. 49+50 STA. 65+50 TO STA. 88+16

LEGEND - PROPOSED:

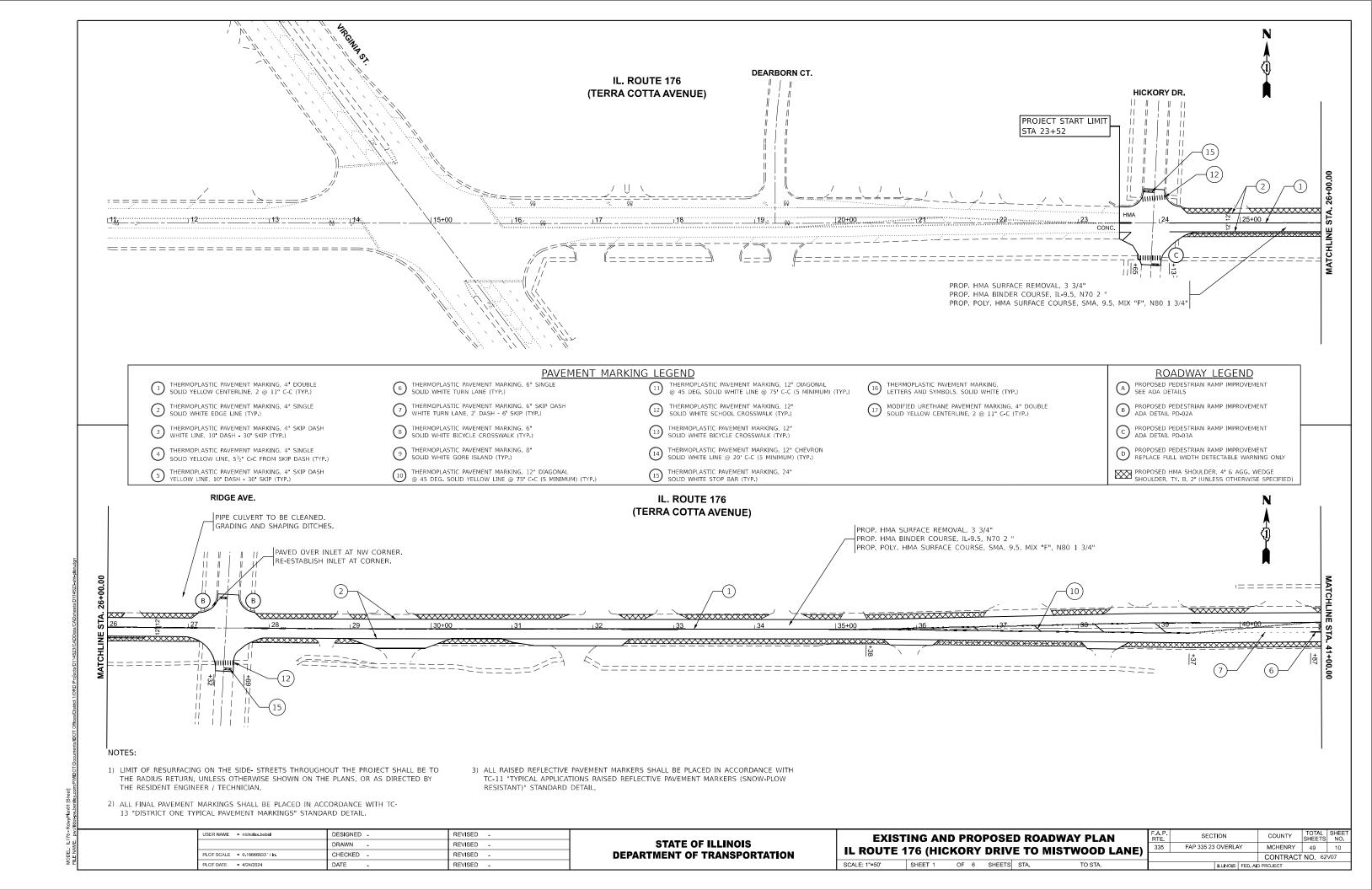
- POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, 9.5, MIX "F", N80, 1-3/4"
- 2 HOT-MIX ASPHALT BINDER COURSE, IL-9.5, N70, 2"
- (3) AGGREGATE SUBBASE IMPROVEMENT,12"
- (4) HOT-MIX ASPHALT BASE COURSE WIDENING, 8 1/4"
- 5 COMBINATION CONCRETE CURB & GUTTER REMOVAL AND REPLACEMENT, LOCATIONS DETERMINED BY THE ENGINEER
- (6) AGGREGATE WEDGE SHOULDER, TYPE B
- 7 GRADING AND SHAPING SHOULDERS

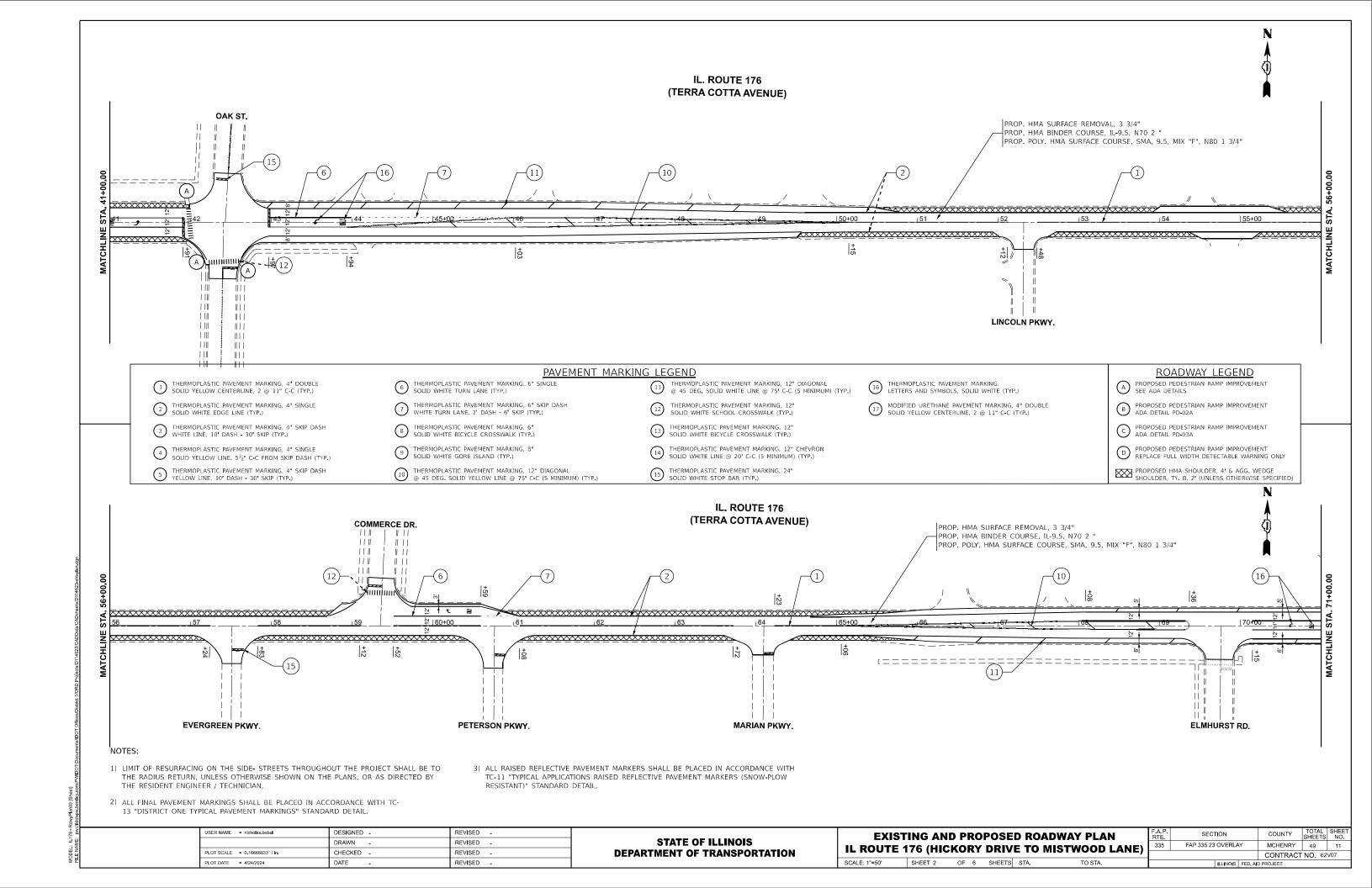
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	DRAWN -	REVISED -
PLOT SCALE = 0.16666633 ' / in.	CHECKED -	REVISED -
PLOT DATE = 3/22/2024	DATE -	REVISED -

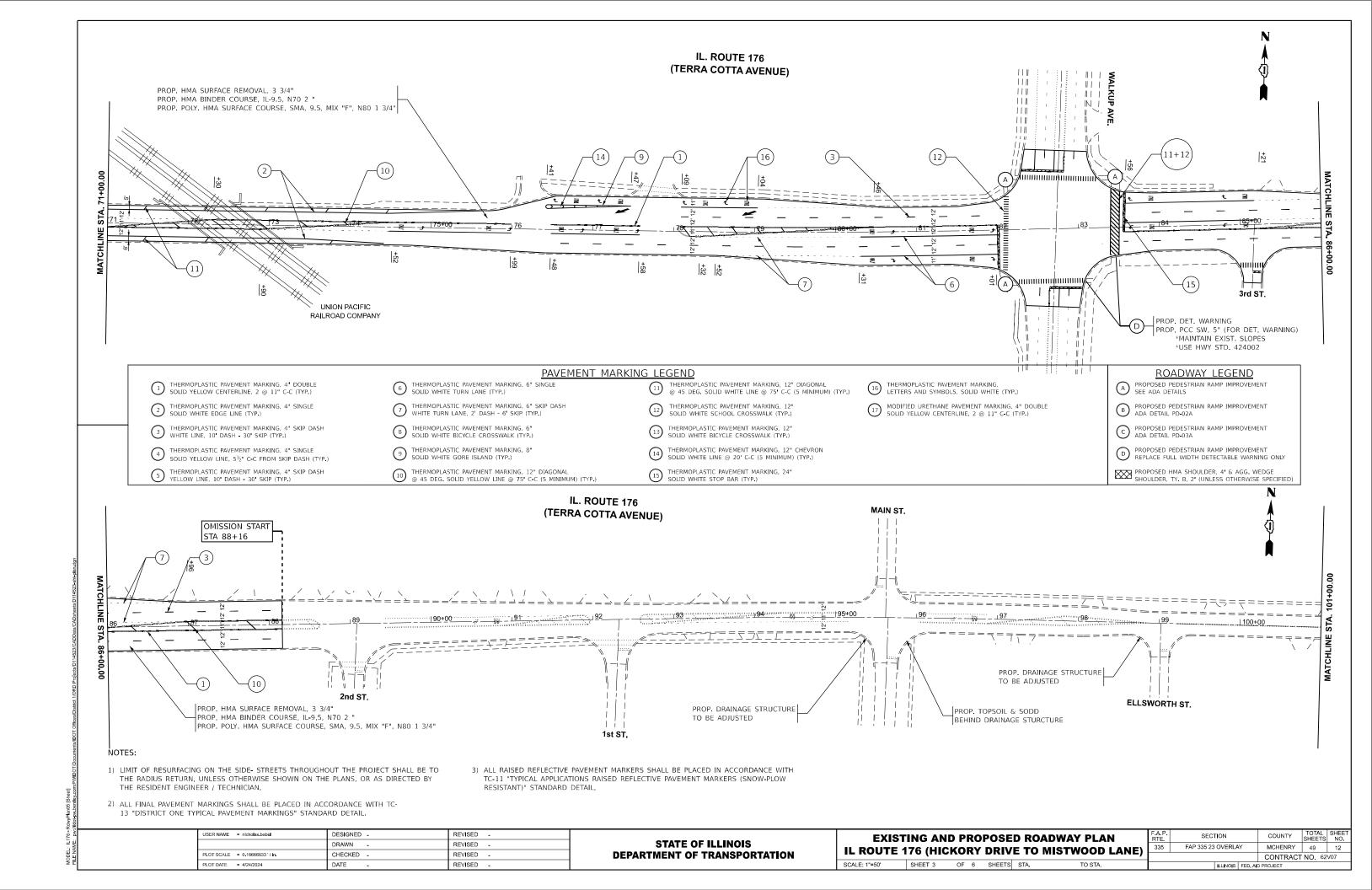
STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

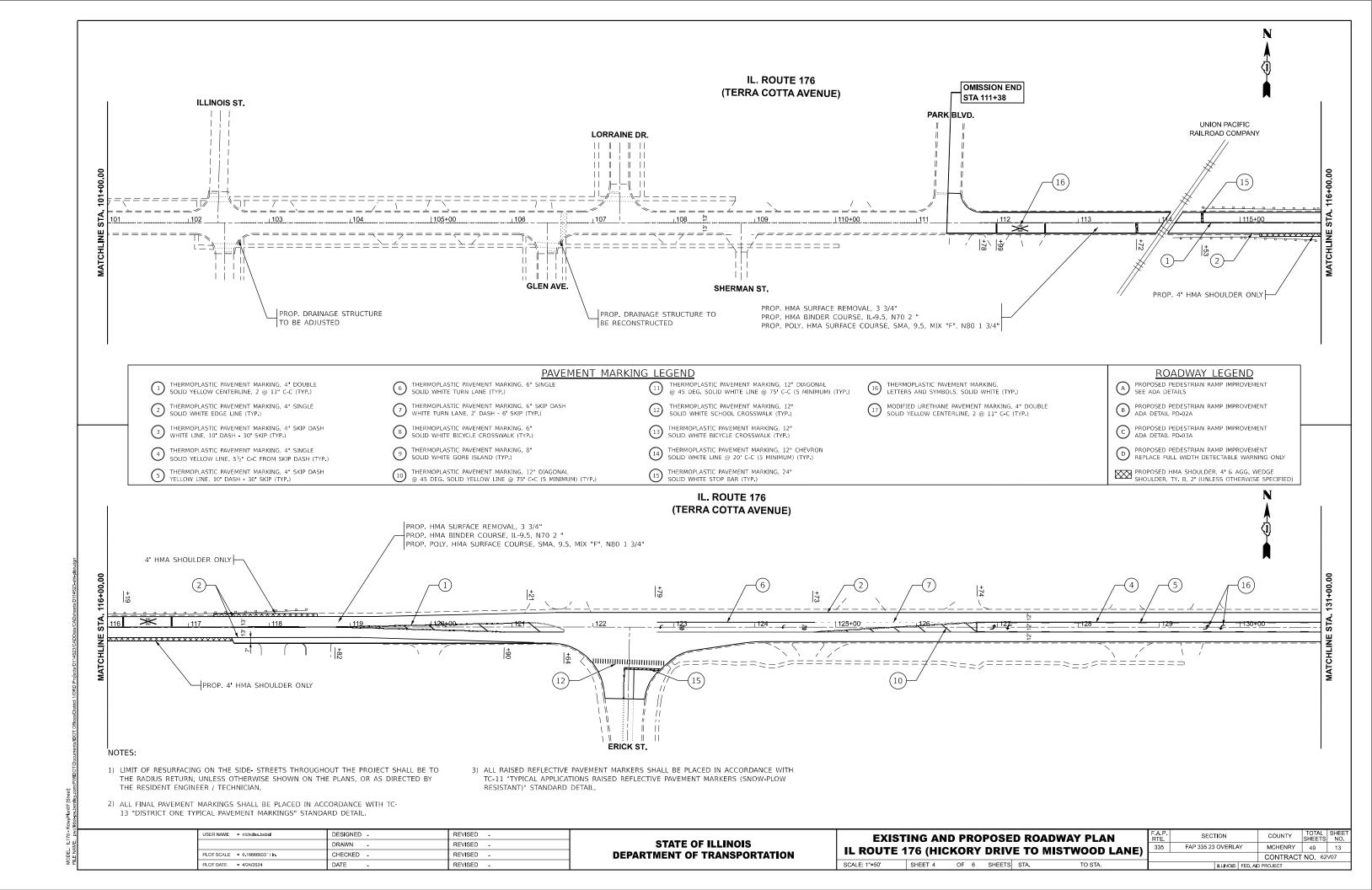
EXISTING AND PROPOSED TYPICAL SECTIONS IL ROUTE 176 (HICKORY DRIVE TO MISTWOOD LANE) SHEET 2 OF 2 SHEETS STA.

