

FIXTURE LOCATION SCHEDULE									
Pole ID No.	Circuit	Configuration	Fixture Type	CL Alignment	Orientation	Stationing	Pole Height	Arm Length	Fixture Notes:
P1	A	Twin	R1	Median CL	90° from CL	755+80	50 ft	6 in.	1
P2	B	Twin	R1	Median CL	90° from CL	758+30	50 ft	6 in.	1
P3	A	Twin	R1	Median CL	90° from CL	760+80	50 ft	6 in.	1
P4	B	Twin	R1	Median CL	90° from CL	763+40	50 ft	6 in.	1
P5	A	Twin	R1	Median CL	90° from CL	765+90	50 ft	6 in.	1
P6	B	Twin	R1	Median CL	90° from CL	768+20	50 ft	6 in.	1
P7	A	Twin	R1	Median CL	90° from CL	770+90	50 ft	6 in.	1
P8	B	Twin	R1	Median CL	90° from CL	773+60	50 ft	6 in.	1
P9	A	Twin	R1	Median CL	90° from CL	776+20	50 ft	6 in.	1
P10	B	Twin	R1	Median CL	90° from CL	778+90	50 ft	6 in.	1
P11	A	Twin	R1	Median CL	90° from CL	781+70	50 ft	6 in.	1
P12	B	Twin	R1	Median CL	90° from CL	784+10	50 ft	6 in.	1
P13	A	Twin	R1	Median CL	90° from CL	786+70	50 ft	6 in.	1
P14	B	Twin	R1	Median CL	90° from CL	789+30	50 ft	6 in.	1
P15	D	Twin	R1	Median CL	90° from CL	791+90	50 ft	6 in.	1
P16	C	Twin	R1	Median CL	90° from CL	794+20	50 ft	6 in.	1
P17	D	Twin	R1	Median CL	90° from CL	796+60	50 ft	6 in.	1
P18	C	Twin	R1	Median CL	90° from CL	799+00	50 ft	6 in.	1
P19	D	Twin	R1	Median CL	90° from CL	801+40	50 ft	6 in.	1
P20	C	Twin	R1	Median CL	90° from CL	803+60	50 ft	6 in.	1
P21	D	Twin	R1	Median CL	90° from CL	806+20	50 ft	6 in.	1
P22	C	Twin	R1	Median CL	90° from CL	808+60	50 ft	6 in.	1
P23	D	Twin	R1	Median CL	90° from CL	811+10	50 ft	6 in.	1
P24	C	Twin	R1	Median CL	90° from CL	813+60	50 ft	6 in.	1
P25	D	Twin	R1	Median CL	90° from CL	815+95	50 ft	6 in.	1
PX1	Existing	Single		Ramp Edge	90° from CL	754+80	40 ft	6 in.	2
PX2	Existing	Single		Ramp Edge	90° from CL	757+00	40 ft	6 in.	2
PX3	Existing	Single		Ramp Edge	90° from CL	759+50	40 ft	6 in.	2
PX4	Existing	Single		Ramp Edge	90° from CL	763+20	40 ft	6 in.	2
PX5	Existing	Single		Ramp Edge	90° from CL	765+00	40 ft	6 in.	2
PX6	Existing	Single		Ramp Edge	90° from CL	767+00	40 ft	6 in.	2

**FIXTURE NOTES:**

1. PROVIDE TWIN-MOUNTED LUMINAIRES, 180° OFFSET, 400 WATT HPS TYPE IV, MEDIUM, SEMI-CUTOFF DISTRIBUTION ROADWAY LUMINAIRES, 480 VOLTS, SIMILAR TO HOLOPHANE MONGOOSE MODEL G400HP00LSCXX, OR APPROVED EQUAL.
2. REINSTALL EXISTING FIXTURE, SEE RAMP LIGHTING REMOVAL AND REINSTALLATION PLAN FOR ADDITIONAL INFORMATION AND NOTES.

