

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D8 LTS MODERNIZATION 2025-1	VARIOUS	8	1
		ILLINOIS	CONTRACT NO. 76T79	

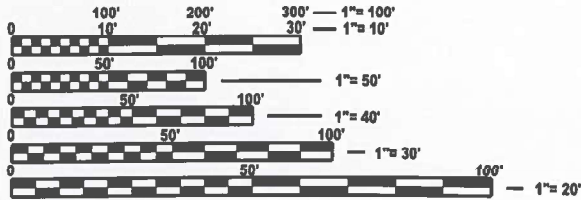
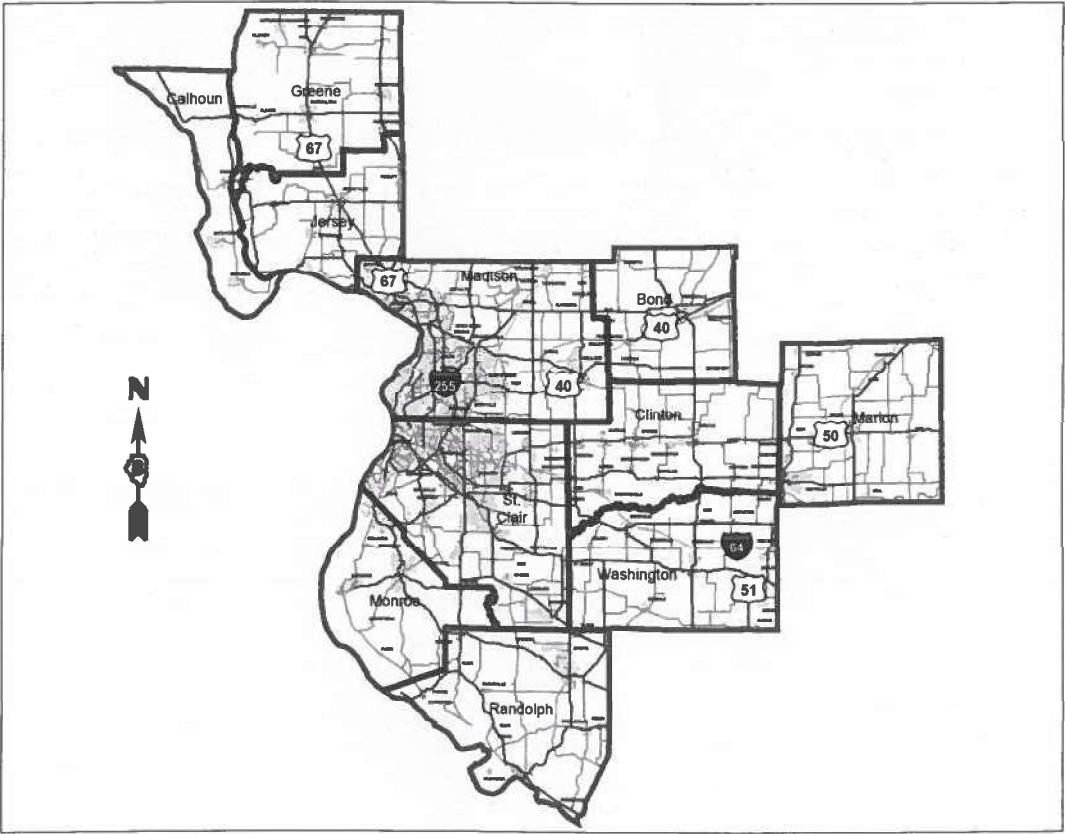
D-98-052-24



FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROPOSED
HIGHWAY PLANS

VARIOUS ROUTES
SECTION : D8 LTS MODERNIZATION 2025-1
HIGHWAY LIGHTING, TRAFFIC SIGNAL
MODERNIZATION
VARIOUS COUNTIES
C-98-114-24



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 EXCAVATION
1-800-892-0123
OR 811

PROJECT ENGINEER: CHERYL KEPLAR
PROJECT MANAGER: RICHARD BARBEE

CONTRACT NO. 76T79

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED Jan. 24 2025 tr
REGIONAL ENGINEER

March 21 2025
ENGINEER OF DESIGN AND ENVIRONMENT

March 21 2025
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

MODEL: General Notes [Sheet]
FILE NAME: c:\pw_workspace\daniel.hopkins@illinois.gov\41042618\0876779-ait-cen-note.dgn

INDEX OF SHEETS

1.

2.

3.-6.

7.

