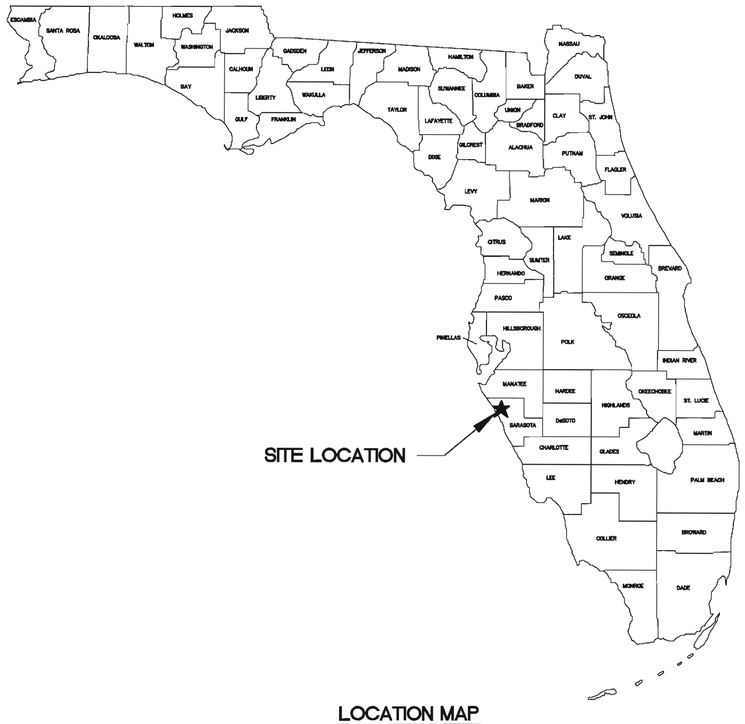
MANATEE COUNTY CENTRAL LIBRARY
EXTERIOR LIGHTING PLANS

1301 1ST. AVE W.

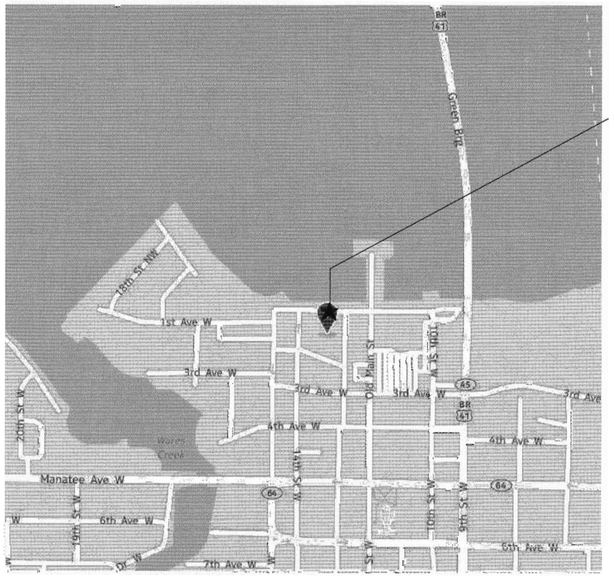
BRADENTON, FLORIDA 34205

WORK ASSIGNMENT #36 CO#1



LOCATION MAP

FLORIDA



SITE MAP

SHEET SCHEDULE

SHEET	DESCRIPTION
COVER	PROJECT NAME, LOCATION and SITE MAPS, SHEET SCHEDULE
E1.0	ELECTRICAL SYMBOLS, LEGEND, GENERAL NOTES AND SPECIFICATIONS SHEET
E2.0	NEW ELECTRICAL AND LIGHTING SITE PLAN AND FIXTURE SCHEDULE
E2.1	LOADING DOCK ELECTRICAL PLAN
E3.0	PHOTOMETRIC SITE LIGHTING PLAN
E3.1	PHOTOMETRIC ELEVATION VIEWS
E3.2	PHOTOMETRIC ELEVATION VIEWS
E4.0	LIGHTING DETAILS, ONE-LINE RISER AND SCHEDULES

BID NOTES:

PHASE 1 BID TO INCLUDE:
- LED COLOR CHANGING LIGHTING CONTROL SYSTEM.
- ALL NEW FIXTURES ON SOUTH WALL.
- ALL NEW FIXTURES ON NORTH WALL.
- ALL NEW FIXTURES ON NORTH END OF THE EAST WALL, THAT ARE NOT ABOVE OR BELOW THE LOADING DOCK/BALCONY.
- ALL CONDUITS, CONDUCTORS, SWITCHING, ETC., REQUIRED FOR A COMPLETE AND WORKING SYSTEM.

PHASE 2 BID TO INCLUDE:
- DEMOLITION OF EXISTING FIXTURES THAT ARE ABOVE THE LOADING DOCK.
- ALL NEW FIXTURES ON THE EAST WALL THAT ARE ABOVE OR BELOW THE LOADING DOCK/BALCONY.
- ALL CONDUITS, CONDUCTORS, SWITCHING, ETC. REQUIRED FOR A COMPLETE AND WORKING SYSTEM.

To the best of the engineer's knowledge, said plans and specifications comply with the applicable building codes and the applicable minimum fire safety standards as determined in accordance with Chapters 553 and 633, Florida Statutes.

ATP ENGINEERING SOUTH, PL
SARASOTA, FLORIDA
ENGR. BUSINESS #8908
941-751-6485

MATTHEW J CAMDEN LICENSE 79284 STATE OF FLORIDA MATTHEW J. CAMDEN FL 79284

SPECIFICATIONS:

(APPLY TO ALL ELECTRICAL SHEETS)

1. PROVIDE AND INSTALL NEW GREEN INSULATED COPPER GROUNDING CONDUCTORS AS THE EQUIPMENT GROUNDING MEANS FOR ALL ELECTRICAL DEVICES AND EQUIPMENT.
2. ALL PANELBOARDS AND SWITCHBOARDS ARE EXISTING.
3. ALL PANELBOARDS TOUCHED IN THIS PROJECT SHALL RECEIVE A NEW TYPEWRITTEN DIRECTORY.
4. ALL NEW JUNCTION BOX COVERS SHALL BE IDENTIFIED TO INDICATE CIRCUITS CONTAINED.
5. ALL CONDUIT INSIDE THE BUILDING SHALL BE A ELECTRICAL METALLIC TUBING (EMT) AND SHALL BE A MINIMUM 1/2" UNLESS OTHERWISE NOTED. ALL CONDUIT INSTALLED UNDERGROUND SHALL BE SCHEDULE 40 PVC UNLESS OTHERWISE NOTED. ALL CONDUIT INSTALLED ABOVE GRADE OUTSIDE THE BUILDING SHALL BE GALVANIZED RIGID STEEL. NO PVC CONDUIT SHALL BE USED ABOVE THE FLOOR SLAB.
6. ALL ELECTRICAL CONNECTORS, LUGS, BREAKERS, EQUIPMENT, ETC. SHALL BE RATED AT A MINIMUM OF 75 DEG. C.
7. WIRING METHODS:

   ALL WIRING SHALL BE COPPER. NO ALUMINUM WIRING WILL BE ALLOWED.

   MC TYPE CABLE SHALL NOT BE USED.
8. SWITCHES SHALL BE 20 AMPERE RATED, 120/277 VOLT, LEVITON 1221-21 SERIES OR APPROVED EQUIVALENT, UNLESS OTHERWISE NOTED.
   8.1. SWITCHES CONTROLLING LIGHTING SHALL HAVE NEUTRAL CONDUCTOR.

