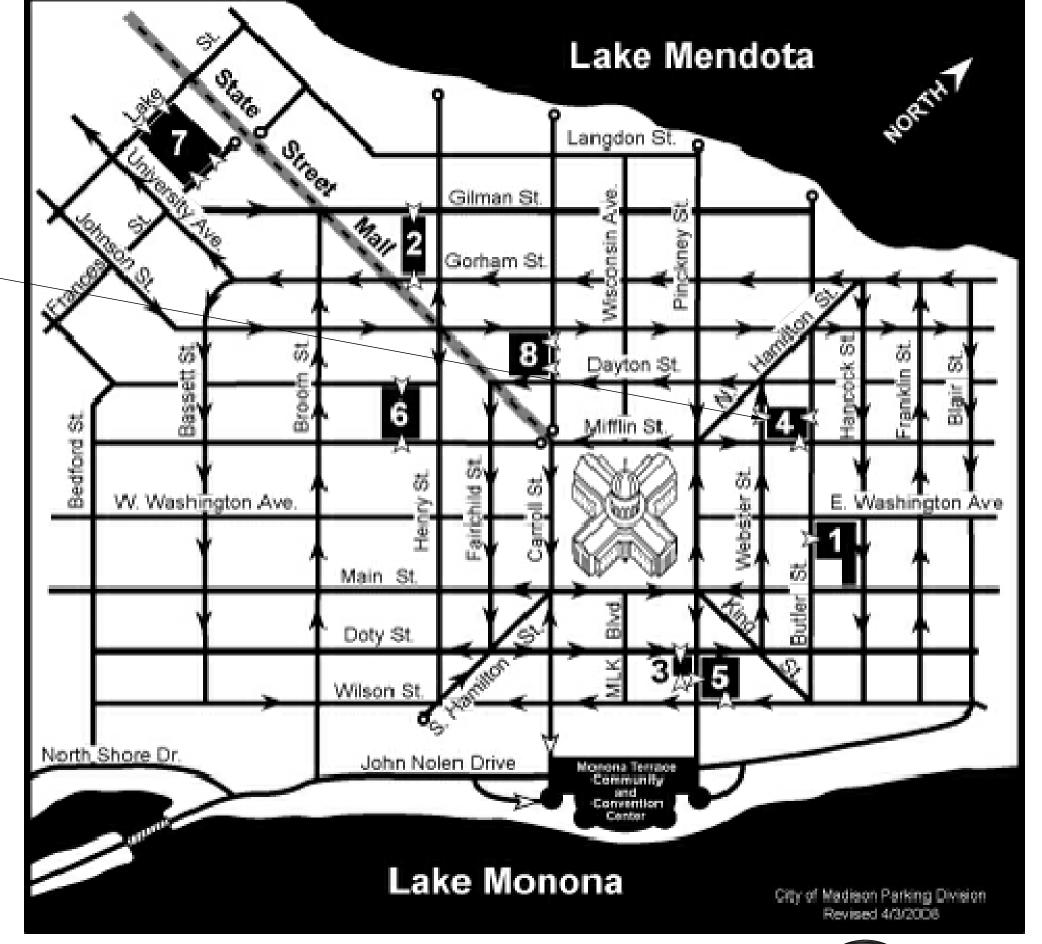
CITY OF MADISON

2015 CAPITOL SQUARE NORTH PARKING GARAGE - ELECTRICAL MODIFICATIONS AND UPGRADES

CITY OF MADISON CONTRACT NO. 7585 BID DRAWINGS

CAPITOL SQUARE NORTH GARAGE 218 EAST MIFFLIN STREET



PARTIAL CITY OF MADISON LOCATION MAP



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CONTRACTORS ARE RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES OF CONSTRUCTION INCLUDING, BUT NOT LIMITED TO TEMPORARY SUPPORTS, SHORING, AND FORMING TO SUPPORT IMPOSED LOADS AND OTHER SIMILAR ITEMS.

"BUILDING RELATIONSHIPS WITH A

- **CONSTRUCTION SERVICES**
- **WATER RESOURCES**

- KENOSHA | APPLETON

SERVICES PROVIDED TO:



ADSION, WISCONSIN 53801-2986

PROJECT:

2015 PARKING RESTORATION

PROJECT LOCATION: CAPITOL SQUARE NORTH

SEAL/SIGNATURE:

ALTHOUGH EVERY EFFORT HAS BEEN MADE IN PREPARING THESE PLANS AND CHECKING THEM FOR ACCURACY, THE CONTRACTOR

AND SUBCONTRACTORS MUST CHECK ALL DETAIL AND DIMENSIONS OF THEIR TRADE

AND BE RESPONSIBLE FOR THE SAME.

APPROVED:

PLAN MODIFICATIONS:

Toll Free (800) 242-8511 Milwaukee Area (414) 259-1181 Hearing Impaired TDD (800) 542-2289 www.DiggersHotline.com

SHEET TITLE:

TITLE SHEET

INFORMATION PERTAINING TO EXISTING CONDITIONS GIVEN ON THESE DRAWINGS REPRESENTS TO THE BEST OF OUR KNOWLEDGE THE ACTUAL EXISTING FIELD CONDITIONS. JSD PROFESSIONAL SERVICES, INC. MAKES NO WARRANTY AS TO THEIR ACCURACY. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS IMPERATIVE TO THE NEW WORK. REPORT DISCREPANCIES BETWEEN DRAWINGS AND FIELD CONDITIONS TO THE ENGINEER FOR REVIEW. ANY WORK PERFORMED PRIOR TO RESOLUTION OF DISCREPANCIES BY THE ENGINEER IS SUBJECT TO REMOVAL AND REPLACEMENT AT NO ADDITIONAL COST TO THE CONTRACT.

GENERAL PROJECT ELECTRICAL NEW WORK NOTES:

- 1. ALL BRANCH CIRCUITS SHALL HAVE GROUND CONDUCTORS.
- 2. ALL LUMINAIRES SHALL BE PROVIDED WITH LABELS IDENTIFYING THE PANEL NAME AND CIRCUIT BRANCH, FIRMLY ATTACHED, TO THE OUTSIDE OF THE LUMINAIRE.
- 3. PROVIDE SEPARATE NEUTRAL FOR EACH BRANCH CIRCUIT PHASE CONDUCTOR.
- 4. WHERE NEW DEVICES ARE SHOWN THE ELECTRICAL CONTRACTOR SHALL DO ALL CUTTING AND DO ALL PATCHING AND PAINTING OF EXISTING WALLS.

GENERAL PROJECT ELECTRICAL DEMOLITION REQUIREMENTS:

- 1) ELECTRICAL CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS AT THE PROJECT SITE BEFORE SUBMITTING COST PROPOSAL.
- 2) THE ELECTRICAL CONTRACTOR SHALL VISIT THE SITE TO VERIFY DEVICES NOT SHOWN. ALL DEVICES NEED TO BE REMOVED IN THE DEMOLITION AREA UNLESS NOTED ON THE DRAWINGS.
- 3) IT IS MANDATORY THAT THE EXISTING BUILDING REMAIN IN CONTINUOUS AND NON-INTERRUPTED OPERATION DURING REMODELING/ALTERING. SERVICES TO EXISTING BUILDING SHALL BE KEPT ON CONTINUOUS OPERATION INCLUDING POWER, LIGHTING, TELEPHONE, FIRE ALARM, ETC. ANY ABSOLUTELY NECESSARY INTERRUPTION OF THESE SERVICES TO ACCOMPLISH PROJECT CONSTRUCTION, SHALL BE HELD TO A MINIMUM AND ARRANGED WITH THE OWNER TWO (2) WEEKS IN ADVANCE. TEMPORARY SERVICES SHALL BE FURNISHED AND INSTALLED WHERE NECESSARY TO ACCOMPLISH THIS PURPOSE. TEMPORARIES SHALL BE REMOVED ONLY AFTER NEW PERMANENT SERVICES ARE INSTALLED AND FULLY OPERATIONAL.
- 4) ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR HIS OWN DEMOLITION, REMOVAL, CAPPING, STORING, ABANDONING, DISCONNECTING, RELOCATING AND RECONNECTION OF EXISTING ELECTRICAL EQUIPMENT AND MATERIAL. ALL CUTTING, PATCHING, REPAIRING, REPLACEMENT AND REFINISHING, SHALL MATCH THE EXISTING CONSTRUCTION AS NEARLY AS POSSIBLE.
- 5) EXCEPT WHERE OTHERWISE SHOWN OR NOTED ON DRAWING "TO BE RETAINED, RELOCATED" OR HEREINAFTER NOTED, ALL EXISTING ELECTRICAL EQUIPMENT AND MATERIAL IN AREAS TO BE REMODELED/ALTERED SHALL BE REMOVED WHERE THEY INTERFERE WITH PROPOSED NEW CONSTRUCTION AND/OR INTERFERE WITH PROPOSED USAGE OF SPACE BY OWNER AS FOLLOWS:
- A) REMOVE ANY CONDUITS PROTRUDING ABOVE FINISHED FLOOR, CAP AND FINISH OVER WITH FLOOR MATERIAL TO MATCH EXISTING.
- REMOVE ALL LIGHT FIXTURES, SWITCHES, ETC. AND ASSOCIATED WIRING NOTED FOR DEMOLITION.
- ANY FEEDERS, CONDUITS, BRANCH CIRCUITS, SIGNAL AND TELEPHONE CIRCUITS, ETC. PASSING THROUGH THE REMODELED AREAS TO SERVE (OR BE SERVED FROM) EXISTING ADJACENT, REMOTE OR SURROUNDING AREAS THAT ARE TO REMAIN, SHALL BE RETAINED AND KEPT OPERATIONAL AND SHALL BE REROUTED IN ALL CASES WHERE THEY INTERFERE WITH ANY NEW WORK OR USAGE TO BE ACCOMPLISHED IN THE REMODELED AREA.
- WHERE DEVICES ARE OMITTED FROM PRESENT BRANCH CIRCUITS, THE REMAINING DEVICES SHALL BE REWIRED, IF NEEDED AND AS REQUIRED, TO REMAIN ON THEIR RESPECTIVE CIRCUITS AND IN OPERATING CONDITION.
- 6) ALL WIRING (POWER, LIGHTING) NOT REUSED FOR REMODELING AREAS SHALL BE COMPLETELY REMOVED BACK TO ASSOCIATED PANELS. EMPTY BOXES AND CONDUITS SHALL BE REMOVED BEYOND REMODELED AREA.
- 7) THE OWNER SHALL HAVE THE FIRST CHOICE TO ACCEPT EXISTING DEVICES BEING REMOVED.

	LINE WEIGHT KEY
	— ALL ITEMS INDICATED BY A DARK SOLID LINE ARE NEW
	ALL ITEMS INDICATED BY A LIGHT SOLID LINE ARE EXISTING TO REMAIN
	 ALL ITEMS INDICATED BY A DARK DASHED LINE ARE EXISTING TO BE REMOVED OR RELOCATED.