8.
- COVER SHEET

INDEX, HIGHWAY STANDARDS, COMMITMENTS, & GENERAL NOTES

SUMMARY OF QUANTITIES

LUMINAIRE PERFORMANCE TABLE

CONCRETE FOUNDATION TYPE A PED PUSH-BUTTON POST

COMMITMENTS

NONE

HIGHWAY STANDARDS

000001-08	001006		
701001-02	701400-12	701456-05	873001-02
701006-05	701401-13	701601-09	876001-04
701101-05	701406-13	701606-10	880006-01
701106-02	701421-08	701701-10	886001-01
701201-05	701422-10	701901-10	886006-01
701206-05	701446-11	720001-01	
701301-04	701451-05	821101-03	

GENERAL NOTES

1.

2.

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10.
- NO SURVEY WAS PERFORMED FOR THIS PROJECT AND THE PLANS WERE CREATED USING MICROFILM AND FIELD MEASUREMENTS.

THE RESIDENT ENGINEER SHALL VERIFY THE EXISTENCE OF HIGHWAY LIGHTING, INTELLIGENT TRANSPORTATION SYSTEMS (I.T.S.) UTILITIES, AND/OR ELECTRICAL CABLES ASSOCIATED WITH TRAFFIC SIGNALS WITHIN THE PROJECT LIMITS. IF ANY OF THESE EXIST WITHIN THE PROJECT LIMITS, AND IF THESE ITEMS REQUIRE LOCATING, THE CONTRACTOR SHALL BE DIRECTED TO DO SO ACCORDING TO SECTION 803 OF THE STANDARD SPECIFICATIONS. THIS WORK SHALL BE PAID FOR ACCORDING TO ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

THE DEPARTMENT STRONGLY ENCOURAGES THE PRIME CONTRACTOR AND THEIR APPROVED SUB-CONTRACTORS TO HIRE MINORITY, WOMEN AND DISADVANTAGED INDIVIDUALS FROM ITS FEDERALLY FUNDED HIGHWAY CONSTRUCTION CAREERS TRAINING PROGRAM (HCCTP) TO HELP MEET WORKFORCE AND TRAINEE GOALS. THIS PROGRAM IS TRAINING MINORITIES, WOMEN AND DISADVANTAGED INDIVIDUALS IN HIGHWAY CONSTRUCTION-RELATED SKILLS, E.G., MATH FOR THE TRADES, JOB READINESS, TECHNICAL SKILLS COURSEWORK (CARPENTRY, CONCRETE FLATWORK, BLUEPRINT READING, SITE PLANS, SITE WORK, TOOLS USE, ETC.) AND OSHA 10 HOUR CERTIFICATION, TO PREPARE THEM FOR A CAREER IN THE HIGHWAY CONSTRUCTION TRADES. GRADUATES ARE WELL-TRAINED AND READY TO BECOME PRODUCTIVE ENTRY-LEVEL CONSTRUCTION WORKERS. CONTACT THE DISTRICT 8 EEO OFFICE AT 618-346-3360 AND/OR THE HCCTP COORDINATOR AT 618-874-6528 TO LEARN MORE ABOUT THE PROGRAM AND FOR ASSISTANCE IN MEETING WORKFORCE AND TRAINEE GOALS.

THE LOCATIONS OF THE REPAIR AREAS SHALL BE DETERMINED BY THE ENGINEER/DEPARTMENT.

NO MATERIAL SHALL BE LEFT ON OR NEAR THE ROADWAY DURING NON-WORKING HOURS.

ANY NECESSARY TRAFFIC CONTROL WILL BE PROVIDED BY THE CONTRACTOR APPROPRIATE STANDARDS ARE LISTED.

A FLAGGER SHALL BE REQUIRED AT ALL TIMES WHEN WORKERS OR EQUIPMENT ARE ENCROACHING ON THE LANE OF TRAFFIC.

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.

ANY WORK ORDER MAY BE CANCELED AT THE ENGINEER'S/DEPARTMENT'S DISCRETION.

NO OVERNIGHT LANE CLOSURES WILL BE ALLOWED.

REV - MS

	USER NAME = daniel.hopkins	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS, HIGHWAY STANDARDS, COMMITMENTS, & GENERAL NOTES	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -			VAR.	D8 LTS MODERNIZATION 2025-1	VARIOUS	8	2
		CHECKED -	REVISED -			CONTRACT NO. 76T79				
	PLOT DATE = 1/22/2025	DATE -	REVISED -			ILLINOIS FED. AID PROJECT				
						SCALE:		SHEET 1	OF 1	SHEETS

MODEL: SOQ-1 [Sheet]
FILE NAME: c:\pwwork\dwtdaniel.hopkins@illinois.gov\d1042618\0876779-shs-SOQ.dgn

