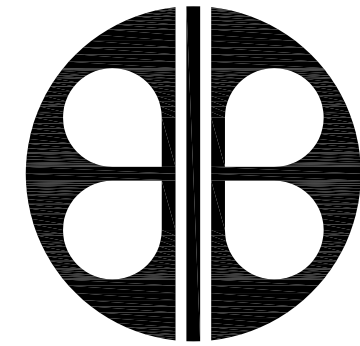


OCU - PRESIDENTS DRIVE OPS CENTER - RETROFIT



BORRELLI + PARTNERS

ARCHITECTURE PLANNING LANDSCAPE INTERIOR

AAC 000711

720 VASSAR STREET
ORLANDO, FL. 32804 (407) 418-1338

17-102

ORANGE COUNTY UTILITIES
PRESIDENTS DRIVE OPS CENTER - RETROFIT

CONFORMED SET

3/30/2017

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CONSULTANTS:

MECHANICAL, PLUMBING &
ELECTRICAL ENGINEERS

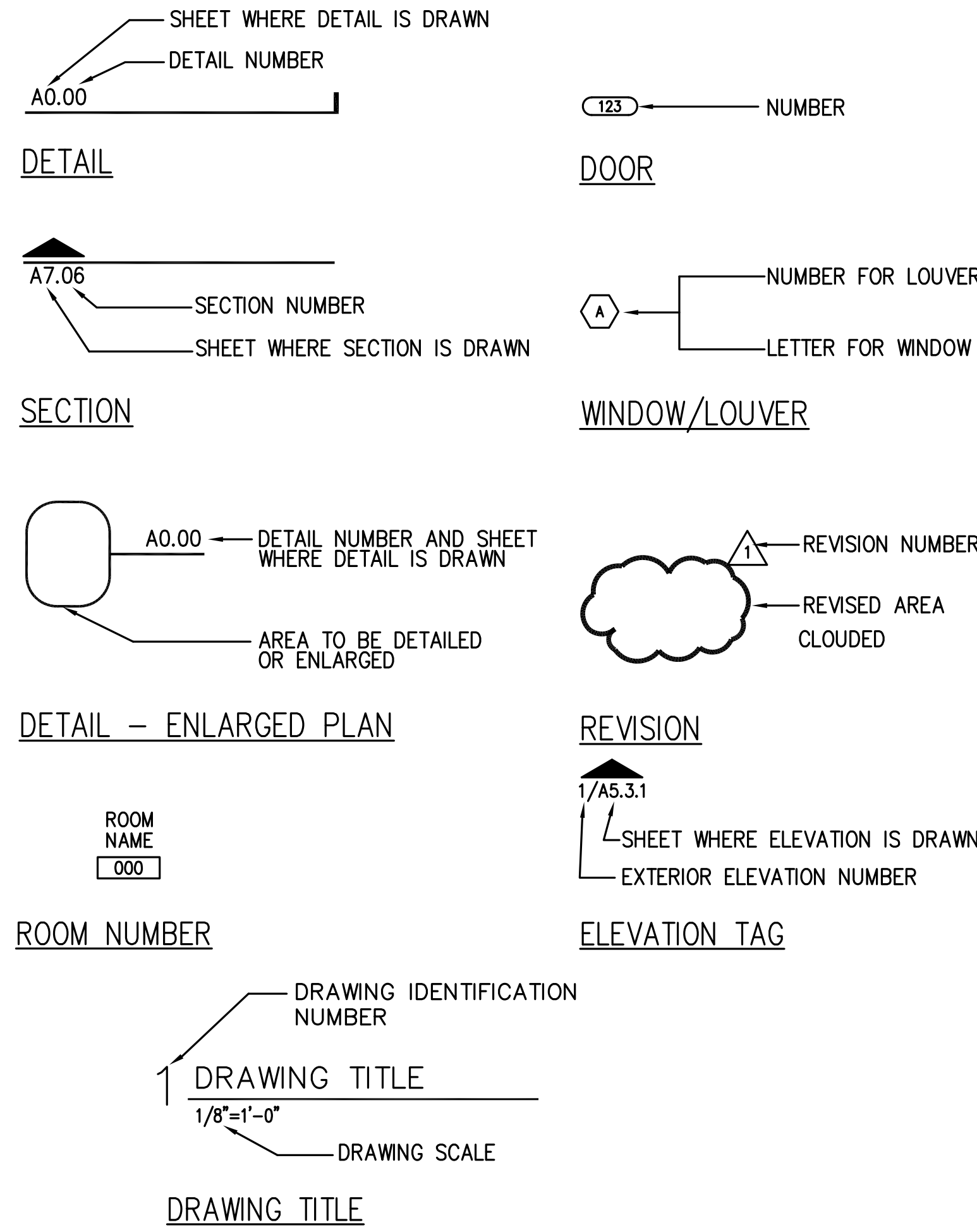
BOBES ASSOCIATES CONSULTING ENGINEERS

150 CIRCLE DR.
MATLAND, FL 32751

ABBREVIATIONS

AB	ANCHOR BOLTS	MAINT	MAINTENANCE
ABBREV	ABBREVIATION (S)	MATL	MATERIAL
APPR	APPROVED	MAX	MAXIMUM
ACOUS	ACOUSTICAL	MB	MACHINE BOLT
AC	ASPHALT CONCRETE	MECH	MECHANICAL
AC or A/C	AIR CONDITIONING	MET	METAL
AD	ACCESS DOOR	MEZZ	MEZZANINE
AFF	ABOVE FINISHED FLOOR	MFR	MANUFACTURER
ALUM	ALUMINUM	MISC	MISCELLANEOUS
		MO	MINIMUM
		MIN	MINIMUM
		MULL	MULLION
BD or BRD	BOARD	(N)	NEW
BLDG	BUILDING	N.I.C.	NOT IN CONTRACT
BLK	BLOCK	NO	NUMBER
BM	BEAM	NR	NOT TO SCALE
BOB	BOTTOM OF BEAM		NON-RATED
BOT	BOTTOM		