ABBR	DESCRIPTION	ABBR	DESCRIPTION
Α,	AMP AMPERE	ММС	MANUAL MOTOR CONTROLLER
AC	ABOVE COUNTER	MOA	MULTI-OUTLET ASSEMBLY
AFF	ABOVE FINISHED FLOOR	MSS	MANUAL STARTER SWITCH
AIC	AMPERE INTERRUPTING CAPACITY	MTR	MOTOR
AL	ALUMINUM	MC	MECHANICAL CONTRACTOR
ARCH	ARCHITECT, ARCHITECTURE	MFR	MANUFACTURER
ATS	AUTOMATIC TRANSFER SWITCH	N/C	NORMALLY CLOSED
AUX	AUXILIARY	N/O	NORMALLY OPEN
AV	AUDIO - VISUAL	NEC	NATIONAL ELECTRICAL CODE
AP	ACCESS PANEL	NEMA	NATIONAL ELECTRICAL MFR'S ASSOC.
ВС	BELOW COUNTER	NFSS	NON- FUSED SAFETY SWITCH
BTM	воттом	NIC	NOT IN CONTRACT
С	CONDUIT	NL	NIGHT LIGHT
СВ	CIRCUIT BREAKER	NTS	NOT TO SCALE
CCTV	CLOSED CIRCUIT TELEVISION	O.C.	ON CENTER
CRT	CATHODE-RAY TUBE	OL	OVERLOADS
С/Т	CURRENT TRANSFORMER	Р	POLE
CU	COPPER	PF	POWER FACTOR
CTR	COUNTER	PH	PHASE
DC	DIRECT CURRENT	PNL	PANEL
DISC	DISCONNECT	PP	POWER POLE
DIST	DISTRIBUTION	PR	PAIR
DN	DOWN	PRI	PRIMARY
EC	ELECTRICAL CONTRACTOR	P/T	POTENTIAL TRANSFORMER
ECB	ENCLOSED CIRCUIT BREAKER	PVC	POLYVINYL CHLORIDE
ELEC	ELECTRIC, ELECTRICAL	PC	PLUMBING CONTRACTOR
EM	EMERGENCY	RMC	RIGID METALLIC CONDUIT
EMT	ELECTRICAL METALLIC TUBING	REQD	REQUIRED
EQ	EQUIPMENT	RVT	REDUCED VOLTAGE TRANSFORMER
EWC	ELECTRIC WATER COOLER	S/N	SOLID NEUTRAL
EX	EXISTING	SPEC	SPECIFICATION
EXP	EXPLOSION PROOF	SPKR	SPEAKER
EXT	EXTERIOR	SP	SPARE
F	FUSE	SW	SWITCH
FA	FIRE ALARM	SWBD	SWITCHBOARD
FLR	FLOOR	SWGR	SWITCHGEAR
FVNR	FULL VOLTAGE NON-REVERSING	SQFT	SQUARE FOOT
FVR	FULL VOLTAGE REVERSING	SS	STAINLESS STEEL
FBO	FURNISHED BY OWNER/ OTHERS	SC	SECURITY CONTRACTOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	TEL	TELEPHONE TERM TERMINAL
GND, GRD	GROUND	XFMR	TRANSFORMER
GC	GENERAL CONTRACTOR	TV	TELEVISION
GWH	GAS WATER HEATER	TYP	TYPICAL
НОА	HAND-OFF-AUTOMATIC SWITCH	UE	UNDERGROUND ELECTRICAL
HP	HORSEPOWER	UG	UNDERGROUND
HV	HIGH VOLTAGE	UH	UNIT HEATER
HVAC	HEATING, VENTILATING, AIR CONDITIONING	UT	UNDERGROUND TELEPHONE
НС	HEATING CONTRACTOR	UOD	UNLESS OTHERWISE DENOTED
IMC	INTERMEDIATE METALLIC CONDUIT	٧	VOLT
JB	JUNCTION BOX	VA	VOLT AMPERES
ΚV	KILOVOLT	VFD	VARIABLE FREQUENCY DRIVE
KVA	KILOVOLT-AMPERE	VOL	VOLUME
KVAR	KILOVOLT-AMPERE REACTIVE	VC	VENTILATION CONTRACTOR
KW	KILOWATT	W	WATT
KWH	KILOWATT HOUR	W/	WITH
LV	LOW VOLTAGE	W/O	WITHOUT
MCC	MOTOR CONTROL CENTER	WG	WIRE GUARD/PROTECTIVE SHIELDING
MCP	MOTOR CIRCUIT PROTECTOR	WP	WEATHERPROOF
MCB	MAIN CIRCUIT BREAKER	2S1W	2 SPEED SINGLE WINDING
1mm			
	MINIMUM	263/VI	1 2 SPEED DOUBLE WINDING
MIN MISC	MINIMUM MISCELLANEOUS	2S2W TFA	2 SPEED DOUBLE WINDING TO FLOOR ABOVE

ELECTRICAL ABBREVIATIONS

THIS IS A COMPOSITE LIST OF ABBREVIATIONS, NOT ALL PERTAIN SPECIFICALLY TO THIS JOB.

0)/14D01	DECODIDATION							
SYMBOL	DESCRIPTION							
SWBD 1	LARGE ELECTRICAL EQUIPMENT WITH DESIGNATION - DRAWN TO SCALE							
	DISTRIBUTION PANEL WITH DESIGNATION							
6888	BRANCH PANEL WITH DESIGNATION							
\Diamond	MOTOR WITH DESIGNATION							
XXX #	MECHANICAL EQUIPMENT CONNECTION WITH DESIGNATION							
Ч_	DISCONNECT SWITCH							
\boxtimes	MOTOR STARTER							
$\overline{\boxtimes}$	COMBINATION MOTOR STARTER / DISCONNECT SWITCH							
VFD	VARIABLE FREQUENCY DRIVE							
₩ MMS	MANUAL MOTOR STARTER WITH THERMAL OVERLOADS							
⊮ MTS	MOTOR RATED TOGGLE SWITCH							
(JUNCTION BOX							
РВ	PULL BOX							
С	CONTACTOR							
□ x	EQUIPMENT CONNECTION							
GEN	GENERATOR REMOTE ANNUNCIATOR							
EPO (⊢	EMERGENCY POWER OFF STATION							
⊡⊢	UP - DOWN - STOP PUSH BUTTON CONTROL STATION							
Ţ	DENOTES WALL MOUNTING							
포	GROUND							

	DEMOLITION WORK NOTE											
DETAILING ANNOTATION												
SYMBOL	DESCRIPTION											
##	ENLARGED FLOOR PLAN OR DETAIL MARK DETAIL REFERENCE SHEET REFERENCE											
##	SECTION MARK DETAIL REFERENCE SHEET REFERENCE											
## ##	INTERIOR ELEVATION MARK											

SHEET KEYED NOTED

NEW WORK NOTE

LI	GHTING ANNOTATION
SYMBOL	DESCRIPTION
X-X	PANEL X - BREAKER X
PC - X	PHOTO CELL NUMBER X

- SHEET REFERENCE

POWER SYSTEMS		RECEPTACLES
DESCRIPTION	SYMBOL	DESCRIPTION
LADOS SUSCEPTION SOLUBATION DESCRIPTION DE	Ф	SIMPLEX RECEPTACLE
LARGE ELECTRICAL EQUIPMENT WITH DESIGNATION - DRAWN TO SCALE	H	SIMPLEX RECEPTACLE EMERGENCY
DISTRIBUTION PANEL WITH DESIGNATION	Ф	SIMPLEX RECEPTACLE ABOVE COUNTER
BRANCH PANEL WITH DESIGNATION	₩X	DUPLEX RECEPTACLE
MOTOR WITH DESIGNATION		DUPLEX RECEPTACLE TYPES:
		EWC - ELECTRIC WATER COOLER
MECHANICAL EQUIPMENT CONNECTION WITH DESIGNATION		G - GROUND FAULT CIRCUIT INTERRUPTER
DISCONNECT SWITCH	₩	DUPLEX RECEPTACLE ABOVE COUNTER
MOTOR STARTER	#	DOUBLE DUPLEX RECEPTACLE
COMBINATION MOTOR STARTER / DISCONNECT SWITCH	€	FLOOR MOUNTED DUPLEX RECEPTACLE
VARIABLE FREQUENCY DRIVE	+	CEILING MOUNTED DUPLEX RECEPTACLE
MANUAL MOTOR STARTER WITH THERMAL OVERLOADS	₽	DUPLEX RECEPTACLE EMERGENCY
MOTOR RATED TOGGLE SWITCH	 	DUPLEX RECEPTACLE ABOVE COUNTER EMERGENCY
JUNCTION BOX	+	QUADRUPLEX RECEPTACLE EMERGENCY
PULL BOX	FB#	RECESSED FLOOR BOX - SEE FLOOR BOX SCHEDULE
CONTACTOR		FLOOR BOX DESIGNATION, SEE FLOOR BOX SCHEDULE
EQUIPMENT CONNECTION	SR Φ	RECEPTACLES IN SURFACE RACEWAY ASSEMBLY
GENERATOR REMOTE ANNUNCIATOR	(3r) - W	RACEWAY DESIGNATION, SEE SURFACE RACEWAY SCHEDULE

SWITCHES										
SYMBOL DESCRIPTION										
l⇔ X	SINGLE POLE (LOWER CASE LETTER INDICATES SWITCH LEG) — SWITCH TYPES: 2 - DOUBLE POLE 3 - THREE WAY 4 - FOUR WAY D - DIMMER PL - PILOT LIGHT T - TIMER K - KEYED									
osa Os #	OCCUPANCY SENSOR - SEE SCHEDULE — SENSOR TYPE — SWITCHING DESIGNATION									
pca Pc #	INDOOR PHOTO SENSOR - DAYLIGHT SENSOR - SEE SCHEDULE — SENSOR TYPE — SWITCHING DESIGNATION									
ER	EMERGENCY LIGHTING CONTROL RELAY, UL924 LISTED									

SYMBOL DESCRIPTION										
F1 — 23 — a —	— FIXTURE TYPE — CIRCUIT — CONTROL DEVICE									
	SURFACE/ RECESSED LINEAR FLUORESCENT, NORMAL POWER									
	SURFACE/ RECESSED LINEAR FLUORESCENT, EMERGENCY POWER									
}	LINEAR WALL WASH, NORMAL POWER									
\	LINEAR WALL WASH, EMERGENCY POWER									
	LINEAR PENDANT, NORMAL POWER									
	COVE STRIP, NORMAL POWER									
\mathbb{H}	LINEAR WALL MOUNTED, NORMAL POWER									
$\stackrel{\textstyle \top}{-}$	SURFACE/SUSPENDED FLUORESCENT, NORMAL POWER									
$\qquad \qquad \blacksquare$	SURFACE/SUSPENDED FLUORESCENT, EMERGENCY POWER									
ф	SURFACE / RECESSED DOWNLIGHT, NORMAL POWER									
*	SURFACE / RECESSED DOWNLIGHT, EMERGENCY POWER									
	SURFACE / RECESSED DOWNLIGHT, TIME CLOCK PRIMARY CONTROL; PHOTO CELL HAS SECONDARY CONTROL									
ф	WALL MOUNTED SCONCE OR WALLPACK, 24 HOUR									
+	WALL MOUNTED SCONCE OR WALLPACK, PHOTO CELL ONLY									
₩	WALL MOUNTED SCONCE OR WALLPACK, TIME CLOCK PRIMARY CONTROL; PHOTO CELL HAS SECONDARY CONTROL									
፟	EXIT SIGN, CEILING MOUNTED - FACES AND ARROWS AS SHOWN									
$\overline{oldsymbol{olgambol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{olgambol{oldsymbol{ol}oldsymbol{oldsymbol{oldsymbol{oldsymbol{ol}}}}}}}}}}}}}}$	EXIT SIGN, WALL MOUNTED - FACES AND ARROWS AS SHOWN									
刄	BATTERY PACK EMERGENCY LIGHTING									
Ţ	DENOTES WALL MOUNTING OF LIGHT									



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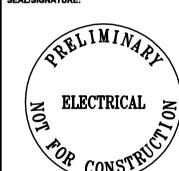
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215 MARTIN LUTHER KING JR. BLVD MADISON, WISCONSIN 53701-2986

