

NO COMMITMENTS HAVE BEEN MADE IN CONJUNCTION WITH THIS PROJECT.

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|-----------------|--|
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| HIGHWAY STANDARDS |  |
|-------------------|--|
| STANDARD          | APPLICATION  |
| 000001-08         | STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS                              |
| 001006            | DECIMAL OF AN INCH AND OF A FOOT   |
| 701001-02         | OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY                            |
| 701006-05         | OFF-ROAD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE                 |
| 701101-05         | OFF-ROAD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE              |
| 701106-02         | OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 15' AWAY                         |
| 701301-04         | LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS                                |
| 701426-09         | LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS ≥ 45 MPH |
| 701451-05         | RAMP CLOSURE, FREEWAY/ EXPRESSWAY  |
| 701456-05         | PARTIAL EXIT RAMP CLOSURE FREEWAY / EXPRESSWAY                             |
| 701901-08         | TRAFFIC CONTROL DEVICES  |
| 814001-03         | HANDHOLES  |
| 821101-02         | LUMINAIRE WIRING IN POLE   |
| 830021-03         | LIGHT POLE STEEL TENON TOP   |
| 836001-04         | LIGHT POLE FOUNDATION  |
| 838001-01         | BREAKAWAY DEVICES  |

TRAFFIC CONTROL NOTES:

I-39 MAINLINE:

- USE STD. 701301, ONE ADDITIONAL FLAGGER SHALL BE REQUIRED FOR APPROACHING TRAFFIC ON THE EXIT RAMP WITHIN THE LANE CLOSURE. THIS COST IS INCIDENTAL TO STD. 701301.

I-39 RAMPS:

- THE CONTRACTOR SHALL GIVE 14 DAYS ADVANCE NOTICE PRIOR TO STARTING WORK ON THE RAMPS.
- STD. 701451 SHALL BE USED TO CLOSE THE RAMPS.
- STD. 701426 SHALL BE USED TO CLOSE THE DRIVING LANE OF MAINLINE I-39 DURING REMOVAL OF THE TWO TOWERS LOCATED AT GORE AREAS ALONG I-39.

MACKINAW DELLS REST AREAS:

- THE CONTRACTOR SHALL NOTIFY BRITTANY GAVIN, D4 ROADSIDE MANAGER, (309-671-4479) 7 DAYS PRIOR TO TOWER REMOVAL.
- PARKING SPACES AFFECTED BY THE TOWER REMOVAL AND INSTALLATION WORK SHALL BE BARRELLED OFF 24 HOURS PRIOR TO STARTING THE WORK. THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF THE TOWER REMOVAL.
- THE CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL DURING THE REMOVAL OF THE LIGHT TOWERS IN THE EASTBOUND MACKINAW REST AREA BY UTILIZING A SLOW ROLL OPERATION WITH TWO VEHICLES DRIVING IN THE I-74 EB LANES TO PROVIDE AN OPENING IN THE WB LANES WHERE THERE IS NO TRAFFIC ON THE ROADWAY WHILE THE LIGHT TOWERS ARE REMOVED AND LAID DOWN. THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF THE TOWER REMOVAL.

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|------------------------------|------------|-----------|
| USER NAME = howalden         | DESIGNED - | REVISED - |
| PLOT SCALE = 165.0762' / in. | DRAWN -    | REVISED - |
| PLOT DATE = 3/26/2021        | CHECKED -  | REVISED - |
|                              | DATE -     | REVISED - |

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**COMMITMENTS, INDEX OF SHEETS, HIGHWAY STANDARDS,  
AND TRAFFIC CONTROL NOTES**

SCALE: SHEET OF SHEETS STA. TO STA.

|                           |                  |          |              |           |
|---------------------------|------------------|----------|--------------|-----------|
| F.A.I. RTE.               | SECTION          | COUNTY   | TOTAL SHEETS | SHEET NO. |
| 39 / 74                   | (102-4;X3-16RA)L | WOODFORD | 15           | 2         |
| CONTRACT NO. 68G22        |                  |          |              |           |
| ILLINOIS FED. AID PROJECT |                  |          |              |           |

REVISED 32521 - ERH

**CONSTRUCTION NOTES**

1. THE LOCATION OF ALL UTILITIES AND PRIVATELY OWNED FACILITIES SHALL BE FIELD VERIFIED BY THE GENERAL CONTRACTOR PRIOR TO THE INSTALLATION OF ANY COMPONENTS.
2. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING EXISTING IDOT ELECTRICAL FACILITIES AT HIS/HER OWN EXPENSE IF REQUIRED. THE GENERAL CONTRACTOR SHALL ALSO BE LIABLE FOR ANY DAMAGE TO IDOT FACILITIES RESULTING FROM INACCURATE LOCATING.
3. ELECTRICAL WORK SHALL CONFORM WITH NATIONAL, STATE, AND LOCAL CODES.
4. THE LOCATIONS FOR LIGHT POLES ARE PROVIDED FOR REFERENCE ONLY. THE ENGINEER OF TRAFFIC SHALL BE NOTIFIED FOR LOCATION VERIFICATION BEFORE INSTALLATION.
5. ALL HIGHWAY LIGHTING STRUCTURES SHALL BE BONDED IN ACCORDANCE WITH NEC REQUIREMENTS. THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR "UNIT DUCT, 600V, 2-1C NO.6, 1/C NO.8 GROUND, (XLP-TYPE USE), 1" DIA. POLYETHYLENE" AND SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS (INCLUDING CLAMPS, HARDWARE, ELECTRICAL CABLE, AND ALL OTHER ITEMS REQUIRED TO BOND THE STRUCTURES.)
6. THE CONTRACTOR SHALL PROVIDE ELECTRICAL CABLE SLACK IN ACCORDANCE WITH ARTICLE 873.03.
7. ELECTRICAL CABLE WILL BE MEASURED FOR PAYMENT IN ACCORDANCE WITH ARTICLE 817.04.
8. POTHOLING TO LOCATE EXISTING UNDERGROUND UTILITIES SHALL BE INCLUDED IN THE CONTRACT BID PRICE FOR THE UNIT-DUCT PAY ITEM.
9. ALL SURPLUS MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS.
10. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR PLACING UNIT-DUCT OR CONDUIT AT GREATER THAN 2 FT. MINIMUM DEPTH TO AVOID OBSTACLES SUCH AS UNDERGROUND UTILITIES.
11. THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF UNCOVERING OR HAND DIGGING AROUND UTILITIES AS NECESSARY. THIS COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT PRICES FOR THE UNIT-DUCT AND CONDUIT.
12. THE CONTRACTOR SHALL VERIFY FIELD CONDITIONS PRIOR TO BIDDING. THERE WILL BE NO ADDITIONAL COMPENSATION PAID FOR CLAIMS THAT ARISE FROM A FAILURE TO FULLY INVESTIGATE EXISTING FIELD CONDITIONS.
13. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF THE EXISTING LIGHTING SYSTEM COMPLETELY (LIGHT POLES, HIGH MAST LIGHT TOWERS, CONCRETE AND METAL FOUNDATIONS, LUMINAIRES, WIRING, ETC.) AS SHOWN IN THE PLANS. THIS WORK SHALL BE INCLUDED IN THE UNIT BID PRICE FOR "REMOVE EXISTING LIGHTING SYSTEM."
14. THE CONTRACTOR SHALL FURNISH AND INSTALL NEW FUSEHOLDERS, FUSES, SURGE ARRESTORS, AND LUMINAIRE WIRING INSIDE THE POLE. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE OF THE PROPOSED LUMINAIRES.
15. THE CONTRACTOR SHALL DISPOSE OF THE EXISTING LIGHT POLES, HIGH MAST LIGHT TOWERS, CONCRETE AND METAL FOUNDATIONS, LUMINAIRES, WIRING, ETC. OFF THE JOB SITE. THE SALVAGE COST OF THESE ITEMS SHALL BE INCLUDED IN THE BID PRICES FOR "REMOVE EXISTING LIGHTING SYSTEM."
16. COILABLE POLYETHYLENE DUCT MAY BE SUBSTITUTED FOR PVC PUSHED OR TRENCHED.
17. THE EXISTING LIGHTING SYSTEM SHALL REMAIN IN OPERATION UNTIL THE PROPOSED LIGHTING SYSTEM IS FULLY OPERATIONAL.
18. THE CONTRACTOR SHALL REMOVE EXISTING METAL HELIX FOUNDATIONS BY EXCAVATING 36", CUTTING THE FOUNDATION, AND BACKFILLING AS REQUIRED TO MATCH THE EXISTING GRADE. THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE FOR "REMOVE EXISTING LIGHTING SYSTEM."
19. THE COST OF THE CONDUIT AND SERVICE CABLES, INCLUDING GROUNDING CABLE AND HARDWARE, FROM THE DISCONNECT TO THE LIGHTING CONTROLLER SHALL BE INCLUDED IN THE COST OF THE PROPOSED ELECTRIC SERVICE.
20. THE CONTRACTOR SHALL REMOVE EXISTING CONCRETE LIGHT TOWER FOUNDATIONS IN ACCORDANCE WITH ARTICLE 895.05 OF THE STANDARD SPECIFICATIONS. THE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE FOR "REMOVE EXISTING LIGHTING SYSTEM."
21. THE CONTRACTOR MAY ELECT TO INSTALL CONDUIT AND ELECTRIC WIRE IN LIEU OF UNIT DUCT AT NO ADDITIONAL COST TO THE DEPARTMENT.

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REVISED 3/25/21 - ERH

|  |                              |            |           |   |                           |                           |                  |          |              |           |         |
|--|------------------------------|------------|-----------|---|---------------------------|---------------------------|------------------|----------|--------------|-----------|---------|
|  | USER NAME = howalden         | DESIGNED - | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>CONSTRUCTION NOTES</b> | F.A.I. RTE.               | SECTION          | COUNTY   | TOTAL SHEETS | SHEET NO. |         |
|  |                              | DRAWN -    | REVISED - |   |                           | 39 / 74                   | (102-4;X3-16RA)L | WOODFORD | 15           | 3         |         |
|  | PLOT SCALE = 165.0762' / in. | CHECKED -  | REVISED - |   |                           | CONTRACT NO. 68G22        |                  |          |              |           |         |
|  | PLOT DATE = 3/26/2021        | DATE -     | REVISED - |   |                           | ILLINOIS FED. AID PROJECT |                  |          |              |           |         |
|  |                              |            |           |   |                           | SCALE:                    | SHEET            | OF       | SHEETS       | STA.      | TO STA. |

