03/11/2022 Letting Item 100

#### STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

# PROPOSED PLANS FOR FEDERAL AID HIGHWAY

F.A.U. ROUTE 1518 (63RD STREET) **63RD STREET AT MAIN STREET** TRAFFIC SIGNAL MODERNIZATION SECTION 20-00288-04-TL **PROJECT** No: 0331(180) **DUPAGE COUNTY** 

C-91-347-20

FOR INDEX OF SHEETS SEE SHEET 2

PROJECT IS LOCATED IN THE VILLAGE OF DOWNERS GROVE

#### 63RD STREET

**DESIGN DESIGNATION: MINOR ARTERIAL** 

ADT: 18.900 (2020)

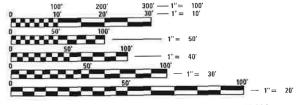
POSTED SPEED: 40 MPH **DESIGN SPEED: 40 MPH** 

#### MAIN STREET

**DESIGN DESIGNATION: MINOR ARTERIAL** 

ADT: 13.800 (2020)

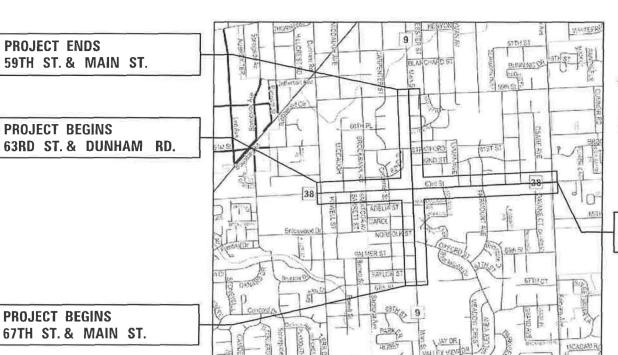
POSTED SPEED: 35 MPH **DESIGN SPEED: 35 MPH** 



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

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

OR 811



**LOCATION MAP** NOT TO SCALE

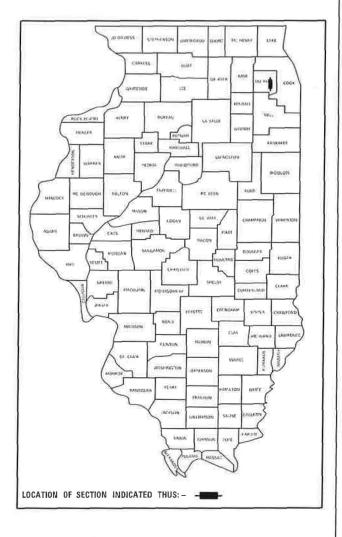
GROSS LENGTH OF 63RD STREET = 6.547.2 FT = 1.24 MILE GROSS LENGTH OF MAIN STREET = 5,332.8 FT = 1.01 MILE NET LENGTH OF PROJECT = 11,880.0 FT = 2.25 MILE



BRUCE TALBOT ILLINOIS LICENSED PROFESSIONAL ENGINEER NO. 062-046494 EXPIRATION 11/30/2023



20-00288-04-TI DuPAGE 32



PROJECT ENDS 63RD ST. & FAIRVIEW AVE.

> STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION christopher Anytur DUPAGE COUNTY DIVISION OF TRANSPORTATION, COUNTY ENGINEER

> > PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

**CONTRACT NO. 61H61** 

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#### **INDEX OF SHEETS**

- COVER SHEET
- INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES, AND COMMITMENTS
- SUMMARY OF QUANTITIES
  TRAFFIC SIGNAL MODERNIZATION PLANS 8-14

- 15-19 INTERCONNECT PLANS
  20 ILLUMINATED STREET NAME SIGN DETAILS
  21-32 DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS

877011-10 STEEL COMB. MAST ARM ASSEMBLY AND POLE 16' THROUGH 55' 878001-11 CONCRETE FOUNDATION DETAILS 880006-01 TRAFFIC SIGNAL MOUNTING DETAILS

#### **HIGHWAY STANDARDS**

000001-08 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
701101-05 OFF-RD OPERATIONS, MULTILANE, 15' (4.5 M) TO 24" (600 MM) FROM PAVEMENT EDGE
701106-02 OFF-RD OPERATIONS, MULTILANE, MORE THAN 15' (4.5 M) AWAY 701701-10 URBAN LANE CLOSURE, MULTILANE INTERSECTION 701801-06 SIDEWALK, CORNER OR CROSSWALK CLOSURE 701901-08 TRAFFIC CONTROL DEVICES 814001-03 HANDHOLES 814006-03 DOUBLE HANDHOLES 857001-01 STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES 862001-01 UNINTERRUPTIBLE POWER SUPPLY (UPS) 873001-02 TRAFFIC SIGNAL GROUNDING & BONDING

#### **DISTRICT 1 STANDARDS**

- TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS
- DISTRICT ONE, TYPICAL PAVEMENT MARKINGS MAST ARM MOUNTED STREET NAME SIGNS

- TS-03 HANDHOLE TO INTERCEPT EXISTING CONDUIT TS-05 STANDARD TRAFFIC SIGNAL DESIGN DETAILS

#### **GENERAL NOTES**

- THE REMOVAL AND REPLACEMENT OF SIDEWALK, DRIVEWAY, MEDIAN AND ISLAND SURFACE PAVING AT HANDHOLES, JACKING PITS AND INSPECTION OPENINGS SHALL BE SAW CUT AROUND THE AREA TO BE
- THE EXACT LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE THE INSTALLATION OF ANY COMPONENTS OF THE TRAFFIC SIGNAL SYSTEM. FOR LOCATION OF UTILITIES, CALL
- ALL SIGNAL POSTS AND MAST ARM POLES SHALL BE LOCATED WITH THEIR CENTERLINES A MINIMUM OF FOUR (4) FEET AND SIX (6) FEET RESPECTIVELY FROM THE BACK OF CURB UNLESS NOTED OR DIMENSIONED TO THE CONTRARY ON THE DRAWINGS. IN NON-CURBED AREAS THE MAST ARM POLE SHALL BE LOCATED A MINIMUM OF TEN (10) FEET BEHIND THE EDGE OF PAVEMENT OR TWO (2) FEET BEHIND THE EDGE OF SHOULDER, WHICHEVER DISTANCE IS GREATER. SIGNAL POSTS SHALL BE PLACED AT A MINIMUM OF TWO (2) FEET BEHIND THE
- CONTACT THE DUPAGE COUNTY TRAFFIC SIGNAL COORDINATOR (630/407-6900) TO APPROVE LOCATIONS OF LOOPS, SIGNAL FOUNDATIONS AND SIGNAL HEADS.
- ALL LUMINAIRE ARMS SHALL BE 15 FEET LONG UNLESS OTHERWISE
- ALL LUMINAIRES SHALL BE MOUNTED AT 40 FOOT HEIGHT UNLESS OTHERWISE NOTED.
- 7. NO WORK SHALL COMMENCE UNTIL TRAFFIC CONTROL REQUIREMENTS
- ALL UTILITIES, SCHOOL DISTRICTS, LOCAL POLICE, AND FIRE DEPARTMENTS SHALL BE NOTIFIED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.
- UNLESS AUTHORIZED BY THE ENGINEER, ALL EXISTING ACCESS POINTS SHALL BE MAINTAINED AT ALL TIMES BY THE CONTRACTOR.
- TRAFFIC CONTROL AND PROTECTION SHALL BE PERFORMED IN ACCORDANCE WITH THE TRAFFIC CONTROL PLAN, TRAFFIC SIGNAL PLANS, THESE NOTES, APPLICABLE SPECIAL PROVISIONS, AND SECTION 701 OF THE STANDARD SPECIFICATIONS AS AMENDED BY THE SPECIAL PROVISION FOR WORK ZONE TRAFFIC CONTROL (CHECK SHEET LRS 3).
- ARROW BOARDS WILL BE REQUIRED WHEN IMPLEMENTING ALL LANE

#### **COMMITMENTS**

NONE

USER NAME ■ njackson	DESIGNED	BPT	REVISED -
	DRAWN	NDJ	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED	RMM	REVISED -
PLOT DATE = 11/29/2021	DATE	11/29/21	REVISED -

INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES, AND COMMITMENTS SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA.

TO STA

SECTION COUNTY 1518 20-00288-04-TI DUPAGE 32 CONTRACT NO. 61H61

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

			CONST	R. CODE		
		SUMMARY OF QUANTITIES			0021	0042
	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	90% FED 10% LOCAL URBAN	90% FED 10% LOCAL URBAN
*	42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	136	136	
*	44000600	SIDEWALK REMOVAL	SQ FT	151	151	
*	66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	35	35	
*	66900530	SOIL DISPOSAL ANALYSIS	EACH	4	4	
*	66901001	REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN	LSUM	1	1	
*	66901003	REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT	LSUM	1	1	
*	66901006	REGULATED SUBSTANCES MONITORING	CAL DA	8	8	
	67100100	MOBILIZATION	LSUM	1	1	
	70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	LSUM	1	1	
	70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	LSUM	1	1	
	70106800	CHANGEABLE MESSAGE SIGN	CAL MO	8	8	
*	72000100	SIGN PANEL - TYPE 1	SQ FT	60	60	
*	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	336	336	
*	80500020	SERVICE INSTALLATION - POLE MOUNTED	EACH	1	1	
-	81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	195	195	

\* SPECIAL PROVISION

USER NAME = njackson	DESIGNED	BPT	REVISED	-
	DRAWN	NDJ	REVISED	-
PLOT SCALE = 2.0000 * / in.	CHECKED	RMM	REVISED	-
PLOT DATE = 12/29/2021	DATE	11/29/21	REVISED	-

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

								F.A.U. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		SU	MM/	ARY	OF QU	ANTITIES		1518	20-00288-04-TL	DUPAGE	32	3
									<u> </u>	CONTRAC	T NO. 6	1H61
SCALE:	SHEET	1	OF	5	SHEETS	STA.	TO STA.		ILLINOIS FED.	AID PROJECT		

			CONST	R. CODE		
		SUMMARY OF QUANTITIES			0021	0042
	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	90% FED 10% LOCAL URBAN	90% FED 10% LOCAL URBAN
	81028210	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	54	54	
	81028220	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	40	40	
	81028240	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	456	456	
*	81400100	HANDHOLE	EACH	2	2	
	81400300	DOUBLE HANDHOLE	EACH	3	3	
*	81702450	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/C NO. 10	FOOT	821	821	
*	85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	4	4	
*	87300925	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	12800	12800	
*	87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1317	1317	
*	87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	2191	2191	
*	87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	3215	3215	
*	87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	110	110	
*	87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	837	837	
*	87502440	TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	1	1	
*	87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	4	4	

\* SPECIAL PROVISION

USER NAME ≃ njackson	DESIGNED	BPT	REVISED	-
	DRAWN	NDJ	REVISED	-
PLOT SCALE = 2.0000 1 / in.	CHECKED	RMM	REVISED	-
PLOT DATE = 12/20/2021	DATE	11/29/21	REVISED	-

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

					F.A.U. RTE	F.A.U. SECTION		COUNTY	TOTAL	SHEET NO.		
	SUMMARY OF QUANTITIES								1518 20-00288-04-TL		32	4
										CONTRAC	T NO. 6	1H61
SCALE:	SHEET	2	OF	5	SHEETS STA.	TO STA.			ILLINOIS FED. A	ID PROJECT		

					CONST	R. CODE
		SUMMARY OF QUANTITIES			0021	0042
	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	90% FED 10% LOCAL URBAN	90% FED 10% LOCAL URBAN
*	87702910	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 36 FT.	EACH	1	1	
*	87702950	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 44 FT.	EACH	2	2	
*	87702960	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 46 FT.	EACH	1	1	
*	87800100	CONCRETE FOUNDATION, TYPE A	FOOT	20	20	
*	87800150	CONCRETE FOUNDATION, TYPE C	FOOT	4	4	
*	87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	60	60	
	87900200	DRILL EXISTING HANDHOLE	EACH	2	2	
*	88040070	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	4	4	
*	88040090	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	12	12	
*	88102825	PEDESTRIAN SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, BRACKET MOUNTED WITH COUNT DOWN TIMER	EACH	8	8	
-	88200510	TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	12	12	
	88700200	LIGHT DETECTOR	EACH	4	4	
	88700300	LIGHT DETECTOR AMPLIFIER	EACH	1	1	
*	89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1	1	
	89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	12500	12500	

\* SPECIAL PROVISION

USER NAME = njackson	DESIGNED	BPT	REVISED -
	DRAWN	NDI	REVISED -
PLOT SCALE = 2.0000 1 / in,	CHECKED	RMM	REVISED -
PLOT DATE = 12/20/2021	DATE	11/29/21	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES									SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		SU	MIM.	\RY	OF QUA	ANTITIES		1518	20-00288-04-TL	DUPAGE	32	5
***************************************						····				CONTRACT	NO. 6	1H61
SCALE:	SHEET	3	OF	5	SHEETS	STA.	TO STA.		ILLINOIS FE	D. AID PROJECT	***************************************	

EL: Default NAME: J:\2018\0181937.08 - Dupage County Various Traffic WO8\04\_Drawing:

					CONS	r. code
		SUMMARY OF QUANTITIES			0021	0042
	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	90% FED 10% LOCAL URBAN	90% FED 10% LOCAL URBAN
*	89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1	1	
	89502380	REMOVE EXISTING HANDHOLE	EACH	2	2	
	89502382	REMOVE EXISTING DOUBLE HANDHOLE	EACH	1	1	
	89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	6	6	
*	X0324085	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	860	860	
*	X0324599	ROD AND CLEAN EXISTING CONDUIT	FOOT	12500	12500	
*	X0327211	RELOCATE SWITCH	EACH	1	1	
*	X0327698	LED INTERNALLY ILLUMINATED STREET NAME SIGN	EACH	4	4	
*	X1400102	OUTDOOR RATED NETWORK CABLE	FOOT	139	139	
*	X1400238	LUMINAIRE, LED, SPECIAL	EACH	4	4	
*	X1400322	RELOCATE EXISTING REMOTE-CONTROLLED VIDEO SYSTEM	EACH	2	2	
*	X1400378	PEDESTRIAN SIGNAL POST, 5 FT.	EACH	1	1	
*	X1400424	ELECTRIC CABLE IN CONDUIT, STREET NAME SIGN, NO. 14 3C, TYPE SOOW	FOOT	805	805	
	X8100105	CONDUIT SPLICE	EACH	1	1	
*	X8570226	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1	1	
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\* SPECIAL PROVISION