PULL BOX SCHEDULE				
Pull Box ID No.	Circuits Contained	Size	Stationing	Pull Box Notes
PB1	A	8"Lx8"Wx4"D	755+85	1
PB2	A, B	8"Lx8"Wx4"D	758+35	1
PB3	A, B	8"Lx8"Wx4"D	760+85	1
PB4	A, B	8"Lx8"Wx4"D	763+45	1
PB5	A, B	8"Lx8"Wx4"D	765+95	1
PB6	A, B	8"Lx8"Wx4"D	768+25	1
PB7	A, B	8"Lx8"Wx4"D	770+95	1
PB8	A, B	8"Lx8"Wx4"D	773+65	1
PB9	A, B	8"Lx8"Wx4"D	776+25	1
PB10	A, B	8"Lx8"Wx4"D	778+95	1
PB11	A, B	8"Lx8"Wx4"D	781+75	1
PB12	A, B	8"Lx8"Wx4"D	784+15	1
PB13	A, B	8"Lx8"Wx4"D	786+75	1
PB14	A, B, C, D	10"Lx10"Wx6"D	789+35	2
PB15	C, D	8"Lx8"Wx4"D	791+85	1
PB16	C, D	8"Lx8"Wx4"D	794+15	1
PB17	C, D	8"Lx8"Wx4"D	796+55	1
PB18	C, D	8"Lx8"Wx4"D	798+95	1
PB19	C, D	8"Lx8"Wx4"D	801+35	1
PB20	C, D	8"Lx8"Wx4"D	803+55	1
PB21	C, D	8"Lx8"Wx4"D	806+15	1
PB22	C, D	8"Lx8"Wx4"D	808+55	1
PB23	C, D	8"Lx8"Wx4"D	811+05	1
PB24	C, D	8"Lx8"Wx4"D	813+55	1
PB25	C, D	8"Lx8"Wx4"D	815+90	1

**PULLBOX NOTES:**

1. PROVIDE (3) 1" CONDUIT ENTRIES, ONE EACH SIDE FOR LATERAL RUN THROUGH MEDIAN, AND ONE FOR POLE CIRCUIT.
2. PROVIDE (5) 1" CONDUIT ENTRIES, ONE EACH SIDE FOR LATERAL RUN THROUGH MEDIAN, TWO FROM ELECTRICAL RACK, AND ONE FOR POLE CIRCUIT.
3. PULLBOX STATIONING IS IN RESPECT TO MEDIAN CENTERLINE ALIGNMENT.

**NOTES - MEDIAN LIGHTING LAYOUT PLANS:**

1. PROVIDE NEW POLE MOUNTED AT TOP OF BARRIER AT EACH LOCATION MARKED BY \*P\* AND INDICATED IN FIXTURE LOCATION TABLE.
2. REFER TO LIGHTING DETAILS SHEETS FOR MEDIAN BARRIER POLE AND BASE DETAILS. CONSTRUCT IN ACCORDANCE WITH ODOT STANDARDS. SEE DRAWING HLD3-1, WITH REVISION TO 50 FT POLE HEIGHTS.
3. REFER TO CONDUIT ROUTING PLANS. COORDINATE INSTALLATION OF POLE BASE WITH NEW CONDUIT ROUTING.
4. INSTALLATION SHALL BE PERFORMED IN ACCORDANCE WITH ODOT STANDARDS. REFER TO INDEX OF SHEETS FOR REFERENCED DETAILS.
5. CONTRACTOR SHALL SUBMIT ALL LIGHT FIXTURES, LIGHT POLES, FIXTURE ARMS AND APPURTENANCES TO OWNER FOR APPROVAL PRIOR TO PROCUREMENT.
6. FIXTURE MOUNTING HEIGHT FOR NEW MEDIAN LIGHTING IS APPROXIMATELY 53.5 FT (50 FT POLE + MEDIAN BARRIER).