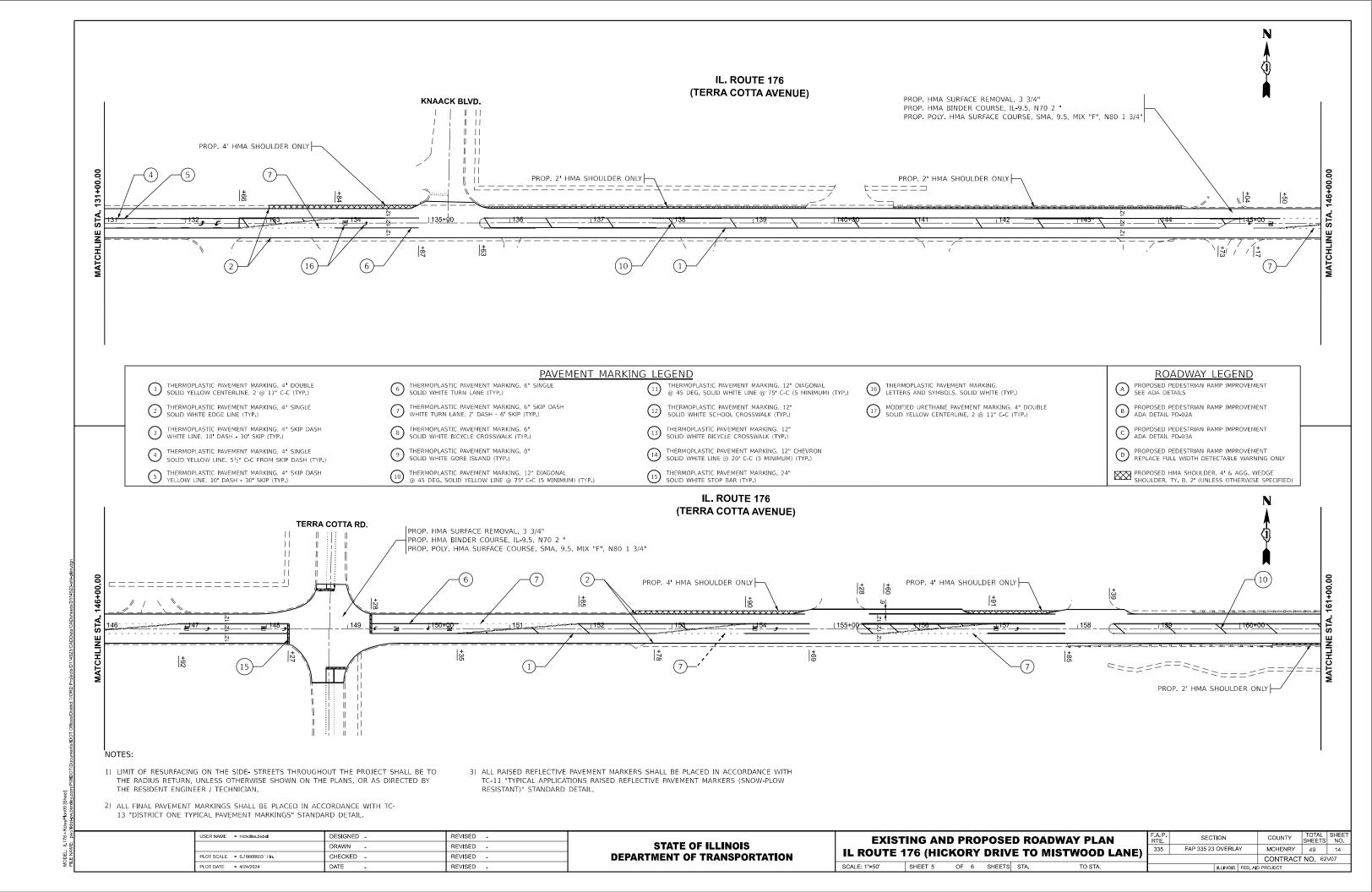
SECTION FAP 335 23 OVERLAY MCHENRY 49 CONTRACT NO. 62V07



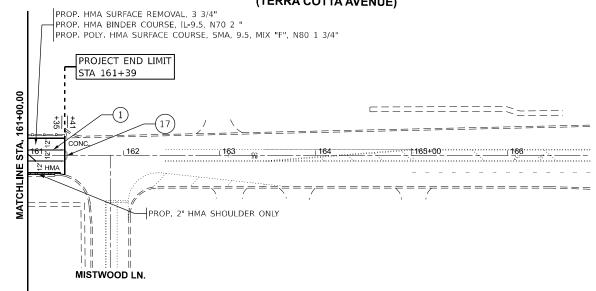








IL. ROUTE 176 (TERRA COTTA AVENUE)



	THERMOPLASTIC PAVEMENT MARKING, 4" DOUBLE SOLID YELLOW CENTERLINE, 2 @ 11" C-C (TYP.)
\mathbf{C}	SOLID YELLOW CENTERLINE, 2 @ 11" C-C (TYP.)

- THERMOPLASTIC PAVEMENT MARKING, 4" SINGLE SOLID WHITE EDGE LINE (TYP.)
- THERMOPLASTIC PAVEMENT MARKING, 4" SKIP DASH WHITE LINE, 10" DASH 30" SKIP (TYP.)
- THERMOPLASTIC PAVEMENT MARKING, 4" SINGLE SOLID YELLOW LINE, $5\frac{1}{2}$ " C-C FROM SKIP DASH (TYP.)
- THERMOPLASTIC PAVEMENT MARKING, 4" SKIP DASH YELLOW LINE, 10' DASH 30' SKIP (TYP.)

PAVEMENT MARKING LEGEND

- THERMOPLASTIC PAVEMENT MARKING, 6" SINGLE SOLID WHITE TURN LANE (TYP.) THERMOPLASTIC PAVEMENT MARKING, 12" DIAGONAL @ 45 DEG. SOLID WHITE LINE @ 75' C-C (5 MINIMUM) (TYP.)
- THERMOPLASTIC PAVEMENT MARKING, 6" SKIP DASH WHITE TURN LANE, 2' DASH 6' SKIP (TYP.) THERMOPLASTIC PAVEMENT MARKING, 12" SOLID WHITE SCHOOL CROSSWALK (TYP.)
 - THERMOPLASTIC PAVEMENT MARKING, 12" SOLID WHITE BICYCLE CROSSWALK (TYP.)
 - THERMOPLASTIC PAVEMENT MARKING, 12" CHEVRON SOLID WHITE LINE $\ensuremath{\textcircled{@}}$ 20' C-C (5 MINIMUM) (TYP.)
 - THERMOPLASTIC PAVEMENT MARKING, 24" SOLID WHITE STOP BAR (TYP.)

ROADWAY LEGEND THERMOPLASTIC PAVEMENT MARKING, LETTERS AND SYMBOLS, SOLID WHITE (TYP.)

- A PROPOSED PEDESTRIAN RAMP IMPROVEMENT SEE ADA DETAILS
- B PROPOSED PEDESTRIAN RAMP IMPROVEMENT ADA DETAIL PD-02A
- C PROPOSED PEDESTRIAN RAMP IMPROVEMENT ADA DETAIL PD-03A
- PROPOSED PEDESTRIAN RAMP IMPROVEMENT REPLACE FULL WIDTH DETECTABLE WARNING ONLY
- PROPOSED HMA SHOULDER, 4 & AGG. WEDGE SHOULDER, TY. B, 2' (UNLESS OTHERWISE SPECIFIED)

THERMOPLASTIC PAVEMENT MARKING, 6" SOLID WHITE BICYCLE CROSSWALK (TYP.) THERMOPLASTIC PAVEMENT MARKING, 8" SOLID WHITE GORE ISLAND (TYP.)

THERMOPLASTIC PAVEMENT MARKING, 12" DIAGONAL @ 45 DEG. SOLID YELLOW LINE @ 75' C-C (5 MINIMUM) (TYP.)

- 1) LIMIT OF RESURFACING ON THE SIDE- STREETS THROUGHOUT THE PROJECT SHALL BE TO THE RADIUS RETURN, UNLESS OTHERWISE SHOWN ON THE PLANS, OR AS DIRECTED BY THE RESIDENT ENGINEER / TECHNICIAN.
- 3) ALL RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH TC-11 "TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)" STANDARD DETAIL.
- 2) ALL FINAL PAVEMENT MARKINGS SHALL BE PLACED IN ACCORDANCE WITH TC-13 "DISTRICT ONE TYPICAL PAVEMENT MARKINGS" STANDARD DETAIL.

USER NAME = nicholas babul	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 0.16666633 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/24/2024	DATE -	REVISED -

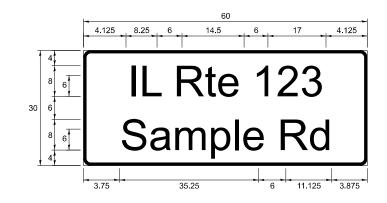
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

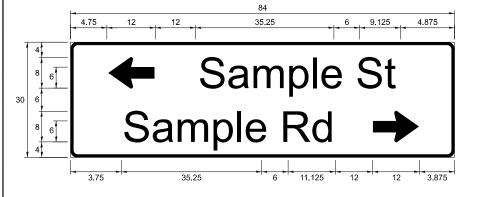
EXIST	EXISTING AND PROPOSED ROADWAY PLAN										
IL ROUTE 1	IL ROUTE 176 (HICKORY DRIVE TO MISTWOOD LANE)										
SCALE: 1"=50'	SHEET 6	OF	6	SHEETS	STA.	TO STA.	H				

SECTION COUNTY FAP 335 23 OVERLAY 335 MCHENRY 49 15 CONTRACT NO. 62V07

SIGN PANEL - TYPE 1 OR TYPE 2







DESIGN

D OR C

COMMON STREET NAME ABBREVIATIONS AND WIDTHS

TYPE

1 OR 2

SIGN PANEL SHEETING

QTY.

REQUIRED

		WIDTH	I (INCH)
NAME	ABBREVATION	SERIES "C"	SERIES "D"
AVENUE	Ave	15.000	18.250
BOULEVARD	Blvd	17.125	20.000
CIRCLE	Cir	11.125	13.000
COURT	Ct	8.250	9.625
DRIVE	Dr	8.625	10.125
HIGHWAY	Hwy	18.375	22.000
ILLINOIS	IL	7.000	8.250
LANE	Ln	9.125	10.750
PARKWAY	Pkwy	23.375	27.375
PLACE	Pl	7.125	7.750
ROAD	Rd	9.625	11.125
ROUTE	Rte	12.625	14.500
STREET	St	8.000	9.125
TERRACE	Ter	12.625	14.625
TRAIL	Tr	7.750	9.125
UNITED STATES	US	10.375	12.250

GENERAL NOTES

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

LOCAL SUPPLIERS: PARTS LISTING:

- J.O. HERBERT COMPANY, INC. MIDLOTHIAN, VA

- WESTERN REMAC, INC.

WOODRIDGE, IL

SIGN CHANNEL SIGN SCREWS

BRACKETS

PART #HPN053 (MED. CHANNEL)

1/4" x 14 x 1" H.W.H. #3 SELF TAPPING WITH NEOPRENE WASHER

PART #HPN034 (UNIVERSAL)

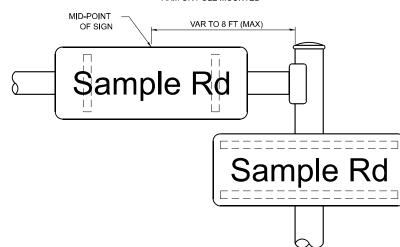
CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING

SCALE: NONE

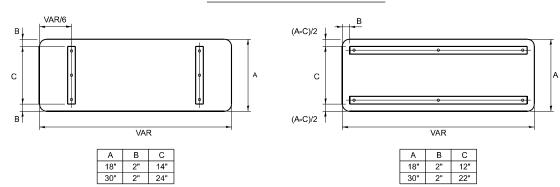
OTHER BRANDS OF MOUNTING HARDWARE ARE ACCEPTABLE, BASED UPON THE DEPARTMENT'S APPROVAL AND COMPATIBILITY WITH THE CHANNEL/BRACKET OF THE ABOVE PRODUCT.

MOUNTING LOCATION





SUPPORTING CHANNELS



STANDARD ALPHABETS SPACING CHART

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

	LEFT		RIGHT		LEFT		RIGHT
CHARACTER	SPACING (INCH)	WIDTH (INCH)	SPACING (INCH)	CHARACTER	SPACING (INCH)	WIDTH (INCH)	SPACING (INCH)
Α	0.240	5.122	0.240	A	0.240	6.804	0.240
В	0.880	4.482	0.480	В	0.960	5.446	0.400
С	0.720	4.482	0.720	С	0.800	5.446	0.800
D	0.880	4.482	0.720	D	0.960	5.446	0.800
Е	0.880	4.082	0.480	E	0.960	4.962	0.400
F	0.880	4.082	0.240	F	0.960	4.962	0.240
G	0.720	4.482	0.720	G	0.800	5.446	0.800
Н	0.880	4.482	0.880	Н	0.960	5.446	0.960
<u> </u>	0.880	1.120	0.880	1	0.960	1.280	0.960
J K	0.240 0.880	4.082 4.482	0.880	J K	0.240 0.960	5.122 5.604	0.960 0.400
L	0.880	4.462	0.460	L	0.960	4.962	0.400
M	0.880	5.284	0.880	M	0.960	6.244	0.960
N	0.880	4.482	0.880	N	0.960	5.446	0.960
0	0.720	4.722	0.720	0	0.800	5.684	0.800
Р	0.880	4.482	0.720	Р	0.960	5.446	0.240
Q	0.720	4.722	0.720	Q	0.800	5.684	0.800
R	0.880	4.482	0.480	R	0.960	5.446	0.400
S	0.480	4.482	0.480	S	0.400	5.446	0.400
Т	0.240	4.082	0.240	Т	0.240	4.962	0.240
U	0.880	4.482	0.880	U	0.960	5.446	0.960
V	0.240	4.962	0.240	V	0.240	6.084	0.240
W	0.240	6.084	0.240	W	0.240	7.124	0.240
X	0.240	4.722	0.240	X	0.400	5.446	0.400
Y Z	0.240 0.480	5.122 4.482	0.240 0.480	Y Z	0.240 0.400	6.884 5.446	0.240
a	0.480	3.842	0.480	a	0.400	4.562	0.720
b	0.720	4.082	0.480	b	0.800	4.802	0.720
С	0.480	4.002	0.240	c	0.480	4.722	0.240
d	0.480	4.082	0.720	d	0.480	4.802	0.800
е	0.480	4.082	0.320	е	0.480	4.722	0.320
f	0.320	2.480	0.160	f	0.320	2.882	0.160
g	0.480	4.082	0.720	g	0.480	4.802	0.800
h	0.720	4.082	0.640	h	0.800	4.722	0.720
i	0.720	1.120	0.720	i	0.800	1.280	0.800
j	0.000	2.320	0.720	j	0.000	2.642	0.800
k	0.720	4.322	0.160	k	0.800	5.122	0.160
1	0.720	1.120	0.720	I	0.800	1.280	0.800
m	0.720	6.724	0.640 0.640	m	0.800	7.926 4.722	0.720
n o	0.720 0.480	4.082	0.640	n o	0.480	4.722	0.720 0.480
р	0.720	4.082	0.480	р	0.800	4,802	0.480
q	0.480	4.082	0.720	q	0.480	4.802	0.800
r	0.720	2.642	0.160	r	0.800	3.042	0.160
s	0.320	3.362	0.240	s	0.320	3.762	0.240
t	0.080	2.882	0.080	t	0.080	3.202	0.080
u	0.640	4.082	0.720	u	0.720	4.722	0.800
V	0.160	4.722	0.160	V	0.160	5.684	0.160
w	0.160	7.524	0.160	w	0.160	9.046	0.160
х	0.000	5.202	0.000	х	0.000	6.244	0.000
у	0.160	4.962	0.160	у	0.160	6.004	0.160
Z 1	0.240	3.362	0.240	Z	0.240	4.002	0.240
1	0.720	1.680	0.880	1	0.800	2.000	0.960
3	0.480 0.480	4.482 4.482	0.480	3	0.800 1.440	5.446 5.446	0.800
4	0.480	4.482	0.480	4	0.160	6.004	0.800
5	0.480	4.482	0.720	5	0.800	5.446	0.800
6	0.720	4.482	0.720	6	0.800	5.446	0.800
7	0.240	4.482	0.720	7	0.560	5.446	0.560
8	0.480	4.482	0.480	8	0.800	5.446	0.800
9	0.480	4.482	0.480	9	0.800	5.446	0.800
0	0.720	4.722	0.720	0	0.800	5.684	0.800
-	0.240	2.802	0.240	-	0.240	2.802	0.240

USER NAME = nicholas.babul	DESIGNED	-	LP/IP	REVISED	-	LP 07/01/2015
	DRAWN	-	LP	REVISED	-	
PLOT SCALE = 0.16666633 ' / in.	CHECKED	-	IP	REVISED	-	
PLOT DATE = 3/22/2024	DATE	_	10/01/2014	REVISED	-	

		DIST	RICT O	NE		F.A.P. RTE	
M	AST ARM	MOLINT	ED STRI	FFT NA	ME SIGNS	335	FAP 3
101/	AUI AINI	MOON	LD SIK	LE 1 14A	INIL SIGNS		
	SHEET 1	OF 1	SHEETS	STA.	TO STA.		

F.A.P. RTE	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.
335	FAP 335 23 OVERLAY		MCHENRY	49	16
	TS-02		CONTRACT	NO. 62\	/07
	ILLINOIS	FED. AII	D PROJECT		

TRAFFIC SIGNAL LEGEND

(NOT TO SCALE)

ITEM	EXISTING	PROPOSED	ITEM	EXISTING	PROPOSED	ITEM	EXISTING	PROPOSED
CONTROLLER CABINET	\boxtimes		HANDHOLE -SQUARE			SIGNAL HEAD -(P) PROGRAMMABLE SIGNAL HEAD	R R	R R Y
COMMUNICATION CABINET	ECC	cc	-ROUND HEAVY DUTY HANDHOLE					Y Y G G G 4Y 4Y 4G 4G
MASTER CONTROLLER	EMC	MC	-SQUARE -ROUND	H B	⊞ ⊕			4 G 4 G P
MASTER MASTER CONTROLLER	EMMC	ммс	DOUBLE HANDHOLE			SIGNAL HEAD WITH BACKPLATE		R R R
UNINTERRUPTABLE POWER SUPPLY	4	4	JUNCTION BOX		0	-(P) PROGRAMMABLE SIGNAL HEAD -(RB) RETROREFLECTIVE BACKPLATE		
SERVICE INSTALLATION -(P) POLE MOUNTED	P	- ■ -P	RAILROAD CANTILEVER MAST ARM	X OX X X	X QX X X			G G G G G G G G G G G G G G G G G G G
SERVICE INSTALLATION			RAILROAD FLASHING SIGNAL	∑o ∑	X◆X		P RB	P RB
-(G) GROUND MOUNTED -(GM) GROUND MOUNTED METERED	$\boxtimes^{G} \boxtimes^{GM}$	G ⊠ GM	RAILROAD CROSSING GATE	₹0₹>	X•X-	PEDESTRIAN SIGNAL HEAD	(P)	•
TELEPHONE CONNECTION	ET	Т	RAILROAD CROSSBUCK	₹	*	AT RAILROAD INTERSECTIONS	$\overline{\mathfrak{K}}$	*
STEEL MAST ARM ASSEMBLY AND POLE	0	•——	RAILROAD CONTROLLER CABINET		▶ <	PEDESTRIAN SIGNAL HEAD	(<u>₩</u> c
ALUMINUM MAST ARM ASSEMBLY AND POLE			UNDERGROUND CONDUIT (UC), GALVANIZED STEEL			WITH COUNTDOWN TIMER	(*) D	
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE	o;x—	•*	TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE			ILLUMINATED SIGN "NO LEFT TURN"/"NO RIGHT TURN"		
SIGNAL POST -(BM) BARREL MOUNTED - TEMPORARY	0	● BM	SYSTEM ITEM	S	SP	NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE.	5	
WOOD POLE	\otimes	•	INTERSECTION ITEM	ĺ	IP	ALL DETECTOR LOOP CABLE TO BE SHIELDED	,,	<u> </u>
			REMOVE ITEM		R	GROUND CABLE IN CONDUIT, NO. 6 SOLID COPPER (GREEN)	1#6	1#6
GUY WIRE BIGNAL HEAD	≻ -⇔	<i>></i> -	RELOCATE ITEM		RL	ELECTRIC CABLE IN CONDUIT, TRACER	<u>—(1)</u> —	<u> </u>
SIGNAL HEAD WITH BACKPLATE	+	+>	ABANDON ITEM		A	NO. 14 1/C	\sim	
	р р	р р	CONTROLLER CABINET AND FOUNDATION TO BE REMOVED		RCF	COAXIAL CABLE	<u> </u>	<u> </u>
SIGNAL HEAD OPTICALLY PROGRAMMED	-⊳' +⊳'		MAST ARM POLE AND		RMF	VENDOR CABLE		
FLASHER INSTALLATION -(FS) SOLAR POWERED	F → FS F → FS	+→ ^F +→ ^{FS}	FOUNDATION TO BE REMOVED SIGNAL POST AND			COPPER INTERCONNECT CABLE,		6#18
	н> н>	₽ ₽	FOUNDATION TO BE REMOVED		RPF	NO. 18, 3 PAIR TWISTED, SHIELDED FIBER OPTIC CABLE		
PEDESTRIAN SIGNAL HEAD	-1	-	DETECTOR LOOP, TYPE I			-NO. 62.5/125, MM12F -NO. 62.5/125, MM12F SM12F		—(12F)—
PEDESTRIAN PUSH BUTTON (APS) ACCESSIBLE PEDESTRIAN PUSH BUTTON		⊚	PREFORMED DETECTOR LOOP	P P	P P	-NO. 62.5/125, MM12F SM24F		
RADAR DETECTION SENSOR	R	R	SAMPLING (SYSTEM) DETECTOR	s s	s s			
VIDEO DETECTION CAMERA	$\sqrt{1}$	v.	INTERSECTION AND SAMPLING (SYSTEM) DETECTOR	IS (S)	[S] (S)			
RADAR/VIDEO DETECTION ZONE			QUEUE AND SAMPLING (SYSTEM) DETECTOR	as as	QS QS	GROUND ROD -(C) CONTROLLER -(M) MAST ARM	$\begin{array}{cccc} \overset{\cdot}{\vdash} & C & \xrightarrow{\cdot} & M & \xrightarrow{\cdot} & P & \xrightarrow{\cdot} & S \\ \hline \downarrow & & \downarrow & & \downarrow & & \downarrow \\ \hline \end{array}$	$\stackrel{\stackrel{\perp}{=}}{\stackrel{\leftarrow}{\downarrow}}^{C} \stackrel{\stackrel{\perp}{=}}{\stackrel{\downarrow}{\downarrow}}^{M} \stackrel{\stackrel{\perp}{=}}{\stackrel{\vdash}{\downarrow}}^{P} \stackrel{\stackrel{\perp}{=}}{\stackrel{\downarrow}{=}}^{S}$
PAN, TILT, ZOOM (PTZ) CAMERA	PTZ	PTZ	WIRELESS DETECTOR SENSOR	<u> </u>		-(S) SERVICE		
EMERGENCY VEHICLE LIGHT DETECTOR	\boxtimes	~	WIRELESS ACCESS POINT		_			
CONFIMATION BEACON	0-()	•-(
WIRELESS INTERCONNECT	0-1	•-+						
WIRELESS INTERCONNECT RADIO REPEATER	ERR	RR						
USER NAME = nicho						DISTRICT ONE	F.A.P. SECTION	DN COUNTY TOTAL
PLOT SCALE = 0.1666	DRAWN - 666633 */in. CHECKED -			STATE OF ILLINOIS IENT OF TRANSPORTATION	STA	NDARD TRAFFIC SIGNAL DESIGN DETAILS	335 FAP 335 23 OVER TS-05	

