

**POWER & COMMUNICATION LEGEND**

⊕ 120V DUPLEX OUTLET	⊕ MOTOR EQUIPMENT CONNECTION
⊕ 120V QUAD OUTLET	⊕ ELECTRICAL DISCONNECT
⊕ 208 OR 240 VOLT RECEPTACLE	⊕ ELECTRICAL CONNECTION W/DISCONNECT
⊕ 120V CEILING RECEPTACLE	⊕ ELECTRICAL CONNECTION W/WEATHER PROOF DISCONNECT
⊕ DATA/COMMUNICATION OUTLET	⊕ ELECTRICAL PANEL
⊕ TELEPHONE OUTLET	⊕ THERMOSTAT MOUNTED AT 48" A.F.F.
⊕ TV OUTLET	⊕ SMOKE/CO ALARM
⊕ DATA/TV COMBO OUTLET	⊕ SMOKE ALARM
⊕ FLOOR BOX	⊕ NITROGEN DIOXIDE DETECTOR
⊕ E-STOP FOR GRILL OR FIRE PIT	⊕ CARBON MONOXIDE DETECTOR
⊕ TIMER FOR FRILL OR FIRE PIT	
⊕ BC BELOW COUNTER OUTLET	
⊕ AC ABOVE COUNTER OUTLET	
⊕ D DEDICATED RECEPTACLE	
⊕ GF1 GROUND FAULT CIRCUIT INTERRUPTER	
⊕ WP/GF1 WEATHER PROOF COVER WITH GF1	

**LIGHTING LEGEND**

⊕ RECESSED 2X4 FIXTURE	⊕ SINGLE POLE SWITCH
⊕ RECESSED 2X2 FIXTURE	⊕ THREE WAY SWITCH
⊕ SURFACE MOUNT 1X4 FIXTURE	⊕ FOUR WAY SWITCH
⊕ SURFACE MOUNT 2X4 FIXTURE	⊕ OCCUPANCY SENSORS
⊕ WALL MOUNTED FIXTURE	⊕ VACANCY SENSORS
⊕ CEILING MOUNTED STRIP FIXTURE	⊕ CEILING OCCUPANCY SENSORS
⊕ RECESSED OR DISC FIXTURE	⊕ LIGHTING CONTROL TIME CLOCK
⊕ WALL MOUNTED FIXTURE	NL INDICATES NIGHT LIGHT FIXTURE
⊕ SURFACE CEILING MOUNTED FIXTURE	⊕ a-b INDICATES LIGHT FIXTURE SWITCH LEG
⊕ PENDANT MOUNTED FIXTURE	P-X INDICATES PANEL AND CIRCUIT NUMBER
⊕ EXTERIOR POLE MOUNTED FIXTURE	⊕ I INDICATES LIGHT FIXTURE TYPE
⊕ BOLLARD OR GROUND MOUNTED FIXTURE	EX INDICATES EXISTING FIXTURE
⊕ EMERGENCY LIGHTING FIXTURE	RL INDICATES RELOCATED FIXTURE
⊕ EMERGENCY EXIT SIGN	⊕ TC INDICATES TIME CLOCK CONTROLLED FIXTURE
⊕ EMERGENCY EXIT SIGN WITH EMERGENCY HEADS	EM INDICATES FIXTURE EMERGENCY OR STANDBY POWER
⊕ EXTERIOR EMERGENCY EGRESS LIGHT	

**SITE NOTES**

- PRIOR TO ANY DIGGING, TRENCHING, ETC. CONTACT ALL LOCAL UTILITY COMPANIES AND MUNICIPALITIES AND CONFIRM EXACT LOCATIONS OF ALL EXISTING UTILITIES.
- MATERIALS AND EQUIPMENT SHALL BE LISTED AND/OR LABELED BY UL OR ANOTHER NATIONALLY RECOGNIZED TESTING LABORATORY.
- ALL MATERIAL, EQUIPMENT, WIRING DEVICES, ETC SHALL BE NEW, UNLESS SPECIFICALLY NOTED AS EXISTING TO BE REUSED.
- ALL MATERIALS AND EQUIPMENT SHALL BE STORED, HANDLED, ERECTED, INSTALLED, CONNECTED, CLEANED, ADJUSTED, TESTED, CONDITIONED AND PLACED IN SERVICE IN ACCORDANCE WITH THE MANUFACTURERS DIRECTIONS AND RECOMMENDATIONS.
- ALL POLE FIXTURES TO BE LOCATED 4' AWAY FROM EDGE OF CURB.
- ALL EXTERIOR LIGHT FIXTURES TO BE CONNECTED TO A COMMON EQUIPMENT GROUND. USE #8 TYPE THWN.
- THE CONTROLLING LIGHTING CONTACTORS SHALL BE MOUNTED INSIDE THE BUILDING WITH TIME-CLOCK CONTROL & REMOTE PHOTOCELLS LOCATED ON THE EXTERIOR SIDE OF THE BUILDING WALL. INSTALL PHOTOCELLS AT LOCATIONS WHERE BUILDING OR OTHER OBSTRUCTIONS WILL NOT INTERFERE WITH THEIR PROPER OPERATION. FINAL BRANCH CIRCUIT SUPPLY CONNECTIONS WILL BE PROVIDED BY THE BUILDING ELECTRICAL CONTRACTORS.
- MIN. BURIAL DEPTH FOR THE LIGHTING CIRCUIT SHALL BE 24". A SLIGHT DECREASE IN DEPTH IS ALLOWED WITHIN 10' OF THE POLES.
- VERIFY CONSTRUCTION AREAS ON OTHER SITE PLANS FOR POTENTIAL OBSTACLES AND CONSTRUCTION LIMITS.