## SUMMARY OF QUANTITIES

**WOODFORD COUNTY**  
**CONST. TYPE**  
**CODE 0021**  
**90% FEDERAL**  
**10% STATE**  
**OVERHEAD LIGHTING**  
**RURAL**

| CODE     | ITEM DESCRIPTION  | UNIT  | TOTAL QTY. |        |
|----------|---|-------|------------|--------|
| 67100100 | MOBILIZATION  | L SUM | 1.0        | 1.0    |
| 80400100 | ELECTRIC SERVICE INSTALLATION   | EACH  | 1.0        | 1.0    |
| 81028350 | UNDERGROUND CONDUIT, PVC, 2" DIA.   | FOOT  | 615.0      | 615.0  |
| 81028360 | UNDERGROUND CONDUIT, PVC, 2 1/2" DIA.   | FOOT  | 70.0       | 70.0   |
| 81400700 | HANDHOLE, PORTLAND CEMENT CONCRETE  | EACH  | 1.0        | 1.0    |
| 81603040 | UNIT DUCT, 600V, 2-1C NO.6, 1/C NO.8 GROUND, (XLP-TYPE USE), 1" DIA. POLYETHYLENE | FOOT  | 8664.0     | 8664.0 |
| 82110008 | LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H                                     | EACH  | 14.0       | 14.0   |
| 82110009 | LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION I                                     | EACH  | 10.0       | 10.0   |
| 82500330 | LIGHTING CONTROLLER, PEDESTAL MOUNTED, 240VOLT, 60AMP                             | EACH  | 1.0        | 1.0    |
| 82500430 | LIGHTING CONTROLLER, WALL MOUNTED, 240VOLT, 100AMP                                | EACH  | 2.0        | 2.0    |
| 83060830 | LIGHT POLE, GALVANIZED STEEL, 45 FT. M.H., TENON MOUNT                            | EACH  | 24.0       | 24.0   |
| 83600356 | LIGHT POLE FOUNDATION, METAL, 15" BOLT CIRCLE, 8 5/8" X 6'                        | EACH  | 24.0       | 24.0   |
| 83800650 | BREAKAWAY DEVICE, COUPLING WITH STAINLESS STEEL SCREEN                            | EACH  | 96.0       | 96.0   |
| X0325541 | REMOVE EXISTING LIGHTING SYSTEM   | L SUM | 1.0        | 1.0    |
| X7010216 | TRAFFIC CONTROL AND PROTECTION, (SPECIAL)   | L SUM | 1.0        | 1.0    |
| X8210402 | LUMINAIRE MOUNTING BRACKET - SPECIAL  | EACH  | 24.0       | 24.0   |



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|------------------------------|------------|-----------|
| USER NAME = howald           | DESIGNED - | REVISED - |
|                              | DRAWN -    | REVISED - |
| PLOT SCALE = 165.0762' / in. | CHECKED -  | REVISED - |
| PLOT DATE = 1/29/2021        | DATE -     | REVISED - |

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

**SUMMARY OF QUANTITIES**

SCALE: SHEET OF SHEETS STA. TO STA.

|                           |                  |          |              |           |
|---------------------------|------------------|----------|--------------|-----------|
| F.A.I. RTE.               | SECTION          | COUNTY   | TOTAL SHEETS | SHEET NO. |
| 39 / 74                   | (102-4;X3-16RA)L | WOODFORD | 15           | 4         |
| ILLINOIS FED. AID PROJECT |                  |          |              |           |

REV. 4/1/21 REV. 3/29/21 REV. 3/1/21



| BILL OF MATERIALS               |       |      |
|---------------------------------|-------|------|
| DESCRIPTION                     | UNIT  | QTY. |
| REMOVE EXISTING LIGHTING SYSTEM | L SUM | 1.0  |

REMOVE EXISTING EXISTING LIGHTING SYSTEM - QTY. 1 LUMP SUM (INCLUDES, BUT IS NOT LIMITED TO, ALL ITEMS LISTED BELOW)

THE FOLLOWING ITEMS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR OFF OF THE RIGHT-OF-WAY:  
I-39 @ MINONK INTERCHANGE

| QTY. | ITEM   |
|------|--|
| 1.0  | LIGHTING CONTROLLER CABINET (RE-USE EX. FOUNDATION)                                    |
| 1.0  | ELECTRICAL SERVICE INSTALLATION  |
| 4.0  | TOWER LIGHTING STRUCTURE, COMPLETE WITH HIGH MAST LUMINAIRES                           |
| 4.0  | TOWER LIGHTING CONCRETE FOUNDATION (PARTIAL REMOVAL IN ACCORDANCE WITH ARTICLE 895.05) |
| 4.0  | LIGHT POLE, WEATHERING STEEL, WITH HPS LUMINAIRE                                       |
| 9.0  | METAL HELIX FOUNDATION FOR LIGHT POLE (SEE NOTE)                                       |

I-74 EB - MACKINAW DELLS REST AREA

| QTY. | ITEM   |
|------|--|
| 2.0  | TOWER LIGHTING STRUCTURE, COMPLETE WITH HIGH MAST LUMINAIRES                           |
| 1.0  | TOWER LIGHTING CONCRETE FOUNDATION (PARTIAL REMOVAL IN ACCORDANCE WITH ARTICLE 895.05) |
| 1.0  | LIGHTING CONTROLLER (LOCATED IN REST AREA BASEMENT)                                    |

I-74 WB - MACKINAW DELLS REST AREA

| QTY. | ITEM   |
|------|--|
| 1.0  | TOWER LIGHTING STRUCTURE, COMPLETE WITH HIGH MAST LUMINAIRES                           |
| 1.0  | TOWER LIGHTING CONCRETE FOUNDATION (PARTIAL REMOVAL IN ACCORDANCE WITH ARTICLE 895.05) |
| 1.0  | LIGHTING CONTROLLER (LOCATED IN REST AREA BASEMENT)                                    |

ALL EXISTING UNIT-DUCT SHALL BE ABANDONED IN PLACE. ALL EXISTING ELECTRICAL WIRES SHALL BE REMOVED FROM CONDUITS AND THE CONDUITS SHALL BE ABANDONED IN PLACE.

EXISTING METAL HELIX FOUNDATIONS SHALL BE REMOVED BY EXCAVATING 36", CUTTING THE FOUNDATION OFF, AND BACKFILLING AS REQUIRED TO MATCH THE EXISTING GRADE.

"R" INDICATES REMOVAL ITEM

| LEGEND |  |
|--------|--|
|        | EXISTING LIGHTING CONTROLLER AND CONCRETE FOUNDATION                     |
|        | EXISTING ELECTRICAL SERVICE  |
|        | EXISTING 50' MH LIGHT POLE (WEATHERING STEEL) AND METAL HELIX FOUNDATION |
|        | EXISTING TOWER LIGHTING STRUCTURE AND CONCRETE FOUNDATION                |
|        | EXISTING CONDUIT   |

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| USER NAME = howalden         | DESIGNED - | REVISED - |
|                              | DRAWN -    | REVISED - |
| PLOT SCALE = 165.0762' / in. | CHECKED -  | REVISED - |
| PLOT DATE = 3/26/2021        | DATE -     | REVISED - |

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING LIGHTING PLANS & REMOVAL ITEMS  
I-39 & CR 2200 N (EXIT 27) INTERCHANGE - WOODFORD COUNTY

SCALE: SHEET OF SHEETS STA. TO STA.

| F.A.I. RTE.               | SECTION          | COUNTY   | TOTAL SHEETS       | SHEET NO. |
|---------------------------|------------------|----------|--------------------|-----------|
| 39 / 74                   | (102-4;X3-16RA)L | WOODFORD | 15                 | 5         |
| ILLINOIS FED. AID PROJECT |                  |          | CONTRACT NO. 68G22 |           |

REVISED ENTIRE SHEET 4/1/21



"R" INDICATES REMOVAL ITEM

LEGEND



EXISTING TOWER LIGHTING STRUCTURE AND CONCRETE FOUNDATION

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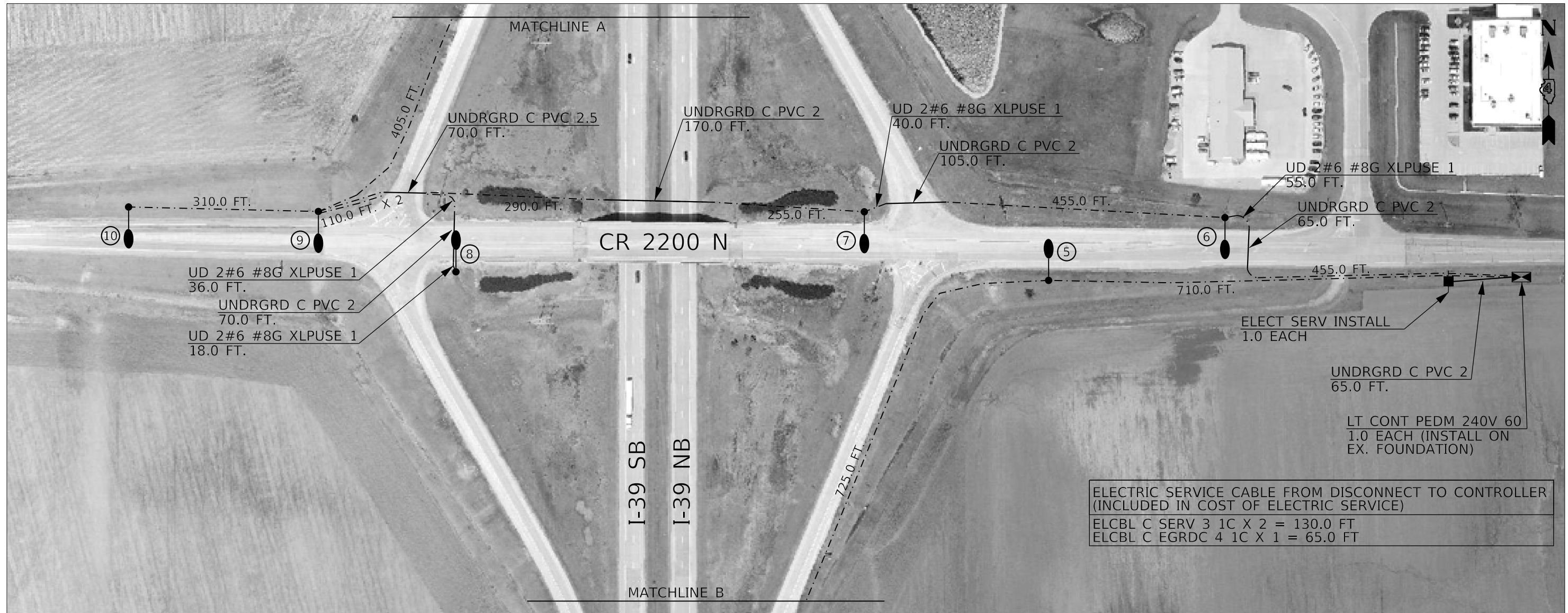
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|------------------------------|------------|-----------|
| USER NAME = howalden         | DESIGNED - | REVISED - |
|                              | DRAWN -    | REVISED - |
| PLOT SCALE = 165.0762' / in. | CHECKED -  | REVISED - |
| PLOT DATE = 3/26/2021        | DATE -     | REVISED - |

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

EXISTING LIGHTING PLANS & REMOVAL ITEMS - CONTINUED  
 I-39 & CR 2200 N (EXIT 27) INTERCHANGE - WOODFORD COUNTY

SCALE: SHEET OF SHEETS STA. TO STA.

| F.A.I. RTE.               | SECTION          | COUNTY   | TOTAL SHEETS | SHEET NO. |
|---------------------------|------------------|----------|--------------|-----------|
| 39 / 74                   | (102-4;X3-16RA)L | WOODFORD | 15           | 6         |
| CONTRACT NO. 68G22        |                  |          |              |           |
| ILLINOIS FED. AID PROJECT |                  |          |              |           |



ELECTRIC SERVICE CABLE FROM DISCONNECT TO CONTROLLER (INCLUDED IN COST OF ELECTRIC SERVICE)  
 ELCBL C SERV 3 1C X 2 = 130.0 FT  
 ELCBL C EGRDC 4 1C X 1 = 65.0 FT

LEGEND

- PROPOSED LIGHTING CONTROLLER, PEDESTAL MOUNT (ON EX. FOUNDATION)
- PROPOSED 45' MH LIGHT POLE (GALVANIZED STEEL, TENON-MOUNT) AND LED LUMINAIRE
- PROPOSED LIGHT POLE NUMBER
- PROPOSED PVC CONDUIT
- PROPOSED UNIT-DUCT 2-1C NO. 6, 1/C NO. 8 GROUND 1" DIA.
- PROPOSED ELECTRICAL SERVICE (ON EX. WOOD POLE)

