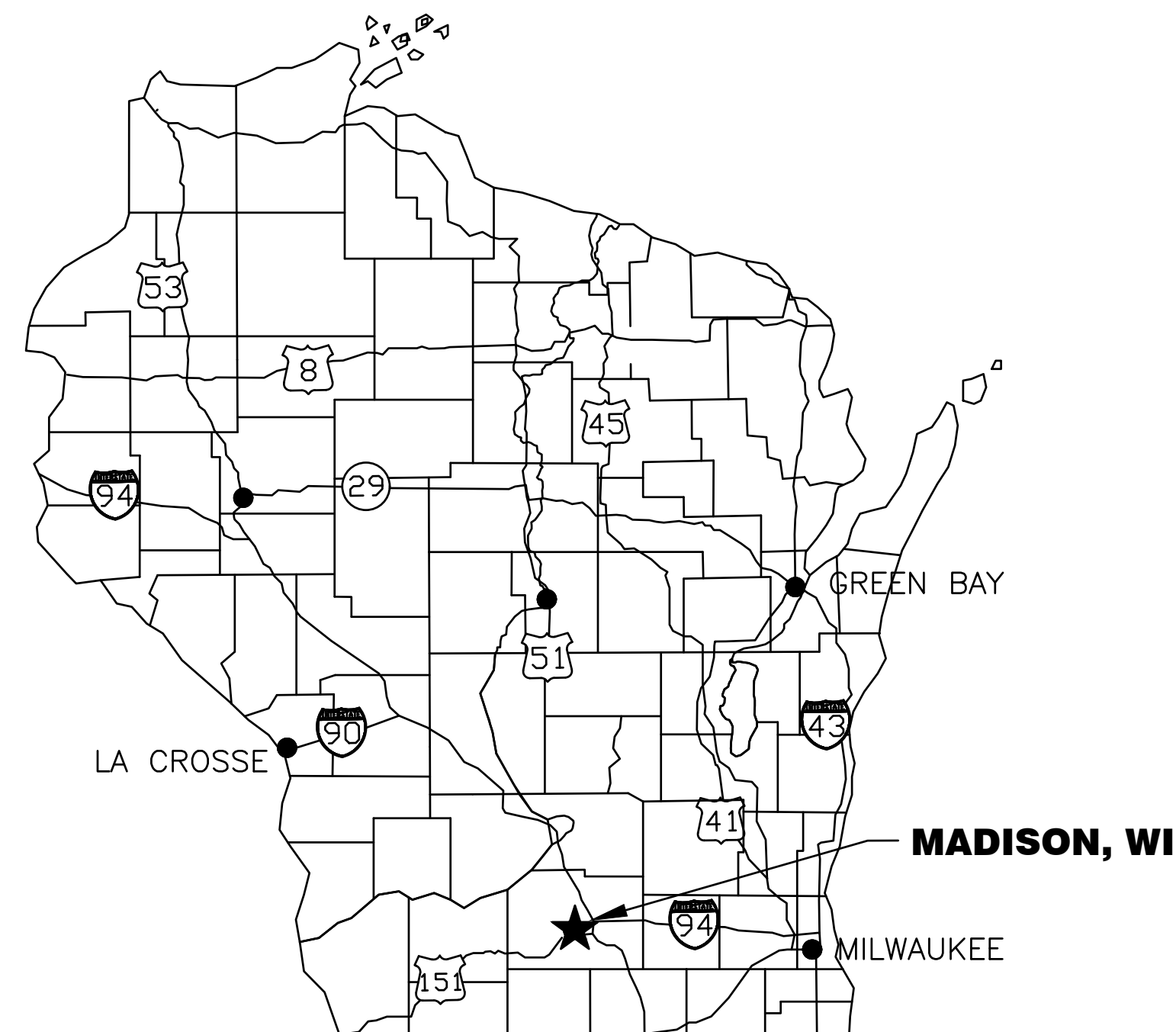


REYNOLDS PARK - WATER UTILITY ROOFTOP LIGHTING

FOR THE

CITY OF MADISON

MADISON, WISCONSIN



PROJECT LOCATION MAP
NO SCALE

REYNOLDS PARK
101 N. LIVINGSTON ST.
MADISON, WI 53703



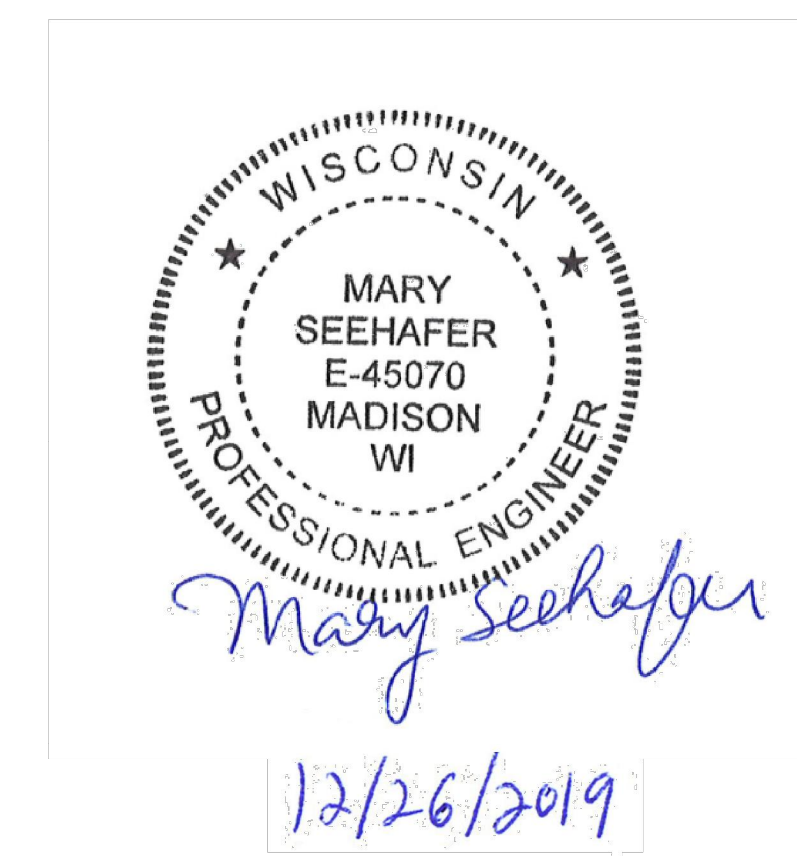
LOCATION MAP
NO SCALE

LIST OF DRAWINGS

| SHEET NO. | DRAWING NO. | TITLE |
|-----------|-------------|---|
| 1 | G0.1 | TITLE SHEET, LOCATION MAP, AND LIST OF DRAWINGS |