2015 PARKING RAMP RESTORATION

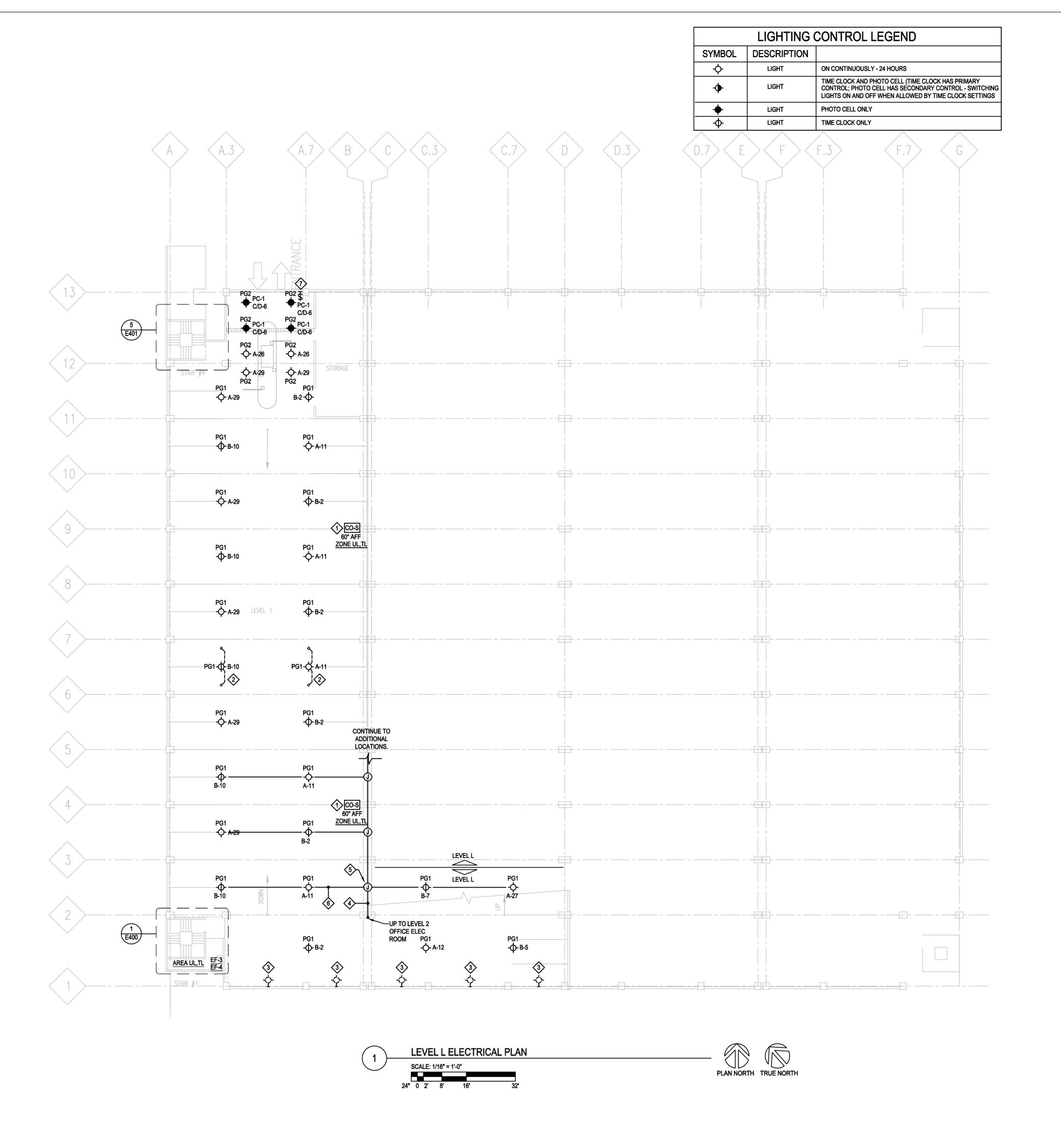
PROJECT LOCATION: CAPITOL SQUARE NORTH JSD PROJECT NO.:



ALTHOUGH EVERY EFFORT HAS BEEN MADE IN PREPARING THESE PLANS AND CHECKING THEM FOR ACCURACY, THE CONTRACTOR AND SUBCONTRACTORS MUST CHECK ALL DETAIL AND DIMENSIONS OF THEIR TRADE AND BE RESPONSIBLE FOR THE SAME.



ELECTRICAL SYMBOLS, ABBREVIATIONS AND NOTES



ALL ITEMS INDICATED BY A DARK SOLID LINE ARE NEW

EXISTING TO REMAIN

EXISTING TO BE REMOVED OR RELOCATED.

GENERAL NOTES:

- PARKING/DRIVE AREA SHALL BE NEW.
- PARKING/DRIVE AREA SHALL BE REMOVED BACK TO THEIR SOURCE IN THE LEVEL 2 OFFICE ELECTRICAL ROOM. EXISTING CONDUIT EMBEDDED IN CONCRETE STRUCTURE SHALL BE ABANDONED IN PLACE.
- 4. EXISTING CONDUCTORS AND BRANCH CIRCUIT RACEWAYS PERMITTED TO BE REUSED.
- FOR CONDUIT SUPPORT.
- CARBON MONOXIDE SENSOR MOUNTED TO COLUMN AT 60" ABOVE FINISHED FLOOR. PROVIDE WIRED CONNECTION TO NEXT SENSOR OR MONITORING CONTROL PANEL.
- REMOVE EXISTING SURFACE CONDUIT ACROSS EXPANSION JOINT.
- REMOVE WALL MOUNTED LIGHT AND INSTALL WEATHERPROOF JUNCTION BOX COVER ON BACK BOX.
- 4 NEW CONDUIT FOR LIGHTING SYSTEM SHALL BE SURFACE MOUNTED TO CONCRETE STRUCTURE. ROUTE CONDUIT BETWEEN COLUMNS TO GAIN ACCESS TO STRUCTURAL BAYS. ROUTING PLAN NORTH/SOUTH IS NOT PERMITTED DUE TO STRUCTURAL SYSTEM BEAMS. PROVIDE GALVANIZED CHANNEL STRUT SYSTEM AS REQUIRED TO RACK CONDUIT IN AVAILABLE SPACE.
- CIRCUIT ROUTING TO FIXTURE LOCATIONS.
- JUNCTION BOX.
- BACK FEED SNOW CHUTE LIGHT AND WITH 120V. CIRCUIT. EXTEND UNSWITCHED LIGHTING CIRCUIT FROM STORAGE ROOM.

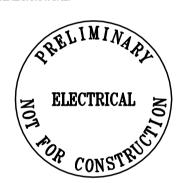
ALL ITEMS INDICATED BY A LIGHT SOLID LINE ARE

---- ALL ITEMS INDICATED BY A DARK DASHED LINE ARE

- 1. REFER TO SHEET E000 FOR GENERAL PROJECT NOTES.
- 2. ALL RACEWAY AND CONDUCTORS SERVING LIGHTING IN THE
- 3. ALL EXISTING BRANCH CIRCUIT CONDUCTORS SERVING VEHICLE
- ORIGINATING FROM PANEL E AND SERVING STAIR TOWERS IS
- 5. EXISTING STRUCTURAL SYSTEM IS POST TENSION CONCRETE. MAXIMUM EMBED DEPTH IS 1" FOR LIGHT FIXTURE SUPPORT AND 3/4"

KEYED NEW WORK NOTES:

- 5 SECURELY MOUNT JUNCTION BOXES, AS REQUIRED, FOR BRANCH
- 6 MOUNT NEW CONDUIT TO CONCRETE. ROUTE INTO LIGHT FIXTURE



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2015 PARKING

RESTORATION

CAPITOL SQUARE NORTH

Email: info@henneman.com Website: http://www.henneman.com

JOB NO. 15-8432

SERVICES PROVIDED TO: CITY OF

MADISON,

PARKING

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RAMP

PROJECT LOCATION:

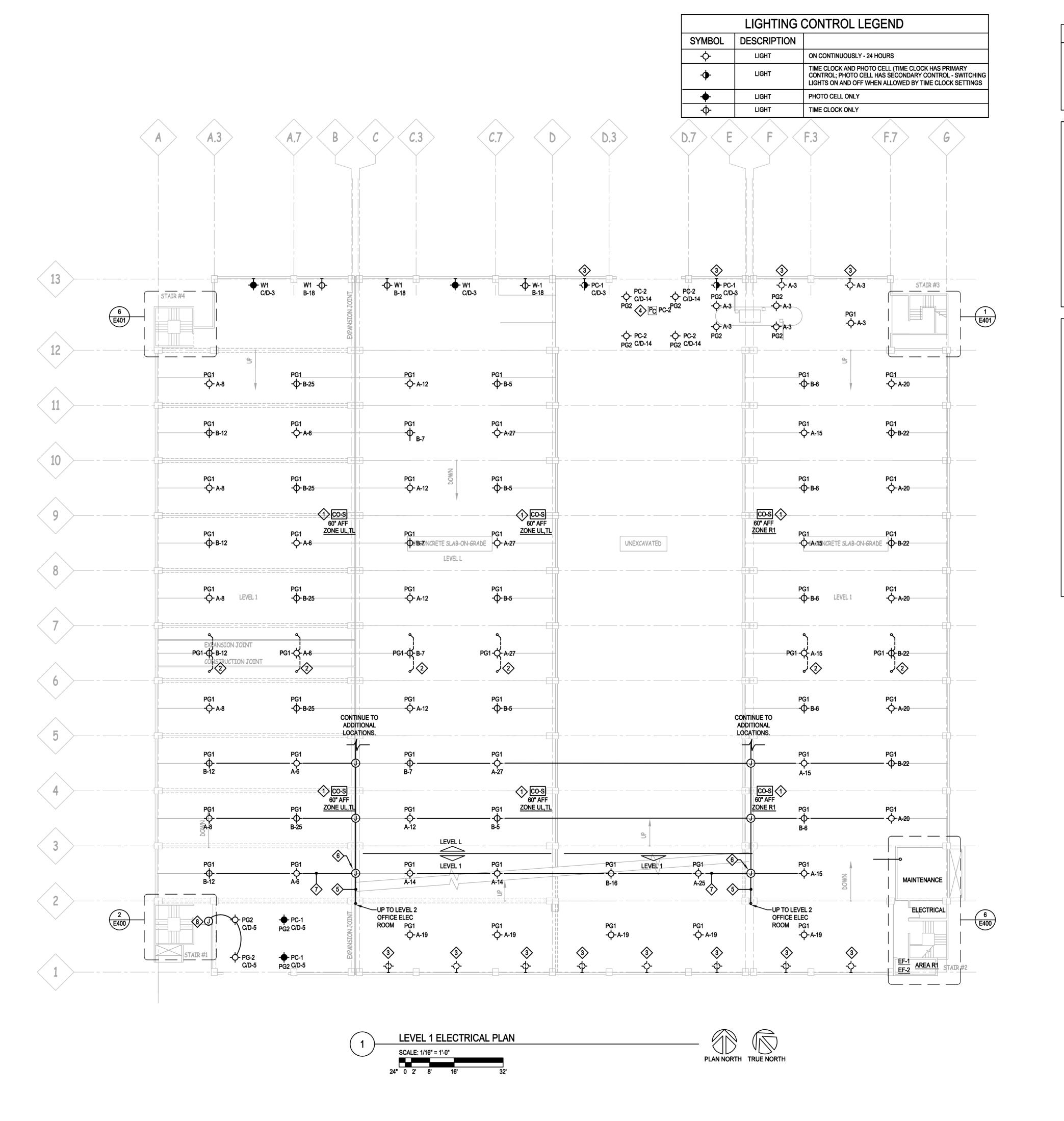
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TRANSPORTATION ENGINEERING STRUCTURAL ENGINEERING

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LEVEL L ELECTRICAL PLAN



ALL ITEMS INDICATED BY A DARK SOLID LINE ARE NEW

ALL ITEMS INDICATED BY A LIGHT SOLID LINE ARE EXISTING TO REMAIN

---- ALL ITEMS INDICATED BY A DARK DASHED LINE ARE EXISTING TO BE REMOVED OR RELOCATED.

GENERAL NOTES:

- 1. REFER TO SHEET E000 FOR GENERAL PROJECT NOTES.
- 2. ALL RACEWAY AND CONDUCTORS SERVING LIGHTING IN THE PARKING/DRIVE AREA SHALL BE NEW.
- 3. ALL EXISTING BRANCH CIRCUIT CONDUCTORS SERVING VEHICLE PARKING/DRIVE AREA SHALL BE REMOVED BACK TO THEIR SOURCE IN THE LEVEL 2 OFFICE ELECTRICAL ROOM. EXISTING CONDUIT EMBEDDED IN CONCRETE STRUCTURE SHALL BE ABANDONED IN PLACE.
- 4. EXISTING CONDUCTORS AND BRANCH CIRCUIT RACEWAYS ORIGINATING FROM PANEL E AND SERVING STAIR TOWERS IS PERMITTED TO BE REUSED.
- 5. EXISTING STRUCTURAL SYSTEM IS POST TENSION CONCRETE. MAXIMUM EMBED DEPTH IS 1" FOR LIGHT FIXTURE SUPPORT AND 3/4" FOR CONDUIT SUPPORT.