- I-39 & CR 2200 N LIGHTING INSTALLATION NOTES:
1. PROPOSED LIGHT POLES SHALL BE SET 18' FROM EDGE OF TRAVELED PAVEMENT.
  2. PROPOSED RAMP LIGHT POLE LOCATIONS SHALL BE MEASURED FROM THIS PROPOSED LIGHT POLE, WHICH IS MEASURED FROM THE GORE.
  3. PROPOSED LIGHTING CONTROLLER SHALL BE INSTALLED NEAR EXISTING LIGHTING CONTROLLER TO BE REMOVED. PROPOSED LIGHTING CONTROLLER SHALL BE SET AT LEAST 30' FROM EDGE OF TRAVELED PAVEMENT.
  4. PROPOSED ELECTRICAL SERVICE SHALL BE INSTALLED NEAR EXISTING ELECTRICAL SERVICE TO BE REMOVED. PROPOSED LIGHTING CONTROLLER SHALL BE SET AT LEAST 30' FROM EDGE OF TRAVELED PAVEMENT. A LUMINAIRE BRACKET SHALL BE INSTALLED AND PAID FOR AS "LUMINAIRE MOUNTING BRACKET - SPECIAL."
  5. THE CONTRACTOR SHALL FIELD VERIFY LIGHT POLE HEIGHT AND COORDINATE THE BOLT DIAMETER AND FOUNDATION DEPTH IN ACCORDANCE WITH HIGHWAY STANDARD DRAWING 836001-04.
  6. THE CONTRACTOR SHALL FIELD VERIFY LIGHT POLE HEIGHT AND COORDINATE THE BOLT DIAMETER AND FOUNDATION DEPTH IN ACCORDANCE WITH HIGHWAY STANDARD DRAWING 836001-04.
  7. THE CONTRACTOR SHALL INSTALL ROADWAY LUMINAIRES AT 0 DEGREES HORIZONTAL TO GRADE.

| BILL OF MATERIALS   |      |        |
|---|------|--------|
| DESCRIPTION   | UNIT | QTY.   |
| ELECTRIC SERVICE INSTALLATION   | EACH | 1.0    |
| UNDERGROUND CONDUIT, PVC, 2" DIA.   | FOOT | 410.0  |
| UNDERGROUND CONDUIT, PVC, 2 1/2" DIA.   | FOOT | 70.0   |
| UNIT DUCT, 600V, 2-1C NO.6, 1/C NO.8 GROUND, (XLP-TYPE USE), 1" DIA. POLYETHYLENE | FOOT | 4524.0 |
| LIGHTING CONTROLLER, PEDESTAL MOUNTED, 240VOLT, 60AMP                             | EACH | 1.0    |
| LIGHT POLE, GALVANIZED STEEL, 45 FT. M.H., TENON MOUNT                            | EACH | 6.0    |
| LIGHT POLE FOUNDATION, METAL, 15" BOLT CIRCLE, 8 5/8" X 6'                        | EACH | 6.0    |
| BREAKAWAY DEVICE, COUPLING WITH STAINLESS STEEL SCREEN                            | EACH | 24.0   |
| LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H                                     | EACH | 6.0    |
| LUMINAIRE MOUNTING BRACKET - SPECIAL  | EACH | 6.0    |

REVISED 3/25/21 - ERH  
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 1-39 @ Mtrcok Lighting (Final 03-24-21).dgn

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| USER NAME = howalden         | DESIGNED - | REVISED - |
|                              | DRAWN -    | REVISED - |
| PLOT SCALE = 165.0762' / in. | CHECKED -  | REVISED - |
| PLOT DATE = 3/26/2021        | DATE -     | REVISED - |

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

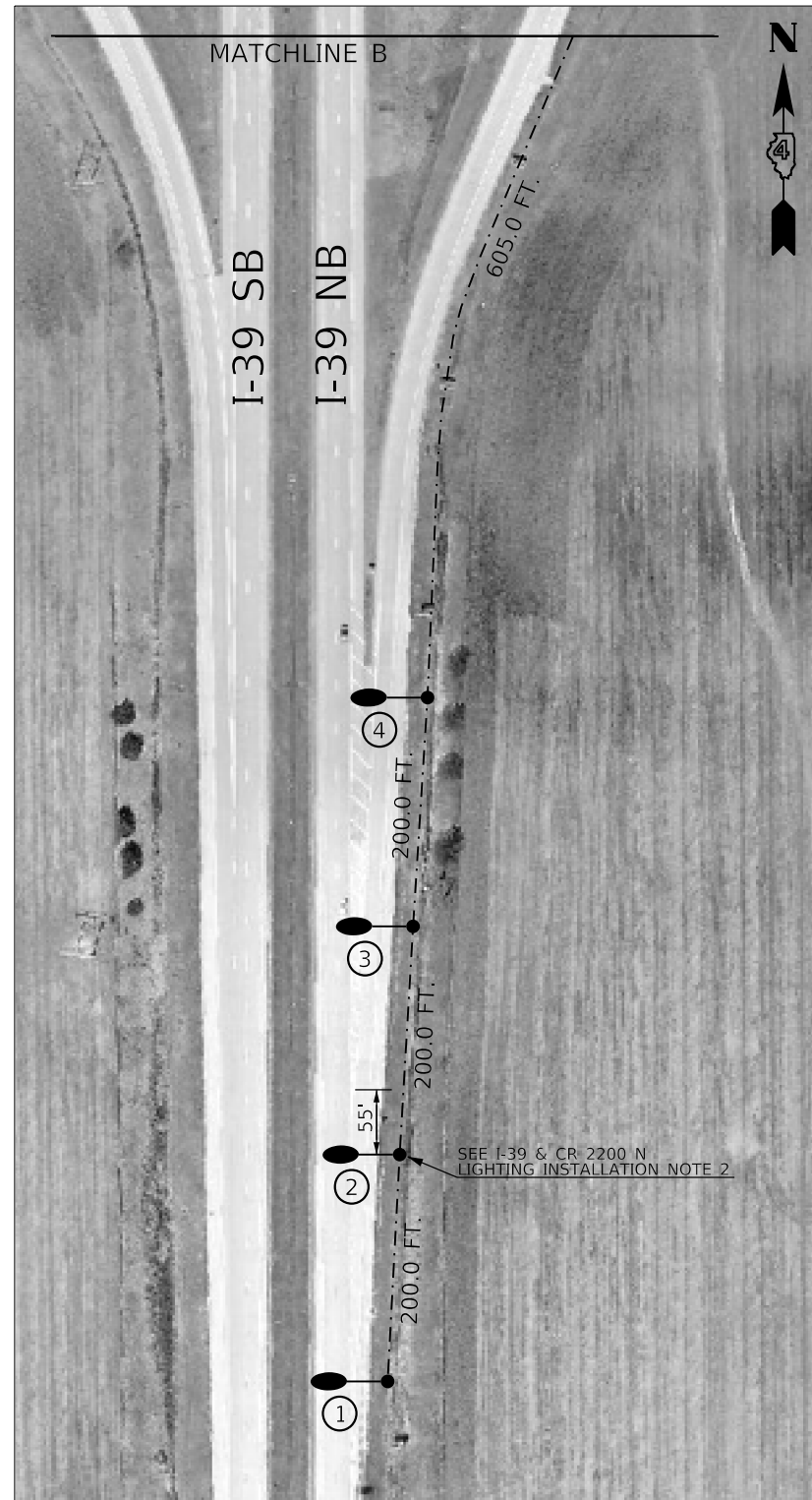
PROPOSED LIGHTING PLANS  
 I-39 & CR 2200 N (EXIT 27) INTERCHANGE - WOODFORD COUNTY

|                                     |                          |                 |                    |             |
|-------------------------------------|--------------------------|-----------------|--------------------|-------------|
| F.A.I. RTE. 39 / 74                 | SECTION (102-4;X3-16RA)L | COUNTY WOODFORD | TOTAL SHEETS 15    | SHEET NO. 7 |
| SCALE: SHEET OF SHEETS STA. TO STA. |                          |                 | CONTRACT NO. 68G22 |             |
| ILLINOIS FED. AID PROJECT           |                          |                 |                    |             |



- LEGEND
- PROPOSED 45'MH LIGHT POLE (GALVANIZED STEEL, TENON-MOUNT) AND LED LUMINAIRE
  - PROPOSED LIGHT POLE NUMBER
  - PROPOSED UNIT-DUCT

| BILL OF MATERIALS   |      |        |
|---|------|--------|
| DESCRIPTION   | UNIT | QTY.   |
| UNIT DUCT, 600V, 2-1C NO.6, 1/C NO.8 GROUND, (XLP-TYPE USE), 1" DIA. POLYETHYLENE | FOOT | 1485.0 |
| LIGHT POLE, GALVANIZED STEEL, 45 FT. M.H., TENON MOUNT                            | EACH | 4.0    |
| LIGHT POLE FOUNDATION, METAL, 15" BOLT CIRCLE, 8 5/8" X 6'                        | EACH | 4.0    |
| BREAKAWAY DEVICE, COUPLING WITH STAINLESS STEEL SCREEN                            | EACH | 16.0   |
| LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H                                     | EACH | 4.0    |
| LUMINAIRE MOUNTING BRACKET - SPECIAL  | EACH | 4.0    |



- LEGEND
- PROPOSED 45'MH LIGHT POLE (GALVANIZED STEEL, TENON-MOUNT) AND LED LUMINAIRE
  - PROPOSED LIGHT POLE NUMBER
  - PROPOSED UNIT-DUCT

| BILL OF MATERIALS   |      |        |
|---|------|--------|
| DESCRIPTION   | UNIT | QTY.   |
| UNIT DUCT, 600V, 2-1C NO.6, 1/C NO.8 GROUND, (XLP-TYPE USE), 1" DIA. POLYETHYLENE | FOOT | 1205.0 |
| LIGHT POLE, GALVANIZED STEEL, 45 FT. M.H., TENON MOUNT                            | EACH | 4.0    |
| LIGHT POLE FOUNDATION, METAL, 15" BOLT CIRCLE, 8 5/8" X 6'                        | EACH | 4.0    |
| BREAKAWAY DEVICE, COUPLING WITH STAINLESS STEEL SCREEN                            | EACH | 16.0   |
| LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H                                     | EACH | 4.0    |
| LUMINAIRE MOUNTING BRACKET - SPECIAL  | EACH | 4.0    |

MODEL: Default  
 FILE: \\nas01\c:\users\howalder\Desktop\68G22 - I-39 @ Microk Lighting (final 03-24-21).dgn

|                              |            |           |
|------------------------------|------------|-----------|
| USER NAME = howalder         | DESIGNED - | REVISED - |
| PLOT SCALE = 165.0762' / in. | DRAWN -    | REVISED - |
| PLOT DATE = 3/26/2021        | CHECKED -  | REVISED - |
|                              | DATE -     | REVISED - |

