

GENERAL ELECTRICAL NOTES

FOR: 19005 DATE: 7/2/2019

- 1) ALL 120V, 20A CIRCUIT HOMERUNS OVER 50FT. SHALL BE #10 CU. MINIMUM UNLESS NOTED OTHERWISE.
- 2) ALL 120V, 20A CIRCUIT HOMERUNS OVER 150FT. SHALL BE #8 CU. MINIMUM UNLESS NOTED OTHERWISE.
- 3) ALL BRANCH CIRCUIT CONDUCTORS WILL BE SIZED PER NEC MINIMUM. THE MINIMUM ALLOWABLE BRANCH CIRCUIT CONDUCTOR SIZE IS #12 AWG COPPER. INCREASE CONDUCTOR SIZE FOR APPLICATION PER NEC AND AS NOTED ON THE PLANS.
- 4) CONDUCTOR SIZES INDICATED ON CIRCUIT HOMERUNS OR IN SCHEDULES SHALL BE INSTALLED OVER THE ENTIRE LENGTH OF THE CIRCUIT UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- 5) UP TO THREE PHASE CONDUCTORS, CORRESPONDING SWITCHES AND NEUTRALS ARE ALLOWED IN THE SAME RACEWAY UNLESS INDICATED OTHERWISE ON THE DRAWINGS. DO NOT COMBINE HOMERUNS.
- 6) PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR IN ALL FEEDERS AND BRANCH CIRCUITS.
- 7) COMPLY WITH ARTICLE 210 OF THE NEC. PROVIDE A DEDICATED NEUTRAL FOR ALL 120V AND 277V CIRCUITS OR PROVIDE CB. HANDLE TIES TO CONNECT POLES SERVING MULTI-WIRE CIRCUITS.
- 8) COORDINATE EXACT LOCATION OF LIGHTING FIXTURES IN MECH. ROOMS/SPACES WITH DUCTWORK INSTALLER PRIOR TO ROUGH-IN. LOCATE BELOW DUCTWORK (6"-0" AFF MINIMUM) CENTERED IN ROOM AS MUCH AS POSSIBLE.
- 9) COORDINATE EXACT INSTALLATION REQUIREMENTS OF OUTLETS IN MILLWORK WITH ARCHITECTURAL DRAWINGS, APPROVED SHOP DRAWINGS AND MILLWORK INSTALLER PRIOR TO ROUGH-IN.
- 10) VERIFY EXACT LOCATION OF ALL MECHANICAL EQUIPMENT WITH MECHANICAL INSTALLER PRIOR TO ROUGH-IN.
- 11) REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATIONS OF ALL LIGHT FIXTURES.
- 12) ALL EMPTY CONDUITS SHALL BE PROVIDED WITH PULL STRINGS IN THEM.
- 13) ALL COMPUTER RECEPTACLE CIRCUITS SHALL BE PROVIDED WITH A DEDICATED NEUTRAL FOR EACH PHASE CONDUCTOR.
- 14) COORDINATE THE REQUIRED SIZE OF ALL CIRCUIT BREAKERS FEEDING EQUIPMENT, (I.E. MOTORS, HVAC EQUIPMENT, SPECIAL PURPOSE OUTLETS, OWNER FURNISHED EQUIPMENT ETC.) WITH APPROVED EQUIPMENT SHOP DRAWINGS AND OWNER REPRESENTATIVES PRIOR TO ORDERING PANELBOARDS. BREAKERS SHALL BE SIZED PER THE NEC. THE EQUIPMENT NAME PLATE AND MANUFACTURERS RECOMMENDATIONS.
- 15) THE POWER COMPANY SHALL BE CONTACTED WITHIN 10 DAYS OF THE AWARD OF THE CONTRACT BY THE CONTRACTOR TO VERIFY THE ACTUAL AVAILABLE SHORT CIRCUIT FAULT CURRENT (SCC) AT THE TRANSFORMER SECONDARY BUSHINGS. THE CONTRACTOR SHALL PROVIDE ELECTRICAL DISTRIBUTION AND UTILIZATION EQUIPMENT AND PANELBOARDS WHICH HAVE A KW WITH STAND RATING GREATER THAN THE AVAILABLE SSC AT EACH POINT IN THE ELECTRICAL SYSTEM.
- 16) CONTRACTOR SHALL INCLUDE IN HIS BID THE TRANSPORT AND DISPOSAL OR RECYCLING OF ALL WASTE MATERIALS GENERATED BY THIS PROJECT IN ACCORDANCE WITH ALL RULES, REGULATIONS AND GUIDELINES APPLICABLE.
 - A) CONTRACTOR SHALL COMPLY FULLY WITH FLORIDA STATUTE 403.7186 REGARDING MERCURY CONTAINING DEVICES AND LAMPS.
 - B) LAMPS, BALLASTS AND OTHER MATERIALS SHALL BE TRANSPORTED AND DISPOSED OF IN ACCORDANCE WITH ALL DEP AND EPA GUIDELINES.
 - C) THE CONTRACTOR SHALL PROVIDE WRITTEN CERTIFICATION THAT ALL MATERIALS WERE RECYCLED OR DISPOSED OF PROPERLY PER THE GUIDE LINE NOTED ABOVE.
- 17) EXISTING CONDITIONS AND UTILITIES INDICATED ARE TAKEN FROM EXISTING CONSTRUCTION DOCUMENTS, VARIOUS SURVEYS AND FIELD INVESTIGATIONS. IT IS TO BE UNDERSTOOD THAT UNFORESSEEN CONDITIONS PROBABLY EXIST AND NEW WORK MAY NOT BE FIELD LOCATED EXACTLY AS SHOWN ON THE DRAWINGS. COOPERATION WITH OTHER TRADES IN ROUTING AND/OR BURIAL DEPTHS AS DETERMINED DURING CONSTRUCTION AND AS DIRECTED BY THE ARCHITECT/ENGINEER MAY BE NECESSARY AND IT IS INTENDED THAT SUCH DEVIATIONS SHALL BE CONSIDERED A PART OF THIS CONTRACT. IT IS ALSO UNDERSTOOD THAT THE PLANS ARE NOT COMPLETELY TO SCALE. THIS CONTRACTOR IS TO FIELD VERIFY DIMENSIONS OF ALL SITE UTILITIES, ETC., PRIOR TO BID AND INCLUDE ANY DEVIATIONS IN THE CONTRACT.
- 18) LOCATE ALL EXISTING UTILITIES AND PROTECT THEM FROM DAMAGE.
- 19) ALL CONDUIT TO BE CONCEALED UNLESS IMPOSSIBLE DUE TO EXISTING CONDITIONS (I.E. EXPOSED STRUCTURAL CEILING, BUILDING EXTERIOR WALLS). CONCEAL ALL CONDUITS ABOVE CEILINGS OR WITHIN WALLS AND COUNTERS.
 - A) ALL NEW DEVICES TO BE FLUSH MOUNTED UNLESS SPECIFICALLY NOTED OTHERWISE.
 - B) INSTALL FLEXIBLE CONDUIT DOWN EXISTING WALLS TO NEW FLUSH OUTLETS. (IF EXISTING WALLS DO NOT CONTAIN HOLLOW VERTICAL CAVITIES AND IT IS NOT FEASIBLE TO CONCEAL THE CONDUIT THEN EXPOSED WIREMOLD PAINTED TO MATCH THE WALL SHALL BE USED).
- 20) EXISTING ELECTRICAL SERVICE: MAINTAIN EXISTING SYSTEM IN SERVICE UNTIL NEW SYSTEM IS COMPLETE AND READY FOR SERVICE. DISABLE SYSTEM ONLY TO MAKE SWITCHOVERS AND CONNECTIONS. OBTAIN PERMISSION FROM OWNER AT LEAST 24 HOURS BEFORE PARTIALLY OR COMPLETELY DISABLING SYSTEM. MINIMIZE OUTAGE DURATION.
- 21) PANELBOARDS: CLEAN EXPOSED SURFACES AND CHECK TIGHTNESS OF ELECTRICAL CONNECTIONS. REPLACE DAMAGED CIRCUIT BREAKERS AND PROVIDE CLOSURE PLATES FOR VACANT POSITIONS. PROVIDE TYPED CIRCUIT DIRECTORY SHOWING REVISED CIRCUITING ARRANGEMENT.

POWER		
	DUPLEX RECEPTACLE, 20 AMP, WITH FLUSH WALL OUTLET BOX.	a, f
	DUPLEX RECEPTACLE CONNECTED TO ACUITY CONTROLS SWITCHING PACK nPP16, 20 AMP, WITH FLUSH WALL OUTLET BOX.	a, f
	DUPLEX RECEPTACLE MOUNTED 2" ABOVE COUNTER BACKSPASH, 20 AMP, WITH FLUSH WALL OUTLET BOX.	f
	GFI DUPLEX RECEPTACLE MOUNTED 6" ABOVE COUNTER BACKSPASH, 20 AMP, WITH FLUSH WALL OUTLET BOX.	f
	GFI DUPLEX RECEPTACLE, 20 AMP, WITH WALL OUTLET BOX FOR ELECTRIC WATER COOLER. COORDINATE CONCEALMENT WITH EWC INSTALLER FOR MOUNTING REQUIREMENTS.	f
	DUPLEX RECEPTACLE, WEATHERPROOF GFI AND SURFACE MTD. OUTLET BOX WITH IN-USE COVER.	a, f
	FLUSH WALL OUTLET BOX AND 30A, 125/250V, 3P, 4W, NEMA 14-30R RECEPTACLE.	a, f
	CAST IRON FULLY ADJUSTABLE TWO-GANG FLOOR OUTLET BOX WITH (2) 20 AMP DUPLEX RECEPTACLES AND (1) TELECOMMUNICATIONS BLANK OUTLET WITH (1) 1" C. TO TTBTTC (UNLESS OTHERWISE NOTED). PROVIDE CARPET OR TILE FLANGE. (PROVIDE SPECIAL RECEPTACLES, I.E. ISOLATED GROUND TYPE WHERE NOTED)	d, f
	DISCONNECT SWITCH. REFER TO EQUIPMENT FEEDER SCHEDULE FOR REQUIREMENTS (I.E. SIZE, FUSED, NON-FUSED, ETC.)	h, j
	COMBINATION DISCONNECT/MOTOR STARTER	h, j
	OUTLET BOX WITH 20 AMP, 1 POLE, MANUAL MOTOR CONTROLLER WITHOUT OVERLOADS (MSS), RATED 1 HP @ 120V; REFER TO EQUIPMENT FEEDER SCHEDULE.	f
	SURFACE MOUNTED SHUNT-TRIP BUTTON, LOCATE AND LABEL IN ACCORDANCE WITH A.H.J., MOUNTED 54" TO TOP, UNLESS OTHERWISE NOTED.	f
	120/208V PANELBOARD, SURFACE MOUNTED	h, j
LIGHTING		
	EXIT SIGN LIGHT FIXTURE WITH CEILING OUTLET BOX AND EMERGENCY BATTERY. SHADING INDICATES NUMBER OF FACES AND ORIENTATION, ARROWS. CONNECT TO LOCAL LIGHTING CIRCUIT AHEAD OF ALL SWITCHES (OR TO LOCAL EMERGENCY LIGHTING CIRCUIT WHEN AVAILABLE)	f
	SINGLE POLE VACANCY SENSOR SWITCH WITH WALL OUTLET BOX. DUAL TECHNOLOGY WITH PASSIVE INFRARED/MICROPHONIC SENSING. MANUFACTURED BY SENSOR SWITCH MODEL #WSX PDT SA - OR APPROVED EQUAL. LOAD RATING 800W @120V	b, f
	LOW VOLTAGE WALLPAD, WITH WALL OUTLET BOX. BY ACUITY CONTROLS, NLIGHT-PDM SERIES. FUNCTION AND NUMBER OF CHANNELS AS NOTED ON PLANS. CONNECTS TO NLIGHT LIGHTING CONTROL SYSTEM VIA CAT 5 CABLE. (*n) INDICATES SWITCH-LEG(S)	b, f
	LOW VOLTAGE OCCUPANCY SENSOR SWITCH, CEILING MOUNTED. DUAL TECHNOLOGY WITH PASSIVE INFRARED/MICROPHONIC SENSING. BY ACUITY CONTROLS NLIGHT #NCM PDT 10 U.O.N. CONNECTS WITH NLIGHT LIGHTING CONTROL SYSTEM VIA CAT 5 CABLE.	
	LOW VOLTAGE COMBINATION DAYLIGHT/OCCUPANCY SENSOR SWITCH, CEILING MOUNTED. DUAL TECHNOLOGY WITH PASSIVE INFRARED/MICROPHONIC AND DAYLIGHT. BY ACUITY CONTROLS NLIGHT #NCM PDT 10 ADCX, U.O.N. CONNECTS WITH NLIGHT LIGHTING CONTROL SYSTEM VIA CAT 5 CABLE.	
	PHOTO CELL	
FIRE ALARM		
	MANUAL FIRE ALARM PULL STATION.	b
	FIRE ALARM HORN/STROBE COMBINATION DEVICE. (15/75 CANDELA, U.O.N.)	l, m
	FIRE ALARM STROBE. (15/75 CANDELA, U.O.N.)	l, m
	DUCT MOUNTED SMOKE DETECTOR. (S = SUPPLY; R = RETURN)	
	CONTROL RELAY "AIR HANDLING CONTROL"	
	FIRE ALARM CONTROL PANEL	b
	FIRE ALARM ANNUNCIATOR	b
SECURITY AND ACCESS CONTROL		
	CARD ACCESS READER, FLUSH MOUNTED. (PR = PROXIMITY)	b
	ELECTRIC DOOR STRIKE	
	"REQUEST-TO-EXIT" DOOR RELEASE SWITCH	b
	SECURITY DOOR CONTACT	
	MAGNETIC DOOR STRIKE	
	SECURITY CONTROL PANEL	n
COMMUNICATION AND DATA		
	COMBINATION TELEPHONE/DATA WALL OUTLET BOX; FLUSH MOUNTED WITH BLANK PLATE. PROVIDE (2) MINIMUM 1" C. TO CEILING SPACE, U.O.N.	a
	TELEVISION OUTLET, FLUSH MOUNT, STUB INTO CEILING SPACE WITH 3/4" C. OR TO NEAREST TVTC.	n
	TELEPHONE TERMINATION BOARD (OR SYSTEMS TERMINAL BOARD AS NOTED). FIRE RETARDANT TREATED PLYWOOD, 3/4" THICK x 8'-0" HEIGHT x WIDTH AS SHOWN ON PLANS. PAINT TO MATCH WALL WITH (2) COATS OF FIRE RETARDANT PAINT.	
GROUNDING		
	GROUND WIRE, CONCEALED (IN CONDUIT FOR ABOVE GROUND APPLICATIONS)	
	GROUND OR GROUND ROD AS NOTED	
	GROUND BUS BAR	