				CONSTR. CODE
				100% STATE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	TRAFFIC SIGNALS
				0021
				URBAN
80300100	LOCATING UNDERGROUND CABLE	FOOT	1000	1000
82110005	LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION E	EACH	5	5
82110007	LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION G	EACH	20	20
82110008	LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H	EACH	40	40
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	1000	1000
87000775	ELECTRIC CABLE ASSEMBLY IN CONDUIT, 600V (XLP-TYPE TC) 2/C NO. 4 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	1000	1000
87005385	ELECTRIC CABLE ASSEMBLY IN TRENCH, 600V (XLP-TYPE TC) 2/C NO. 6 AND NO. 8	FOOT	1000	1000
88102825	PEDESTRIAN SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, BRACKET MOUNTED WITH COUNT DOWN TIMER	EACH	60	60
88200510	TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	30	30
88800100	PEDESTRIAN PUSH-BUTTON	EACH	100	100

				CONSTR. CODE
				100% STATE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	TRAFFIC SIGNALS
				0021
				URBAN
X0327495	JOURNEYMAN ELECTRICIAN	HOURL	1000	1000
X0327496	APPRENTICE ELECTRICIAN	HOURL	100	100
X0327497	PICK-UP TRUCK	HOURL	700	700
X0327500	ARROWBOARD (TRAILER MOUNTED)	HOURL	20	20
X0327501	ATTENUATOR, CRASH (TRUCK MOUNTED)	HOURL	500	500
X0327734	TRUCK CRANE	HOURL	500	500
X1400096	LED LAMP MODULE REPLACEMENT	EACH	300	300
X1400188	MAIN DRIVE CONTROLLER	EACH	1	1
X7010218	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	EACH	29	29
X8760200	ACCESSIBLE PEDESTRIAN SIGNALS	EACH	100	100
X8760201	PEDESTRIAN PUSH-BUTTON POST	EACH	50	50
X8860400	DETECTOR LOOP (SPECIAL)	FOOT	5000	5000
XP000015	DIGGER DERRICK	HOURL	100	100
XP000028	LABOR	HOURL	100	100

MODEL: SQ02 [Sheet]
FILE NAME: c:\pwwork\dwtdaniel.hopkins@illinois.gov\1042618\0876779-sh-SQ0.dgn

				CONSTR. CODE
				100% STATE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	TRAFFIC SIGNALS 0021 URBAN
XP000029	BUCKET TRUCK/VAN FOR TRAFFIC SIGNALS	hour	700	700
XP000030	BUCKET TRUCK FOR HIGHWAY LIGHTING	hour	700	700
XP000031	POLE TRAILER	hour	100	100
XP000032	FLATBED TRAILER	hour	100	100
XP000101	ATQ 5A FUSE 200	EACH	200	200
XP000102	FNQ 5A FUSE	EACH	200	200
XP000104	FNM 10A FUSE	EACH	5	5
XP000105	FRNR 60A FUSE	EACH	5	5
XP000106	BUCHANAN FUSEHOLDER KIT	EACH	50	50
XP000115	150W HPS LAMP	EACH	5	5
XP000116	250W HPS LAMP	EACH	100	100
XP000118	400W HPS LAMP	EACH	350	350
XP000119	150W 240/480V BALLAST KIT	EACH	5	5
XP000120	250W 240/480V BALLAST KIT	EACH	100	100

				CONSTR. CODE
				100% STATE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	TRAFFIC SIGNALS 0021 URBAN
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 VOLTS	EACH	20	20
XP000125	PHOTO CONTROL, 105V-285V (ALR-MODEL SSTPV-ON)	EACH	20	20
XP000126	#12 XLPE 1/C COPPER WIRE	FEET	500	500
XP000127	#8 XLP-TYPE USE 1/C COPPER WIRE	FEET	500	500
XP000128	#6 XLP-TYPE USE 1/C COPPER WIRE	FEET	10000	10000
XP000129	60A LIGHTING CONTACTOR	EACH	5	5
XP000130	100A LIGHTING CONTACTOR	EACH	5	5
XP000132	50A CIRCUIT BREAKER, 1P	EACH	5	5
XP000135	50A CIRCUIT BREAKER, 2P	EACH	5	5
XP000137	150A CIRCUIT BREAKER, 2P	EACH	5	5
XP000138	200A CIRCUIT BREAKER, 2P	EACH	5	5
XP000139	BREAKAWAY COUPLING, 1"	EACH	5	5

MODEL: SQ0-3 [Sheet]
FILE NAME: c:\pwwork\dwtdaniel.hopkins@illinois.gov\1042618\0876779-sh-SQ0.dgn