| 2 | G0.2 | ELECTRICAL SYMBOLS AND ABBREVIATIONS |
| 3 | D1.1 | DEMOLITION PLAN |
| 4 | C1.1 | SITE PLAN |
| 5 | E1.0 | ELECTRICAL ROOF PLAN |
| 6 | E1.1 | ELECTRICAL PHOTOMETRICS PLAN |
| 7 | E1.2 | ELECTRICAL PUMP ROOM PLAN |
| 8 | E5.1 | ELECTRICAL DETAILS AND SCHEDULES |

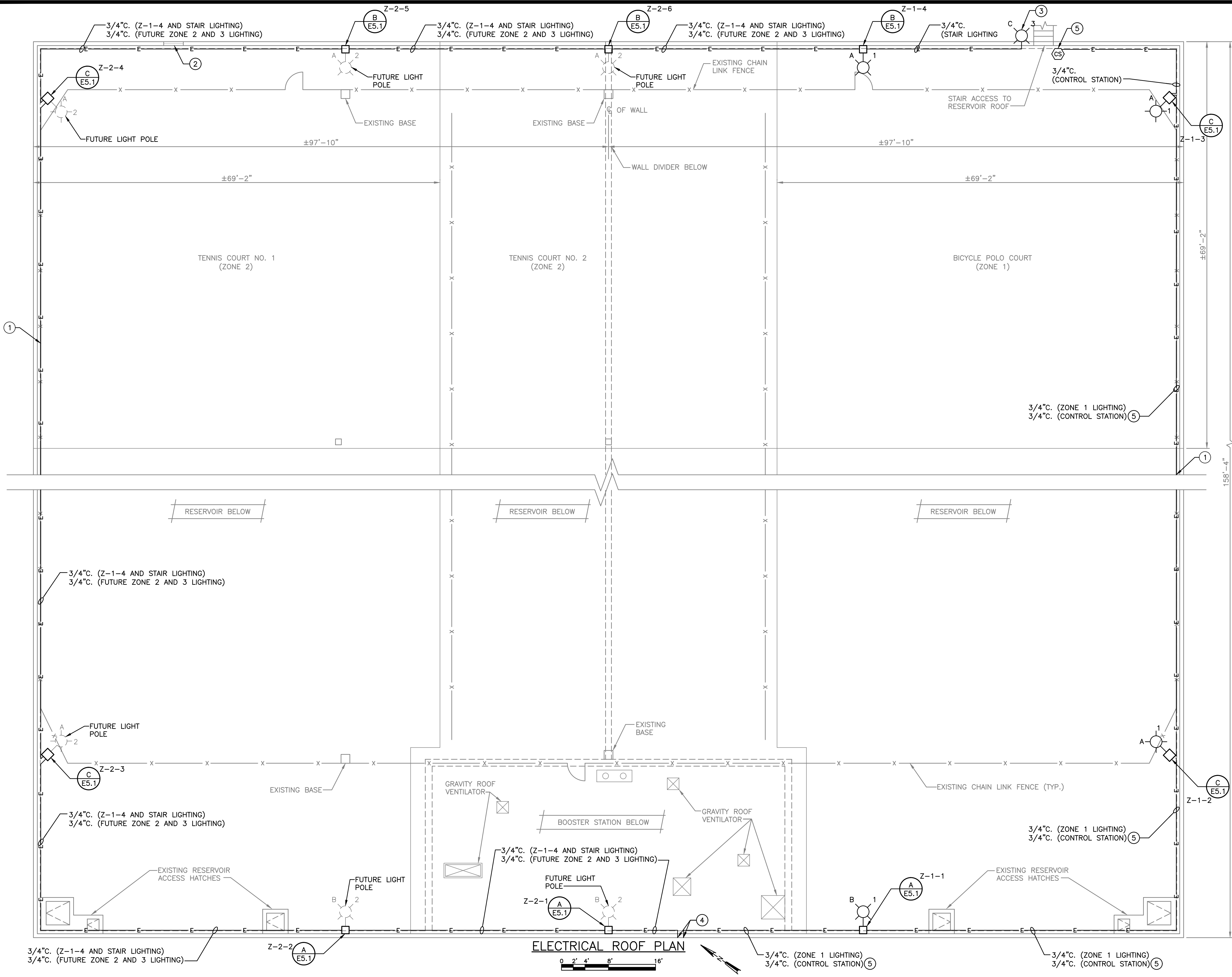
910 West Wingra Drive
Madison, WI 53715
608-251-4843
608-251-8655 fax
www.strand.com