KEYED NEW WORK NOTES:

- CARBON MONOXIDE SENSOR MOUNTED TO COLUMN AT 60" ABOVE FINISHED FLOOR. PROVIDE WIRED CONNECTION TO NEXT SENSOR OR MONITORING CONTROL PANEL.
- REMOVE EXISTING SURFACE CONDUIT ACROSS EXPANSION JOINT.
- REMOVE WALL MOUNTED LIGHT AND INSTALL WEATHERPROOF JUNCTION BOX COVER ON BACK BOX.
- EXISTING PHOTOCELL TO BE REPLACED WITH SQUARE D POWER LINK COMPATIBLE DEVICE. PROVIDE NEW CONDUCTORS FROM CONTROL
- NEW CONDUIT FOR LIGHTING SYSTEM SHALL BE SURFACE MOUNTED TO CONCRETE STRUCTURE. ROUTE CONDUIT BETWEEN COLUMNS TO GAIN ACCESS TO STRUCTURAL BAYS. ROUTING PLAN NORTH/SOUTH IS NOT PERMITTED DUE TO STRUCTURAL SYSTEM BEAMS. PROVIDE GALVANIZED CHANNEL STRUT SYSTEM AS REQUIRED TO RACK CONDUIT IN AVAILABLE SPACE.
- 6 SECURELY MOUNT JUNCTION BOXES, AS REQUIRED, FOR BRANCH CIRCUIT ROUTING TO FIXTURE LOCATIONS.
- MOUNT NEW CONDUIT TO CONCRETE. ROUTE INTO LIGHT FIXTURE JUNCTION BOX.

8 EXTEND STAIR LIGHTING CIRCUIT TO (2) TYPE PG2 FIXTURES.

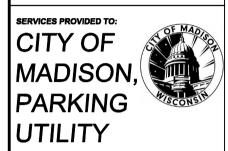
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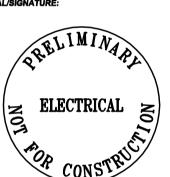
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2015 PARKING RAMP RESTORATION

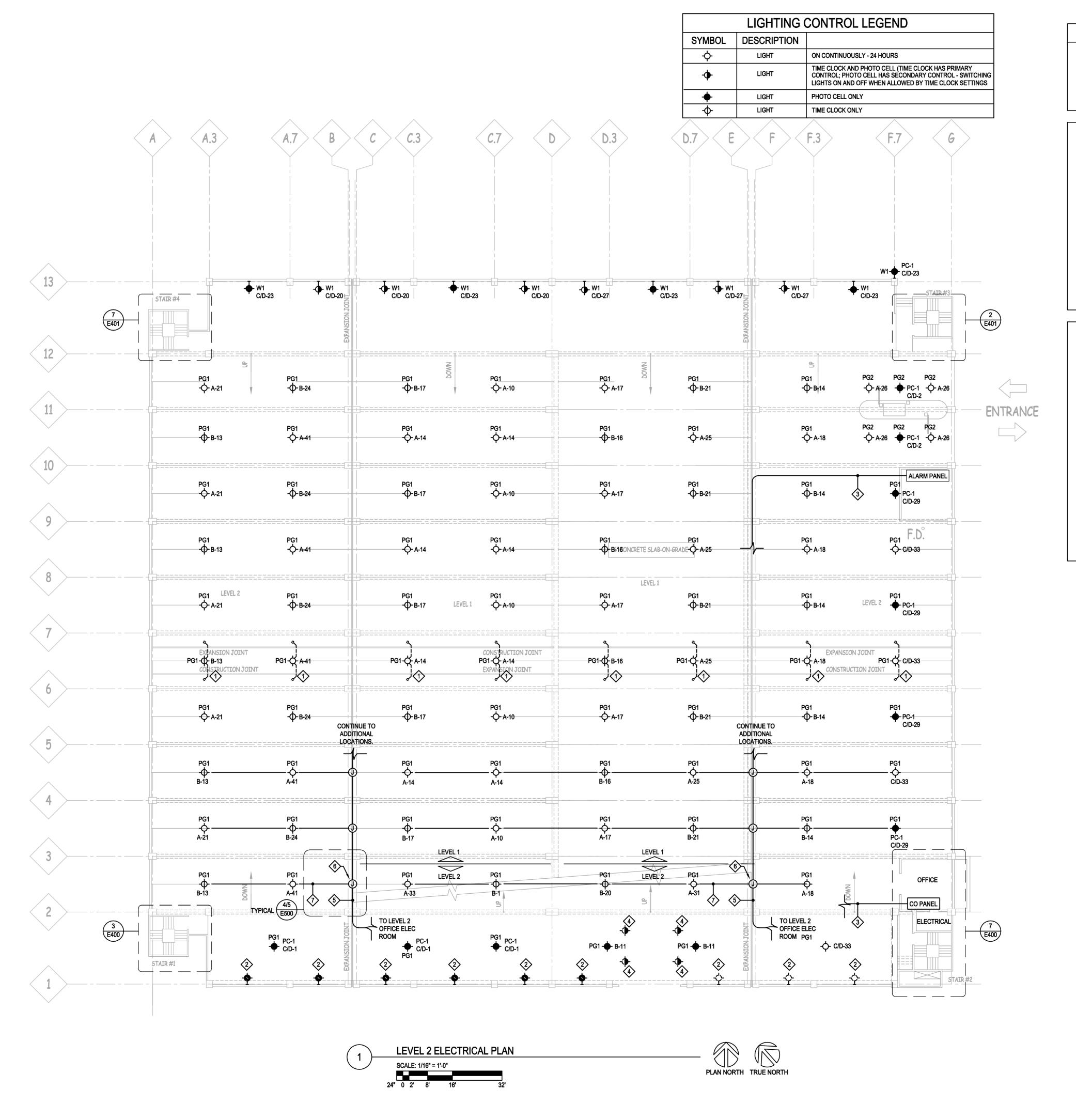
PROJECT LOCATION: CAPITOL SQUARE NORTH JSD PROJECT NO.:



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LEVEL 1 ELECTRICAL PLAN



ALL ITEMS INDICATED BY A DARK SOLID LINE ARE NEW

 ALL ITEMS INDICATED BY A LIGHT SOLID LINE ARE EXISTING TO REMAIN

----- ALL ITEMS INDICATED BY A DARK DASHED LINE ARE EXISTING TO BE REMOVED OR RELOCATED.

GENERAL NOTES:

- 1. REFER TO SHEET E000 FOR GENERAL PROJECT NOTES.
- ALL RACEWAY AND CONDUCTORS SERVING LIGHTING IN THE PARKING/DRIVE AREA SHALL BE NEW.
- 3. ALL EXISTING BRANCH CIRCUIT CONDUCTORS SERVING VEHICLE PARKING/DRIVE AREA SHALL BE REMOVED BACK TO THEIR SOURCE IN THE LEVEL 2 OFFICE ELECTRICAL ROOM. EXISTING CONDUIT EMBEDDED IN CONCRETE STRUCTURE SHALL BE ABANDONED IN PLACE.
- 4. EXISTING CONDUCTORS AND BRANCH CIRCUIT RACEWAYS ORIGINATING FROM PANEL E AND SERVING STAIR TOWERS IS PERMITTED TO BE REUSED.
- 5. EXISTING STRUCTURAL SYSTEM IS POST TENSION CONCRETE.
 MAXIMUM EMBED DEPTH IS 1" FOR LIGHT FIXTURE SUPPORT AND 3/4"
 FOR CONDUIT SUPPORT.

KEYED NEW WORK NOTES:

- REMOVE EXISTING SURFACE CONDUIT ACROSS EXPANSION JOINT.
- REMOVE WALL MOUNTED LIGHT AND INSTALL WEATHERPROOF JUNCTION BOX COVER ON BACK BOX.
- NEW 12/2 CONDUCTORS IN 3/4" RACEWAY FROM FURNACE ROOM TO OFFICE FOR BOSCH ALARM PANEL AND CO MONITORING PANEL INTERCONNECTION. REFER TO DETAIL 3 ON E500.
- REMOVE CEILING MOUNTED LIGHT AND INSTALL WEATHERPROOF JUNCTION BOX COVER ON BACK BOX.
- NEW CONDUIT FOR LIGHTING SYSTEM SHALL BE SURFACE MOUNTED TO CONCRETE STRUCTURE. ROUTE CONDUIT BETWEEN COLUMNS TO GAIN ACCESS TO STRUCTURAL BAYS. ROUTING PLAN NORTH/SOUTH IS NOT PERMITTED DUE TO STRUCTURAL SYSTEM BEAMS. PROVIDE GALVANIZED CHANNEL STRUT SYSTEM AS REQUIRED TO RACK CONDUIT IN AVAILABLE SPACE.
- 6 SECURELY MOUNT JUNCTION BOXES, AS REQUIRED, FOR BRANCH CIRCUIT ROUTING TO FIXTURE LOCATIONS.
- MOUNT NEW CONDUIT TO CONCRETE. ROUTE INTO LIGHT FIXTURE JUNCTION BOX.

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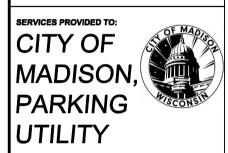
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JOB NO. 15-8432

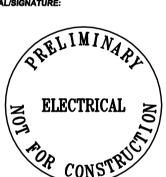


215 MARTIN LUTHER KING JR. BLVD MADISON, WISCONSIN 53701-2986

2015 PARKING RAMP RESTORATION

PROJECT LOCATION:
CAPITOL SQUARE NORTH
JSD PROJECT NO.:

SEAL/SIGNA



ALTHOUGH EVERY EFFORT HAS BEEN MADE IN PREPARING THESE PLANS AND CHECKING THEM FOR ACCURACY, THE CONTRACTOR AND SUBCONTRACTORS MUST CHECK ALL DETAIL AND DIMENSIONS OF THEIR TRADE AND BE RESPONSIBLE FOR THE SAME.

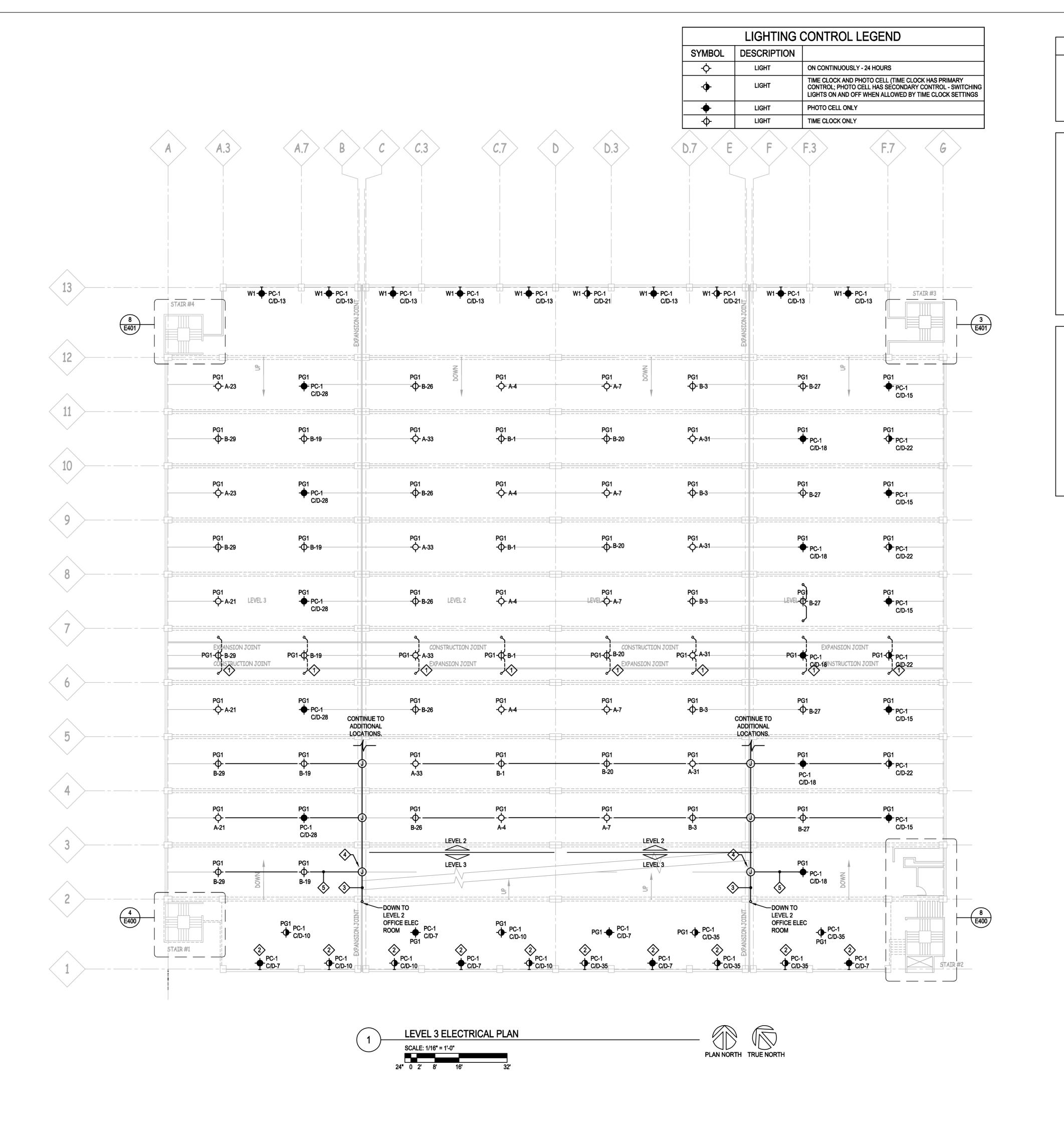
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cuments 08/30/20



LEVEL 2
ELECTRICAL
PLAN

QUEET NIIMBER



ALL ITEMS INDICATED BY A LIGHT SOLID LINE ARE EXISTING TO REMAIN

---- ALL ITEMS INDICATED BY A DARK DASHED LINE ARE EXISTING TO BE REMOVED OR RELOCATED.