GENERAL NOTES:

(APPLY TO ALL ELECTRICAL SHEETS)

1. THE WORK INDICATED ON THESE DRAWINGS IS DIAGRAMMATIC AND IS INTENDED TO CONVEY THE SCOPE OF WORK AND INDICATE THE GENERAL ARRANGEMENT OF EQUIPMENT AND DEVICES FOR A COMPLETE SYSTEM IN EVERY RESPECT AND DETAIL, TESTED AND LEFT READY IN PERFECT OPERATING CONDITION FOR THE OWNER'S USE. MATERIALS AND EQUIPMENT SHALL BE LISTED BY UNDERWRITERS' LABORATORIES AND SHALL BE INSTALLED IN ACCORDANCE WITH SUCH LISTINGS. INSTALLATIONS SHALL BE MADE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. WORK SHALL MEET THE REQUIREMENTS OF THE SPECIFICATIONS AND CONFORM TO THE NEC (NFPA 70 & 72) AND ALL APPLICABLE CODES, AND BE COMPLETED BY A QUALIFIED, EXPERIENCED, LICENSED ELECTRICAL CONTRACTOR.
2. THE ENGINEER HAS MADE AN EFFORT TO COORDINATE WORK WITH OTHER TRADES AND IDENTIFY ANY AND ALL CONFLICTS. THE CONTRACTOR IS RESPONSIBLE TO COORDINATE FIELD WORK BETWEEN TRADES AND TO IDENTIFY FIELD CONDITIONS PRIOR TO INSTALLATION AND REPORT ANY CONFLICTS TO THE ENGINEER.
3. FOR BIDDING PURPOSES, WHEN A CONFLICT OCCURS BETWEEN THE SPECIFICATIONS AND DRAWINGS, THE ITEMS OF GREATER QUANTITY AND/OR COST SHALL BE PROVIDED. ANY SUCH CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION.
4. CONTRACTOR SHALL VERIFY THE LOCATION AND ELECTRICAL REQUIREMENTS OF ALL EQUIPMENT FURNISHED BY OTHER TRADES PRIOR TO INSTALLATION. COORDINATE ROUGH-IN INSTALLATION WITH EQUIPMENT DETAILS.
5. ALL OPENINGS IN FIRE AND SMOKE PARTITIONS SHALL BE SEALED AS REQUIRED BY THE NEC/ FLORIDA BUILDING CODE. PROVIDE UL LISTED COMPOUND TO MATCH PARTITION RATING.
6. DO NOT SCALE DRAWINGS. VERIFY FIELD CONDITIONS PRIOR TO AND DURING CONSTRUCTION FOR EXACT DEVICE / EQUIPMENT LOCATION.
7. DEMOLITION WORK: PROVIDE DEMOLITION AND REMOVAL WORK AS INDICATED OR NEEDED. EQUIPMENT THAT IS TO BE REMOVED INCLUDES ALL ASSOCIATED WIRING, BOXES AND CONDUIT BACK TO SOURCE. CLOSE ALL UNUSED OPENINGS IN JUNCTION BOXES THAT REMAIN WITH SUITABLE PLUG OR COVER. WHEN REMOVING OR RELOCATING LIGHT FIXTURES OR OTHER DEVICES, FIELD VERIFY REMAINING DEVICES IN THE SAME CIRCUIT AND RECONNECT FOR CONTINUED SERVICE. EXISTING ELECTRICAL WORK INTERFERING WITH NEW CONSTRUCTION SHALL BE RELOCATED OR REROUTED TO SUIT FINAL INSTALLATION. CUTTING AND PATCHING REQUIRED SHALL BE DONE TO RESTORE AREAS TO ORIGINAL CONDITION.
8. CONTRACTOR SHALL PROVIDE TO LOCAL AHJ OR PERMITTING AGENCY A COPY OF ALL MAJOR EQUIPMENT CUT SHEETS AT TIME OF APPLICATION IF REQUESTED.
9. PROVIDE COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM.
10. ALL WORK SHALL CONFORM TO OR EXCEED THE MINIMUM REQUIREMENTS OF THE CURRENT ANSI/NFPA 70 WITH STATE OF FLORIDA AMENDMENTS, ANSI/IEEE C2 AND ALL FEDERAL, STATE, LOCAL, AND MUNICIPAL CODES AND ORDINANCES. THE ELECTRICAL SUBCONTRACTOR SHALL COMPLY WITH THE DIRECTIONS OF ALL AUTHORITIES HAVING JURISDICTION.
11. INSTALL WORK USING PROCEDURES DEFINED IN NECA STANDARDS OF INSTALLATION. ALL WORK SHALL PRESENT A NEAT MECHANICAL APPEARANCE WHEN COMPLETED.
12. THE ELECTRICAL SUBCONTRACTOR SHALL PROVIDE ALL FLOOR, WALL, AND CEILING PENETRATIONS TO COMPLETE HIS WORK. PROVIDE PROPER FIRE SAFEING FOR ALL PENETRATIONS MADE.
13. COORDINATE ALL ELECTRICAL WORK WITH ALL OTHER TRADES TO ENSURE EFFECTIVE AND EFFICIENT OVERALL INSTALLATION.
14. COORDINATE ALL ELECTRICAL SYSTEM DOWNTIME WITH THE OWNER, PERFORMANCE SERVICES, AND OTHER TRADES. DOWNTIME OF THE SYSTEM SHALL BE MINIMIZED. WEEKEND AND AFTER HOUR WORK SHALL BE REQUIRED TO PREVENT OR MINIMIZE INTERFERENCE WITH THE OWNER'S OPERATION.
15. THE LOCATIONS OF RECEPTACLES, PHONE/DATA JACKS, AND ROOM EQUIPMENT SHOWN ON THESE DRAWINGS ARE APPROXIMATE. FINAL LOCATIONS WILL BE DETERMINED DURING THE CONSTRUCTION PHASE- COORDINATE AND REFER TO ARCHITECTURAL DRAWINGS.
16. ALL NEW EQUIPMENT SHALL BE SUBMITTED FOR APPROVAL PRIOR TO ORDERING. PROVIDE COPIES OF ALL LIGHTING EQUIPMENT AND CONTROLS DATA SHEETS FOR THE LEED CONSULTANT AND COMMISSIONING CONSULTANT. ALL LIGHTING SYSTEMS SHALL MEET OR EXCEED ASHRAE 90.1 IN ENERGY USAGE PER SQUARE FOOT.
17. PHYSICAL SIZES AND LOCATIONS OF ALL MECHANICAL EQUIPMENT SHOWN ON THESE DRAWINGS ARE APPROXIMATE. COORDINATE ELECTRICAL WORK FOR THIS EQUIPMENT WITH THE OTHER TRADES.
18. PROVIDE APPROPRIATE SEALANT (I.E. FIRESAFEING) TO MAINTAIN CONSTRUCTION INTEGRITY FOR ANY PENETRATIONS THROUGH FLOORS, STRUCTURAL CEILINGS, AND FIRE WALLS.
19. ALL BRANCH CIRCUITS SHALL UTILIZE SEPARATE INDEPENDENT NEUTRAL CONDUCTOR, AND INSULATED GROUNDING CONDUCTOR. DO NOT COMBINE NEUTRAL CONDUCTORS.
20. ALL FEEDER NEUTRAL/GROUNDED CONDUCTORS SHALL BE CONSIDERED CURRENT CARRYING. DERATE MULTIPLE CONDUCTORS IN A RACEWAY ACCORDINGLY WITH NEC TABLES.
21. INSTALL ALL CONDUITS, RACEWAYS, AND CABLE TRAY FOR MAXIMUM HEAD CLEARANCE IN MECHANICAL AREAS, AND ATTIC. COORDINATE CLEARANCES WITH PERFORMANCE SERVICES AND THE OWNER.
22. ALL ELECTRICAL SERVICE WORK SHALL COMPLY WITH THE LOCAL UTILITY. COORDINATE ALL REQUIREMENTS AND MAXIMUM AVAILABLE FAULT CURRENT PRIOR TO BID AND INCLUDE ALL NECESSARY MATERIAL AND LABOR REQUIRED FOR THE ADDITION TO THE ELECTRICAL SERVICE. PROVIDE PRICING FOR ANY UTILITY FEES.
23. TEST GROUNDING SYSTEM AFTER COMPLETION OF JOB TO INSURE PROPER GROUND CONDUCTIVITY.
24. RECORD DRAWINGS: PROVIDE AMPERE READINGS ON ALL PANELBOARDS TO PROVE PANELS ARE BALANCED. PROVIDE PHASE ROTATION READINGS ON ALL PANELBOARDS. PROVIDE ALL RECORD DRAWINGS TO THE OWNER'S REPRESENTATIVE.