CONTRACT 8526



ISSUED FOR BID 12/26/2019

SHEET
1
G0.1



- GENERAL NOTES:**
- NO DRILLING OF THE ROOF SLAB OVER RESERVOIR IS ALLOWED.
 - ALL LIGHTING ON THIS SHEET SHALL BE POWERED FROM NEW CIRCUIT BREAKERS IN PANEL B THROUGH CONTACTORS IN THE LIGHTING CONTROL CABINET. SEE DRAWING E1.2 FOR ADDITIONAL BRANCH CIRCUIT REQUIREMENTS. SEE LIGHTING CIRCUIT SCHEDULE ON DRAWING E5.1 FOR WIRING REQUIREMENTS.
 - CIRCUIT NUMBERS INDICATE APPROXIMATE COORDINATE EXACT POLE LOCATIONS WITH EXISTING CONDUIT, JUNCTION BOXES, ETC. IDENTIFY AND CONFIRM EXACT LOCATION WITH OWNER AND ENGINEER PRIOR TO POLE BASE CONSTRUCTION.
 - MOUNT CONDUIT BELOW WALL CAP ADJACENT TO EXISTING CONDUIT.
 - PROVIDE CONCRETE BASES AND CONDUIT FOR FUTURE LIGHT POLES AS SHOWN. LIGHT POLES AND WIRING WILL BE PROVIDED IN A FUTURE PROJECT.
 - PROVIDE JUNCTION BOXES AND 1" CONDUIT FROM JUNCTION BOX INTO CONCRETE BASE AS AT EACH BASE (NOT SHOWN FOR CLARITY) FOR ROUTING PROPOSED/FUTURE LIGHTING CIRCUIT CONDUCTORS INTO LIGHT POLE.
- KEY NOTES:**
- IF REMOVAL OF FENCE FABRIC IS REQUIRED FOR CONDUIT INSTALLATION, FENCE SHALL BE REINSTALLED TO EXISTING CONDITIONS.
 - ROUTE CONDUIT ALONG THE BOTTOM PORTION OF THE OPENING. PROVIDE JUNCTION BOXES AS REQUIRED.
 - CENTER FIXTURE WITH LOWER STAIRWAY BELOW WALL CAP.
 - COORDINATE LOCATION OF ROOF PENETRATION FOR CONDUITS WITH OWNER AND ENGINEER. PROVIDE WEATHERPROOF SEALING AROUND ROOF PENETRATIONS, INCLUDING A ROOF FLASHING FOR EACH CONDUIT.
 - PROVIDE 2~#14 IN 3/4" CONDUIT FROM CONTROL STATION TO LIGHTING CONTROL CABINET. SEE DRAWING E1.2.

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ELECTRICAL ROOF PLAN
REYNOLDS PARK - WATER UTILITY ROOFTOP LIGHTING
CITY OF MADISON
MADISON, WISCONSIN

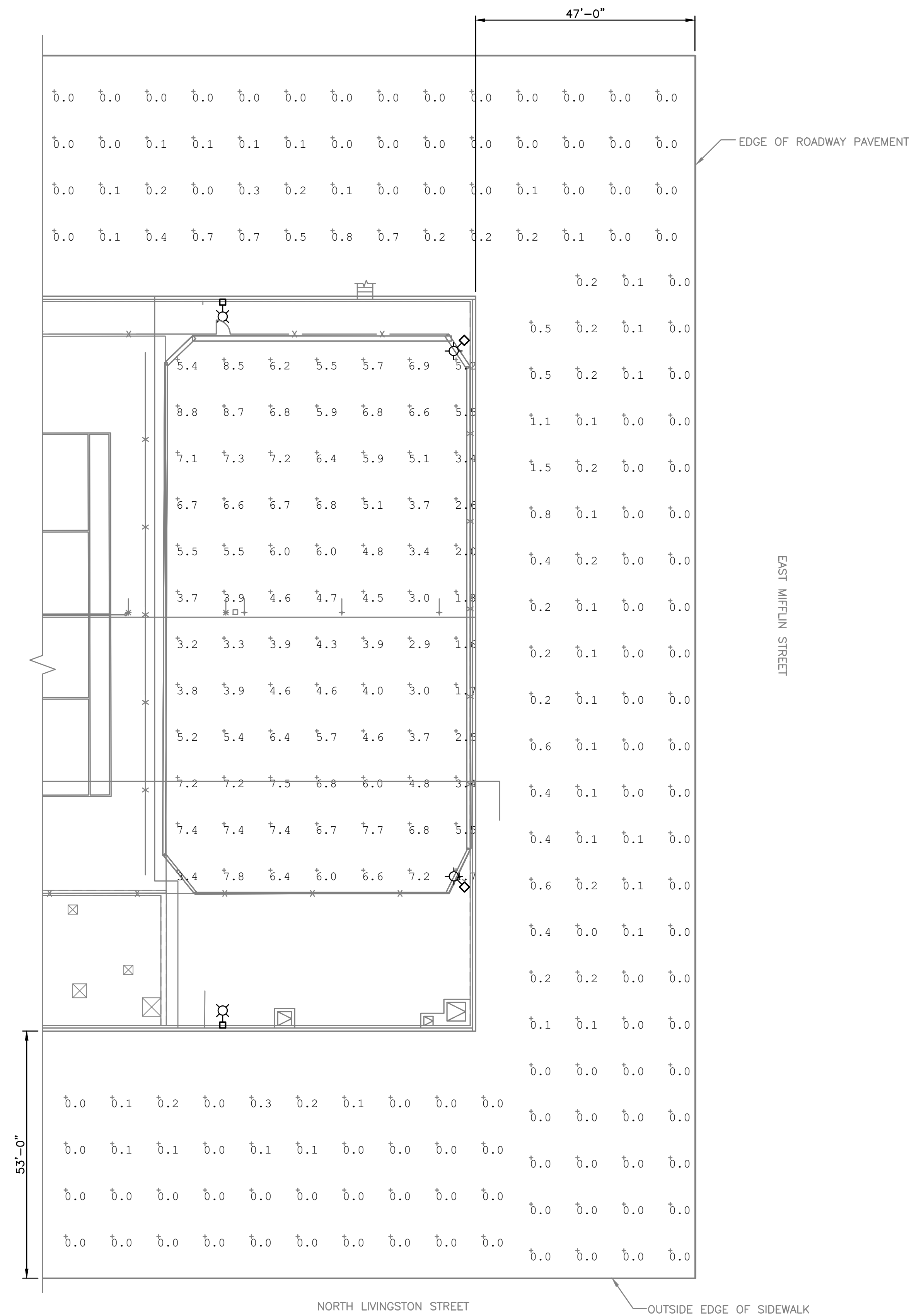
JOB NO.
1020.118
PROJECT MGR.
MARY SEEHAFFER



SHEET
5
E1.0

GENERAL NOTES:

1. PHOTOMETRICS ARE INCLUDED FOR REFERENCE ONLY.
2. PHOTOMETRICS ARE BASED ON OWNER REQUIREMENTS FOR GENERAL AREA LIGHTING AND NOT BICYCLE POLO GAMEPLAY REQUIREMENTS.