REVISED -

DATE - 9/29/2016

PLOT DATE = 3/22/2024

SHEET 1 OF 7 SHEETS STA.

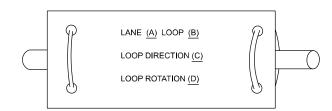
05 CONTRACT NO. 62V07
| ILLINOIS | FED. AID PROJECT

TS-05

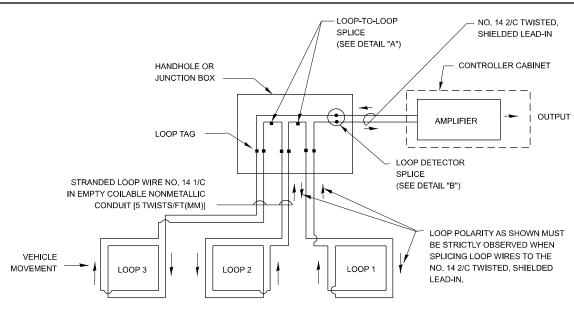
LOOP DETECTOR NOTES

- 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
- 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.
- PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE 7. 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

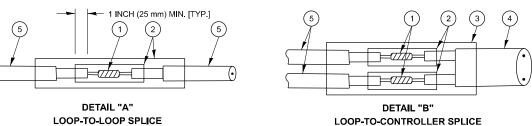


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

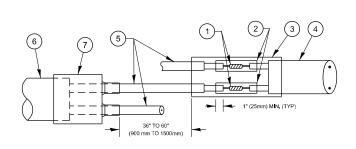


DETECTOR LOOP WIRING SCHEMATIC

- 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.



TYPE | LOOP



DETAIL "A" LOOP-TO-LOOP SPLICE

PRE-FORMED LOOP

DETAIL "B" LOOP-TO-CONTROLLER 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.

36" TO 60"

- (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.
- 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

JSER NAME = nicholas.babul DESIGNED -REVISED DRAWN REVISED HECKED REVISED PLOT DATE = 3/22/2024 DATE REVISED

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

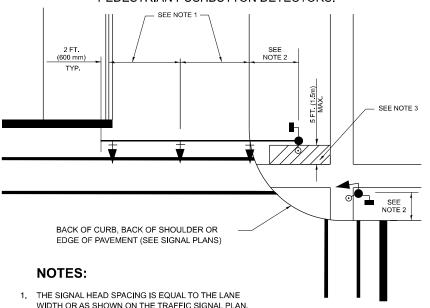
DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS SHEET 2 OF 7 SHEETS STA.

COUNTY 335 FAP 335 23 OVERLAY MCHENRY 49 18 CONTRACT NO. 62V07

TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

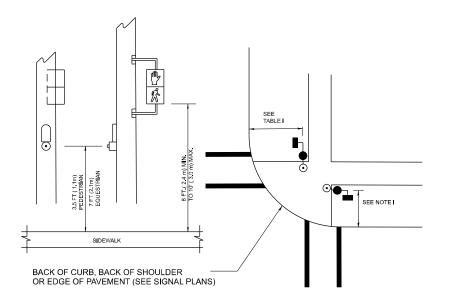
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND

PEDESTRIAN PUSHBUTTON DETECTORS.



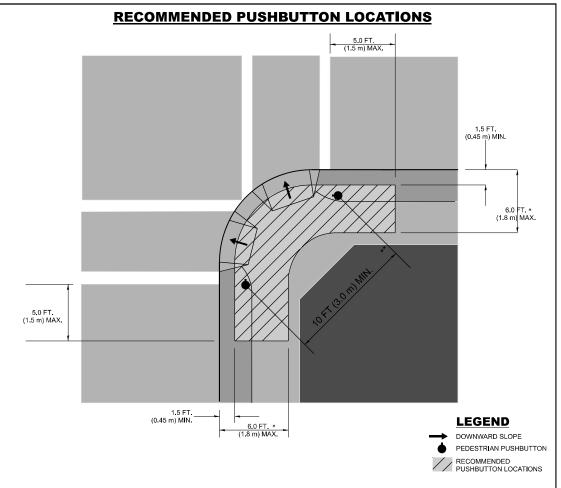
- 2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
- 3. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR
- 4. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
- 5. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCO 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:

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

TRAFFIC SIGNAL EQUIPMENT OFFSET

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

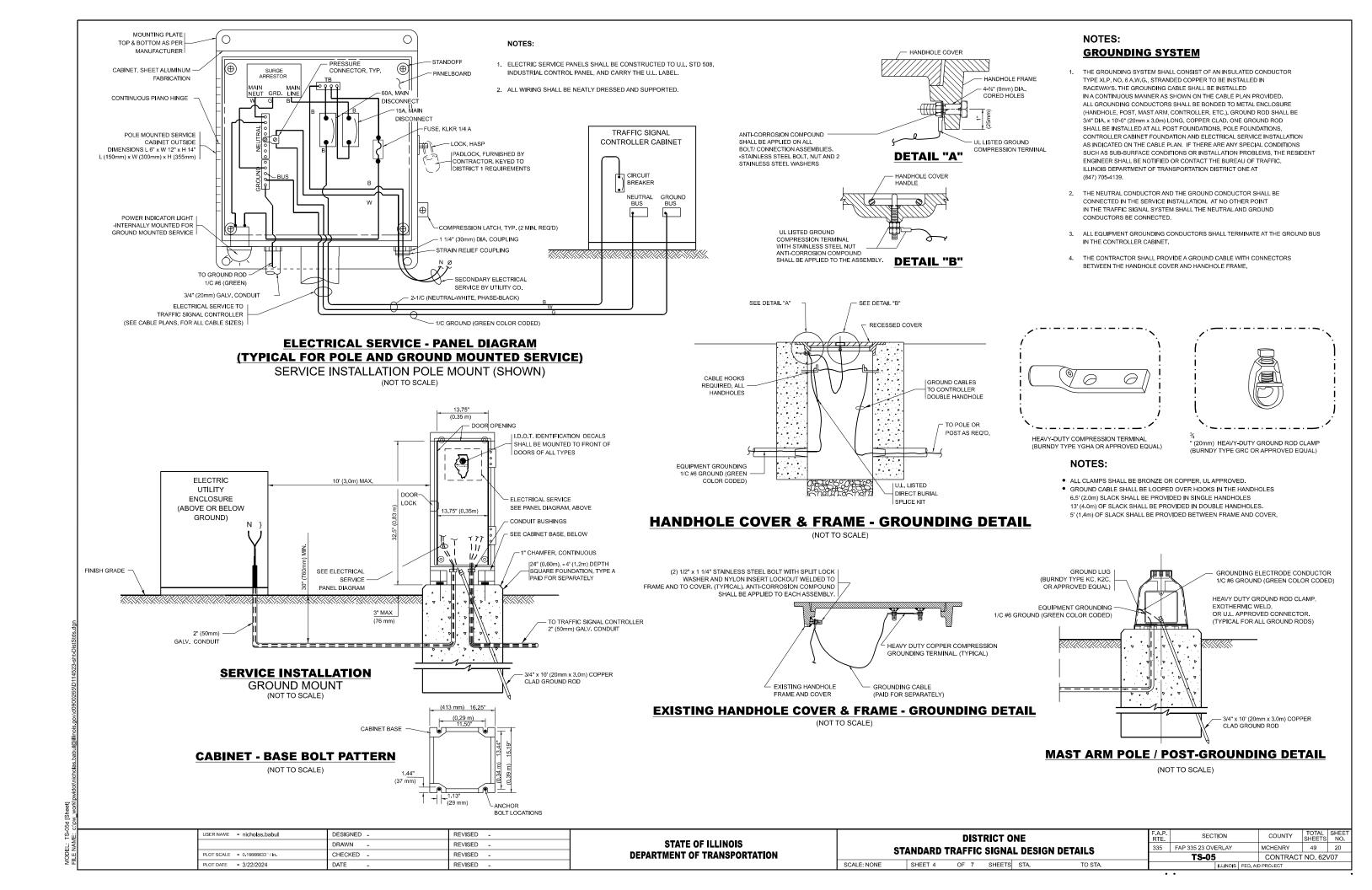
NOTES:

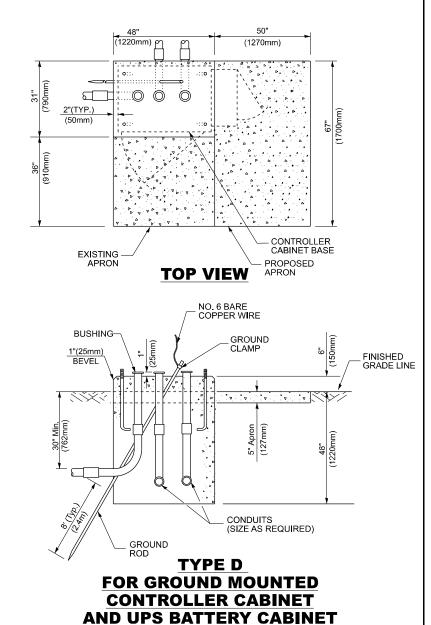
- CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
- 2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION
- 3. MINIMUM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

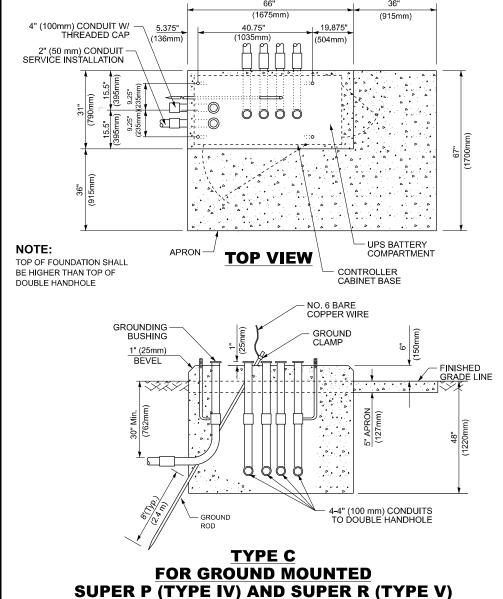
SCALE: NONE

USER NAME = nicholas.babul	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 0.16666633 ' / in.	CHECKED -	REVISED -
PLOT DATE = 3/22/2024	DATE -	REVISED -

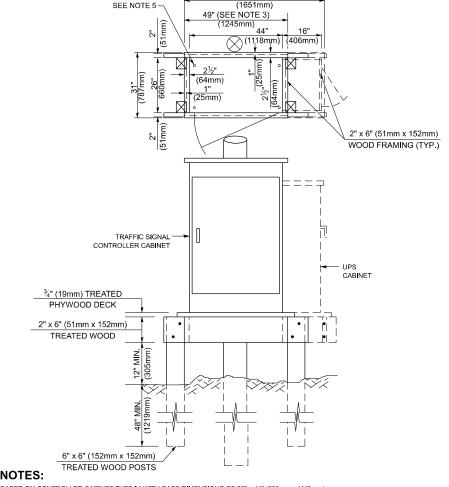
DISTRICT ONE						F.A.P. RTE	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.
ST	STANDARD TRAFFIC SIGNAL DESIGN DETAILS					335	FAP 335 23 OVERLAY		MCHENRY	49	19
017							TS-05		CONTRACT	NO. 62\	/07
	SHEET 3	OF 7	SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT					







CONTROLLER CABINETS



65" (SEE NOTE 4)

- BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm).
 ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED
- 2. BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF $16" \times 25"$ ($406mm \times 635mm$). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
- 3. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
- 4. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
- 5. DRILLED HOLES 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
MASTARM	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

^		DI		C I		CK	
-	_	В.	_	-	-		

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

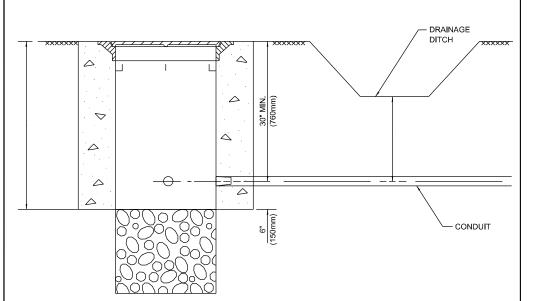
Mast Arm Length	Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
30' (9.1 m) and less than 40' (12.2 m)	11'-0" (3.4 m)	36" (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

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

DEPTH OF MAST ARM FOUNDATIONS, TYPE E

USER NAME = nicholas.babul	DESIGNED -	REVISED -	STATE OF ILLINOIS		DISTRICT ONE					TOTAL :	SHEET NO.
	DRAWN -	REVISED -			CTANDADD TRAFFIC CIONAL DECICN DETAIL C				LAY MCHENRY	49	21
PLOT SCALE = 0.16666633 '/in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION	RANSPORTATION STANDARD TRAFFIC SIGNAL DESIGN DETAILS		DETAILS		TS-05	CONTRA	CT NO. 62V	ე7
PLOT DATE = 3/22/2024	DATE -	REVISED -		SCALE: NONE	SHEET 5 OF 7 SHEETS STA.	TO STA.		ILL	LINOIS FED. AID PROJECT		

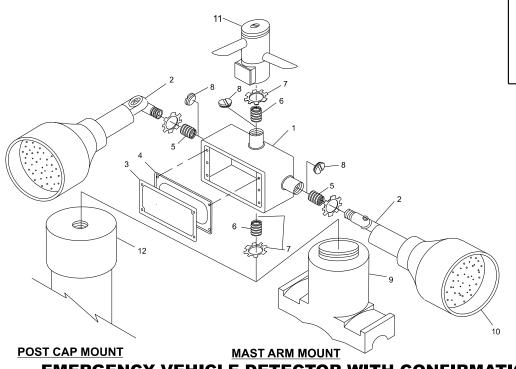


NOTES:

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

HANDHOLE WITH MINIMUM CONDUIT DEPTH

(NOT TO SCALE)



EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL ISER NAME = nicholas.babul DESIGNED -REVISED -

PLOT DATE = 3/22/2024

DRAWN

DATE

CHECKED

REVISED

REVISED

REVISED

(1675mm) (915mm) 40.75" 19.875" (136mm) (1035mm) **~**□ 0 CONTROLLER PROPOSED-**TOP VIEW** APRON -NO. 3 DOWEL 18" (450mm) NO. 6 BARE COPPER WIRE LONG (8 REQ.) BUSHING-GROUND CLAMP EXISTING - ANCHOR BOLTS 1"(25mm) BEVEL GRADE LINE (300mm) (300mm) (300mm) -EXISTING CONDUITS EXISTING GROUND ROD

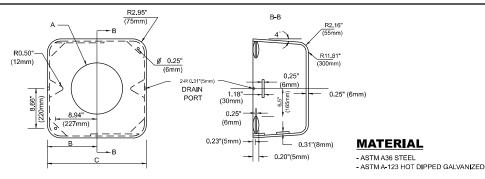
MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION

(NOT TO SCALE)

IDENTIFICATION 1 OUTLET BOX- GALV. 21 CU.IN. (0.000344 CU-M) 2 LAMP HOLDER AND COVER 3 OUTLET BOX COVER RUBBER COVER GASKE 3/4" (19 mm) CLOSE NIPPLI 34" (19 mm) LOCKNUT 8 ¾" (19 mm) HOLE PLUG 9 SADDLE BRACKET - GALV. 10 6 WATT PAR 38 LED FLOOD LAMP DETECTOR UNIT 12 POST CAP [18 FT. (5.4 m) POST MIN.