ELECTRICAL SYMBOLS AND ABBREVIATIONS

NOTE:
THESE ARE STANDARD SYMBOLS AND MAY NOT ALL APPEAR ON THE PROJECT DRAWINGS; HOWEVER WHEREVER THE SYMBOL APPEARS ON THE PROJECT DRAWINGS, THE ITEM SHALL BE PROVIDED AND INSTALLED.

EQUIPMENT

SYMBOL	DESCRIPTION
	DISTRIBUTION PANELBOARD AND CABINET – RECESSED MOUNT
	DISTRIBUTION PANELBOARD AND CABINET – SURFACE MOUNT
	BRANCH PANELBOARD AND CABINET – RECESSED MOUNT
	BRANCH PANELBOARD AND CABINET – SURFACE MOUNT
	LOAD CENTER – SURFACE MOUNT
	LOAD CENTER – RECESSED MOUNT
(A)	DENOTES PANEL/PANELBOARD DESIGNATION
(X)Y	MOTOR "X" INDICATES HORSEPOWER "Y" INDICATES PHASE
X PF	CAPACITOR "X" INDICATES KVAR
	DISCONNECT SWITCH – FUSED "X"= RATING, "Y" = FUSE SIZE
	DISCONNECT SWITCH – NON-FUSED
	DISCONNECT SWITCH – CIRCUIT BREAKER
	MOTOR STARTER
	COMBINATION MOTOR STARTER
T XX	DRY TYPE TRANSFORMER – "XX" INDICATES KVA
M	METER SOCKET
M	CURRENT TRANSFORMER METER SOCKET
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
G	GENERATOR
N E ATS/MTS L	TRANSFER SWITCH ATS = AUTOMATIC TRANSFER SWITCH MTS = MANUAL TRANSFER SWITCH N = NORMAL POWER E = EMERGENCY POWER L = LOAD
	GROUND CONNECTION

RACEWAY SYSTEM

SYMBOL	DESCRIPTION
A-XX F50 (PHASE, GROUND, SWITCH LEG, NEUTRAL CONDUCTORS)	QUANTITY OF CONDUCTORS OR CABLES IN CONDUIT "F50" DENOTES THE FEEDER SIZE "A-XX" DENOTES PANEL AND CIRCUIT #

LIGHTING

SYMBOL	DESCRIPTION
X-2-C	X = FIXTURE TYPE, 2 = CIRCUIT NUMBER, C = SWITCH LEG F – FLUORESCENT K – INCANDESCENT H – H.I.D.
	FLUORESCENT STRIP TYPE FIXTURE
	FLUORESCENT TYPE FIXTURE
	FLUORESCENT TYPE FIXTURE WITH EMERGENCY BATTERY BALLAST
	CEILING MOUNT LIGHT FIXTURE
	CEILING MOUNT RECESSED LIGHT FIXTURE (ROUND OR SQUARE, SEE SCHEDULE
	INTERIOR WALL MOUNT FIXTURE
	EXTERIOR WALL MOUNT FIXTURE

ABBREVIATIONS

A	AMPERE
AC	AIR CONDITIONING OR ALTERNATING CURRENT
ACC	ACCESS
AF	AMPERE FRAME
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURISDICTION
ARCH	ARCHITECT
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
C	CONDUIT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CU	COPPER
DWG(S)	DRAWING(S)
EC	ELECTRICAL CONTRACTOR
EMT	ELECTRICAL METALLIC TUBING
EX	EXISTING TO REMAIN
FLR	FLOOR
FMC	FURNISHED BY MECHANICAL CONTRACTOR
GFI	GROUND FAULT INTERRUPTER
GND,G	GROUND
GRS	GALVANIZED RIGID STEEL CONDUIT
HOA	HAND-OFF-AUTO
HZ	HERTZ
HP	HORSEPOWER
IG	ISOLATED GROUND
IMC	INTERMEDIATE METALLIC CONDUIT
JB	JUNCTION BOX
KAIC	KILO AMPERE INTERRUPTING CAPACITY
KCMIL	THOUSAND CIRCULAR MILS
KVA	KILOVOLT AMPERE
KW	KILOWATT
LC	LIGHTING CONTACTOR
MC	MECHANICAL CONTRACTOR
MCC	MOTOR CONTROL CENTER
M-G	MOTOR GENERATOR
MDP	MAIN DISTRIBUTION PANEL
MH	METAL HALIDE
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NF	NON-FUSED
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
PNL	PANEL
ø	PHASE
PB	PUSHBUTTON
PVC	POLYVINYL CHLORIDE CONDUIT
SCH	SCHEDULE
SPD	SURGE PROTECTION DEVICE
SW	SWITCH
SWGR	SWITCHGEAR
TEL,T	TELEPHONE
TBB	TELEPHONE BACKBOARD
TC	TIME CLOCK
XFMR	TRANSFORMER
XFR	TRANSFER
TYP	TYPICAL
UG	UNDERGROUND
UL,U.L.	UNDERWRITERS LABORATORIES
UPS	UNINTERRUPTIBLE POWER SUPPLY
U.O.N.	UNLESS OTHERWISE NOTED
V	VOLT
W	WATT
WP	WEATHER PROOF

DRAWING SYMBOLS

- 2 / E X — DETAIL NUMBER / DRAWING NUMBER WHERE DRAWN
- A / E X — SECTION LETTER / DRAWING NUMBER WHERE DRAWN
- (1) REFER TO LIKE NUMBER NOTES.
- (1) REFER TO LIKE NUMBER NOTES.