				CONSTR. CODE
				100% STATE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	TRAFFIC SIGNALS
				0021
				URBAN
XP000140	1/4" X 1/4" STAINLESS STEEL MESH	SQ FT	10	10
XP000141	ALUMINUM SIGNAL BASE, SQUARE (PELCO)	EACH	100	100
XP000142	ALUMINUM SIGNAL POST, 13', SCH 80 (PELCO)	EACH	5	5
XP000145	MAST ARM BRACKET, 3 SECTION (PELCO AB 11 6)	EACH	5	5
XP000146	MAST ARM BRACKET, 4 SECTION (PELCO AB 11 6)	EACH	5	5
XP000147	MAST ARM BRACKET, 5 SECTION (PELCO AB 11 6)	EACH	5	5
XP000161	LAMP, QUARTZ HALOGEN, 43W @, 10.8V (GE OR EQUIVALENT)	EACH	50	50
XP000164	SIGNAL HEAD, POLYCARBONATE, LED, 1-SECTION, 12", R OR Y (ECONOLITE OR MCCAIN)	EACH	5	5
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	50	50
XP000167	SIGNAL HEAD, POLYCARBONATE, LED, 5-SECTION, 12", (ECONOLITE OR MCCAIN)	EACH	50	50
XP000168	PEDESTRIAN HEAD, POLYCARBONATE, LED, 2-SECTION, 12", (ECONOLITE OR MCCAIN)	EACH	40	40
XP000170	ELECTRIC CABLE, 2/C, #14, TW, SH	FEET	3000	3000
XP000171	ELECTRIC CABLE, 3 PR, #18, TW, SH	FEET	10	10

				CONSTR. CODE
				100% STATE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	TRAFFIC SIGNALS
				0021
				URBAN
XP000172	ELECTRIC CABLE, 5 PR, #18, TW, SH	FEET	10	10
XP000173	ELECTRIC CABLE, 6 PR, #18, TW, SH	FEET	10	10
XP000174	ELECTRIC CABLE, 2/C, #14	FEET	3000	3000
XP000175	ELECTRIC CABLE, 3/C, #14	FEET	3000	3000
XP000176	ELECTRIC CABLE, 5/C, #14	FEET	3000	3000
XP000177	ELECTRIC CABLE, 7/C, #14	FEET	3000	3000
XP000179	GROUND ROD, 8', COPPER CLAD	EACH	5	5
XP000180	SPLICE KIT (3-M SCOTCHCAST #72-N1)	EACH	10	10
XP000181	LOOP SEALANT (BONDO P606)	GALLON	30	30
XP000186	J BOX, NEMA, 4X, SS, 6"X8"X4", W/ ALUMINUM BACKPLATE & LOCK KIT	EACH	5	5
XP000187	HANDHOLE, FRAME & COVER (NEENAH R-6660- JP)	EACH	5	5
XP000188	HANDHOLE, COVER ONLY (NEENAH R-6660-JP)	EACH	20	20
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" SYMBOLIC "NO LEFT/RIGHT TURN"	EACH	5	5

	USER NAME = daniel.hopkins	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES			F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -					VAR.	D8 LTS MODERNIZATION 2025-1	VARIOUS	8	5
		CHECKED -	REVISED -					CONTRACT NO. 76179				
	PLOT DATE = 10/16/2024	DATE -	REVISED -		SCALE:	SHEET 3	OF 4 SHEETS	STA.	TO STA.	ILLINOIS	FED. AID PROJECT	


MODEL: SQ04 [Sheet]
FILE NAME: c:\p\work\pwt\daniel.hopkins@illinois.gov\d1042618\0876779-shh-SQ0.dgn

				CONSTR. CODE
				100% STATE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	TRAFFIC SIGNALS 0021 URBAN
XP000193	MONITOR, NEMA CONFLICT, 12 CHANNEL (EDI SSM-12E)	EACH	5	5
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	20	20
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	20	20
XP000200	LOAD SWITCH, NEMA	EACH	40	40
XP000203	COLD GALVANIZING, SPRAY CAN	EACH	5	5
XP000205	ALUMINUM LIGHT POLE MAST ARM, 15', TRUSS STYLE	EACH	40	40
XP000207	ALUMINUM LIGHT POLE, 45', COMPLETE, RD, W/ TENON TOP, W/T BASE, 17" B.C., DK. BRONZE POWDER COAT	EACH	5	5
XP000209	UPPER AND LOWER ARM ASSEMBLY, UNPAINTED ALUMINUM	EACH	120	120
XP000210	FLASHER CONTROLLER CABINET ASSEMBLY, NEMA (PELCO SE-1005 OR EQUIVALENT)	EACH	5	5
XP000300	TRAFFIC SIGNAL RELAMPING	EACH	5	5