**LIGHTING DESIGN GENERAL NOTES:**

1. CONTRACTOR SHALL SUBMIT DIMENSIONED PHOTOMETRIC LAYOUTS OF ALL AREAS TO BE LIT AS INDICATED HEREIN. LAYOUTS SHALL UTILIZE .IES PHOTOMETRIC FILES SUPPLIED BY THE MANUFACTURER FOR THE PROPOSED LIGHT FIXTURES. PHOTOMETRIC MODELING SHALL BE PERFORMED BY AN INDUSTRY ACCEPTED LIGHTING MODELING SOFTWARE PACKAGE: VISUAL, AGI32, OR EQUAL. MODELING SHALL TAKE INTO ACCOUNT ALL EXISTING AND PROPOSED STRUCTURES, ALL GRADE CHANGES, ETC. TO CORRECTLY MODEL THE LIGHTING ENVIRONMENT. ALL LIGHTING DESIGN CRITERIA LISTED HEREIN SHALL BE MET OR EXCEEDED IN PERFORMANCE BY THE PROPOSED EQUIPMENT AND LAYOUT NON-DEPENDENT WHETHER THE EQUIPMENT IS LISTED IN THE DRAWINGS OR IF IT IS AN APPROVED EQUAL. EQUIPMENT AND LAYOUTS WHICH DO NOT MEET OR EXCEED DESIGN REQUIREMENTS WILL BE REJECTED BY THE ENGINEER DURING SUBMITTAL STAGE. INSTALLATIONS WHICH PASS THE SUBMITTAL STAGE AND DO NOT MEET OR EXCEED MEASURED PHOTOMETRIC VALUES IN THE FIELD WILL BE REJECTED BY THE ENGINEER, AND THE SYSTEM WILL BE REPLACED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER AND ENGINEER.
2. FOLLOWING THE SYSTEM INSTALLATION, PRIOR TO PROJECT CLOSEOUT, THE CONTRACTOR SHALL TAKE IN-FIELD MEASUREMENTS OF ALL THE LIT SURFACES AND SUBMIT TO THE ENGINEER FOR REVIEW. MEASUREMENTS SHALL BE TAKEN ON A 30' X 30' GRID FOR HIGHWAY LIGHTING. CONTRACTOR SHALL PLOT ON A FULL-SIZE DRAWING SET EACH MEASUREMENT TAKEN. GRIDS SHALL BE ORIENTED SUCH THAT THEY ARE SYMMETRICAL ABOUT THE ALIGNMENT CENTERLINE.
3. ALL LAYOUT MODELING AND FIELD MEASUREMENTS SHALL BE TAKEN HORIZONTALLY ON THE PAVED SURFACES AT 0'-0" AFG.
4. ANY CONTRACTOR PROPOSED ALTERNATE TO FIXTURES LISTED ON THE LIGHT FIXTURE SCHEDULE SHALL BE REVIEWED BY THE ENGINEER AND SHALL MEET ALL REQUIREMENTS LISTED IN THE TABLE.
5. ALL FIXTURES SHALL BE MOUNTED AND ORIENTED AS SPECIFIED ON THE APPROPRIATE LIGHTING TABLE PLAN SHEETS. UNLESS SPECIFIED OTHERWISE, ALL FIXTURES SHALL BE ORIENTED SO THAT THE FIXTURE "FRONT" AS DEFINED BY THE .IES PHOTOMETRIC FILE IS PERPENDICULAR WITH THE ALIGNMENT CENTERLINE. HOWEVER, CONTRACTOR SHALL ADJUST FIXTURE AIMING AND ORIENTATION AS REQUIRED BY THE ENGINEER IN THE FIELD TO MEET THE LIGHTING DESIGN CRITERIA.
6. ALL LIGHT FIXTURES SHALL BE MODELED WITH LLF AS RECOMMENDED BY THE MANUFACTURER FOR THE INTENDED APPLICATION AND ENVIRONMENTAL CONDITIONS.
7. CONTRACTOR SHALL NOTE THAT ALL ELECTRICAL DISTRIBUTION SYSTEM COMPONENTS (CONDUIT, WIRE, PANELS, JUNCTION BOXES, ETC.) ARE DESIGNED AND SIZED AROUND THE EQUIPMENT SPECIFIED. IF ALTERNATES ARE PROPOSED IT IS THE CONTRACTOR'S RESPONSIBILITY DURING SUBMITTAL STAGE TO SUBMIT PROOF THAT THE NEW ALTERNATE WILL WORK WITH THE ELECTRICAL INFRASTRUCTURE SPECIFIED HEREIN THESE CONTRACT DOCUMENTS. IF IT WILL NOT SUPPORT THE PROPOSED ALTERNATE, THE CONTRACTOR SHALL SUBMIT WHAT MODIFICATIONS ARE REQUIRED AND THESE WILL BE MADE BY THE CONTRACTOR AT HIS/HER EXPENSE FOLLOWING APPROVAL BY THE OWNER.
8. PROVIDE ALL LIGHT POLES WITH FRONT FACING HAND HOLE PULL POINTS AT THE BASE OF THE POLE WITH REMOVABLE COVER AND TAMPERPROOF SCREWS.

**LIGHTING DESIGN CRITERIA:**

AS OUTLINED IN IESNA HANDBOOK, 9TH EDITION

**- HIGHWAY**

- DEFINED AS CLASS A FREEWAY PER IESNA.
- PAVEMENT CLASSIFIED AS R1 PER IESNA.
- AVERAGE MAINTAINED ILLUMINANCE: 0.9 fc.
- ILLUMINANCE UNIFORMITY RATIO (MAX:MIN): 6:1
- ILLUMINANCE UNIFORMITY RATIO (AVG:MIN): 3:1

DESIGN	SFF	2/15	TULSA & ROGERS COUNTIES
DRAWN	SFF	2/15	
CHECKED	SFF	2/15	
APPROVED			
SQUAD	<b>GARVER</b>		
			ELECTRICAL SCHEDULES AND NOTES
			STATE JOB NO. 21899(04) SHEET NO. 224