MATTHEW J. CANDEN LICENSE NO. 79024 STATE OF FLORIDA

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DRAWING TITLE: ELECTRICAL SYMBOLS AND LEGEND

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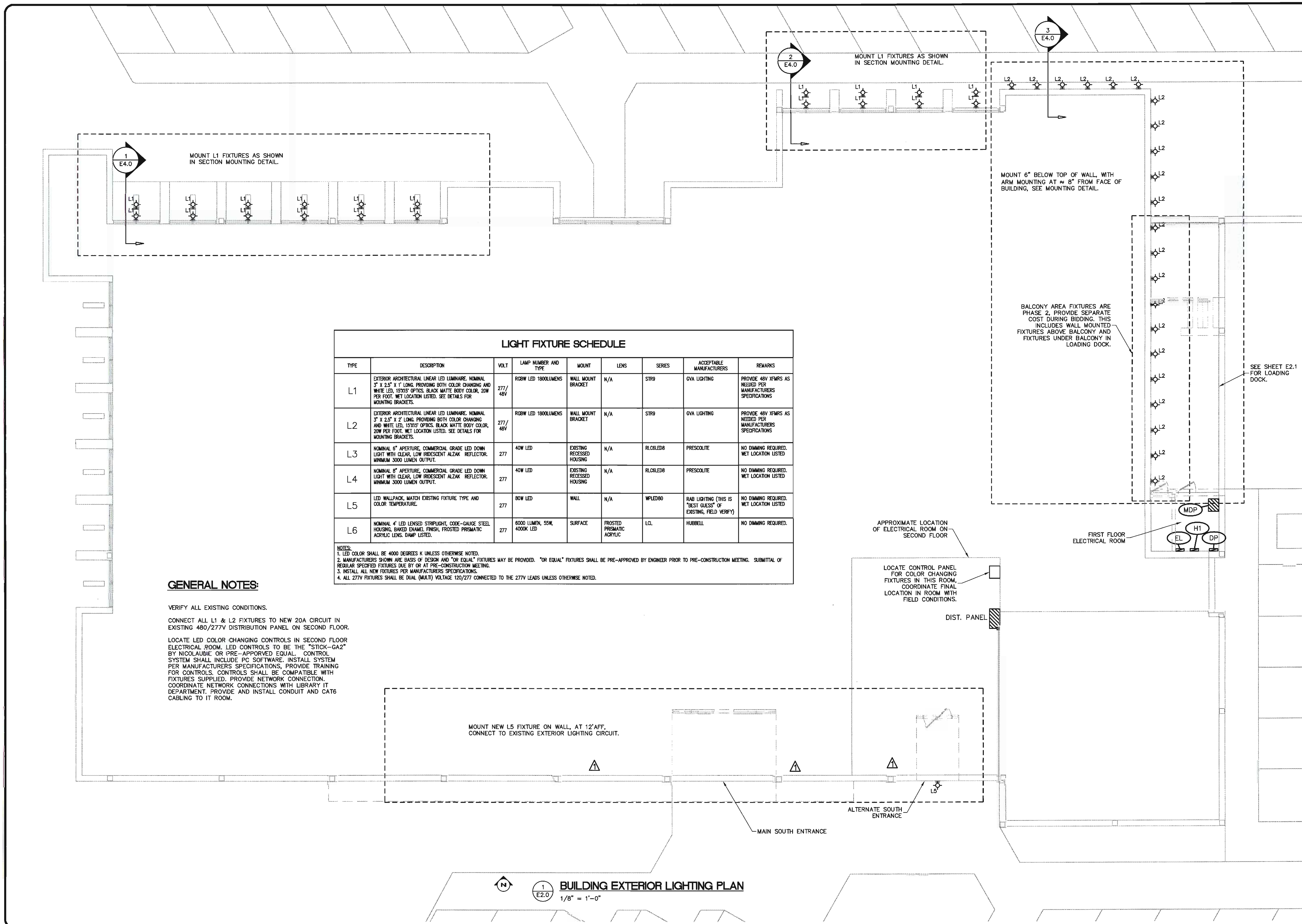

LIGHT FIXTURE SCHEDULE

TYPE	DESCRIPTION	VOLT	LAMP NUMBER AND TYPE	MOUNT	LENS	SERIES	ACCEPTABLE MANUFACTURERS	REMARKS
L1	EXTERIOR ARCHITECTURAL LINEAR LED LUMINAIRE. NOMINAL 3" X 2.5" X 1' LONG. PROVIDING BOTH COLOR CHANGING AND WHITE LED, 15°X15° OPTICS. BLACK MATTE BODY COLOR, 20W PER FOOT. WET LOCATION LISTED. SEE DETAILS FOR MOUNTING BRACKETS.	277/ 48V	RGBW LED 1800LUMENS	WALL MOUNT BRACKET	N/A	STR9	GVA LIGHTING	PROVIDE 48V XFMRS AS NEEDED PER MANUFACTURERS SPECIFICATIONS
L2	EXTERIOR ARCHITECTURAL LINEAR LED LUMINAIRE. NOMINAL 3" X 2.5" X 2' LONG. PROVIDING BOTH COLOR CHANGING AND WHITE LED, 15°X15° OPTICS. BLACK MATTE BODY COLOR, 20W PER FOOT. WET LOCATION LISTED. SEE DETAILS FOR MOUNTING BRACKETS.	277/ 48V	RGBW LED 1800LUMENS	WALL MOUNT BRACKET	N/A	STR9	GVA LIGHTING	PROVIDE 48V XFMRS AS NEEDED PER MANUFACTURERS SPECIFICATIONS
L3	NOMINAL 6" APERTURE, COMMERCIAL GRADE LED DOWN LIGHT WITH CLEAR, LOW IRIDESCENT ALZAK REFLECTOR. MINIMUM 3000 LUMEN OUTPUT.	277	40W LED	EXISTING RECESSED HOUSING	N/A	RLC6LED8	PRESCOLITE	NO DIMMING REQUIRED. WET LOCATION LISTED
L4	NOMINAL 8" APERTURE, COMMERCIAL GRADE LED DOWN LIGHT WITH CLEAR, LOW IRIDESCENT ALZAK REFLECTOR. MINIMUM 3000 LUMEN OUTPUT.	277	40W LED	EXISTING RECESSED HOUSING	N/A	RLC6LED8	PRESCOLITE	NO DIMMING REQUIRED. WET LOCATION LISTED
L5	LED WALLPACK, MATCH EXISTING FIXTURE TYPE AND COLOR TEMPERATURE.	277	80W LED	WALL	N/A	WPLED80	RAB LIGHTING (THIS IS "BEST GUESS" OF EXISTING, FIELD VERIFY)	NO DIMMING REQUIRED. WET LOCATION LISTED
L6	NOMINAL 4' LED LENSED STRIPLIGHT, CODE-GAUGE STEEL HOUSING, BAKED ENAMEL FINISH, FROSTED PRISMATIC ACRYLIC LENS. DAMP LISTED.	277	6000 LUMEN, 55W, 4000K LED	SURFACE	FROSTED PRISMATIC ACRYLIC	LCL	HUBBELL	NO DIMMING REQUIRED.

NOTES:
1. LED COLOR SHALL BE 4000 DEGREES K UNLESS OTHERWISE NOTED.
2. MANUFACTURERS SHOWN ARE BASIS OF DESIGN AND "OR EQUAL" FIXTURES MAY BE PROVIDED. "OR EQUAL" FIXTURES SHALL BE PRE-APPROVED BY ENGINEER PRIOR TO PRE-CONSTRUCTION MEETING. SUBMITTAL OF REGULAR SPECIFIED FIXTURES DUE BY OR AT PRE-CONSTRUCTION MEETING.
3. INSTALL ALL NEW FIXTURES PER MANUFACTURERS SPECIFICATIONS.
4. ALL 277V FIXTURES SHALL BE DUAL (MULTI) VOLTAGE 120/277 CONNECTED TO THE 277V LEADS UNLESS OTHERWISE NOTED.

GENERAL NOTES:

VERIFY ALL EXISTING CONDITIONS.

CONNECT ALL L1 & L2 FIXTURES TO NEW 20A CIRCUIT IN EXISTING 480/277V DISTRIBUTION PANEL ON SECOND FLOOR.

LOCATE LED COLOR CHANGING CONTROLS IN SECOND FLOOR ELECTRICAL ROOM. LED CONTROLS TO BE THE "STICK-GA2" BY NICOLAUDIE OR PRE-APPROVED EQUAL. CONTROL SYSTEM SHALL INCLUDE PC SOFTWARE. INSTALL SYSTEM PER MANUFACTURERS SPECIFICATIONS, PROVIDE TRAINING FOR CONTROLS. CONTROLS SHALL BE COMPATIBLE WITH FIXTURES SUPPLIED. PROVIDE NETWORK CONNECTION. COORDINATE NETWORK CONNECTIONS WITH LIBRARY IT DEPARTMENT. PROVIDE AND INSTALL CONDUIT AND CAT6 CABLING TO IT ROOM.