NOTES:

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



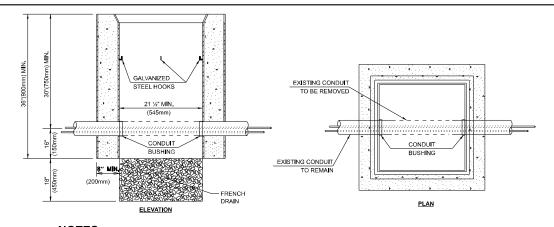
А	В	С	HEIGHT	WEIGHT
VARIES	9.5"(241mm)	19"(483mm)	7" (178mm) - 12" (300mm)	53 lbs (24kg)
VARIES	10.75"(273mm)	21.5"(546mm)	7" (178mm) - 12" (300mm)	68 lbs (31 kg)
VARIES	13.0"(330mm)	26"(660mm)	7" (178mm) - 12" (300mm)	81 lbs (37 kg)
VARIES	18.5"(470mm)	37"(940mm)	7" (178mm) - 12" (300mm)	126 lbs (57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

SHROUD

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

NOTE: SUPPORT EXISTING CABINET AND CONTROL EQUIPMENT ABOVE FOUNDATION TO KEEP TRAFFIC SIGNAL FUNCTIONING THAN CONTROLLER CABINET BASE WHILE FOUNDATION MODIFICATION WORK IS PROCEEDING. DIMENSION, BOTH DIRECTIONS (25mm) " (25mm) BEVEL BREAK DOWN EXISTING FOUNDATION 12" (300mm) NEW ANCHOR BOLTS 9" (225mm) No. 3 DOWEL 1'-6" (450mm) LONG ON 12" (300mm) CENTER (8 REQ'D) 2" (50mm), 4" (100mm & 4" (100mm) NEW TYPE "D" (MODIFIED) FOUNDATION EXISTING TYPE D (CONTROLLER) FOUNDATION

MODIFY EXISTING TYPE "D" FOUNDATION



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.

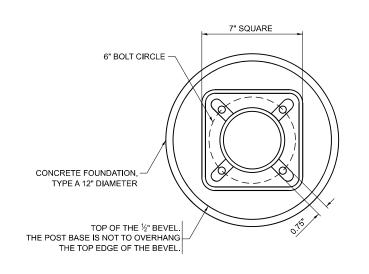
HANDHOLE TO INTERCEPT EXISTING CONDUIT

49 22

CONTRACT NO. 62V07

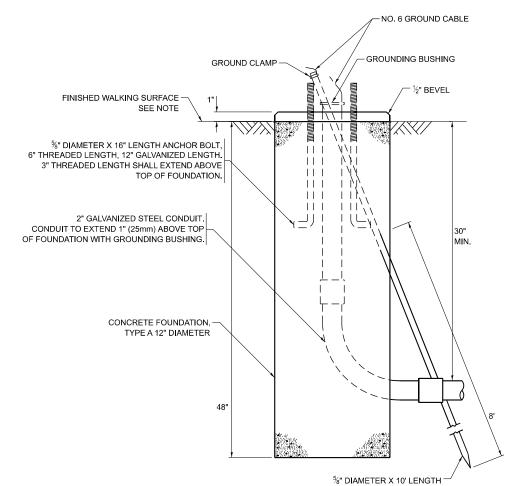
OTATE OF HILINOIS		DISTRICT ONE					F.A.P. RTE.	SECTION	COUNTY	
STATE OF ILLINOIS		STANDARD TRAFFIC SIGNAL DESIGN DETAILS						335	FAP 335 23 OVERLAY	MCHENRY
RTMENT OF TRANSPORTATION									TS-05	CONTRAC
	SCALE: NONE	l sh	EET 6	OF 7	SHEETS	CTA	TO STA		III MOIS E	D AID DDG IFOT

DEPAR



BOLT PATTERN

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



JSER NAME = nicholas.babul

PLOT DATE = 3/22/2024

CONCRETE FOUNDATION, TYPE A 12-INCH DIAMETER

DESIGNED - IP

DRAWN - IP

- 10-15-2018

CHECKED -

GROUND ROD

REVISED - 10-15-2020

REVISED

REVISED

REVISED

PEDESTRIAN SIGNAL POST, 10 FT.

PEDESTRIAN SIGNAL POST, 5 FT.



- PEDESTRIAN SIGNAL HEAD

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





R10-3b

R10-3d

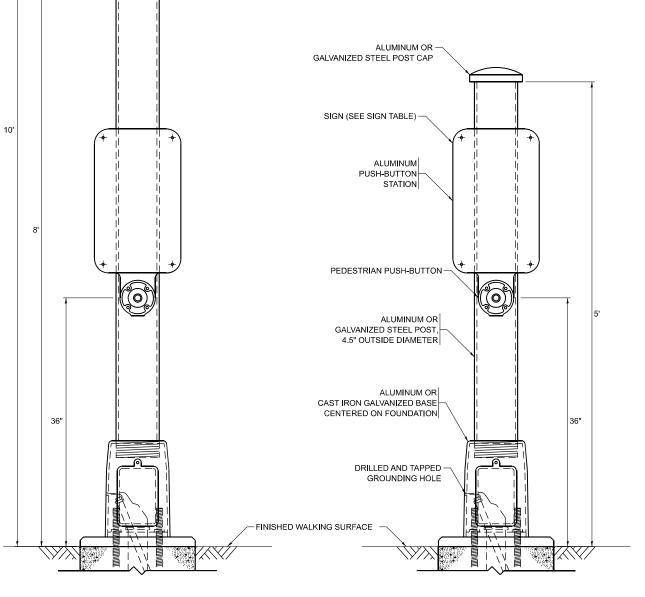
R10-3e

SIGN TABLE

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

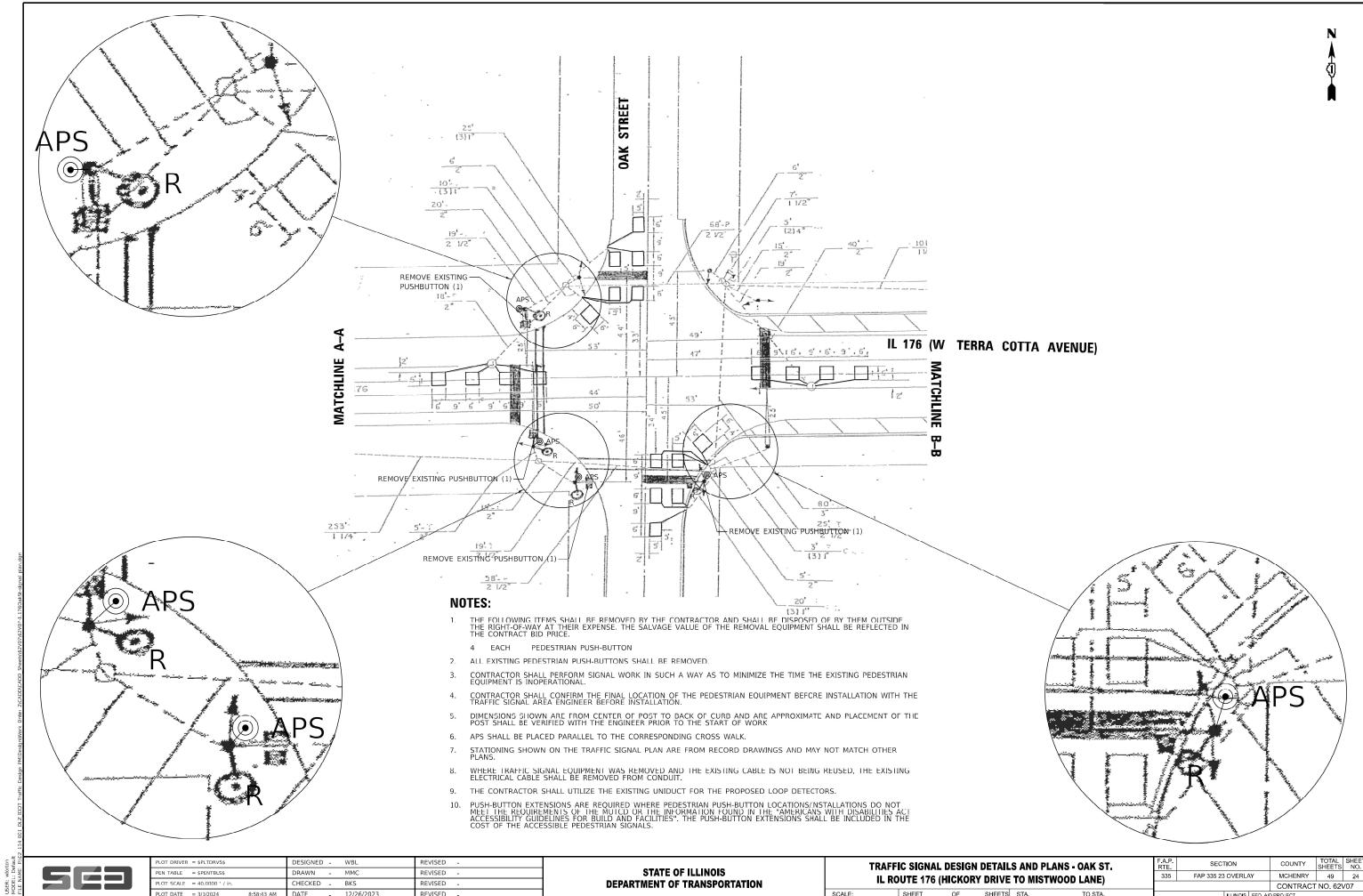
NOTES:

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

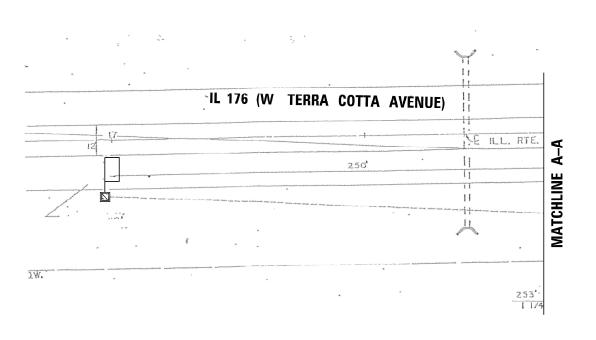


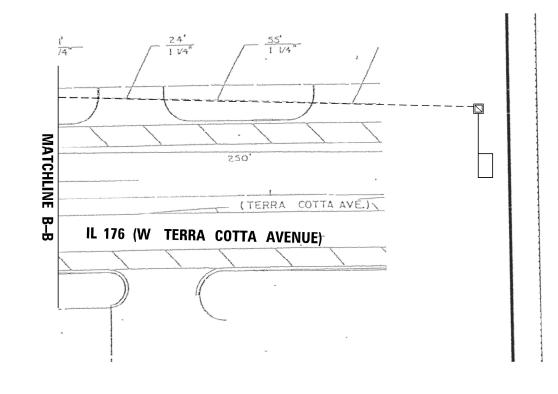
DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS SHEET 7 OF 7 SHEETS STA.

335 FAP 335 23 OVERLAY MCHENRY 49 23 CONTRACT NO. 62V07









NOTES:

- 1. CONTRACTOR SHALL PERFORM SIGNAL WORK IN SUCH A WAY AS TO MINIMIZE THE TIME THE EXISTING PEDESTRIAN EQUIPMENT IS INOPERATIONAL.
- 2. STATIONING SHOWN ON THE TRAFFIC SIGNAL PLAN ARE FROM RECORD DRAWINGS AND MAY NOT MATCH OTHER PLANS.
- 3. THE CONTRACTOR SHALL UTILIZE THE EXISTING UNIDUCT FOR THE PROPOSED LOOP DETECTORS.

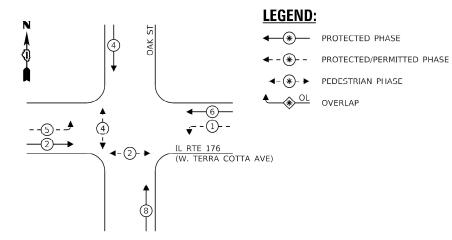
PLOT DRIVER = \$PLTDRVS\$		DESIGNED	-	WBL	REVISED -	
PEN TABLE = \$PENTBLS\$		DRAWN	-	MMC	REVISED -	
PLOT SCALE = 40,0000 ' / in.		CHECKED	-	BKS	REVISED -	
PLOT DATE = 3/1/2024	8:59:41 AM	DATE	-	12/26/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

 		- -		PLANS - OAK ST. TWOOD LANE)
SHEET	OF	SHEETS	STA	TO STA

Ρ.	SECTION		COUNTY	TOTAL SHEETS	SHEE NO.	
5	FAP 335 23 OVERLAY			MCHENRY	25	
			CONTRACT	NO. 62\	V 07	
ILLINOIS FED. AI			PROJECT			

PROPOSED CONTROLLER SEQUENCE



TRAFFIC SIGNAL **ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	11	50	66
(YELLOW)	12	20	5	12
(GREEN)	12	12	45	64.8
PERMISSIVE ARROW	8	10	10	8
PED. SIGNAL	4	20	100	80
CONTROLLER	1	100	100	100
UPS	1	25	100	25
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
			TOTAL =	355.8

ENERGY COSTS TO:

CITY OF CRYSTAL LAKE

100 W WOODSTOCK STREET CRYSTAL LAKE, IL 60014

ENERGY SUPPLY: CONTACT: JOE STACHO

PHONE: (630) 424-5704
COMPANY: COMMONWEALTH EDISON ACCOUNT NUMBER:



_		RE-OPTIMIZ	. 1				
	PLOT DRIVER = \$PLTDRVS\$		DESIGNED	-	WBL	REVISED	-
	PEN TABLE = \$PENTBLS\$		DRAWN	-	ММС	REVISED	-
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	PLOT DATE = 3/1/2024 9:01:04	AM	DATE	-	12/26/2023	REVISED	-

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

IL RTE 176 (TERRA COTTA AVE)

	 				PLANS - OAK ST. STWOOD LANE)
SCALE:	SHEET	OF	SHEETS	STA.	TO STA.

(R) > (G)

F.A.P. RTE.	SECTION	SECTION			SHEET NO.
335	FAP 335 23 OVERLAY	,	MCHENRY	49	26
			CONTRACT	NO. 62\	V07
	ILLINOIS F	ED. AII	PROJECT		

CABLE PLAN

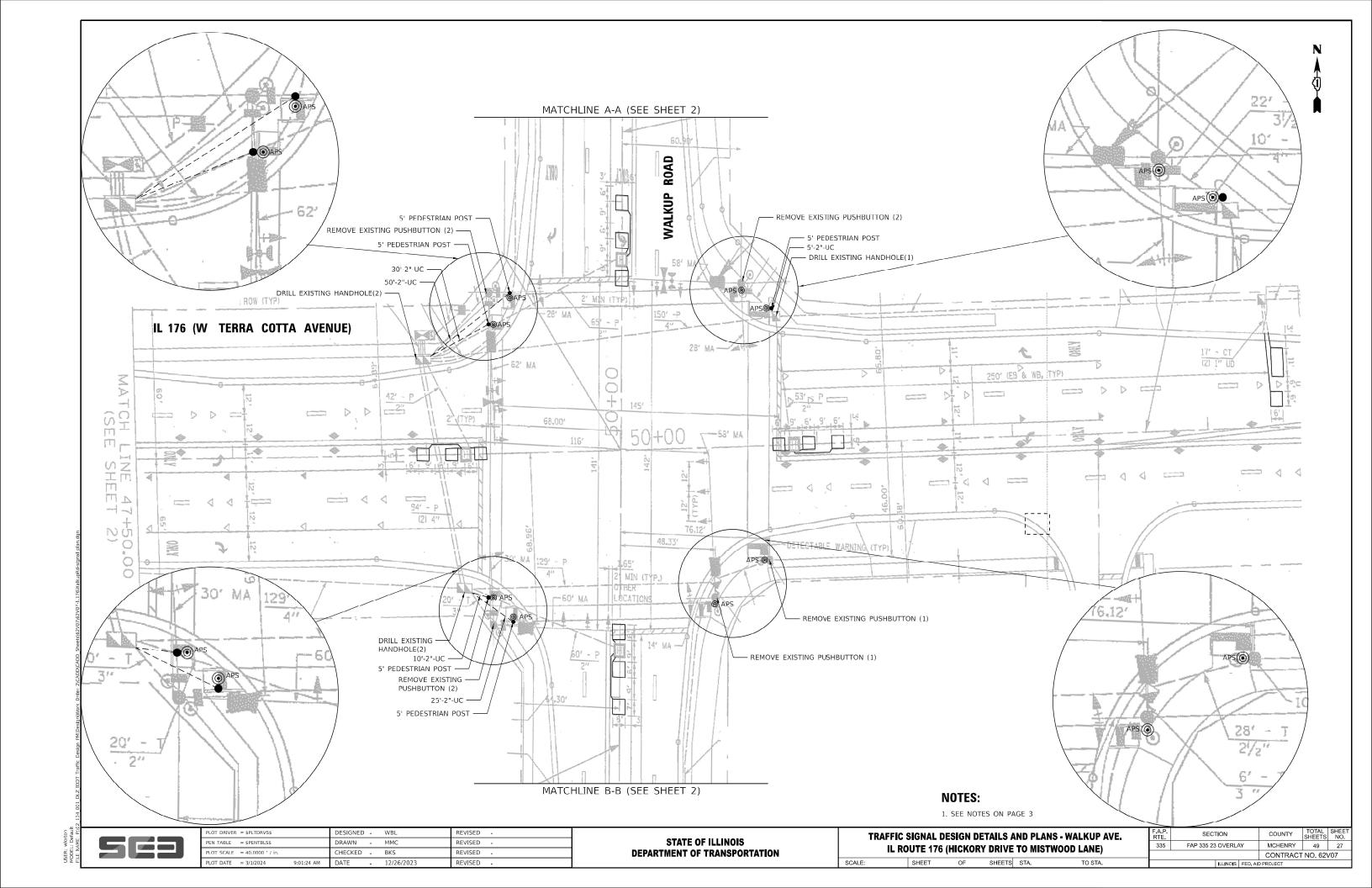
1#6

R (5)

SCHEDULE OF QUANITITIES

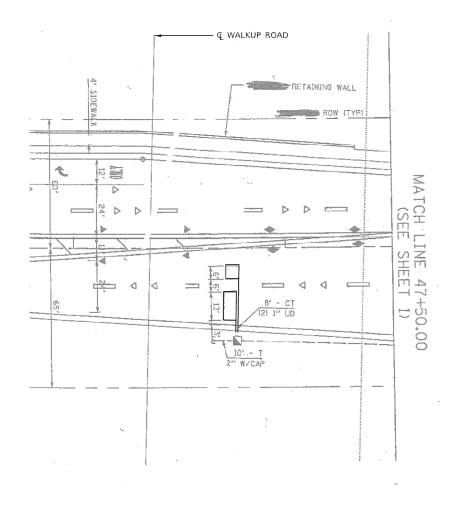
ITEM DESCRIPTION						
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION						
DETECTOR LOOP, TYPE I						
MODIFY EXISTING CONTROLLER CABINET						
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT						
HANDHOLE TO BE ADJUSTED						
ACCESSIBLE PEDESTRIAN SIGNALS						
RE-OPTIMIZE TRAFFIC SIGNAL SYS	E-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1					
DECICNED WIDE	DE VICED					