USER NAME = njackson	DESIGNED	BPT	REVISED	-
	DRAWN	NDJ	REVISED	-
PLOT SCALE = 2.0000 1 / in.	CHECKED	RMM	REVISED	-
PLOT DATE = 12/20/2021	DATE	11/29/21	REVISED	-

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

								F.A.U. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	SUMMARY OF QUANTITIES					1518	20-00288-04-TL	DUPAGE	32	6		
						~~~~				CONTRACT	NO. 6	1H61
SCALE:	SHEET	4	OF	5	SHEETS	STA.	TO STA.		ILLINOIS FED. A	ID PROJECT		

Detabli ME: J/2018/01819337.08 - Dupage County Various Traffic WOR104\_Drawings\

			CONSTR. CODE			
		SUMMARY OF QUANTITIES			0021 0042	
	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	90% FED 10% LOCAL URBAN	90% FED 10% LOCAL URBAN
					WANTED THE STREET OF THE STREE	
*	X8620200	UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1	1	
}						
*	X8710030	FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	FOOT	12800	12800	
-	V070000	ACCEPTION E DEDECTRIAN CIONALO	FACU		•	
*	X8760200	ACCESSIBLE PEDESTRIAN SIGNALS	EACH	8	8	
*	X8780012	CONCRETE FOUNDATION, TYPE A 12-INCH DIAMETER	FOOT	4	4	
*	XX007622	ELECTRIC METER	EACH	1	1	
	XX009046	VEHICLE DETECTION SYSTEM, SPECIAL	EACH	1	1	
-	Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1	
*	20013798	CONSTRUCTION LATOUT	L SUW	<u> </u>	I	
*	Z0033056	OPTIMIZE TRAFFIC SIGNAL SYSTEM	EACH	1	1	
*	Z0073510	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1	1	
	Z0076600	TRAINEES	HOUR	500		500
-	Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	500		500
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\* SPECIAL PROVISION

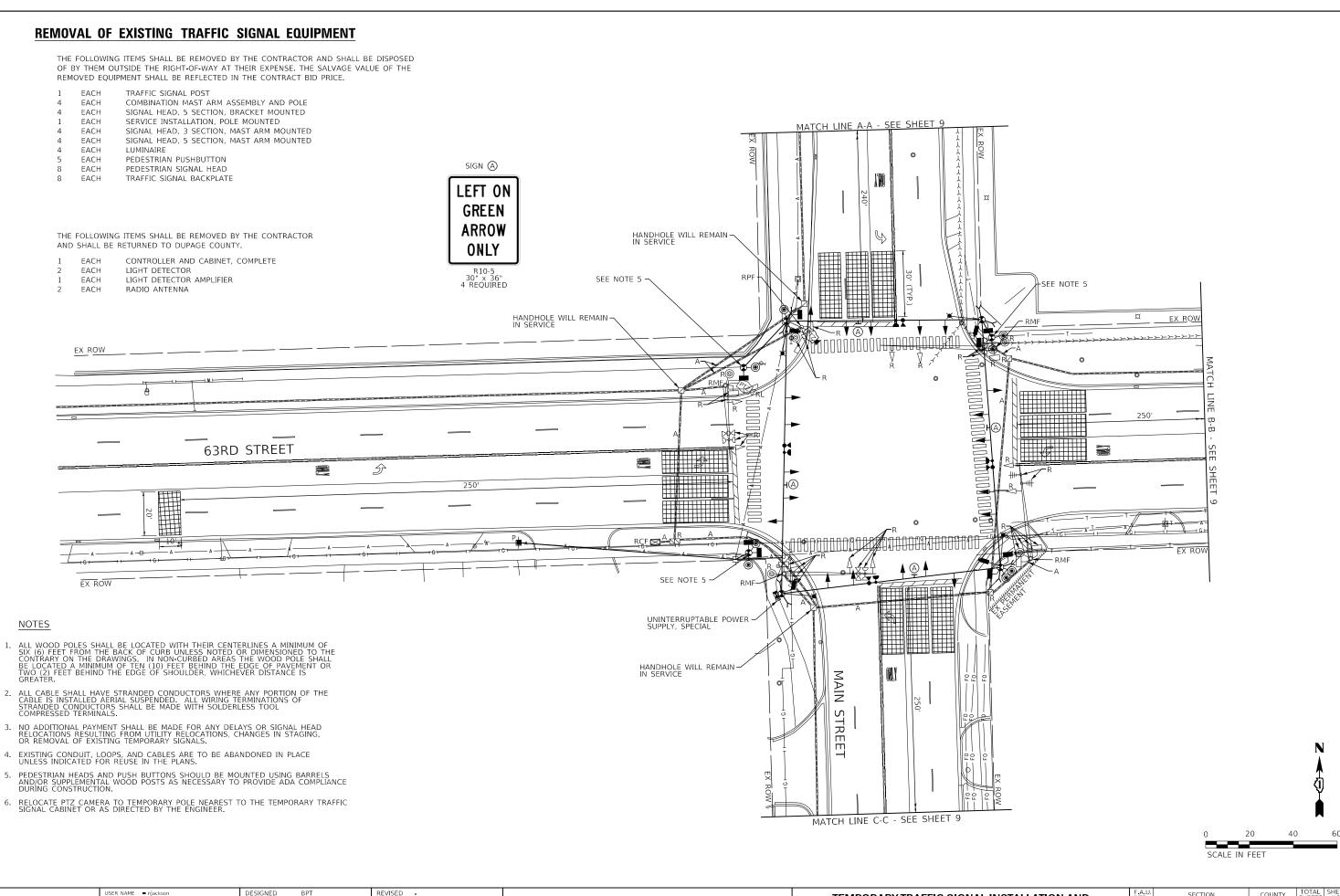
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 = 2.0000 ' / in.
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 PLOT DATE
 = 12/20/2021
 DATE
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



**DEPARTMENT OF TRANSPORTATION** 

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PLOT DATE = 12/14/2021

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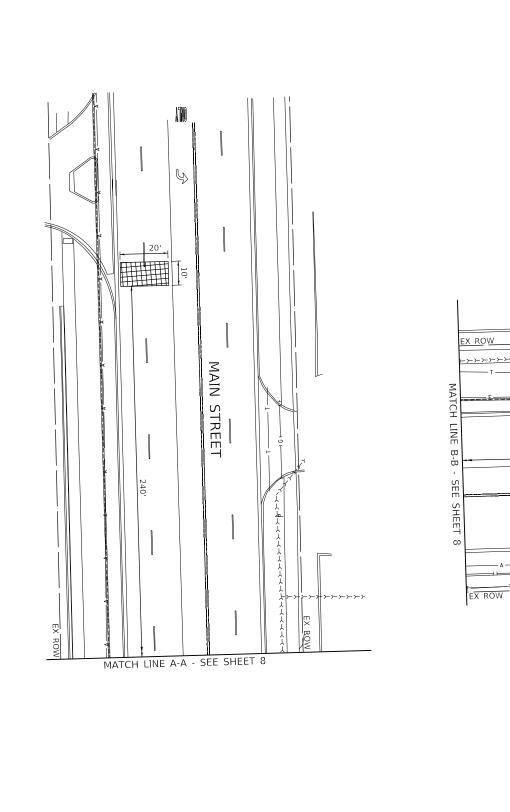
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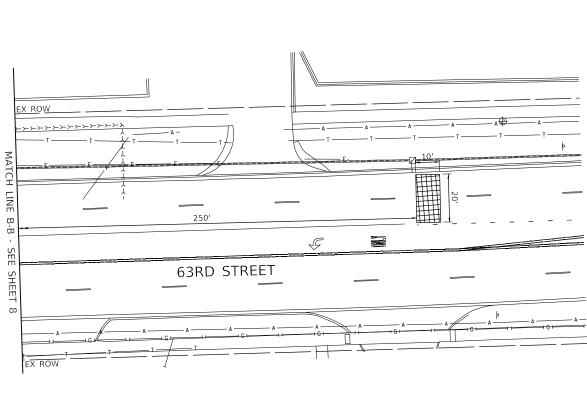
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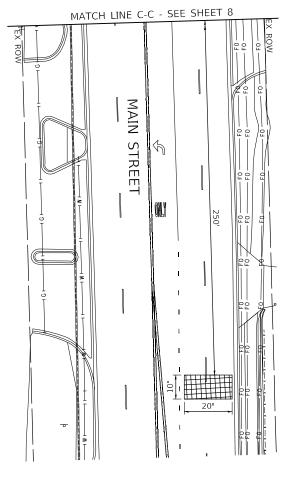
STATE OF ILLINOIS

TEMPORARY TRAFFIC SIGNAL INSTALLATION AND REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN SCALE: 1" = 20' SHEET 1 OF 7 SHEETS STA.