1 E2.0 BUILDING EXTERIOR LIGHTING PLAN
1/8" = 1'-0"

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BRADENTON, FLORIDA
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REV# | DESCRIPTION | DATE
REV1 | L1/L4 FIXTURE REMOVAL |

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PLOT SIZE: 24"X36"
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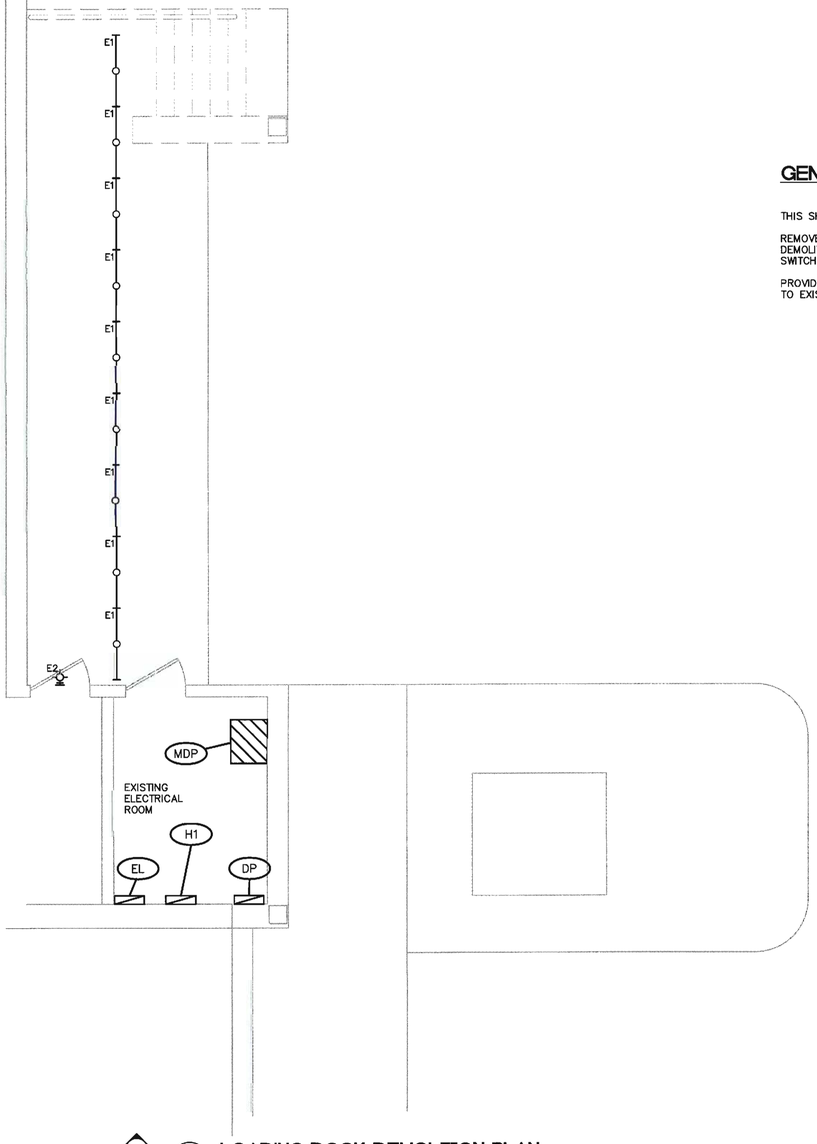
SHEET No.: E2.0



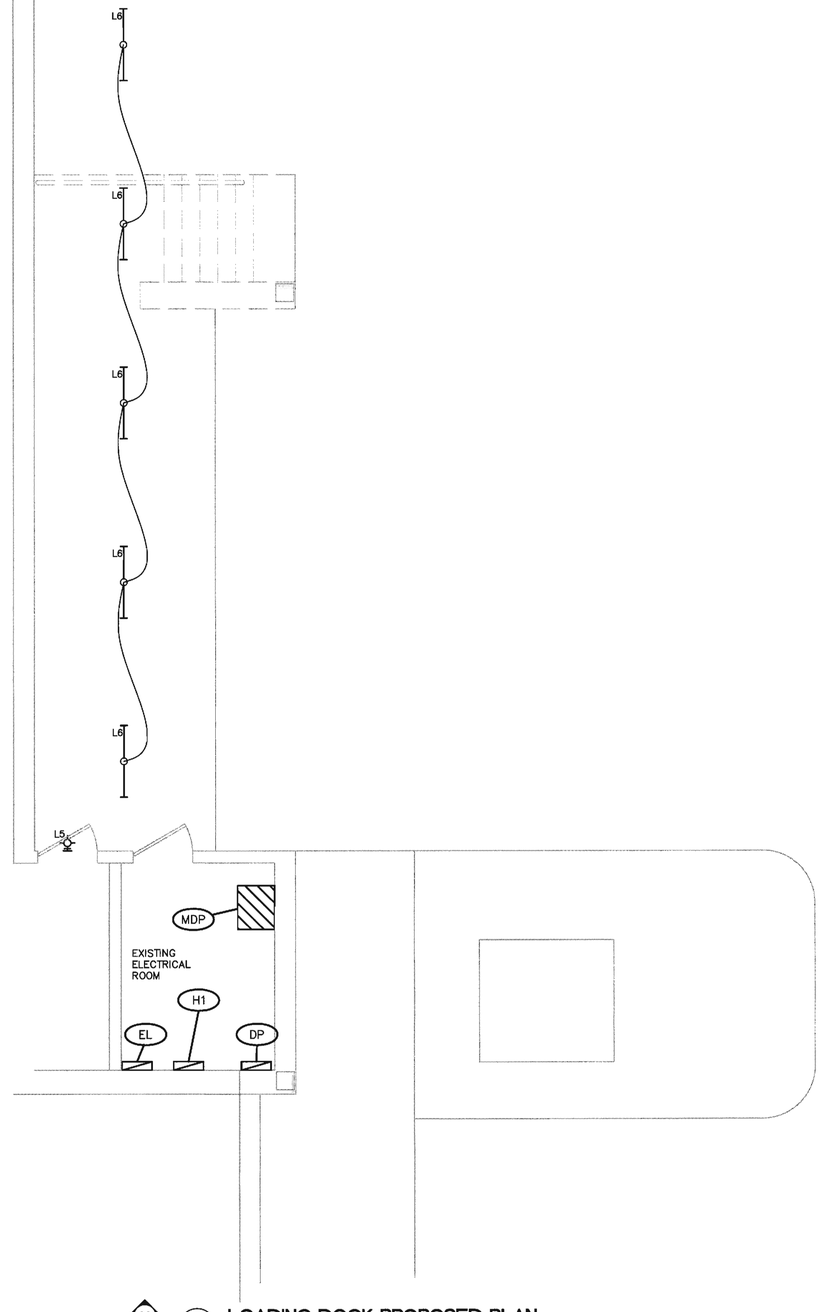
GENERAL NOTES:

THIS SHEET IS "PHASE 2" WORK ONLY.

REMOVE ONLY THE EXISTING FIXTURES SHOWN IN DEMOLITION PLAN, PRESERVE CONDUITS, CONDUCTORS AND SWITCHING FOR RE-USE.

PROVIDE AND INSTALL NEW FIXTURES AS SHOWN, CONNECT TO EXISTING CIRCUITS AND SWITCHING.

1 E2.1 **LOADING DOCK DEMOLITION PLAN**
1/4" = 1'-0"



2 E2.1 **LOADING DOCK PROPOSED PLAN**
1/4" = 1'-0"

ATP ENGINEERING SOUTH, PL
BRADENTON, FLORIDA
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DRAWING TITLE:
LOADING DOCK
ELECTRICAL PLAN