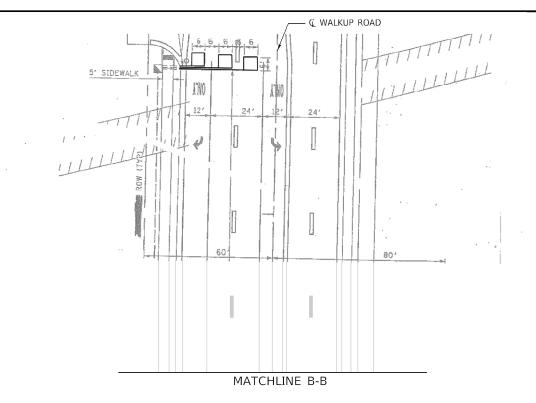
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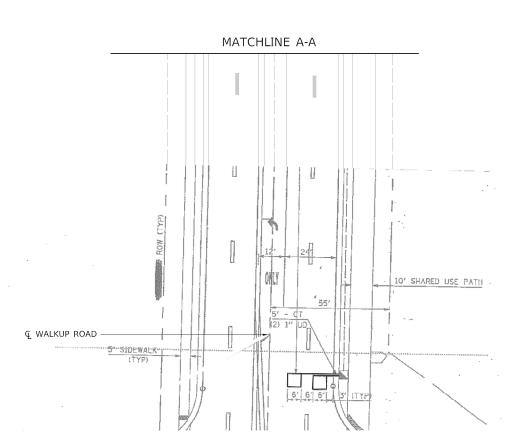


NOTES:

- THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVAL EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.
 - 7 EACH PEDESTRIAN PUSH-BUTTON
- 2. ALL EXISTING PEDESTRIAN PUSH-BUTTONS SHALL BE REMOVED.
- 3. CONTRACTOR SHALL PERFORM SIGNAL WORK IN SUCH A WAY AS TO MINIMIZE THE TIME THE EXISTING PEDESTRIAN EQUIPMENT IS INOPERATIONAL.
- 4. CONTRACTOR SHALL CONFIRM THE FINAL LOCATION OF THE PEDESTRIAN EQUIPMENT BEFORE INSTALLATION WITH THE TRAFFIC SIGNAL AREA ENGINEER BEFORE INSTALLATION.
- 5. DIMENSIONS SHOWN ARE FROM CENTER OF POST TO BACK OF CURB AND ARE APPROXIMATE AND PLACEMENT OF THE POST SHALL BE VERIFIED WITH THE ENGINEER PRIOR TO THE START OF WORK
- 6. APS SHALL BE PLACED PARALLEL TO THE CORRESPONDING CROSS WALK.
- STATIONING SHOWN ON THE TRAFFIC SIGNAL PLAN ARE FROM RECORD DRAWINGS AND MAY NOT MATCH OTHER PLANS.
- 8. WHERE TRAFFIC SIGNAL EQUIPMENT WAS REMOVED AND THE EXISTING CABLE IS NOT BEING REUSED, THE EXISTING ELECTRICAL CABLE SHALL BE REMOVED FROM CONDUIT.
- 9. THE CONTRACTOR SHALL UTILIZE THE EXISTING UNIDUCT FOR THE PROPOSED LOOP DETECTORS.
- 10. PUSH-BUTTON EXTENSIONS ARE REQUIRED WHERE PEDESTRIAN PUSH-BUTTON LOCATIONS/INSTALLATIONS DO NOT MEET THE REQUIREMENTS OF THE MUTCD OR THE INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILD AND FACILITIES". THE PUSH-BUTTON EXTENSIONS SHALL BE INCLUDED IN THE COST OF THE ACCESSIBLE PEDESTRIAN SIGNALS.







SCALE:



PLOT DRIVER = \$PLTDRVS\$	·	DESIGNED	-	WBL	REVISED	-
PEN TABLE = \$PENTBLS\$		DRAWN	-	MMC	REVISED	-
PLOT SCALE = 40.0000 ' / in.		CHECKED	-	BKS	REVISED	-
PLOT DATE = 3/1/2024	9:01:54 AM	DATE	-	12/26/2023	REVISED	-

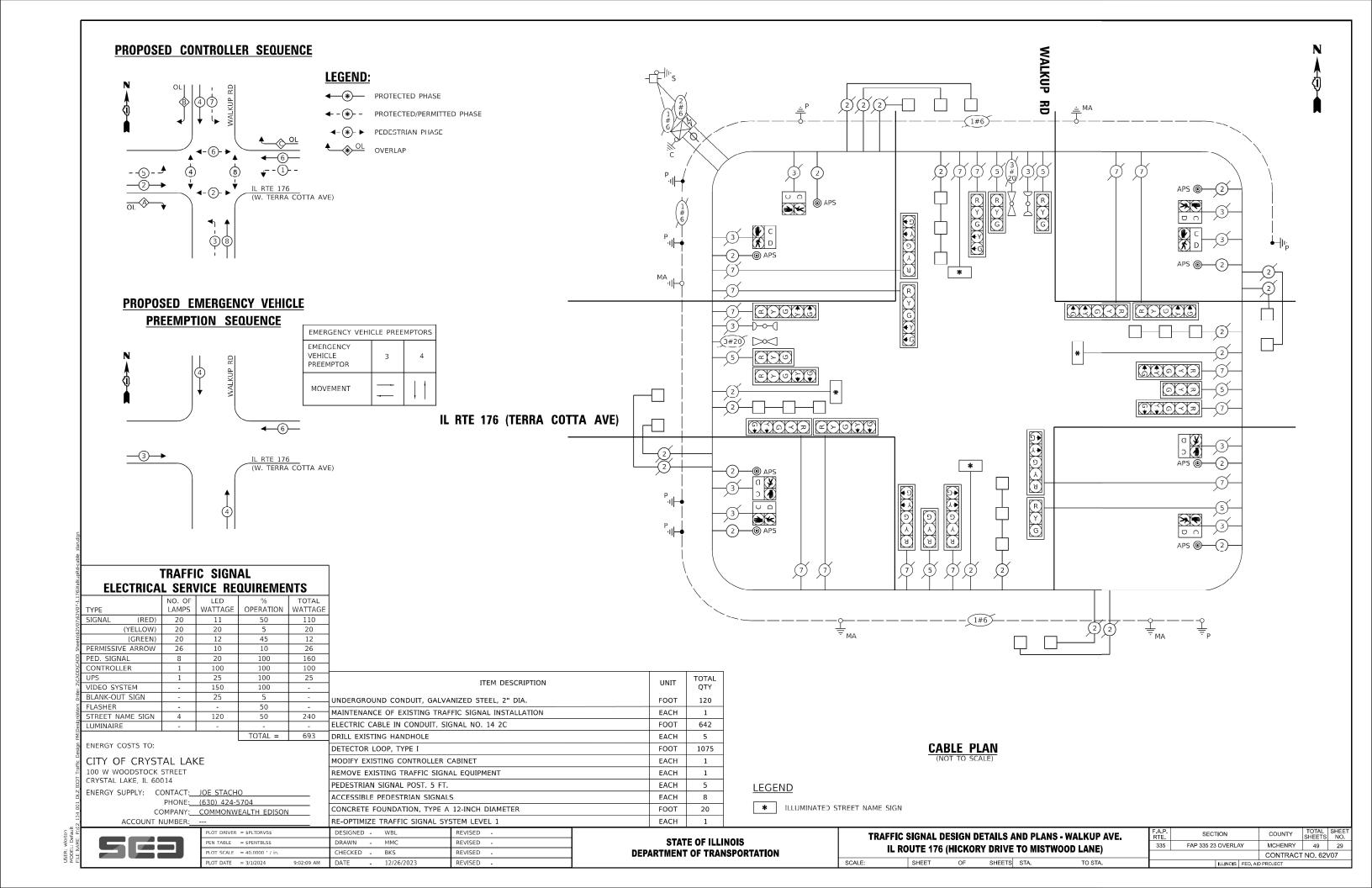
					NS - WALKUP AVE. TWOOD LANE)	-
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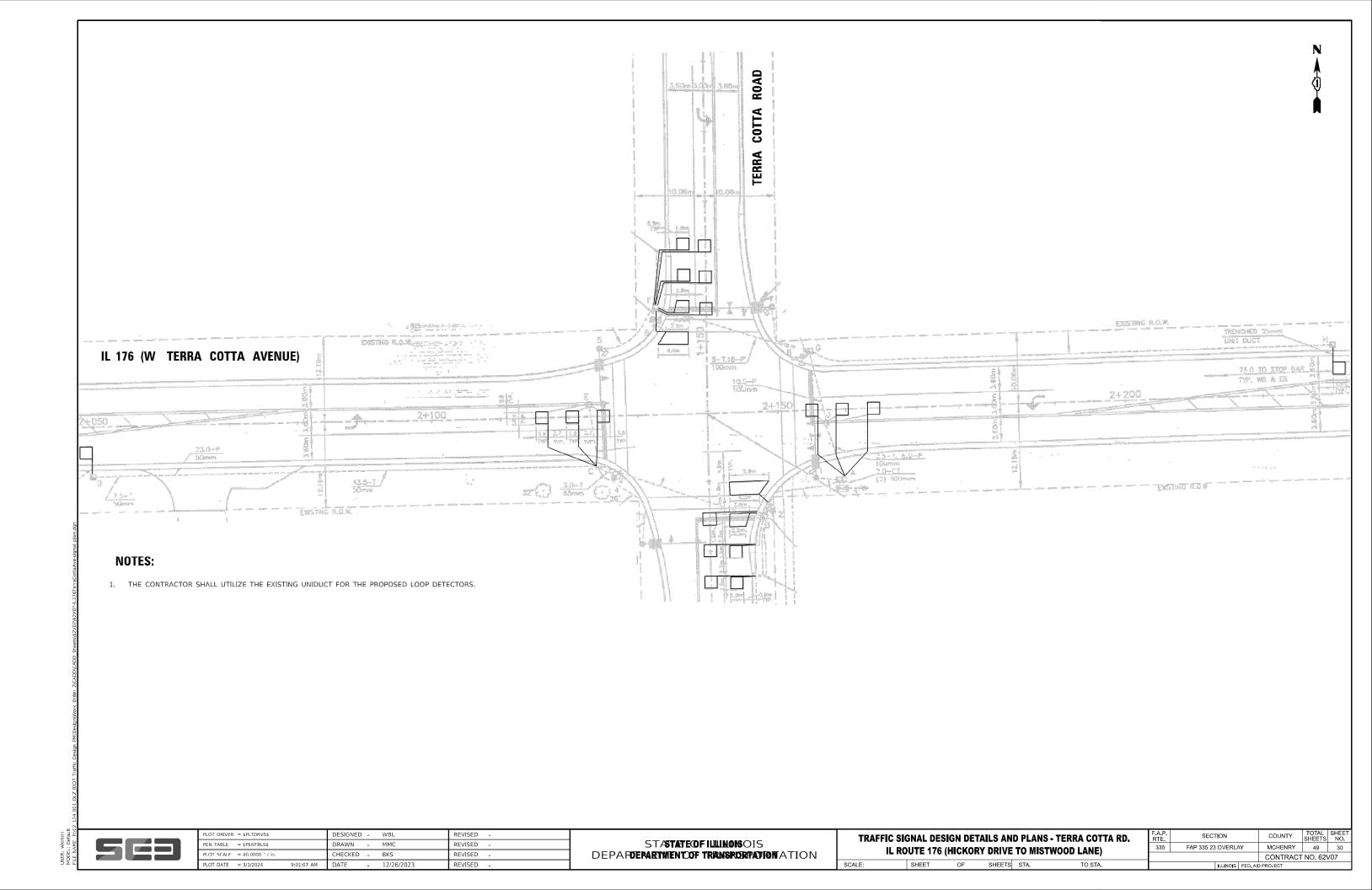
 F.A.P. RTE.
 SECTION
 COUNTY SHEETS
 TOTAL NO.
 SHEETS NO.

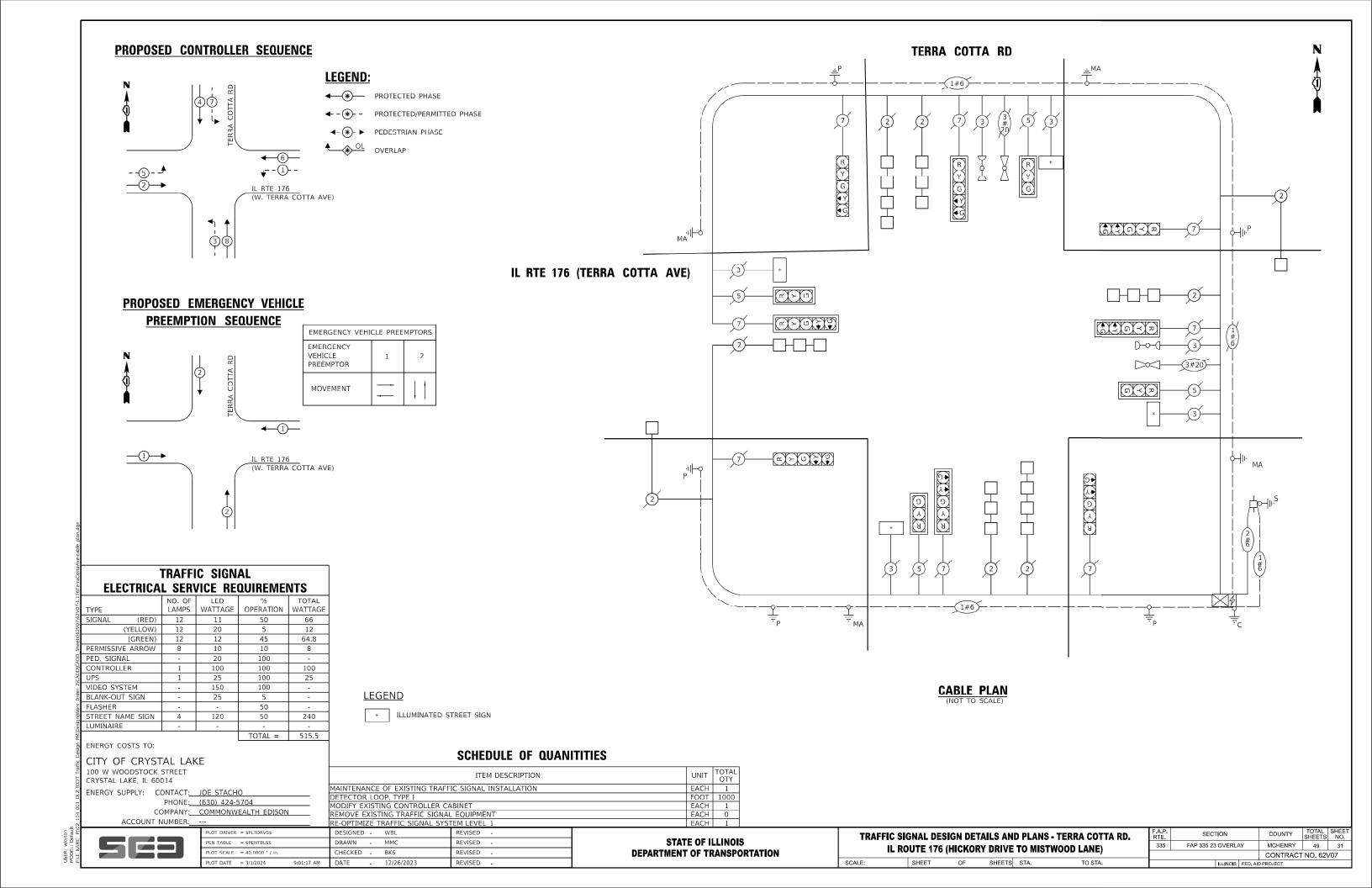
 335
 FAP 335 23 OVERLAY
 MCHENRY
 49
 28