**ELECTRICAL GENERAL NOTES**

- ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH NATIONAL, STATE AND LOCAL ELECTRICAL & BUILDING CODES.
- COORDINATE WORK WITH ALL OTHER TRADES.
- EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- ALL EQUIPMENT GROUNDING CONDUCTORS SHALL BE INSTALLED AT ALL LOCATIONS.
- ALL MEASUREMENTS TO TOP OF BOX.
- GF1 PROTECT ALL RECEPTACLES WITHIN 6' OF EVERY SINK.
- DRAWINGS ONLY REPRESENT AN APPROXIMATE LOCATION OF ALL RECEPTACLES, SWITCHES, LIGHTS, TV/DATA JACKS, ELECTRICAL EQUIPMENT, ETC. FINAL LOCATIONS WILL BE DETERMINED IN THE FIELD AND MAY VARY FROM DRAWINGS DUE TO UNFORESEEN CIRCUMSTANCES.
- PROVIDE GFCI PROTECTION FOR ALL AREAS LISTED UNDER NEC 210.8.
- PROVIDE TAMPER RESISTANT RECEPTACLES IN ALL AREAS LISTED UNDER NEC 406.12.

**LIGHTING FIXTURE SCHEDULE - EXTERIOR (INITIAL)**

TYPE	MANUFACTURE	LAMPS	WATTAGE	LLF	LUMENS	DESCRIPTION	NOTES
AA	MESTER	LED	27	1.0	3600	SMALL EXTERIOR WALL PACK	
BB	MESTER	LED	27	1.0	3600	SMALL EXTERIOR WALL PACK	
CC	RESPECIFIC	LED	46	1.0	4098	EXTERIOR RECESSED DOWNLIGHT	
DD	RAB	LED	70	1.0	9938	POLE MOUNT FIXTURE, TYPE IV OPTICS, 10' POLE W/24" BASE, HOUSESIDE SHIELD	
EE	RAB	LED	70	1.0	9938	POLE MOUNT FIXTURE, TYPE IV OPTICS, 10' POLE W/24" BASE, HOUSESIDE SHIELD	
FF	HUBBELL	LED	80	1.0	7851	MEDIUM EXTERIOR WALL PACK	

- NOTES:
- EXTERIOR FIXTURES CONTROLLED BY PHOTOCELL
  - NO OCCUPANCY CONTROL OR DIMMING IS REQUIRED PER ASHRAE 90.1 - 2016 9.4.1.4 (B) & (C)
  - BUILDING IS OPEN 24/7

**LIGHTING CALCULATIONS INITIAL**

MAX	6.7 FC 25' PERIMETER EXCLUDED
MIN	1.2 FC 25' PERIMETER EXCLUDED
MAX - MIN PERIMETER	5.6 - 1
MIN	1.3 FC

Plans approved  
12/12/2024

*Elizabeth O'Neil*  
CITY OF BLOOMINGTON

PL202300178  
PL2023-178

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  
*Dustin J. Kulesh*  
DUSTIN J. KULESH DATE: 2/26/24 REG. NO. 62018