C/C	CENTER TO CENTER	OC	ON CENTER
CER	CERAMIC	OCC	OPERATOR CONTROL CENTER
CH	CEILING HEIGHT	OD	OUTSIDE DIAMETER
CEM	CEMENT	OFF	OFFICE
CLG or CEIL	CEILING	OFI	OWNER FURNISH ITEM
CLO	CLOSET	OFI	OWNER FURNISHED OWNER INSTALLED
CLR	CLEAR	OFI	
CMU	CONCRETE MASONRY UNIT	OH	OPPOSITE HAND
COL	COLUMN	OPN'G	OPENING
COMPO	COMPOSITION	PC	PORTLAND CEMENT
CONC	CONCRETE		
CONN	CONNECTION	OPP	OPPOSITE
CONT	CONTINUOUS	PL	PLATE
CORR	CORRIDOR	PLAS	PLASTER
CSK	COUNTERSINK	PLYWD	PLYWOOD
		PR	PAIR
		PREP	PREPARATION
		PROJ	PROJECTION
DET	DETAIL	QT	QUARRY TILE
DF	DOUGLAS FIR		
DF	DRINKING FOUNTAIN		
DIA	DIAMETER		
DIAG	DIAGONAL		
DIM	DIMENSION		
DIR	DIRECTION		
DBL	DOUBLE		
DN	DOWN	R	RISER
DO	DOOR OPENING	R or RAD	RADIUS
DR	DOOR	RD	ROOF DRAIN
DS	DOWNSPOUT	REF	REFERENCE
DWG	DRAWING	REFL	REFLECTED
		REINF	REINFORCE
		REQ'D	REQUIRED
		RES	RESILIENT
		RM	ROOM
		RO	ROUGH OPENING
		REDW'D	REDWOOD
EA	EACH		
ELEC	ELECTRICAL		
ELEV or EL	ELEVATION		
ELEV	ELEVATOR		
EQ	EQUAL		
EQUIP	EQUIPMENT		
EXIST or (X)	EXISTING	SECT	SECTION
EJ	EXPANSION JOINT	SHT	SHEET
EXT	EXTERIOR	SIM	SIMILAR
EWC	ELEC WATER COOLER	SIM	SIMULATOR