GENERAL NOTES:

- 3. ALL EXISTING BRANCH CIRCUIT CONDUCTORS SERVING VEHICLE PARKING/DRIVE AREA SHALL BE REMOVED BACK TO THEIR SOURCE IN THE LEVEL 2 OFFICE ELECTRICAL ROOM. EXISTING CONDUIT EMBEDDED IN CONCRETE STRUCTURE SHALL BE ABANDONED IN PLACE.
- 4. EXISTING CONDUCTORS AND BRANCH CIRCUIT RACEWAYS ORIGINATING FROM PANEL E AND SERVING STAIR TOWERS IS PERMITTED TO BE REUSED.
- MAXIMUM EMBED DEPTH IS 1" FOR LIGHT FIXTURE SUPPORT AND 3/4" FOR CONDUIT SUPPORT.
- 1 REMOVE EXISTING SURFACE CONDUIT ACROSS EXPANSION JOINT.
- REMOVE WALL MOUNTED LIGHT AND INSTALL WEATHERPROOF JUNCTION BOX COVER ON BACK BOX.
- 3 NEW CONDUIT FOR LIGHTING SYSTEM SHALL BE SURFACE MOUNTED TO CONCRETE STRUCTURE. ROUTE CONDUIT BETWEEN COLUMNS TO GAIN ACCESS TO STRUCTURAL BAYS. ROUTING PLAN NORTH/SOUTH IS NOT PERMITTED DUE TO STRUCTURAL SYSTEM BEAMS. PROVIDE GALVANIZED CHANNEL STRUT SYSTEM AS REQUIRED TO RACK CONDUIT IN AVAILABLE SPACE.
- SECURELY MOUNT JUNCTION BOXES, AS REQUIRED, FOR BRANCH CIRCUIT ROUTING TO FIXTURE LOCATIONS.
- 5 MOUNT NEW CONDUIT TO CONCRETE. ROUTE INTO LIGHT FIXTURE

ALL ITEMS INDICATED BY A DARK SOLID LINE ARE NEW

- 1. REFER TO SHEET E000 FOR GENERAL PROJECT NOTES.
- 2. ALL RACEWAY AND CONDUCTORS SERVING LIGHTING IN THE PARKING/DRIVE AREA SHALL BE NEW.
- 5. EXISTING STRUCTURAL SYSTEM IS POST TENSION CONCRETE.

KEYED NEW WORK NOTES:

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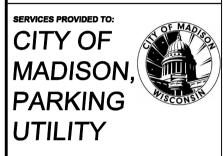
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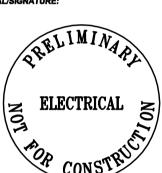
215 MARTIN LUTHER KING JR. BLVD MADISON, WISCONSIN 53701-2986

2015 PARKING RAMP

PROJECT LOCATION: CAPITOL SQUARE NORTH

RESTORATION

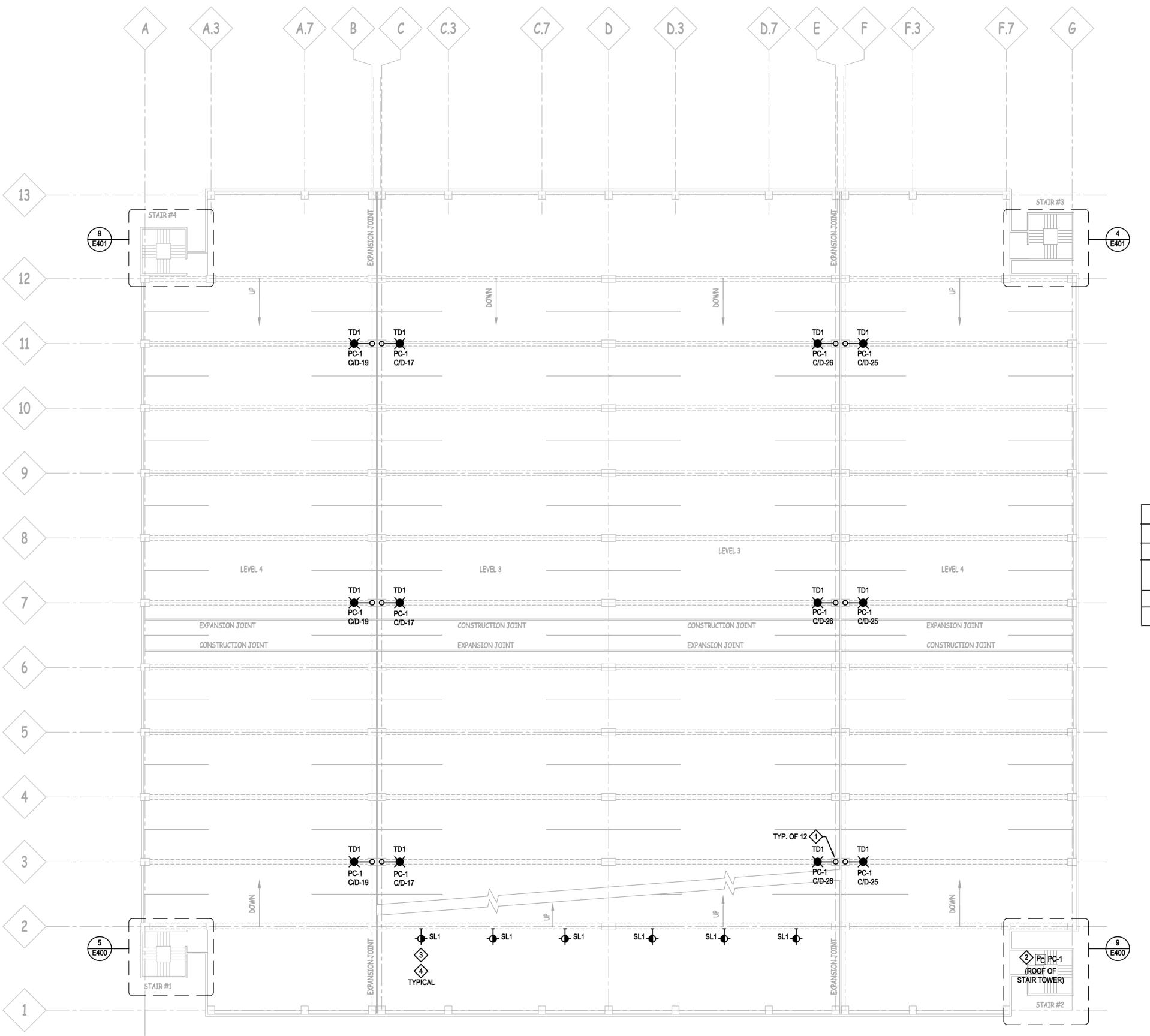
JSD PROJECT NO.:



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LEVEL 3 ELECTRICAL PLAN



LEVEL 4 ELECTRICAL PLAN

PLAN NORTH TRUE NORTH

SCALE: 1/16" = 1'-0"

24" 0 2' 8' 16'



ALL ITEMS INDICATED BY A LIGHT SOLID LINE ARE EXISTING TO REMAIN

---- ALL ITEMS INDICATED BY A DARK DASHED LINE ARE EXISTING TO BE REMOVED OR RELOCATED.

GENERAL NOTES:

- 1. REFER TO SHEET E000 FOR GENERAL PROJECT NOTES.
- 2. ALL RACEWAY AND CONDUCTORS SERVING LIGHTING IN THE PARKING/DRIVE AREA SHALL BE NEW.
- 3. ALL EXISTING BRANCH CIRCUIT CONDUCTORS SERVING VEHICLE PARKING/DRIVE AREA SHALL BE REMOVED BACK TO THEIR SOURCE IN THE LEVEL 2 OFFICE ELECTRICAL ROOM. EXISTING CONDUIT EMBEDDED IN CONCRETE STRUCTURE SHALL BE ABANDONED IN PLACE.
- 4. EXISTING CONDUCTORS AND BRANCH CIRCUIT RACEWAYS ORIGINATING FROM PANEL E AND SERVING STAIR TOWERS IS PERMITTED TO BE REUSED.
- EXISTING STRUCTURAL SYSTEM IS POST TENSION CONCRETE.
 MAXIMUM EMBED DEPTH IS 1" FOR LIGHT FIXTURE SUPPORT AND 3/4"
 FOR CONDUIT SUPPORT.

KEYED NEW WORK NOTES:

- FURNISH NEW POLE MOUNTING BASE PLATE WITH CUSTOM BOLT PATTERN TO MATCH EXISTING ANCHOR BOLTS. POLE SHALL HAVE PROVISIONS FOR SURFACE CONDUIT ENTRY AT APPROX. 12" ABOVE BASE PLATE. ALTERNATIVELY, EPOXY ANCHOR NEW LIGHT POLE TO EXISTING CONCRETE PIER. COORDINATE ANCHOR REQUIREMENTS WITH EPOXY ANCHOR MANUFACTURER BASED UPON PROVIDED POLE AND FIXTURE.
- EXISTING PHOTOCELL TO BE REPLACED WITH SQUARE D POWERLINK COMPATIBLE DEVICE. PROVIDE NEW CONDUCTORS FROM CONTROL PANEL.
- PROVIDE 120-20A CIRCUIT FOR STEP LIGHT. INSTALL NEW 20A-1P BREAKER IN EXISTING PANEL C/D. CIRCUIT TO FEED THE (4) STEPLIGHTS.
- SURFACE MOUNT STEP LIGHTING ON CONCRETE WALL AT 18" ABOVE DRIVE SURFACE.