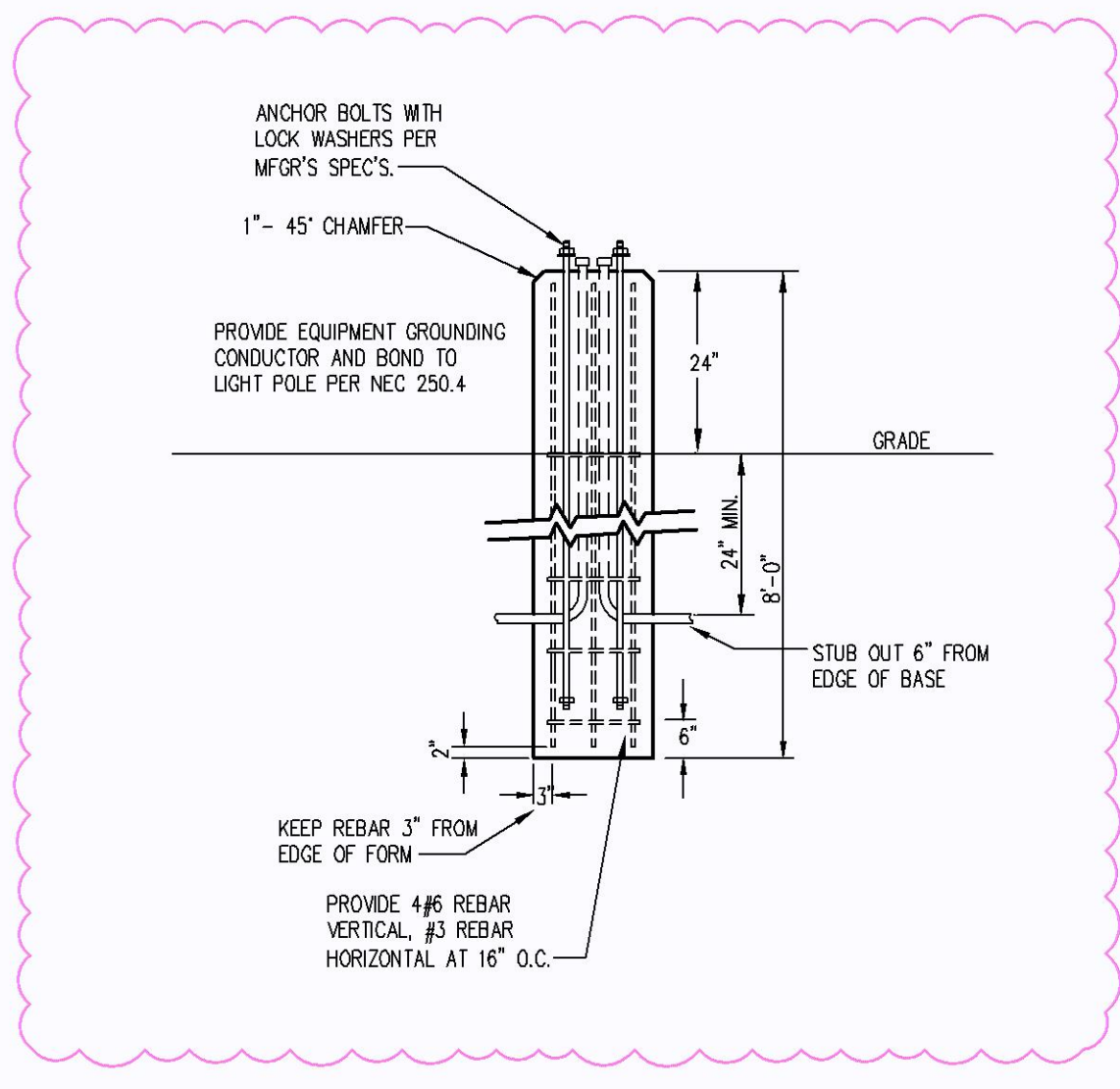
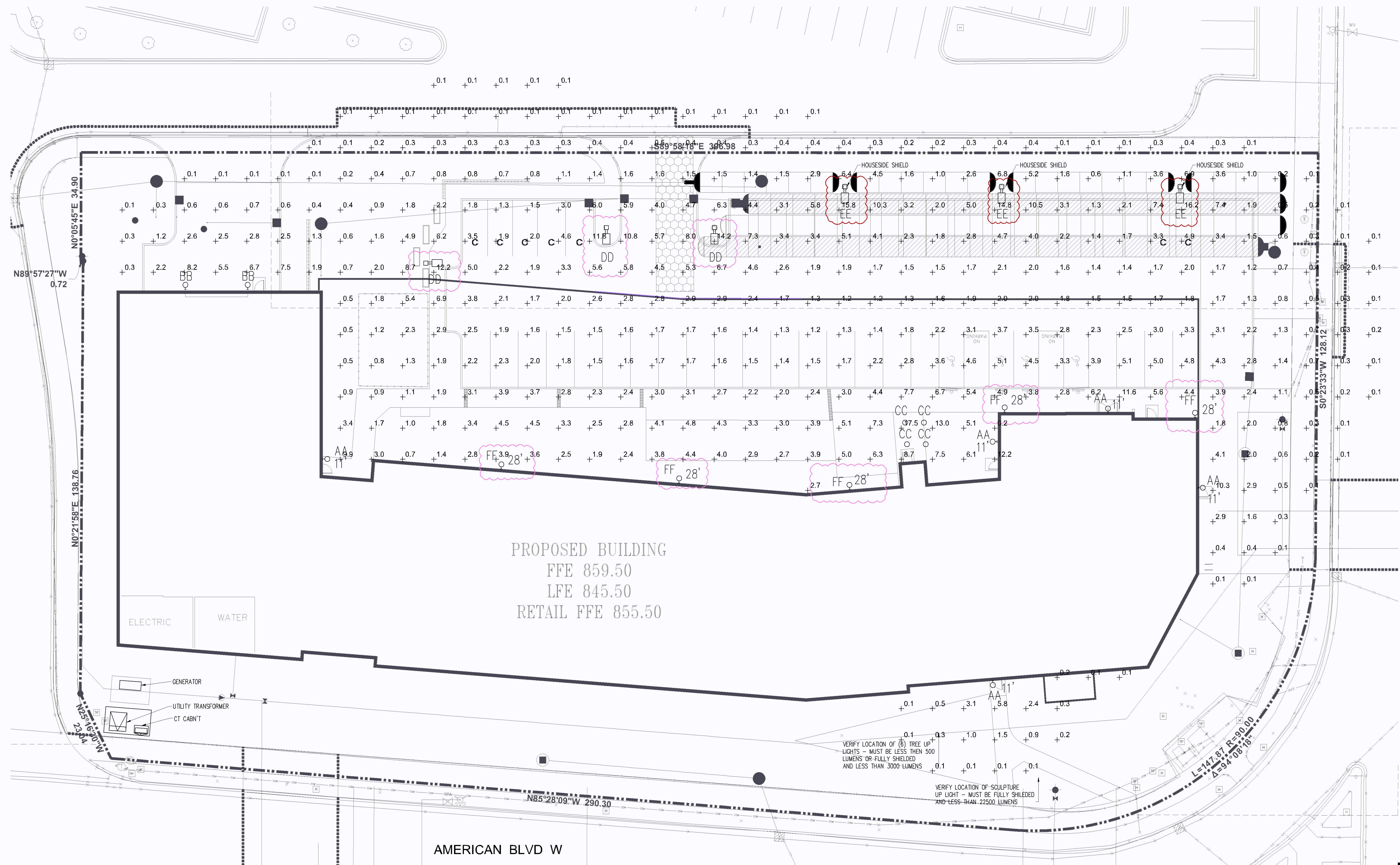
**BERD ELECTRIC**  
BLOOMINGTON, MN  
10000 1st Avenue S. Bloomington, MN 55312  
TEL: 763-888-0112 FAX: 763-888-0112