		SIMUL	SIMULATED
		SPECS	SPECIFICATIONS
		SS	STAINLESS STEEL
		STA	STATION
FHC	FIRE HOSE CABINET		
FIN	FINISH		
FLR	FLOOR		
FO	FINISHED OPENING		
FOC	FACE OF CONCRETE	STD	STANDARD
FOS	FACE OF STUD	STL	STEEL
FOW	FACE OF WALL	SO	SQUARE
FOUND	FOUNDATION	STRUCT	STRUCTURAL
FRP	FIBER REINFORCED PLASTIC	SUSP	SUSPENDED
FD	FLOOR DRAIN	SYM	SYMMETRICAL
FS	FLOOR SINK		
FS	FULL SIZE		
FSD	FULL SIZE DETAIL		
FT	FEET		
FH	FULL HEIGHT	T	TREAD
		TDC	TRAFFIC DECK COVERING
		T & G	TONGUE & GROOVE
		TEMP	TEMPERED
		TEL	TELEPHONE
		THK	THICK
		TOC	TOP OF CONCRETE or CURB
		TOP	TOP OF PARAPET
		TOS	TOP OF STEEL
		TYP	TYPICAL
		TOW	TOP OF WALL
GA	GAUGE		
GL	GLASS		
GALV	GALVANIZE		
GR	GRADE		
GYPBD	GYPSON BOARD		
H	HIGH		
HDWD	HARDWOOD		
HORIZ	HORIZONTAL		
HM	HOLLOW METAL	UNO	UNLESS NOTED OTHERWISE
HP	HIGH POINT		
ID	INSIDE DIAMETER	VER	VERIFY
INSUL	INSULATION	VERT	VERTICAL
INT	INTERIOR		
		W	WIDE
		WC	WITH
		WD	WOOD
		WI	WROUGHT IRON
		WL	WATER LEVEL
		WPT	WORKING POINT
		WP	WATERPROOFING
JAN	JANITOR		
LAV	LAVATORY		
LEV	LEVEL		
LTG	LIGHTING		
LTWT	LIGHT WEIGHT		