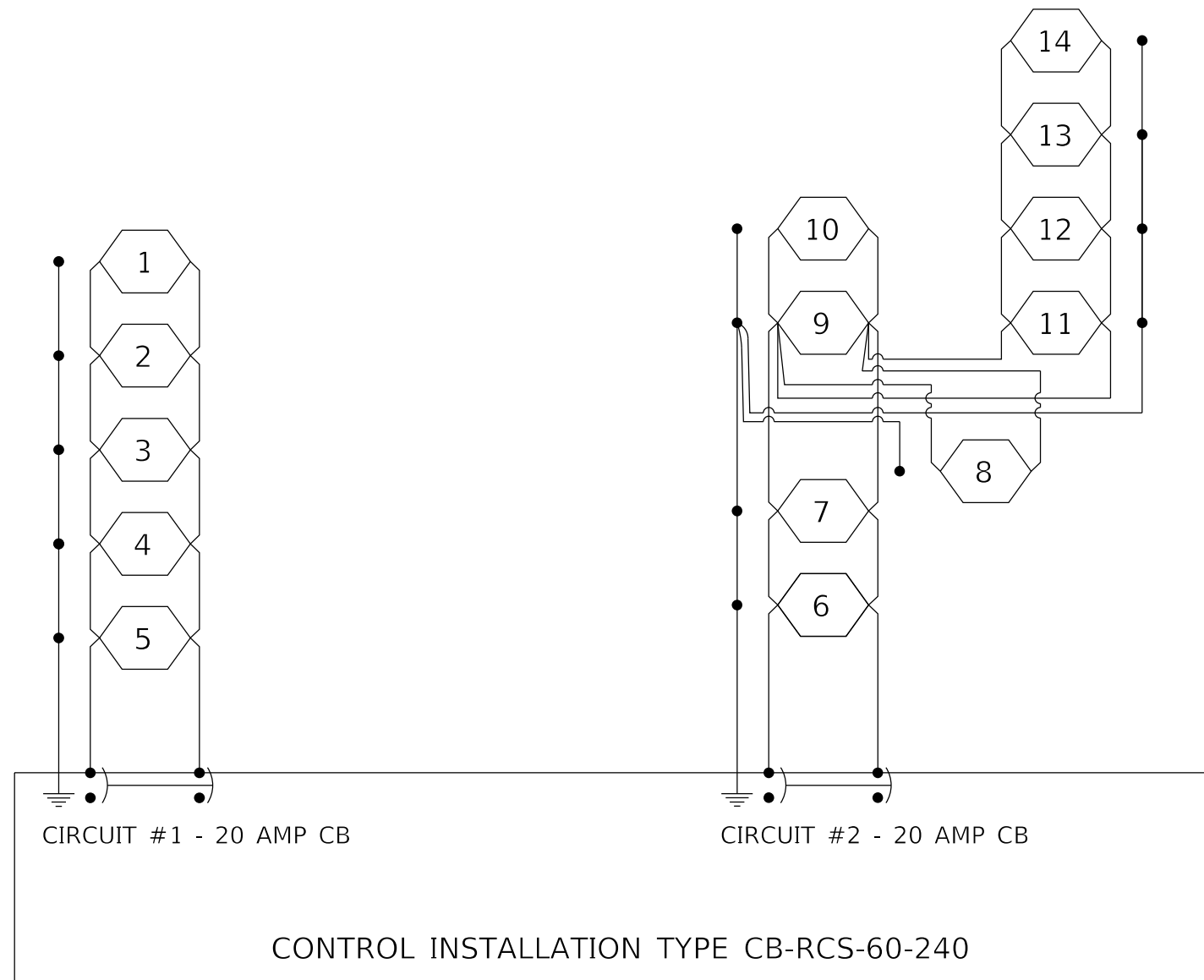
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROPOSED LIGHTING PLANS - CONTINUED  
I-39 & CR 2200 N (EXIT 27) INTERCHANGE - WOODFORD COUNTY

SCALE: SHEET OF SHEETS STA. TO STA.

|                           |                  |          |              |           |
|---------------------------|------------------|----------|--------------|-----------|
| F.A.I. RTE.               | SECTION          | COUNTY   | TOTAL SHEETS | SHEET NO. |
| 39 / 74                   | (102-4;X3-16RA)L | WOODFORD | 15           | 8         |
| CONTRACT NO. 68G22        |                  |          |              |           |
| ILLINOIS FED. AID PROJECT |                  |          |              |           |

REVISED 3/25/21 - ERH  
NOT TO SCALE



LEGEND



PROPOSED LUMINAIRE, LED, ROADWAY,  
OUTPUT DESIGNATION I (POLE NUMBER)

ALL CIRCUITS 2 1/2 NO. 6 WITH NO. 8 GROUND

MODEL: Default  
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REVISED 3/25/21 - ERH  
NOT TO SCALE

|                              |            |           |
|------------------------------|------------|-----------|
| USER NAME = howalden         | DESIGNED - | REVISED - |
|                              | DRAWN -    | REVISED - |
| PLOT SCALE = 165.0762' / in. | CHECKED -  | REVISED - |
| PLOT DATE = 3/26/2021        | DATE -     | REVISED - |

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROPOSED CIRCUIT DIAGRAM  
I-39 & CR 2200 N (EXIT 27) INTERCHANGE - WOODFORD COUNTY

SCALE: SHEET OF SHEETS STA. TO STA.

| F.A.I. RTE.               | SECTION          | COUNTY   | TOTAL SHEETS | SHEET NO. |
|---------------------------|------------------|----------|--------------|-----------|
| 39 / 74                   | (102-4;X3-16RA)L | WOODFORD | 15           | 9         |
| CONTRACT NO. 68G22        |                  |          |              |           |
| ILLINOIS FED. AID PROJECT |                  |          |              |           |



NOTE: PERFORMANCE VALUES MAY BE ROUNDED UP TO ONE SIGNIFICANT DIGIT.



Luminaire Performance Table



Project

|                          |                 |                  |          |
|--------------------------|-----------------|------------------|----------|
| Date                     | Contract Number | Section Number   | County   |
| 01/26/21                 | 68G22           | (102-4;X3-16RA)L | Woodford |
| Marked Route Number      |                 | Municipality     |          |
| I-39 & COUNTY ROAD 2200N |                 |                  |          |

Roadway

|            |            |              |                               |              |
|------------|------------|--------------|-------------------------------|--------------|
| Lane Width | # of Lanes | Median Width | I.E.S. Surface Classification | Q-Zero Value |
| 12 Ft.     | 3          | N/A          | R3                            | 0.07         |

Structure

|                 |            |          |  |
|-----------------|------------|----------|--|
| Mounting Height | Arm Length | Set-Back | Number of Luminaires (Highmast & Sign Lighting Only) |
| 45 FT           | 2 FT       | 18 FT    | N/A  |

Luminaire

|                               |                             |                              |                  |
|-------------------------------|-----------------------------|------------------------------|------------------|
| Description                   | I.E.S. Lateral Distribution | I.E.S. Vertical Distribution |                  |
| LED, OUTPUT DESIGNATION H     | Type IV                     | SHORT                        |                  |
| Total Light Loss Factor (LLF) | B-U-G Rating                | Shields                      | Dimming Protocol |
| 0.7                           | U = 0                       | YES                          | 0-10V            |

Layout

|                           |   |
|---------------------------|---|
| Spacing (to Nearest 5 ft) | Configuration (Opposite, Staggered, 1 Sided, or Median) |
| 200 Ft.                   | One Sided   |

Performance

|   |                                     |                                     |  |
|---|-------------------------------------|-------------------------------------|--|
| Average Illuminance, $E_{AVE}$ (fc)               | Uniformity Ratio, $E_{AVE}/E_{MIN}$ |                                     |  |
| $\geq 0.9$  | $\leq 3.0:1$                        |                                     |  |
| Average Luminance, $L_{AVE}$ (cd/m <sup>2</sup> ) | Uniformity Ratio, $L_{AVE}/L_{MIN}$ | Uniformity Ratio, $L_{MAX}/L_{MIN}$ | Veiling Luminance Ratio, $L_v/L_{AVE}$ |
| 0.6   | 3.5                                 | N/A                                 | < 0.3                                  |

Light Trespass

|                               |   |   |
|-------------------------------|---|---|
| Distance to ROW (behind pole) | Max. Horizontal Illuminance at ROW, $E_H$ | Max. Vertical Illuminance at ROW, $E_V$ |
| 40 FT                         | < 0.2 fc                                  | < 0.2 fc (AT 3 FT ABOVE GRADE)          |

Notes

- Set-Back is from Edge of Pavement (white line) except for sign luminaires when it is vertical and horizontal distance from the sign to the luminaire.
- Lighting calculations shall be performed with all luminaires oriented toward and perpendicular to the roadway.
- Total Light Loss Factor (LLF) = the product of "Lumen Maintenance" (LLD) = 0.9, "Dirt Depreciation" (LDD) = 0.8, and "Equipment Factors" (EF) = 0.95.
- Performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.
- Lighting calculations shall be performed in one direction only.
- Compliance with performance criteria shall be held to one significant digit.
- Initial lumens of the proposed luminaire may vary from the values in the table given in Article 106.7.06 of the BDF Special Provision Luminaire, LED. Lighting calculations shall be performed in one direction only.
- Performance requirements for the proposed luminaire may vary from the values in the standards of photometric performance for the luminaire, based on the given conditions above. Light trespass performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions above, at a Total Light Loss Factor (LLF) = 1.0.

Printed 01/26/21

BDE 5650 (04/10/19)

REVISED 3/25/21 - ERH  
NOT TO SCALE

MODEL: Default  
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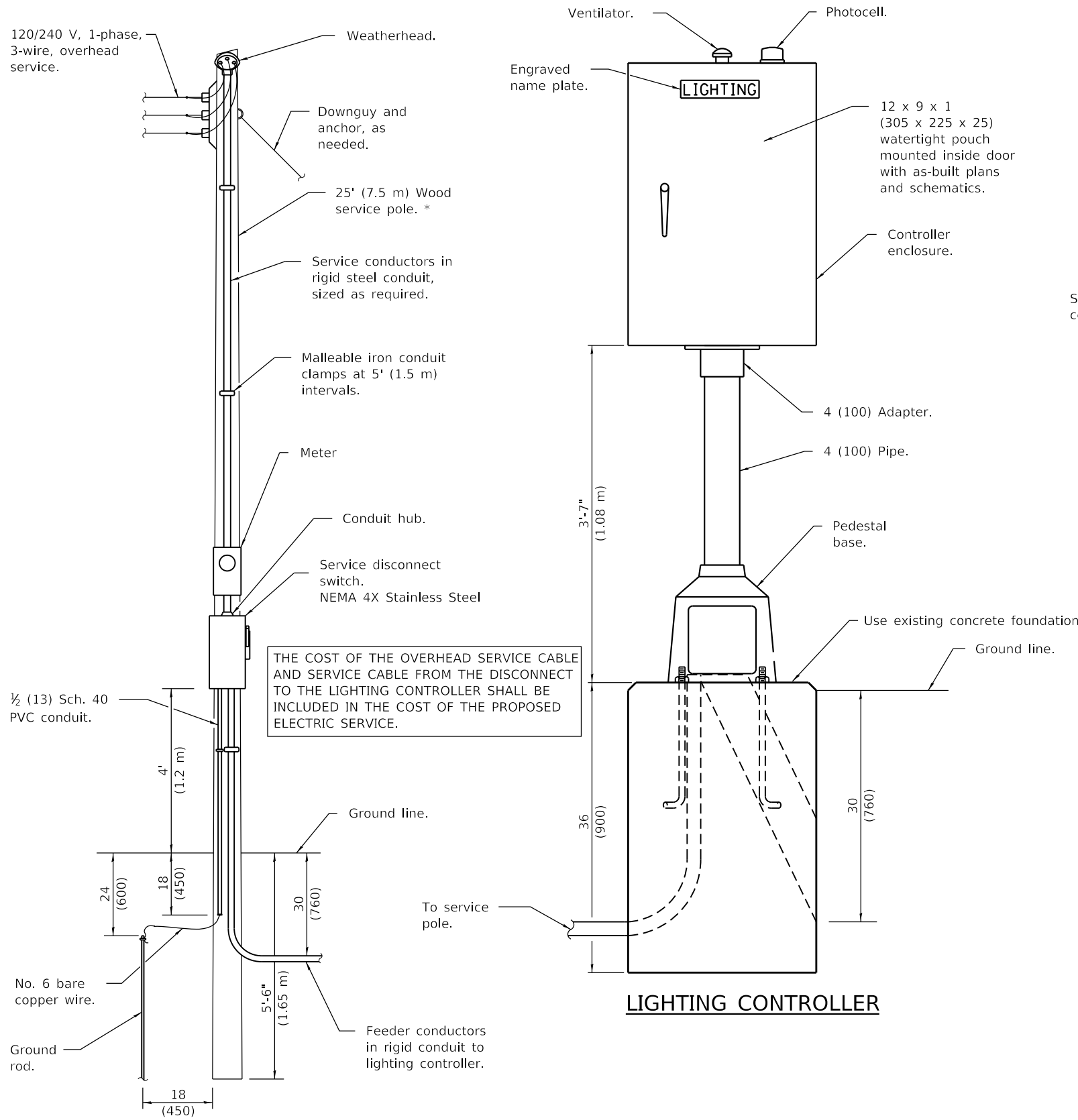
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| USER NAME = howalden         | DESIGNED - | REVISED - |
|                              | DRAWN -    | REVISED - |
| PLOT SCALE = 165.0762' / in. | CHECKED -  | REVISED - |
| PLOT DATE = 3/26/2021        | DATE -     | REVISED - |