DATE	REVISION	DESCRIPTION	BY	DR
10/9/24	1	REVISED DRAWINGS	DK	DR
10/22/24	2	REVISED DRAWINGS	DK	DR
11/14/24	3	REVISED DRAWINGS	DK	DR
1/1/24	4	REVISED DRAWINGS	DK	DR

DATE	REVISION	DESCRIPTION	BY	DR
5/29/24	1	REVISED DRAWINGS	DK	DR
6/12/24	2	REVISED DRAWINGS	DK	DR
8/29/24	3	REVISED SCHEDULES	DK	DR

DATE: 2/26/24  
SCALE: AS SHOWN  
DRAWN BY: DK  
CHECKED BY: DK  
JOB NO. 755

700 AMERICAN BLOOMINGTON, MN  
SITE LIGHTING PLAN - INITIAL  
DRAWING NO. E1.2



- NOTE:
- USE MFG'S DIMENSIONS FOR EXACT ANCHOR BOLT AND COVER PLACEMENT.
  - INSTALL IN-LINE FUSES IN EACH UNGROUNDED CONDUCTOR WITHIN POLE BASE HAND HOLD.
  - BRONZE FINISH EXPOSED PORTION OF BASE TO REMOVE/COVER FORM MARKS.

**PERMIT SET**

**POWER & COMMUNICATION LEGEND**

⊕ 120V DUPLEX OUTLET	⊕ MOTOR EQUIPMENT CONNECTION
⊕ 120V QUAD OUTLET	⊕ ELECTRICAL DISCONNECT
⊕ 208 OR 240 VOLT RECEPTACLE	⊕ ELECTRICAL CONNECTION W/DISCONNECT
⊕ 120V CEILING RECEPTACLE	⊕ ELECTRICAL CONNECTION W/WEATHER PROOF DISCONNECT
⊕ DATA/COMMUNICATION OUTLET	⊕ TELEPHONE OUTLET
⊕ TELEPHONE OUTLET	⊕ TV OUTLET
⊕ FLOOR BOX	⊕ DATA/TV COMBO OUTLET
⊕ JUNCTION BOX	⊕ E-STOP FOR GRILL OR FIRE PIT
⊕ THERMOSTAT MOUNTED AT 48" A.F.F.	⊕ TIMER FOR GRILL OR FIRE PIT
⊕ SMOKE/CO ALARM	⊕ BC BELOW COUNTER OUTLET
⊕ SMOKE ALARM	⊕ AC ABOVE COUNTER OUTLET
⊕ NITROGEN DIOXIDE DETECTOR	⊕ D DEDICATED RECEPTACLE
⊕ CARBON MONOXIDE DETECTOR	⊕ GF1 GROUND FAULT CIRCUIT INTERRUPTER WEATHER PROOF COVER WITH GF2