SYMBOLS



CODE INFORMATION

- I. APPLICABLE CODES :
- A. BUILDING FLORIDA BUILDING CODE 2017 SIXTH EDITION
 - B. ELECTRICAL NATIONAL ELECTRICAL CODE: 2014
 - C. MECHANICAL STANDARD MECHANICAL CODE: 2017
 - D. LIFE SAFETY NFPA CODES SIXTH EDITION
 - E. HANDICAPPED FLORIDA ACCESSIBILITY CODE: SIXTH EDITION
 - F. FIRE FLORIDA FIRE PREVENTION CODE: 2017 SIXTH EDITION
 - G. ORANGE COUNTY BUILDING DIVISION
- II. AGENCIES HAVING JURISDICTION :
- A. AGENCY ORANGE COUNTY BUILDING DIVISION
 - PHONE 407 - 836 - 5550
- III. OCCUPANCY REQUIREMENTS :
- A. OCCUPANCY BUSINESS
- IV. TYPE OF CONSTRUCTION : . . . TYPE II, UNPROTECTED, SPRINKLERED

GENERAL NOTES

- CONTRACTOR SHALL VISIT AND INSPECT THE PREMISES, PRIOR TO SUBMITTING THEIR PROPOSAL, TO FAMILIARIZE THEMSELVES WITH THE CONDITIONS UNDER WHICH WORK WILL BE PERFORMED. NO SUBSEQUENT EXTRAS OR ADDITIONS WILL BE ALLOWED ON ANY CLAIM DUE TO LACK OF KNOWLEDGE OF CONDITIONS OR CIRCUMSTANCES ABOUT WHICH THE CONTRACTOR COULD HAVE INFORMED THEMSELVES.
- CONTRACTOR SHALL, BEFORE COMMENCING WORK, REVIEW ALL PLANS, NOTES, GENERAL CONDITIONS, AND SPECIFICATIONS AND VERIFY ALL GOVERNING DIMENSIONS ON THE JOB SITE. THE CONTRACTOR SHALL EXAMINE ALL ADJOINING AREAS OR AREA UPON WHICH THE PERFORMANCE OF HIS WORK IS IN ANY WAY DEPENDENT. ALL VARIANCES OR DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT PRIOR TO FABRICATION OR ERECTION OF WORK IN QUESTION. ANY VARIANCES OR DISCREPANCIES IN THE DOCUMENTS NOT REPORTED IMMEDIATELY TO THE ARCHITECT SHALL BECOME THE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR SHALL MAKE KNOWN TO THE ARCHITECT ANY LIMITATIONS, EXCLUSIONS, OR MODIFICATIONS TO THE DOCUMENTS DURING THE PRICING PHASES OF THE PROJECT. UNLESS ADVISED OTHERWISE IN WRITING, THESE ITEMS SHALL BE PRESUMED INCLUDED IN THE CONTRACTOR'S PRICE.
- CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE ACCURACY OF HIS MEASUREMENTS AND TOTAL FINISH REQUIREMENTS TO BE FURNISHED. NO REQUESTS FOR MATERIALS OR INSTALLATION EXTRAS WILL BE CONSIDERED DUE TO MEASUREMENT OR TAKEOFF ERRORS BY CONTRACTOR.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR DISTRIBUTION OF 100% CONSTRUCTION DOCUMENTS TO ALL TRADES AND NOT THE RESPONSIBILITY OF THE ARCHITECT.
- THE CONTRACTOR IS TO PROVIDE ALL LABOR AND MATERIALS TO EXECUTE ALL WORK AS SHOWN ON THESE DRAWINGS WITH THE EXCEPTION OF ITEMS OR AREAS MARKED "NOT IN CONTRACT", "N.I.C.", OR "BY OTHERS".
- THE CONTRACTOR SHALL KEEP SUFFICIENT WORKERS ON THE JOB SITE AT ALL TIMES TO PERFORM THE WORK IN THE MOST EXPEDITIOUS MANNER CONSISTENT WITH GOOD WORKMANSHIP, SOUND BUSINESS PRACTICE AND THE BEST INTEREST OF THE END USER.
- ALL FEES, TAXES, PERMITS, APPLICATIONS, CERTIFICATES OF INSPECTION AND THE FILING OF ALL WORK WITH GOVERNMENTAL AGENCIES SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. PERMIT APPLICATION FEE TO BE PROVIDED BY ORANGE COUNTY, THIS DOES NOT ALLEVIATE THE CONTRACTOR FROM PICKING UP THE PERMIT.
- CONTRACTOR SHALL NOT PROCEED WITH ANY ADDITIONAL WORK OR CHANGES FOR WHICH THEY EXPECT ADDITIONAL COMPENSATION WITHOUT WRITTEN AUTHORIZATION TO PERFORM SUCH WORK.