SECTION COUNTY 1518 20-00288-04-TL DUPAGE 32 CONTRACT NO. 61H61







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SCALE IN FEET

TION COUNTY TOTAL SHEETS NO.
38-04-TL DUPAGE 32 9

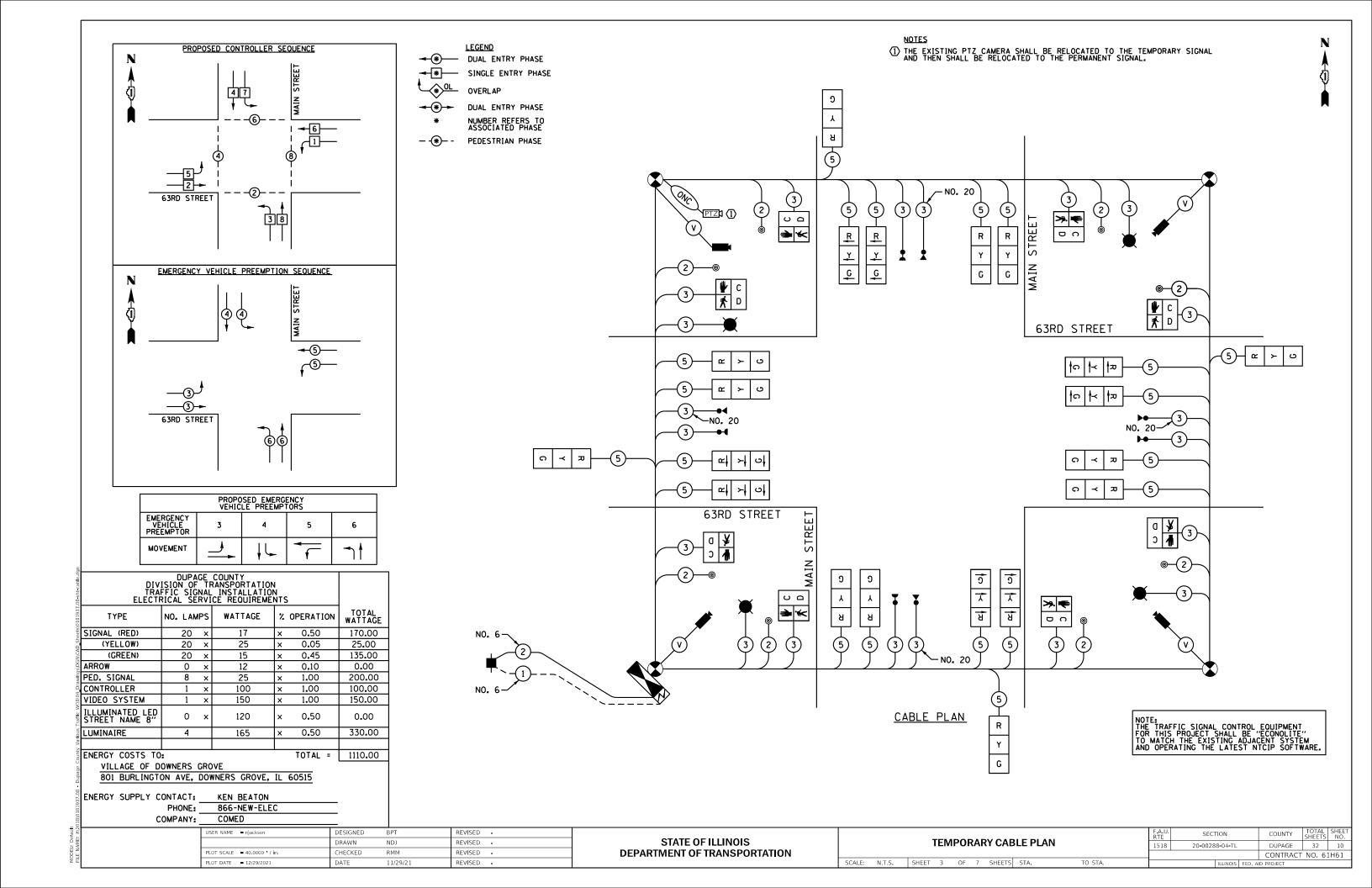
CONTRACT NO 61H61

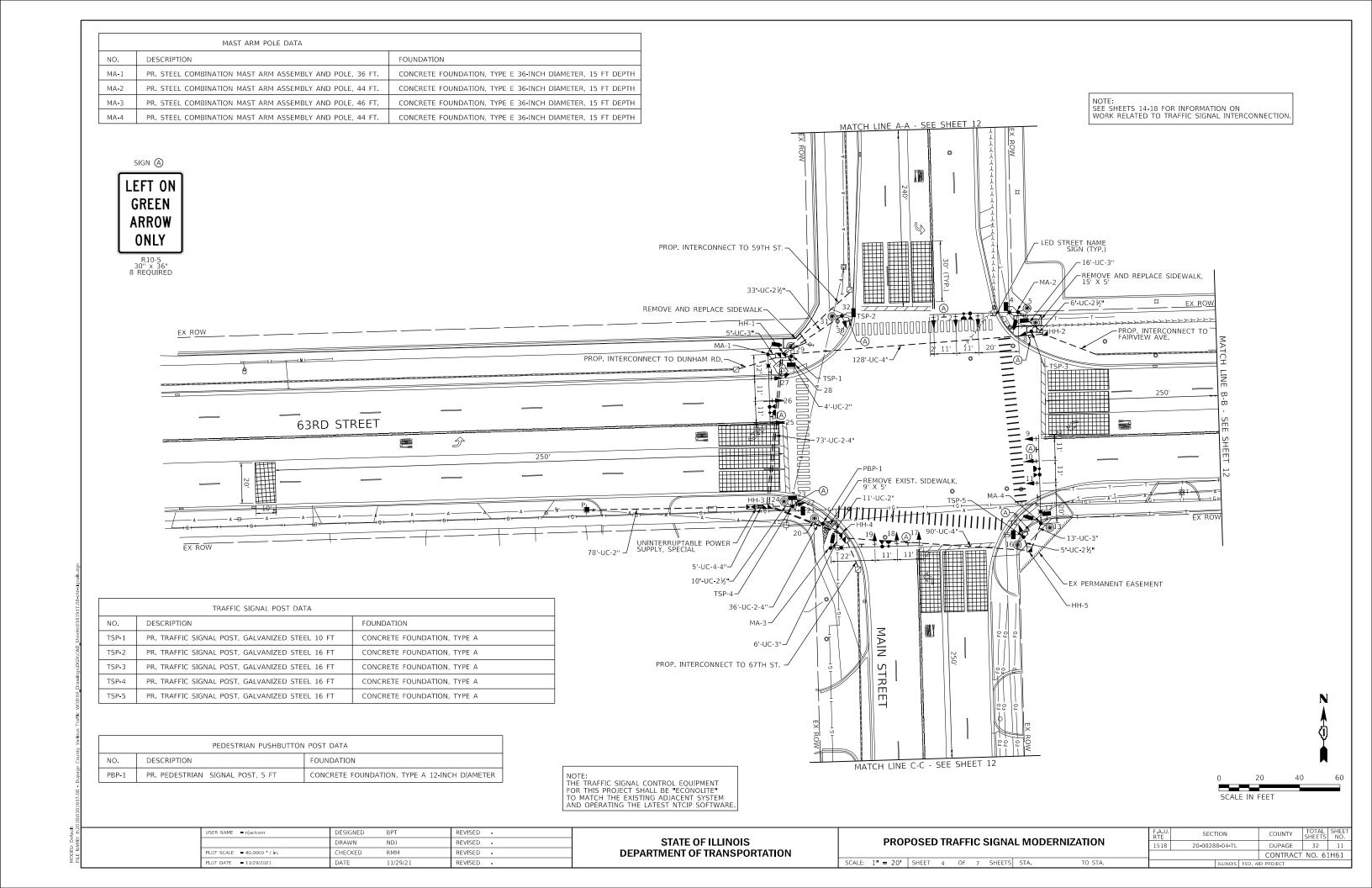
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	DRAWN	NDJ	REVISED -	
PLOT SCALE = 40.0000 / in.	CHECKED	RMM	REVISED -	
PLOT DATE = 11/29/2021	DATE	11/29/21	REVISED -	

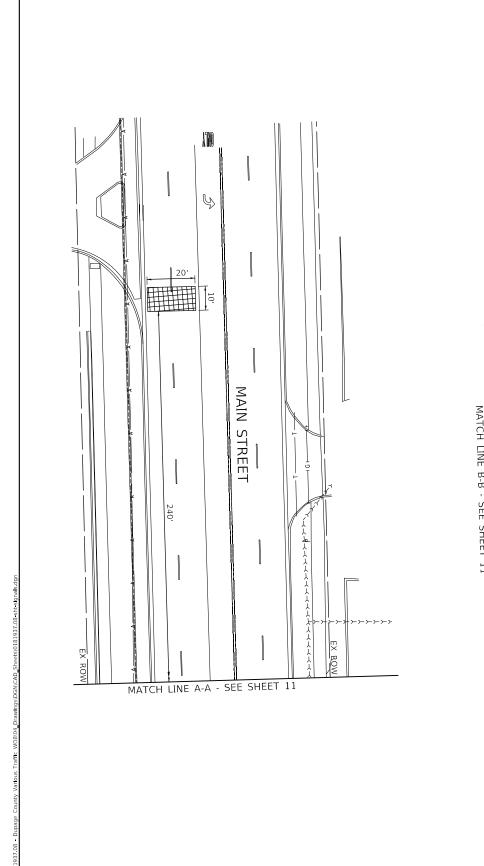
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

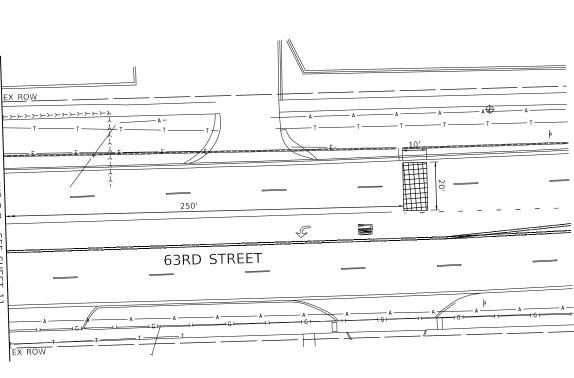
			TALLATION AND EQUIPMENT PLAN

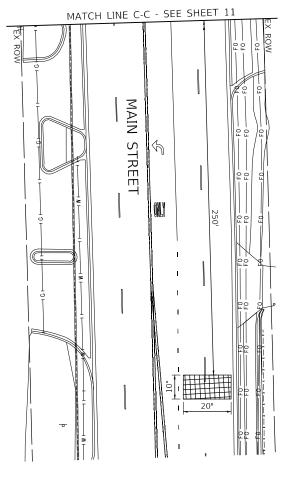
F.A.U. RTE	SECT	TION		COUNTY	TOTAL SHEETS	SHEET NO.
1518	20-00288-04-TL			DUPAGE	32	9
				CONTRACT	NO. 6:	1H61
		ILLINOIS	FED, A	ID PROJECT		











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SCALE IN FEET

TON COUNTY TOTAL SHEETS NO.
8-04-TL DUPAGE 32 12
CONTRACT NO. 61461

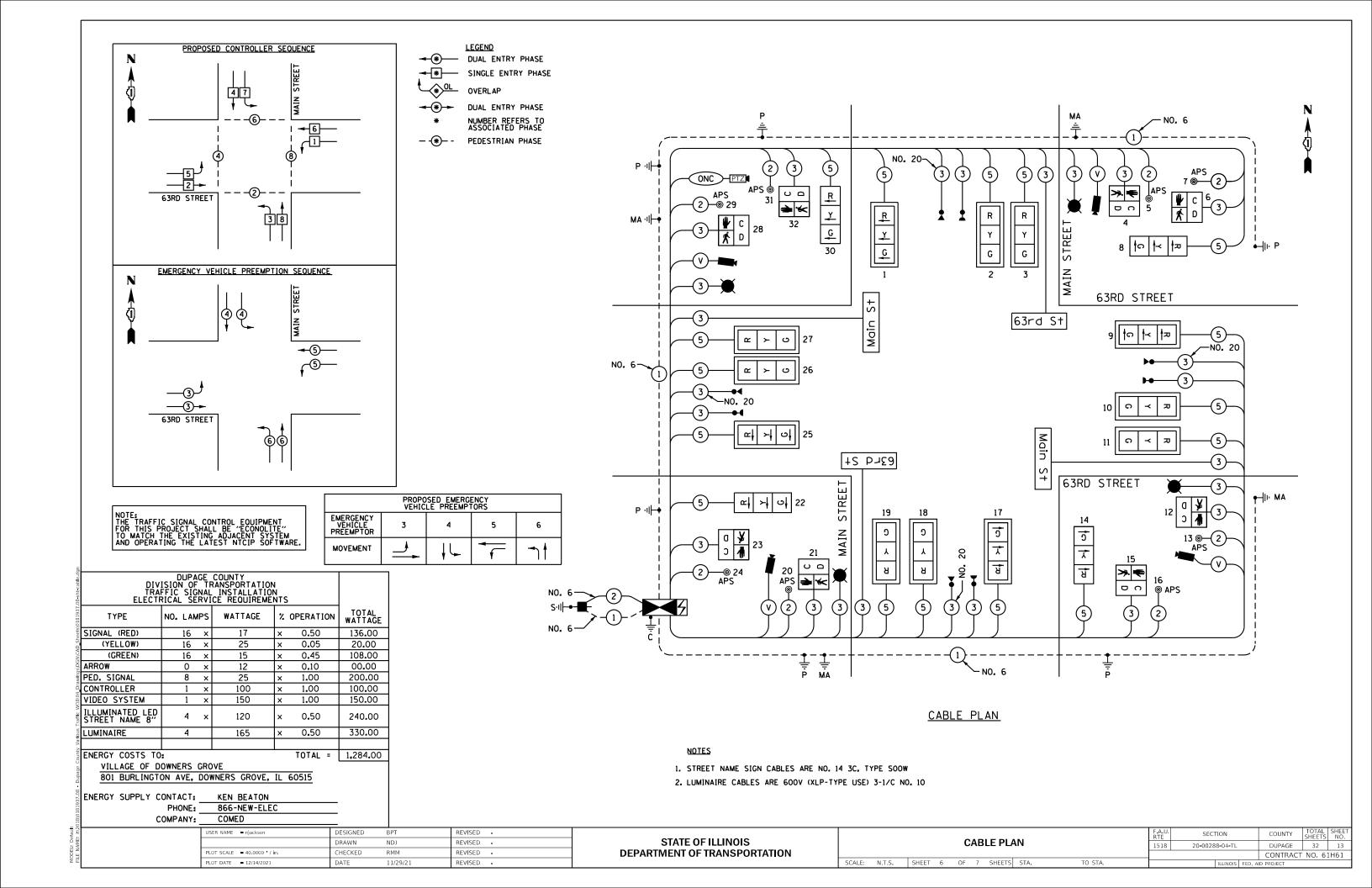
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	DRAWN	NDJ	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED	RMM	REVISED -
PLOT DATE = 11/29/2021	DATE	11/29/21	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

PROPOSED TRAFFIC SIGNAL MODERNIZATION

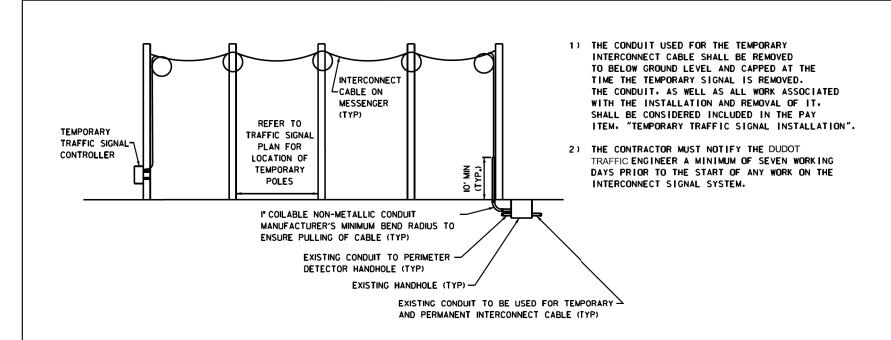
SCALE: 1" = 20' SHEET 5 OF 7 SHEETS STA. TO STA.

F.A.U. RTE	SEC	TION		COUNTY	TOTAL SHEETS	SHEE NO.
1518	3 20-00288-04-TL			DUPAGE	32	12
				CONTRACT	NO. 6	1H61
		ILLINOIS	FED, A	ID PROJECT		



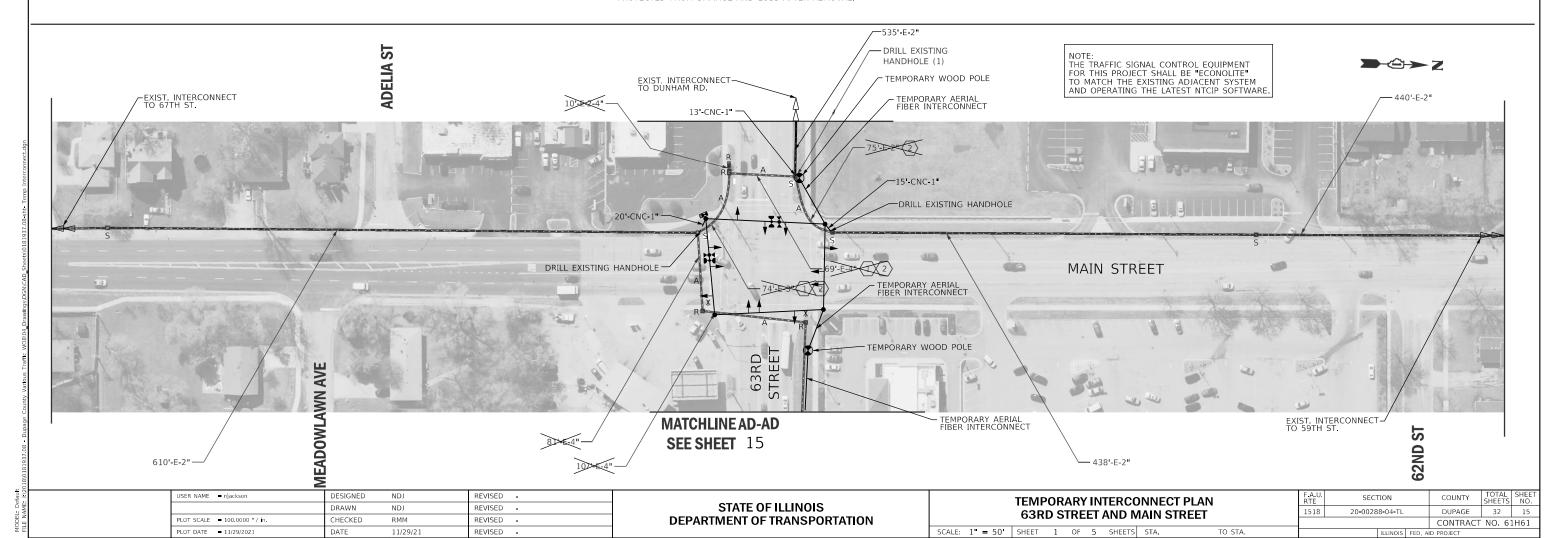
J	USER NAME ■ njackson	DESIGNED	BPT	REVISED -
		DRAWN	NDJ	REVISED -
F	PLOT SCALE = 40.0000 / in.	CHECKED	RMM	REVISED -
F	PLOT DATE = 12/29/2021	DATE	11/29/21	REVISED -

