

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	DIST 8 L TS 2022-1	VARIOUS	11	1
		ILLINOIS	CONTRACT NO. 76R05	

D-98-050-22

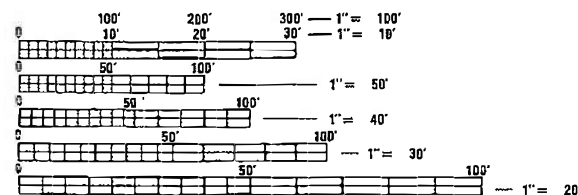
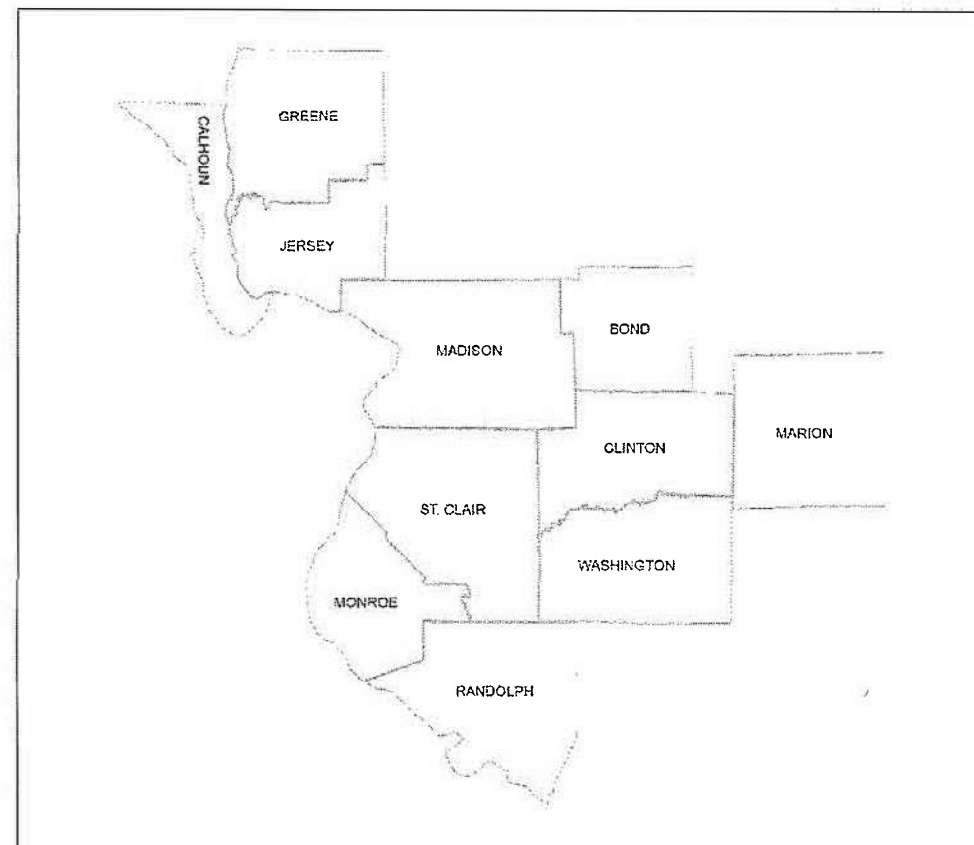
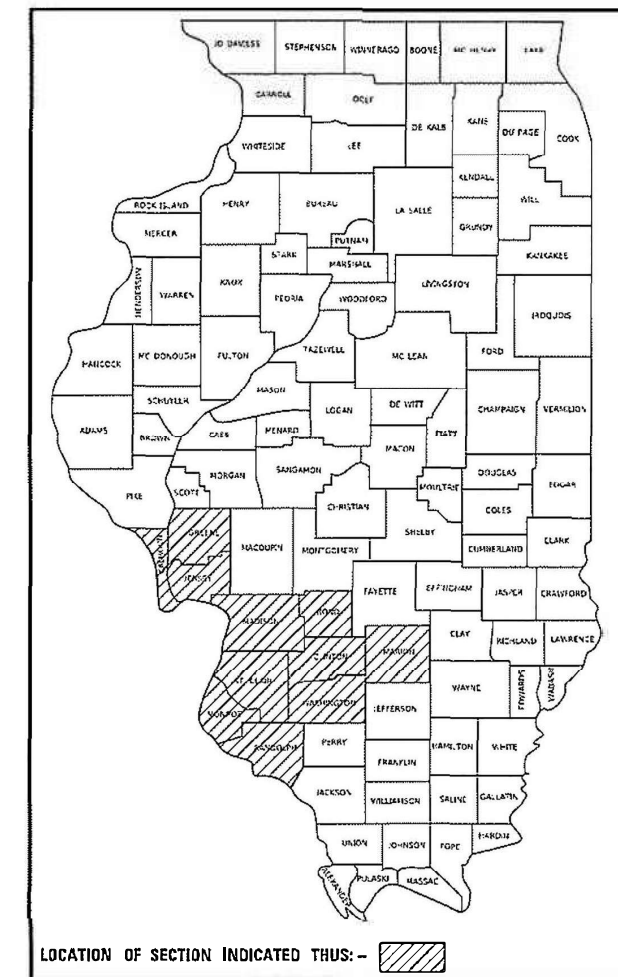
INDEX OF SHEETS:

- 1 COVER SHEET
- 2 HIGHWAY STANDARDS AND GENERAL NOTES
- 3-6E SUMMARY OF QUANTITIES
- 7 LUMINAIRE PERFORMANCE TABLES

# PROPOSED HIGHWAY PLANS

VARIOUS ROUTES  
SECTION DIST 8 L TS 2022-1  
HIGHWAY LIGHTING, TRAFFIC SIGNAL  
REPAIR & MAINTENANCE  
VARIOUS COUNTIES

C-98-080-22



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS  
1-800-892-0123  
OR 811

PROJECT ENGINEER: CHERYL KEPLAR (618)346-3123  
PROJECT MANAGER: TONI MANN (618)346-3189

CONTRACT NO. 76R05

NOTE: WORK CAN BE LOCATED WITHIN ANY OF THE ABOVE NOTED COUNTIES WITHIN DISTRICT 8/REGION 5.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED October 15, 2021  
Keith Robert REGIONAL ENGINEER

December 10, 2021  
[Signature] ENGINEER OF DESIGN AND ENVIRONMENT

December 10, 2021  
Stephen M. Smith DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

HIGHWAY STANDARDS		
701001-02	701400-11	701456-05
701006-05	701401-13	701601-09
701101-05	701406-13	701606-10
701106-02	701421-08	701701-10
701201-05	701422-10	701901-08
701206-05	701446-11	886001-01
701301-04	701451-05	886006-01
000001-08	001006	

COMMITMENTS

NONE

1. THE LOCATIONS OF THE REPAIR AREAS SHALL BE DETERMINED BY THE ENGINEER/DEPARTMENT.
2. NO MATERIAL SHALL BE LEFT ON OR NEAR THE ROADWAY DURING NON-WORKING HOURS.
3. ANY NECESSARY TRAFFIC CONTROL WILL BE PROVIDED BY THE CONTRACTOR APPROPRIATE STANDARDS ARE LISTED.
4. ILLINOIS STATE LAW REQUIRES A 48-HOUR NOTICE TO BE GIVEN TO UTILITIES BEFORE DIGGING. FIELD MARKING OF FACILITIES MAY BE OBTAINED BY CONTACTING J.U.L.I.E. (PHONE 800 892-0123 OR 811) OR FOR NON-MEMBERS, THE UTILITY COMPANY DIRECTLY.
5. A FLAGGER SHALL BE REQUIRED AT ALL TIMES WHEN WORKERS OR EQUIPMENT ARE ENCRDACHING ON THE LANE OF TRAFFIC.
6. 45 AND 55 MPH SIGNS ARE INCLUDED IN ALL INTERSTATE LANE CLOSURES. IF THE LANE CLOSURE DURATION IS LESS THAN 4 HOURS, THE 45 AND 55 MPH SIGNS ARE NOT REQUIRED.
7. ANY WORK ORDER MAY BE CANCELED AT THE ENGINEER'S/DEPARTMENT'S DISCRETION.
8. NO OVERNIGHT LANE CLOSURES WILL BE ALLOWED.