**LIGHTING LEGEND**

⊕ RECESSED 2X4 FIXTURE	⊕ SINGLE POLE SWITCH
⊕ RECESSED 2X2 FIXTURE	⊕ THREE WAY SWITCH
⊕ SURFACE MOUNT 1X4 FIXTURE	⊕ FOUR WAY SWITCH
⊕ SURFACE MOUNT 2X4 FIXTURE	⊕ OCCUPANCY SENSORS
⊕ WALL MOUNTED FIXTURE	⊕ VACANCY SENSORS
⊕ CEILING MOUNTED STRIP FIXTURE	⊕ CEILING OCCUPANCY SENSORS
⊕ RECESSED OR DISC FIXTURE	⊕ NL INDICATES NIGHT LIGHT FIXTURE
⊕ WALL MOUNTED FIXTURE	⊕ a-b INDICATES LIGHT FIXTURE SWITCH LEG
⊕ SURFACE CEILING MOUNTED FIXTURE	⊕ P-X INDICATES PANEL AND CIRCUIT NUMBER
⊕ PENDANT MOUNTED FIXTURE	⊕ I INDICATES LIGHT FIXTURE TYPE
⊕ EXTERIOR POLE MOUNTED FIXTURE	⊕ EX INDICATES EXISTING FIXTURE
⊕ BOLLARD OR GROUND MOUNTED FIXTURE	⊕ RL INDICATES RELOCATED FIXTURE
⊕ EMERGENCY LIGHTING FIXTURE	⊕ TC INDICATES TIME CLOCK CONTROLLED FIXTURE
⊕ EMERGENCY EXIT SIGN	⊕ EM INDICATES FIXTURE EMERGENCY OR STANDBY POWER
⊕ EMERGENCY EXIT SIGN WITH EMERGENCY HEADS	
⊕ EXTERIOR EMERGENCY EGRESS LIGHT	

**SITE NOTES**

1. PRIOR TO ANY DIGGING, TRENCHING, ETC. CONTACT ALL LOCAL UTILITY COMPANIES AND MUNICIPALITIES AND CONFIRM EXACT LOCATIONS OF ALL EXISTING UTILITIES.
2. MATERIALS AND EQUIPMENT SHALL BE LISTED AND/OR LABELED BY UL OR ANOTHER NATIONALLY RECOGNIZED TESTING LABORATORY.
3. ALL MATERIAL, EQUIPMENT, WIRING DEVICES, ETC SHALL BE NEW, UNLESS SPECIFICALLY NOTED AS EXISTING TO BE REUSED.
4. ALL MATERIALS AND EQUIPMENT SHALL BE STORED, HANDLED, ERECTED, INSTALLED, CONNECTED, CLEANED, ADJUSTED, TESTED, CONDITIONED AND PLACED IN SERVICE IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS AND RECOMMENDATIONS.
5. ALL POLE FIXTURES TO BE LOCATED 4' AWAY FROM EDGE OF CURB.
6. ALL EXTERIOR LIGHT FIXTURES TO BE CONNECTED TO A COMMON EQUIPMENT GROUND. USE #8 TYPE THWN.
7. THE CONTROLLING LIGHTING CONTACTORS SHALL BE MOUNTED INSIDE THE BUILDING WITH TIME-CLOCK CONTROL & REMOTE PHOTOCELLS LOCATED ON THE EXTERIOR SIDE OF THE BUILDING WALL. INSTALL PHOTOCELLS AT LOCATIONS WHERE BUILDING OR OTHER OBSTRUCTIONS WILL NOT INTERFERE WITH THEIR PROPER OPERATION. FINAL BRANCH CIRCUIT SUPPLY CONNECTIONS WILL BE PROVIDED BY THE BUILDING ELECTRICAL CONTRACTORS.
8. MIN. BURIAL DEPTH FOR THE LIGHTING CIRCUIT SHALL BE 24". A SLIGHT DECREASE IN DEPTH IS ALLOWED WITHIN 10' OF THE POLES.
9. VERIFY CONSTRUCTION AREAS ON OTHER SITE PLANS FOR POTENTIAL OBSTACLES AND CONSTRUCTION LIMITS.