				CONSTR. CODE
				100% STATE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	TRAFFIC SIGNALS 0021 URBAN
XP000301	TRAFFIC SIGNAL LAMP REPLACEMENT	EACH	5	5
XP000302	FLASHING BEACON INSPECTION	EACH	5	5
XP000303	TOWER LIGHTING INSPECTION	EACH	5	5
XP000304	REPLACE SERVICE INSTALLATION, COMPLETE	EACH	5	5
XP000307	REPAIR TRAFFIC SIGNAL KNOCKDOWN	EACH	120	120
XP000308	REPAIR FLASHING BEACON KNOCKDOWN	EACH	40	40
XP000309	REPAIR HIGHWAY LIGHT POLE KNOCKDOWN	EACH	100	100
XP000310	REPLACE HIGHWAY LIGHT POLE BREAKAWAY DEVICE, COUPLINGS	EACH	5	5
XP000311	REPLACE HIGHWAY LIGHT POLE BREAKAWAY DEVICE, TRANSFORMER BASE	EACH	40	40
XP000312	REPLACE TRAFFIC SIGNAL POST BASE ASSEMBLY	EACH	40	40

	USER NAME = daniel.hopkins	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES				F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -						VAR.	D8 LTS MODERNIZATION 2025-1	VARIOUS	8	6
		CHECKED -	REVISED -						CONTRACT NO. 76T79				
	PLOT DATE = 1/22/2025	DATE -	REVISED -		SCALE:	SHEET 4	OF 4	SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT		

MODEL: Luminaire Performance Table (Sheet)
FILE NAME: c:\pwworking\daniel.hopkins@illinois.gov\d1042618\08761779-shd-dan.dgn



Illinois Department of Transportation

Luminaire Performance Table

Project

Date

Contract Number

Section Number

County

03/03/25

N/A

N/A

Marked Route Number

Municipality

Various

Various

Roadway

Lane Width (see note 4)

Number and Direction of lanes

Median Width

Surface Classification

Q-Zero Value

12

2 lanes in 1 Direction Only

N/A

R3

0.07

Structure

Mounting Height

Arm Length

Set-Back (see note 1)

Number of Luminaires

16 ft

0 ft

20 ft

N/A

Luminaire

Description

Transverse Distribution

Lateral Distribution

Replacement For 150W Underpass

Type III

Medium

Total Light Loss Factor (LLF)

B-U-G Rating

Shields

Dimming Protocol

Refer to Notes 6 and 7

U=0

N/A

0-10V

Layout

Spacing

Configuration

60 ft

Single Sided

Performance (see notes 5 and 6)

Average Illuminance, E_{avg} (fc)

Uniformity Ratio, E_{min}/E_{max}

N/A

N/A

Average Luminance, L_{avg} (cd/m²)

Uniformity Ratio, L_{min}/L_{max}

Uniformity Ratio, L_{low}/L_{high}

Veiling Luminance Ratio, L_{v}/L_{avg}

0.6 to 0.9

less than or equal to 3.5:1

less than or equal to 6.0:1

less than or equal to 0.3:1

Light Trespass (see notes 5 and 7)

Distance to ROW (behind pole)

Max. Horizontal Illuminance at ROW, E_H

Max. Vertical Illuminance at ROW, E_V

N/A

N/A

N/A

Notes

1. Set-Back is from Edge of Pavement (white line).

2. Lighting calculations shall be performed with all luminaires oriented toward and perpendicular to the roadway.

3. Performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

4. Lane width is the width of each **individual** lane, not to be confused with total roadway width.

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

6. Photometric calculations for roadways shall be performed with a total light loss factor of 0.7

7. Light trespass calculations shall be performed with a total light loss factor of 1.0 and with horizontal calculations performed at grade and vertical calculations performed with calculation points located three feet above grade.

8. Luminaire performance table is intended to define the luminaire and does not necessarily match any specific roadway geometry, mounting height, setback, or arm length.

Printed 03/03/25

BDE 5630 (Rev. 06/06/24)



Illinois Department of Transportation

Luminaire Performance Table

Project

Date

Contract Number

Section Number

County

03/03/25

N/A

N/A

Marked Route Number

Municipality

Various

Various

Roadway

Lane Width (see note 4)

Number and Direction of lanes

Median Width

Surface Classification

Q-Zero Value

12

3

N/A

R3

0.07

Structure

Mounting Height

Arm Length

Set-Back (see note 1)

Number of Luminaires

45 ft

15 ft

15 ft

N/A

Luminaire

Description

Transverse Distribution

Lateral Distribution

Replacement for 250W Horizontal Mount

Type III

Medium

Total Light Loss Factor (LLF)

B-U-G Rating

Shields

Dimming Protocol

Refer to Notes 6 and 7

U=0

N/A

0-10V

Layout

Spacing

Configuration

160 ft

Single Sided

Performance (see notes 5 and 6)

Average Illuminance, E_{avg} (fc)

Uniformity Ratio, E_{min}/E_{max}

0.9 to 1.4

less than or equal to 3.0:1

Average Luminance, L_{avg} (cd/m²)

Uniformity Ratio, L_{min}/L_{max}

Uniformity Ratio, L_{low}/L_{high}

Veiling Luminance Ratio, L_{v}/L_{avg}

0.6 to 0.9

less than or equal to 3.5:1

less than or equal to 6.0:1

less than or equal to 0.3:1

Light Trespass (see notes 5 and 7)

