# LIGHTING GENERAL NOTES:

- THE ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST IDOT STANDARDS, NATIONAL ELECTRICAL CODE AS WELL AS THE NATIONAL ELECTRICAL SAFETY CODE.
- 2. COORDINATE THE INSTALLATION OF ROADWAY LIGHTING WITH THE CONSTRUCTION STAGING.
- 3. FOR POLE TOWER AND LUMINAIRE DETAILS, REFER TO ELECTRICAL PLANS AND SPECIFICATIONS.
- 4. COORDINATE THE INSTALLATION OF ROADWAY LIGHTING AND UNDERGROUND WORK WITH THE OTHER TRADES.
- 5. IT SHALL BE THE CONTRACTOR'S RESPONSIBILTY TO MARK THE PROPOSED LOCATIONS OF ALL LIGHT POLE AND TOWER FOUNDATIONS, CENTER LINE OF TRENCH AND PUSHES AND THE LIGHTING CONTROLLER FOR EXAMINATION AND CONFIRMATION WITH THE ENGINEER AT THE PRECONSTRUCTION INSPECTION. THE EXACT LOCATIONS OF ALL ITEMS SHALL BE CONFIRMED WITH THE ENGINEER PRIOR TO STARTING WORK.
- 6. NO SPLICES SHALL BE MADE IN CONDUIT, UNIT DUCT OR HANDHOLES. THESE SHALL BE MADE IN POLE BASES OR ABOVE GROUND JUNCTION BOXES IN AN APPROVED MANNER.
- 7. THE CONTRACTOR SHALL MAKE SPECIAL NOTE OF THE REQUIREMENTS FOR GROUNDING, GROUNDING CONNECTIONS AT THE FOUNDATION SHALL BE EXOTHERMICALLY WELDED, AS SPECIFIED, AND SHALL BE INSPECTED AND APPROVED BY THE RESIDENT ENGINEER PRIOR TO POURING CONCRETE OR BACKFILLING, AS APPLICABLE.
- 8. THE CONTRACTOR SHALL MAKE SPECIAL NOTE OF THE SPECIFIED REQUIREMENTS FOR BURIED WARNING TAPE, SPECIFIED AS PART OF "TRENCH AND BACKFILL FOR ELECTRICAL WORK." THE INSTALLATION OF THE TAPE SHALL BE INSPECTED BY THE ENGINEER PRIOR TO BACKFILLING OR DURING PLOWING OPERATIONS. AS APPLICABLE.
- 9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ESTABLISHMENT OF FINISHED GRADE. THE ENGINEER MAY ASSIST THE CONTRACTOR, AS APPLICABLE, BUT THE RESPONSIBILITY FOR THE COORDINATING THE FINISHED GRADE ELEVATION WITH THE TOP OF THE FOUNDATION HEIGHTS AND THE LIKE SHALL REMAIN WITH THE CONTRACTOR.
- 10. NO LIGHT POLES OR TOWERS SHALL BE ERECTED UNTIL THE RESPECTIVE FOUNDATIONS HAVE CURED AS APPROVED BY THE ENGINEER.
- 11. TO MAINTAIN STRUCTURAL INTEGRITY OF THE LIGHT POLES WITH MAST ARMS, THEY SHALL NOT BE ERECTED AND LEFT TO STAND WITHOUT LUMINAIRES. NOTE THAT POLES SHALL NOT BE PAID UNTIL THE LUMINAIRES ARE INSTALLED.
- 12. NO EQUIPMENT OR MATERIAL SHALL BE DELIVERED TO THE JOB SITE PRIOR TO THE APPROVAL AND INSPECTION BY THE ENGINEER. ANY EQUIPMENT OR MATERIAL DELIVERED TO THE JOB SITE PRIOR TO APPROVAL AND INSPECTION SHALL BE REMOVED FROM THE JOB SITE AT THE CONTRACTOR'S EXPENSE.
- 13. THE UNIT DUCT AND CONDUIT SHALL BE INSTALLED MIN. 30 INCHES BELOW FINISHED GRADE (UNLESS DIRECTED OTHERWISE) COMPLETE WITH WARNING TAPE. CONTRACTOR SHALL HANDDIG TEST HOLES FOR EVERY 1000 FT. OF TRENCHING/PLOWING FOR ENGINEER'S APPROVAL OF THE INSTALLATION.
- 14. IT IS CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE LOCATION OF EXISTING UNDERGROUND UTILITIES PRIOR TO THE START OF CONSTRUCTION. CONTACT J.U.L.I.E. PRIOR TO THE START OF ANY EXCAVATION WORK.
- 15. MATERIAL QUANTITIES ARE APPROXIMATIONS ONLY. IT IS CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL QUANTITIES PRIOR TO ORDERING MATERIAL.
- 16. A STAGING SCHEDULE FOR MATERIAL INSTALLATION, REMOVAL AND APPROXIMATE DATE OF PROPOSED ENERGIZING OF PERMANENT LIGHTING SHALL BE SUBMITTED PRIOR TO THE COMMENCEMENT OF WORK TO ASSURE COORDINATION WITH THE WORK SCHEDULE.
- 17. ALL PROPOSED LIGHT POLE OR TOWER FOUNDATIONS, LIGHT FIXTURES, UNIT DUCT, AND CONDUIT SHALL BE INSTALLED AS SHOWN ON THE PLANS. THE EXACT LOCATION IS TO BE CONFIRMED IN THE FIELD BY THE RESIDENT ENGINEER.
- 18. EACH WIRE SHALL BE IDENTIFIED AT EACH POLE BY APPROPRIATE CONTROLLER AND CIRCUIT NUMBER.
- 19. CONTRACTOR SHALL SUBMIT "RECORD DRAWINGS" A MINIMUM OF 7 DAYS PRIOR TO THE FINAL INSPECTION.
  "RECORD DRAWINGS" SHALL BE UPDATED REGULARLY DURING CONSTRUCTION AND INDICATE ALL LIGHTING
  MATERIAL INSTALLATION WITH ANY CHANGES IN RED.
- 20. CONTRACTOR TO VERIFY FOUNDATION BOLT PATTERN PRIOR TO CONSTRUCTING FOUNDATIONS.
- 21. CONTRACTOR'S STAGING AREA SHALL BE AS DIRECTED IN THE PRE-CONSTRUCTION MEETING.
- 22. CIRCUIT NUMBERING AND DESIGNATIONS SHOWN ON THE PLANS ARE FROM EXISTING DRAWINGS. CONTRACTOR SHALL VERIFY CIRCUIT NUMBERING, CABLE ROUTING AND POWER SOURCES DURING CONSTRUCTION.
- 23. LIGHTING CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH THE TRAFFIC SURVEILLANCE CONTRACTOR.
- 24. ALL LIGHTING UNITS ALONG I-57 ARE UNDER IDOT JURISDICTION AND SHALL FOLLOW IDOT STANDARDS, DETAILS, AND SPECIFICATIONS. ALL LIGHTING UNITS ALONG I-294 ARE UNDER TOLLWAY JURISDICTION AND SHALL FOLLOW TOLLWAY STANDARDS, SPECIFICATIONS, AND DETAILS AS SHOWN IN THE PLANS.
- 25. FOUNDATION DEPTH "D" FOR 130 FT LIGHT TOWER SHALL BE AS FOLLOWS:
  (FOR ALL OTHER DETAILS, REFER TO HIGH MAST LIGHT TOWER FOUNDATION DETAIL (BE-501))