REV. - MS

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USER NAME = greenjp	DESIGNED - _____	REVISED - _____	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>HIGHWAY STANDARDS AND GENERAL NOTES</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	DRAWN - _____	REVISED - _____			VAR	DIST 8 L TS 2021-2	VARIOUS	7	2	
PLOT SCALE = 100.6528' / in.	CHECKED - _____	REVISED - _____			CONTRACT NO. 76N61					
PLOT DATE = 10/15/2021	DATE - _____	REVISED - _____			SCALE: _____	SHEET 2 OF 7 SHEETS	STA. _____	TO STA. _____	ILLINOIS FED. AID PROJECT	

				CONSTR. CODE
				100% STATE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	TRAFFIC SIGNALS
				0021 URBAN
80300100	LOCATING UNDERGROUND CABLE	FOOT	200,000	200,000
82110005	LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION E	EACH	5	5
82110007	LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION G	EACH	5	5
82110008	LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H	EACH	5	5
82110032	LUMINAIRE, LED, SIGN LIGHTING, OUTPUT DESIGNATION E	EACH	5	5
87000240	ELECTRIC CABLE ASSEMBLY IN CONDUIT, 600V (XLP-TYPE TC) 2/C NO. 2 AND NO. 4	FOOT	500	500
87000405	ELECTRIC CABLE ASSEMBLY IN TRENCH, 600V (XLP-TYPE TC) 2/C NO. 2 AND NO. 4	FOOT	500	500
87000775	ELECTRIC CABLE ASSEMBLY IN CONDUIT, 600V (XLP-TYPE TC) 2/C NO. 2 AND NO. 6	FOOT	500	500
87000885	ELECTRIC CABLE ASSEMBLY IN CONDUIT, 600V (XLP-TYPE TC) 2/C NO. 6 AND NO. 8	FOOT	500	500
87005275	ELECTRIC CABLE ASSEMBLY IN TRENCH, 600V (XLP-TYPE TC) 2/C NO. 4 AND NO. 6	FOOT	500	500
87005385	ELECTRIC CABLE ASSEMBLY IN TRENCH, 600V (XLP-TYPE TC) 2/C NO. 6 AND NO. 8	FOOT	500	500
88102825	PEDESTRIAN SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, BRACKET MOUNTED WITH COUNT DOWN TIMER	EACH	50	50
X0327495	JOURNEYMAN ELECTRICIAN	HOUR	3500	3500
X0327496	APPRENTICE ELECTRICIAN	HOUR	350	350

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PLOT DATE = 10/22/2021	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	DIST 8 L TS 2022-1	VARIOUS	7	3
			CONTRACT NO. 76R05	
		ILLINOIS	FED. AID PROJECT	

				CONSTR. CODE
				100% STATE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	TRAFFIC SIGNALS
				0021 URBAN
X0327497	PICK-UP TRUCK	HOUR	550	550
X0327500	ARROWBOARD (TRAILER MOUNTED)	HOUR	20	20
X0327501	ATTENUATOR, CRASH (TRUCK MOUNTED)	HOUR	20	20
X0327734	TRUCK CRANE	HOUR	50	50
X1400096	LED LAMP MODULE REPLACEMENT	EACH	300	300
X7010218	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	EACH	29	29
X8760200	ACCESSIBLE PEDESTRIAN SIGNAL	EACH	100	100
X8860400	DETECTOR LOOP, SPECIAL	FOOT	5000	5000
XP000015	DIGGER DERRICK	HOUR	20	20
XP000028	LABOR	HOUR	20	20
XP000029	BUCKET TRUCK -VAN FOR TRAFFIC SIGNALS	HOUR	700	700
XP000030	BUCKET TRUCK FOR HIGHWAY LIGHTING	HOUR	20	20
XP000031	POLE TRAILER	HOUR	20	20
XP000032	FLATBED TRAILER	HOUR	50	50