**ELECTRICAL GENERAL NOTES**

1. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH NATIONAL, STATE AND LOCAL ELECTRICAL & BUILDING CODES.
2. COORDINATE WORK WITH ALL OTHER TRADES.
3. EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
4. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL BE INSTALLED AT ALL LOCATIONS.
5. ALL MEASUREMENTS TO TOP OF BOX.
6. GFI PROTECT ALL RECEPTACLES WITHIN 6' OF EVERY SINK.
7. DRAWINGS ONLY REPRESENT AN APPROXIMATE LOCATION OF ALL RECEPTACLES, SWITCHES, LIGHTS, TV/DATA JACKS, ELECTRICAL EQUIPMENT, ETC. FINAL LOCATIONS WILL BE DETERMINED IN THE FIELD AND MAY VARY FROM DRAWINGS DUE TO UNFORESEEN CIRCUMSTANCES.
8. PROVIDE GFCI PROTECTION FOR ALL AREAS LISTED UNDER NEC 210.8.
9. PROVIDE TAMPER RESISTANT RECEPTACLES IN ALL AREAS LISTED UNDER NEC 406.12.

**LIGHTING FIXTURE SCHEDULE - EXTERIOR (MAINTAINED)**

TYPE	MANUFACTURE	LAMPS	WATTAGE	LLF	LUMENS	DESCRIPTION	NOTES
AA	MESTER	LED	27	.81	2916	SMALL EXTERIOR WALL PACK	-
BB	MESTER	LED	27	.81	2916	SMALL EXTERIOR WALL PACK	-
CC	PRESONITE	LED	16	.81	810	EXTERIOR RECESSED DOWNLIGHT	-
DD	RAB	LED	70	.81	8050	POLE MOUNT FIXTURE, TYPE IV OPTICS, 10' POLE W/24" BASE, HOUSESIDE SHIELD	-
EE	RAB	LED	70	.81	8050	POLE MOUNT FIXTURE, TYPE IV OPTICS, 10' POLE W/24" BASE, HOUSESIDE SHIELD	-
FF	HUBBELL	LED	80	.81	6360	MEDIUM WALL PACK	-

NOTES:  
 - EXTERIOR FIXTURES CONTROLLED WITH PHOTOCELL  
 - NO OCCUPANCY CONTROL OR DIMMING IS REQUIRED PER ASHRAE 90.1 - 2016 9.4.1.4 (B) & (C)  
 - BUILDING IS OPEN 24/7

**LIGHTING CALCULATIONS MAINTAINED**

MAX	5.4 FC 25' PERIMETER EXCLUDED
MIN	1.0 FC 25' PERIMETER EXCLUDED
MAX - MIN	5.4 - 1
PERIMETER	1.0 FC

Plans approved  
12/12/2024

*Elizabeth O'Neil*  
 CITY OF BLOOMINGTON  
 PL202300178  
 PL2023-178

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR...  
 DUSTIN J. KULESKA  
 DATE: 2/26/24  
 REG. NO. 62318