| Fixture | |
|-------------------------------------|-------------------|
| Mfr: | Hubbell Viper |
| Model: | VPL-L-96L-395-3K7 |
| Type: | 395W LED |
| Lumen Output: | 38,723 |
| Pole | |
| 25' Round Tapered Aluminum | |
| Bicycle Polo Court Illuminance (Fc) | |
| Average | 5.34 |
| Maximum | 8.8 |
| Minimum | 1.6 |

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| 1 | | | 12/26/19 |

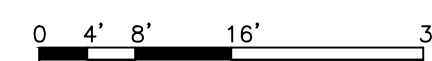
ELECTRICAL PHOTOMETRICS PLAN
 REYNOLDS PARK - WATER UTILITY ROOFTOP LIGHTING
 CITY OF MADISON
 MADISON, WISCONSIN

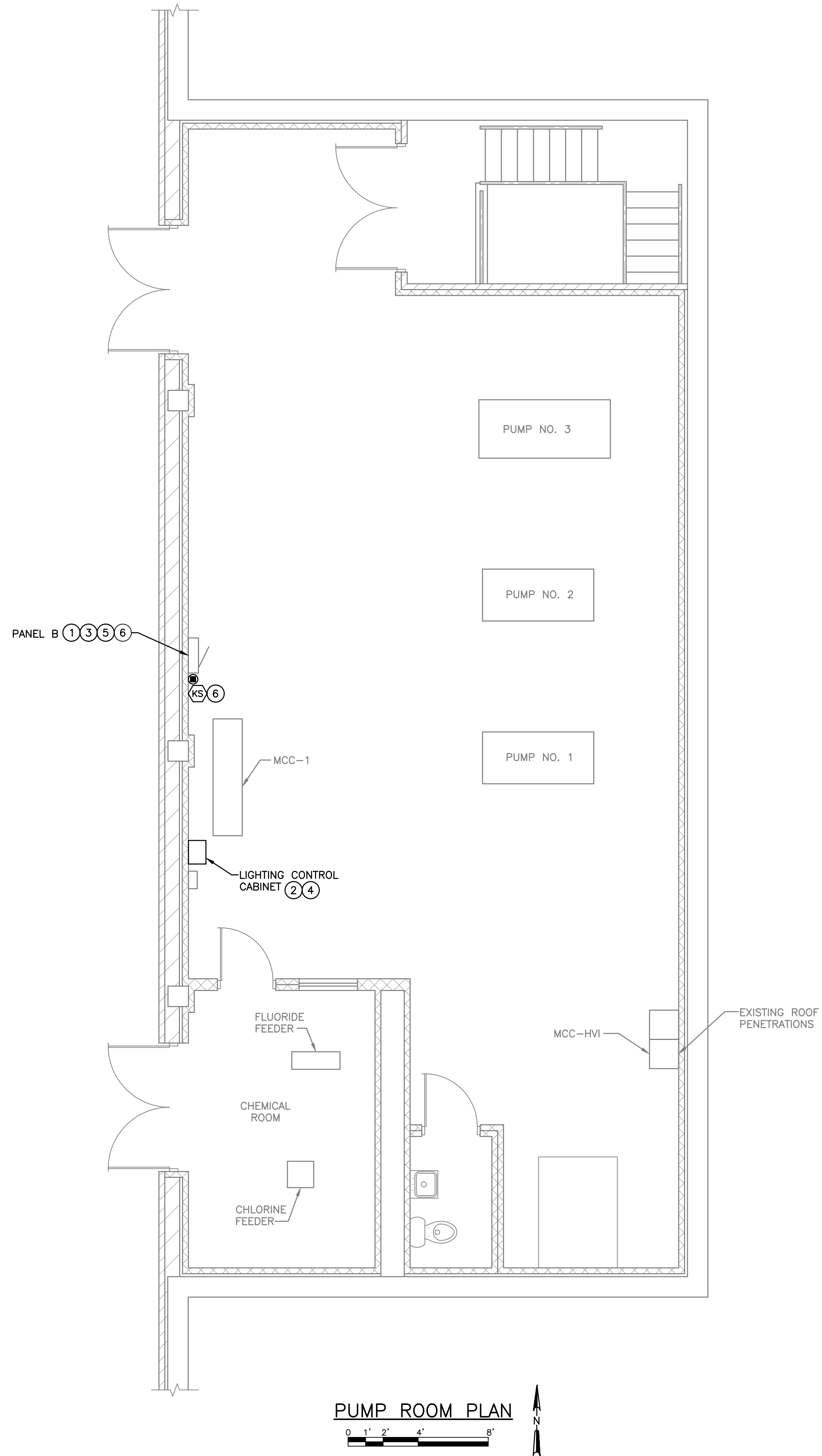
JOB NO.
1020.118
 PROJECT MGR.
MARY SEEHAFFER



SHEET
6
E1.1

ELECTRICAL PHOTOMETRICS PLAN





GENERAL NOTES:

1. EXISTING PANELBOARD PANEL B IS 120/240-VOLT, SINGLE-PHASE, 100-AMP, SQUARE D NQOB-203-1. PROVIDE AN UPDATED, TYPED PANEL SCHEDULE.
2. SEE LIGHTING CIRCUIT SCHEDULE ON DRAWING ES.1 FOR WIRING REQUIREMENTS.

KEY NOTES:

- ① PROVIDE 20-AMP, SINGLE-POLE CIRCUIT BREAKER IN EXISTING SPACE FOR CONTROL POWER TO THE LIGHTING CONTROL CABINET.
- ② PROVIDE 2~#12 AND #12 GROUND IN 3/4" CONDUIT FROM NEW BREAKER IN PANEL B TO CONTROL POWER CIRCUIT IN THE LIGHTING CONTROL CABINET.
- ③ PROVIDE 20-AMP, TWO-POLE CIRCUIT BREAKER IN EXISTING SPACE FOR POWER TO ROOFTOP LIGHTING (ZONE 1).
- ④ PROVIDE 2~#12 AND #12 GROUND IN 3/4" CONDUIT FROM NEW BREAKER IN PANEL B TO ZONE 1 LIGHTING CONTACTOR IN THE LIGHTING CONTROL CABINET.
- ⑤ PROVIDE 20-AMP, SINGLE-POLE CIRCUIT BREAKER IN EXISTING SPACE FOR POWER TO WALL-MOUNTED STAIRWAY LIGHT FIXTURE.
- ⑥ PROVIDE 2~#12 AND #12 GROUND IN 3/4" CONDUIT FROM NEW BREAKER IN PANEL B TO TIME CLOCK AND FROM TIME CLOCK TO WALL-MOUNTED STAIRWAY LIGHT FIXTURE. SEE DRAWING E1.0.