Distance to ROW (behind pole)

Max. Horizontal Illuminance at ROW, E_H

Max. Vertical Illuminance at ROW, E_V

N/A

N/A

N/A

Notes

1. Set-Back is from Edge of Pavement (white line).

2. Lighting calculations shall be performed with all luminaires oriented toward and perpendicular to the roadway.

3. Performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

4. Lane width is the width of each **individual** lane, not to be confused with total roadway width.

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

6. Photometric calculations for roadways shall be performed with a total light loss factor of 0.7

7. Light trespass calculations shall be performed with a total light loss factor of 1.0 and with horizontal calculations performed at grade and vertical calculations performed with calculation points located three feet above grade.

8. Luminaire performance table is intended to define the luminaire and does not necessarily match any specific roadway geometry, mounting height, setback, or arm length.

Printed 03/03/25

BDE 5630 (Rev. 06/06/24)



Illinois Department of Transportation

Luminaire Performance Table

Project

Date

Contract Number

Section Number

County

03/03/25

N/A

N/A

Marked Route Number

Municipality

Various

Various

Roadway

Lane Width (see note 4)

Number and Direction of lanes

Median Width

Surface Classification

Q-Zero Value

12

3

N/A

R3

0.07

Structure

Mounting Height

Arm Length

Set-Back (see note 1)

Number of Luminaires

45 ft

1 ft

30 ft

N/A

Luminaire

Description

Transverse Distribution

Lateral Distribution

Replacement for 250W Multi-Mount

Type III

Medium

Total Light Loss Factor (LLF)

B-U-G Rating

Shields

Dimming Protocol

Refer to Notes 6 and 7

U=0

N/A

0-10V

Layout

Spacing

Configuration

145 ft

Single Sided

Performance (see notes 5 and 6)

Average Illuminance, E_{avg} (fc)

Uniformity Ratio, E_{min}/E_{max}

0.9 to 1.4

less than or equal to 3.0:1

Average Luminance, L_{avg} (cd/m²)

Uniformity Ratio, L_{min}/L_{max}

Uniformity Ratio, L_{low}/L_{high}

Veiling Luminance Ratio, L_{v}/L_{avg}

0.6 to 0.9

less than or equal to 3.5:1

less than or equal to 6.0:1

less than or equal to 0.3:1

Light Trespass (see notes 5 and 7)

Distance to ROW (behind pole)

Max. Horizontal Illuminance at ROW, E_H

Max. Vertical Illuminance at ROW, E_V

N/A

N/A

N/A

Notes

1. Set-Back is from Edge of Pavement (white line).

2. Lighting calculations shall be performed with all luminaires oriented toward and perpendicular to the roadway.

3. Performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

4. Lane width is the width of each **individual** lane, not to be confused with total roadway width.

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

6. Photometric calculations for roadways shall be performed with a total light loss factor of 0.7

7. Light trespass calculations shall be performed with a total light loss factor of 1.0 and with horizontal calculations performed at grade and vertical calculations performed with calculation points located three feet above grade.

8. Luminaire performance table is intended to define the luminaire and does not necessarily match any specific roadway geometry, mounting height, setback, or arm length.

Printed 03/03/25

BDE 5630 (Rev. 06/06/24)



Illinois Department of Transportation

Luminaire Performance Table

Project

Date

Contract Number

Section Number

County

03/03/25

N/A

N/A

Marked Route Number

Municipality

Various

Various

Roadway

Lane Width (see note 4)

Number and Direction of lanes

Median Width

Surface Classification

Q-Zero Value

12

4

N/A

R3

0.07

Structure

Mounting Height

Arm Length

Set-Back (see note 1)

Number of Luminaires

45 ft

15 ft

15 ft

N/A

Luminaire

Description

Transverse Distribution

Lateral Distribution

Replacement for 400W Horizontal Mount

Type III

Medium

Total Light Loss Factor (LLF)

B-U-G Rating

Shields

Dimming Protocol

Refer to Notes 6 and 7

U=0

N/A

0-10V

Layout

Spacing

Configuration

240 ft

Single Sided

Performance (see notes 5 and 6)

Average Illuminance, E_{avg} (fc)

Uniformity Ratio, E_{min}/E_{max}

0.9 to 1.4

less than or equal to 3.0:1

Average Luminance, L_{avg} (cd/m²)

Uniformity Ratio, L_{min}/L_{max}

Uniformity Ratio, L_{low}/L_{high}

Veiling Luminance Ratio, L_{v}/L_{avg}

0.6 to 0.9

less than or equal to 3.5

less than or equal to 6.0:1

less than or equal to 0.3:1

Light Trespass (see notes 5 and 7)