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PLOT DATE = 10/22/2021	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	DIST 8 L TS 2022-1	VARIOUS	7	4
			CONTRACT NO. 76R05	
			ILLINOIS FED. AID PROJECT	

				CONSTR. CODE
				100% STATE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	TRAFFIC SIGNALS
				0021 URBAN
XP000101	ATQ 5A FUSE 200	EACH	300	300
XP000102	FNQ 5A FUSE	EACH	300	300
XP000104	FNM 10A FUSE	EACH	10	10
XP000105	FRNR 60A FUSE	EACH	10	10
XP000106	BUCHANAN FUSEHOLDER KIT	EACH	50	50
XP000115	150W HPS LAMP	EACH	100	100
XP000116	250W HPS LAMP	EACH	100	100
XP000118	400W HPS LAMP	EACH	350	350
XP000119	150W 240-480V BALLAST KIT	EACH	25	25
XP000120	250W 240-480V BALLAST KIT	EACH	50	50
XP000122	400W 240-480V BALLAST KIT	EACH	150	150
XP000123	SD-100 BU STARTER	EACH	5	5
XP000124	SURGE ARRESTOR (EDCO MODEL SHA-XXX3) X=20-240-480 VOLT	EACH	5	5
XP000125	PHOTO CONTROL, 105V-285V (ALR-MODEL SSTPV-ON)	EACH	5	5

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PLOT DATE = 10/22/2021	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	DIST 8 L TS 2022-1	VARIOUS	7	5
			CONTRACT NO. 76R05	
		ILLINOIS	FED. AID PROJECT	

				CONSTR. CODE	
				100% STATE	
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	TRAFFIC SIGNALS	
				0021	URBAN
XP000126	12XLPE 1/C COPPER WIRE	FOOT	4615	4615	
XP000127	8 XLP-TYPE 1/C C WIRE	FOOT	500	500	
XP000128	6 XLP-TYPE 1/C C WIRE	FOOT	10282	10282	
XP000129	60A LIGHTING CONTRACTOR	EACH	30	30	
XP000130	100A LIGHTING CONTRACTOR	EACH	10	10	
XP000132	50A CIRCUIT BREAKER, 1P	EACH	60	60	
XP000135	50A CIRCUIT BREAKER, 2P	EACH	5	5	
XP000137	150A CIRCUIT BREAKER, 2P	EACH	30	30	
XP000138	200A CIRCUIT BREAKER, 2P	EACH	30	30	
XP000139	BREAKAWAY COUPLING, 1"	EACH	30	30	
XP000140	1-4" X 1-4" STAINLESS STEEL MESH	SQFT	10	10	
XP000141	ALUMINUM SIGNAL BASE, SQUARE (PELCO)	EACH	80	80	
XP000142	ALUMINUM SIGNAL POST, 13', SCH 80 (PELCO)	EACH	25	25	
XP000145	MAST ARM BRACKET, 3 SECTION (PELCO AB 116)	EACH	30	30	

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	DIST 8 L TS 2022-1	VARIOUS	7	6A
			CONTRACT NO. 76R05	
		ILLINOIS	FED. AID PROJECT	