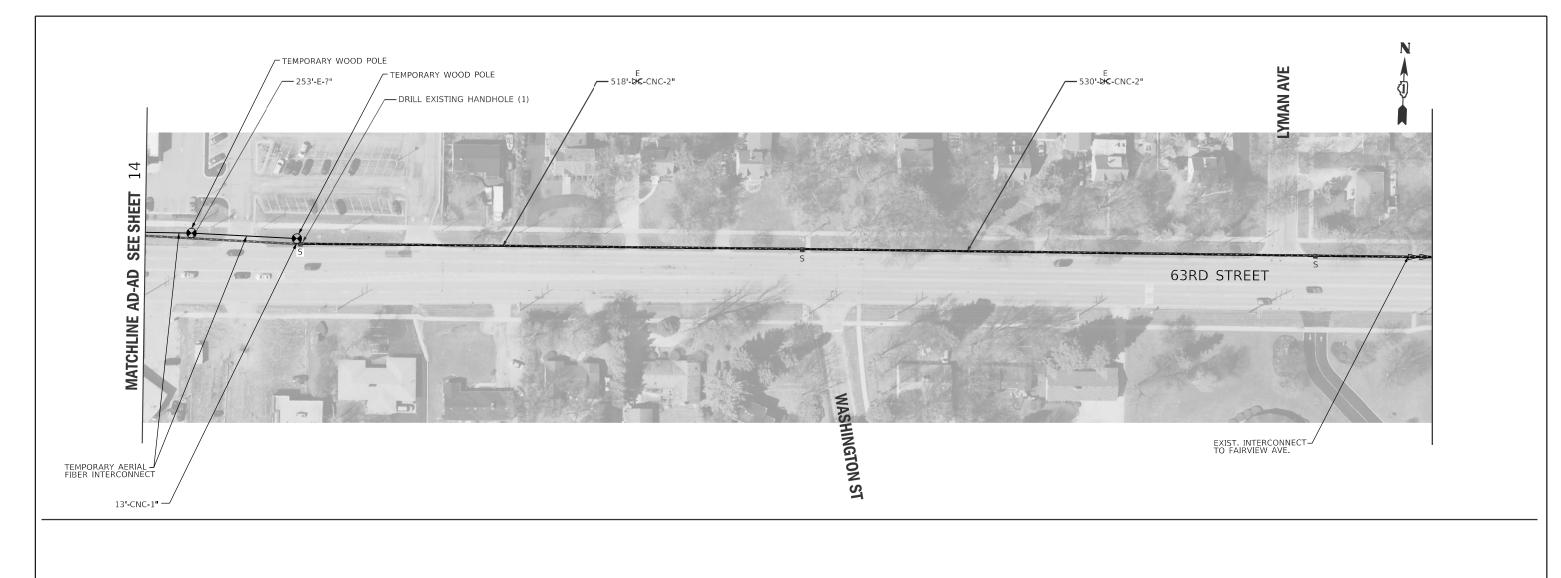
OOUEDINE OF OUANTITIES	F.A.U. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SCHEDULE OF QUANTITIES	1388	20-00288-04-TL	DUPAGE	32	14
			CONTRAC	NO. 6	1H61
SCALE: N.T.S. SHEET 7 OF 7 SHEETS STA. TO STA.		ILLINOIS	FED, AID PROJECT		

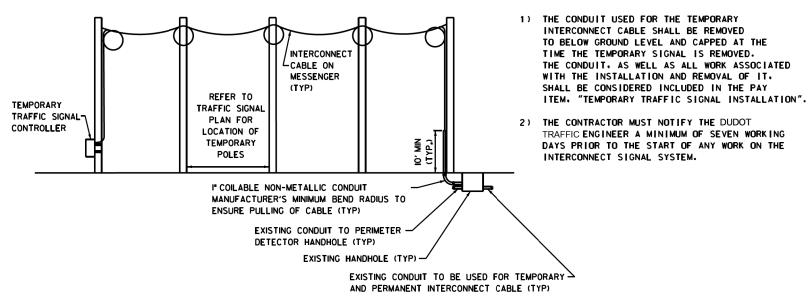


#### CONSTRUCTION NOTES

- TEMPORARY FIBER AND EXISTING FIBER SHALL BE SPLICED IN A WEATHERPROOF ENCLOSURE MOUNTED ON THE WOOD POLE IN A WORKMANLIKE MANNER. THE COONTRACTOR SHALL STAGE WORK SO THE DURATION OF INTERRUPTION TO THE COMMUNICATIONS IS MINIMAL. COST SHALL BE INCLUDED IN THE PAY ITEM "TEMPORARY TRAFFIC SIGNAL INSTALLATION."
- PULL EXISTING FIBER OPTIC CABLES AND TRACER CABLES FROM EXISTING INTERSECTION CONDUITS AND HANDHOLES AS INDICATED ON PLANS TO EXISTING SYSTEM HANDHOLES WHERE THEY ARE TO BE COILED AND STORED FOR FUTURE USE. THE EXISTING FIBER OPTIC CABLE SHALL BE SPICED TO THE TEMPORARY FIBER FOR THE TEMPORARY INTERCONNECT ACCORDING TO PLAN NOTES AND DETAIL. THE CONTRACTOR SHALL EXERCISE CARE TO ENSURE THAT ENTIRE LENGTH OF CABLE IS PROTECTED FROM DAMAGE AND LOSS AFTER REMOVAL.





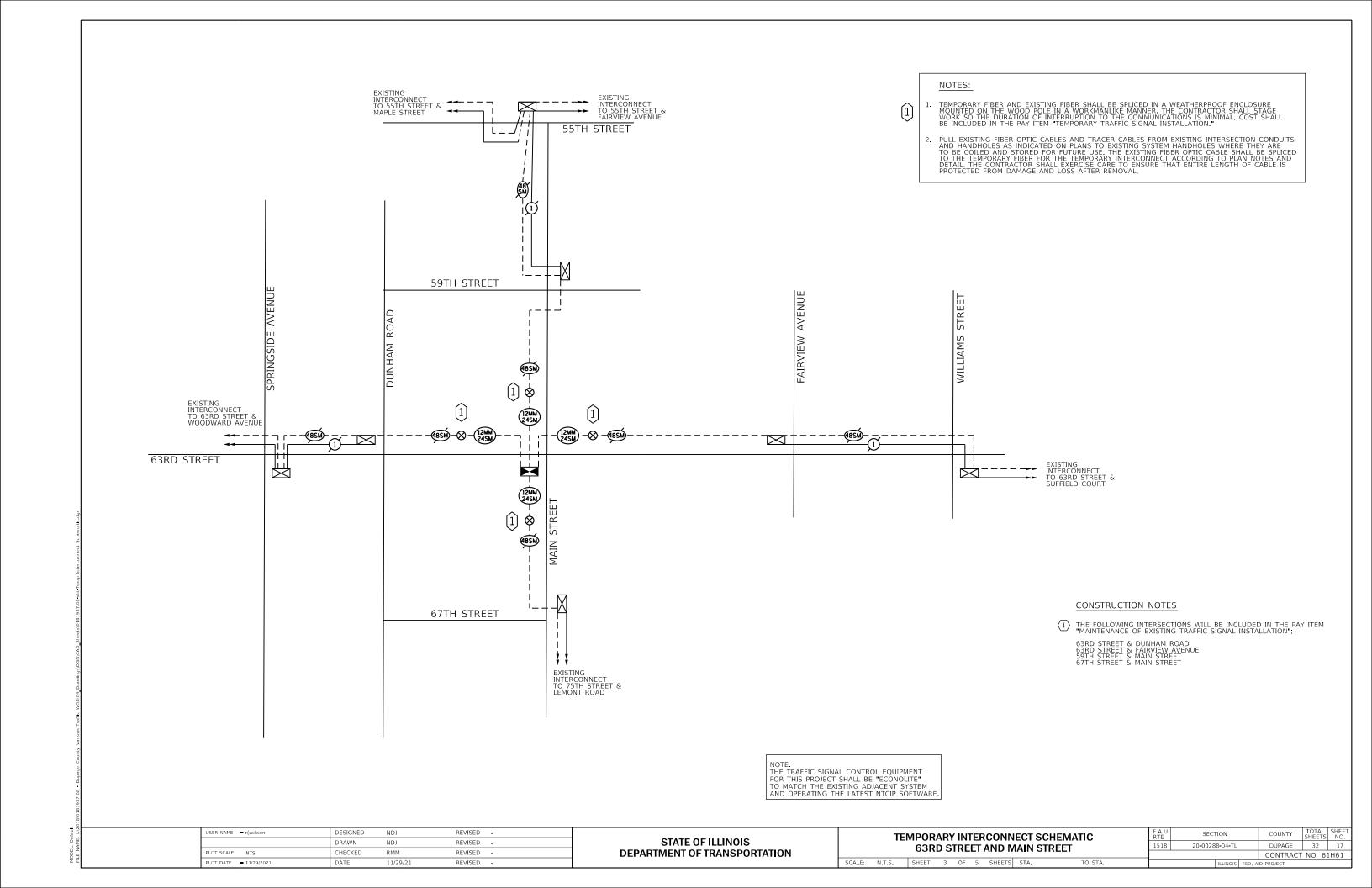


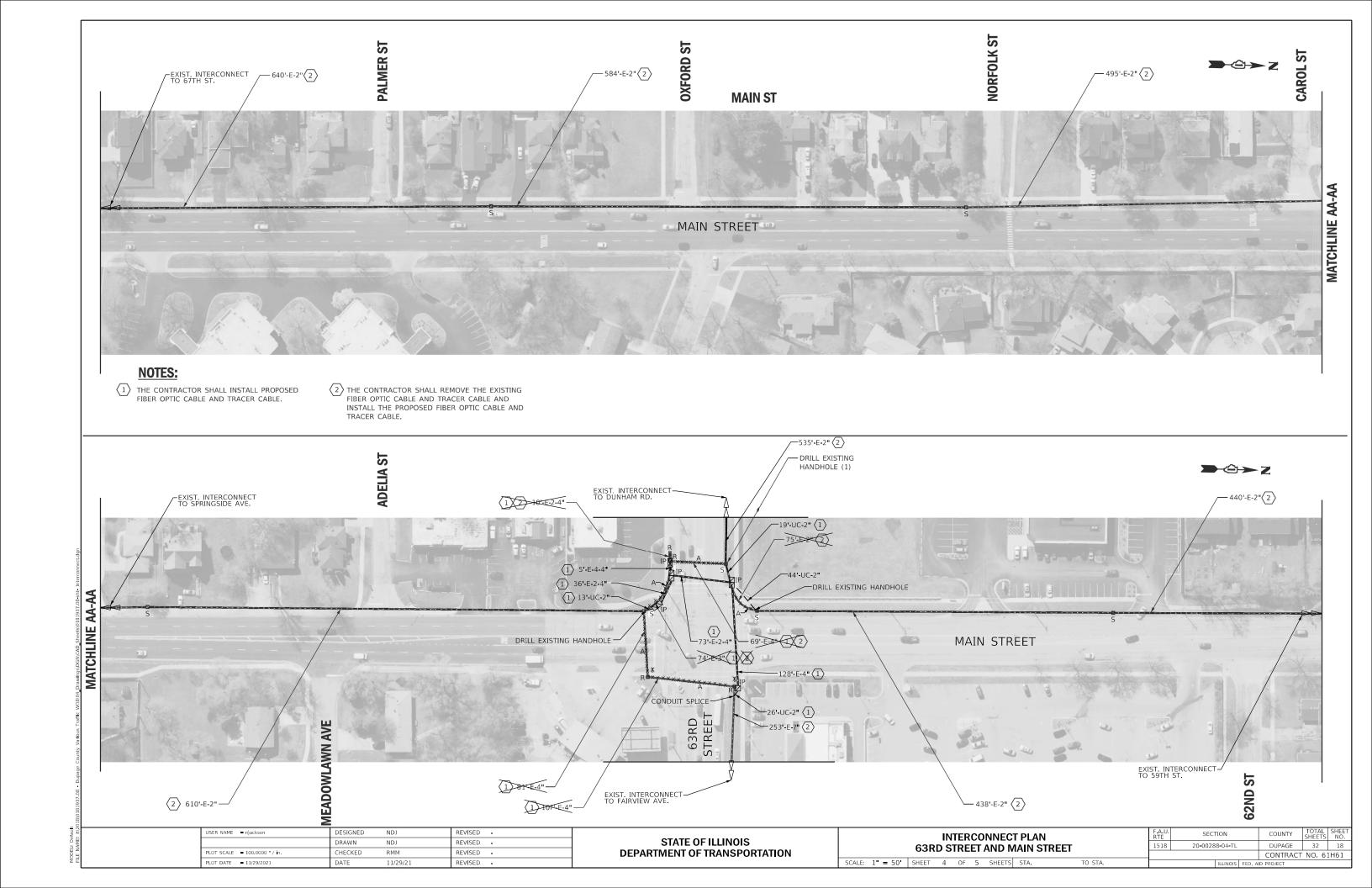
USER NAME Injackson	DESIGNED	נטא	REVISED -	
	DRAWN	NDJ	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED	RMM	REVISED -	
PLOT DATE = 11/29/2021	DATE	11/29/21	REVISED -	

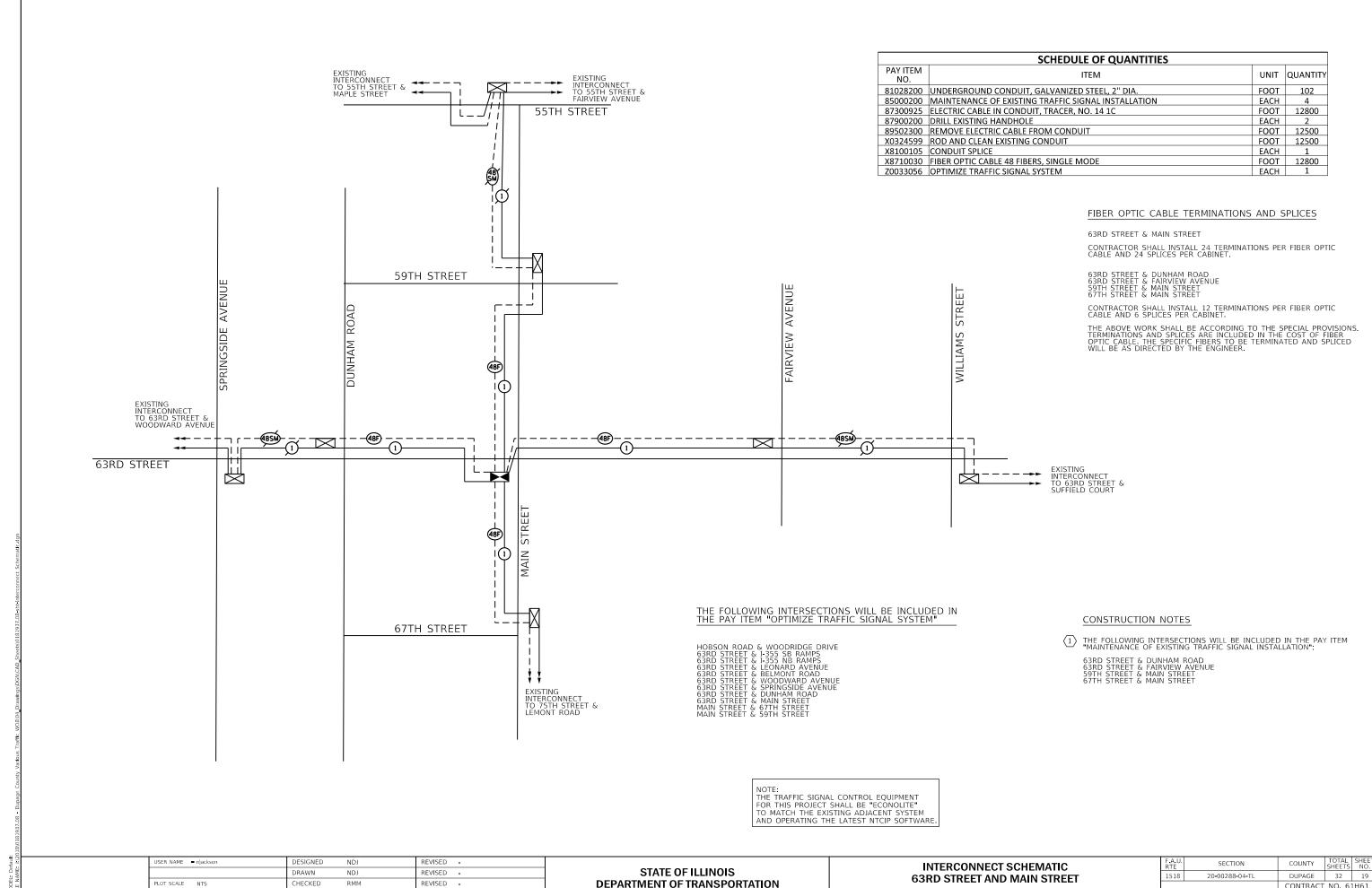
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