- CONTRACTOR SHALL AT ALL TIMES KEEP THE PREMISES FREE OF ACCUMULATION OF WASTE MATERIALS OR RUBBISH CAUSED BY HIS OPERATIONS OF THE OPERATIONS OF ANY OTHER CONTRACTORS WITHIN THE AREA OF WORK. METHODS FOR SUCH REMOVAL MUST BE AGREEABLE TO THE OWNER.
- PREMISES SHALL BE SWEEP CLEAN DAILY OF CONSTRUCTION DEBRIS.
- FINAL CLEANING PRIOR TO END USER OCCUPANCY SHALL INCLUDE (BUT NOT BE LIMITED TO): CLEANING OF ALL WOOD AND GLASS SURFACES, DUSTING OF ALL HORIZONTAL SURFACES, VACUUMING OF ALL CARPETED AREAS, REMOVAL OF ALL STAINS, SPOTS, SPILLS, ETC. ON ANY SURFACE, MOP CLEANING AND WAXING OF ALL RESILIENT FLOORS, AND CLEANING ALL VINYL WALL COVERINGS FREE FROM DIRT ADHESIVE OR OTHER FOREIGN MATERIALS.
- GENERAL CONTRACTOR AND HIS VENDORS SHALL DETERMINE AVAILABILITY OF ALL FINISH MATERIALS, TRADES AND ITEMS SHOWN IN THESE DOCUMENTS. ANY DELIVERY THAT MAY CAUSE POTENTIAL PROBLEMS IN MEETING AGREED UPON CONSTRUCTION SCHEDULE SHALL BE BROUGHT TO THE ARCHITECT'S ATTENTION FOR POSSIBLE REEVALUATION OF MATERIAL DESIGNATION.
- THE CONTRACTOR SHALL BE ANSWERABLE FOR THEIR WORK AND SHALL NOT ACCEPT INSTRUCTION FROM LOCAL PERSONNEL WITHOUT VERIFICATION FROM THE OWNER'S AGREED UPON REPRESENTATIVE. THE CONTRACTOR WILL BE LIABLE FOR ANY EXPENSE CAUSED BY THE EXECUTION AND REMOVAL OF SUCH WORK WITHOUT WRITTEN AUTHORIZATION FROM THE OWNER'S REPRESENTATIVE.
- PROVIDE ALL WOOD BLOCKING NECESSARY FOR THE ATTACHMENT OF MISCELLANEOUS EQUIPMENT INCLUDING BUT NOT LIMITED TO TV BRACKETS, DOOR HARDWARE, ELECTRICAL DEVICES, EQUIPMENT, CASEWORK AND MILLWORK, AS APPLICABLE.
- CONTRACTOR SHALL COMPLY WITH ALL THE RULES AND REGULATIONS OF THE BUILDING AS TO HOURS OF AVAILABILITY OF ELEVATORS, LOADING DOCKS, ETC. FOR THE PURPOSE OF DELIVERY AND THE MANNER OF HANDLING MATERIALS, EQUIPMENT AND DEBRIS, TO AVOID CONFLICT OR INTERFERENCE WITH NORMAL BUILDING OPERATIONS.
- EACH CONTRACTOR SHALL VERIFY ALL DIMENSIONS SHOWN ON THE DRAWINGS PRIOR TO PROCEEDING WITH CONSTRUCTION AND OBTAIN ALL MEASUREMENTS REQUIRED FOR PROPER EXECUTION OF WORK. ALL DISCREPANCIES AND OMISSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT. WHEN VERIFICATION OF EXISTING DIMENSIONS IS REQUIRED, THE CONTRACTOR REQUIRING SAID VERIFICATION FOR THE CONSTRUCTION OR FABRICATION OF HIS MATERIAL SHALL BE THE CONTRACTOR RESPONSIBLE FOR THE PROCUREMENT OF THE FIELD INFORMATION.
- THE TRANSITION OF DIFFERENT FLOORING MATERIALS AT A DOORWAY SHALL OCCUR AT THE CENTERLINE OF DOOR UNLESS INDICATED OTHERWISE.
- ALL WALL SURFACES, DOOR FRAMES, SHALL RECEIVE PAINT WHEN PAINT IS INDICATED ON THE FINISH SCHEDULE OR FINISH PLANS. PAINT SURFACES BEHIND MOVABLE EQUIPMENT AND FURNITURE SAME AS SIMILAR EXPOSED SURFACES. PAINT SURFACES BEHIND PERMANENTLY FIXED EQUIPMENT OR FURNITURE WITH PRIME COAT ONLY BEFORE FINAL INSTALLATION OF EQUIPMENT. PAINT ALL MECHANICAL AND ELECTRICAL EQUIPMENT EXPOSED IN FINISHED SPACES UNLESS INDICATED OTHERWISE.
- REPAIR ALL SURFACES DAMAGED BY NEW CONSTRUCTION TO MATCH EXISTING ADJACENT OR CONTIGUOUS FINISH.
- ALL CUTTING AND PATCHING AS A RESULT OF NEW CONSTRUCTION SHALL BE PERFORMED IN A WORKMANLIKE MANNER, AND SHALL MATCH IN COLOR, SHAPE, SIZE AND TEXTURE ADJACENT AND/OR CONTIGUOUS FINISHED SURFACES.