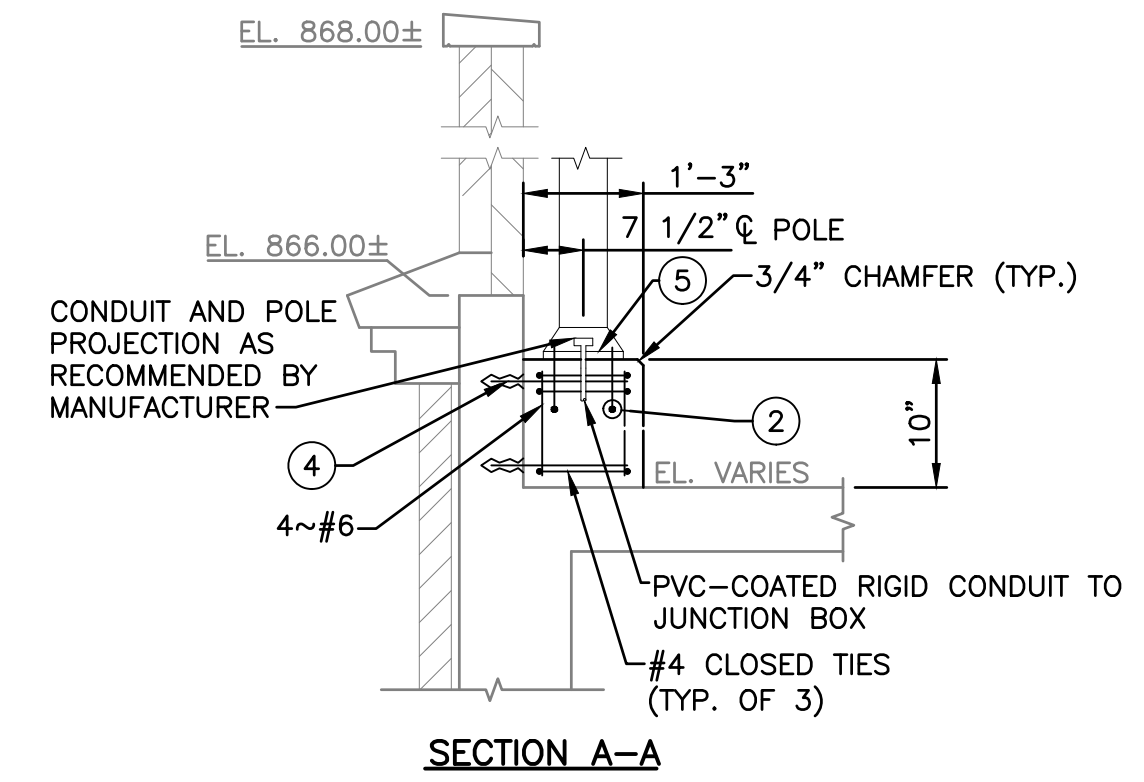
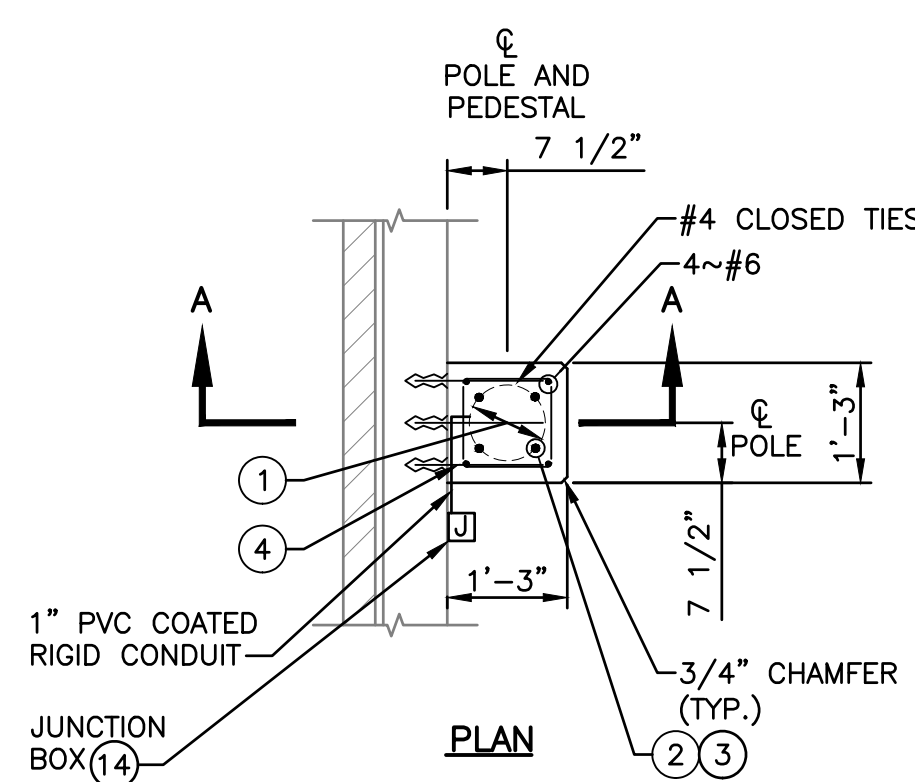
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ELECTRICAL PUMP ROOM PLAN
 REYNOLDS PARK - WATER UTILITY ROOFTOP LIGHTING
 CITY OF MADISON
 MADISON, WISCONSIN