LIGHTING FIXTURE SCHEDULE								
TYPE	DESCRIPTION	MANUFACTURER	MODEL	MOUNTING	WATTS	SOURCE	DIMMING	COMMENTS
LS	LINEAR DIRECT-INDIRECT SUSPENDED FIXTURE	FINELITE	HP-4-ID-4ft-S-S-835	SUSPENDED	29.1	LED, 3500K	0-10V	SUSPEND USING AIRCRAFT CABLE, DUAL CIRCUIT WIRING
PH	SUSPENDED LED HIGH BAY FIXTURE	PEACH TREE	HBB-16P-120-DX-35K-80	SUSPENDED	97.3	LED, 3500K	0-10V	SUSPEND USING AIRCRAFT CABLE
R1	4" RECESSED DOWNLIGHT	LIGHTOLIER	Z4RDL20835WODZ10U	RECESSED	20	LED, 3500K	0-10V	
R2	2X4 RECESSED PERFORMANCE FULL LENSE	DAY-BRITE	2-CA-G-40B-835-4-DS-UNV-DIM-DSC	RECESSED	32.1	LED, 3500K	0-10V	
S	4" SURFACE LENSED STRIP LIGHT	DAY-BRITE	FSS-4-55L-835-UNV-DIM	SURFACE	44.5	LED, 45W, 3500K		
S2	LARGE AREA LUMINAIRE	GARDOCO	ECF-L-80-1A-NW-SF-3-UNV-BL-OMRP-BK	POLE	200	LED, 4000K	MOTION	CONTROLLED BY LCP
SG	4" LENSED STRIP LIGHT WITH WIRE GUARD	DAY-BRITE	FSS-4-55L-835-UNV-DIM-FSSWG4	SUSPENDED	44.5	LED, 45W, 3500K		SUSPEND USING AIRCRAFT CABLE
RW	ADJUSTABLE WET LOCATION RECESSED DOWNLIGHT	LUMINIS	OC750-L1L15-R55	RECESSED	13.3	LED, 4000K		
EW	EXTERIOR LED WALL LIGHT FIXTURE	TGS	WPF-70W-40K	SURFACE	70.39	LED, 4000K	N/A	CONTROLLED BY LCP
XE	UNIVERSAL EXIT SIGN WITH BATTERY	BEGHELLI	VA-4-SA	SURFACE	3	LED	N/A	

SYMBOL LEGEND NOTES:

1. THE COLOR OF ALL DEVICES SHALL BE SELECTED BY THE ARCHITECT. COVER PLATES SHALL BE #302 SMOOTH STAINLESS STEEL, UNLESS OTHERWISE NOTED.
2. SCREENED ELECTRICAL ITEM DENOTES EXISTING.
3. "R" BY DEVICE DENOTES EXISTING TO BE REMOVED COMPLETELY.
4. "H" BY DEVICE DENOTES DEVICE TO BE MOUNTED HORIZONTALLY.
5. ALL DIMENSIONS INDICATED ARE TO THE BOTTOM OF FIXTURE, OUTLET, OR EQUIPMENT AND SHALL BE THE DIMENSIONS USED UNLESS INDICATED OTHERWISE ON THE DRAWINGS. DIMENSIONS INDICATED ON THE DRAWINGS AND IN THE SPECIFICATIONS ARE TO THE BOTTOM OF THE FIXTURE, OUTLET, OR EQUIPMENT UNLESS INDICATED OTHERWISE. ALL MOUNTING HEIGHTS SHALL COMPLY WITH ADA REQUIREMENTS. VERIFY AND COORDINATE THE EXACT HEIGHT AND LOCATION OF ALL FIXTURES, OUTLETS, AND EQUIPMENT WITH ALL DOCUMENTS AND DISCIPLINES (I.E., ARCHITECTURAL, STRUCTURAL, HVAC, PLUMBING, FIRE PROTECTION, KITCHEN EQUIPMENT, MILLWORK, ETC.) PRIOR TO ROUGH-IN; ADJUST TO MEET ALL REQUIREMENTS.
6. ALL SYMBOLS INDICATED IN THIS LEGEND MAY NOT BE USED ON THE PLANS.
7. ALL WIRING DEVICES SHALL BE PROVIDED WITH A GROUNDING TERMINAL SCREW.
8. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
9. U.O.N. = UNLESS OTHERWISE NOTED.
10. A.H.J. = AUTHORITY HAVING JURISDICTION.
11. A.F.F. = ABOVE FINISHED FLOOR
12. ELECTRICAL CONTRACTOR TO PROVIDE PULL STRINGS IN ALL CONDUIT(S).

REMARKS:

- a. MOUNTED 16" ABOVE FINISHED FLOOR TO THE BOTTOM.
- b. MOUNTED 44" ABOVE FINISHED FLOOR TO THE BOTTOM.
- c. MOUNTED 50" ABOVE FINISHED FLOOR TO THE BOTTOM.
- d. OUTLET BOX SHALL BE SIZED PER SYSTEM INSTALLERS REQUIREMENTS.
- e. SUPPORT OUTLET BOX FROM STRUCTURE WITH (1) 3/8" ALL THREADS MINIMUM. BOXES LARGER THAN 25" SQUARE INCHES SHALL BE SUPPORTED WITH (2) 3/8" ALL THREADS MINIMUM.
- f. JUNCTION/OUTLET BOX SHALL BE SIZED AS REQUIRED FOR CONDUCTOR/DEVICES FILL PER N.E.C.
- g. THREADED CONDUIT HUBS SHALL BE SIZED AND CONFIGURED AS REQUIRED FOR APPLICATION.
- h. PROVIDE KINDORF MOUNTING RACK FOR FREE STANDING APPLICATIONS. KINDORF SHALL BE PAINTED FOR EXTERIOR APPLICATIONS.
- i. WHEN SURFACE JUNCTION BOX SYMBOL IS COMBINED WITH DEVICE SYMBOL, PROVIDE APPROPRIATE SURFACE PLATE FOR OUTLET APPLICATION.
- j. MAINTAIN WORKING CLEARANCES IN STRICT ACCORDANCE WITH N.E.C. COORDINATE EXACT LOCATION OF EQUIPMENT WITH ALL DISCIPLINES (I.E. ARCHITECTURAL, STRUCTURAL, HVAC, PLUMBING, FIRE PROTECTION, KITCHEN EQUIPMENT, MILLWORK, ETC.) PRIOR TO ROUGH-IN TO MAINTAIN CLEARANCES.
- k. "NL" INDICATES FIXTURE CONNECTED AHEAD OF ALL SWITCHES FOR 24 HOUR NIGHTLIGHT OPERATION.
- l. MOUNTED 80" ABOVE FINISHED FLOOR TO BOTTOM.
- m. ALL STROBES SHALL BE ADJUSTABLE INTENSITY TYPE SET AT 75cd UNLESS OTHERWISE NOTED.
- n. MOUNTED 72" ABOVE FINISHED FLOOR TO THE TOP.

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19005



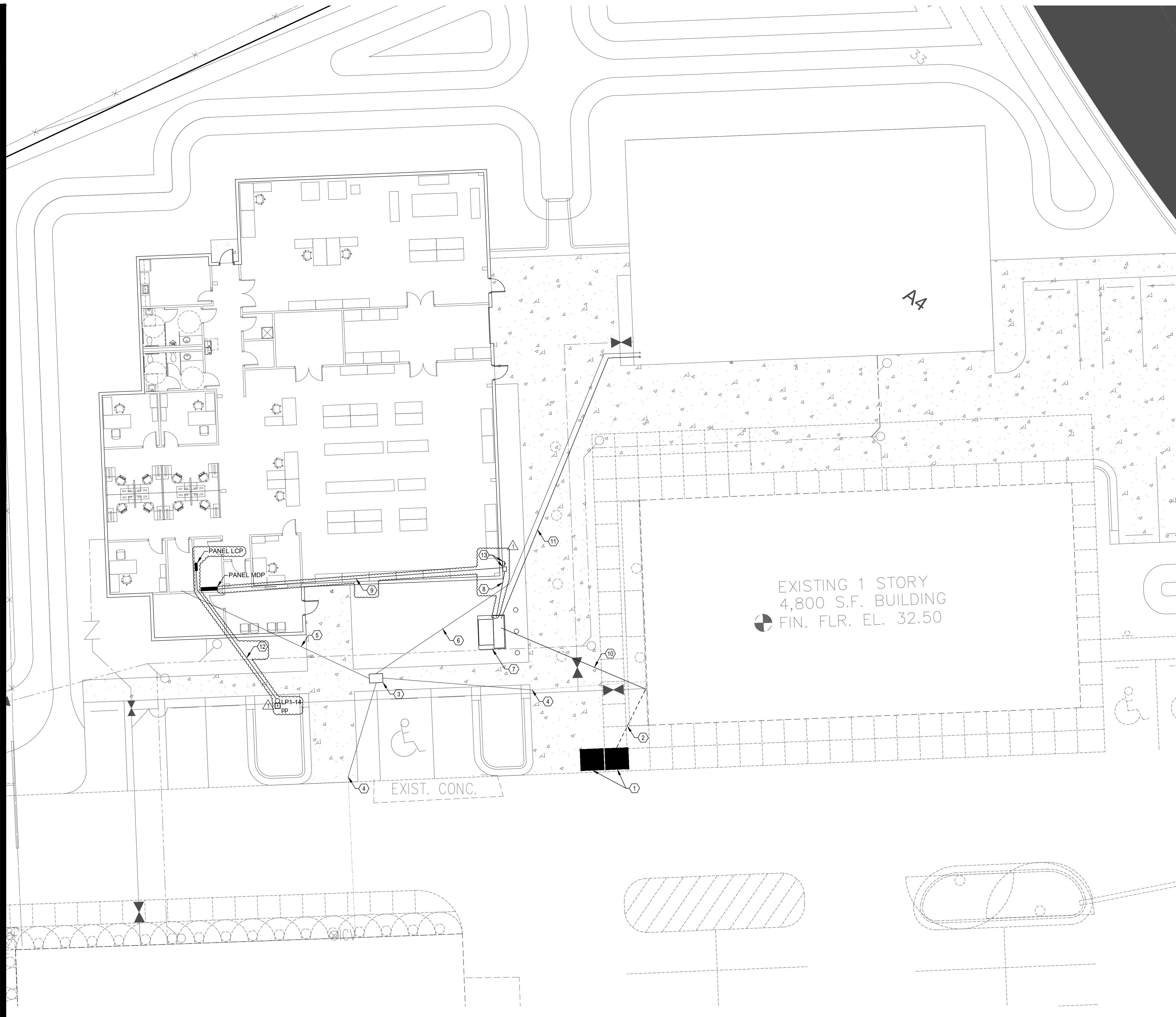
REVISION	DATE	DESCRIPTION
1	08/21/2019	ADDENDUM 1