	LIGHTING CONTROL LEGEND												
SYMBOL DESCRIPTION													
ф	LIGHT	ON CONTINUOUSLY - 24 HOURS											
•	LIGHT	TIME CLOCK AND PHOTO CELL (TIME CLOCK HAS PRIMARY CONTROL; PHOTO CELL HAS SECONDARY CONTROL - SWITCHING LIGHTS ON AND OFF WHEN ALLOWED BY TIME CLOCK SETTINGS											
•	LIGHT	PHOTO CELL ONLY											
ф	LIGHT	TIME CLOCK ONLY											

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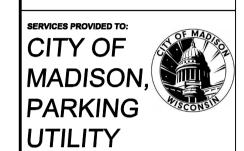
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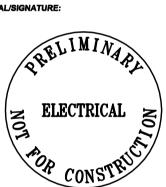


215 MARTIN LUTHER KING JR. BLVD MADISON, WISCONSIN 53701-2986

PROJECT:
2015 PARKING
RAMP
RESTORATION

PROJECT LOCATION:
CAPITOL SQUARE NORTH
JSD PROJECT NO.:

SEAL/SIGNATUR



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Documents 06/30/2015



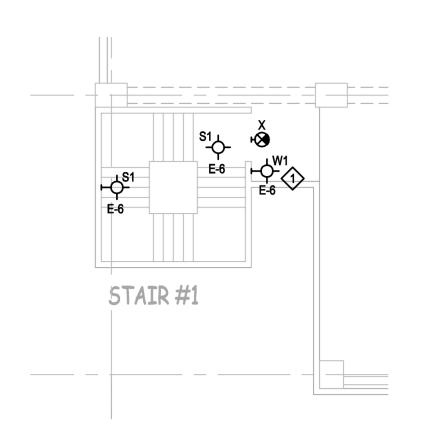
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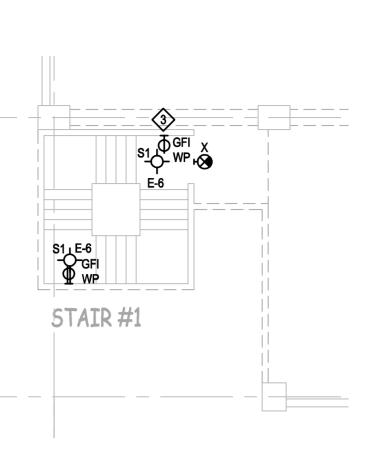
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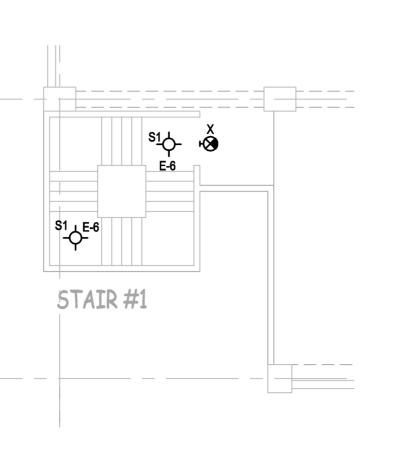
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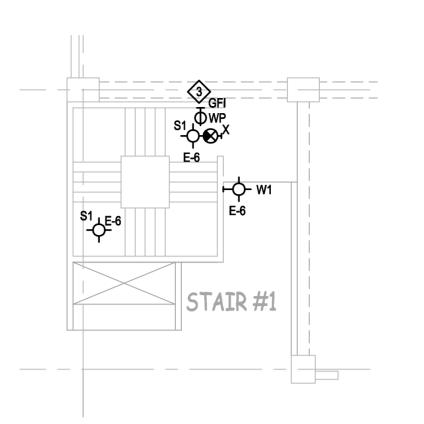
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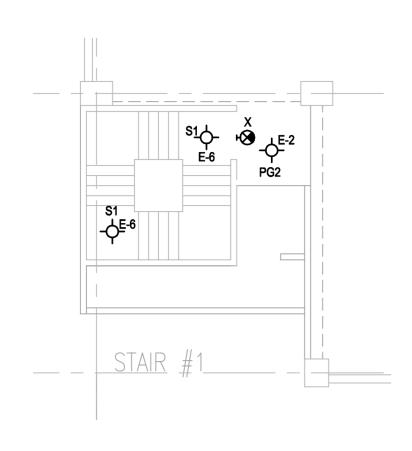
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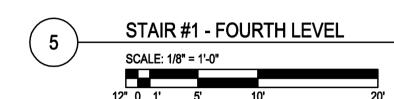


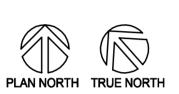


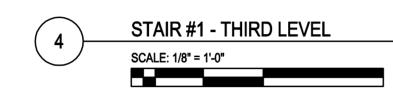


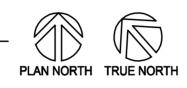


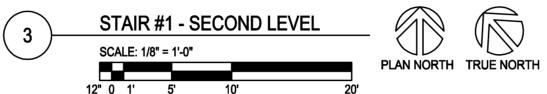




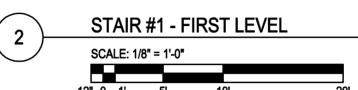


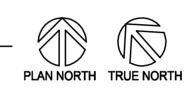








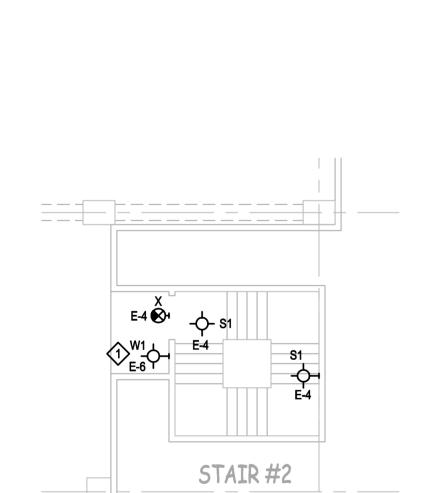


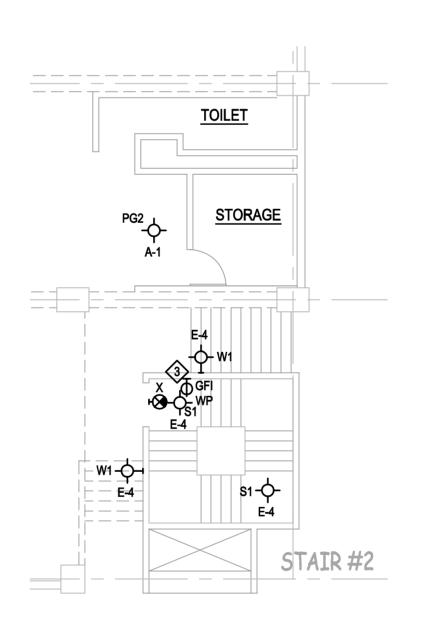


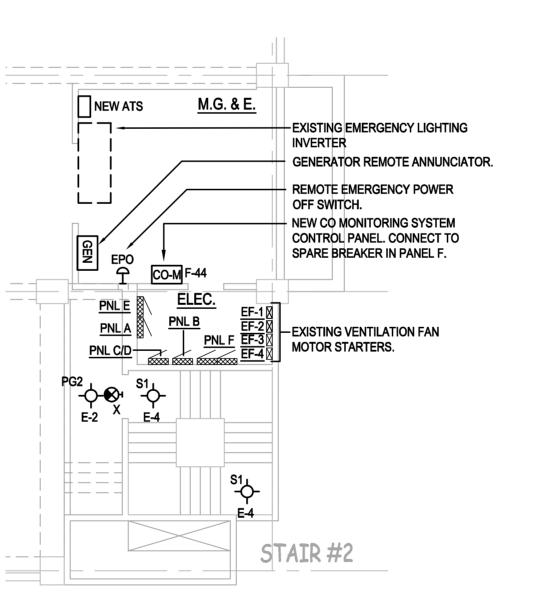


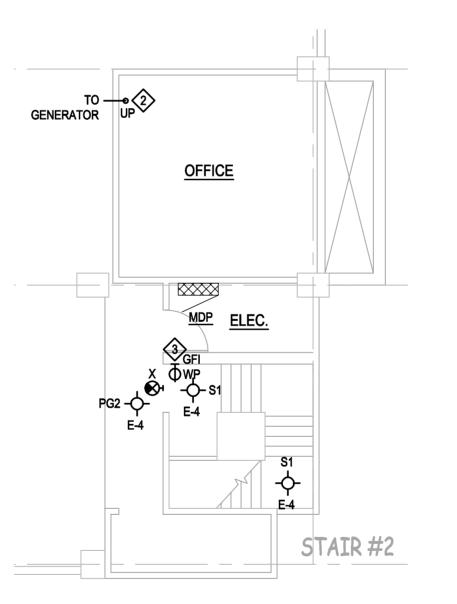


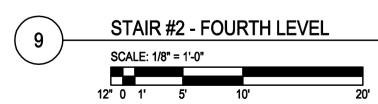


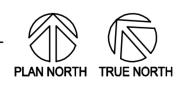


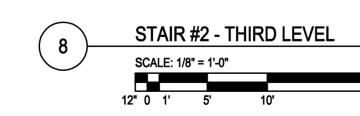


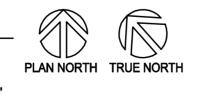


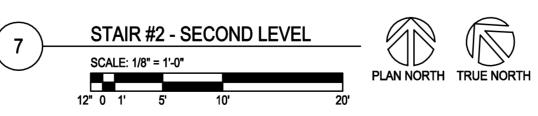




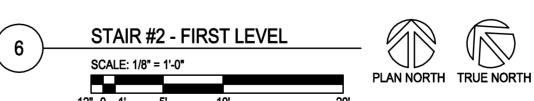












ALL ITEMS INDICATED BY A DARK SOLID LINE ARE NEW

ALL ITEMS INDICATED BY A LIGHT SOLID LINE ARE EXISTING TO REMAIN

EXISTING TO BE REMOVED OR RELOCATED.

----- ALL ITEMS INDICATED BY A DARK DASHED LINE ARE

GENERAL NOTES:

- 1. REFER TO SHEET E000 FOR GENERAL PROJECT NOTES.
- 2. NEW LIGHTING INSTALLED AT EXISTING LOCATIONS UNLESS NOTED OTHERWISE. REMOVE EXISTING LIGHT FIXTURE AND INSTALL NEW. UTILIZE EXISTING BRANCH CIRCUIT AND JUNCTION BOX.
- 3. EXISTING CONDUCTORS AND BRANCH CIRCUIT RACEWAYS ORIGINATING FROM PANEL E AND SERVING STAIR TOWERS IS PERMITTED TO BE REUSED.
- 4. EXISTING STRUCTURAL SYSTEM IS POST TENSION CONCRETE. MAXIMUM EMBED DEPTH IS 1" FOR LIGHT FIXTURE SUPPORT AND 3/4" FOR CONDUIT SUPPORT.
- 5. CIRCUIT RECEPTACLES, THIS SHEET TO SPARE 20/1 BREAKER LOCATED IN PANEL A.
- 6. ALL EXIT LIGHTS SHOWN SHALL BE NEW, INSTALLED AT EXISTING LOCATIONS AND CONNECTED TO EXISTING CIRCUITS.

KEYED NEW WORK NOTES:

- NEW WALL MOUNTED LIGHT IN NEW LOCATION. PROVIDE WITH INTEGRAL PHOTOCELL AND CONNECT TO EXISTING STAIR LIGHTING
- CORE DRILL FLOOR FOR GENERATOR FEED TO ATS ABOVE. XRAY FLOOR TO AVOID CUTTING POST TENSION CABLE
- PROVIDE 20A DUPLEX RECEPTACLE AND 120V-20A CIRCUIT FOR FROM PANEL F. INSTALL NEW 20A-1P BREAKER IN EXISTING EATON PANELBOARD. PROVIDE CAST WEATHERPROOF COVER WITH PADLOCKING PROVISIONS.

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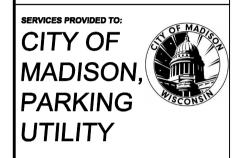
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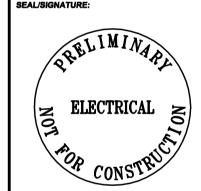
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215 MARTIN LUTHER KING JR. BLVD MADISON, WISCONSIN 53701-2986

2015 PARKING RAMP RESTORATION

PROJECT LOCATION: CAPITOL SQUARE NORTH JSD PROJECT NO.:



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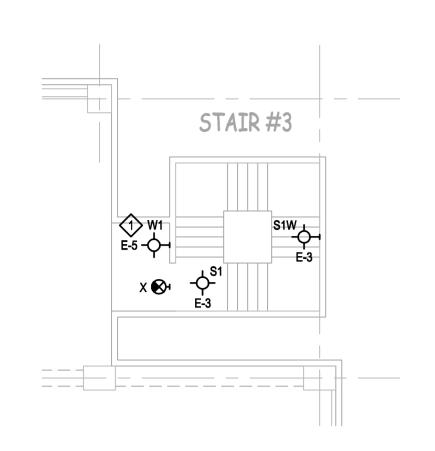
AND BE RESPONSIBLE FOR THE SAME. APPROVED: HEI PLAN MODIFICATIONS:

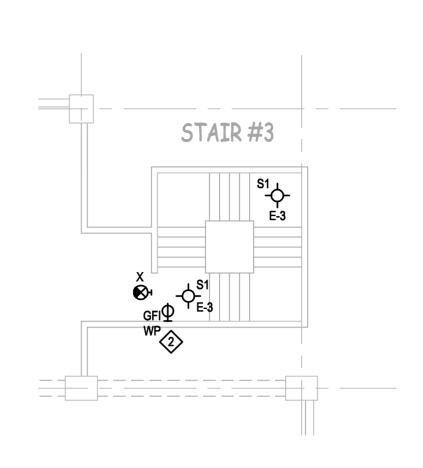
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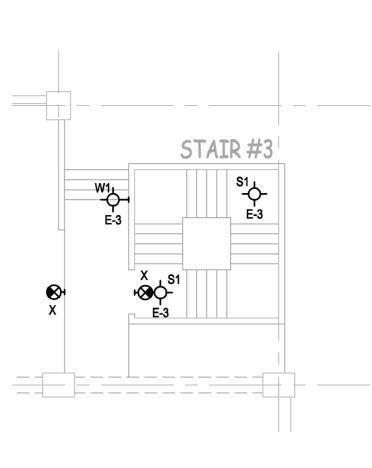