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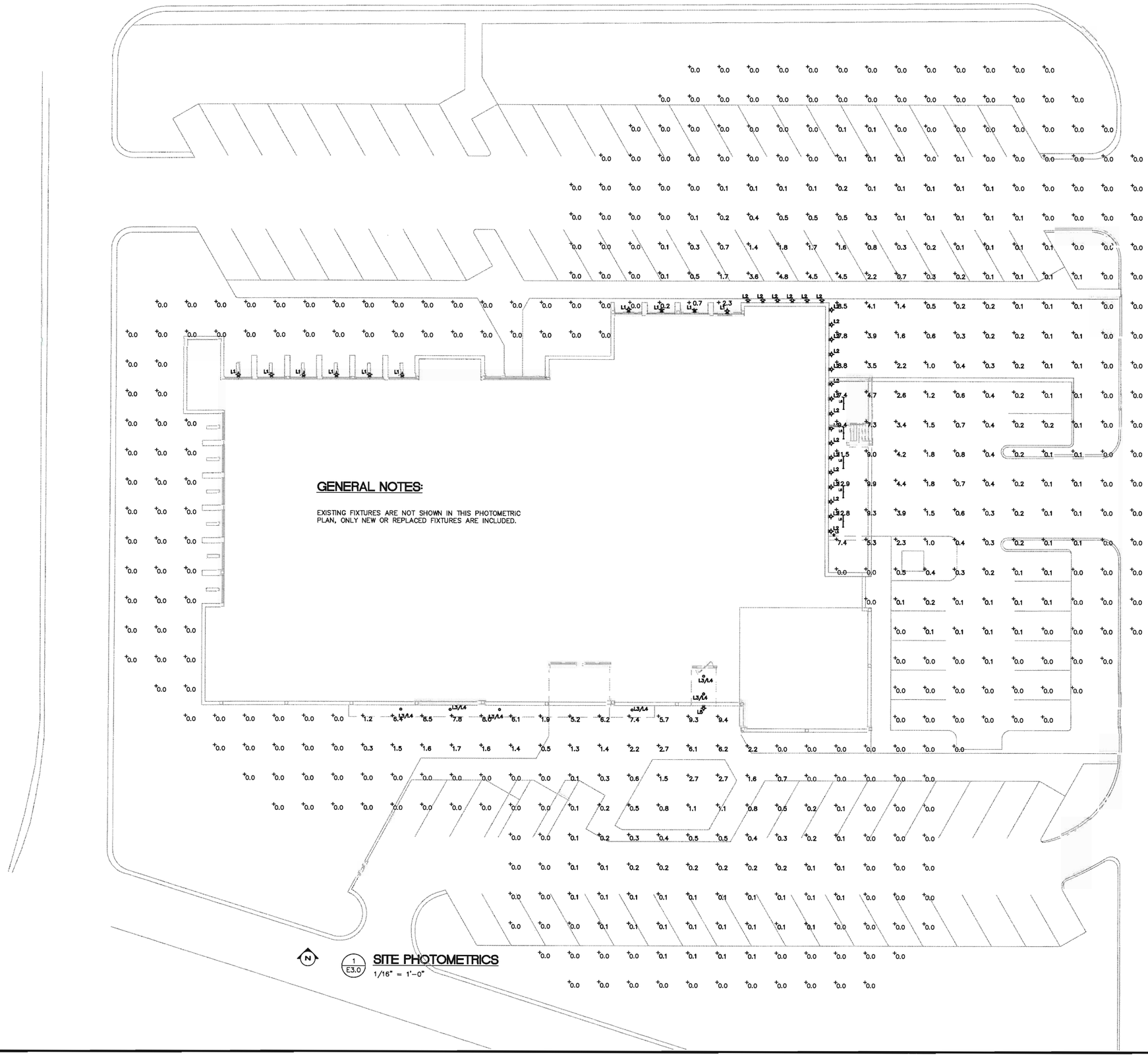
SHEET No.:	E2.1



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DRAWING TITLE:
SITE PHOTOMETRIC PLAN

FILE:	MC CENTRAL LIBRARY
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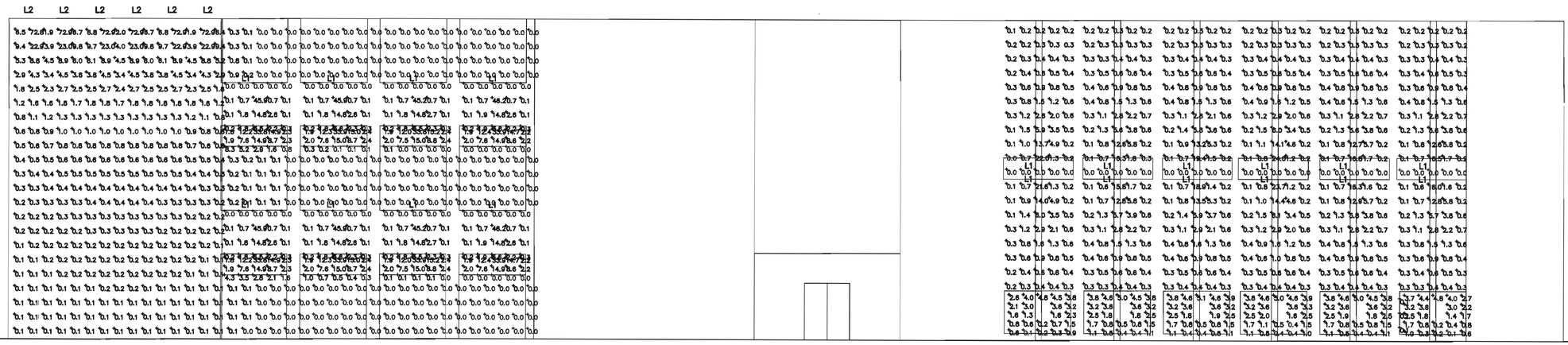
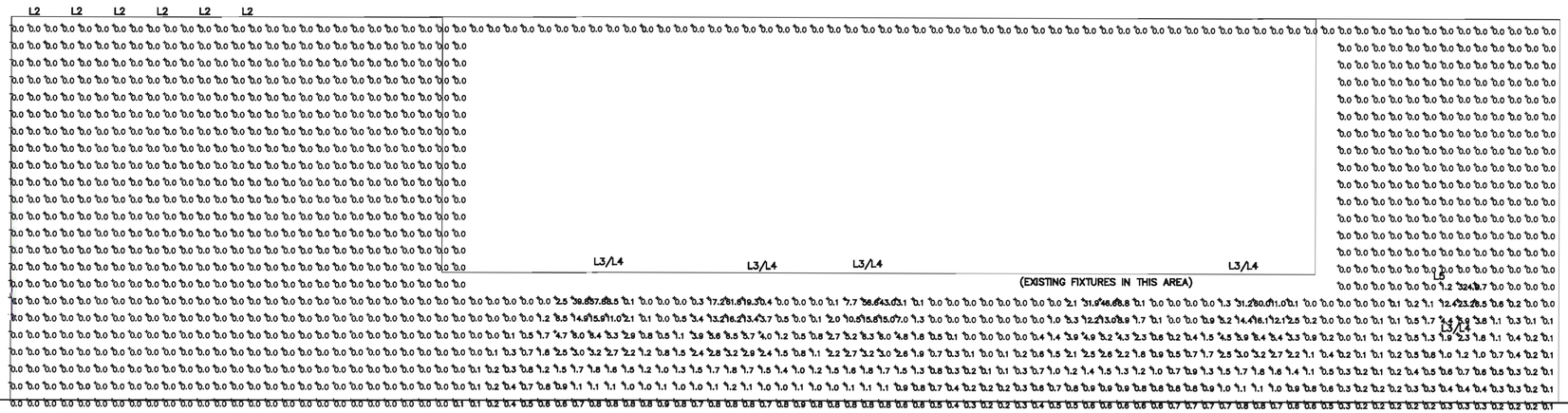
PLOT SIZE:	24"X36"
DRAWN BY:	CMD/MC
CHECKED BY:	JDC/MC
SHEET No.:	E3.0



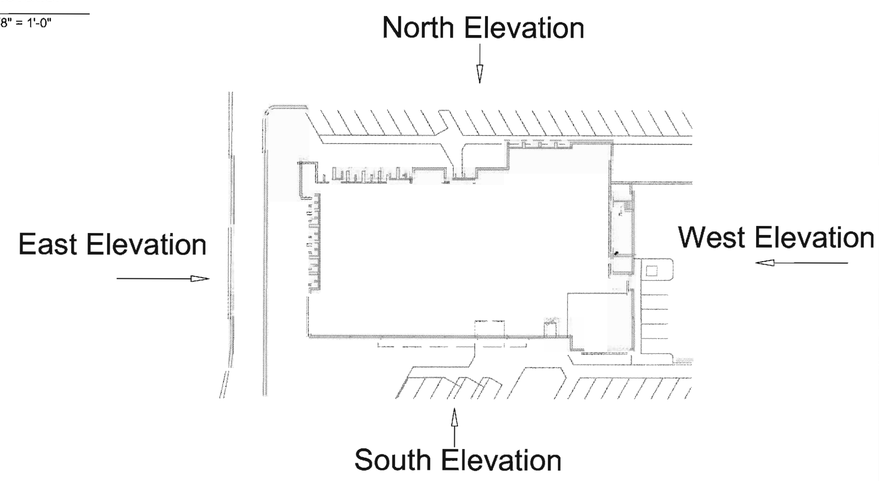
North Elevation

Scale 1/8" = 1'-0"



South Elevation

Scale 1/8" = 1'-0"



GENERAL NOTES:

EXISTING FIXTURES ARE NOT SHOWN IN THIS PHOTOMETRIC, EXCEPT AS NOTED AT THE SOUTH ENTRANCE.