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

|  |       |           |              |
|--|-------|-----------|--------------|
| PROPOSED LUMINAIRE PERFORMANCE TABLE                     |       |           |              |
| I-39 & CR 2200 N (EXIT 27) INTERCHANGE - WOODFORD COUNTY |       |           |              |
| SCALE:   | SHEET | OF SHEETS | STA. TO STA. |

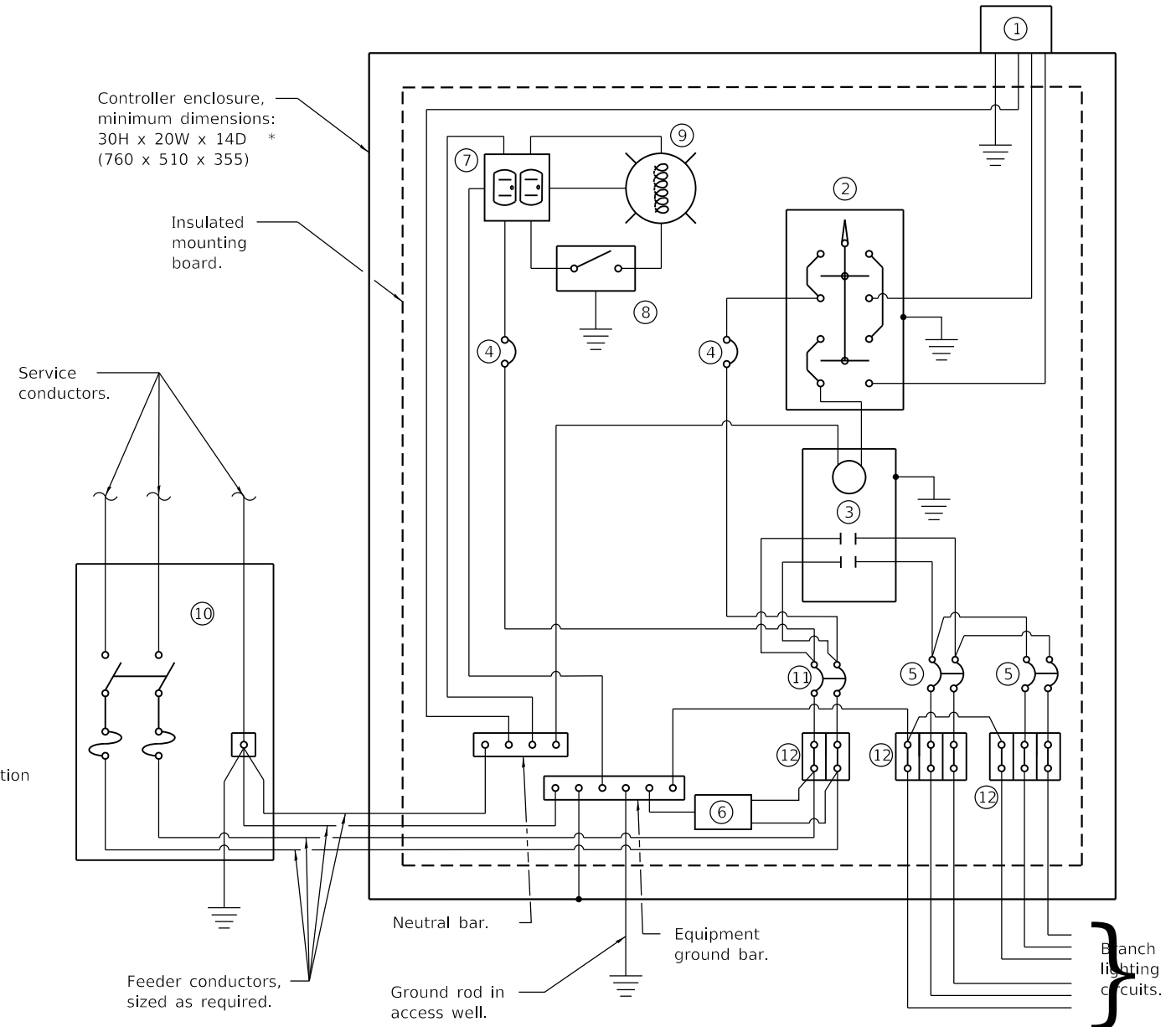
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|---------------------------|------------------|----------|--------------|-----------|
| F.A.I. RTE.               | SECTION          | COUNTY   | TOTAL SHEETS | SHEET NO. |
| 39 / 74                   | (102-4;X3-16RA)L | WOODFORD | 15           | 10        |
| CONTRACT NO. 68G22        |                  |          |              |           |
| ILLINOIS FED. AID PROJECT |                  |          |              |           |

REVISED ENTIRE SHEET 4/1/21



**ELECTRIC SERVICE INSTALLATION**

(Typical overhead service shown. Cut pole off for underground service and treat cut surface with preservative. Consult utility company standards for exact requirements.)  
 \* Size larger as needed.



**CONTROL SCHEMATIC**

- ① Photocell with integral surge arrester.
  - ② HAND-OFF-AUTO selector switch.
  - ③ 60 amp\*, electrically held contactor.
  - ④ 15 amp, 1-pole circuit breaker.
  - ⑤ 20 amp\*, 2-pole circuit breaker (QTY 2.0 PLUS 2 SPARE).
  - ⑥ Surge arrester.
  - ⑦ GFCI duplex receptacle.
  - ⑧ Single-pole, single-throw switch.
  - ⑨ LED light bulb, enclosed and gasketed with 800 lumen lamp.
  - ⑩ Service disconnect switch - 2-pole, 3-wire, 60 amp\*, fused at 60 amp\*, solid neutral in NEMA 4X enclosure having lockable external handle.
  - ⑪ 60 amp\*, 2-pole circuit breaker.
  - ⑫ Terminal block sized for conductors as shown on plans.
- \* Size larger as needed.

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

MODEL: Default  
 FILE: M:\GIS\Projects\Woodford\68G22\_1-39 @ Mirook Lighting (Final 03-24-21).dgn

|                              |            |           |
|------------------------------|------------|-----------|
| USER NAME = howalder         | DESIGNED - | REVISED - |
|                              | DRAWN -    | REVISED - |
| PLOT SCALE = 165.0762' / in. | CHECKED -  | REVISED - |
| PLOT DATE = 3/26/2021        | DATE -     | REVISED - |

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

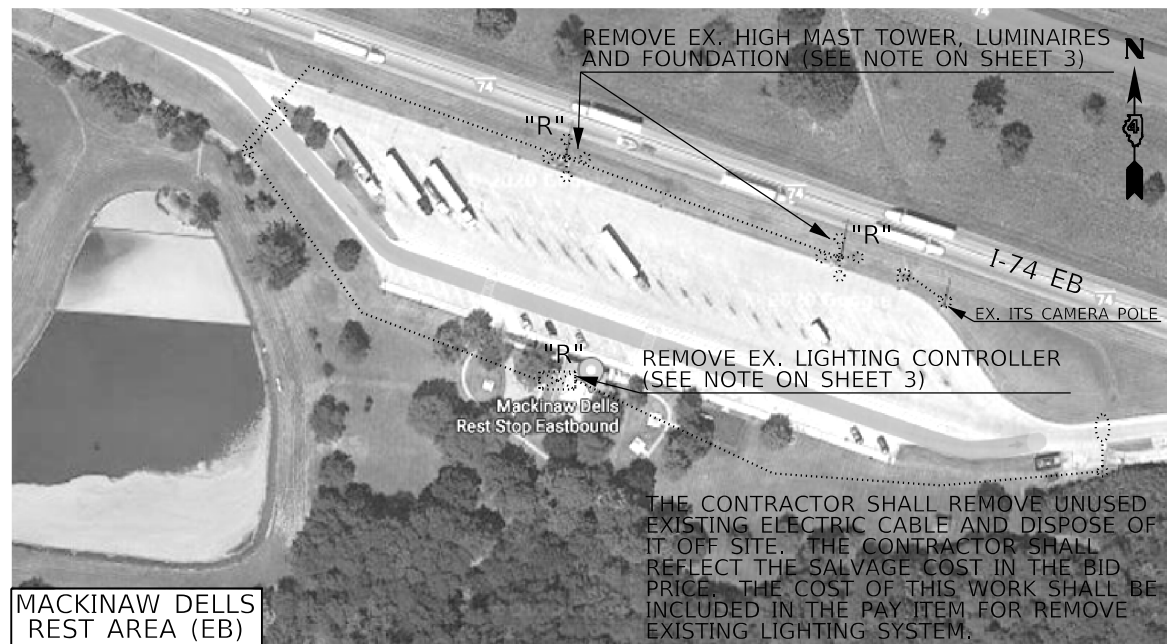
**PROPOSED LIGHTING CONTROLLER DETAIL**  
**1-39 & CR 2200 N (EXIT 27) INTERCHANGE - WOODFORD COUNTY**

|                    |                  |          |                           |           |
|--------------------|------------------|----------|---------------------------|-----------|
| F.A.I. RTE.        | SECTION          | COUNTY   | TOTAL SHEETS              | SHEET NO. |
| 39 / 74            | (102-4;X3-16RA)L | WOODFORD | 15                        | 11        |
| CONTRACT NO. 68G22 |                  |          | ILLINOIS FED. AID PROJECT |           |