	SOIL CONDITIONS						
MOUNTING HEIGHT	SOFT CLAY	MEDIUM CLAY	STIFF CLAY	LOOSE SAND Ø = 34°	MEDIUM SAND Ø = 37.5°	DENSE SAND Ø = 40°	
	TONS/SQ. FT	TONS/SQ. FT		<i>D</i> - 34	0 - 31.3	W = 40	
130 FT (39 m)	43 FT	30 FT	22 FT	22 FT	20 FT	19 FT	

# SUMMARY OF PROPOSED ELECTRICAL/LIGHTING QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	QUANTITY
50200400	ROCK EXCAVATION FOR STRUCTURES	CU YD	34
81101005	CONDUIT ATTACHED TO STRUCTURE, 4" DIA., PVC COATED GALVANIZED STEEL	FOOT	247
81300555	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12" X 12" X 8"	EACH	4
81603203	UNIT DUCT, 600V, 3-1C NO.2, 1/C NO.4 GROUND, (EPR-TYPE RHW), 1 1/2" DIA. POLYETHYLENE	FOOT	3637
81900200	TRENCH BACKFILL FOR ELECTRICAL WORK	FOOT	3390
82102400	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 400W	EACH	2
82105600	LUMINAIRE, SODIUM VAPOR, HIGH MAST, HORIZONTAL MOUNT, 400 WATT	EACH	40
83050810	LIGHT POLE, ALUMINUM, 47.5 FT. M.H., 15 FT. MAST ARM	EACH	2
83504700	LIGHT TOWER, 120 FT. MOUNTING HEIGHT, LUMINAIRE MT 12	EACH	7
83505700	LIGHT TOWER, 130 FT. MOUNTING HEIGHT, LUMINAIRE MT 12	EACH	1
83700250	LIGHT TOWER FOUNDATION, 44" DIAMETER	FOOT	170
83700300	LIGHT TOWER FOUNDATION, 48" DIAMETER	FOOT	30
83800205	BREAKAWAY DEVICE, TRANSFORMER BASE, 15 INCH BOLT CIRCLE	EACH	2
X0322434	LIGHT TOWER SERVICE PAD, SPECIAL	EACH	8
X0325132	SHAPING AND GRADING AT HIGH MAST LIGHT TOWER	SQ YD	170
X8360360	LIGHT POLE FOUNDATION METAL, 15" BOLT CIRCLE, 10" X 8'	EACH	2