LEGEND AND GENERAL NOTES - ELECTRICAL
 EMBRY-RIDDLE AERONAUTICAL UNIVERSITY
 NEW PRINT SHOP BUILDING
E0.1

DATE: 07/12/2019
 JOB NO.: SOBIE 19005
 SHEET NO.:

DRAWN: _____
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ADDENDUM 1 - 08/21/2019

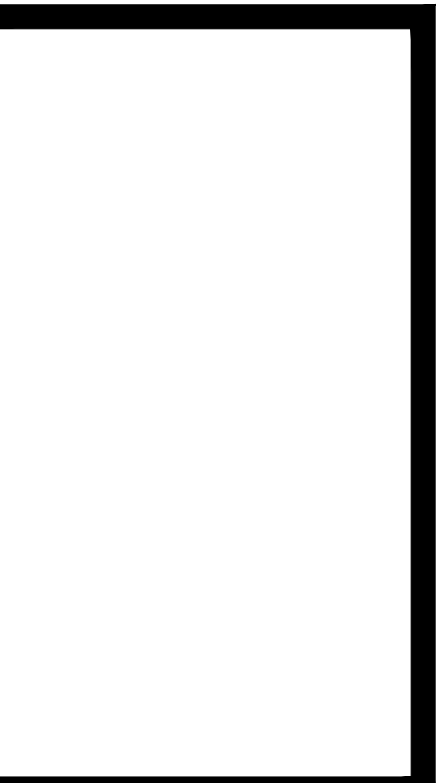


GENERAL NOTES

1. COORDINATE WITH FP&L FOR INSTALLATION OF THE NEW TRANSFORMER AND THE PRIMARY CONDUITS.
2. COORDINATE WITH ERAU PRIOR TO DEMOLITION OF THE EXISTING TRANSFORMERS AND SECONDARY CONDUITS TO EXISTING BUILDING METER.
3. PROVIDE AND INSTALL NEW LAMICOID NAMEPLATES FOR EXISTING WAREHOUSE BUILDING PANELS INDICATING 208VAC OPERATING VOLTAGE.

REFERENCE NOTES

- ① COORDINATE WITH FP&L FOR REMOVAL OF EXISTING 240/120 VAC SINGLE PHASE TRANSFORMERS.
- ② REMOVE EXISTING SECONDARY FEEDER FROM EXISTING TRANSFORMERS TO WAREHOUSE BUILDING METER.
- ③ PULL BACK COMMUNICATIONS CABLE FROM EXISTING WAREHOUSE BUILDING TO MAINTENANCE OFFICE BUILDING AND RELOCATE EXISTING PULLBOX.
- ④ INTERCEPT AND REROUTE COMMUNICATIONS CONDUITS TO RELOCATED COMMUNICATIONS PULLBOX.
- ⑤ INSTALL TWO 3 INCH SCH 40 PVC CONDUITS FROM RELOCATED COMMUNICATIONS PULLBOX TO THE PRINT SHOP COMMUNICATIONS ROOM. STUB UP CONDUITS ADJACENT TO TT BOARD.
- ⑥ INSTALL TWO 3 INCH SCH 40 PVC CONDUITS FROM THE RELOCATED PULLBOX TO FUTURE BUILDING LOCATION. INSTALL TRACER WIRES AND CAP BELOW GRADE.
- ⑦ INSTALL NEW TRANSFORMER PAD AND COORDINATE INSTALLATION OF NEW TRANSFORMER WITH FP&L.
- ⑧ INSTALL NEW SERVICE CONDUCTORS IN SCH 40 PVC CONDUITS FROM TRANSFORMER SECONDARY TO CT CABINET. SEE PANEL FEEDER SCHEDULE ON SHEET E6.1 FOR CONDUIT AND CONDUCTOR SIZING.
- ⑨ INSTALL NEW SERVICE CONDUCTORS IN SCH 40 PVC CONDUITS FROM CT CABINET TO PANEL MDP. SEE PANEL FEEDER SCHEDULE ON SHEET E6.1 FOR CONDUIT AND CONDUCTOR SIZING.
- ⑩ INSTALL NEW SERVICE CONDUCTORS IN SCH 40 PVC CONDUITS FROM TRANSFORMER SECONDARY TO WAREHOUSE BUILDING METER BASE. SEE PANEL FEEDER SCHEDULE ON SHEET E6.1 FOR CONDUIT AND CONDUCTOR SIZING.
- ⑪ INSTALL THREE 4 INCH CONDUITS FROM TRANSFORMER SECONDARY CABINET TO FUTURE BUILDING LOCATION. INSTALL TRACER WIRE AND CAP CONDUITS BELOW GRADE. MAINTAIN 12" MIN SPACING BETWEEN POWER AND DATA CONDUITS.
- ⑫ INSTALL ONE 2 INCH SCH 40 PVC CONDUIT FROM LCP TO LIGHT POLE. SEE EQUIPMENT FEEDER SCHEDULE ON SHEET E6.1 FOR CONDUCTOR DETAILS. SEE DETAIL 1 ON SHEET E5.2 FOR POLE DETAILS.
- ⑬ INSTALL CT CABINET AND METER BASE IN ACCORDANCE WITH FPL ELECTRICAL SERVICE STANDARDS. SEE DETAIL 4 ON SHEET E5.1 FOR DETAILS.



REVISION	DATE
ADDENDUM 1	08/21/2019

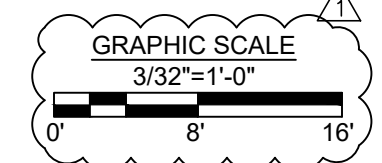
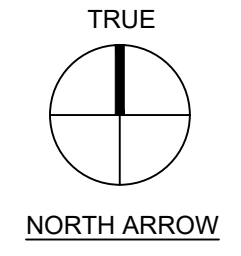
**EMBRY-RIDDLE AERONAUTICAL UNIVERSITY
NEW PRINT SHOP BUILDING**

SITE PLAN - ELECTRICAL

E1.1

Date: 07/12/2019
Job no.: SOBIE 19005
Sheet no.:

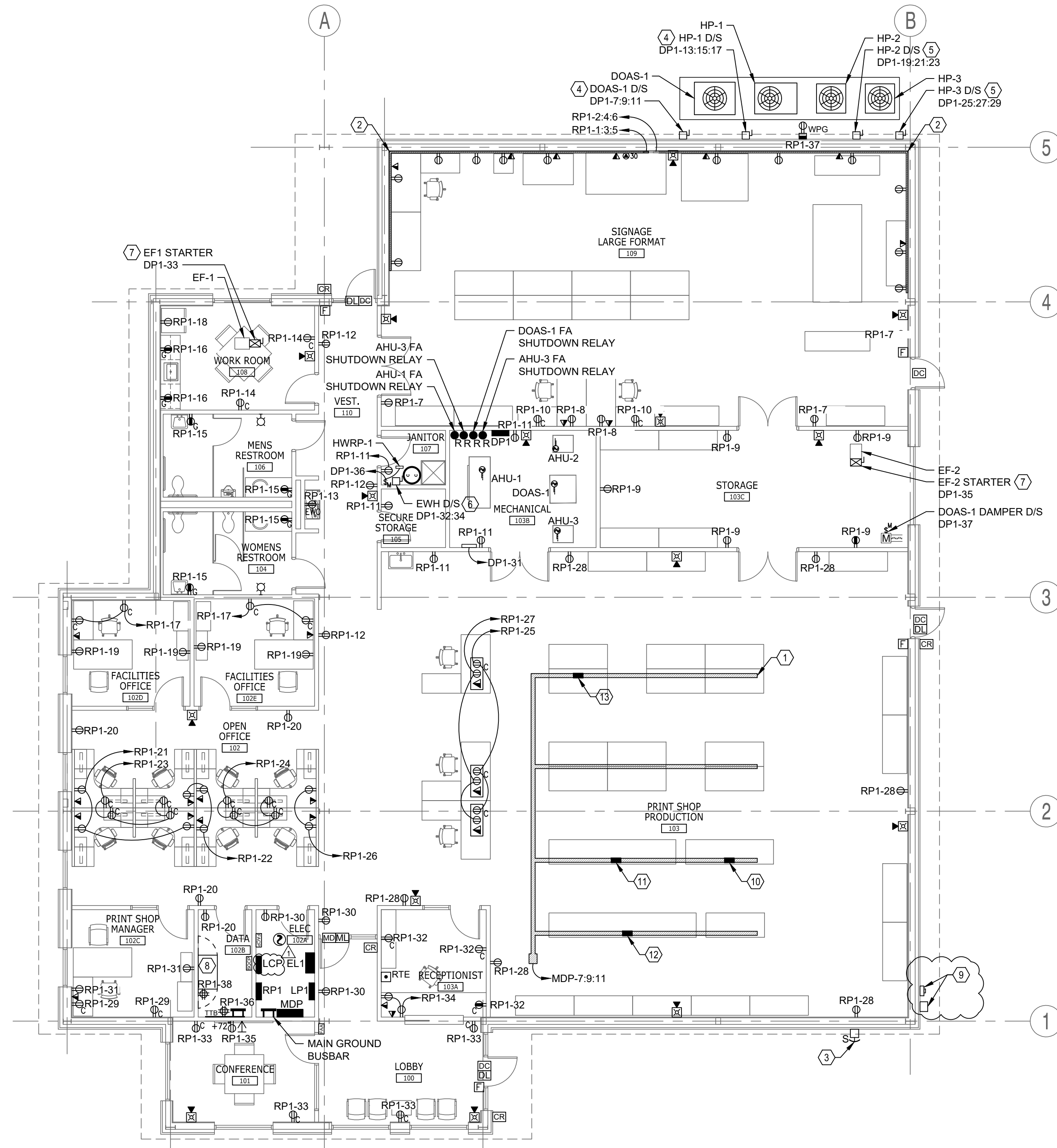
1
E1.1
3/32" = 1'-0"



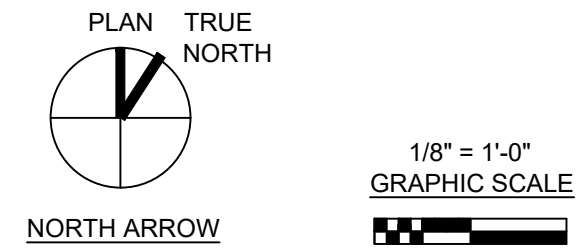
ADDENDUM 1 - 08/21/2019

DRAWN CHECKED

NOTE:
 PROVIDE AND INSTALL A UL MASTER LABEL LIGHTNING PROTECTION SYSTEM IN ACCORDANCE WITH UL 98 AND NFPA 780. SEE SPECIFICATIONS SECTION 264113 FOR DETAILS.