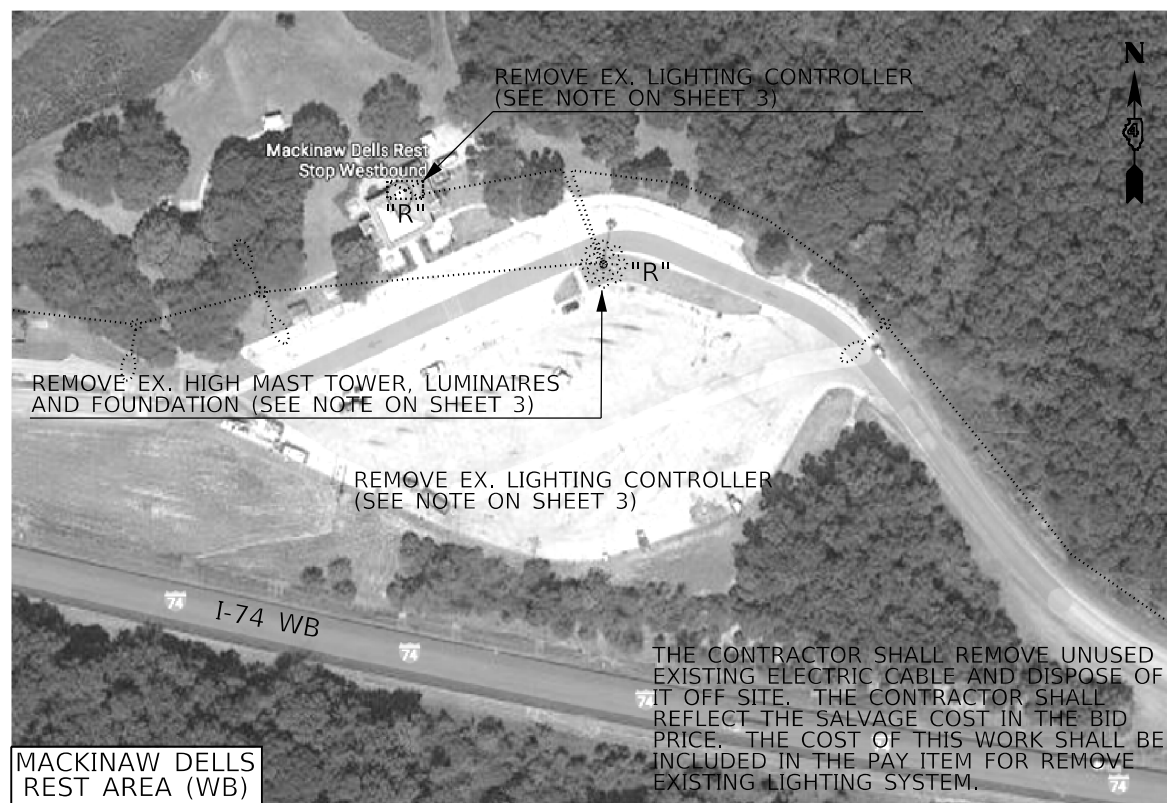
REVISED 3/25/21 - ERH  
 NOT TO SCALE

**"R" INDICATES REMOVAL ITEM**

- NOTES:**
1. THE EXISTING ELECTRIC CABLES IN UNIT DUCT/ CONDUIT SHALL BE REMOVED AND DISPOSED OF OFF OF THE JOB SITE (SEE NOTE ON SHEET 3.)
  2. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF THE EXISTING LIGHTING CONTROL PANEL. EXISTING LIGHT TOWERS TO BE REMOVED SHALL REMAIN IN OPERATION UNTIL PROPOSED LIGHTING SYSTEM IS OPERATIONAL.
  - 3.



**MACKINAW DELLS REST AREA (EB)**

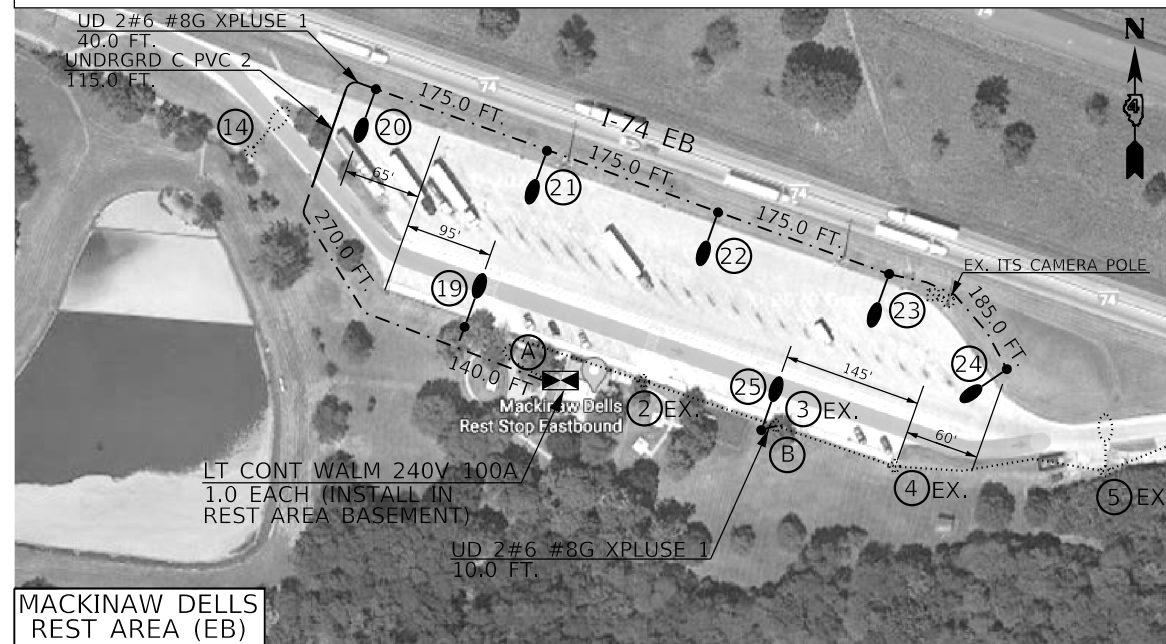


**MACKINAW DELLS REST AREA (WB)**

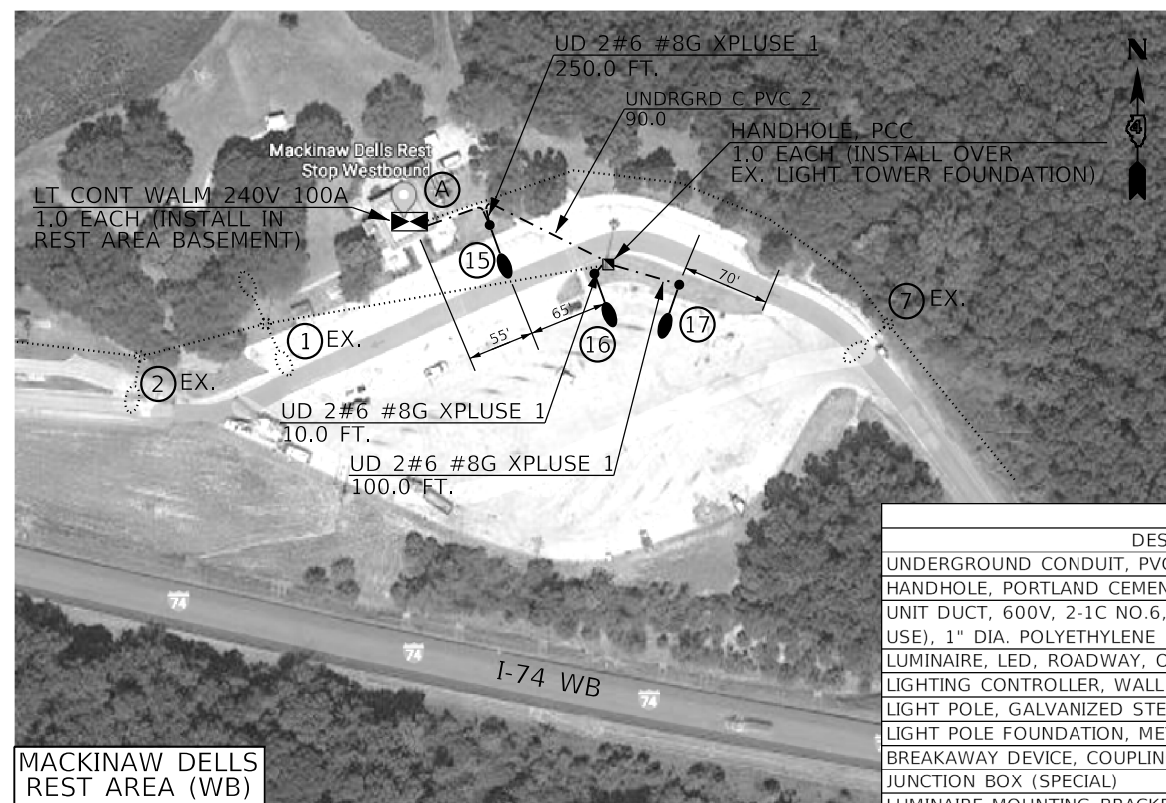
**LEGEND**

- EXISTING TOWER LIGHTING STRUCTURE (8 LUMINAIRES) AND CONCRETE FOUNDATION
- EXISTING TOWER LIGHTING STRUCTURE (4 LUMINAIRES)
- EXISTING LIGHTING CONTROLLER (LOCATED IN BASEMENT OF REST AREA)
- EXISTING UNIT DUCT/ CONDUIT
- EXISTING LIGHT POLE (TO REMAIN)

- REST AREA LIGHTING INSTALLATION NOTES:**
1. A LUMINAIRE BRACKET SHALL BE INSTALLED AND PAID FOR AS "LUMINAIRE MOUNTING BRACKET - SPECIAL."
  2. THE CONTRACTOR SHALL FIELD VERIFY LIGHT POLE HEIGHT AND COORDINATE THE BOLT DIAMETER AND FOUNDATION DEPTH IN ACCORDANCE WITH HIGHWAY STANDARD DRAWING 836001-04.
  3. THE CONTRACTOR SHALL INSTALL ROADWAY LUMINAIRES AT 0 DEGREES HORIZONTAL TO GRADE.
  4. THE FOLLOWING PROPOSED LIGHT POLES SHALL BE SET 3' BEHIND CURB: EB REST AREA (20, 21, 22, 23, 24)
  5. THE FOLLOWING PROPOSED LIGHT POLES SHALL BE SET 3' BEHIND SIDEWALK: EB REST AREA (19, 3) WB REST AREA (15)
  6. THE FOLLOWING PROPOSED LIGHT POLES SHALL BE SET CENTER OF ISLAND: WB REST AREA (16, 17)
  7. THE CONTRACTOR SHALL INTERCEPT EXISTING CONDUIT WITH NEW 1" DIA. CNC, INSTALL NEW CABLE FROM PROPOSED LIGHT POLE 25 TO EXISTING LIGHT POLE 3, THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF THE ASSOCIATED ELECTRIC CABLE.