	TEMP	OR	ARY	/ IN	TERCO	NNEC	T PLAN	F.A.U RTE	SECTI
	63R	D S	TRE	ET	AND N	AIN S	TREET	1518	20-00288
					,				
SCALE: 1" = 50'	SHEET	2	OF	5	SHEETS	STA.	TO STA.		I

	RTE	SEC*	TION		COUNTY	SHEETS	NO.
	1518	20-0028	8-04-TL		DUPAGE	32	16
					CONTRACT	NO. 6	1H61
ı			ILLINOIS	FED, A	ID PROJECT		







PLOT DATE = 11/29/202

DATE

11/29/21

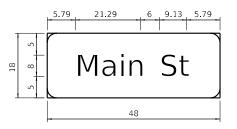
REVISED -

**DEPARTMENT OF TRANSPORTATION** 

SCALE: N.T.S. SHEET 5 OF 5 SHEETS STA. TO STA. CONTRACT NO. 61H61

## LED ILLUMINATED MAST ARM MOUNTED STREET NAME SIGN

NOTE: ALL SIGNS TO BE DOUBLE-SIDED

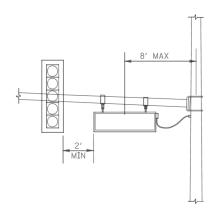


SIGN DIMENSIONS	SIGN NAME	QUANTITY	FONT: FHWA SERIES	SHEETING TYPE
48" × 18"	Main St	2	D	ZZ

 $\underset{\text{so}}{\approx} \frac{4.825}{63} = \frac{23.22}{6} = \frac{6}{9.13} = \frac{4.825}{4.825}$ 

SIGN DIMENSIONS	SIGN NAME	OUANTITY	FONT: FHWA SERIES	SHEETING TYPE
48" × 18"	63rd St	2	D	ZZ

NOTE: THE LED ILLUMINATED STREET NAME SIGN SHALL BE PENDANT MOUNT.
FOR ADDITIONAL DESIGN AND INSTALLATION INFORMATION, PLEASE SEE
DISTRICT ONE ILLUMINATED STREET NAME SIGN DETAIL.



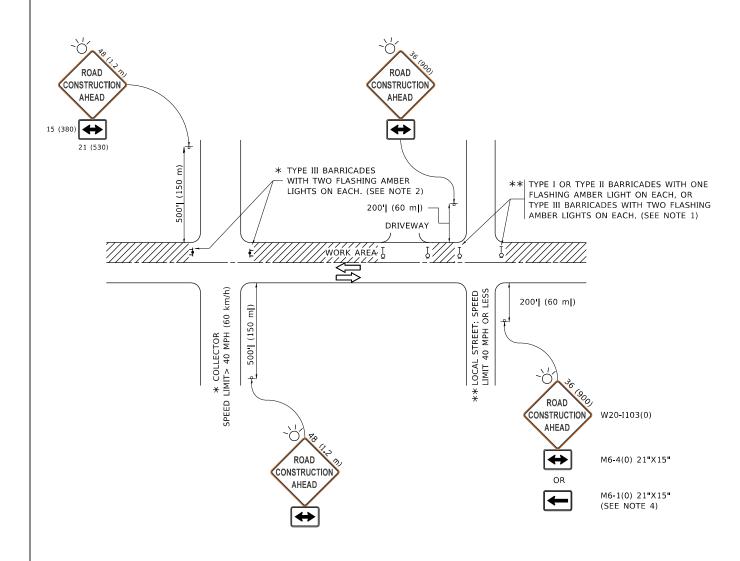
#### <u>PENDANT MOUNT</u> <u>ILLUMINATED STREET NAME SIGN</u>

NOTE: LED STREET NAME SIGN SHALL BE 2-SIDED AND PENDANT MOUNT TO THE STEEL MAST ARM ASSEMBLY.

USER NAME = njackson	DESIGNED	BPT	REVISED -
	DRAWN	NDJ	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED	RMM	REVISED -
PLOT DATE = 11/29/2021	DATE	11/29/21	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

		LATED		<b>OT</b> (				OTDEET MANAGE GLON	F.A.U. RTE	SECT	TION		
LED I	LED ILLUMINATED MAST ARM MOUNTED STREET NAME SIGN								1518	20-0028	8-04-TL		Ξ
SCALE:	N.T.S.	SHEET	1	OF	1	SHEETS	STA.	TO STA.			ILLINOIS	FED, Al	D



#### 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.
- THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY
  b) BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION
  OF THE CLOSED PORTION.
- 3. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710)
- WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE
  4. SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL
  BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

SCALE: NONE

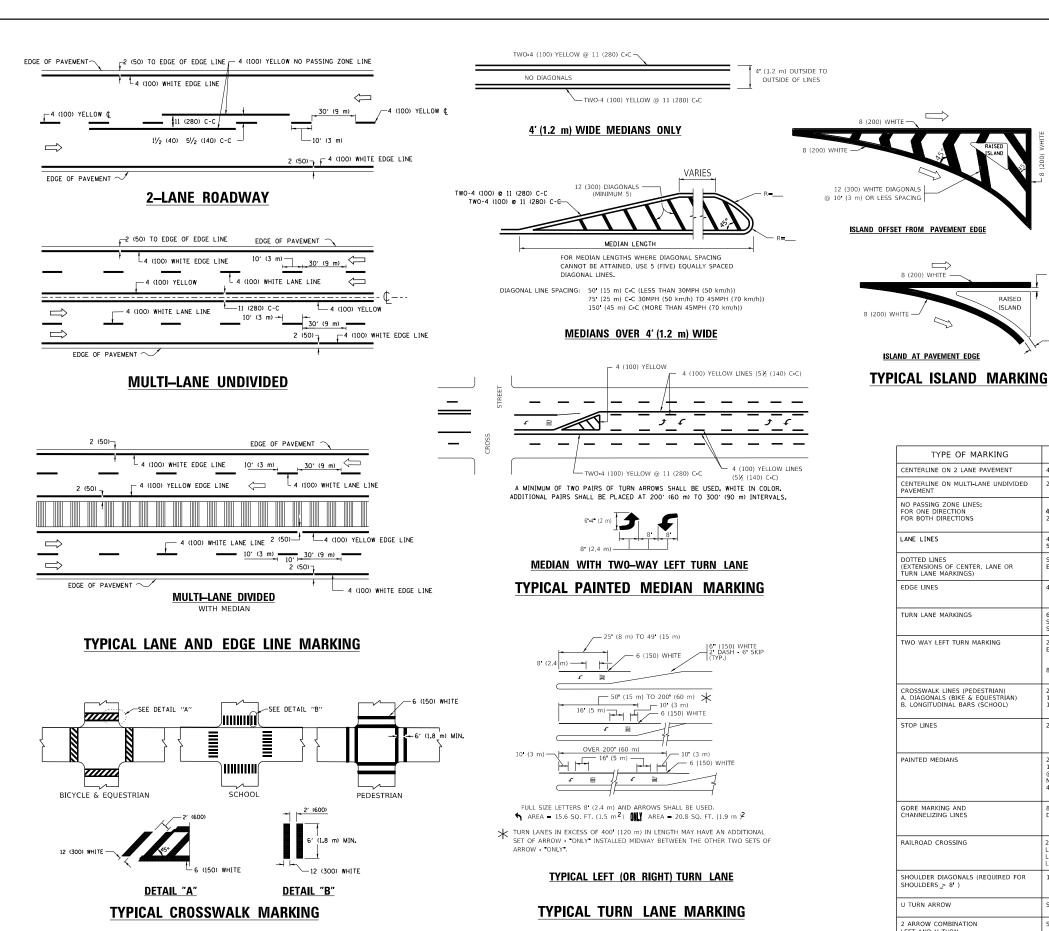
- 5. WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARD(S). THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.
- 6. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER
- THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

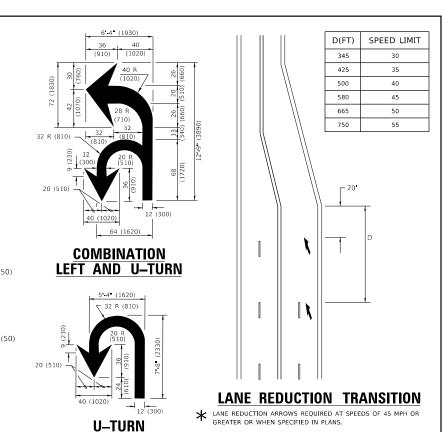
All dimensions are in inches (millimeters) unless otherwise shown.

USER NAME = footemj	DESIGNED - L.H.A.	REVISED - A. HOUSEH 10-15-96
	DRAWN -	REVISED - T. RAMMACHER 01-06-00
PLOT SCALE = 50.0000 / in.	CHECKED -	REVISED - A. SCHUETZE 07-01-13
PLOT DATE = 3/4/2019	DATE - 06-89	REVISED - A. SCHUETZE 09-15-16

STATE O	F ILLINOIS
DEPARTMENT OF	TRANSPORTATION

	TRAFF	IC (	CONTI	ROL	AND F	ROTEC	TION FOR	F.A. RTE	
sı	DF RO	ΔDS	INTE	RSF	CTIONS	AND	DRIVEWAYS	1518	
_			,			•	DINVENTATO		
	SHEET	1	OF	12	SHEETS	STA.	TO STA.		





WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
<b>4 (100)</b> 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MEDIANS IN YELLOW
6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
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
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.
24 (600)	SOLID	WHITE	PLACE 4 (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSWALK, IF PRESENT, OTHERWISE, PLACE AT DESIGNED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4* (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
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))
24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "X"=3.6 SQ. FT. (0.33 m PEACH "X"=54.0 SQ. FT. (5.0 m P
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))
SEE DETAIL	SOLID	WHITE	16.3 SF
SEE DETAIL	SOLID	WHITE	30.4 SF
	4 (100) 2 @ 4 (100) 4 (100) 2 @ 4 (100) 4 (100) 5 (125) ON FREEWAYS  SAME AS LINE BEING EXTENDED 4 (100) 6 (150) LINE: FULL SIZE LETTERS & SYMBOLS (8' (2.4m)) 2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW 2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°  24 (600)  2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS 8 (200) WITH 12 (300) DIAGONALS @ 45° 24 (600) TRANSVERSE LINES: "RR" IS 6' (1.8 m) LETTERS: 16 (400) LINE FOR "X" 12 (300) @ 45°  SEE DETAIL	4 (100) SKIP-DASH 2 @ 4 (100) SOLID  4 (100) SOLID  4 (100) SOLID  4 (100) SOLID  5 (125) ON FREEWAYS SKIP-DASH 5 (125) ON FREEWAYS SKIP-DASH 5 (125) ON FREEWAYS SKIP-DASH 5 (125) LINE: FULL SIZE LETTERS & SYMBOLS (8 (2.4m))  2 @ 4 (100) SOLID  2 @ 4 (100) SOLID  2 @ 4 (100) SOLID  2 @ 6 (150) LINE: FULL SIZE LETTERS & SOLID 12 (300) @ 45° 12 (300) @ 45° 12 (300) @ 90°  2 @ 6 (150) 12 (300) DIAGONALS @ 45° 12 (300) DIAGONALS @ 45° 4 (1.2 m) WIDE MEDIANS  8 (200) WITH 12 (300) DIAGONALS @ 45° 4 (1.2 m) WIDE MEDIANS  8 (200) WITH 12 (300) DIAGONALS @ 45° 10 DIAGONALS @ 45° 5 OLID  24 (600) TRANSVERSE LINES: *RR* IS 6' (1.8 m) LETTERS: 16 (400) LINE FOR X* 12 (300) @ 45° 5 OLID  SEE DETAIL  SOLID	4 (100) SKIP-DASH YELLOW  2 @ 4 (100) SOLID YELLOW  5 (125) ON FREEWAYS SKIP-DASH WHITE  SAME AS LINE BEING EXTENDED  6 (150) LINE: FULL SIZE LETTERS & SYMBOLS (8 (2.4m))  2 @ 4 (100) SOLID WHITE  6 (150) LINE: FULL SIZE LETTERS & SOLID WHITE  8 (2.4m) LEFT ARROW WHITE  2 @ 4 (100) SKIP-DASH AND SOLID WHITE  2 @ 6 (150) WHITE  3 SOLID WHITE  4 (600) TRANSVERSE LINE STERS: 16 (400) LINE FOR "X"  12 (300) @ 45° SOLID WHITE - RIGHT YELLOW - LEFT  SEE DETAIL SOLID WHITE