1 FLOOR PLAN - POWER AND SYSTEMS
 E1.2 1/8" = 1'-0"



GENERAL NOTES

1. FURNITURE SYSTEM RECEPTACLES ARE APPROXIMATE. FINAL CONFIGURATION TO BE COORDINATED WITH CHOSEN FURNITURE MANUFACTURER.
2. PROVIDE ONE SPARE FOR EACH TYPE OF MODULE FOR STARLINE PLUG-IN RACEWAY
3. PROVIDE ONE SPARE FOR EACH TYPE OF PLUG-IN UNIT FOR STARLINE TRACK BUSWAY.
4. NOT USED

REFERENCE NOTES

1. PROVIDE AND INSTALL STARLINE 225A TRACK BUSWAY 12 INCHES ABOVE CENTERLINE OF HVAC DUCTWORK.
2. PROVIDE AND INSTALL STARLINE 60A POWER AND DATA PLUG-IN RACEWAY MOUNTED AT 36 INCHES AFF. PROVIDE PLUG MODULES AS INDICATED ON DRAWINGS.
3. INSTALL PANEL MDP SHUNT TRIP. PROVIDE A PERMANENT PLAQUE IN ACCORDANCE WITH AHJ AND 225.37, NEC 2014 IDENTIFYING THE BUTTON AS 'MAIN POWER SHUNT TRIP'.
4. PROVIDE AND INSTALL 240VAC, 60A, 3P DISCONNECT SWITCH IN A NEMA 3R ENCLOSURE.
5. PROVIDE AND INSTALL 240VAC, 30A, 3P DISCONNECT SWITCH IN A NEMA 3R ENCLOSURE.
6. PROVIDE AND INSTALL 240VAC, 30A, 2P DISCONNECT SWITCH IN A NEMA 1 ENCLOSURE TO SERVICE EWH.
7. NEMA 00 COMBINATION MOTOR STARTER.
8. IT RACK SHOWN FOR SPACE ALLOCATION ONLY. RACK TO BE INSTALLED BY OTHERS.
9. INSTALL CT CABINET AND METER BASE. SEE DETAIL 4 ON SHEET E5.1 FOR DETAILS.
10. PROVIDE AND INSTALL STARLINE TRACK BUSWAY PLUG-IN UNIT EQUIPPED WITH ONE NEMA 6-15R RECEPTACLE AND TWO NEMA 5-15R RECEPTACLES ON 15 FOOT CORDS. EACH RECEPTACLE TO BE PROVIDED WITH OVER CURRENT PROTECTION.
11. PROVIDE AND INSTALL STARLINE TRACK BUSWAY PLUG-IN UNIT EQUIPPED WITH ONE NEMA 14-30R RECEPTACLE, ONE NEMA 14-30R RECEPTACLE, AND TWO NEMA 6-20R RECEPTACLES ON 15 FOOT CORDS. EACH RECEPTACLE TO BE PROVIDED WITH OVER CURRENT PROTECTION.
12. PROVIDE AND INSTALL STARLINE TRACK BUSWAY PLUG-IN UNIT EQUIPPED WITH ONE NEMA 14-30R RECEPTACLE AND SIX NEMA 5-15R RECEPTACLES ON 15 FOOT CORDS. EACH RECEPTACLE TO BE PROVIDED WITH OVER CURRENT PROTECTION.
13. PROVIDE AND INSTALL STARLINE TRACK BUSWAY PLUG-IN UNIT EQUIPPED WITH FOUR NEMA 5-15R RECEPTACLES ON 15 FOOT CORDS. EACH RECEPTACLE TO BE PROVIDED WITH OVER CURRENT PROTECTION.

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 expect a difference
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ADDENDUM 1 - 08/21/2019
FLOOR PLAN - POWER AND SYSTEMS
 EMBURY-RIDDLE AERONAUTICAL UNIVERSITY
 NEW PRINT SHOP BUILDING
 E1.2
 Date: 07/12/2019
 Job no.: SOBIE 19005
 Sheet no.:
 DRAWN: [] CHECKED: []

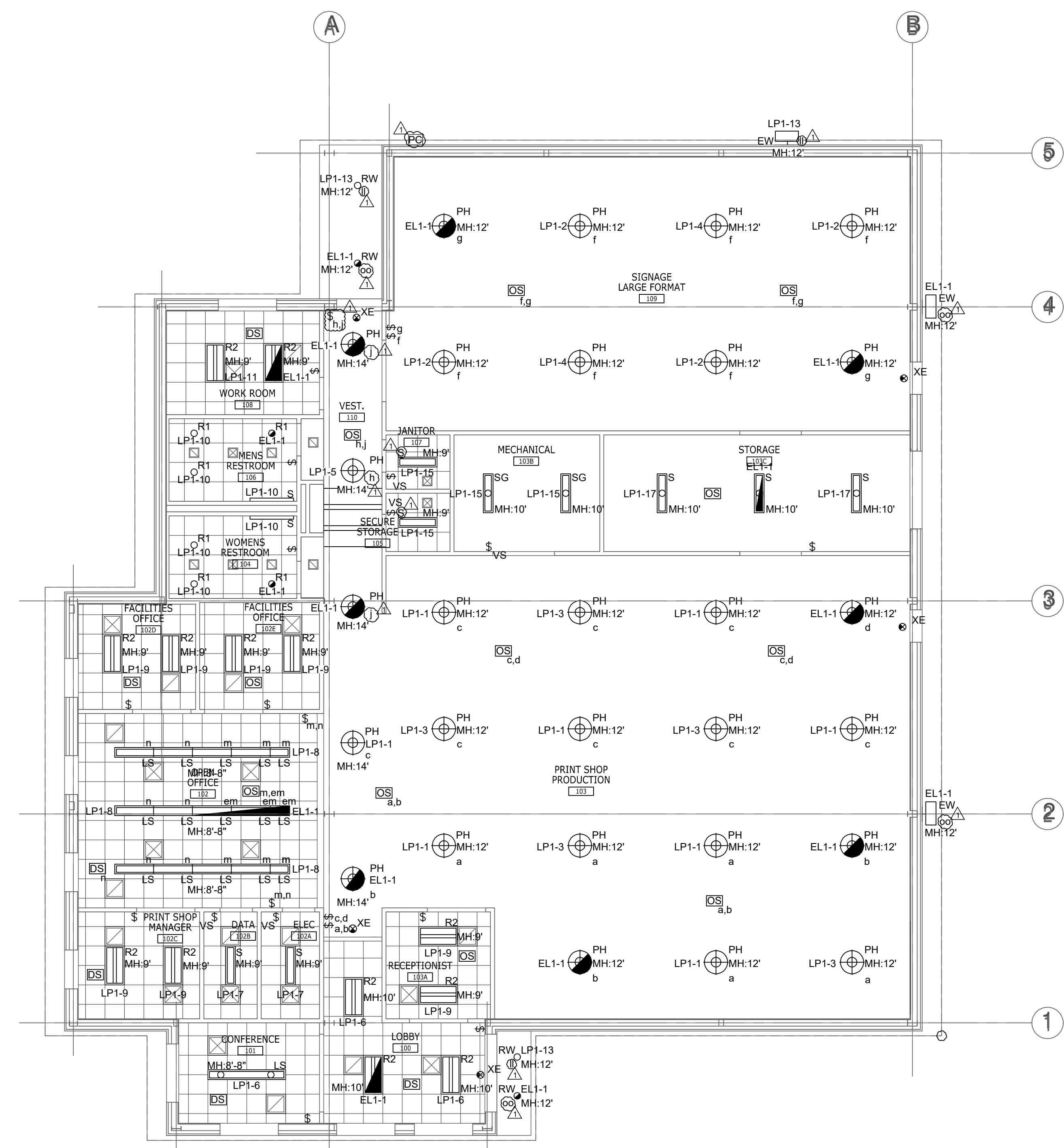
GENERAL NOTES

1. ALL 120VAC NORMAL POWER LIGHTING CIRCUITS ARE FED FROM PANEL 'LP1'.
2. ALL 120VAC EMERGENCY/LIFE SAFETY LIGHTING CIRCUITS ARE FED FROM EM LIGHTING INVERTER PANEL EL1.
3. CONTRACTOR TO PROVIDE AND INSTALL ALL COMPONENTS AND CABLING NECESSARY FOR A COMPLETE AND FUNCTIONAL LIGHTING CONTROL SYSTEM. SEE LIGHTING CONTROL DIAGRAMS ON SHEET E6.3 FOR DETAILS.

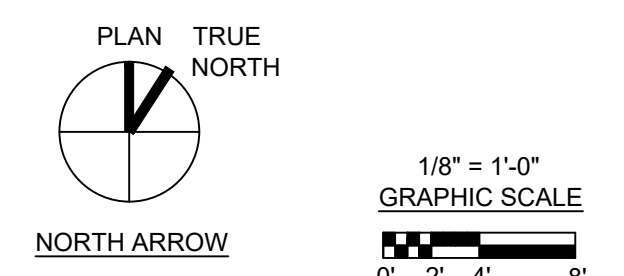
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19005



1 REFLECTED CEILING PLAN - ELECTRICAL
E1.3 1/8" = 1'-0"



ADDENDUM 1 - 08/21/2019

DATE	08/21/2019
REVISION	ADDENDUM 1
DRAWN	
CHECKED	

**EMBRY-RIDDLE AERONAUTICAL UNIVERSITY
NEW PRINT SHOP BUILDING**

E1.3

LUMINAIRE SCHEDULE						
SYMBOL	QTY	LABEL	ARRANGEMENT	TOTAL LAMP LUMENS	LLF	DESCRIPTION
⊙	4	RW	SINGLE	N.A.	0.900	OC750-L1L15-R55
⊙	7	EW	SINGLE	7335.5	0.900	WPF-70W-40K
⊙	4	S2	SINGLE	N.A.	1.000	ECF-L-80L-1A-NW-G2-3

CALCULATION SUMMARY					
LABEL	CALC TYPE	UNITS	AVG	MAX	MIN
BETWEEN NEW AND EXISTING BLDG	ILLUMINANCE	Fc	3.33	18.5	0.2
PRINT SHOP PARKING	ILLUMINANCE	Fc	5.72	22.0	0.9
PRINT SHOP NORTH	ILLUMINANCE	Fc	2.71	17.8	0.0
PRODUCTION BUILDING PARKING	ILLUMINANCE	Fc	4.21	18.3	0.5
PROPERTY LINE	ILLUMINANCE	Fc	0.03	1.1	0.0
SERVICE ACCESS DRIVEWAY	ILLUMINANCE	Fc	3.66	18.1	0.3

DAYTONA BEACH DESIGN CRITERIA	
MAXIMUM ILLUMINATION LEVELS	
TYPE OF USE ABUTTING A LOT LINE	MAXIMUM ILLUMINATION LEVEL AT LOT LINE (FOOT-CANDLES)
COMMERCIAL USE	2
PARKING LOT	2.5