**MACKINAW DELLS REST AREA (EB)**



**MACKINAW DELLS REST AREA (WB)**

**LEGEND**

- PROP. 45' MH LIGHT POLE (GALVANIZED STEEL, TENON-MOUNT) AND LED LUMINAIRE
- EX. 45' MH LIGHT POLE (GALVANIZED STEEL, TENON-MOUNT) AND LED LUMINAIRE
- PROP. LIGHTING CONTROLLER, WALL MOUNTED, 240V, 100A (INSTALL IN REST AREA BASEMENT)
- EX. UNIT DUCT
- PROP. UNIT DUCT

- (A) THE CONTRACTOR SHALL PENETRATE THE EXTERIOR WALL OF THE REST AREA BUILDINGS AS REQUIRED TO INSTALL THE PROPOSED UNIT DUCT INTO THE BASEMENT AND CONNECT IT TO THE PROPOSED LIGHTING CONTROLLER. THE CONTRACTOR SHALL ROUTE THE UNIT DUCT AND INSTALL IT INSIDE THE BASEMENT IN A MANNER APPROVED BY THE RESIDENT ENGINEER. THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF THE PROPOSED UNIT DUCT.
- (B) THE CONTRACTOR SHALL INTERCEPT THE EXISTING LIGHTING CONDUIT, INSTALL NEW CONDUIT AND WIRING, AND PERFORM ALL WORK REQUIRED TO EXTEND THE EXISTING LIGHTING CIRCUIT TO THE PROPOSED LIGHT POLE. THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF THE PROPOSED UNIT DUCT.
- (C) THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING LUMINAIRE VOLTAGES PRIOR TO RELEASING MATERIAL. THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF THE PROPOSED LUMINAIRES.
- (D) THE CONTRACTOR SHALL REMOVE THE EXISTING LIGHT TOWER FOUNDATION AND INSTALL THE PROPOSED PCC HANDHOLE OVER THE EXISTING LIGHTING CONDUITS. THE CONTRACTOR SHALL SPLICE ALL WIRING IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS TO RESTORE FUNCTIONALITY TO THE EXISTING LIGHTING CIRCUIT. THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF THE PROPOSED JUNCTION BOX SPECIAL.

| BILL OF MATERIALS  |      |        |
|--|------|--------|
| DESCRIPTION  | UNIT | QTY.   |
| UNDERGROUND CONDUIT, PVC, 2" DIA.  | FOOT | 205.0  |
| HANDHOLE, PORTLAND CEMENT CONCRETE   | EACH | 1.0    |
| UNIT DUCT, 600V, 2-1C NO.6, 1/2C NO.8 GROUND, (XLP-TYPE USE), 1" DIA. POLYETHYLENE | FOOT | 1450.0 |
| LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION I                                      | EACH | 10.0   |
| LIGHTING CONTROLLER, WALL MOUNTED, 240VOLT, 100AMP                                 | EACH | 2.0    |
| LIGHT POLE, GALVANIZED STEEL, 45 FT. M.H., TENON MOUNT                             | EACH | 10.0   |
| LIGHT POLE FOUNDATION, METAL, 15" BOLT CIRCLE, 8 5/8" X 6'                         | EACH | 10.0   |
| BREAKAWAY DEVICE, COUPLING WITH STAINLESS STEEL SCREEN                             | EACH | 40.0   |
| JUNCTION BOX (SPECIAL)   | EACH | 1.0    |
| LUMINAIRE MOUNTING BRACKET - SPECIAL   | EACH | 10.0   |

REVISED 2/2021-ERH  
NOT TO SCALE

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

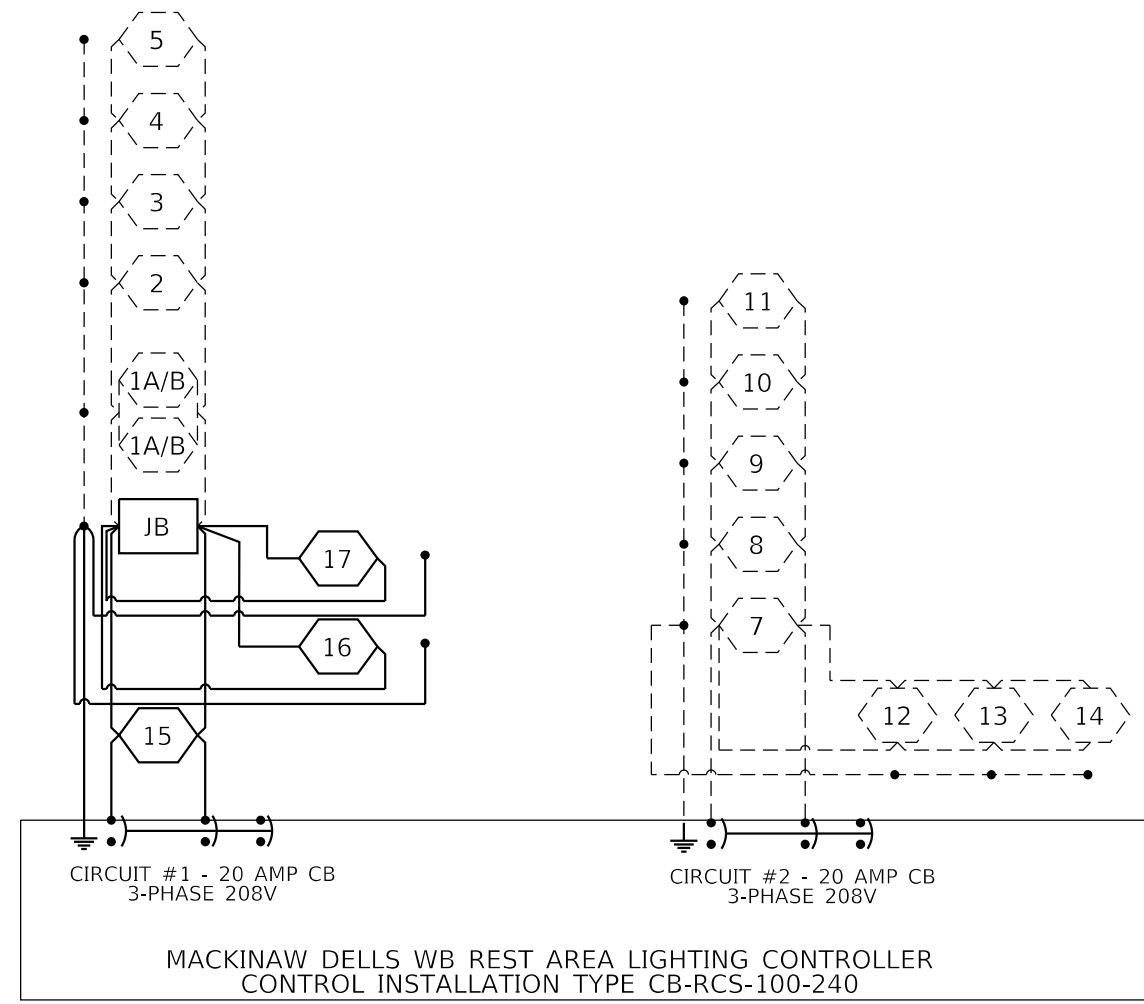
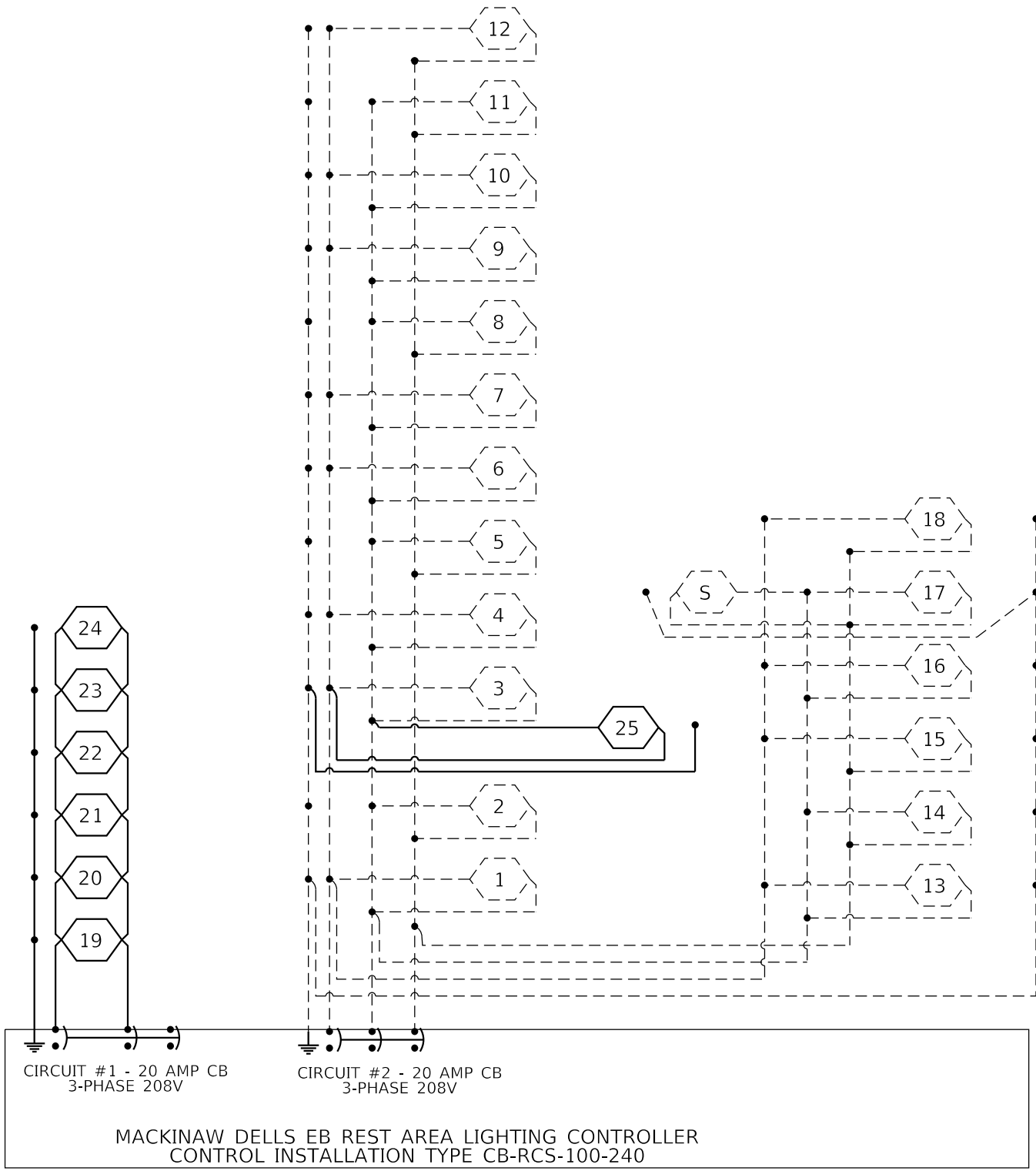
**PROPOSED LIGHT TOWER REPLACEMENT DESIGN  
MACKINAW DELLS REST AREAS (EB & WB) - WOODFORD COUNTY**

| F.A.I. RTE. | SECTION          | COUNTY                      | TOTAL SHEETS       | SHEET NO. |
|-------------|------------------|-----------------------------|--------------------|-----------|
| 39 / 74     | (102-4;X3-16RA)L | WOODFORD                    | 15                 | 12        |
|             |                  |                             | CONTRACT NO. 68G22 |           |
|             |                  | ILLINOIS / FED. AID PROJECT |                    |           |

SCALE: SHEET OF SHEETS STA. TO STA.

**REVISED ENTIRE SHEET 4/1/21**

| USER NAME  | DESIGNED  | REVISIONS |
|------------|-----------|-----------|
| = howalder | -         | -         |
|            | DRAWN -   | REVISED - |
|            | CHECKED - | REVISED - |
|            | DATE -    | REVISED - |



LEGEND

- # PROPOSED LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION I (POLE NUMBER)
- # EXISTING LUMINAIRE (POLE NUMBER)

MODEL: Default  
FILE: \\mtrc\c\Users\howalden\Desktop\68G22\_L29 @ Mirock Lighting (Final 03-24-21).dgn

|                              |            |             |
|------------------------------|------------|-------------|
| USER NAME = howalden         | DESIGNED - | REVISED -   |
| PLOT SCALE = 165.0762' / in. | DRAWN -    | REVISIONS - |
| PLOT DATE = 3/26/2021        | CHECKED -  | REVISIONS - |
|                              | DATE -     | REVISIONS - |

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROPOSED LIGHT TOWER CIRCUIT DIAGRAMS  
MACKINAW DELLS REST AREAS (EB & WB)- WOODFORD COUNTY

|                    |                  |          |              |           |
|--------------------|------------------|----------|--------------|-----------|
| F.A.I. RTE.        | SECTION          | COUNTY   | TOTAL SHEETS | SHEET NO. |
| 89 / 74            | (102-4;X3-16RA)L | WOODFORD | 15           | 13        |
| CONTRACT NO. 68G22 |                  |          |              |           |

REVISED 3/25/21 - ERH  
NOT TO SCALE

NOTE: PERFORMANCE VALUES MAY BE ROUNDED UP TO ONE SIGNIFICANT DIGIT.