				CONSTR. CODE
				100% STATE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	TRAFFIC SIGNALS
				0021 URBAN
XP000146	MAST ARM BRACKET, 4 SECTION (PELCO AB 116)	EACH	30	30
XP000147	MAST ARM BRACKET, 5 SECTION (PELCO AB 116)	EACH	40	40
XP000161	LAMP, QUARTZ HALOGEN, 43W, 10.8V (GE OR EQUIVALENT)	EACH	80	80
XP000164	SIGNAL HEAD, POLYCARBONATE, LED, 1-SECTION, 12", R OR Y (ECONOLITE OR MCCAIN)	EACH	20	20
XP000165	SIGNAL HEAD, POLYCARBONATE, LED, 3-SECTION, 12", (ECONOLITE OR MCCAIN)	EACH	120	120
XP000166	SIGNAL HEAD, POLYCARBONATE, LED, 4-SECTION, 12", (ECONOLITE OR MCCAIN)	EACH	20	20
XP000167	SIGNAL HEAD, POLYCARBONATE, LED, 5-SECTION, 12", (ECONOLITE OR MCCAIN)	EACH	30	30
XP000168	PEDESTRIAN HEAD, POLYCARBONATE, LED, 2-SECTION, 12", (ECONOLITE OR MCCAIN)	EACH	40	40
XP000170	ELECTRIC CABLE, 2-C, #14, TW, SH	FEET	3,000	3,000
XP000171	ELECTRIC CABLE, 3 PR, #18, TW, SH	FEET	10	10
XP000172	ELECTRIC CABLE, 5 PR, #18, TW, SH	FEET	10	10
XP000173	ELECTRIC CABLE, 6 PR, #18, TW, SH	FEET	2,200	2,200
XP000174	ELECTRIC CABLE, 2-C, #14	FEET	1,500	1,500
XP000175	ELECTRIC CABLE, 3-C, #14	FEET	1,500	1,500

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	DIST 8 L TS 2022-1	VARIOUS	7	6B
			CONTRACT NO. 76R05	
			ILLINOIS FED. AID PROJECT	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE
				100% STATE
				TRAFFIC SIGNALS
				0021
				URBAN
XP000176	ELETRIC CABLE, 5-C, #14	FEET	5,000	5,000
XP000177	ELETRIC CABLE, 7-C, #14	FEET	2,000	2,000
XP000179	GROUND ROD, 8', COPPER CLAD	EACH	20	20
XP000180	SPLICE KIT (3-M SCOTCHCAST #72-N1)	EACH	10	10
XP000181	LOOP SEALANT (BONDO P606)	GAL	10	10
XP000183	BACKPLATE, ABS PLASTIC, 3-SECTION (PELCO)	EACH	10	10
XP000184	BACKPLATE, ABS PLASTIC, 4-SECTION (PELCO)	EACH	10	10
XP000185	BACKPLATE, ABS PLASTIC, 5-SECTION (PELCO)	EACH	10	10
XP000186	J BOX, NEMA, 4X, SS, 6"X8"X4", W-ALUMINUM BACKPLATE & LOCK KIT	EACH	10	10
XP000187	HANDHOLE, FRAME & COVER (NEENAH R-6660-JP)	EACH	5	5
XP000188	HANHOLE, COVER ONLY (NEENAH R-6660-JP)	EACH	5	5
XP000191	SIGN, ILLUMINATED, FIBEROPTIC-TYPE, 24"X30' "NO LEFT-RIGHT TURN" OR "LT TURN YIELD"	EACH	5	5
XP000192	SIGN, ILLUMINATED, FIBEROPTIC-TYPE, 24"X30' "NO LEFT-RIGHT TURN" OR "LT TURN YIELD"	EACH	5	5
XP000193	MONITOR, NEMA CONFLICT, 12 CHANNEL (EDI SSM-12E)	EACH	10	10

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	DIST 8 L TS 2022-1	VARIOUS	7	6C
			CONTRACT NO. 76R05	
		ILLINOIS	FED. AID PROJECT	



CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE
				100% STATE
				TRAFFIC SIGNALS
				0021
				URBAN
XP000194	RELAY, FLASH TRANSFER, (MIDTEX 136-62T3A1)	EACH	5	5
XP000195	DETECTOR, NEMA DIGITAL, 1-CH, SHELF MOUNT (DETECTOR SYSTEMS OR RENO)	EACH	5	5
XP000196	DETECTOR, NEMA DIGITAL, 2-CH, RACK MOUNT (DETECTOR SYSTEMS OR RENO)	EACH	5	5
XP000197	DETECTOR, POWER SUPPLY, RACK MOUNT (DETECTOR SYSTEMS OR RENO)	EACH	5	5
XP000198	CABINET, SIGNAL CONTROLLER, ALUM., TYPE IV, W-MONITOR & ALL PLUG-INS, COMPLETE (ECONOLITE)	EACH	5	5
XP000199	FLASHER, NEMA	EACH	5	5
XP000200	LOAD SWITCH, NEMA	EACH	20	20
XP000201	CONTROLLER, SIGNAL, (ECONOLITE ASC-25-2100)	EACH	1	1
XP000203	COLD GALVANIZING, SPRAY CAN	EACH	5	5
XP000205	ALUMINUM LIGHT POLE MAST ARM, 15', TRUSS STYLE	EACH	10	10
XP000207	ALUMINUM LIGHT POLE, 45', COMPLETE, RD,W-TENON TOP, W-T BASE, 17" B.C., DK. BRONZE POWDER COAT	EACH	10	10
XP000209	UPPER AND LOWER ARM ASSEMBLY, UNPAINTED ALUMINUM	EACH	80	80
XP000210	FLASHER CONTROLLER CABINET ASSEMBLY, NEMA (PELCO SE-1005 OR EQUIVALENT)	EACH	10	10
XP000300	TRAFFIC SIGNAL RELAMPING	EACH	5	5

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	DIST 8 L TS 2022-1	VARIOUS	7	6D
			CONTRACT NO. 76R05	
		ILLINOIS	FED. AID PROJECT	



ILLINOIS DEPARTMENT OF TRANSPORTATION  
LUMINAIRE PERFORMANCE TABLE  
LED replacement for 250W HPS Horizontal Mount luminaire

GIVEN CONDITIONS		
ROADWAY DATA	Lane Width	12 ft
	Number of Lanes (in One Direction Only)	3
	Median Width	0 ft
	I.E.S. Surface Classification	R3
	Q-Zero Value	.07
LIGHT POLE DATA	Mounting Height	45 ft
	Luminaire Overhang From Edge of Pavement (White Line)	0 ft
LUMINAIRE DATA	Luminaire Type	LED
	I.E.S. Vertical Distribution	Medium
	BUG Rating	U = 0
	I.E.S. Lateral Distribution	Type III
	Total Light Loss Factor	0.684
LAYOUT DATA	Spacing	160 ft
	Configuration	One Sided

NOTES:  
1. Total light loss factor is the product of "Lumen Depreciation" (LLD) = 0.90, "Dirt Depreciation" (LDF) = 0.80, and "Equipment factors" (EF) = 0.95.

PERFORMANCE REQUIREMENTS

NOTE: These performance requirements shall be the acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

ILLUMINANCE	Average Illuminance, $E_{AVE}$	0.9 fc to 1.4 fc
	Uniformity Ratio, $E_{AVE}/E_{MIN}$	$\leq 3.0:1$
LUMINANCE	Average Luminance, $L_{AVE}$	0.6 cd/m <sup>2</sup> to 0.9 cd/m <sup>2</sup>
	Uniformity Ratio, $L_{AVE}/L_{MIN}$	$\leq 3.5:1$
	Uniformity Ratio, $L_{MAX}/L_{MIN}$	$\leq 6.0:1$
	Max. Veiling Luminance Ratio, $L_v/L_{AVE}$	$\leq 0.3:1$

ILLINOIS DEPARTMENT OF TRANSPORTATION  
LUMINAIRE PERFORMANCE TABLE  
LED replacement for 400W HPS Horizontal Mount luminaire