**BERD ELECTRIC LLC**  
 10000 1st Avenue S  
 Bloomington, MN 55425  
 TEL: 763-888-0112  
 FAX: 763-888-0112

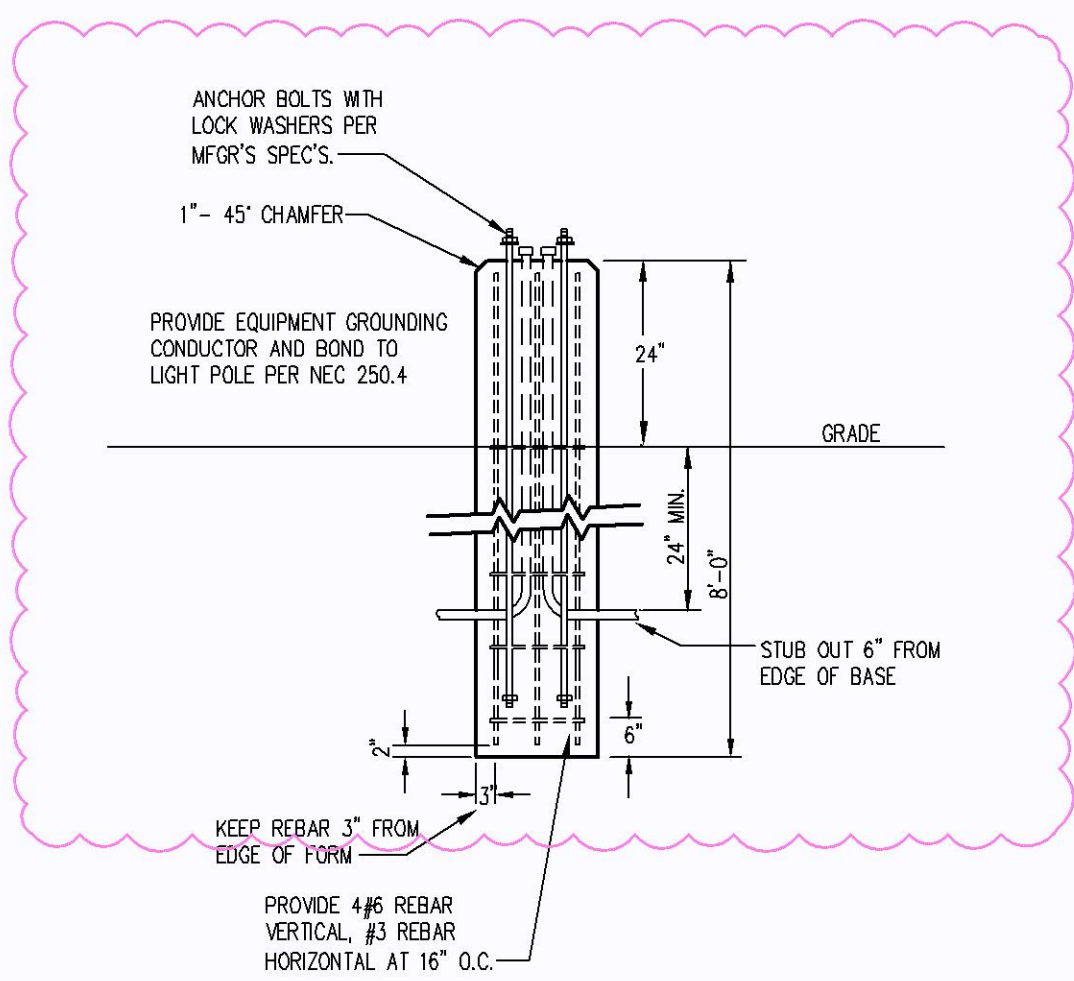
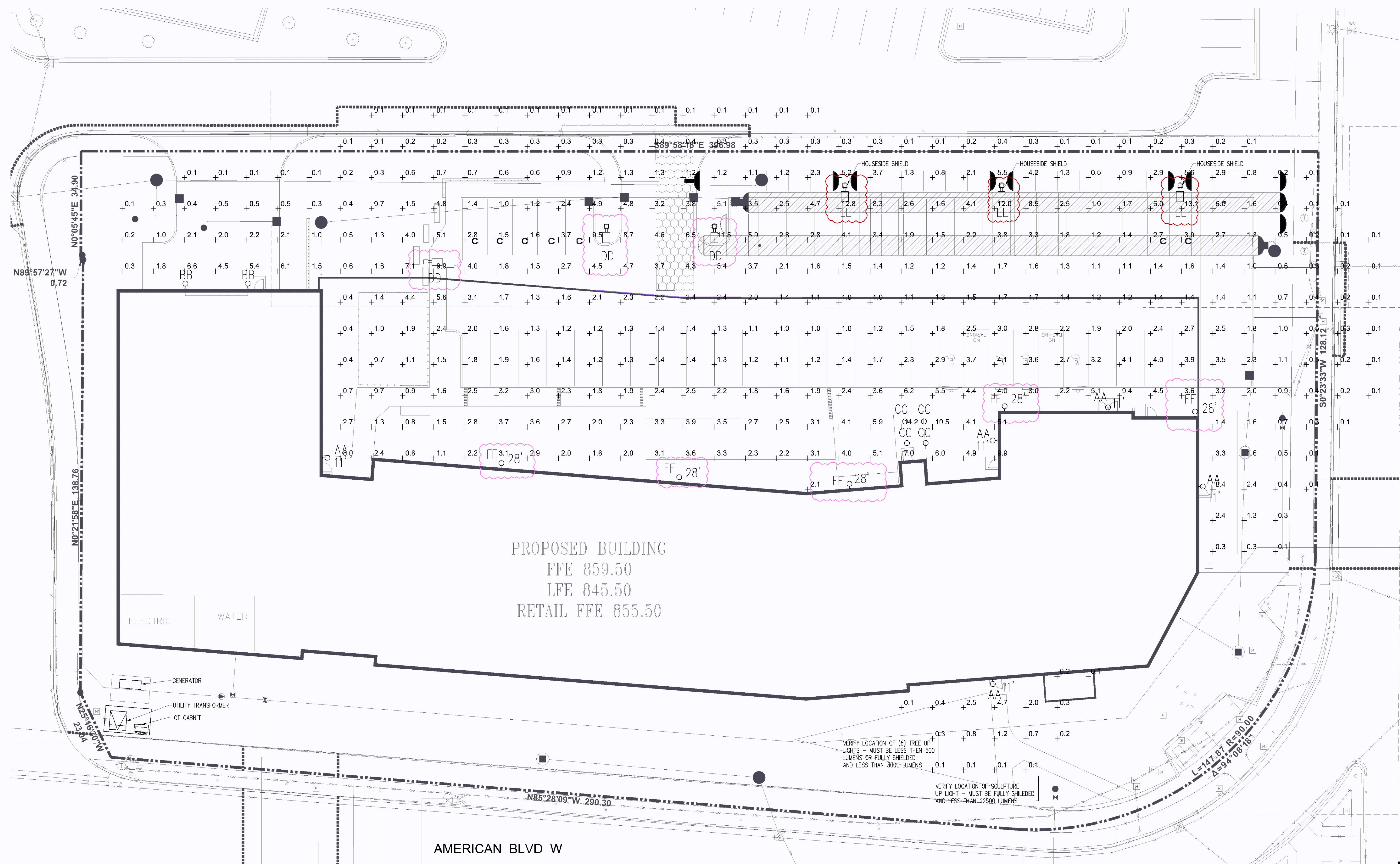
DATE	REVISION	DESCRIPTION	BY	DR
10/9/24	A	REVISED DRAWINGS	DK	DR
10/22/24	A	REVISED DRAWINGS	DK	DR
11/14/24	A	REVISED DRAWINGS	DK	DR
1/1/24	A	REVISED DRAWINGS	DK	DR