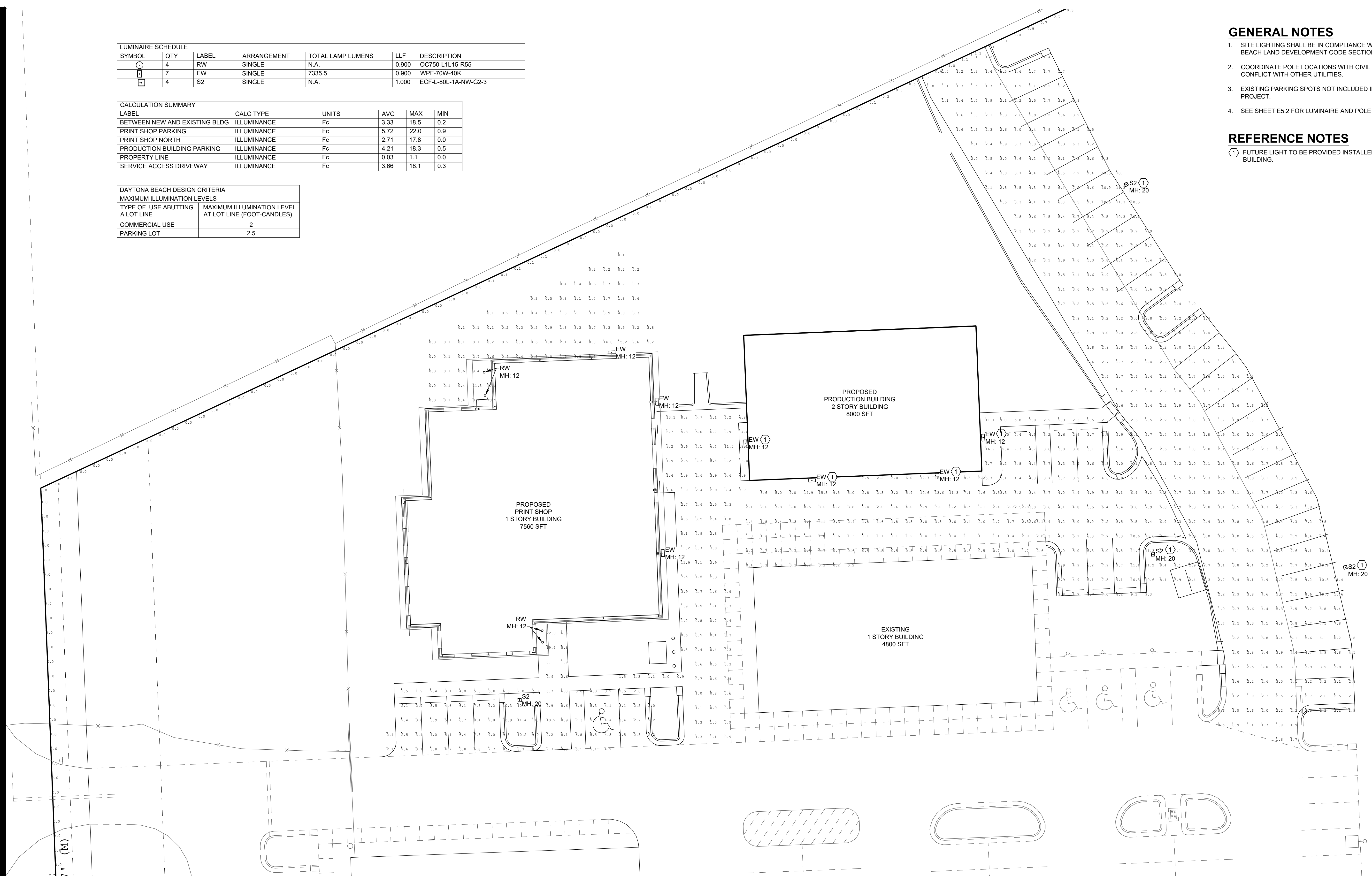
GENERAL NOTES

- SITE LIGHTING SHALL BE IN COMPLIANCE WITH CITY OF DAYTONA BEACH LAND DEVELOPMENT CODE SECTION 6.9.
- COORDINATE POLE LOCATIONS WITH CIVIL DRAWINGS TO AVOID CONFLICT WITH OTHER UTILITIES.
- EXISTING PARKING SPOTS NOT INCLUDED IN SCOPE OF THIS PROJECT.
- SEE SHEET ES.2 FOR LUMINAIRE AND POLE DETAILS

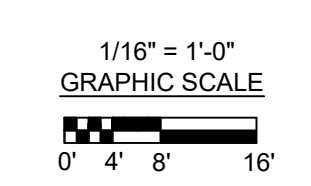
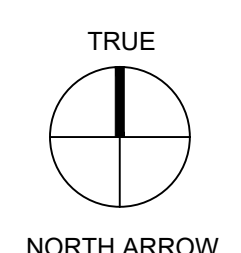
REFERENCE NOTES

- ① FUTURE LIGHT TO BE PROVIDED INSTALLED WITH PRODUCTION BUILDING.

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1 SITE PLAN - PHOTOMETRICS
E1.4 1/16" = 1'-0"



REVISION	DATE
ADDENDUM 1	08/21/2019

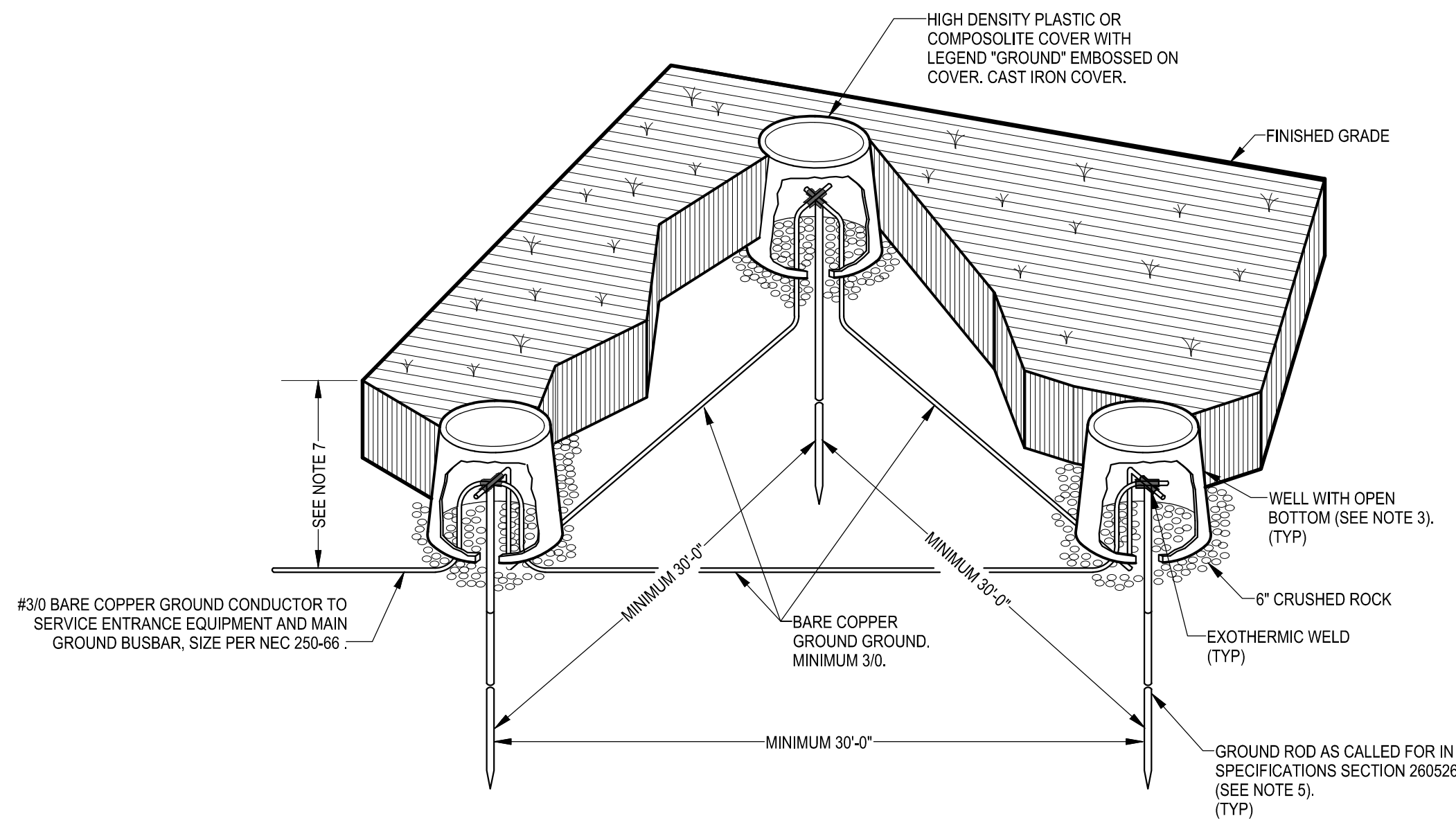
DATE: 07/12/2019
JOB NO.: SOBIE 19005
SHEET NO.: E1.4

ADDENDUM 1 - 08/21/2019

SITE PLAN - PHOTOMETRICS

EMBRY-RIDDLE AERONAUTICAL UNIVERSITY
NEW PRINT SHOP BUILDING

DRAWN: [] CHECKED: []



#3/0 BARE COPPER GROUND CONDUCTOR TO SERVICE ENTRANCE EQUIPMENT AND MAIN GROUND BUSBAR, SIZE PER NEC 250-66.

NOTES:

- 1) SEE SPECIFICATION SECTION 260526.
- 2) NOT FOR USE IN PAVED, ETC. LOCATIONS.
- 3) INCREASE DEPTH, DIAMETER, SIZE, ETC. IF REQUIRED DUE TO INSTALLATION AND ACCESS REQUIREMENTS.
- 4) CONCRETE COVERS ARE NOT ACCEPTABLE.
- 5) IF THREE RODS IN A DELTA CONFIGURATION DOES NOT PROVIDE SPECIFIED RESISTANCE, CHANGE ROD LENGTHS FOR MINIMUM SPECIFIED AS REQUIRED TO PROVIDE SPECIFIED RESISTANCE.
- 6) MEASUREMENT OF RESISTANCE VALUES TO PROVIDE COMPLIANCE WITH SPECIFIED RESISTANCE SHALL BE WITH GROUND RODS CONNECTED IN DELTA CONFIGURATION BUT DISCONNECTED FROM EQUIPMENT OR BUSBAR BEING GROUNDED.
- 7) DEPTH PER CODES, 1'-0" MINIMUM.

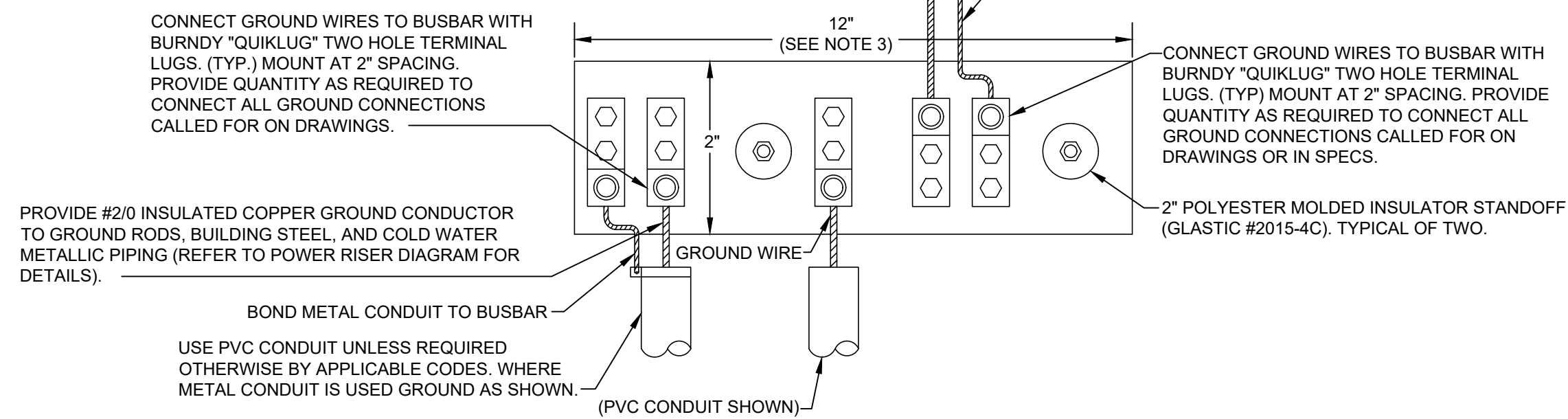
WELL:

INSIDE DIMENSIONS: 12" MINIMUM
 HEIGHT: 18" MINIMUM
 MATERIAL: STRUCTURAL PLASTIC, CONCRETE, OR COMPOSITE
 MANUFACTURER: QUAZITE OR BROOKS PRODUCTS