Distance to ROW (behind pole)

Max. Horizontal Illuminance at ROW, E_H

Max. Vertical Illuminance at ROW, E_V

N/A

N/A

N/A

Notes

1. Set-Back is from Edge of Pavement (white line).

2. Lighting calculations shall be performed with all luminaires oriented toward and perpendicular to the roadway.

3. Performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

4. Lane width is the width of each **individual** lane, not to be confused with total roadway width.

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

6. Photometric calculations for roadways shall be performed with a total light loss factor of 0.7

7. Light trespass calculations shall be performed with a total light loss factor of 1.0 and with horizontal calculations performed at grade and vertical calculations performed with calculation points located three feet above grade.

8. Luminaire performance table is intended to define the luminaire and does not necessarily match any specific roadway geometry, mounting height, setback, or arm length.

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BDE 5630 (Rev. 06/06/24)



Illinois Department of Transportation

Luminaire Performance Table

Project

Date

Contract Number

Section Number

County

03/03/25

N/A

N/A

Marked Route Number

Municipality

Various

Various

Roadway

Lane Width (see note 4)

Number and Direction of lanes

Median Width

Surface Classification

Q-Zero Value

12

4

N/A

R3

0.07

Structure

Mounting Height

Arm Length

Set-Back (see note 1)

Number of Luminaires

45 ft

1 ft

30 ft

N/A

Luminaire

Description

Transverse Distribution

Lateral Distribution

Replacement for 400W Multi-Mount

Type III

Medium

Total Light Loss Factor (LLF)

B-U-G Rating

Shields

Dimming Protocol

Refer to Notes 6 and 7

U=0

N/A

0-10V

Layout

Spacing

Configuration

155 ft

Single Sided

Performance (see notes 5 and 6)

Average Illuminance, E_{avg} (fc)

Uniformity Ratio, E_{min}/E_{max}

0.9 to 1.4

less than or equal to 3.0:1

Average Luminance, L_{avg} (cd/m²)

Uniformity Ratio, L_{min}/L_{max}

Uniformity Ratio, L_{low}/L_{high}

Veiling Luminance Ratio, L_{v}/L_{avg}

0.6 to 0.9

less than or equal to 3.5:1

less than or equal to 6.0:1

less than or equal to 0.3:1

Light Trespass (see notes 5 and 7)

Distance to ROW (behind pole)

Max. Horizontal Illuminance at ROW, E_H

Max. Vertical Illuminance at ROW, E_V

N/A

N/A

N/A

Notes

1. Set-Back is from Edge of Pavement (white line).

2. Lighting calculations shall be performed with all luminaires oriented toward and perpendicular to the roadway.

3. Performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

4. Lane width is the width of each **individual** lane, not to be confused with total roadway width.

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

6. Photometric calculations for roadways shall be performed with a total light loss factor of 0.7

7. Light trespass calculations shall be performed with a total light loss factor of 1.0 and with horizontal calculations performed at grade and vertical calculations performed with calculation points located three feet above grade.

8. Luminaire performance table is intended to define the luminaire and does not necessarily match any specific roadway geometry, mounting height, setback, or arm length.

Printed 03/03/25

BDE 5630 (Rev. 06/06/24)