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

RAISED

DUPAGE 32 22

CONTRACT NO. 61H61

SECTION DISTRICT ONE 20-00288-04-TL 1518 TYPICAL PAVEMENT MARKINGS SHEET 2 OF 12 SHEETS STA

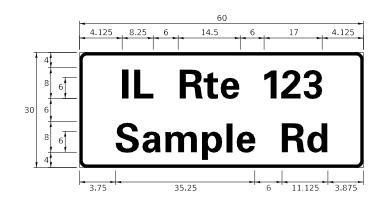
USER NAME = footemj	DESIGNED -	EVERS	REVISED	-	C. JUCIUS 09-09-09
	DRAWN -		REVISED	-	C. JUCIUS 07-01-13
PLOT SCALE = 50.0000 / in.	CHECKED -		REVISED	-	C. JUCIUS 12-21-15
BLOT DATE - 2/4/2010	DATE	02.10.00	DEMICED		C IIICTUS 04 12 16

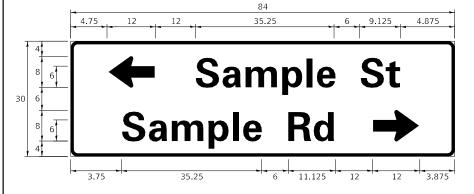
 $m{\star}$  MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

#### SIGN PANEL - TYPE 1 OR TYPE 2

## 11.125 3.875 Sample Rd





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

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

NAME	ABBREVATION	WIDTH	(INCH)
INAME	ADDREVATION	SERIES "C"	SERIES "D"
AVENUE	Ave	15.000	18.250
BOULEVARD	Blvd	17.125	20.000
CIRCLE	Cir	11.125	13.000
COURT	Ct	8. 250	9.625
DRIVE	Dr	8.625	10.125
HIGHWAY	Hwy	18.375	22.000
ILLINOIS	ΙL	7.000	8.250
LANE	Ln	9.125	10.750
PARKWAY	Pkwy	23. 375	27.375
PLACE	PΙ	7. 125	7. 750
ROAD	Rd	9.625	11.125
ROUTE	Rte	12.625	14.500
STREET	St	8.000	9.125
TERRACE	Ter	12.625	14.625
TRAIL	Tr	7. 750	9.125
UNITED STATES	US	10.375	12.250

#### **GENERAL NOTES**

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

LOCAL SUPPLIERS: PARTS LISTING:

- I.O. HERBERT COMPANY, INC. SIGN CHANNEL MIDLOTHIAN, VA SIGN SCREWS

SELF TAPPING WITH NEOPRENE WASHER - WESTERN REMAC, INC. BRACKETS WOODRIDGE, IL

PART #HPN034 (UNIVERSAL)

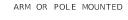
1/4" x 14 x 1" H.W.H. #3

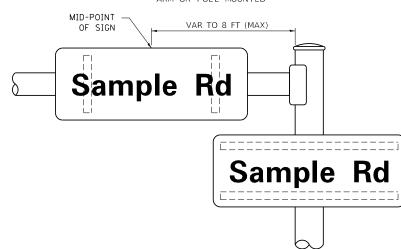
PART #HPN053 (MED. CHANNEL)

CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING

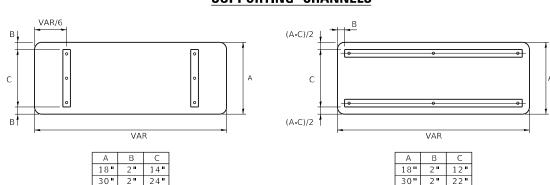
OTHER BRANDS OF MOUNTING HARDWARE ARE ACCEPTABLE, BASED UPON THE DEPARTMENT'S APPROVAL AND COMPATIBILITY WITH THE CHANNEL/BRACKET OF THE ABOVE PRODUCT.

#### **MOUNTING LOCATION**





#### **SUPPORTING CHANNELS**



#### STANDARD ALPHABETS SPACING CHART

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

	LEFT	WIDTH	RIGHT		LEFT	WIDTH	RIGHT
CHARACTER	SPACING (INCH)	(INCH)	SPACING (INCH)	CHARACTER	SPACING (INCH)	(INCH)	SPACIN (INCH)
Α	0.240	5.122	0.240	А	0.240	6.804	0.240
В	0.880	4.482	0.480	В	0.960	5.446	0.400
С	0.720	4.482	0.720	С	0.800	5.446	0.800
D	0.880	4.482	0.720	D	0.960	5.446	0.800
E F	0.880	4.082	0.480	E F	0.960	4.962	0.400
G	0.880 0.720	4. 082 4. 482	0.240	G	0.960 0.800	4. 962 5. 446	0.240
Н	0.880	4.482	0.880	Н	0.960	5.446	0.960
I	0.880	1.120	0.880	I	0.960	1.280	0.960
J	0.240	4.082	0.880	J	0.240	5.122	0.960
K	0.880	4.482	0.480	K	0.960	5.604	0.400
L	0.880	4.082	0.240	L	0.960	4.962	0.240
M N	0.880	5. 284	0.880	M N	0.960	6.244	0.960
0	0.880 0.720	4.482 4.722	0.880 0.720	0	0.960 0.800	5. 446 5. 684	0.960
P	0.880	4.482	0.720	P	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
T	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 W	0.240 0.240	4.962 6.084	0.240	V W	0.240 0.240	6.084 7.124	0.240
X	0.240	4. 722	0.240	X	0.400	5.446	0.400
Y	0.240	5.122	0.240	Y	0.240	6.884	0.240
Z	0.480	4.482	0.480	Z	0.400	5.446	0.400
а	0.320	3.842	0.640	a	0.400	4.562	0.720
Ь	0.720	4.082	0.480	b	0.800	4.802	0.480
С	0.480	4.002	0.240	С	0.480	4.722	0.240
d	0.480	4.082	0.720	d	0.480	4.802	0.800
e f	0.480 0.320	4. 082 2. 480	0.320	e f	0.480 0.320	4. 722 2. 882	0.320
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 0.720	6. 724 4. 082	0.640	m n	0.800 0.800	7. 926 4. 722	0.720
0	0.480	4.082	0.480	0	0.480	4. 882	0.480
P	0.720	4.082	0.480	р	0.800	4. 802	0.480
P	0.480	4.082	0.720	q	0.480	4.802	0.800
r	0.720	2.642	0.160	r	0.800	3.042	0.160
S	0.320	3. 362	0.240	S	0.320	3. 762	0.240
+	0.080 0.640	2.882 4.082	0.080	t	0.080 0.720	3. 202 4. 722	0.080
u V	0.640	4. 722	0.120	u v	0. 120	5.684	0.800
w	0.160	7. 524	0.160	w	0.160	9.046	0.160
×	0.000	5. 202	0.000	X	0.000	6. 244	0.000
У	0.160	4.962	0.160	у	0.160	6.004	0.160
Z	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	0.960
5	0.480	4.482	0.480	5	0.800	5.446	0.800
6	0.720	4.482	0.720	6	0.800	5.446	0.800
7	0.240	4.482	0.720	7	0.560	5.446	0.560
8	0.480	4.482	0.480	8	0.800	5.446	0.800
9	0.480	4.482	0.480	9	0.800	5.446	0.800
0	0.720	4. 722	0.720	0	0.800	5.684	0.800
-	0.240	2.802	0.240	-	0.240	2.802	0.240

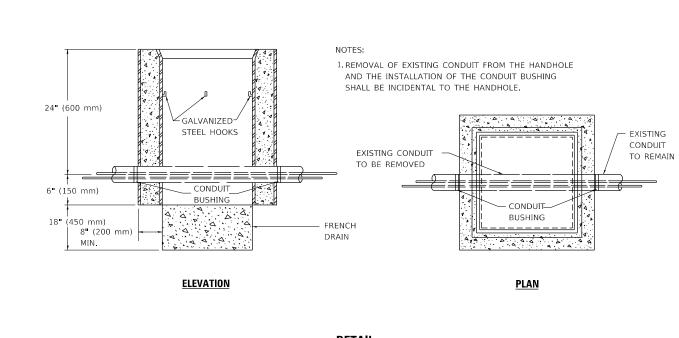
DUPAGE 32 23

CONTRACT NO. 61H61

JSER NAME - footemj DESIGNED - LP/IP REVISED - LP 07/01/2015 DRAWN - LP REVISED -CHECKED - IP REVISED -LOT DATE = 3/4/2019 REVISED -

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

SECTION DISTRICT ONE 20-00288-04-TL 1518 MAST ARM MOUNTED STREET NAME SIGNS TS-02 SHEET 3 OF 12 SHEETS STA.



# DETAIL HANDHOLE TO INTERCEPT EXISTING CONDUIT

 USER NAME
 - tootemj
 DESIGNED
 REVISED
 10-01-00

 DRAWN
 REVISED

 PLOT SCALE
 - 50,0000 ' / in.
 CHECKED
 REVISED

 PLOT DATE
 - 3/4/2019
 DATE
 REVISED

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION HANDHOLE TO INTERCEPT EXISTING CONDUIT

ALE: SHEET 4 OF 12 SHEETS STA. TO STA.

### TRAFFIC SIGNAL LEGEND

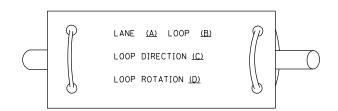
(NOT TO SCALE)

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	P	JUNCTION BOX  RAILROAD CANTILEVER MAST ARM  RAILROAD FLASHING SIGNAL  RAILROAD CROSSING GATE  RAILROAD CROSSBUCK  RAILROAD CONTROLLER CABINET  UNDERGROUND CONDUIT (UC), GALVANIZED STEEL		□ X <del>QEXX</del> X•X X• <del>X</del> ¥	-(P) PROGRAMMABLE SIGNAL HEAD -(RB) RETROREFLECTIVE BACKPLATE  PEDESTRIAN SIGNAL HEAD AT RAILROAD INTERSECTIONS  PEDESTRIAN SIGNAL HEAD	P RB	Y G Y G AY AY AY AF
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	<b>■</b>	RAILROAD CROSSING GATE  RAILROAD CROSSBUCK  RAILROAD CONTROLLER CABINET  UNDERGROUND CONDUIT (UC), GALVANIZED STEEL	<del>202</del> -	<b>10}</b> ≆	AT RAILROAD INTERSECTIONS PEDESTRIAN SIGNAL HEAD	P RB	P RB
	<b>■</b>	RAILROAD CROSSBUCK  RAILROAD CONTROLLER CABINET  UNDERGROUND CONDUIT (UC), GALVANIZED STEEL	₹ <b>⊠</b>	*	AT RAILROAD INTERSECTIONS PEDESTRIAN SIGNAL HEAD	<del></del>	
0— 0—	•**	RAILROAD CONTROLLER CABINET  UNDERGROUND CONDUIT (UC), GALVANIZED STEEL		Þ€	PEDESTRIAN SIGNAL HEAD	<del></del>	
0-X		GALVANIZED STEEL		_			I ■ I C I
0 <del>)</del>					WITH COUNTDOWN TIMER	© C © D	<b>₽</b> C <b>★</b> D
					ILLUMINATED SIGN "NO LEFT TURN"/"NO RIGHT TURN"		
$\overline{\mathcal{C}}$	<ul> <li>● BM</li> </ul>	TETHER WIRE, AND CABLE SYSTEM ITEM	S	SP	NUMBER OF CONDUCTORS, ELECTRIC	<u></u>	
	• • • • • • • • • • • • • • • • • • •	INTERSECTION ITEM	Ī	IP	CABLE NO. 14, UNLESS NOTED OTHERWISE. ALL DETECTOR LOOP CABLE TO BE SHIELDED		
⊗	•	REMOVE ITEM		R	GROUND CABLE IN CONDUIT, NO. 6 SOLID COPPER (GREEN)		<del></del>
	>-	RELOCATE ITEM		RL	ELECTRIC CABLE IN CONDUIT, TRACER	<u>(1)</u>	
+>	+>	ABANDON ITEM		Α		,	
-⊳ <sup>P</sup> +⊳ <sup>P</sup>	- <b>▶</b> P + <b>▶</b> P	FOUNDATION TO BE REMOVED		RCF	COAXIAL CABLE		— <u>C</u> —
o-⊳ <sup>F</sup> o-⊳ <sup>FS</sup>	•► FS FS	MAST ARM POLE AND FOUNDATION TO BE REMOVED		RMF	VENDOR CABLE	(v)	<u></u>
□+> <sup>F</sup> □+> <sup>FS</sup>	FF FS	SIGNAL POST AND FOUNDATION TO BE REMOVED		RPF	COPPER INTERCONNECT CABLE, NO. 18, 3 PAIR TWISTED, SHIELDED	(6#18)	<del></del>
-0	-1	DETECTOR LOOP, TYPE I			FIBER OPTIC CABLE -NO. 62.5/125, MM12F		
	⊚ ⊚ APS	PREFORMED DETECTOR LOOP	PP	PP	-NO. 62.5/125, MM12F SM12F -NO. 62.5/125, MM12F SM24F		
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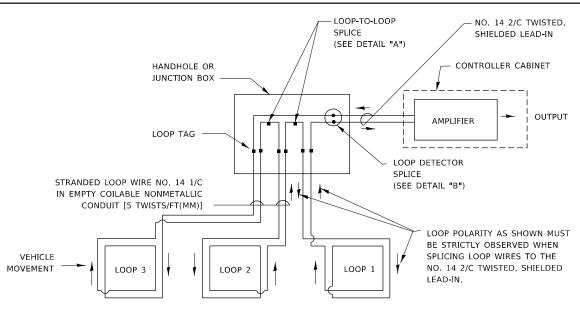
#### LOOP DETECTOR NOTES

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

#### LOOP LEAD-IN CABLE TAG

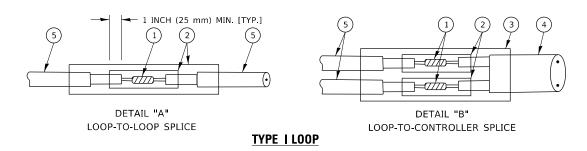


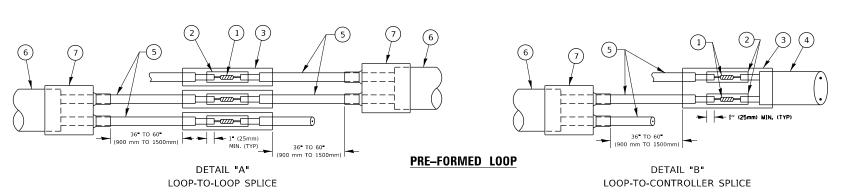
- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.