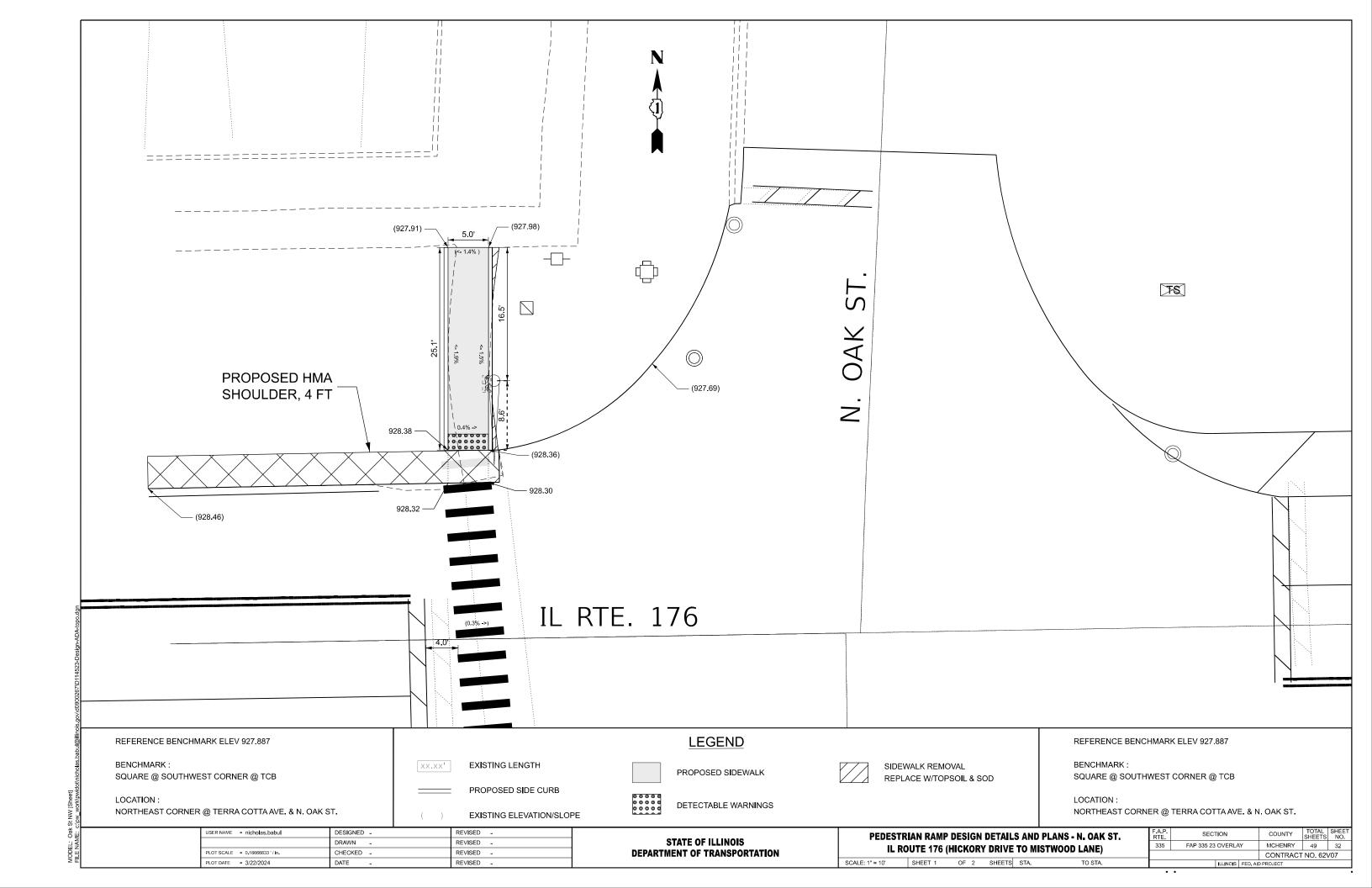
 CONTRACT NO. 62V07

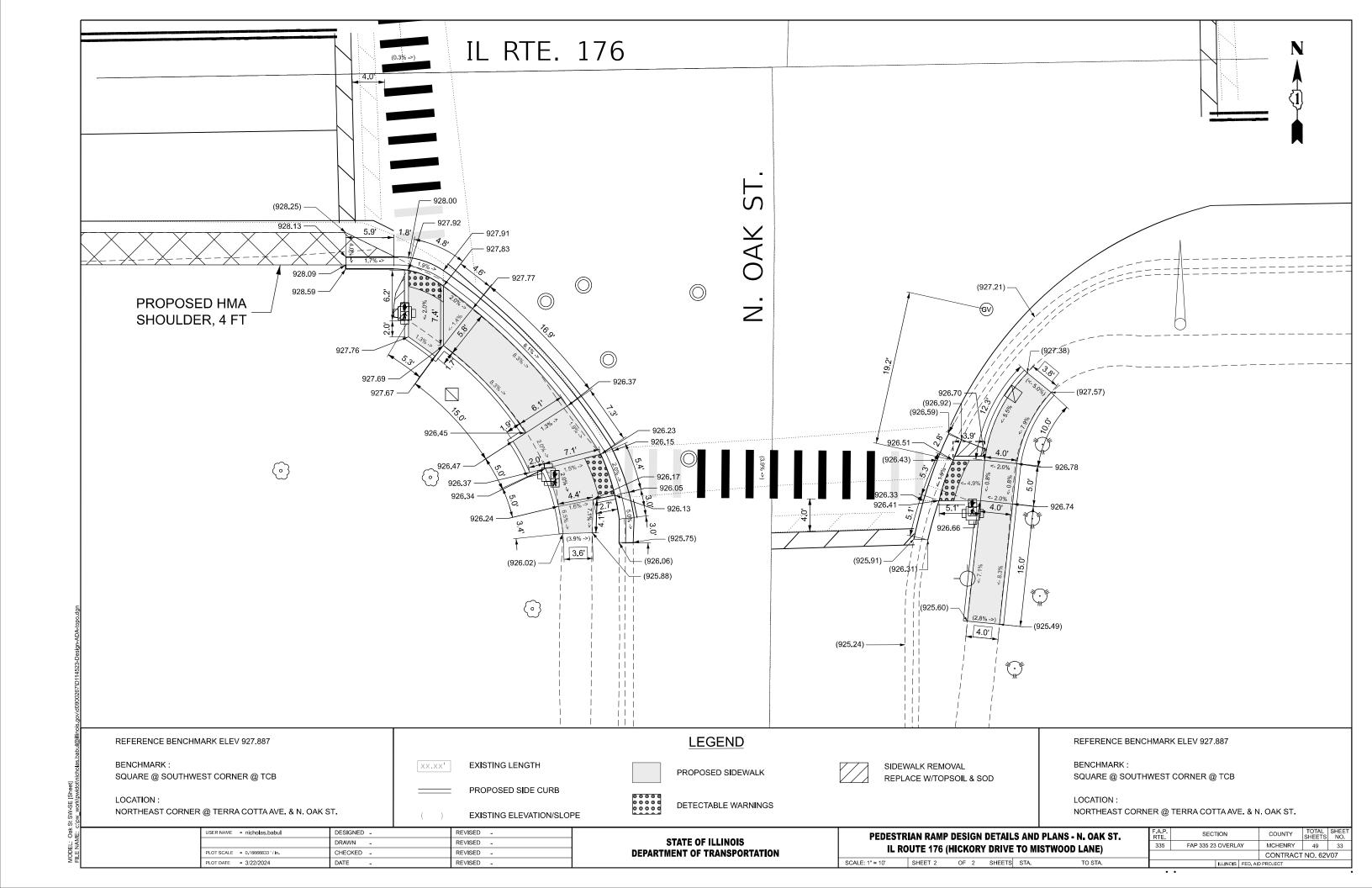
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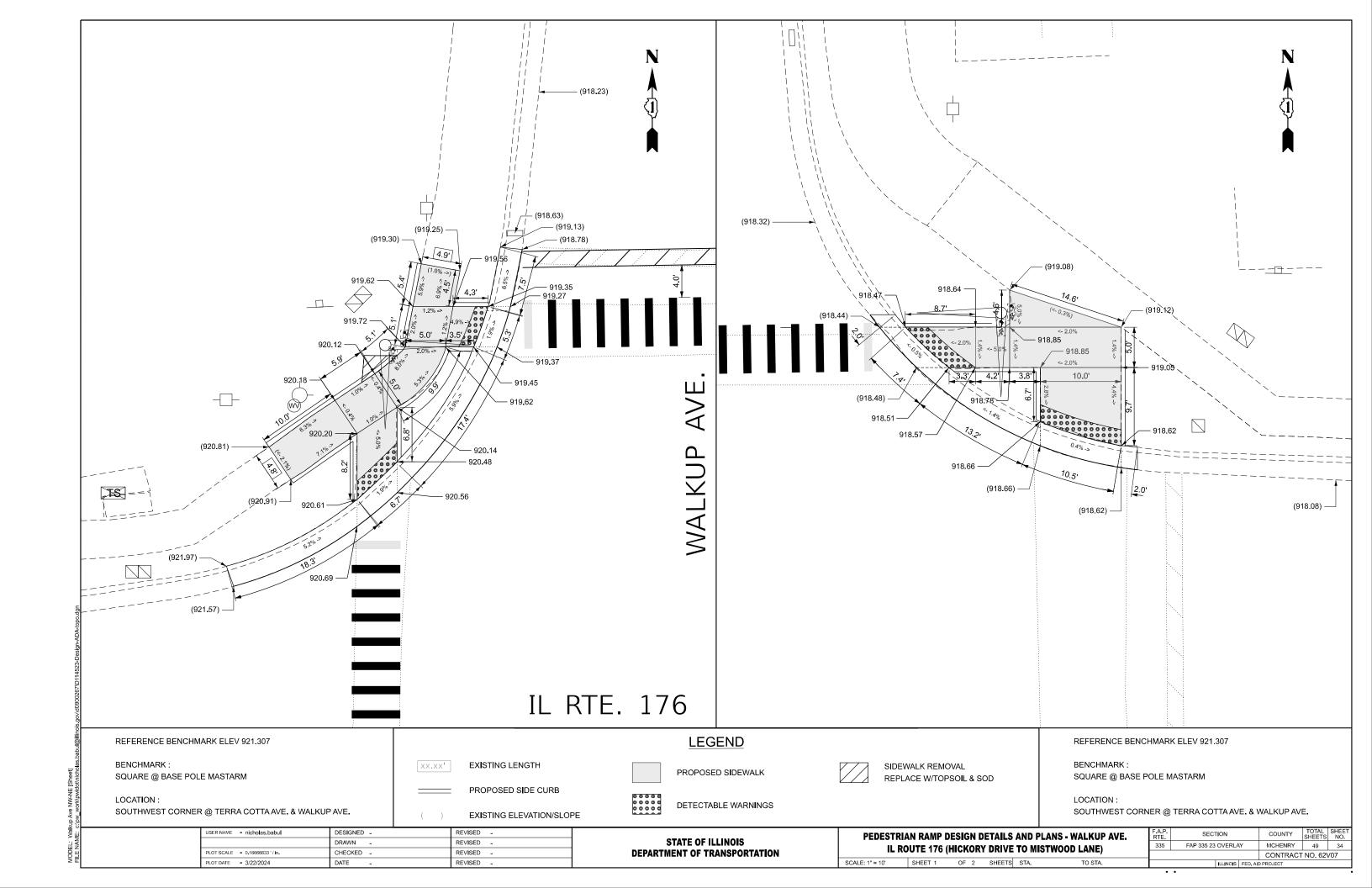


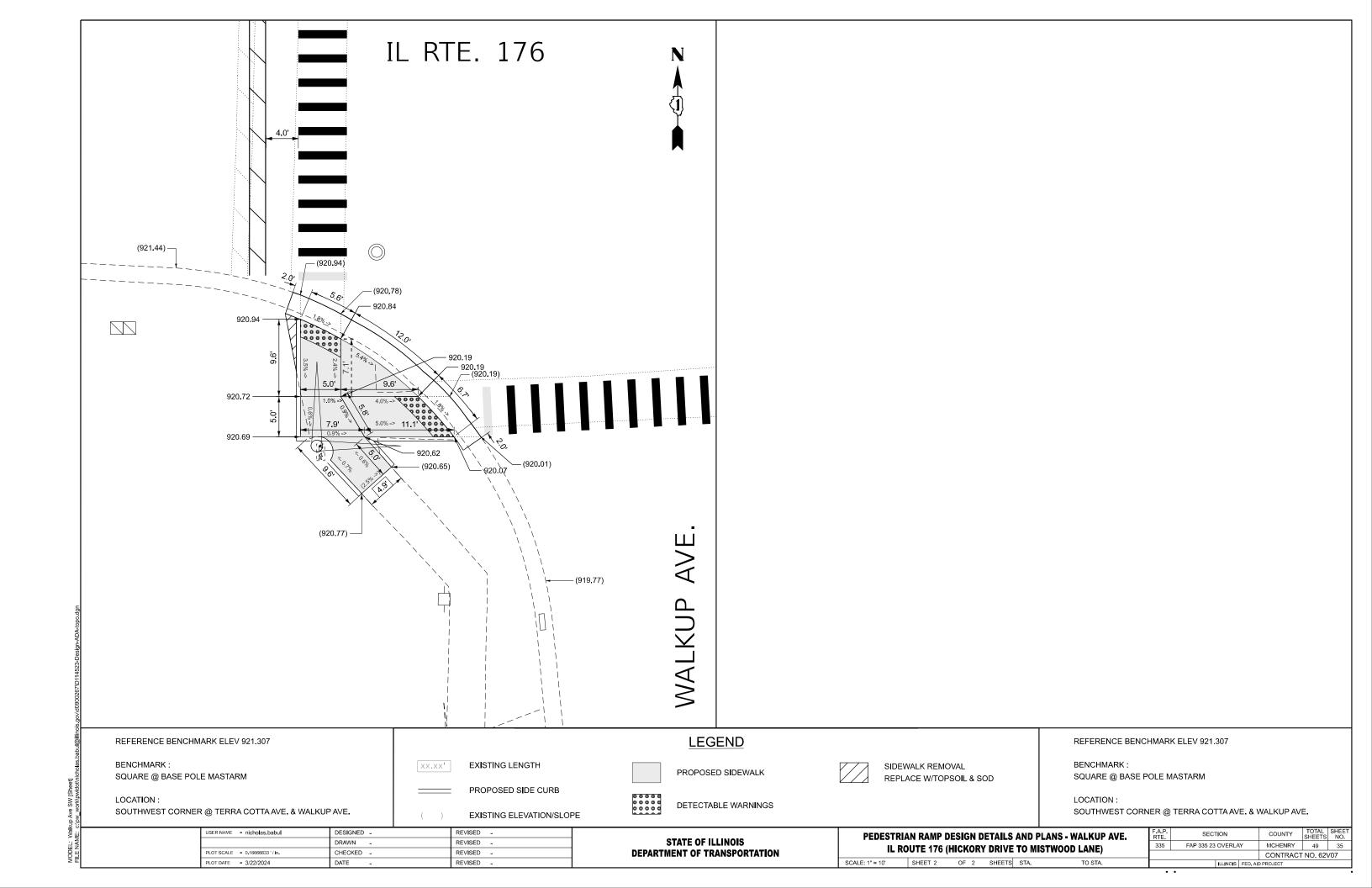


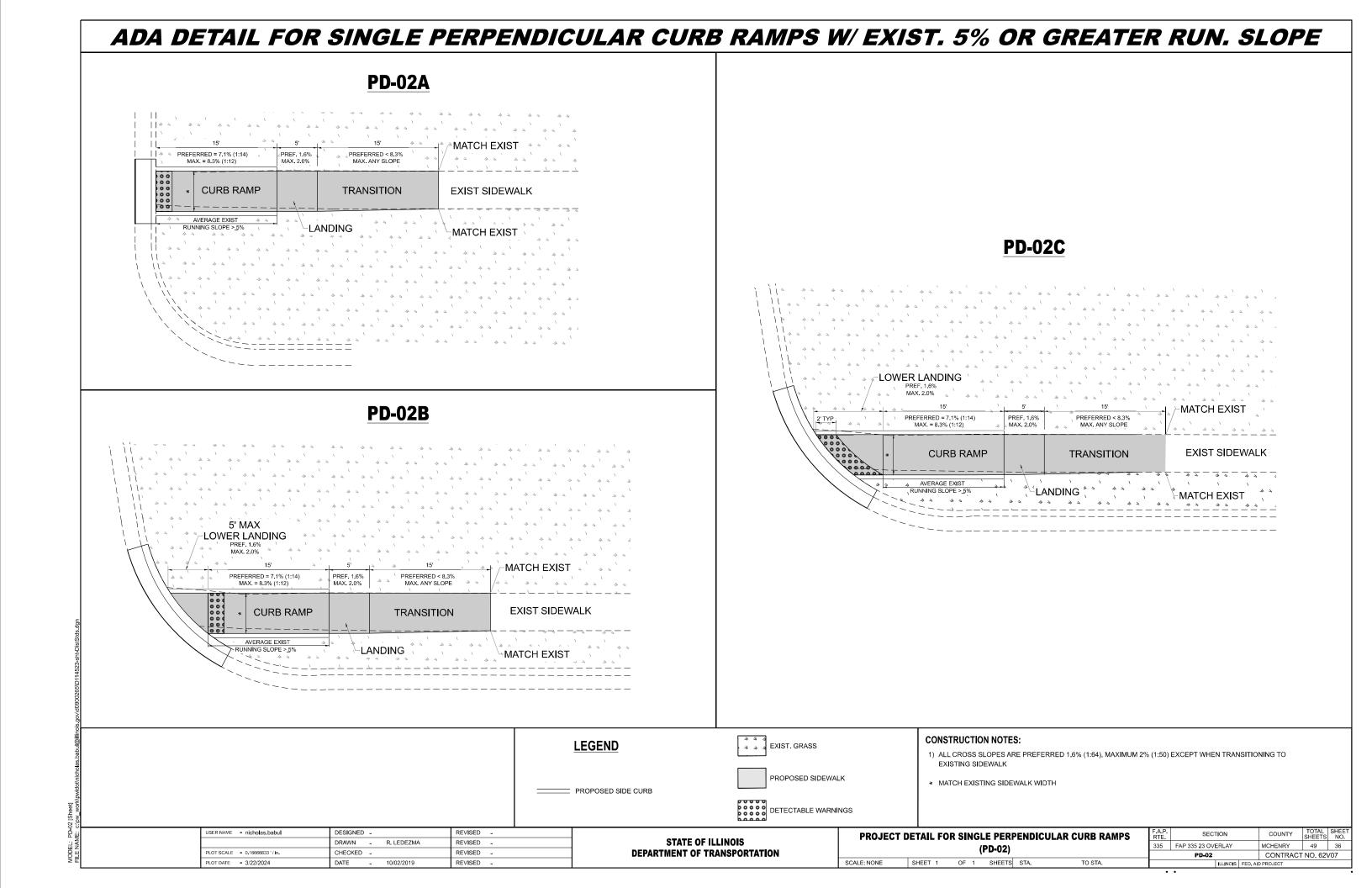




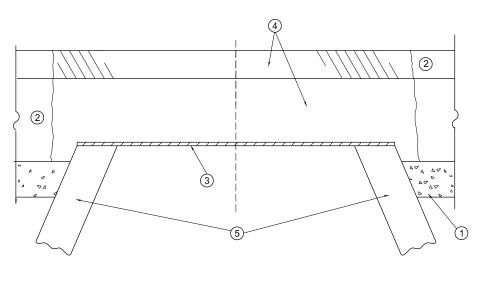


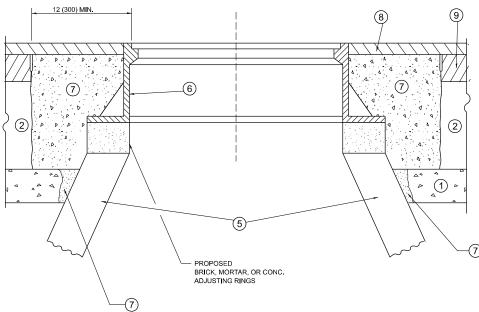






ADA DETAIL FOR DOUBLE PERPENDICULAR CURB RAMPS **PD-03A PD-03B** -LOWER LANDING _LOWER LANDING **CURB RAMP** PREFERRED = 7.1% (1:14) LANDSCAPE OR PCC AREA LANDSCAPE OR PCC AREA -LANDING LOWER LANDING LOWER LANDING → ✓ MATCH EXIST PREF. 1.6% MAX. 2.0% ⇒ y MATCH EXIST TRANSITION TRANSITION **EXIST SIDEWALK** EXIST SIDEWALK MAX. ANY SLOPE MAX. ANY SLOPE MATCH EXIST LMATCH EXIST 🐧 CURB RAMP | CURB RAMP -PREFERRED = 7.1% (1:14) MAX. = 8.3% (1:12) PREFERRED = 7.1% (1:14) 2' MIN GRASS BUFFER MATCH EXIST MATCH EXIST ⊢MATCH EXIST -MATCH EXIST SIDEWALK SIDEWALK MUST BE EXIST. LANDSCAPED MUST BE EXIST. LANDSCAPED SURFACE. EXIST. CONCRETE SURFACE SURFACE. EXIST. CONCRETE SURFACE WILL REQUIRE DETAILED DESIGN WILL REQUIRE DETAILED DESIGN **CONSTRUCTION NOTES:** * * * * EXIST. GRASS **LEGEND** 1) ALL CROSS SLOPES ARE PREFERRED 1.6% (1:64), MAXIMUM 2% (1:50) EXCEPT WHEN TRANSITIONING TO EXISTING SIDEWALK PROPOSED SIDEWALK * MATCH EXISTING SIDEWALK WIDTH ─ PROPOSED SIDE CURB DETECTABLE WARNINGS ISER NAME = nicholas.babul DESIGNED -REVISED -PROJECT DETAIL FOR DOUBLE PERPENDICULAR CURB RAMPS COUNTY **STATE OF ILLINOIS** DRAWN -R. LEDEZMA REVISED 335 FAP 335 23 OVERLAY MCHENRY 49 37 (PD-03) CHECKED -REVISED **DEPARTMENT OF TRANSPORTATION** CONTRACT NO. 62V07 SHEET 1 OF 1 SHEETS STA. SCALE: NONE PLOT DATE = 3/22/2024 DATE