1 MAIN SERVICE GROUND
 E5.1 NOT TO SCALE

GENERAL NOTES

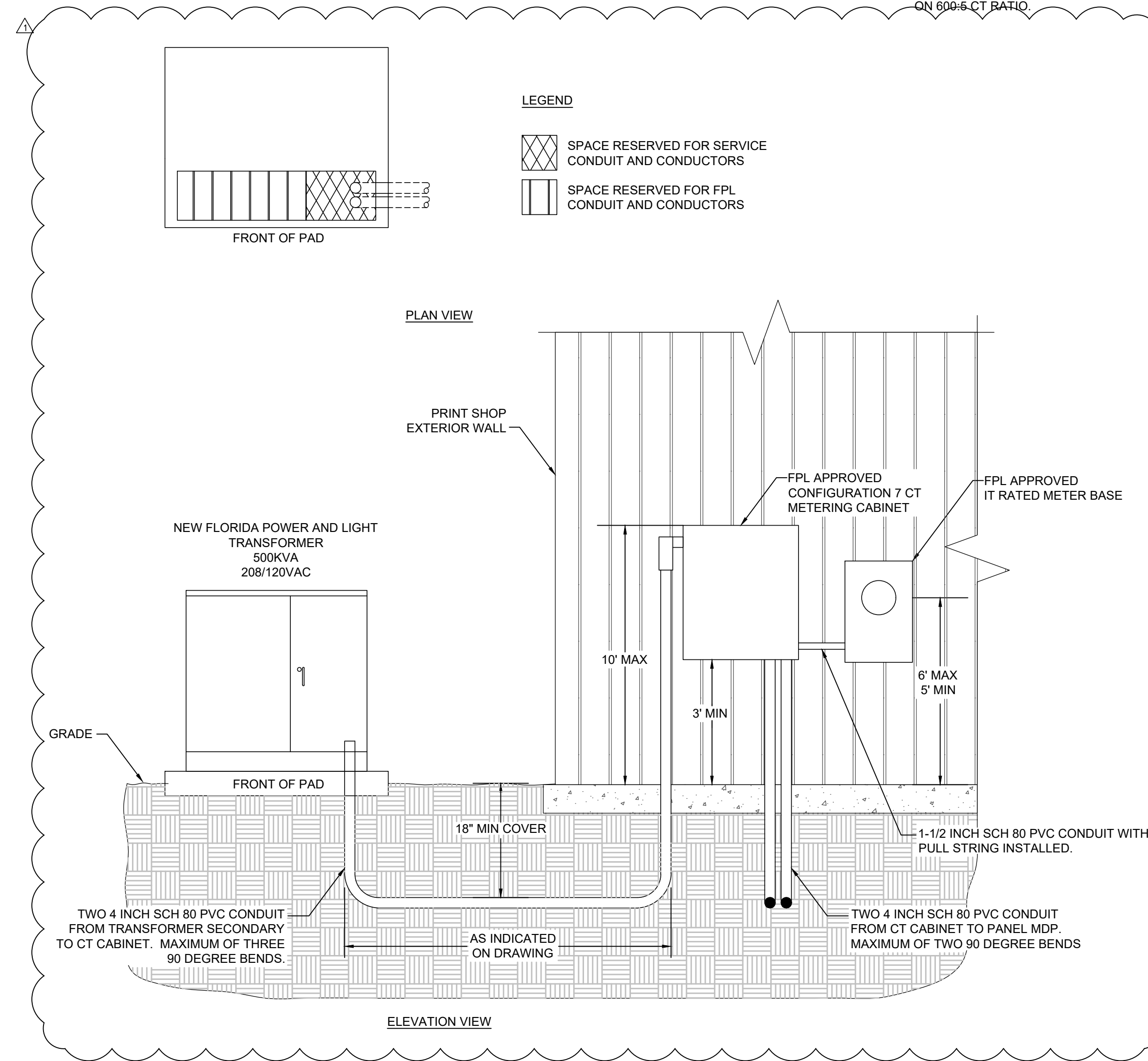
1. ALL HARDWARE BOLTS, NUTS, WASHER, ETC. SHALL BE SOLID COPPER OR BRONZE. COPPER PLATING IS NOT ACCEPTABLE.
2. BUSBAR SHALL BE 1/4" THICK x 2" WIDE FLAT COPPER BAR
3. INCREASE LENGTH AS REQUIRED FOR NUMBER OF CONNECTIONS AND STILL PROVIDE 2" SPACING BETWEEN LUGS.



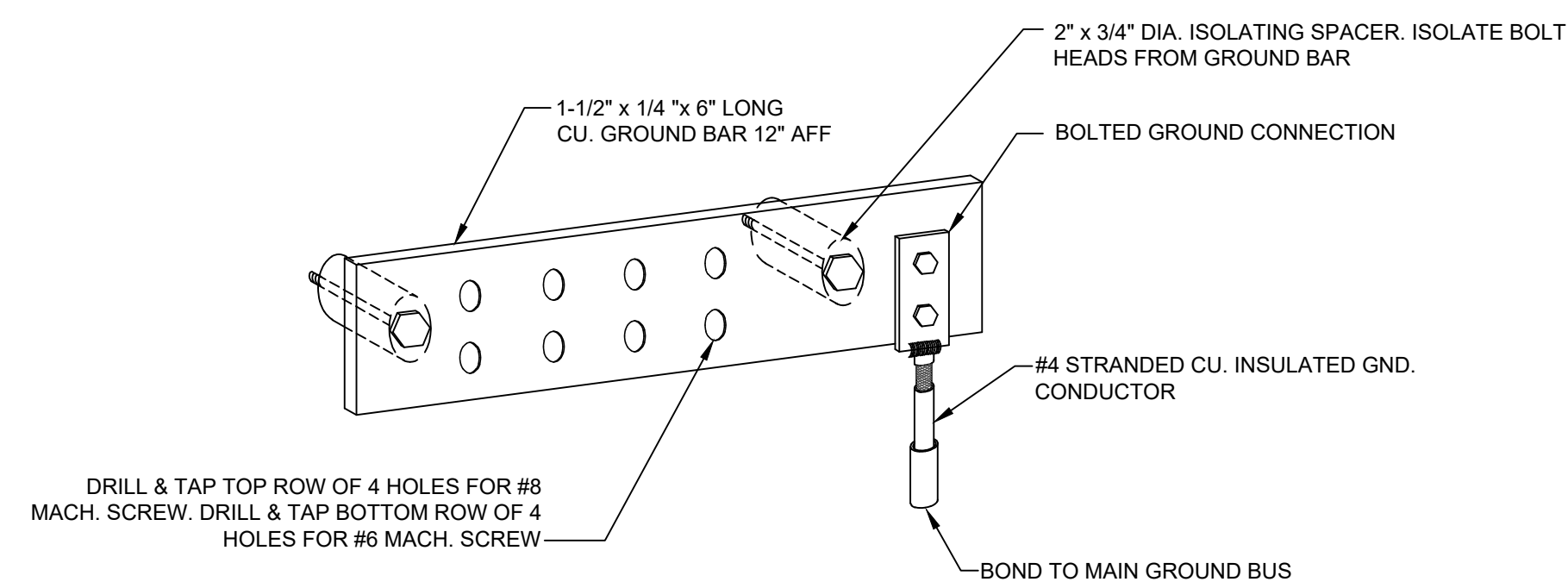
2 MAIN GROUND BUSBAR
 E5.1 NOT TO SCALE

GENERAL NOTES

1. COORDINATE METER REQUIREMENTS WITH BEVERLY HUTTO OF FLORIDA POWER AND LIGHT, 386-322-3439.
2. 40 FOOT MAX DISTANCE BETWEEN METER AND TRANSFORMER BASED ON 600:6 CT RATIO.



4 METER DETAIL
 E5.1 NOT TO SCALE



3 TB GROUND BUSBAR
 E5.1 NOT TO SCALE

SALAS O'BRIEN
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DATE	08/21/2019
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ADDENDUM 1 - 08/21/2019

DETAILS - ELECTRICAL
 EMBRY-RIDDLE AERONAUTICAL UNIVERSITY
 NEW PRINT SHOP BUILDING
 E5.1



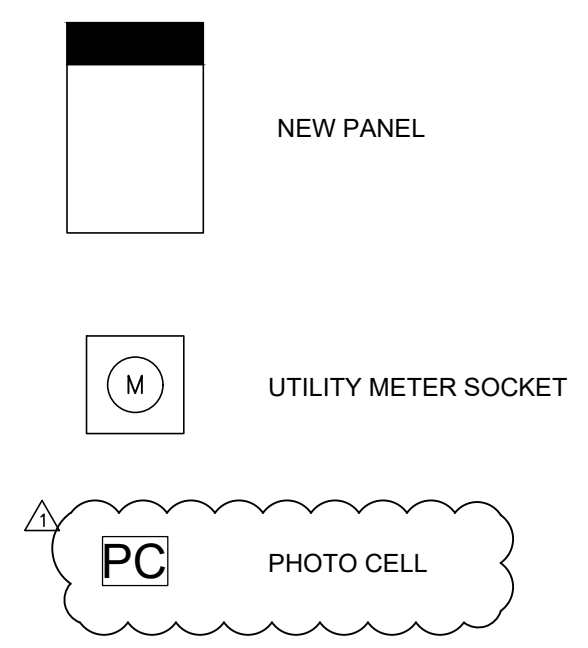
GENERAL NOTES

- SEE SPECIFICATIONS SECTIONS 260519 AND 260533 FOR CONDUCTOR AND CONDUIT INFORMATION.
- COORDINATE TRANSFORMER REQUIREMENTS WITH BEVERLY HUTTO OF FLORIDA POWER AND LIGHT, 386-322-3439.

REFERENCE NOTES

- CONTRACTOR TO PROVIDE METER BASE, SUPPORT, AND CONDUIT FROM CT CABINET TO METER BASE. SEE METER DETAILS ON SHEET E5.1.
- BOND NEUTRAL AND GROUND IN PANEL MDP USING #3/0 AWG BARE COPPER CONDUCTOR.
- BOND PANEL MDP EQUIPMENT GROUND TO MGB USING #1/0 AWG BARE COPPER CONDUCTOR.
- BOND MDP NEUTRAL BUS TO MAIN SERVICE GROUND USING #3/0 AWG BARE COPPER CONDUCTOR.
- BOND MGB TO MAIN SERVICE GROUND USING #3/0 AWG BARE COPPER CONDUCTOR.
- SEE DETAIL ON SHEET E5.1 FOR MGB DETAILS.
- PROVIDE AND INSTALL CT CABINET PER FPL ELECTRICAL SERVICE STANDARD AS INDICATED ON SHEET E1.1.
- PROVIDE PHOTOCELL ON BUILDING EXTERIOR AS INDICATED ON SHEET E1.3. AIM SENSOR NORTH.