#### **DETECTOR LOOP WIRING SCHEMATIC**

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





#### LOOP DETECTOR SPLICE

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

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

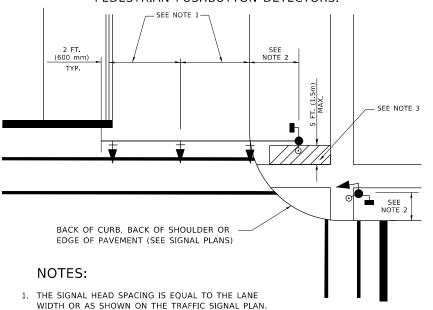
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#### TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

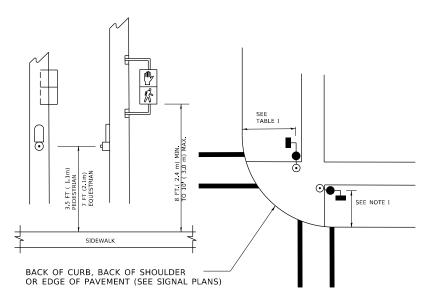
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND

PEDESTRIAN PUSHBUTTON DETECTORS.



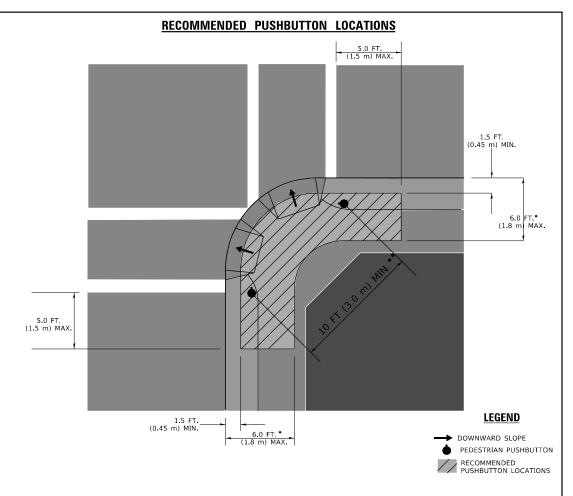
- 2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
- PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR THE SIGNAL POST.
- THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK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

# PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



#### NOTES:

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



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

#### NOTES:

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

#### TRAFFIC SIGNAL EQUIPMENT OFFSET

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

#### NOTES:

- 1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
- 2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
- 3. MINIMUM DISTANCE FROM THE EDGE OF PAVEMENT TOTHE ROADWAY SIDE OF THE FOUNDATION.
- 4. ANY CHANGES TO THE OFFSETS OF THE FOUNDATIONS, FROM THE MINIMUM DISTANCES LISTED IN THE "TRAFFIC SIGNAL EQUIPMENT OFFSET" CHART AND THE TRAFFIC SIGNAL INSTALLATION PLAN, COULD EFFECT THE PLACEMENT OF THE SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND THE PEDESTRIAN PUSHBUTTONS. THE SIGNAL HEAD PLACEMENT ON THE MAST ARMS SHALL REMAIN AS PER THE TRAFFIC SIGNAL INSTALLATION PLAN AND THE "TRAFFIC SIGNAL MAST ARM AND SIGNAL POST" DETAIL ABOVE. THE PROPOSED MAST ARM LENGTHS MAY NEED TO BE REVISED TO MEET THE ABOVE REQUIREMENTS. THE PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS MUST MEET THE REQUIREMENTS UNDER THE DETAILS ON THIS SHEET.

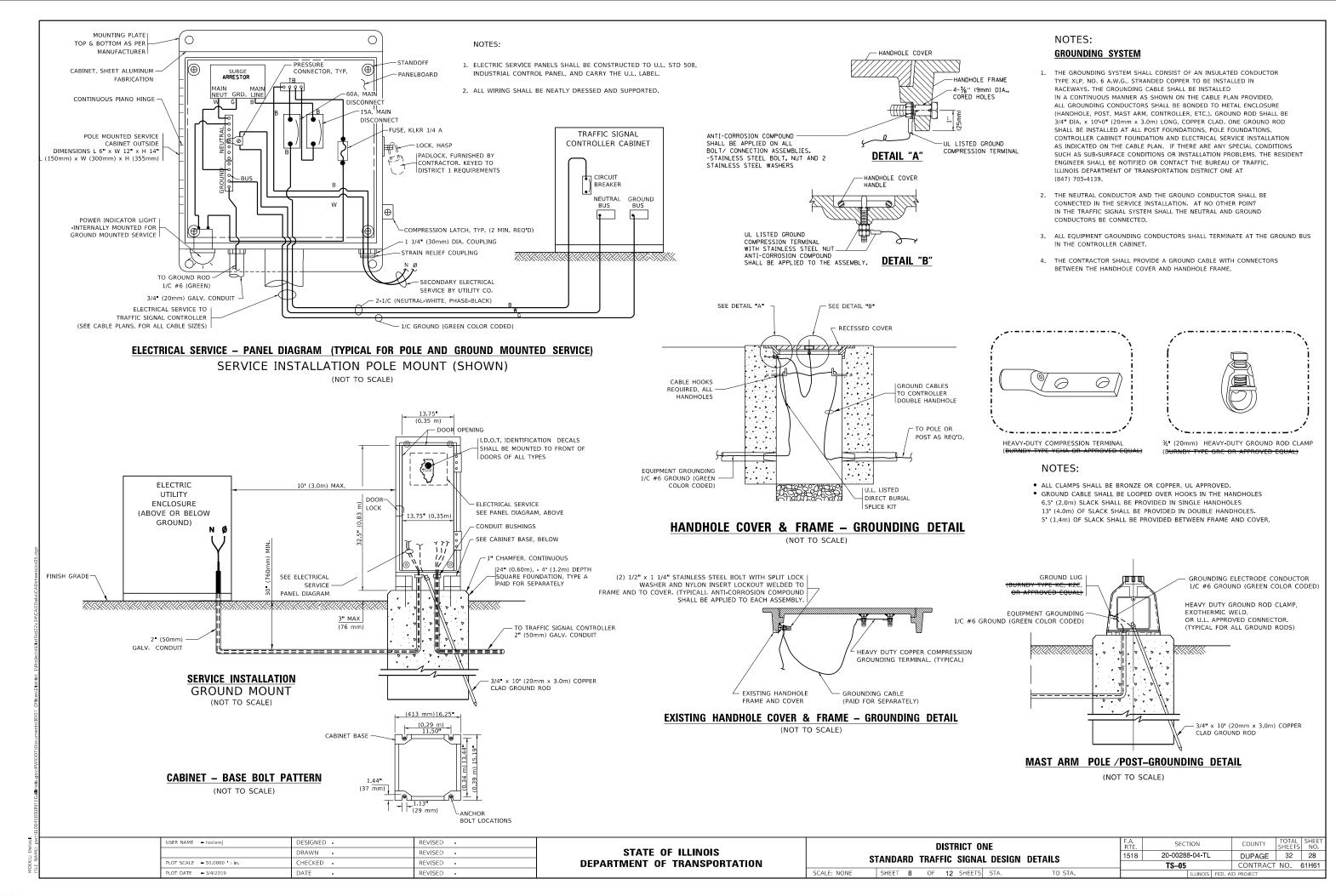
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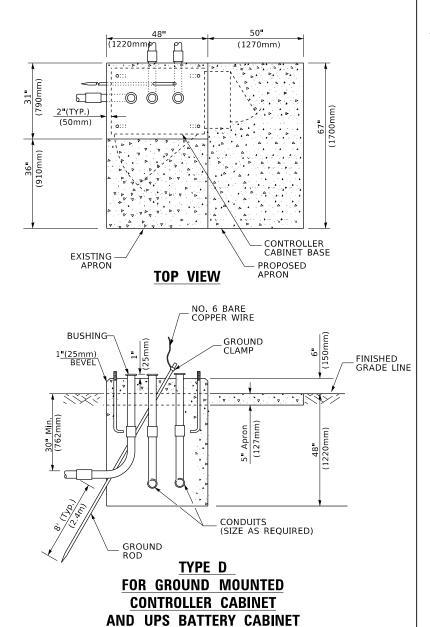
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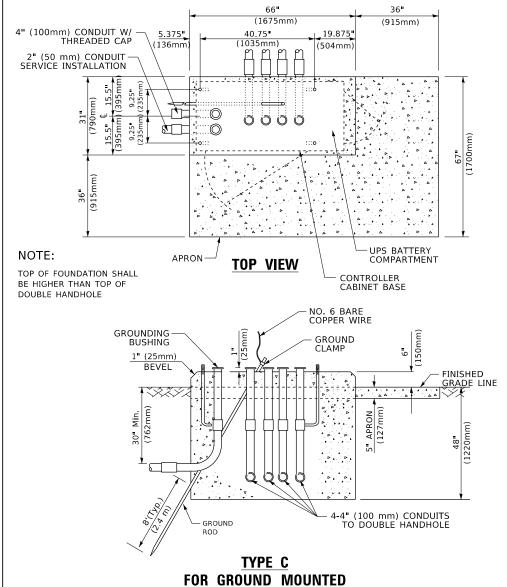
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE	F.A. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STANDARD TRAFFIC SIGNAL DESIGN DETAILS		20-00288-04-TL	DUPAGE	32	27
STANDARD TRAFFIC SIGNAL DESIGN DETAILS		TS-05	CONTRACT	NO.	61H61
SHEET 7 OF 12 SHEETS STA. TO STA.		ILLINOIS FED A	ID PROJECT		

MODEL: Default

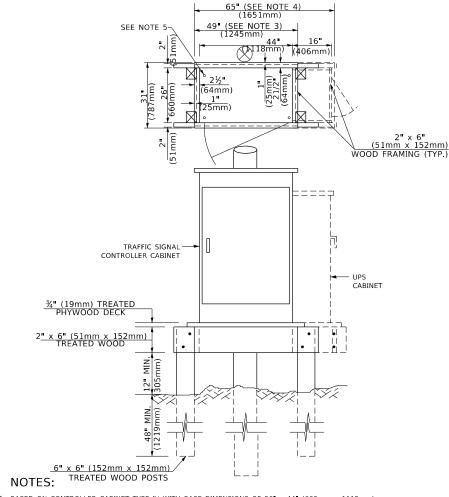






SUPER P (TYPE IV) AND SUPER R (TYPE V)

**CONTROLLER CABINETS** 



- BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm).
   ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED
- BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16 x 25 (406mm x 635mm).
   ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
- 3. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
- 4. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
- 5. DRILLED HOLES THROUGH THE PLATFORM BASE TO MATCH THE CONTROLLER CABINET BOLT TEMPLATE. FASTEN THE CONTROLLER CABINET TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS AND NUTS.
- 6. FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION..

## TEMPORARY SIGNAL CONTROLLER WOOD SUPPORT PLATFORM

CABLE SLACK LENGTH	FEET	METER
HANDHOLE	6.5	2.0
DOUBLE HANDHOLE	13.0	4.0
SIGNAL POST	2.0	0.6
MAST ARM	2.0	0.6
CONTROLLER CABINET	1.5	0.5
FIBER OPTIC AT CABINET	13.0	4.0
ELECTRIC SERVICE AT (CABINET OR SERVICE LOCATION)	1.5	0.5
GROUND CABLE (SIGNAL POST, MAST ARM, CABINET)	1.5	0.5
GROUND CABLE (BETWEEN FRAME AND COVER)	5.0	1.6
	5.0	1.6

VERTICAL CABLE LENGTH	FEET	METER
MAST ARM POLE ( MAST ARM MOUNTED SIGNAL HEAD)		
(L = MAST ARM LENGTH - DISTANCE TO SIGNAL HEAD FROM END OF ARM)	20.0+L	6.0+L
BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE)	13.0	4.0
PEDESTRIAN PUSH BUTTON	6.0	2.0
SERVICE INSTALLATION POLE MOUNT TO SERVICE DROP	13.5	4.1
SERVICE INSTALLATION POLE MOUNT TO GROUND	13.5	4.1
SERVICE INSTALLATION GROUND MOUNT	6.0	2.0
FOUNDATION (SIGNAL POST, MAST ARM POLE, CONTROLLER CABINET, SERVICE-GROUND MOUNT)	3.0	1.0

#### **VERTICAL CABLE LENGTH**

CABLE SLACK

FOUNDATION	DEPTH
TYPE A - Signal Post	4'-0" (1.2m)
TYPE C - CONTROLLER W/ UPS	4'-0" (1.2m)
TYPE D - CONTROLLER	4'-0" (1.2m)
SERVICE INSTALLATION, GROUND MOUNT, TYPE A - SQUARE	4'-0" (1.2m)

#### DEPTH OF FOUNDATION

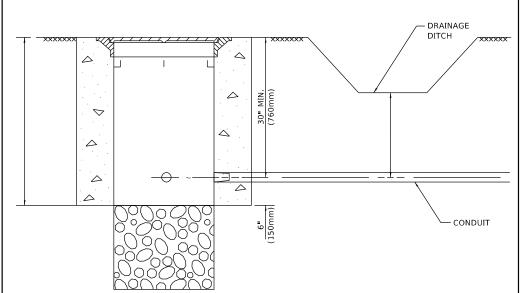
Mast Arm Length	① Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to	13'-6" (4.1 m)	30'' (750mm)	24" (600mm)	8	6(19)
30' (9.1 m) and less than 40' (12.2 m)	11'-0'' (3.4 m)	36'' (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	13'-0'' (4.0 m)	36" (900mm)	30'' (750mm)	12	7(22)
Greater than or equal to 50′ (15.2 m) and up to 55′ (16.8 m)	15'-0'' (4.6 m)	36'' (900mm)	30'' (750mm)	12	7(22)
Greater than or equal to 56′ (16.8 m) and less than 65′ (19.8 m)	21'-0'' (6.4 m)	42" (1060mm)	36'' (900mm)	16	8(25)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	25'-0'' (7 <b>.</b> 6 m)	42'' (1060mm)	36'' (900mm)	16	8(25)

#### NOTES:

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

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

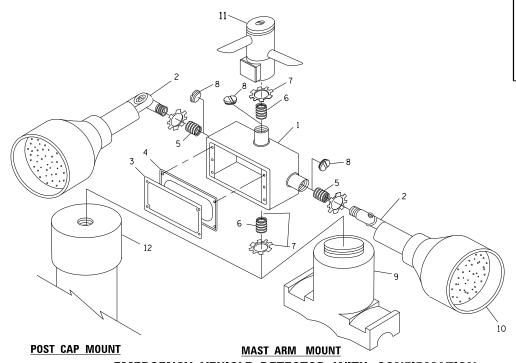
USER NAME = footemj	DESIGNED -	REVISED -	·		DISTRICT O	NF	F.A. RTF	SECTION	COUNTY TOTAL SHEET
	DRAWN -	REVISED -	STATE OF ILLINOIS	STANDARD TRAFFIC SIGNAL DESIGN DETAILS			1518	20-00288-04-TL	DUPAGE 32 29
PLOT SCALE = 50.0000 / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION	3	STANDARD TRAFFIC SIGNA	L DESIGN DETAILS		TS-05	CONTRACT NO. 61H61
PLOT DATE = 3/4/2019	DATE -	REVISED -		SCALE: NONE	SHEET 9 OF 12 SHEETS	STA. TO STA.		ILLINOIS FED.	AID PROJECT