DETAILS FOR FRAMES AND LIDS ADJUSTMENT

<u>NOTES</u>

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

WITH MILLING

CONSTRUCTION PROCEDURES

STAGE 1 (BEFORE PAVEMENT MILLING)

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

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

STAGE 2 (AFTER PAVEMENT MILLING)

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

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

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

LEGEND

1 SUB-BASE GRANULAR MATERIAL

(6) FRAME AND LID (SEE NOTES)

2 EXISTING PAVEMENT

(7) CLASS PP-2* CONCRETE

3 36 (900) DIAMETER METAL PLATE

8 PROPOSED HMA SURFACE COURSE

4 PROPOSED CRUSHED STONE AND HMA SURFACE MIX

(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)."
- 2. THIS WORK WILL NOT BE PAID FOR WHEN DRAINAGE AND UTILITY STRUCTURES ARE SPECIFIED FOR PAYMENT AS STRUCTURE RECONSTRUCTION.
- 3. NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.
- 4. WHEN STRUCTURES ARE TO BE ADJUSTED OR RECONSTRUCTED. THE LOWERING AND RAISING OF THE FRAMES AND LIDS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE CORRESPONDING PAY ITEM.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

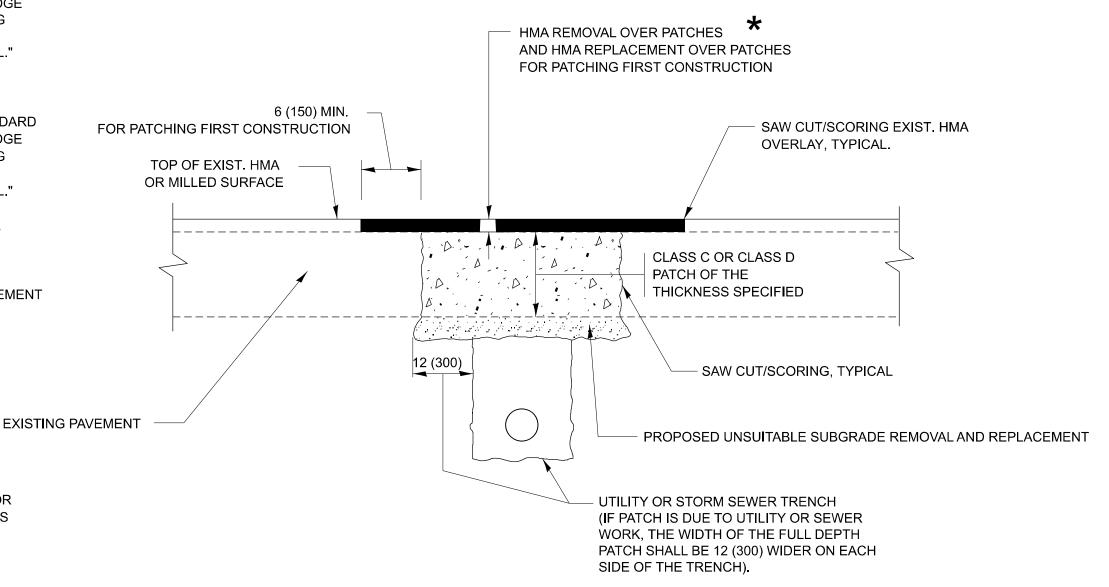
DESIGNED - R. SHAH REVISED - R. BORO 03-09-11 JSER NAME = nicholas.babul COUNTY **DETAILS FOR** STATE OF ILLINOIS DRAWN REVISED - R. BORO 12-06-11 335 FAP 335 23 OVERLAY MCHENRY 49 38 FRAMES AND LIDS ADJUSTMENT WITH MILLING CHECKED -REVISED - K. SMITH 11-18-22 **DEPARTMENT OF TRANSPORTATION** BD600-03 (BD-08) CONTRACT NO. 62V07 SCALE: NONE SHEET 1 OF 1 SHEETS STA. PLOT DATE = 3/22/2024 REVISED - K. SMITH 09-15-23 DATE 10-25-94

METHOD OF MEASUREMENT

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

BASIS OF PAYMENT

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



SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

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

SEE TYPICAL SECTIONS FOR

THICKNESS AND MATERIALS

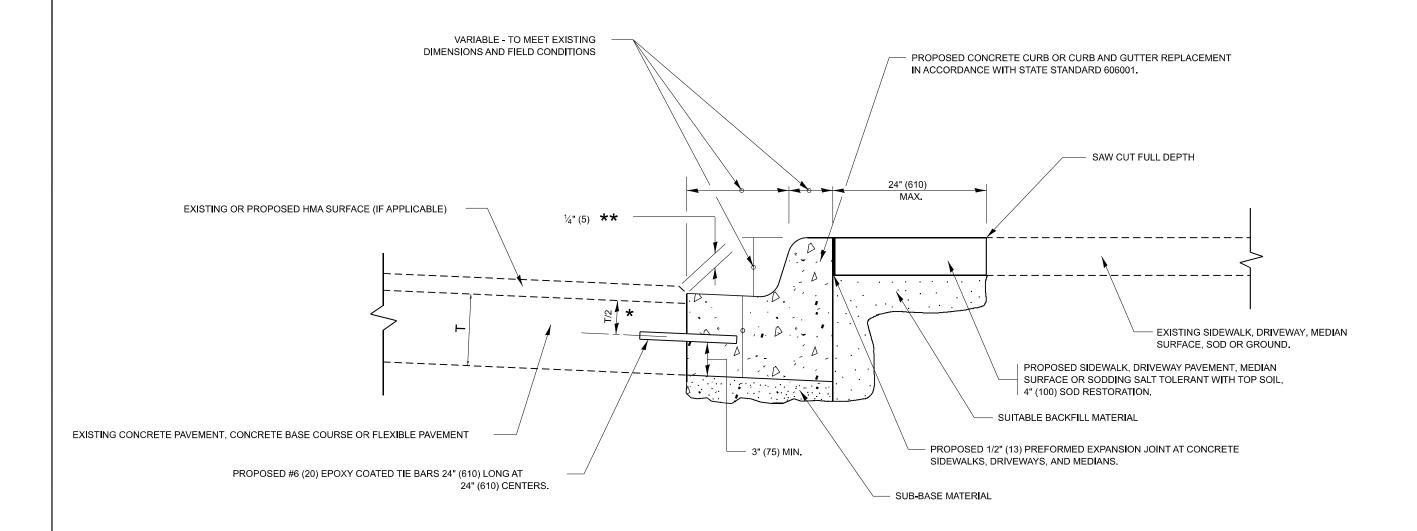
- 2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
- 3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

- 1. MILL HMA FIRST IF THERE IS AT LEAST 4 ½ INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
- 2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

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

USER NAME = nicholas.babul	DESIGNED - R. SHAH	REVISED - R. BORO 01-01-07		PAVEMENT PATCHING FOR			F.A.P.	SECTION	COUNTY	TOTAL	SHEET			
	DRAWN -	REVISED - R. BORO 09-04-07	STATE OF ILLINOIS					PAVEMENT		335	FAP 335 23 OVERLAY	MCHENRY	49	39
PLOT SCALE = 0.16666633 ' / in.	CHECKED -	REVISED - K. ENG 10-27-08	DEPARTMENT OF TRANSPORTATION		пи	IA SUR	KFACED	PAVEIVIENI			BD400-04 (BD-22)	CONTRA	CT NO. 62	2V07
PLOT DATE = 3/22/2024	DATE - 10-25-94	REVISED - K. SMITH 02-01-22		SCALE: NONE	SHEET 1	OF 1	SHEET	S STA.	TO STA.		ILLINOIS FED. A	ID PROJECT		

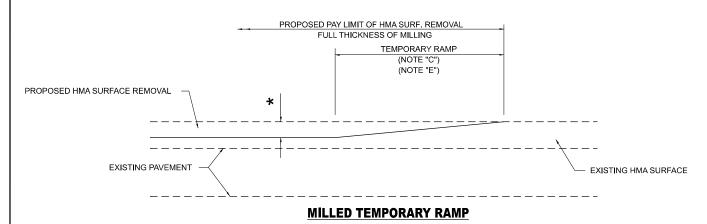


- * 3" (75) MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.
- ** IF THE FINAL SURFACE OF THE PAVEMENT IS CONCRETE, THE GUTTER IS TO BE FLUSH WITH THE PAVEMENT.

CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

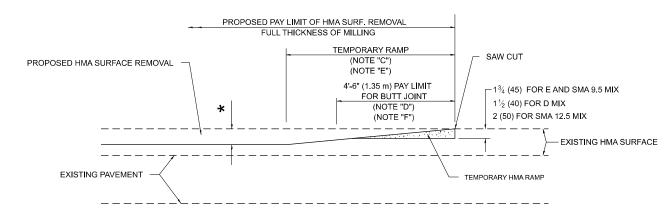
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

USER NAME = nicholas.babul	DESIGNED - A. HOUSEH	REVISED - A. ABBAS 03-21-97			CURI	OR CI	IRR AN	ID GUTTER		F.A.P.		SECTION		COUNTY	TOTAL SHEETS	SHEET
	DRAWN - REVISED - M. GOMEZ 01-22-01 STATE OF ILLINOIS	REMOVAL AND REPLACEMENT					335	FAP 335	23 OVERLAY	М	CHENRY	49	40			
PLOT SCALE = 0.16666633 ' / in.	CHECKED -	REVISED - R. BORO 12-15-09	DEPARTMENT OF TRANSPORTATION		KEIVIC	VAL AI	ND KEP	LACEWENT			BD600-	06 (BD-24)	l) (ONTRACT	NO. 62V	/07
PLOT DATE = 3/22/2024	DATE - 03-11-94	REVISED - K. SMITH 07-11-19		SCALE: NONE	SHEET 1	OF 1	SHEETS	STA.	TO STA.			ILLINOIS	S FED AID PR	OJECT		



(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 1

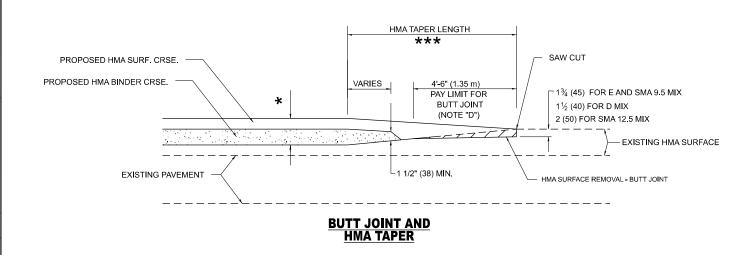


HMA CONSTRUCTED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 2

TYPICAL TEMPORARY RAMP

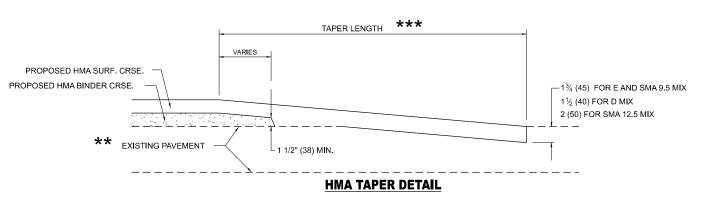


TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING

PROPOSED HMA OR PCC
SURFACE REMOVAL - BUTT JOINT
30'-0" (9.0 m) (NOTE "A")
15'-0" (4.5 m) (NOTE "B")
(NOTE "D")
40'-0" (12.0M) (NOTE "A1")

**
EXISTING PAVEMENT

BUTT JOINT DETAIL



TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

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

GENERAL NOTES

- A. MAINLINE ARTERIAL ROADWAYS AND MAJOR SIDE ROADS.
- A1. INTERSTATES
- B. MINOR SIDE ROADS.
- C. THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
- D. THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
- E. TAPER THE TEMP. RAMP AT A RATE OF 3' 4" (1.02m) PER 1 INCH (25 mm) OF MILLING THICKNESS.

 * SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- F. SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS
- FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".

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

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

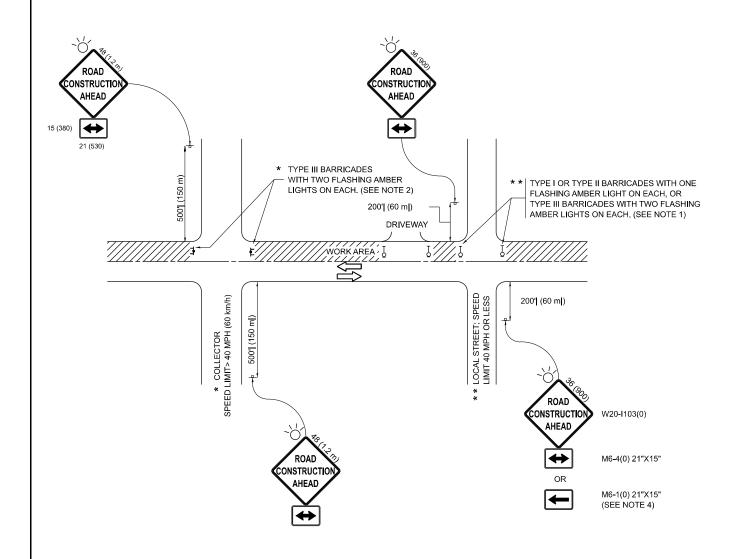
BASIS OF PAYMENT

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

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

USER NAME = nicholas.babul	DESIGNED - M. DE YONG	REVISED - A. ABBAS 03-21-97				RUTT	JOINT A	ND	F.A	A.P.	SECTION	COUNTY	TOTAL S	SHEET
	DRAWN -	REVISED - M. GOMEZ 04-06-01	STATE OF ILLINOIS				APER DET		33	35	FAP 335 23 OVERLAY	MCHENRY	49	41
PLOT SCALE = 0.16666633 ' / in.	CHECKED -	REVISED - R. BORO 01-01-07	DEPARTMENT OF TRANSPORTATION			HIVIA I	APER DE I	AILS		1	BD400-05 BD-32	CONTRACT	T NO. 62V0	07
PLOT DATE = 3/22/2024	DATE - 06-13-90	REVISED - K. SMITH 11-18-22		SCALE: NONE	SHEET 1	OF 1	SHEETS	STA. TO STA.			ILLINOIS FED. A	AID PROJECT		-

MODEL: BD-32 [Sheet]
FILE NAME: c:\nw work\nwidot\nicho



NOTES:

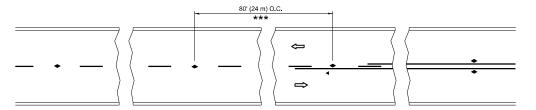
- 1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
- a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 36 x 36 (900x900) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
- b) THE CLOSED PORTION OF THE MAIN ROUTE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

SCALE:

- 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.

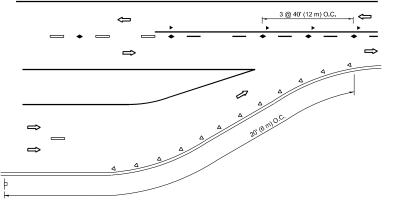
All dimensions are in inches (millimeters) unless otherwise shown.

USER NAME = nicholas.babul	DESIGNED - L.H.A.	REVISED - A. HOUSEH 10-15-96
	DRAWN -	REVISED - T. RAMMACHER 01-06-00
PLOT SCALE = 0.16666633 ' / in.	CHECKED -	REVISED - A. SCHUETZE 07-01-13
PLOT DATE = 3/22/2024	DATE - 06-89	REVISED _ A. SCHUETZE 09-15-16

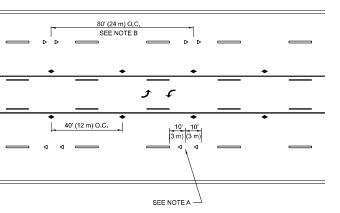


*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

SEE FIGURE 3B-14 MUTCO

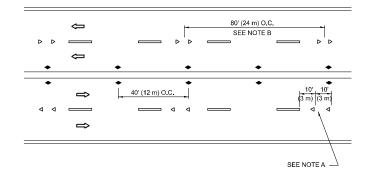


LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN

TWO-LANE/TWO-WAY

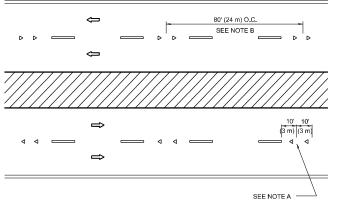




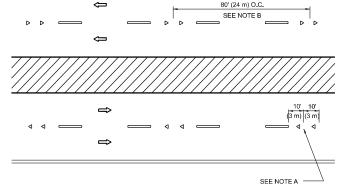
O.C.

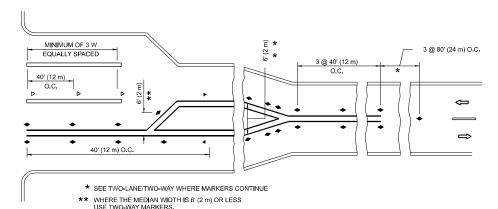
_40' (12 m)

3 @ 40' (12 m)



MULTI-LANE/DIVIDED





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

SYMBOLS

YELLOW STRIPE

WHITE STRIPE

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

LANE MARKER NOTES

A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.

B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.

DESIGN NOTES

- 1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
- 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.

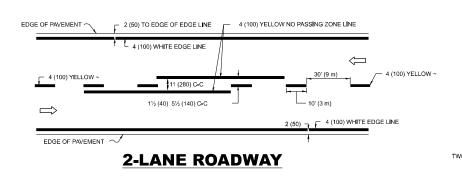
All dimensions are in inches (millimeters) unless otherwise shown.