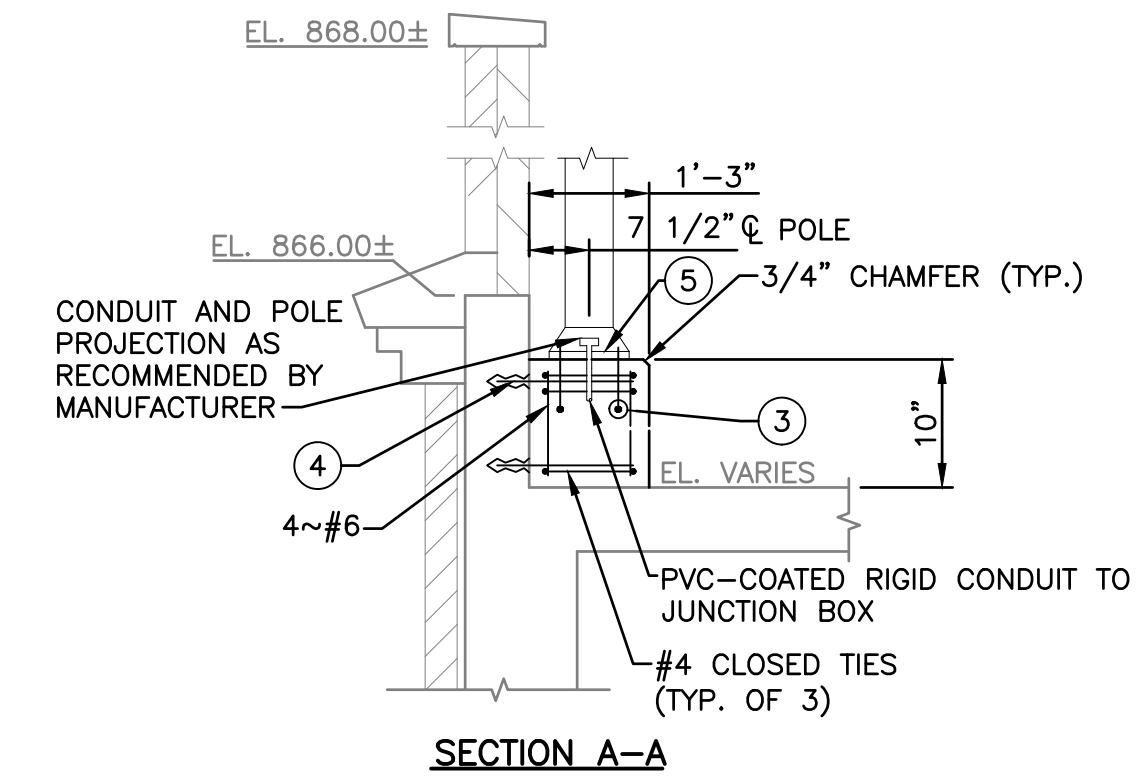
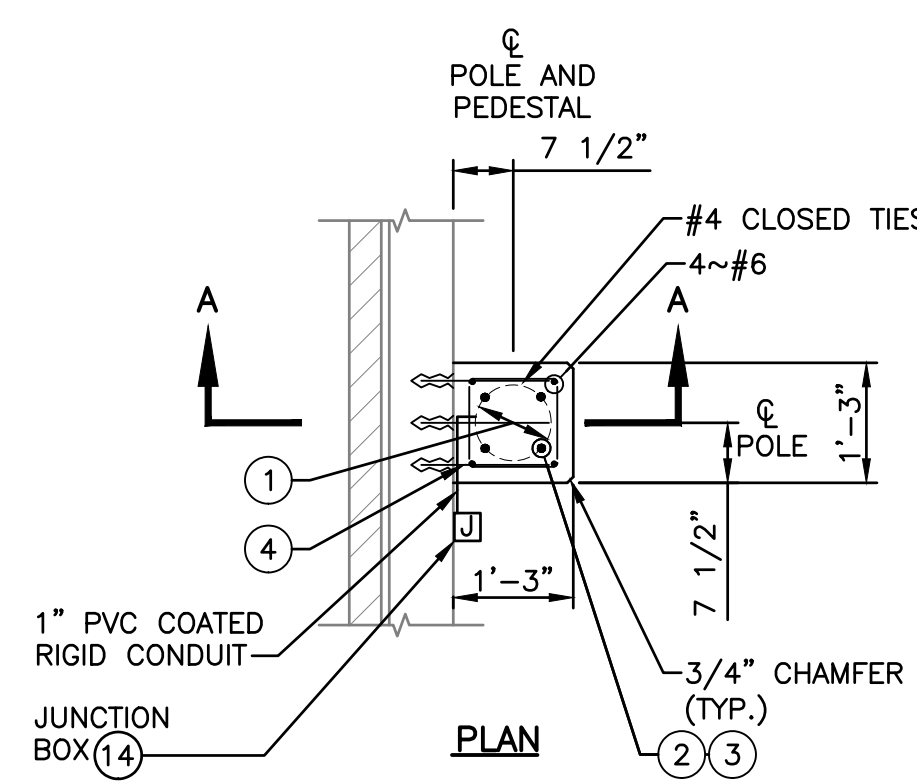
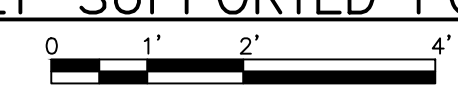
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1020.118
PROJECT MGR.
MARY SEEHAFAER