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BRADENTON, FLORIDA
ENGR. BUSINESS #8008
941-751-6485

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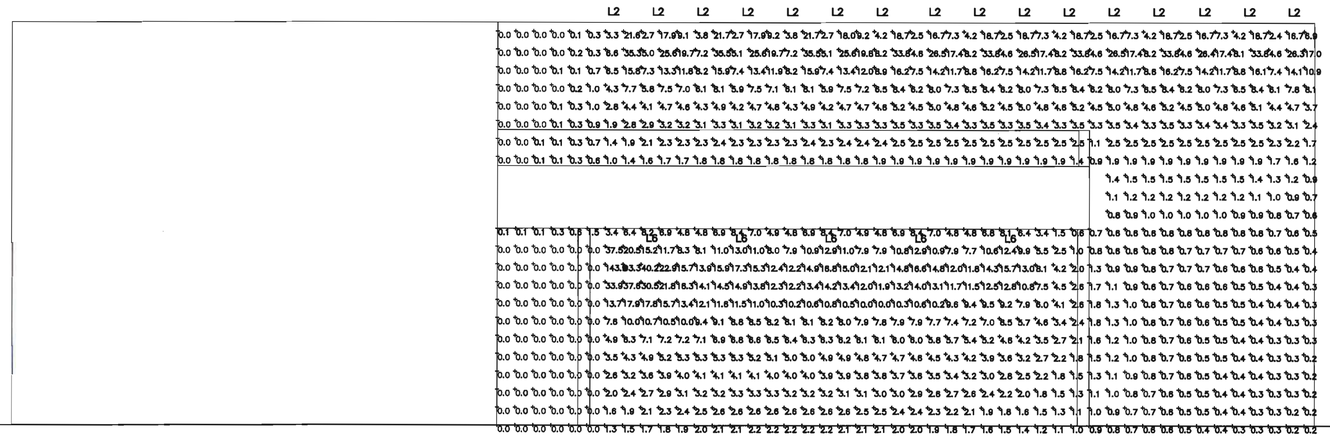


West Elevation

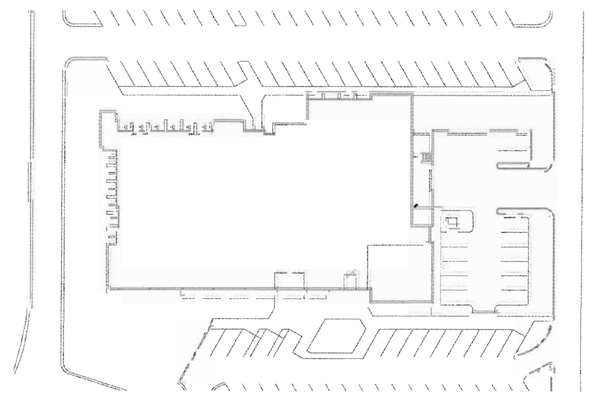
Scale 1/8" = 1'-0"

GENERAL NOTES:

EXISTING FIXTURES ARE NOT SHOWN IN THIS PHOTOMETRIC.

North Elevation

East Elevation



West Elevation

South Elevation

ATP ENGINEERING SOUTH, PL.
BRADENTON, FLORIDA
ENGR. BUSINESS #8908
941-751-6485

REV #	DESCRIPTION	DATE

MANATEE COUNTY CENTRAL LIBRARY
EXTERIOR SITE LIGHTING
1301 1ST AVE W.
BRADENTON, FLORIDA 34205
WORK ASSIGNMENT #36 CO#1

DRAWING TITLE:
SITE
PHOTOMETRIC
ELEVATIONS

FILE:	MC CENTRAL LIBRARY
JOB NO.:	2014.48
DATE :	08/17/2015
PLOT SIZE:	24"X36"
DRAWN BY:	CMD/MC
CHECKED BY:	JDC/MC
SHEET No.:	E3.2

FEEDER AND BRANCH CIRCUIT SCHEDULE

FEEDER/BRANCH DESIGNATION	COPPER CONDUCTOR THHN, THWN, & THWN-2		SETS OF CONDUCTORS	CONDUIT SIZE AND QUANTITY [QUANTITY OF CONDUIT IS 1, UNLESS NOTED IN ( )]					
	PHASE & NEUTRAL	EQUIPMENT GROUND		1P, 1N, 1G, 2P, 1G	2P, 1N, 1G, 3P, 1G	3P, 1N, 1G	3P, 2N, 1G	3P, 3N, 1G	3P, 1N, 2G
F20	12	12	1	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
F30	10	10	1	3/4"	3/4"	3/4"	1"	1"	1"
F40–50	8	10	1	3/4"	1"	1"	1 1/4"	1 1/4"	1 1/4"
F60	6	10	1	1"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"
F70–F80	4	8	1	1"	1 1/4"	1 1/4"	1 1/2"	1 1/2"	1 1/2"
F90–F100	3	8	1	1 1/4"	1 1/4"	1 1/2"	1 1/2"	2"	1 1/2"
F110	2	6	1	1 1/4"	1 1/2"	1 1/2"	2"	2"	2"
F125	1	6	1	1 1/2"	2"	2"	2"	2 1/2"	2"
F150	1/0	6	1	1 1/2"	2"	2"	2 1/2"	2 1/2"	2 1/2"

NOTES:
1. DO NOT COMBINE NEUTRAL CONDUCTORS FOR ALL CIRCUITS. USE SEPARATE INDEPENDENT NEUTRAL CONDUCTORS FOR ALL CIRCUITS.

VOLTAGE DROP FOR 1ϕ, 20A BRANCH CIRCUITS

SIZED TO PREVENT VOLTAGE DROP EXCEEDING 3 PERCENT PER NEC 210.19A NOTE 4.