Luminaire Performance Table



Project

|          |                 |                  |          |
|----------|-----------------|------------------|----------|
| Date     | Contract Number | Section Number   | County   |
| 01/26/21 | 68G22           | (102-4;X3-16RA)L | Woodford |

|                                 |              |
|---------------------------------|--------------|
| Marked Route Number             | Municipality |
| I-74 & MACKINAW DELLS REST AREA |              |

Roadway

|            |            |              |                               |              |
|------------|------------|--------------|-------------------------------|--------------|
| Lane Width | # of Lanes | Median Width | I.E.S. Surface Classification | Q-Zero Value |
| 18 Ft.     | 1          | N/A          | R3                            | 0.07         |

Structure

|                 |            |          |   |
|-----------------|------------|----------|---|
| Mounting Height | Arm Length | Set-Back | Number of Luminaires<br>(Highmast & Sign Lighting Only) |
| 45 FT           | 2 FT       | 30 FT    | N/A   |

Luminaire

|                           |                             |                              |
|---------------------------|-----------------------------|------------------------------|
| Description               | I.E.S. Lateral Distribution | I.E.S. Vertical Distribution |
| LED, OUTPUT DESIGNATION I | Type III                    | MEDIUM                       |

|                               |              |         |                  |
|-------------------------------|--------------|---------|------------------|
| Total Light Loss Factor (LLF) | B-U-G Rating | Shields | Dimming Protocol |
| 0.7                           | U =0         | N/A     | 0-10V            |

Layout

|                           |   |
|---------------------------|---|
| Spacing (to Nearest 5 ft) | Configuration (Opposite, Staggered, 1 Sided, or Median) |
| 225 Ft.                   | One Sided   |

Performance

|                                     |                                     |
|-------------------------------------|-------------------------------------|
| Average Illuminance, $E_{AVE}$ (fc) | Uniformity Ratio, $E_{AVE}/E_{MIN}$ |
| $\geq 1.1$                          | $\leq 3.0:1$                        |

|   |                                     |                                     |  |
|---|-------------------------------------|-------------------------------------|--|
| Average Luminance, $L_{AVE}$ (cd/m <sup>2</sup> ) | Uniformity Ratio, $L_{AVE}/L_{MIN}$ | Uniformity Ratio, $L_{MAX}/L_{MIN}$ | Veiling Luminance Ratio, $L_v/L_{AVE}$ |
| N/A   | N/A                                 | N/A                                 | $\leq 0.3$                             |

Light Tresspass

|                               |   |   |
|-------------------------------|---|---|
| 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

- Set-Back is from Edge of Pavement (white line) except for sign luminaires when it is vertical and horizontal distance from the sign to the luminaire.
- Lighting calculations shall be performed with all luminaires oriented toward and perpendicular to the roadway.
- Total Light Loss Factor (LLF) = the product of "Lumen Maintenance" (LLD) = 0.9, "Dirt Depreciation" (LDD) = 0.8, and "Equipment Factors" (EF) = 0.95.
- Performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.
- Lighting calculations shall be performed in one direction only.
- Compliance with performance criteria shall be held to one significant digit.
- Initial lumens of the proposed luminaire may vary from the values in the table given in Article 1067.06 of the BDE Special Provision Luminaire, LED.
- Light trespass performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions above, at a Total Light Loss Factor (LLF) = 1.0.

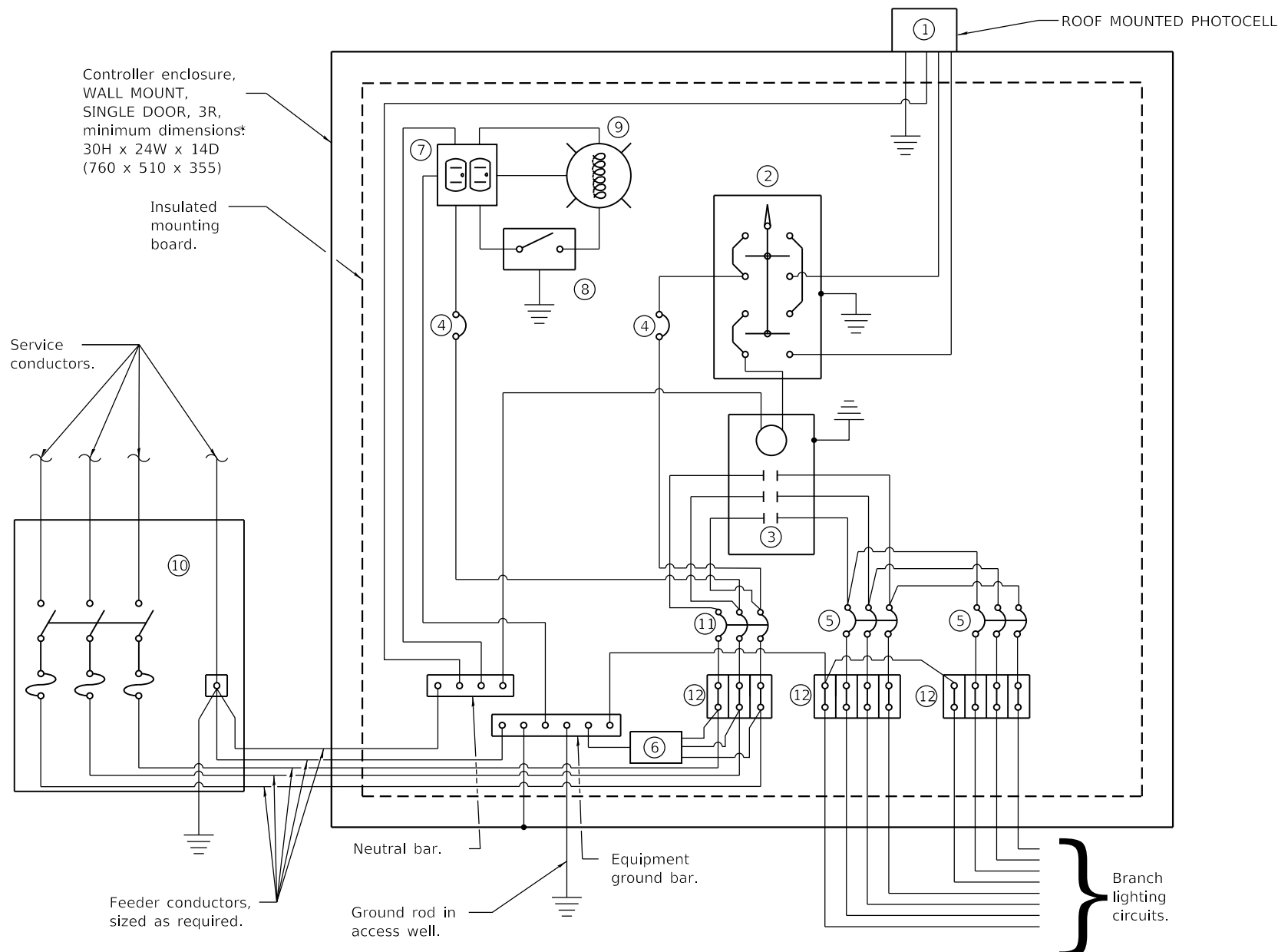
Printed 01/26/21

BDE 5650 (04/10/19)

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REVISED 3/25/21 - ERH  
NOT TO SCALE

|                               |            |           |   |   |                           |                  |          |              |           |  |
|-------------------------------|------------|-----------|---|---|---------------------------|------------------|----------|--------------|-----------|--|
| USER NAME = howalden          | DESIGNED - | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>PROPOSED LUMINAIRE PERFORMANCE TABLES<br/>MACKINAW DELLS REST AREAS (EB &amp; WB)- WOODFORD COUNTY</b> | F.A.I. RTE.               | SECTION          | COUNTY   | TOTAL SHEETS | SHEET NO. |  |
| PLOT SCALE = 165.0762 ' / in. | DRAWN -    | REVISED - |   |   | 39 / 74                   | (102-4;X3-16RA)L | WOODFORD | 15           | 14        |  |
| PLOT DATE = 3/26/2021         | CHECKED -  | REVISED - |   |   | CONTRACT NO. 68G22        |                  |          |              |           |  |
|                               | DATE -     | REVISED - |   |   | ILLINOIS FED. AID PROJECT |                  |          |              |           |  |



LIGHTING CONTROLLER OPERATES 3-PHASE 208V

THE CONTRACTOR SHALL EXTEND THE EXISTING LIGHTING CIRCUITS AS REQUIRED TO ACCOMODATE THE INSTALLATION OF THE PROPOSED WALL MOUNTED LIGHTING CONTROLLER. THE CONTRACTOR SHALL FURNISH HARDWARE, BRACKETS, WIRE, CONNECTORS, AND ALL OTHER ITEMS REQUIRED FOR CONTROLLER INSTALLATION. THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF THE PROPOSED WALL MOUNTED LIGHTING CONTROLLER.

**CONTROL SCHEMATIC**

- ① Photocell with integral surge arrester - ROOF MOUNTED.
  - ② HAND-OFF-AUTO selector switch.
  - ③ 60 amp\*, electrically held contactor.
  - ④ 15 amp, 1-pole circuit breaker.
  - ⑤ 20 amp\*, 3-pole circuit breaker (QTY 3.0 PLUS 2 SPARE).
  - ⑥ Surge arrester.
  - ⑦ GFCI duplex receptacle.
  - ⑧ Single-pole, single-throw switch.
  - ⑨ LED light bulb, enclosed and gasketed with 800 lumen lamp.
  - ⑩ Service disconnect switch - 3-pole, 4-wire, 60 amp\*, fused at 60 amp\*, solid neutral in NEMA 4X enclosure having lockable external handle.
  - ⑪ 60 amp\*, 3-pole circuit breaker.
  - ⑫ Terminal block sized for conductors as shown on plans.
- \* Size larger as needed.

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

MODEL: Default  
FILE: \\hmc\c\Users\howalden\Desktop\68G22\_L20 @ Miretek Lighting (Final 03-24-21).dgn

REVISED 3/25/21 - ERH  
NOT TO SCALE

|                               |            |           |
|-------------------------------|------------|-----------|
| USER NAME = howalden          | DESIGNED - | REVISED - |
| PLOT SCALE = 1/65.0762' / in. | DRAWN -    | REVISED - |
| PLOT DATE = 3/26/2021         | CHECKED -  | REVISED - |
|                               | DATE -     | REVISED - |

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED LIGHTING CONTROLLER DETAIL**  
**MACKINAW DELLS REST AREAS (EB & WB)- WOODFORD COUNTY**

SCALE: SHEET OF SHEETS STA. TO STA.

| F.A.I. RTE.        | SECTION          | COUNTY   | TOTAL SHEETS | SHEET NO. |
|--------------------|------------------|----------|--------------|-----------|
| 39 / 74            | (102-4;X3-16RA)L | WOODFORD | 15           | 15        |
| CONTRACT NO. 68G22 |                  |          |              |           |