GIVEN CONDITIONS		
ROADWAY DATA	Lane Width	12 ft
	Number of Lanes (in One direction Only)	4
	Median Width	0 ft
	I.E.S. Surface Classification	R3
	Q-Zero Value	.07
LIGHT POLE DATA	Mounting Height	45 ft
	Luminaire Overhang From Edge of Pavement (White Line)	0 ft
LUMINAIRE DATA	Luminaire Type	LED
	I.E.S. Vertical Distribution	Medium
	BUG Rating	U = 0
	I.E.S. Lateral Distribution	Type III
	Total Light Loss Factor	0.684
LAYOUT DATA	Spacing	240 ft
	Configuration	One Sided

NOTES:  
1. Total light loss factor is the product of "Lumen Depreciation" (LLD) = 0.90, "Dirt Depreciation" (LDF) = 0.80, and "Equipment factors" (EF) = 0.95.

PERFORMANCE REQUIREMENTS

NOTE: These performance requirements shall be the acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

ILLUMINANCE	Average Illuminance, $E_{AVE}$	0.9 fc to 1.4 fc
	Uniformity Ratio, $E_{AVE}/E_{MIN}$	$\leq 3.0:1$
LUMINANCE	Average Luminance, $L_{AVE}$	0.6 cd/m <sup>2</sup> to 0.9 cd/m <sup>2</sup>
	Uniformity Ratio, $L_{AVE}/L_{MIN}$	$\leq 3.5:1$
	Uniformity Ratio, $L_{MAX}/L_{MIN}$	$\leq 6.0:1$
	Max. Veiling Luminance Ratio, $L_v/L_{AVE}$	$\leq 0.3:1$

ILLINOIS DEPARTMENT OF TRANSPORTATION  
LUMINAIRE PERFORMANCE TABLE  
LED Replacement for 250W HPS Multi-Mount Luminaire  
(replacement luminaire shall be mounted horizontally)

GIVEN CONDITIONS		
ROADWAY DATA	Lane Width	12 ft
	Number of Lanes (One Direction Only)	3
	Median Width	0 ft
	I.E.S. Surface Classification	R3
	Q-Zero Value	.07
LIGHT POLE DATA	Mounting Height	45 ft
	Luminaire Overhang From Edge of Pavement (White Line)	-30 ft
LUMINAIRE DATA	Luminaire Type	LED
	I.E.S. Vertical Distribution	Medium
	BUG Rating	U = 0
	I.E.S. Lateral Distribution	Type III or IV
	Total Light Loss Factor	0.684
LAYOUT DATA	Spacing	145 ft
	Configuration	One Sided

NOTES:  
1. Total light loss factor is the product of "Lumen Depreciation" (LLD) = 0.90, "Dirt Depreciation" (LDF) = 0.80, and "Equipment factors" (EF) = 0.95.

PERFORMANCE REQUIREMENTS

NOTE: These performance requirements shall be the acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

ILLUMINANCE	Average Illuminance, $E_{AVE}$	0.9 fc to 1.4 fc
	Uniformity Ratio, $E_{AVE}/E_{MIN}$	$\leq 3.0:1$
LUMINANCE	Average Luminance, $L_{AVE}$	0.6 cd/m <sup>2</sup> to 0.9 cd/m <sup>2</sup>
	Uniformity Ratio, $L_{AVE}/L_{MIN}$	$\leq 3.5:1$
	Uniformity Ratio, $L_{MAX}/L_{MIN}$	$\leq 6.0:1$
	Max. Veiling Luminance Ratio, $L_v/L_{AVE}$	$\leq 0.3:1$

ILLINOIS DEPARTMENT OF TRANSPORTATION  
LUMINAIRE PERFORMANCE TABLE  
LED Replacement for 400W HPS Multi-Mount Luminaire  
(replacement luminaire shall be mounted horizontally)