#### NOTES:

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

#### HANDHOLE WITH MINIMUM CONDUIT DEPTH



NT MAST ARM MOUNT

EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION

BEACON MOUNTING DETAIL

 USER NAME
 Footemy
 DESIGNED
 REVISED

 DRAWN
 REVISED

 PLOT SCALE
 - 50,0000 ° / in.
 CHECKED
 REVISED

 PLOT DATE
 - 3/4/2019
 DATE
 REVISED

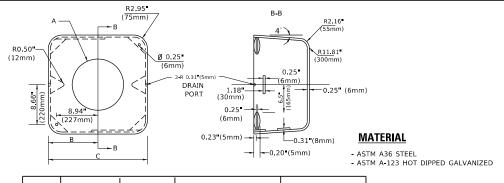
(1675mm) (915mm) 19.875" (136mm) (1035mm) (504mm) **~**d∷ 0 CONTROLLER CABINET BASE PROPOSED-**TOP VIEW** APRON -NO. 3 DOWEL 18" (450mm NO. 6 BARE COPPER WIRE LONG (8 REQ.) BUSHING-\_GROUND CLAMP EXISTING-ANCHOR BOLTS 1"(25mm) BEVEL GRADE LINE (300 mm)(300 mm)'(225mm) -EXISTING CONDUITS EXISTING GROUND ROD MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION

(NOT TO SCALE)

# ITEM NO. IDENTIFICATION 1 OUTLET BOX- GALV. 21 CU.IN. (0.000344 CU-M) 2 LAMP HOLDER AND COVER 3 OUTLET BOX COVER 4 RUBBER COVER GASKET 5 REDUCING BUSHING 6 ¾"(19 mm) CLOSE NIPPLE 7 ¾"(19 mm) LOCKNUT 8 ¾"(19 mm) HOLE PLUG 9 SADDLE BRACKET - GALV. 10 6 WATT PAR 38 LED FLOOD LAMP 11 DETECTOR UNIT 12 POST CAP [18 FT. (5.4 m) POST MIN.]

#### NOTES:

- ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
- ITEM #1- OZ/GEDNEY F3X-1-50 OR EQUIVALENT
   ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALE
   ITEM #9- "DAND-IT" SADDLE BRACKET OR EQUIVALENT
- 3. WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 3/4 "(19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.

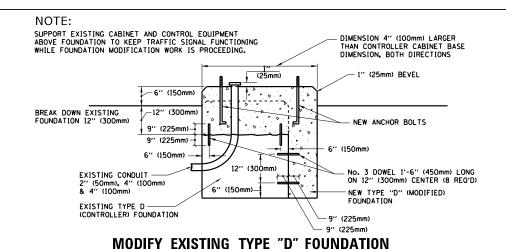


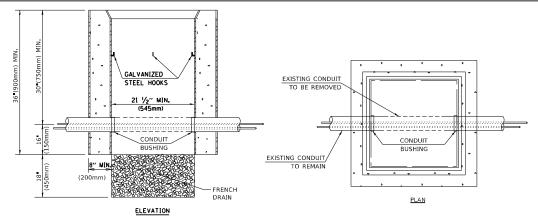
Α	В	С	HEIGHT	WEIGHT		
VARIES 9.5*(241mm)		19"(483mm)	7" (178mm) - 12" (300mm)	53 lbs (24kg)		
VARIES	10.75 (273mm)	21.5"(546mm)	7" (178mm) - 12" (300mm)	68 lbs (31 kg)		
VARIES 13.0 (330mm)		26"(660mm)	7" (178mm) - 12" (300mm)	81 lbs (37 kg)		
VARIES	18.5"(470mm)	37"(940mm)	7" (178mm) - 12" (300mm)	126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

#### **SHROUD**

#### NOTES:

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



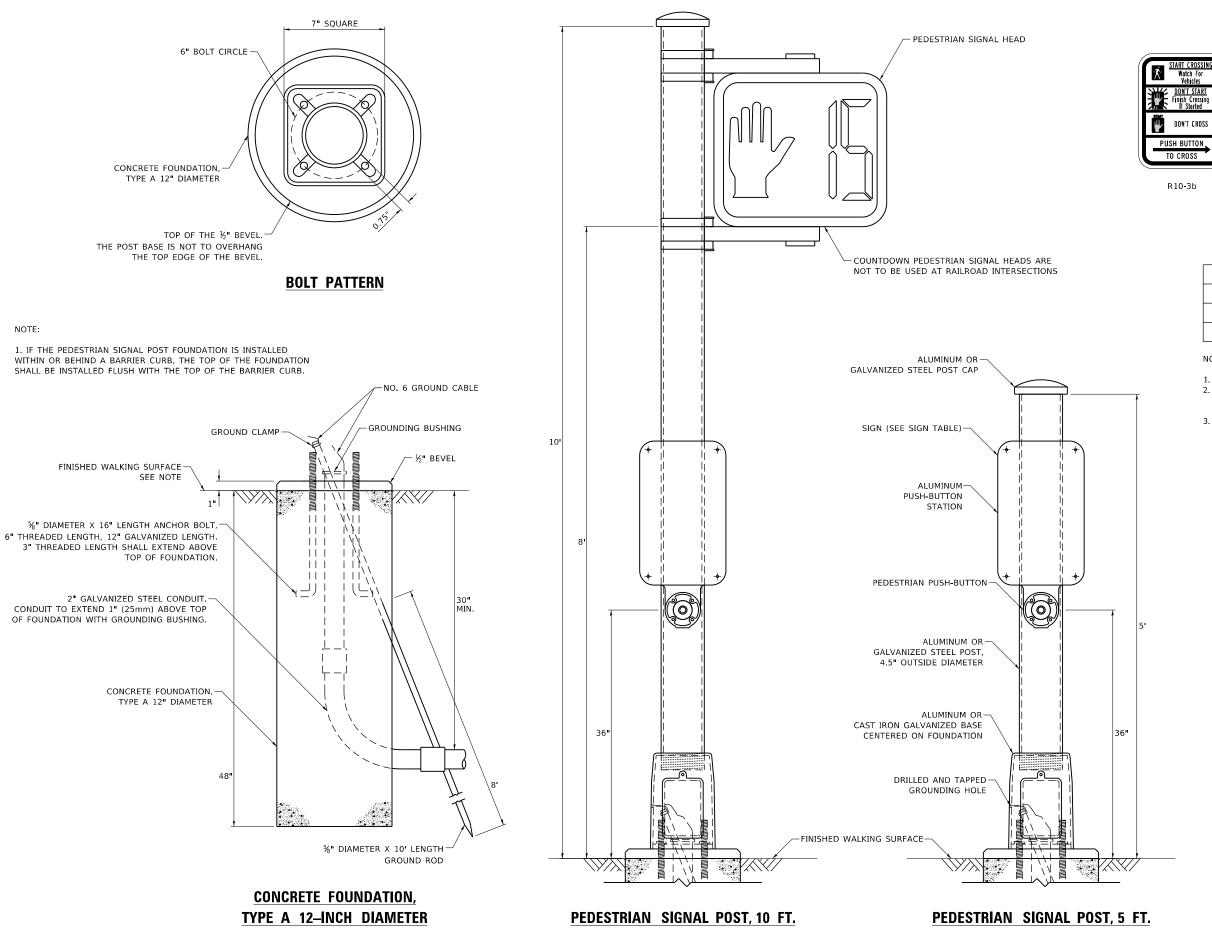


#### NOTES:

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

#### HANDHOLE TO INTERCEPT EXISTING CONDUIT

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION



#### SIGN TABLE

DON'T CROSS

PUSH BUTTON

TO CROSS

R10-3d

TIME REMAININ To Finish Crossin

DON'T CROSS

PUSH BUTTON,

R10-3e

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

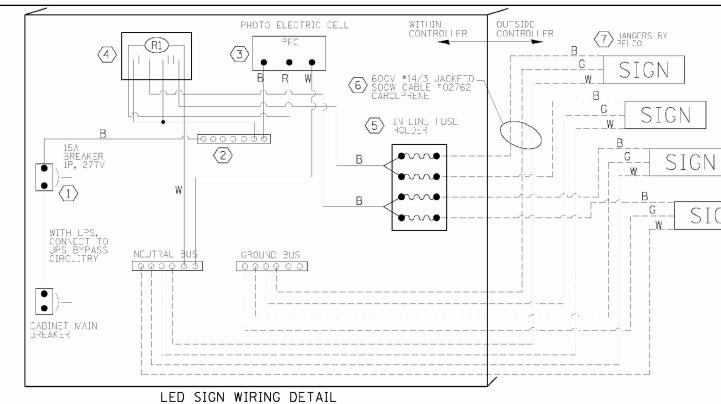
#### NOTES:

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

USER NAME = plascenciai	DESIGNED	-	IP	REVISED	-	10/15/2020
	DRAWN	-	IP	REVISED	-	
PLOT SCALE = 100.0000 ' / in.	CHECKED	-	LP	REVISED	-	
PLOT DATE = 11/17/2020	DATE	-	10/15/2018	REVISED	-	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT O	DISTRICT ONE F.A. RTE. SECTION							
STANDARD TRAFFIC SIGNAL DESIGN DETAILS								
STANDAND THAITIC SIGNA	L DESIGN	DETAILS		TS-05				
SHEET NO.11 OF 12 SHEETS	STA.	TO STA.		ILLINOIS				



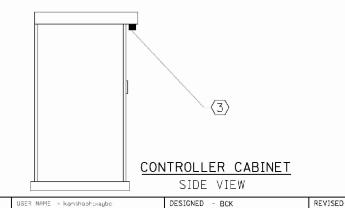
#### BILL OF MATERIALS

REVISED

REVISED

REVISED

DESCRIPTION	MANUFACTURER	MODEL	NOTES	
1 CIRCUIT BREAKER		15 AMPERE	Molded case, Thermal Mag, min. R.I. of 14K R.M.S. symmetrical ampere at 277V.	
2 TERMINAL BLOCK	MARATHON	1502 DJSV		
3 PHOTO ELECTRIC CONTROL	FISHER PIERCE	B124-1.5-07762		
(4) CONTROL RELAY	SQUARE D	8501X020V02	BOLT ON W/SCREW TERMINAL	
5 INLINE FUSE HOLDER WITH 5 AMP FUSE	BUSSMAN	S-8000 BK/S-8-3-4-R		
6 ELECTRIC CABLE, NO. 14, 3/C (BLACK, WHITE, GREEN)	CAROLPRENE/SOOW	02762		
₹ SIGN MOUNTING HARDWARE	PELCO	Pendant (SE-5015) Direct mount (AB-0104-L-SP) Additional sign stiffeners may be required for direct mounted signs.	S.S. HARDWARE	

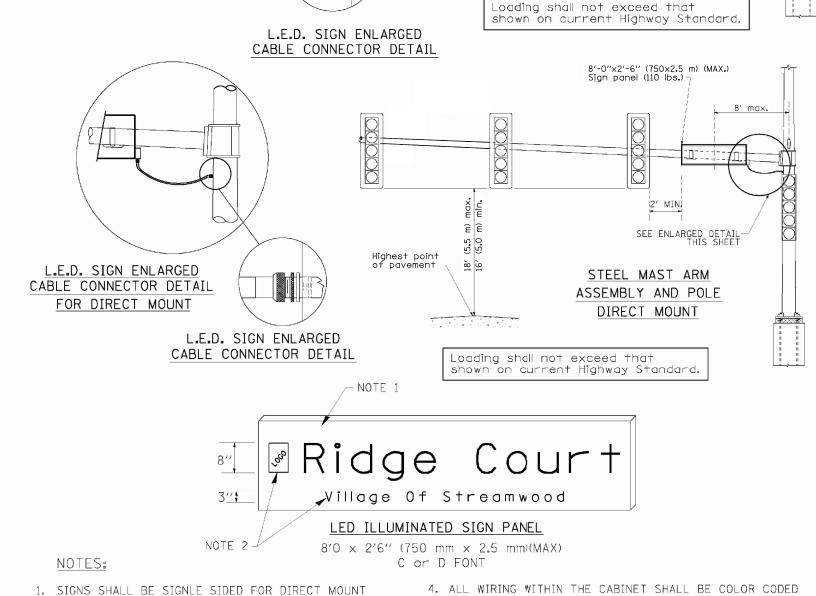


PLOT SCALE - 19.9680 // ir.

DRAWN - BCK

- DAD

CHECKED



Highest point of pavement

STATE OF ILLINOIS

DISTRICT ONE ILLUMINATED STREET NAME SIGN

COUNTY TOTAL SHEET NO.

DUPAGE 32 32 1518 20-00288-04-TI CONTRACT NO. 61H61

**DEPARTMENT OF TRANSPORTATION** 

SIGN

L.E.D. SIGN ENLARGED

CABLE CONNECTOR DETAIL

FOR PENDANT MOUNT

CONNECTED TO THE UPS BYPASS CIRCUITRY.

AND DOUBLE SIDED FOR PENDANT MOUNT.

THE SIGN. VERIFY WITH ENGINEER.

2. CERTAIN ADDITIONAL INFORMATION MAY BE ALLOWED ON

3. SIGNS SHALL NOT BE ENERGIZED WHEN TRAFFIC SIGNALS ARE POWERED BY THE UPS. THE SIGNS SHALL BE

SHEET NO. 12 OF 12 SHEETS STA.

BL = BLUE

5. ALL 120 VOLT SYSTEM AND ALL CONTROL WIRING

AS INDICATED:

R = RED

B = BLACK

W = WHITE

Y = YELLOW G = GREEN

6. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.

SHALL BE #14AWG STRANDED UNLESS OTHERWISE INDICATED.

8'-0"x2'-6" (750x2.5 m) (MAX.) Sign panel (110 lbs.)  $\frac{1}{7}$ 

2' MIN.

STEEL MAST ARM

ASSEMBLY AND POLE

PENDANT MOUNT

SEE ENLARGED DETAIL THIS SHEET

FILE NAME