RISER LEGEND:



PANEL FEEDER SCHEDULE

FEEDER FEEDING		CIRCUIT BREAKER			FEEDER CAPACITY	FEEDER LENGTH	FEEDER VOLT DROP %	PARALLEL RUNS	PHASE WIRE	NEUTRAL WIRE	GROUND WIRE	ISOLATED GROUND	COPPER ALUMINUM	CONDUIT SIZE
FEEDER	AMP SIZE	VOLTS	PHASE											
CT CABINET	800	208	3	840	23	0.15	2	#600	#600	N/A	N/A	COPPER	4"	
MDP	800	208	3	840	77	0.51	2	#600	#600	N/A	N/A	COPPER	4"	
DP1	400	208	3	420	75	0.50	1	#600	#600	#3	N/A	COPPER	4"	
RP1	200	208	3	200	13	0.14	1	#3/0	#3/0	#6	N/A	COPPER	2"	
LP1	100	208	3	100	13	0.22	1	#3	#3	#6	N/A	COPPER	1-1/4"	
EL1	20	120	1	20	8	0.43	1	#12	#12	#12	N/A	COPPER	1/2"	
WAREHOUSE METER BASE	200	208	3	200	40	0.42	1	#3/0	#3/0	#6	N/A	COPPER	2"	

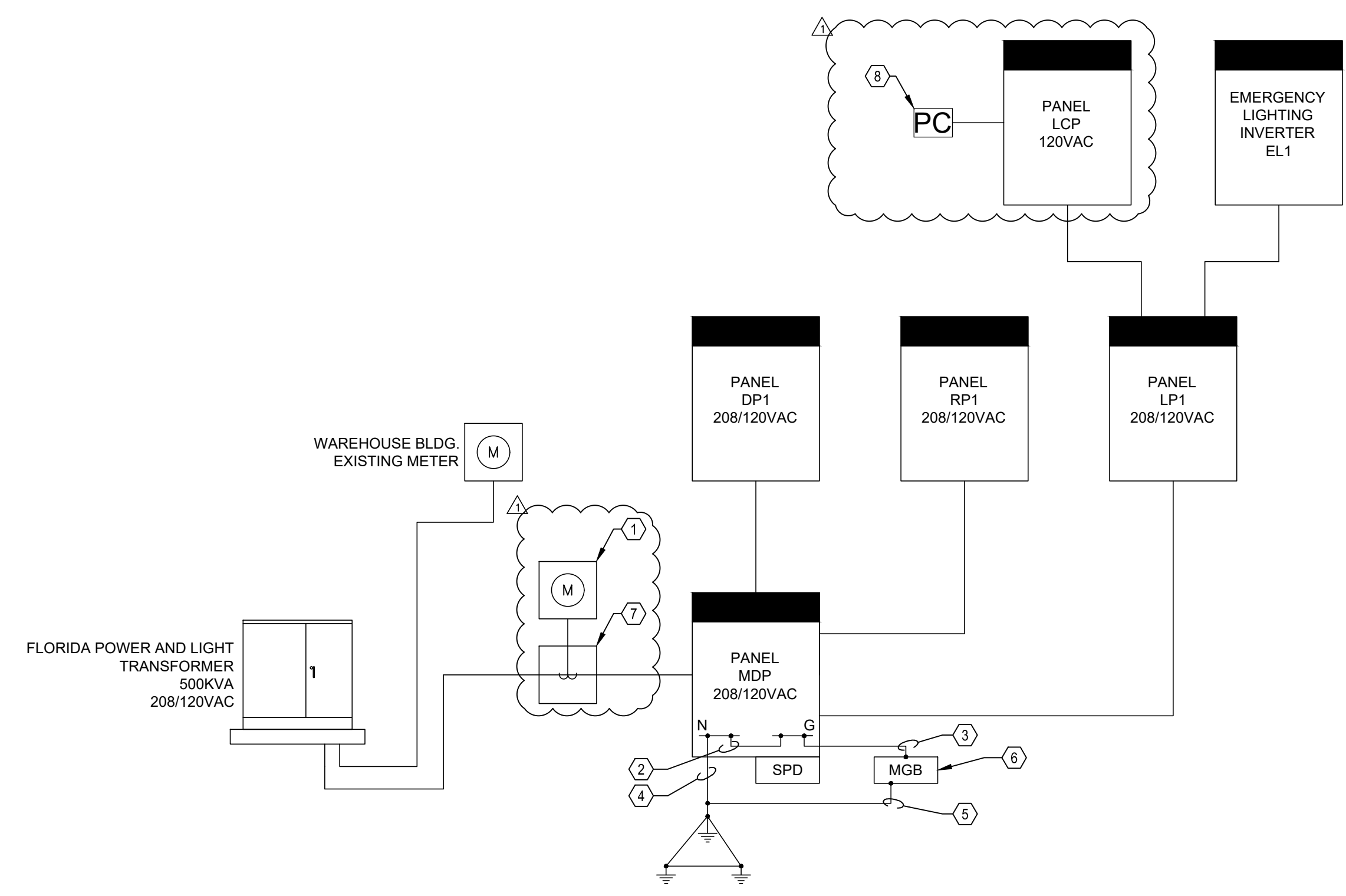
EQUIPMENT FEEDER SCHEDULE

EQUIPMENT DESCRIPTION	VOLTS	PH	NEUT Y OR N	MOTOR (LARGEST) H.P. FLA	ADDITIONAL MOTORS H.P. FLA	HEATER OR LIGHTING LOAD KW AMPS	MISC AMPS	TOTAL AMPS	P.N.L. C.B. SIZE AMPS	DISCONNECT SIZE AMPS	STARTER SIZE NEMA	VOLTAGE DROP PER PHASE	WIRE NEUT WIRE	GND WIRE	# OF RUNS	CONDUIT SIZE	NOTES	
DOAS-1	208	3	N	42.00				42	50	60	NF	0.47%	#6	#10	1	1"		
DOAS-1 OUTSIDE UNIT	208	3	N	5.00				5	15	20	NF	0.33%	#12	#12	1	1/2"		
HP-1	208	3	N	33.00				33	45	60	NF	0.62%	#6	#10	1	1"		
HP-2	208	3	N	18.00				18	30	30	NF	0.99%	#10	#10	1	1/2"		
HP-3	208	3	N	18.00				18	30	30	NF	1.06%	#10	#10	1	1/2"		
AHU-1	208	3	N	51.00				51	60			0.57%	#6	#10	1	1"		
AHU-2	208	3	N	8.00				8	15			0.34%	#12	#12	1	1/2"		
AHU-3	208	3	N	8.00				8	15			0.34%	#12	#12	1	1/2"		
AHU-2 HEATER	208	3	Y			42.0		42	45			0.47%	#6	#6	#10	1	1"	
AHU-3 HEATER	208	3	Y			42.0		42	45			0.47%	#6	#6	#10	1	3/4"	
EF-1	120	1	Y			1.0		1.0	1	20	00	0.11%	#12	#12	#12	1	1/2"	d
EF-2	120	1	Y			1.0		1.0	1	20	00	0.12%	#12	#12	#12	1	1/2"	d
DOAS-1 DAMPER	120	1	Y			3.0		3.0	3	20	20	0.47%	#12	#12	#12	1	1/2"	
EW-1	208	1	Y			22.0		22.0	22	30	30	0.81%	#10	#10	#10	1	1/2"	
HWRP-1	120	1	Y			4.0		4.0	4	15	20	0.40%	#12	#12	#12	1	1/2"	
BAS CONTROLLER	120	1	Y			2.0		2.0	2	20		0.17%	#12	#12	#12	1	1/2"	
E PLUG-IN RACEWAY	208	3	Y			40.0		40.0	40	60		1.85%	#6	#6	#10	1	1"	
W PLUG-IN RACEWAY	208	3	Y			45.0		45.0	45	60		1.85%	#6	#6	#10	1	1"	
TRACK BUSWAY	208	3	Y			119.0		119.0	119	225		0.32%	#4/0	#4/0	#4	1	2-1/2"	
LCP	120	1	Y			3.0		3.0	3	20		0.95%	#12	#12	#12	1	1/2"	
PARKING LIGHT	120	1	Y			1.0		1.0	1	20		0.14%	#12	#12	#12	1	1/2"	

GENERAL NOTES:
 (1) - PROVIDE DISC. SW. AT ALL PIECES OF EQUIPMENT, UNLESS OTHERWISE NOTED ON THIS SCHEDULE.
 (2) - C.B., STARTER, DISC. & FUSE SIZES SHOWN FOR REFERENCE ONLY. SIZE AS RECOMMENDED BY EQUIPMENT MANUFACTURER. VERIFY REQUIREMENTS WITH APPROVED EQUIPMENT SHOP DRAWINGS.
 (3) - PROVIDE NEMA OUTDOOR RATED ENCLOSURES FOR ALL DISC. SW'S MOUNTED OUTDOORS.
 (4) - COORDINATE STARTER TYPE WITH EQUIPMENT PROVIDER.
 (5) - E.C. TO VERIFY THAT C.B.'S FOR MOTORS ARE SUFFICIENT TO ALLOW STARTING OF MOTOR, IF REQUIRED FOR STARTING C.B. TO BE INCREASED TO A MAX OF 225% OF LARGEST MOTOR F.L.A.
 (6) - INCREASE CONDUCTOR SIZES AS REQUIRED TO MAINTAIN A MAXIMUM OF 3% VOLTAGE DROP BASED ON ACTUAL CIRCUIT LENGTHS AS INSTALLED.
 (7) - TOTAL AMPS SHOWN DO NOT INCLUDE NON-COINCIDENTAL LOADS.
 (8) - VOLTAGE DROP BASED ON POWER FACTOR OF 0.85.

ABBREVIATIONS:
 MCP = MOTOR CIRCUIT PROTECTOR C.B.
 MMS = MAN. MTR. STARTER 20A SW. WITH O.L. AND PILOT
 MSS = MOTOR STARTING 20A SW. WITHOUT O.L.
 VFD = VARIABLE FREQ. DRIVE UNIT.
 CBMC = COMB. DISC.(MCP) AND MAG. MOTOR STARTER(MMC)
 MMC = MAGNETIC MOTOR CONTROLLER W/O L.

NOTES:
 (a) - CONNECT VIA LINE VOLTAGE T'STAT. FURNISHED BY MECH. CONTRACTOR.
 (b) - CONNECT VIA CONTROL DEVICES FURNISHED BY MECH. CONTRACTOR.
 (c) - CONNECT TO LOCAL LIGHTING SWITCH/LEG FROM OCCUPANCY SENSOR.
 (d) - CONNECT VIA STARTER FURNISHED BY MECH. CONTRACTOR.
 (e) - CONNECT VIA UNIT MTD DISC. SW. FURNISHED WITH EQUIPMENT.



1 RISER DIAGRAM - ELECTRICAL
 E6.1 NOT TO SCALE

ADDENDUM 1 - 08/21/2019

RISER DIAGRAM AND FEEDER SCHEDULES

EMBRY-RIDDLE AERONAUTICAL UNIVERSITY
 NEW PRINT SHOP BUILDING

Date: 07/12/2019
 Job no.: SOBE 19005
 Sheet no.: E6.1

REVISION	DATE
ADDENDUM 1	08/21/2019

DRAWN: SOBE
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15005

VOLTS L-N : 120	MAN OPTIONS REQUIRED	PANEL : MDP	ENCLOSURE DATA
VOLTS PH : 208	S.E. RATED : YES	MCB : 800 AMPS	NEMA : 1
PHASE : 3	GFI PROT. : N/A	M.L.O. : N/A AMPS	SECTIONS : 1
MOUNTING : SURFACE	SHUNT TRIP : YES	WIDTH/SECT. : 32	DEPTH : 9.5
MFR : SQ D.			
TYPE : HCM			
	AIC RATING (FULLY RATED OR SERIES RATED) :	42 KA (MINIMUM, SEE SPECIFICATIONS)	
NOTES	DESCRIPTION	LOAD AMPS	CONN
PANEL RP1	155 150	225 3 1 2 3 100	10 10 10 10
PANEL LP1	155 150	225 3 1 2 3 100	10 10 10 10
TRACK BUSWAY	119 119	225 3 7 8 3 400	285 285 285 285
PANEL DP1	119 119	225 3 7 8 3 400	285 285 285 285
3 FACP	5 5	20 3 13 14 3 20 3	3 3
SPACE	0	15 16 3 30	0 0
SPACE	0	17 16	0 0
SPACE	0	19 20	0 0
572 : AMPS PHASE A	594 : AMPS PHASE B	594 : AMPS PHASE C	
ACTUAL CONN. LOAD :	AMPS KVA	792 208	
NEC DEMAND :	586 204		
PANEL NOTES:	1) REFER TO PANEL FEEDER SCHEDULE FOR CONDUCTOR AND CONDUIT REQUIREMENTS.	2) REFER TO EQUIPMENT FEEDER SCHEDULE FOR CONDUCTOR AND CONDUIT REQUIREMENTS.	3) FACP CIRCUIT BREAKER TO BE IDENTIFIED IN ACCORDANCE WITH NEC 760.41(B).