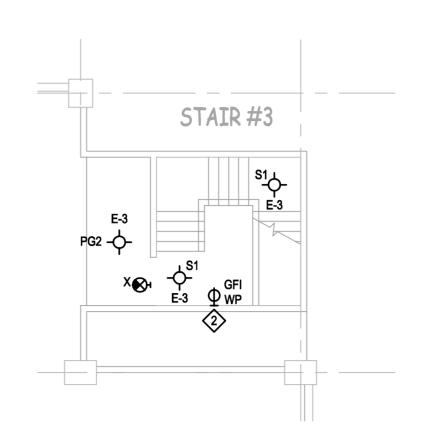
ENLARGED ELECTRICAL PLANS -STAIR #1 AND STAIR #2

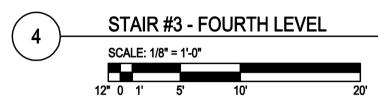
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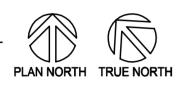




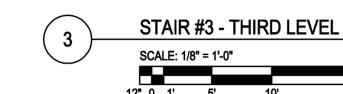


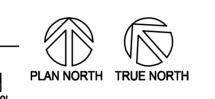


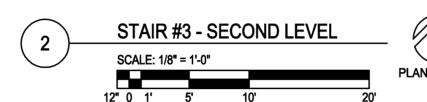




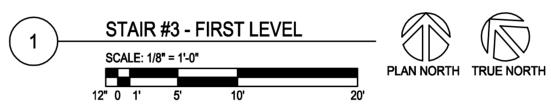
PLAN NORTH TRUE NORTH











LINE WEIGHT KEY

- ALL ITEMS INDICATED BY A DARK SOLID LINE ARE NEW
- ALL ITEMS INDICATED BY A LIGHT SOLID LINE ARE
- **EXISTING TO REMAIN**
- ---- ALL ITEMS INDICATED BY A DARK DASHED LINE ARE EXISTING TO BE REMOVED OR RELOCATED.

GENERAL NOTES:

- 1. REFER TO SHEET E000 FOR GENERAL PROJECT NOTES.
- 2. NEW LIGHTING INSTALLED AT EXISTING LOCATIONS UNLESS NOTED OTHERWISE. REMOVE EXISTING LIGHT FIXTURE AND INSTALL NEW. UTILIZE EXISTING BRANCH CIRCUIT AND JUNCTION BOX.
- 3. EXISTING CONDUCTORS AND BRANCH CIRCUIT RACEWAYS ORIGINATING FROM PANEL E AND SERVING STAIR TOWERS IS PERMITTED TO BE REUSED.
- 4. EXISTING STRUCTURAL SYSTEM IS POST TENSION CONCRETE. MAXIMUM EMBED DEPTH IS 1" FOR LIGHT FIXTURE SUPPORT AND 3/4" FOR CONDUIT SUPPORT.
- 5. CIRCUIT RECEPTACLES, THIS SHEET TO SPARE 20/1 BREAKER LOCATED IN PANEL A.
- 6. ALL EXIT LIGHTS SHOWN SHALL BE NEW, INSTALLED AT EXISTING LOCATIONS AND CONNECTED TO EXISTING CIRCUITS.

KEYED NEW WORK NOTES:

- NEW WALL MOUNTED LIGHT IN NEW LOCATION. PROVIDE WITH INTEGRAL PHOTOCELL AND CONNECT TO EXISTING STAIR LIGHTING
- PROVIDE 20A DUPLEX RECEPTACLE AND 120V-20A CIRCUIT FOR FROM PANEL F. INSTALL NEW 20A-1P BREAKER IN EXISTING EATON PANELBOARD. PROVIDE CAST WEATHERPROOF COVER WITH PADLOCKING PROVISIONS.

STAIR #4

STAIR #4 - LOWER LEVEL



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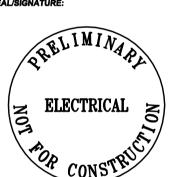


215 MARTIN LUTHER KING JR. BLVD MADISON, WISCONSIN 53701-2986

2015 PARKING RAMP RESTORATION

PROJECT LOCATION: CAPITOL SQUARE NORTH JSD PROJECT NO.:

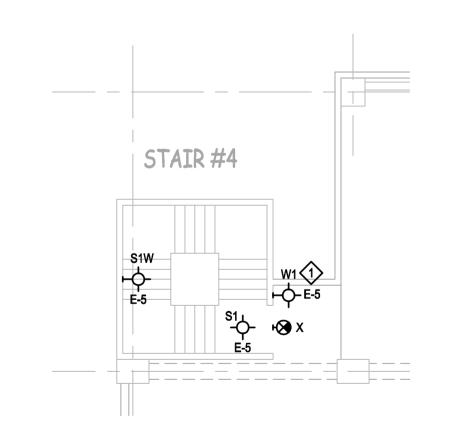
PROJECT:

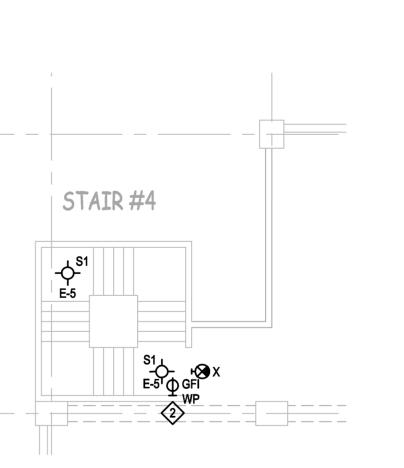


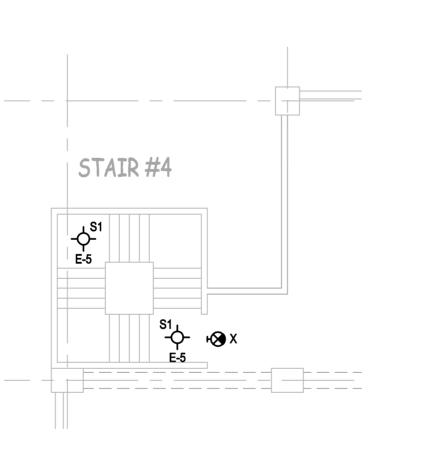
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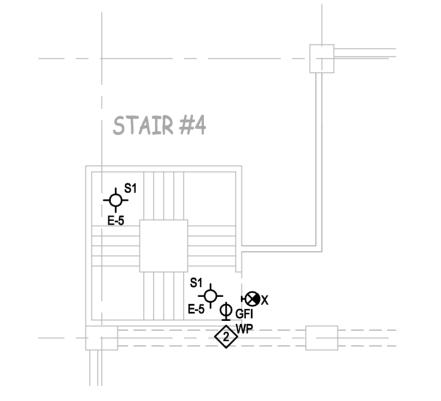


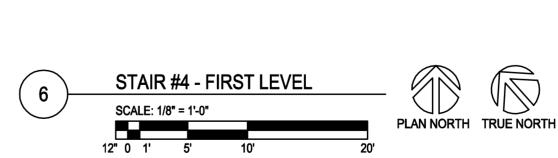
ENLARGED ELECTRICAL PLANS -STAIR #3 AND STAIR #4

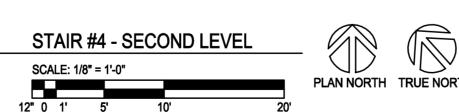




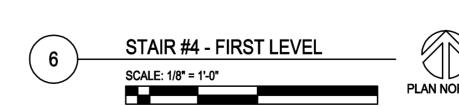


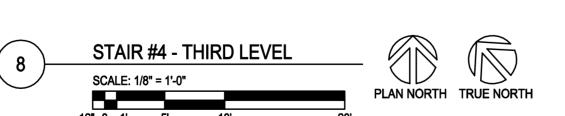




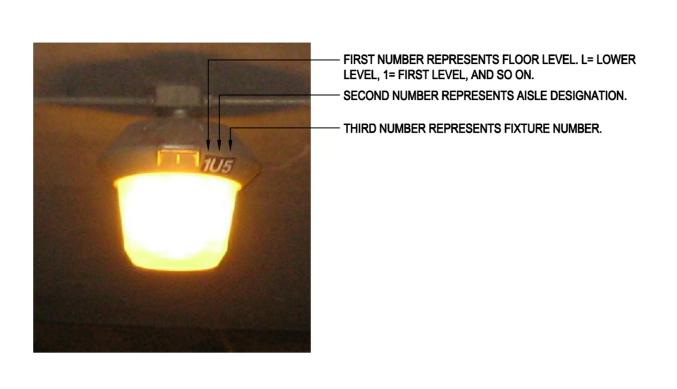


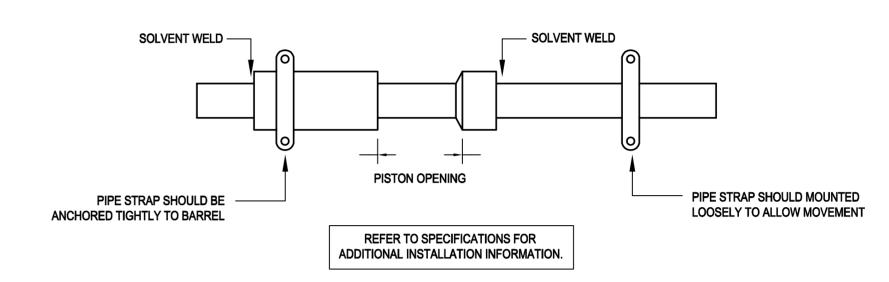








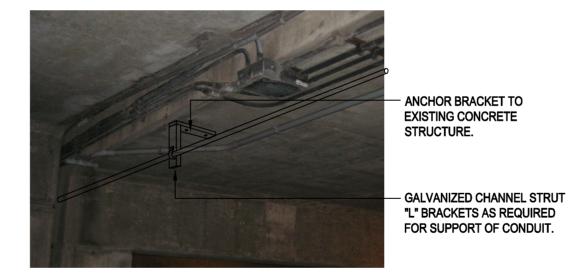




LIGHT FIXTURE NUMBERING REQUIREMENT NO SCALE

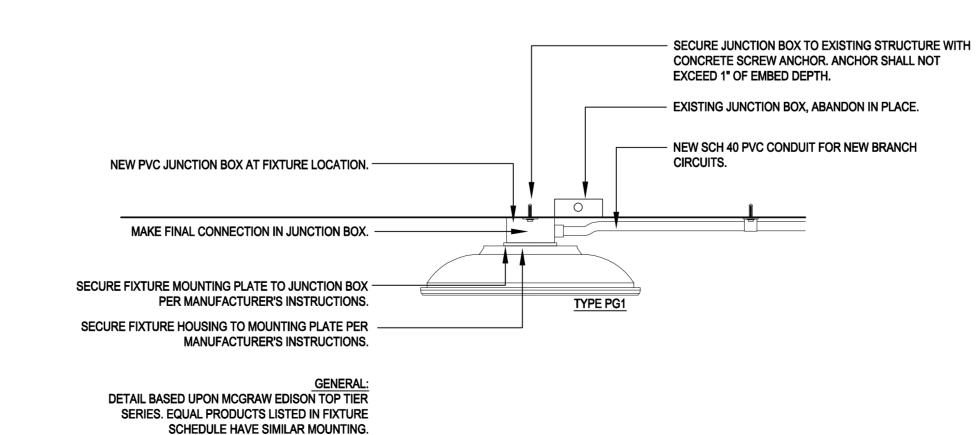
RACEWAY EXPANSION FITTING DETAIL NO SCALE

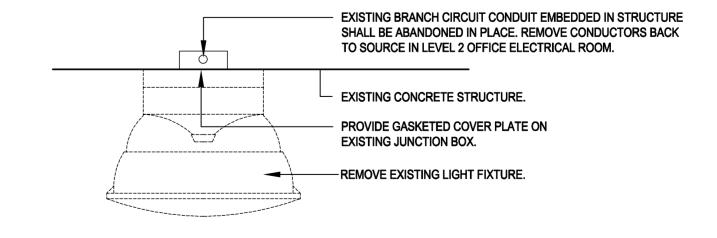












CO MONITORING & VENTILATION FAN CONTROL SCHEMATIC

CO SYSTEM SEQUENCE OF OPERATION

RELAY #1.