DATE	REVISION	DESCRIPTION	BY	DR
5/29/24	A	REVISED DRAWINGS	DK	DR
6/27/24	A	REVISED DRAWINGS	DK	DR
8/29/24	A	REVISED SCHEDULES	DK	DR

DATE: 2/26/24  
 SCALE: AS SHOWN  
 DRAWN BY: DK  
 CHECKED BY: DK  
 JOB NO. 755

700 AMERICAN  
 BLOOMINGTON, MN  
 SITE LIGHTING PLAN - MAINTAINED

DRAWING NO.  
E1.3



- NOTE:  
 1) USE MFG'S DIMENSIONS FOR EXACT ANCHOR BOLT AND COVER PLACEMENT.  
 2) INSTALL IN-LINE FUSES IN EACH UNGROUNDED CONDUCTOR WITHIN POLE BASE HAND HOLE.  
 3) BRONZE FINISH EXPOSED PORTION OF BASE TO REMOVE/COVER FORM MARKS.

**2 POLE BASE DETAIL**  
 E1.3  
 NOT TO SCALE

**1 SITE LIGHTING PLAN - MAINTAINED**  
 E1.3  
 SCALE: 1" = 15'

**PERMIT SET**

Plans approved  
12/12/2024

*Elizabeth O'Neil*  
CITY OF BLOOMINGTON  
MINNESOTA

I HEREBY CERTIFY THAT THIS PLAN SPECIFICATION OR PERMIT APPLICATION WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  
*Dustin J. Kulness*  
DUSTIN J. KULNESS DATE: 2/26/24 REG. NO. 62316

**BERD!**  
**ELECTRIC LLC**  
10000 15th Avenue S. Suite 100, Bloomington, MN 55425  
TEL: 763-885-0112 FAX: 763-885-0112



2 SUBLEVEL LIGHTING PHOTOMETRIC - MAINTAINED  
SCALE: 1/16" = 1'-0"

LIGHTING CALCULATIONS MAINTAINED	
MAX	39.1 FC 25' PERIMETER EXCLUDED
MIN	4.6 FC 25' PERIMETER EXCLUDED
MAX : MIN	8.5 : 1
PERIMETER MIN.	1.7 FC



1 SUBLEVEL LIGHTING PHOTOMETRIC - INITIAL  
SCALE: 1/16" = 1'-0"

LIGHTING CALCULATIONS INITIAL	
MAX	48.3 FC 25' PERIMETER EXCLUDED
MIN	5.7 FC 25' PERIMETER EXCLUDED
MAX : MIN	8.5 : 1
PERIMETER MIN.	2.1 FC

PL202300178  
PL2023-178

**PERMIT SET**

700 AMERICAN  
BLOOMINGTON, MN  
SUBLEVEL PHOTOMETRICS

DATE	REVISION	DESCRIPTION	BY
10/9/24	1	REVISED DRAWINGS	DR
10/22/24	2	REVISED DRAWINGS	DR/DJK
11/2/24	3	REVISED DRAWINGS	DR
-/-/-	4	REVISED DRAWINGS	DR

DATE	REVISION	DESCRIPTION	BY
5/29/24	1	REVISED DRAWINGS	DJK
6/2/24	2	REVISED DRAWINGS	DR
6/2/24	3	REVISED DRAWINGS	DJK
8/29/24	4	REVISED SCHEDULES	DR

DATE: 2/26/24  
SCALE: AS SHOWN  
DRAWN BY: DR  
CHECKED BY: DR  
JOB NO. 755

DRAWING NO.  
E2.8