FEEDER SIZE TO USE	DISTANCE ALLOWED			
	120V	208V	277V	
F20	0 – 45 FEET	0 – 79 FEET	0 – 105 FEET	
F30	45 – 72 FEET	79 – 126 FEET	105 – 168 FEET	
F40–50	72 – 115 FEET	126 – 201 FEET	168 – 267 FEET	
F60	115 – 183 FEET	201 – 318 FEET	267 – 423 FEET	
F70–80	183 – 292 FEET	318 – 506 FEET	423 – 675 FEET	
F90–100	292 – 367 FEET	506 – 637 FEET	675 – 848 FEET	
F110	367 – 464 FEET	637 – 804 FEET	848 – 1071 FEET	
F125	464 – 584 FEET	804 – 1013 FEET	1071 – 1349 FEET	
F150	584 – 738 FEET	1013 – 1279 FEET	1349 – 1703 FEET	

NOTES:

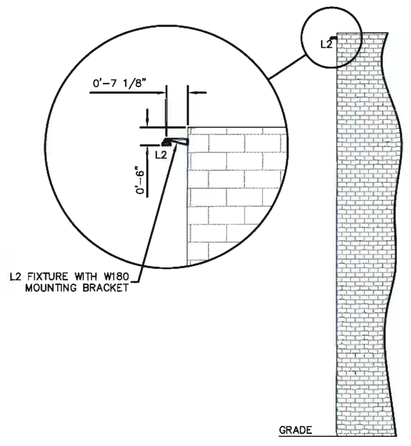
1. 20 A BRANCH CIRCUITS SHALL BE SIZED FOR VOLTAGE DROP. WIRE SIZES ARE NOT INDICATED ON THE DRAWINGS TO COMPENSATE FOR VOLTAGE DROP FOR THESE CIRCUITS. CONTRACTOR SHALL UTILIZE WIRE SIZE SHOWN ABOVE FOR DISTANCES LISTED ABOVE.
2. VOLTAGE DROP WIRE SIZES WILL BE STRICTLY ENFORCED. CONTRACTOR SHALL SUBMIT A LIST OF CIRCUITS THAT WILL EXCEED THE DISTANCES ALLOWED AND INDICATE WIRE SIZE TO BE USED PRIOR TO ANY WIRE BEING INSTALLED.

PANELBOARD SCHEDULE	DESIGNATION:	EXISTING DISTRIBUTION PANEL	MAINS:	600 A MLO
	LOCATION:		BUS SIZE:	600 AMP
	VOLTAGE:	480Y/277	PANEL MOUNTING:	SURFACE
	PHASE:	3 PHASE, 4 WIRE	ALL BREAKERS:	10,000 AIC

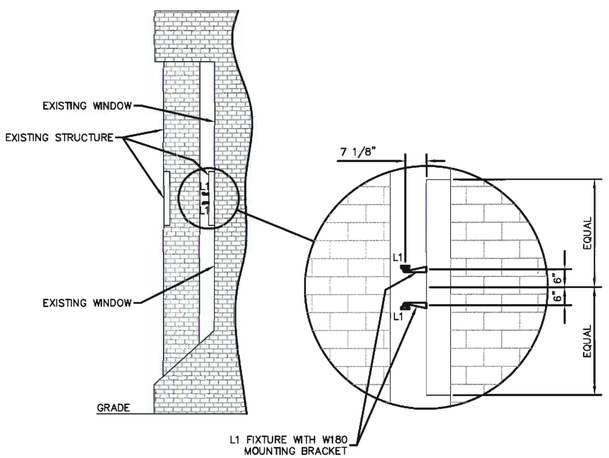
CKT NO.	LOAD DESCRIPTION	LOAD CODE	CONN. KVA	BREAKER AMPS	BREAKER POLE	CONNECTED LOAD A	CONNECTED LOAD B	CONNECTED LOAD C	BREAKER AMPS	BREAKER POLE	CONN. KVA	LOAD CODE	LOAD DESCRIPTION	CKT NO.
1	P1 & P2	M	3.87	30	3	4.17			30	1	0.30	M	EF-4	2
3		M	3.87				4.17				0.30	M		4
5		M	3.87					4.17			0.30	M		6
7						2.77			20	1	2.77	L	New Exterior LED LTS	8
9							0.00							10
11								0.00						12
13						0.00								14
15							0.00							16
17								0.00						18
19						0.00								20
21							0.00							22
23								0.00						24
25						0.00								26
27							0.00							28
29								0.00						30
31						0.00								32
33							0.00							34
35								0.00						36
37						0.00								38
39							0.00							40
41								0.00						42
						6.94	4.17	4.17	KVA					
	TOTAL CONNECTED AMPS:		25.05 AMPS			25.05	18.06	18.06	AMPS					
	TOTAL CONNECTED LOAD:		15.28 KVA											
	TOTAL DEMAND AMPS:		20.29 AMPS											
	TOTAL DEMAND LOAD:		11.88 KVA											

LOAD CODES:
L= LIGHTING
R= RECEPTACLES
M= MECHANICAL/EQUIPMENT
C= COMPUTER
K= KITCHEN
P= PANELBOARD

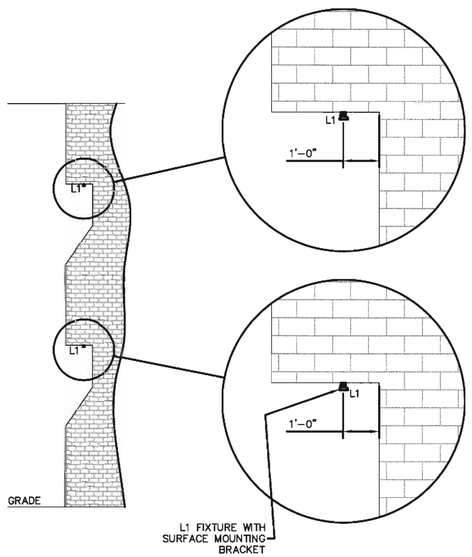
PROVIDE NEW BREAKER FOR CIRCUIT #8, MATCH EXISTING



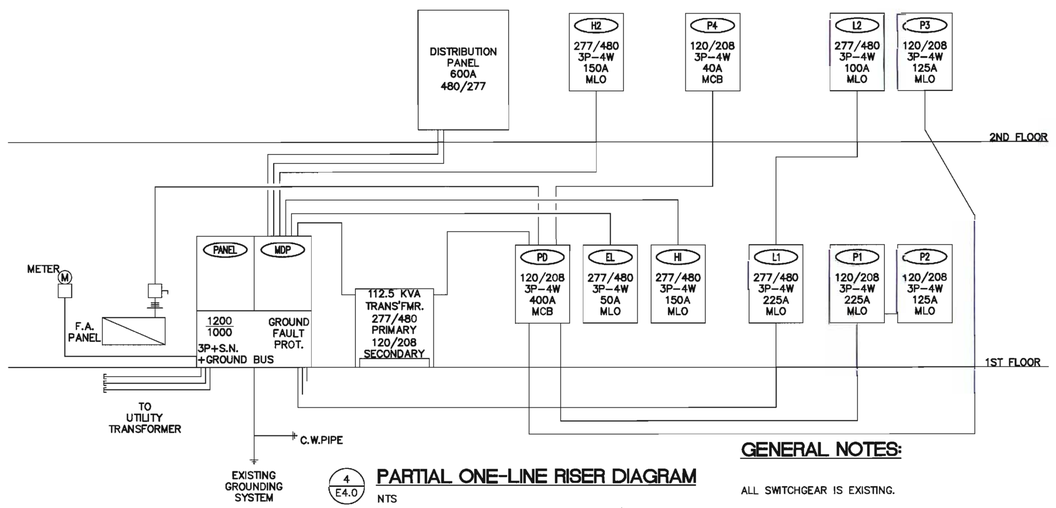
3/E4.0 FIXTURE MOUNTING SECTION
NOT TO SCALE



1/E4.0 FIXTURE MOUNTING SECTION
NOT TO SCALE



2/E4.0 FIXTURE MOUNTING SECTION
NOT TO SCALE



4/E4.0 PARTIAL ONE-LINE RISER DIAGRAM
NTS

GENERAL NOTES:

ALL SWITCHGEAR IS EXISTING.

ATP ENGINEERING SOUTH, PL
BRADENTON, FLORIDA
ENGR. BUSINESS #6908
941-751-6485

REV'd | DESCRIPTION | DATE

MANATEE COUNTY CENTRAL LIBRARY
EXTERIOR SITE LIGHTING
1301 1ST AVE W.
BRADENTON, FLORIDA 34205
WORK ASSIGNMENT #36 COM1

DRAWING TITLE:
ELECTRICAL DETAILS, ONE-LINE RISER AND SCHEDULES

FILE:	MC CENTRAL LIBRARY
JOB NO.:	2014.48
DATE :	08/17/2015
PLOT SIZE:	24"X36"
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CHECKED BY:	JDC
SHEET No.:	E4.0