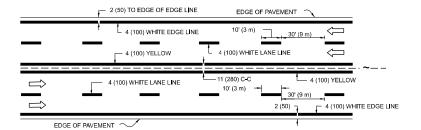
49 43

JSER NAME = nicholas.babul DESIGNED -REVISED - T. RAMMACHER 03-12-99 SECTION COUNTY **TYPICAL APPLICATIONS** STATE OF ILLINOIS REVISED - T. RAMMACHER 01-06-00 DRAWN 335 FAP 335 23 OVERLAY MCHENRY RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT) CHECKED . **DEPARTMENT OF TRANSPORTATION** TC-11 CONTRACT NO. 62V07 SHEET 1 OF 1 SHEETS STA. PLOT DATE = 3/22/2024 DATE REVISED - C. JUCIUS 07-01-13

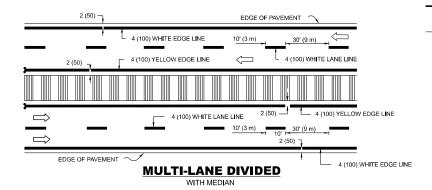
3 @ 80' (24 m) O.C.

 \Rightarrow

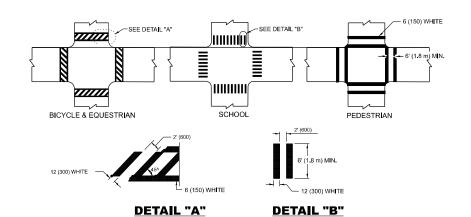




MULTI-LANE UNDIVIDED



TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING

* MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF

TWO-4 (100) YELLOW @ 11 (280) C-C 4' (1.2 m) OUTS DE TO NO DIAGONALS TWO-4 (100) YELLOW @ 11 (280) C-C

@ 10' (3 m) OR LESS SPACING

8 (200) WHITE

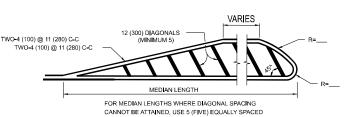
ISLAND OFFSET FROM PAVEMENT EDGE

8 (200) WHITE -

ISLAND AT PAVEMENT EDGE

RAISED

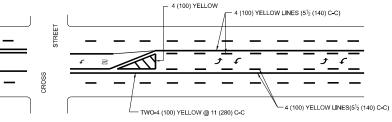
4' (1.2 m) WIDE MEDIANS ONLY



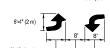
DIAGONAL LINES. 50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

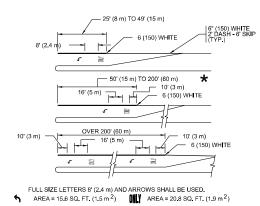
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))



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



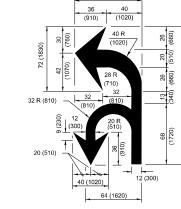
MEDIAN WITH TWO-WAY LEFT TURN LANE TYPICAL PAINTED MEDIAN MARKING



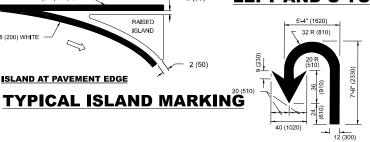
TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



COMBINATION **LEFT AND U-TURN**



LANE REDUCTION **TRANSITION**

U-TURN

★ LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OR

D(FT)

SPEED LIMIT

		_	101111	GREATER OR WHEN SPECIFIED IN PLANS.
TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH WHITE 10' (3 m) LINE WITH 30' SKIP-DASH 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) N 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 ²) EACH *X*=54.0 SQ, FT. (5.0 m ²)
SHOULDER DIAGONALS (REQUIRED FOR SHOULDERS \geq 8')	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))
U TURN ARROW	SEE DETAIL	SOLID	WHITE	16,3 SF
2 ARROW COMBINATION LEFT AND U TURN	SEE DETAIL	SOLID	WHITE	30.4 SF

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

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

USER NAME = nicholas.babul	DESIGNED - EVERS	REVISED -	C. JUCIUS 09-09-09
	DRAWN -	REVISED -	C. JUCIUS 07-01-13
PLOT SCALE = 0.16666633 ' / in.	CHECKED -	REVISED -	C. JUCIUS 12-21-15
PLOT DATE = 3/22/2024	DATE - 03-19-90	REVISED -	C. JUCIUS 04-12-16

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE 335 FAP 335 23 OVERLAY MCHENRY 49 44 TYPICAL PAVEMENT MARKINGS CONTRACT NO. 62V07 SHEET 1 OF 1 SHEETS STA.

TURN BAY ENTRANCE AT START OF LANE CLOSURE TAPER

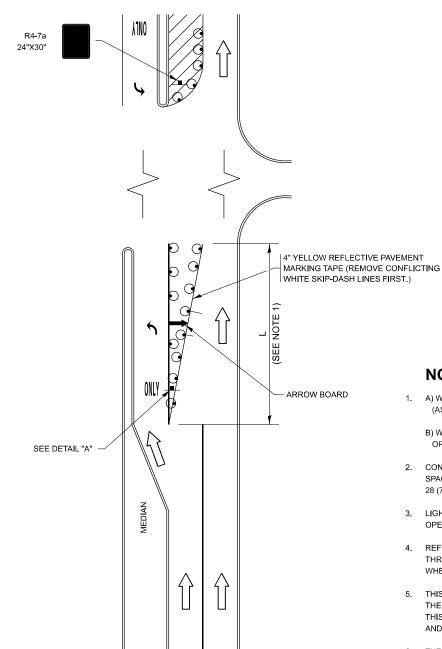


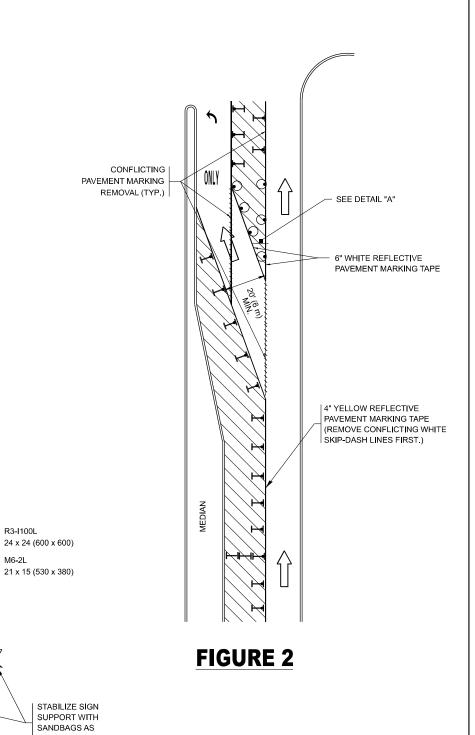
FIGURE 1

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.
- THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
- 7. THE SIGNS SHALL BE MOUNTED ABOVE THE BARRICADES/DRUMS ON SEPARATE SIGN SUPPORTS THAT MEET NCHRP 350 OR MASH PREQUIREMENTS.
- 8. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

TURN BAY ENTRANCE WITHIN A LANE CLOSURE



DETAIL A

R3-I100L

M6-2L

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

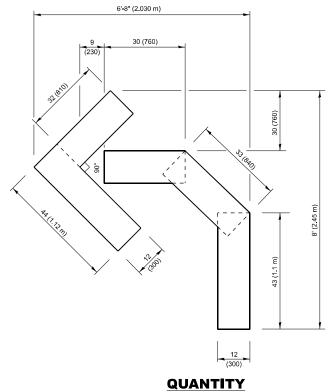
ISER NAME = nicholas.babul DESIGNED - T. RAMMACHER 09-08-94 REVISED - R. BORO 09-14-09 DRAWN - A. HOUSEH 11-07-95 REVISED - A. SCHUFTZF 07-01-13 CHECKED - A. HOUSEH 10-12-96 REVISED - A. SCHUETZE 09-15-16 PLOT DATE = 3/22/2024 DATE - T RAMMACHER 01-06-00 REVISED

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)

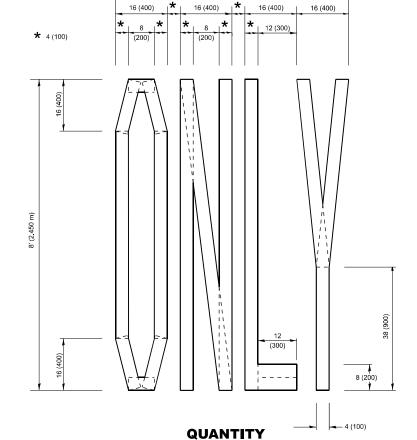
SECTION COUNTY 335 FAP 335 23 OVERLAY MCHENRY 49 45 TC-14 CONTRACT NO. 62V07

SCALE: NONE

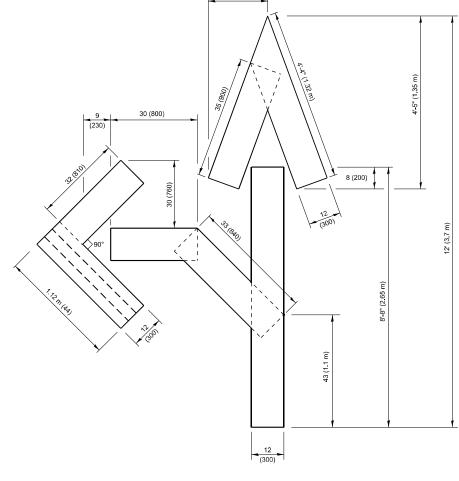
SHEET 1 OF 1 SHEETS STA.



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)

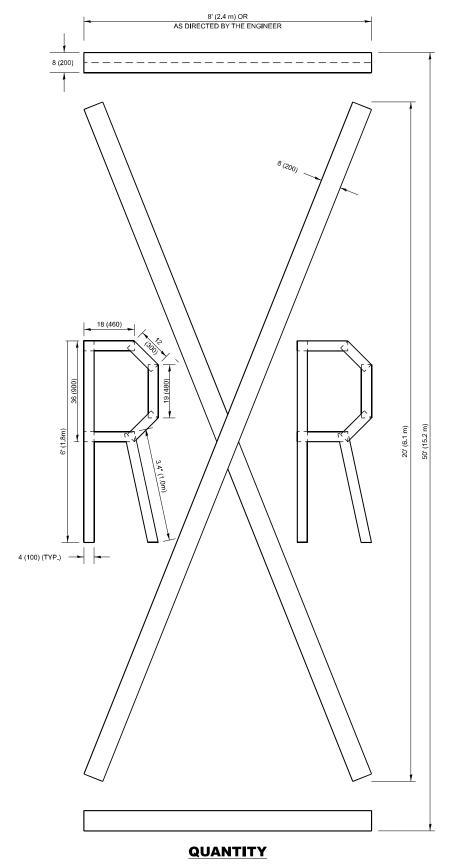


QUANTITY

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.

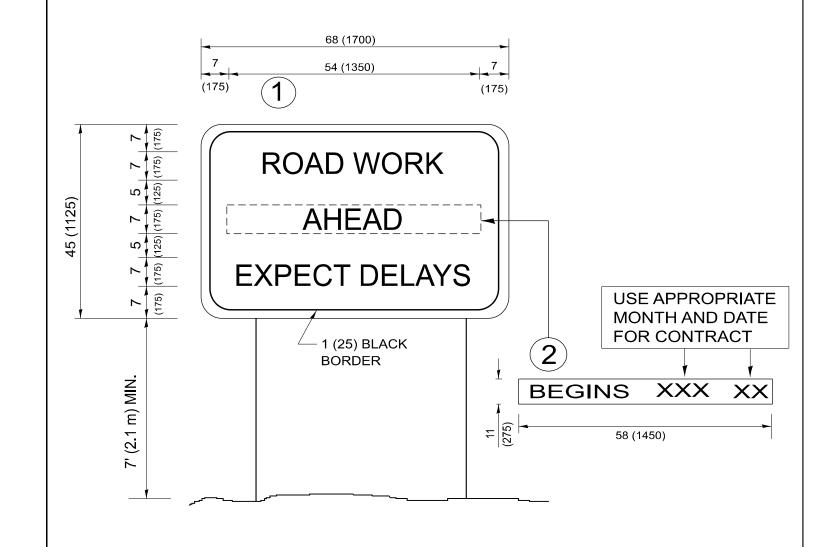
USER NAME = nicholas.babul DESIGNED -REVISED - T. RAMMACHER 03-02-98 DRAWN REVISED - E. GOMEZ 08-28-00 CHECKED -REVISED - E. GOMEZ 08-28-00 PLOT DATE = 3/22/2024 DATE - 09-18-94 REVISED - A. SCHUETZE 09-15-16

21.4 sq. ft. (1.99 sq. m)

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SHORT TERM PAVEMENT MARKING LETTERS AND SYMBOLS TC-16 SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

335 FAP 335 23 OVERLAY 49 46 MCHENRY CONTRACT NO. 62V07



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 1

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

SCALE: NONE

7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

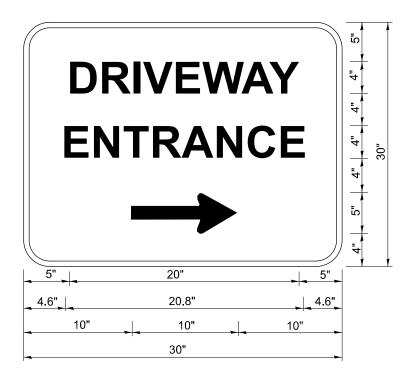
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

MCHENRY 49 47

CONTRACT NO. 62V07

USER NAME = nicholas.babul	DESIGNED -	REVISED	- R. MIRS 09-15-97
	DRAWN -	REVISED	- R. MIRS 12-11-97
PLOT SCALE = 0.16666633 ' / in.	CHECKED -	REVISED	- T. RAMMACHER 02-02-99
PLOT DATE = 3/22/2024	DATE -	REVISED	- C. JUCIUS 01-31-07

ARTE	RIAL RO	AD		F.A.P. RTE	SECTION
INFORM	ATION	SIGN		335	FAP 335 23 OVERLAY
IIII OIII	IAI IOI	JIGN			TC-22
OF 1	SHEETS	STA.	TO STA.		ILLINOIS



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

NOTES:

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

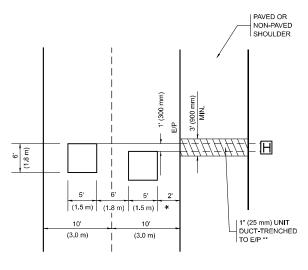
SCALE: NONE

 DRIVEWAY ENTRANCE SIGNING
 F.A.P. SECTION COUNTY TOTAL SHEETS NO.
 335 FAP 335 23 OVERLAY MCHENRY 49 48

 SHEET 1
 OF 1 SHEETS STA.
 TO STA.
 TC-26 CONTRACT NO. 62V0T

LOOPS NEXT TO SHOULDERS

PROVIDE A PAVEMENT REPLACEMENT



* * UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

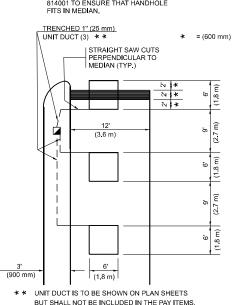
* = (600 mm)

LEFT TURN LANES WITH MEDIANS

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

(PROTECTED / PERMITTED LEFT TURN PHASING)

HANDHOLE LOCATION MAY VARY DEPENDING ON GEOMETRICS AND DESIGN OF TRAFFIC SIGNALS. HEAVY-DUTY HANDHOLES TO BE USED WHEN THE MEDIAN IS MOUNTABLE. REFER TO STANDARD 814001 TO ENSURE THAT HANDHOLE



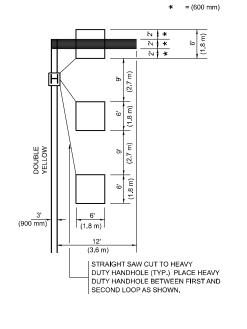
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO

PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

LEFT TURN LANES WITHOUT MEDIANS

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

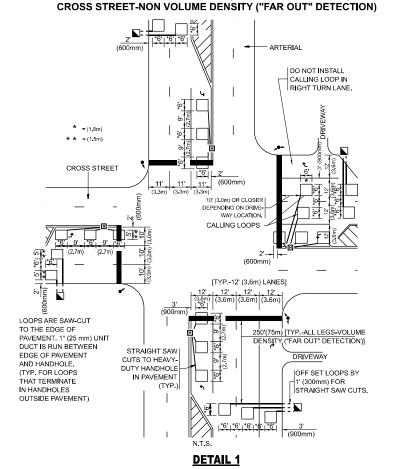
(PROTECTED / PERMITTED LEFT TURN PHASING)



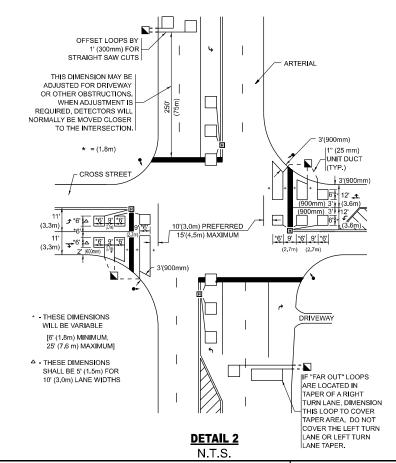
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

SCALE: NONE

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



ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)



NOTES:

VEHICLES LOOP DETECTORS

- * ALL LEAD IN CABLE SHALL BE TWO CONDUCTOR NO. 14 TWISTED,
- * EACH DETECTOR LOOP SHALL HAVE ITS OWN SAW CUT FROM THE LOOP TO THE EDGE OF PAVEMENT OR TO A HANDHOLE IN THE
- * EACH DETECTOR LOOP SHALL HAVE ITS OWN ONE INCH (25 mm) UNIT DUCT BETWEEN THE EDGE OF PAVEMENT AND THE FIRST HANDHOLE OR JUNCTION BOX. EACH UNIT DUCT RUN SHALL BE SHOWN ON THE PLANS BY THE DESIGNER, BUT SHALL NOT BE PAID FOR SEPARATLY. THIS ITEM IS INCIDENTAL TO THE PAY ITEM FOR DETECTOR LOOPS.
- * ONE DIMENSION OF ALL DETECTOR LOOPS SHALL BE SIX FEET (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

TO STA.

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.

N.T.S. DESIGNED -REVISED DRAWN REVISED

REVISED

REVISED

STATE OF ILLINOIS

DISTRICT 1 - DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING SHEET 1 OF 1 SHEETS STA.

SECTION COUNTY 335 FAP 335 23 OVERLAY MCHENRY 49 49 TS-07 CONTRACT NO. 62V07

ISER NAME = nicholas.babul

PLOT DATE = 3/22/2024

HECKED -R.K.F

DATE

DEPARTMENT OF TRANSPORTATION