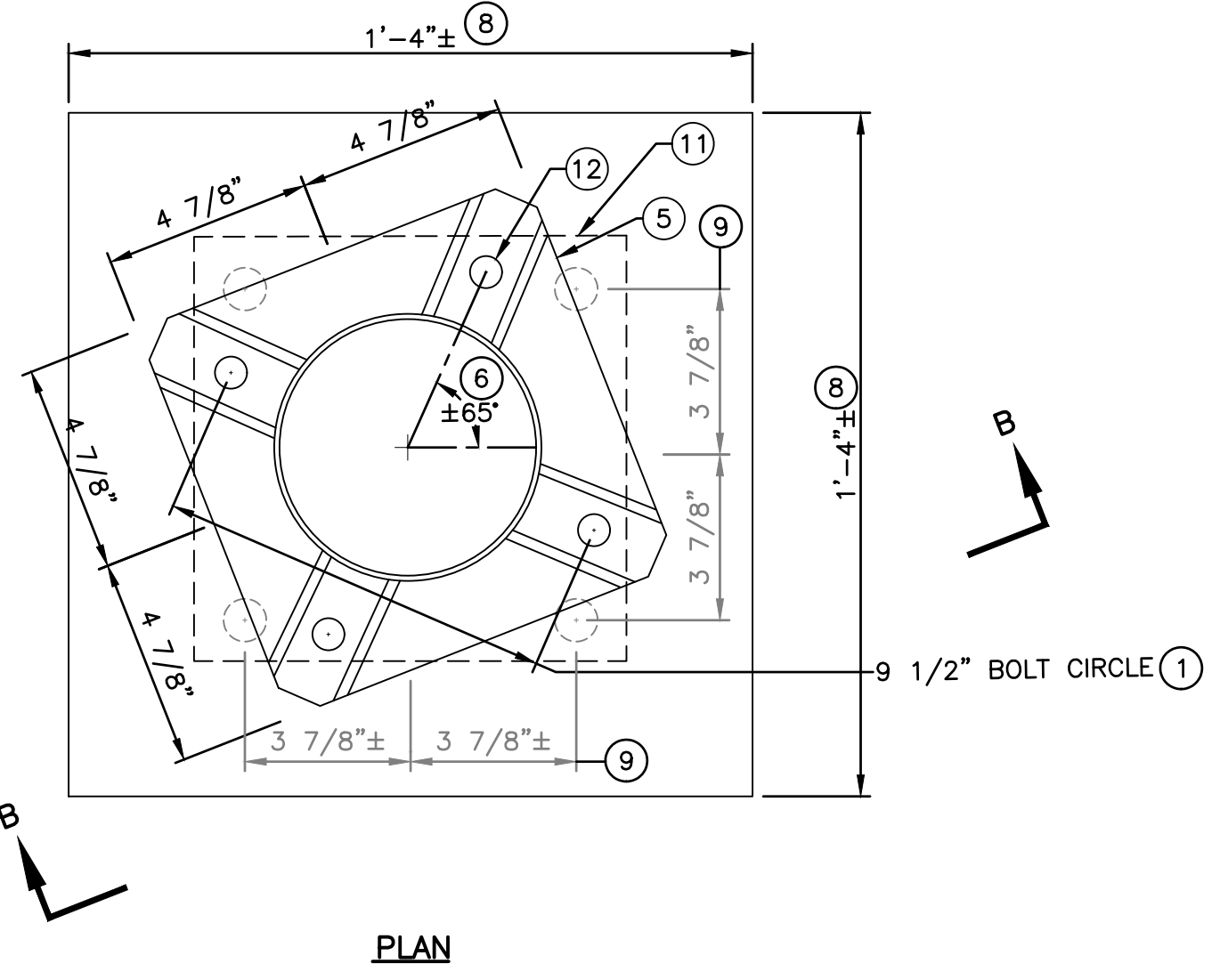
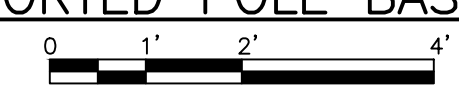
SHEET
7
E1.2



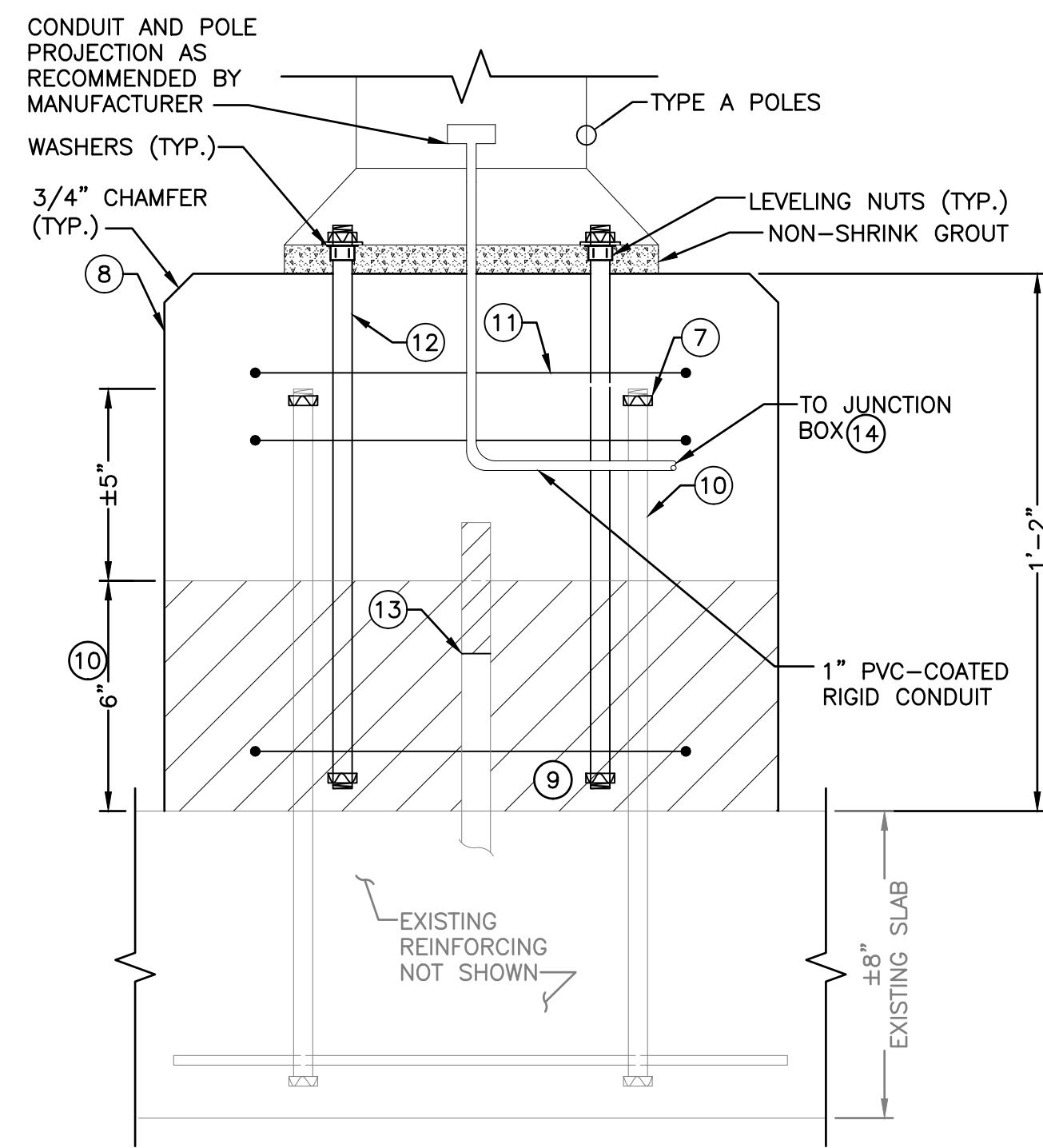
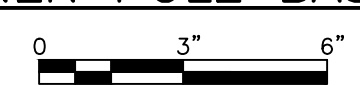
A PARAPET-SUPPORTED POLE BASE DETAIL
E5.1