## LEGEND:

## IDOT ITEMS (I-57)

- O—E EXISTING ROADWAY LIGHTING UNIT TO REMAIN
- EXISTING ROADWAY LIGHTING UNIT AND FOUNDATION TO BE REMOVED. SHOWN ON EXISTING PLANS
- PROPOSED ROADWAY LIGHTING UNIT, ALUMINUM POLE, 47.5 FT M.H., 15 FT MAST ARM, 400 WATT
- RGS RIGID GALVANIZED STEEL
- ATS CONDUIT ATTACHED TO STRUCTURE
- EIS CONDUIT EMBEDDED IN STRUCTURE
- UD UNIT DUCT
- EOP EDGE OF TRAVELLED PAVEMENT
- O/S OFFSET
- SS STAINLESS STEEL
- E) EXISTING
- GROUND ROD OR GROUND ROD ARRAY (SEE FOUNDATION DETAILS)
- PROPOSED HIGH MAST LIGHT TOWER AND 400 WATT LUMINAIRES.

#### HMLT FOUNDATION ELEVATIONS

LIGHT TOWER	STATION	OFFSET	POLE HEIGHT	FOUNDATION ELEVATION				
KEF5	1247+15	160.7′ RT	120 FT	607.00				
KEF6	1251+27	176.6' RT	130 FT	607.00				
KEF7	1255+62	134.6' RT	120 FT	628.44				
KAB6	1255+63	95.4' LT	120 FT	626.87				
JCD7	1259+79	135.4' RT	120 FT	629.45				
JAB7	1260+39	87.3′ LT	120 FT	622.44				
JCD6	1264+00	136.4' RT	120 FT	624.94				
JAB6	1264+31	104.0' LT	120 FT	619.84				

### **IDOT DISTRICT 1 STANDARDS**

BE-305: LIGHT POLE FOUNDATION, METAL

BE-400: ALUMINUM LIGHT POLE 47'-6" MOUNTING HEIGHT

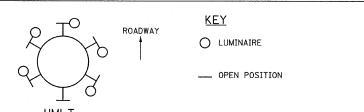
BE-500: HIGH MAST LIGHT TOWER 90 FT TO 120 FT

BE-501: HIGH MAST LIGHT TOWER 90 FT TO 120 FT FOUNDATION DETAILS

BE-505: HIGH MAST LIGHT TOWER 130 FT TO 150 FT

BE-702: MISC. ELECTRICAL DETAILS - SHEET A

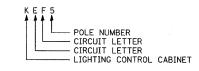
## LUMINAIRE ORIENTATION



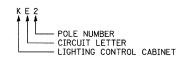
HMLT LUMINAIRE MOUNTING 110'. 120' AND 130' HEIGHT

COUNTERWEIGHT AS REQUIRED

## IDOT HIGH MAST LIGHT TOWER DESIGNATION:



# IDOT LIGHT POLE DESIGNATION:



NEW SHEET

SHEET E16

DESIGNED USER NAME = JDF REVISED A- ADDENDUM 1 05/24/10 DRAWN CAC REVISED TYLININTERNATIONAL PLOT SCALE CHECKED DAJ REVISED PLOT DATE DATE 3/18/2010 REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-57 AT I-294 INTERCHANGE PROJECT
PROPOSED LIGHTING GENERAL NOTES, LEGEND, AND QUANTITIES

SCALE: NONE SHEET NO. 1 OF 1 SHEET STA. TO STA.

FED. ROAD DIST. NO. ILLINOIS FED. AND PROJECT

FED. ROAD DIST. NO. ILLINOIS FED. AND PROJECT

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