GIVEN CONDITIONS		
ROADWAY DATA	Lane Width	12 ft
	Number of Lanes (in One Direction Only)	4
	Median Width	0 ft
	I.E.S. Surface Classification	R3
	Q-Zero Value	.07
LIGHT POLE DATA	Mounting Height	45 ft
	Luminaire Overhang From Edge of Pavement (White Line)	-30 ft
LUMINAIRE DATA	Luminaire Type	LED
	I.E.S. Vertical Distribution	Medium
	BUG Rating	U = 0
	I.E.S. Lateral Distribution	Type III or IV
	Total Light Loss Factor	0.684
LAYOUT DATA	Spacing	155 ft
	Configuration	One Sided

NOTES:  
1. Total light loss factor is the product of "Lumen Depreciation" (LLD) = 0.90, "Dirt Depreciation" (LDF) = 0.80, and "Equipment factors" (EF) = 0.95.

PERFORMANCE REQUIREMENTS

NOTE: These performance requirements shall be the acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

ILLUMINANCE	Average Illuminance, $E_{AVE}$	0.9 fc to 1.4 fc
	Uniformity Ratio, $E_{AVE}/E_{MIN}$	$\leq 3.0:1$
LUMINANCE	Average Luminance, $L_{AVE}$	0.6 cd/m <sup>2</sup> to 0.9 cd/m <sup>2</sup>
	Uniformity Ratio, $L_{AVE}/L_{MIN}$	$\leq 3.5:1$
	Uniformity Ratio, $L_{MAX}/L_{MIN}$	$\leq 6.0:1$
	Max. Veiling Luminance Ratio, $L_v/L_{AVE}$	$\leq 0.3:1$

ILLINOIS DEPARTMENT OF TRANSPORTATION  
LUMINAIRE PERFORMANCE TABLE  
LED Replacement for 150W HPS Underpass Luminaire

GIVEN CONDITIONS		
ROADWAY DATA	Lane Width	12 ft
	Number of Lanes (in One Direction Only)	2
	Median Width	0 ft
	I.E.S. Surface Classification	R3
	Q-Zero Value	.07
LIGHT POLE DATA	Mounting Height	16 ft
	Luminaire Overhang From Edge of Pavement (White Line)	-20 ft
LUMINAIRE DATA	Luminaire Type	LED
	I.E.S. Vertical Distribution	Medium
	BUG Rating	U = 0
	I.E.S. Lateral Distribution	Type III or IV
	Total Light Loss Factor	0.684
LAYOUT DATA	Spacing	60 ft
	Configuration	One Sided

NOTES:  
1. Total light loss factor is the product of "Lumen Depreciation" (LLD) = 0.90, "Dirt Depreciation" (LDF) = 0.80, and "Equipment factors" (EF) = 0.95.

PERFORMANCE REQUIREMENTS

NOTE: These performance requirements shall be the acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

LUMINANCE	Average Luminance, $L_{AVE}$	0.6 cd/m <sup>2</sup> to 0.9 cd/m <sup>2</sup>
	Uniformity Ratio, $L_{AVE}/L_{MIN}$	$\leq 3.5:1$
LUMINANCE	Uniformity Ratio, $L_{MAX}/L_{MIN}$	$\leq 6.0:1$
	Max. Veiling Luminance Ratio, $L_v/L_{AVE}$	$\leq 0.3:1$

Compliance with performance criteria shall be held to one significant digit.

Initial lumens of the proposed luminaire may vary from the values specified in the table given in Article 1067.06 of the BDE Special Provision for Luminaire, LED

MODEL: Default  
FILE NAME: \\paulamrnon.dot.illinois.gov\PIWDOT\Documents\BDDT\_Office\Distric 8\Projects\087686\1\CAD\Drawings\Electrical\087686-1-TS.dgn

USER NAME = prestonne	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100,0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 3/12/2021	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: SHEET 7 OF 7 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DIST 8 L TS 2022-1	VARIOUS	7	7
			CONTRACT NO. 76R05	
ILLINOIS FED. AID PROJECT				

REV. - MS