RELAY #2.

LOCAL STROBE AND HORN SOUNDER -

WITH INTEGRAL CONTROL RELAY.

NEW CONTROL WIRING FROM I/O BOARD IN -

INDEPENDENT VENTILATION FAN CONTROL.

EXISTING ELECTRICALLY OPERATED CIRCUIT —

BREAKER PANEL - SQUARE D POWER LINK.

NEW 20A/1 CONTROLLABLE BREAKER —

POWER LINK PANEL, ROUTED THROUGH RELAY CONTACT AT MONITORING SYSTEM

ADDRESSABLE RELAY CONTACTS FOR -

NEW CO MONITORING CONTROL PANEL —— CO-M

CONTROL PANEL.

TERMINATE CONDUCTORS ON EXISTING //O

IN POWERLINK PANEL.

EXISTING FAN MOTOR BREAKER-

EXISTING MOTOR STARTER-

EXISTING FAN MOTOR STARTERS CONNECTED TO COMMON 120V CONTROL

CIRCUIT. DISCONNECT EF-3 AND EF-4 FROM

EXISTING BREAKER IN-

POWERLINK PANEL.

TYPICAL

TYPICAL

EXISTING CIRCUIT.

INPUT/OUTPUT CARD.

THRESHOLD # 1A (TRIP/SETPOINT) AT 25 PPM:

THRESHOLD # 1B (TRIP/SETPOINT) AT 25 PPM:

THRESHOLD # 4 (TRIP/SETPOINT) AT 100 PPM:

M

PANEL B

F-25,27,29 ✓

F-19,21,23

F-20,22,24

F-26,28,30

WHEN CO SENSOR ASSIGNED TO ZONE R1 EXCEEDS THE

WHEN CO SENSOR ASSIGNED TO ZONE UL/UT EXCEEDS THE PROGRAMMED THRESHOLD, START EXHAUST FANS EF-3/EF-4 WITH

WHEN CO SENSOR ASSIGNED TO EITHER ZONE R1 OR UL/UT

EXCEEDS THE PROGRAMMED THRESHOLD, NOTIFY WITH RELAY #3

HIGH ALARM LEVEL CONDITION TO THE BOSCH ALARM PANEL AND ACTIVATE CONTROLLER'S HORN/BUZZER AND ALARM LED.

CO-S CO-S ZONE R1

ALARM PANEL -

#12CU IN

RACEWAY

AREA UL/UT

COORDINATE CABLING REQUIREMENTS WITH

LOCATIONS.

DEVICES BY DIV. 26

- NEW CO SENSORS INSTALLED THROUGHOUT

RAMP. REFER TO FLOOR PLAN SHEETS FOR

MONITORING SYSTEM SHALL PROVIDE DRY

CONTACT CLOSURE TO SIGNAL ALARM TO

EXISTING ALARM PANEL. WIRING BETWEEN

- EXISTING 120V CONTROL POWER FROM

AT MOTOR STARTER. CIRCUIT B-31

EXISTING VENTILATION FANS

ELECTRICALLY OPERATED CIRCUIT BREAKER TO

2-WIRE CONTROL INPUT ON H-O-A SELECTOR SWITCH

- NEW 120V CONTROL CIRCUIT FROM EXISTING ELECTRICALLY OPERATED CIRCUIT BREAKER TO 2-WIRE CONTROL INPUT ON

H-O-A SELECTOR SWITCH AT MOTOR STARTER. CIRCUIT B-33

- EXISTING BOSCH ALARM PANEL. CO

MANUFACTURER. INCREASE WIRE SIZE AS

REQUIRED FOR ACTUAL DISTANCES.

CO-S CO-S CO-S CO-S ZONE UL,TL

PROGRAMMED THRESHOLD, START EXHAUST FANS EF-1/EF-2 WITH

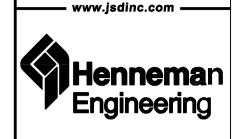
NEW FIXTURE TYPE PG1 MOUNTING

EXISTING FIXTURE DEMOLITION NO SCALE

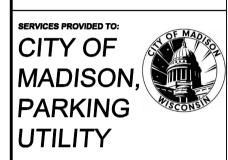
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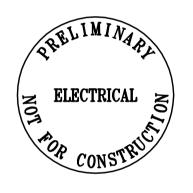


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APPROVED: HEI



ELECTRICAL DETAILS

SHEET NUMBER:

	LIGHTING FIXTURE SCHEDULE																		
MARK	FIXTURE	FIXTURE			FIXTURE LAMP						BALLAST/DRIVER MOUNTING							MANUFACTURER	REMARKS
	TYPE	DIFFUSER	WATTS	TYPE	TEMP	CRI	QTY	TYPE	INPUT WATTS	VOLTAGE	LOCATION	CONFIGURATION	SURFACE TYPE	NAME	MODEL NUMBER				
	LED PARKING GARAGE	HIGH IMPACT	55				4875							KENALL LIGHTING	TD17.*.5S.TP.SL.50L40K.DV	FURNISH WITH MOUNTING ACCESSORIES AS REQUIRED.			
PG1	SURFACE MOUNT	HIGH PERFORMANCE	58	LED	4000K	70	6,551 LMNS	ELD	58	120	CEILING	SURFACE	CONCRETE	McGRAW-EDISON	TT.B4.LED.E1.WQ.GM				
	WIDE DISTRIBUTION	ACRYLIC	50				4344							HOLOPHANE	PLED2.05L.4K.AS.UN.G.L5H				
	LED PARKING GARAGE	HIGH IMPACT	55				4875							KENALL LIGHTING	TD17.*.5S.TP.SL.50L40K.DV	FURNISH WITH MOUNTING ACCESSORIES AS REQUIRED.			
PG2	SURFACE MOUNT	HIGH PERFORMANCE	58	LED	4000K	70	6,551 LMNS	ELD	58	120	CEILING	SURFACE	CONCRETE	McGRAW-EDISON	TT.B4.LED.E1.WQ.GM				
	MEDIUM DISTRIBUTION	ACRYLIC	50				4344							HOLOPHANE	PLED2.05L.4K.AS.UN.G.L5H				
	SURFACE MOUNTED STAIRWELL	IMPACT RESISTANT																	
S1	FIXTURE WITH INTEGRAL	DIFFUSE	26	LED	5000K	70	2267 LMNS	ELD	26	120	CEILING	SURFACE	CONCRETE	KENALL LIGHTING	MOS.18.LG.TP.20L50K.DV				
	OCCUPANCY SENSOR - CEILING MTD	POLYCARBONATE												LUMINAIRE LIGHTING	TSL9 SERIES				
	SURFACE MOUNTED STAIRWELL	IMPACT RESISTANT														FURNISH WITH KNOCK-OUT IN END CAP FOR SURFACE CONDUIT ENTRY.			
S1W	FIXTURE WITH INTEGRAL	DIFFUSE	26	LED	5000K	70	2267 LMNS	ELD	26	120	WALL	SURFACE	CONCRETE	KENALL LIGHTING	MOS.18.LG.TP.20L50K.DV				
	OCCUPANCY SENSOR - WALL MTD	POLYCARBONATE												LUMINAIRE LIGHTING	TSL9 SERIES				
		FROSTED TEMPERED														REQUIRES SURFACE CONDUIT ENTRY INTO FIXTURE HOUSING			
SL1	SURFACE MOUNTED STEP LIGHT	GLASS	4.5	LED	3000K	75	377	ELD	4.5	120	WALL	SURFACE	CONCRETE	COLE	SL2156W	AND LESS THAN 4" HOUSING DEPTH FROM WALL.			
	LED EXTERIOR AREA SITE													PHILIPS LIGHTING	RVM SERIES	FURNISH WITH 20'-0" ROUND ALUMINUM STRAIGHT POLE			
TD1	POLE MOUNTED	-	124	LED	4000K	70	12,000 LMNS	ELD	124	120	TOP DECK	SURFACE	POLE	LITHONIA	DSX1.LED.60C.700.TFTM.MVOLT.MA.DNAXD	AND 48" ALUMINUM MAST ARM.			
	TYPE 4 DISTRIBUTION - 1 HEAD													COOPER LIGHTING	VST SERIES	NOTE 1, 2			
	LED EXTERIOR WALL PACK																		
W1	FULL CUTOFF OPTIC	-	26	LED	4000K	82	2493 LMNS	ELD	26	120	WALL	SURFACE	CONCRETE	RAB LIGHTING	SLIM26N-PC				
	SURFACE MOUNT WITH PHOTOCELL													COOPER LIGHTING	XTOR3A SERIES				
	LED EXIT SIGN	IMPACT RESISTANT												LITHONIA	LV SERIES				
X	SINGLE FACE	POLYCARBONATE	2.7	LED		_		_	_	120	WALL	SURFACE	CONCRETE	SURE-LITES	UX SERIES				
	WHITE HOUSING, RED LETTERS													ISOLITE	MAX SERIES				

- A. REFER TO INTERIOR AND EXTERIOR LIGHTING SPECIFICATIONS FOR ADDITIONAL INFORMATION REGARDING FIXTURE, BALLAST OR DRIVER REQUIREMENTS AND INSTALLATION REQUIREMENTS.
- B. NOTED LUMEN QUANTITY IS DELIVERED LUMEN OUTPUT
- C. NOTED MANUFACTURER AND MODEL IS TO ESTABLISH LIGHT FIXTURE QUALITY AND PER FORMANCE. ALL OTHER PRODUCTS MEETING OUR EXCEEDING THE REFERENCED PRODUCTS ARE PERMITTED TO BE BID. THIS INCLUDES FIXTURE STYLE, SIZE, SHAPE, OPTICS, GLARE CONTROL, ETC....

CMU - CONCRETE MASONRY BLOCK

ABBREVIATIONS:

ELD - ELECTRONIC LED DRIVER OR POWER SUPPLY EPS - ELECTRONIC PROGRAM START FLUORESCENT BALLAST EPSD - ELECTRONIC PROGRAM START STEP DIMMING BALLAST: 0/50/100 DIM - DIMMING

0-10V - ZERO TO TEN VOLT DC DIMMING FEATURE

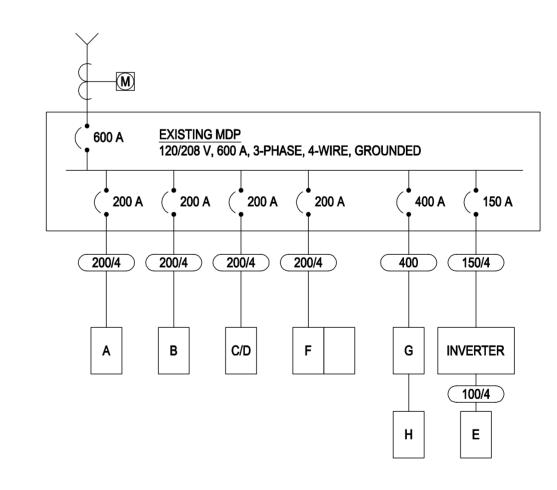
FDB - FLUORESCENT DIMMING BALLAST

GWB - GYPSUM WALL BOARD, DRYWALL ACT - ACOUSTICAL CEILING TILE IN SUSPENDED GRID SYSTEM, ACCESSIBLE LMNS - LUMENS **BF - BALLAST FACTOR** ECO - LUTRON ECOSYSTEM COMPATIBLE BALLAST

TBD - TO BE DETERMINED

1. FUNISH WITH CUSTOM BASE PLATE BOLT PATTERN TO ALIGN WITH EXISTING ANCHOR BOLTS.

2. FURNISH POLE WITH PROVISIONS FOR SURFACE CONDUIT CONNECTION OPPOSITE FIXTURE HEAD.



ELECTRICAL ONE-LINE DIAGRAM NO SCALE

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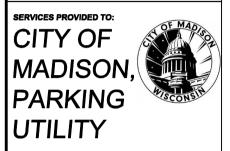
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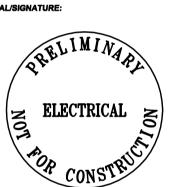


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DESIGN: HEI

DRAWN. HEI

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APPROVED: HEI



ELECTRICAL SCHEDULES & ONE LINES