VOLTS L-N : 120	MAN OPTIONS REQUIRED	PANEL : DP1	ENCLOSURE DATA
VOLTS PH : 208	S.E. RATED : N/A	MCB : N/A AMPS	NEMA : 1
PHASE : 3	GFI PROT. : N/A	M.L.O. : 400 AMPS	SECTIONS : 1
MOUNTING : SURFACE	SHUNT TRIP : N/A	WIDTH/SECT. : 20	DEPTH : 5.75
MFR : SQ D.			
TYPE : NCOO			
	AIC RATING (FULLY RATED OR SERIES RATED) :	22 KA (MINIMUM, SEE SPECIFICATIONS)	
NOTES	DESCRIPTION	LOAD AMPS	CONN
DOAS-1	42 42	50 3 1 2 3 60 51	51 51
AHU-1	42 42	50 3 1 2 3 60 51	51 51
DOAS-1 OUTSIDE UNIT	5 5	15 3 7 8 3 15 8	8 8
AHU-2	5 5	15 3 7 8 3 15 8	8 8
AHU-3	5 5	15 3 7 8 3 15 8	8 8
HP-1	33 33	45 3 13 14 3 45 42	42 42
AHU-2 HEATER	33 33	45 3 13 14 3 45 42	42 42
HP-2	18 18	30 3 19 20 3 15 8	8 8
AHU-3 HEATER	18 18	30 3 19 20 3 15 8	8 8
HP-3	18 18	30 3 25 26 3 45 42	42 42
AHU-3 HEATER	18 18	30 3 25 26 3 45 42	42 42
BAS CONTROLLER	2 2	20 1 31 32 2 30 22	22 22
EWH-1	1 1	20 1 33 34	22 22
HWRP-1	1 1	20 1 35 36 1 15	4 4
DOAS-1 DAMPER	3 3	20 1 37 38 1 20 0	SPARE
SPARE	0	20 1 39 40 1 20 0	SPARE
SPARE	0	20 1 41 42 1 20 0	SPARE
294 : AMPS PHASE A	290 : AMPS PHASE B	272 : AMPS PHASE C	
ACTUAL CONN. LOAD :	AMPS KVA	285 103	
NEC DEMAND :	285 103		
PANEL NOTES:	1) REFER TO PANEL FEEDER SCHEDULE FOR CONDUCTOR AND CONDUIT REQUIREMENTS.	2) REFER TO EQUIPMENT FEEDER SCHEDULE FOR CONDUCTOR AND CONDUIT REQUIREMENTS.	3) PROVIDE GFI TYPE CIRCUIT BREAKER.

VOLTS L-N : 120	MAN OPTIONS REQUIRED	PANEL : RP1	ENCLOSURE DATA
VOLTS PH : 208	S.E. RATED : N/A	MCB : N/A AMPS	NEMA : 1
PHASE : 3	GFI PROT. : N/A	M.L.O. : 225 AMPS	SECTIONS : 1
MOUNTING : SURFACE	SHUNT TRIP : N/A	WIDTH/SECT. : 20	DEPTH : 5.75
MFR : SQ D.			
TYPE : NCOO			
	AIC RATING (FULLY RATED OR SERIES RATED) :	22 KA (MINIMUM, SEE SPECIFICATIONS)	
NOTES	DESCRIPTION	LOAD AMPS	CONN
RM 109 LARGE FORMAT	45 45	80 3 1 2 3 60 40	40 40
RM 109 LARGE FORMAT	45 45	80 3 1 2 3 60 40	40 40
SOUTH PLUG-IN RACEWAY	45 45	80 3 1 2 3 60 40	40 40
NORTH PLUG-IN RACEWAY	45 45	80 3 1 2 3 60 40	40 40
RM 109 RECEPTACLES	3 5	20 1 7 8 1 20 8	2 2
RM 109 WORK STATIONS	3 5	20 1 7 8 1 20 8	2 2
RM 103C RECEPTACLES	5 5	20 1 9 10 1 20 3	3 3
RM 109 WORK STATIONS	5 5	20 1 9 10 1 20 3	3 3
RM 103B 105 107 RECEPT	1 1	20 1 11 12 1 20 3	3 3
RM 110 RECEPTACLES	1 1	20 1 11 12 1 20 3	3 3
EWC	1 1	20 1 13 14 1 20 3	3 3
RM 108 RECEPTACLES	4 4	20 1 15 16 1 20 3	3 3
RESTROOM RECEPTACLES	4 4	20 1 15 16 1 20 3	3 3
RM 102B 102E RECEPT	4 4	20 1 17 18 1 20 5	5 5
RM 102B RECEPT	4 4	20 1 17 18 1 20 5	5 5
RM 102 WALL RECEPT	3 3	20 1 19 20 1 20 3	3 3
RM 102 FURNITURE	3 3	20 1 21 22 1 20 12	12 12
RM 102 FURNITURE	4 4	20 1 23 24 1 20 6	6 6
RM 102 FURNITURE	4 4	20 1 23 24 1 20 6	6 6
RM 103 WORK STATIONS	3 5	20 1 25 26 1 20 8	8 8
RM 103 FURNITURE	3 5	20 1 25 26 1 20 8	8 8
RM 103 WORK STATIONS	3 5	20 1 27 28 1 20 9	9 9
RM 103 WALL RECEPTACLE	3 3	20 1 29 30 1 20 6	6 6
RM 102C RECEPTACLES	2 2	20 1 31 32 1 20 5	5 5
RM 102B 102A RECEPT	2 2	20 1 31 32 1 20 5	5 5
RM 103A RECEPTACLES	4 4	20 1 33 34 1 20 6	6 6
RM 103A RECEPTACLES	4 4	20 1 33 34 1 20 6	6 6
RM 101 TV RECEPTACLE	1 1	20 1 35 36 1 20 8	8 8
RM 102B TTB RECEPT	1 2	20 1 37 38 1 20 8	8 8
WEST OUTSIDE RECEPT	1 2	20 1 37 38 1 20 8	8 8
SPARE	0	20 1 39 40 1 20 0	0 0
SPARE	0	20 1 41 42 1 20 0	0 0
155 : AMPS PHASE A	163 : AMPS PHASE B	147 : AMPS PHASE C	
ACTUAL CONN. LOAD :	AMPS KVA	155 58	
NEC DEMAND :	150 54		
PANEL NOTES:	1) REFER TO PANEL FEEDER SCHEDULE FOR CONDUCTOR AND CONDUIT REQUIREMENTS.	2) REFER TO EQUIPMENT FEEDER SCHEDULE FOR CONDUCTOR AND CONDUIT REQUIREMENTS.	3) PROVIDE GFI TYPE CIRCUIT BREAKER.

VOLTS L-N : 120	MAN OPTIONS REQUIRED	PANEL : LP1	ENCLOSURE DATA
VOLTS PH : 208	S.E. RATED : N/A	MCB : N/A AMPS	NEMA : 1
PHASE : 3	GFI PROT. : N/A	M.L.O. : 100 AMPS	SECTIONS : 1
MOUNTING : SURFACE	SHUNT TRIP : N/A	WIDTH/SECT. : 20	DEPTH : 5.75
MFR : SQ D.			
TYPE : NCOO			
	AIC RATING (FULLY RATED OR SERIES RATED) :	22 KA (MINIMUM, SEE SPECIFICATIONS)	
NOTES	DESCRIPTION	LOAD AMPS	CONN
PRINT SHOP PRODUCTION	778 6	20 1 1 2 1 20 3	389 389
LARGE FORMAT	487 4	20 1 3 4 1 20 2	195 195
LARGE FORMAT	97 1	20 1 5 6 1 20 1	99 99
LOBBY / CONF	40 0	20 1 7 8 1 20 2	291 291
OPEN OFFICE	257 2	20 1 9 10 1 20 0	53 53
REST ROOMS	32 0	20 1 11 12 1 20 0	0 0
PANEL LP1	97 1	20 1 13 14 1 20 2	200 200
PARKING LOT	178 1	20 1 15 16 1 20 2	2 2
LCP	134 0	20 1 17 18 1 20 0	0 0
SPARE	0	20 1 19 20 1 20 0	0 0
SPARE	0	20 1 21 22 1 20 0	0 0
SPARE	0	20 1 23 24 1 20 0	0 0
SPARE	0	20 1 25 26 1 20 0	0 0
SPARE	0	20 1 27 28 1 20 0	0 0
SPARE	0	20 1 29 30 1 20 0	0 0
SPACE	0	31 32	0 0
SPACE	0	33 34	0 0
SPACE	0	35 36	0 0
SPACE	0	37 38	0 0
SPACE	0	39 40	0 0
SPACE	0	41 42	0 0
15 : AMPS PHASE A	12 : AMPS PHASE B	3 : AMPS PHASE C	
ACTUAL CONN. LOAD :	AMPS KVA	10 4	
NEC DEMAND :	10 4		
PANEL NOTES:	1) REFER TO PANEL FEEDER SCHEDULE FOR CONDUCTOR AND CONDUIT REQUIREMENTS.	2) REFER TO EQUIPMENT FEEDER SCHEDULE FOR CONDUCTOR AND CONDUIT REQUIREMENTS.	

VOLTS L-N : 120	MAN OPTIONS REQUIRED	PANEL : EL1	ENCLOSURE DATA
VOLTS PH : N/A	S.E. RATED : N/A	MCB : 30 AMPS	NEMA : 1
PHASE : 1	GFI PROT. : N/A	M.L.O. : N/A AMPS	SECTIONS : 1
MOUNTING : SURFACE	SHUNT TRIP : N/A	WIDTH/SECT. : 25	DEPTH : 11
MFR : MYERS			
TYPE : EM6S			
	AIC RATING (FULLY RATED OR SERIES RATED) :	10 KA (MINIMUM, SEE SPECIFICATIONS)	
NOTES	DESCRIPTION	LOAD AMPS	CONN
INTERIOR EMERGENCY	1155 10	20 1 1 1	1 1
1.6 KVA EMERG. LTG. INVERTER WITH 120V INPUT/OUTPUT.	1155 10	20 1 1 1	1 1
ACTUAL CONN. LOAD :	AMPS VA	10 1155	
PANEL NOTES:	1) REFER TO PANEL FEEDER SCHEDULE FOR CONDUCTOR AND CONDUIT REQUIREMENTS.		

A CITY BLUE BOX LT. LCP	PROJECT NAME :	ERA U PRINT SHOP						
RELAY NO.	SWITCH LEG	CIRCUIT NO.	DESCRIPTION	CONTROL NOTES	DESCRIPTION	PANEL & CIRCUIT NO.	SWITCH LEG	RELAY NO.
1	II	LPI-13	BUILDING EXTERIOR	b b	BUILDING EXTERIOR	EL-1	oo	2
3	pp	LPI-14	PARKING LIGHT POLE	b b	SPARE RELAY			4
5			SPARE RELAY		SPARE RELAY			6
7			SPARE RELAY		SPARE RELAY			8
GENERAL NOTES:	(1) - SEE SPECIFICATIONS FOR REQUIREMENTS.	(2) - PROVIDE OVERRIDE SWITCHES AT PANEL FOR EACH SET POINT.	(3) - COLOR CODING OF CONDUCTORS SHALL BE THE SAME THROUGHOUT CIRCUIT.	(4) - PROVIDE PROGRAMMED TIME-OF-DAY OFF OF ALL INTERIOR SPACE LIGHTING RELAYS.	(5) - PROVIDE SYSTEM PHOTOCELL ON ROOF FACING NORTH AND CONNECT TO RELAY PANEL PROCESSOR.	(6) - PROVIDE BARRIER IN PANEL TO SEPARATE NORMAL AND EMERGENCY CIRCUITS.	(7) - PROVIDE DOUBLE POLE SINGLE THROW RELAYS FOR ALL CIRCUITS FED BY 2 POLE C.B.'S	CONTROL NOTES:
a - CIRCUIT CONTROLLED VIA DIGITAL SWITCH AND PROGRAMMED TIME OF DAY 'OFF' SCHEDULE	b - PHOTOCELL ON TIME-CLOCK OFF PER OWNER'S DIRECTION	c - PHOTOCELL ON - PHOTOCELL OFF	d - REFER TO RELAY PANEL CONTROL DIAGRAM FOR ADDITIONAL CONTROL REQUIREMENTS.	e - PROVIDE PROGRAMMABLE DIMMING MODULE FOR THIS SWITCH-LEG (COORDINATE WITH FIXTURE TYPE)	f - CIRCUIT CONTROLLED VIA LOCAL SWITCH AND PROGRAMMED TIME OF DAY 'OFF' SCHEDULE			