B PARAPET-SUPPORTED POLE BASE (POLE W/ARM) DETAIL
E5.1



C CORNER POLE BASE DETAIL
E5.1



SECTION B-B

KEY NOTES:

- ① BOLT CIRCLE DIA. 9"-10". VERIFY WITH LIGHT POLE MANUFACTURER.
- ② 1" DIA. CAST-IN-PLACE, ASTM F1554 GR36 GALV. ANCHOR BOLTS, EMBED 6". PROVIDE HEX NUT ON BOTTOM OF ANCHOR BOLT.
- ③ 3/4" DIA. CAST-IN-PLACE, ASTM F1554 GR36 GALV. ANCHOR BOLTS, EMBED 6". PROVIDE HEX NUT ON BOTTOM OF ANCHOR BOLT.
- ④ #5x1'-4" SS ADHESIVE ANCHOR DOWEL, EMBED 6" (TYP. OF 6).
- ⑤ 9 3/4" x 9 3/4" BASE PLATE. VERIFY WITH LIGHT POLE MANUFACTURER.
- ⑥ ROTATE BASE PLATE TO AVOID CONFLICT BETWEEN EXISTING ANCHOR BOLTS AND NEW ANCHOR BOLTS. PROVIDE 1" CLEAR BETWEEN EXISTING AND NEW ANCHOR BOLTS. VERIFY NEW ANCHOR BOLT LAYOUT WITH LIGHT POLE MANUFACTURER.
- ⑦ ADD HEX NUT TO TOP OF EXISTING 1" DIA. ANCHOR BOLTS.
- ⑧ 16"x16"x1'-2" HIGH CONCRETE BASE. MATCH EXISTING DIMENSIONS. ROUGHEN EXISTING CONCRETE SURFACE PRIOR TO PLACING CONCRETE.
- ⑨ CONTRACTOR TO FIELD VERIFY LOCATION OF EXISTING 1" DIA. ANCHOR BOLTS.
- ⑩ EXISTING CONCRETE PAD TO BE REMOVED. PROTECT EXISTING 1" DIA. ANCHOR BOLTS AND INCORPORATE INTO NEW CONCRETE BASE.
- ⑪ #4 CLOSED TIES. FIELD VERIFY DIMENSIONS PRIOR TO FABRICATION.
- ⑫ 3/4" DIA. CAST-IN-PLACE, ASTM F1554 GR36 GALV. ANCHOR BOLTS, EMBED 12" (TYPE A POLES, SEE PLANS FOR LOCATION). PROVIDE HEX NUT ON BOTTOM OF ANCHOR BOLT.
- ⑬ CUT-OFF AND CAP EXISTING CONDUIT.
- ⑭ PROVIDE JUNCTION BOXES (AS REQUIRED) TO ROUTE CIRCUIT CONDUCTORS INTO AND OUT OF POLE BASE.

| LIGHTING CIRCUIT SCHEDULE | | | |
|---------------------------|---------------------|------------------------------------|---|
| Zone | Pole No. | Lighting Control Cabinet Contactor | Branch Circuit Conductor Quantities and Sizes |
| 1: Bicycle Polo Court | Z-1-1 and Z-1-2 | C1 | 2-#12, #12 GND |
| 1: Bicycle Polo Court | Z-1-3 | C2 | 2-#12, #12 GND |
| 1: Bicycle Polo Court | Z-1-4 | C2 | 2-#12, #12 GND |
| 2: Tennis Courts | Z-2-1 Through Z-2-6 | C3 | Future |

NOTES:
1. REFER TO DRAWING E1.0 FOR CONDUIT SIZES AND ROUTING.
2. ZONE 2 DESIGNATION AND CONTACTOR C3 IN LIGHTING CONTROL CABINET RESERVED FOR FUTURE WIRING.

| FIXTURE SCHEDULE | | | | | |
|------------------|------------------|---------------------------------|-----------|----------|---|
| Fixture Type | Manufacturer | Model Number | Lamp Type | Mounting | Remarks |
| A | Hubbell Viper L | VPL-96L-395-3K7-4-UNV-AD4-BL-BC | 395W LED | Pole | Provide shield HSS/VP-L/270-FB/BL. Provide Hapco pole, model RTA25C6B4-BA. Or equal fixtures shall meet or exceed the illumination performance statistics shown on drawing E1.1 for the pole court. Or equal fixtures shall meet the illumination limits at the property line as shown. |
| B | Hubbell Viper L | VPL-96L-395-3K7-4-UNV-MAF-BL-BC | 395W LED | Pole | Provide shield HSS/VP-L/270-FB/BL. Provide Hapco pole with arm, model RTA25D6B4M18-BA. Or equal fixtures shall meet or exceed the illumination performance statistics shown on drawing E1.1 for the pole court. Or equal fixtures shall meet the illumination limits at the property line as shown. |
| C | Hubbell Traverse | TRV-D-24L-55-3K7-4-UNV-PCU-BL | 55W LED | Wall | |

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ELECTRICAL DETAILS AND SCHEDULES
REYNOLDS PARK - WATER UTILITY ROOFTOP LIGHTING
CITY OF MADISON
MADISON, WISCONSIN

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SHEET
8
E5.1