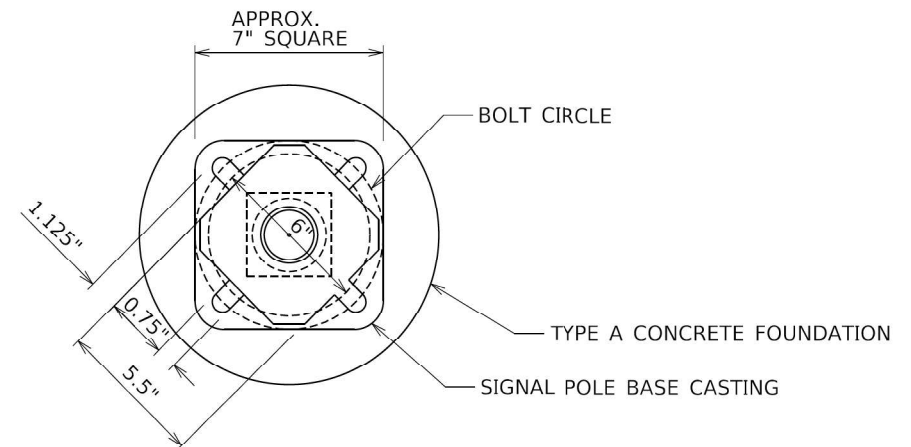
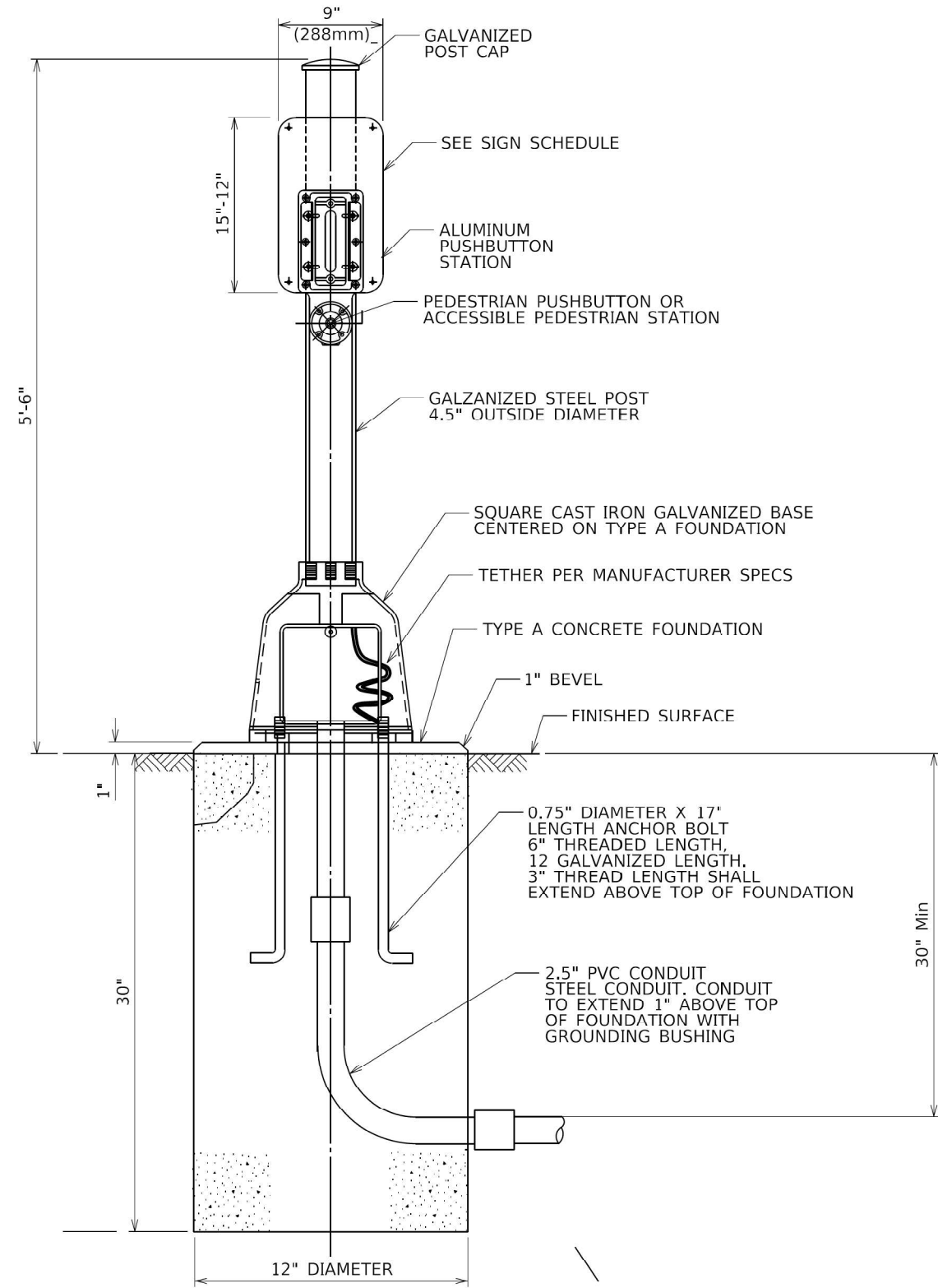
USER NAME	= daniel.hopkins	DESIGNED	-	REVISED	-
		DRAWN	-	REVISED	-
		CHECKED	-	REVISED	-
PLOT DATE	= 3/12/2025	DATE	-	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LUMINAIRE PERFORMANCE TABLE

SCALE: SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D8 LTS MODERNIZATION 2025-1	VARIOUS	8	7
CONTRACT NO. 76T79				
ILLINOIS FED. AID PROJECT				



PEDESTRIAN PUSH-BUTTON POST

MODEL: Ped Push-button post (Sheet)
FILE NAME: c:\p\work\old\daniel.hopkins@illinois.gov\1042618\0876779-sheet-dan.dgn

USER NAME = daniel.hopkins	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 10/16/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL DETAILS
CONCRETE FOUNDATION, TYPE A
PEDESTRIAN PUSH-BUTTON POST

SCALE: SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D8 LTS MODERNIZATION 2025-1	VARIOUS	8	8
CONTRACT NO. 76T79				
ILLINOIS FED. AID PROJECT				