GENERAL NOTES

- FIGURED DIMENSIONS TAKE PRECEDENCE OVER SCALED MEASUREMENTS. DO NOT SCALE DRAWINGS.
- DETAILED DRAWINGS AND LARGER SCALE DRAWINGS TAKE PRECEDENCE OVER SMALL SCALE DRAWINGS.
- UNLESS OTHERWISE NOTED, PLAN DIMENSIONS ARE TAKEN FROM FACE OF STUDS TO FACE OF STUDS, OR FACE OF FINISH GYP. BD. (CORRIDORS), TO FACE OF FINISH.
- DOORS NOT OTHERWISE DIMENSIONED SHALL BE 8" FROM FACE OF ADJACENT CMU OR CONCRETE WALL TO ROUGH DOOR OPENING, AND 4" FROM FACE OF ADJACENT STUD WALL TO ROUGH DOOR OPENING.
- FOR CONSTRUCTION DETAILS NOT SHOWN, USE THE PRODUCT MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS AND STANDARD DETAILS, IN STRICT ACCORDANCE WITH THE PROJECT SPECIFICATION REQUIREMENTS AND DESIGN INTENT.
- PLAN NORTH DIFFERS FROM ACTUAL NORTH. ACTUAL NORTH IS INDICATED ON PLAN SHEETS FOR REMAINDER OF DISCIPLINES UNO. ORDINAL DIRECTIONS ON NON-CIVIL PLAN DRAWINGS ARE IN REFERENCE TO PLAN NORTH UNO.
- IF THE CONTRACTOR ENCOUNTERS ANY UNFORESEEN CONDITION, THE ARCHITECT MUST BE MADE AWARE FOR A POSSIBLE CHANGE IN DESIGN.
- THE CONTRACTOR SHALL REVIEW THE ARCHITECTURAL, STRUCTURE, CIVIL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR LOCATION AND DIMENSIONS OF CHASE, INSERTS, OPENINGS, SLEEVES, DEPRESSIONS AND OTHER PROJECT REQUIREMENTS. ALL DISCREPANCIES AND OMISSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO PROCEEDING WITH CONSTRUCTION.
- THESE DRAWINGS WERE DESIGNED TO BE USED (AND REFERENCED) BY AN EXPERIENCED, QUALIFIED AND FLORIDA LICENSED GENERAL CONTRACTOR. INTERPRETATION OF THE PLANS BY A LAY PERSON IS NOT RECOMMENDED OR AUTHORIZED BY THE ARCHITECT.
- CONTRACTOR SHALL SUBMIT SAMPLES TO THE ARCHITECT AND OWNER FOR REVIEW OF ALL MATERIALS TOGETHER WITH FINISHES AND INTENDED USE IN THE WORK PRIOR TO COMMENCEMENT OF WORK.
- WHEN THE JOB IS SUBSTANTIALLY COMPLETE, THE GENERAL CONTRACTOR SHALL PREPARE A PUNCH LIST OF ITEMS TO BE COMPLETED OR CORRECTED AND SUBMIT THIS LIST TO THE ARCHITECT AND TO THE END USER. FAILURE TO INCLUDE ANY ITEMS ON THIS LIST DOES NOT ALTER THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLETE THE WORK IN ACCORDANCE WITH THESE DOCUMENTS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE END USER (IN WRITING) ALL MANUFACTURER'S MANUALS, WARRANTIES, AND RECOMMENDED MAINTENANCE PROCEDURES/SCHEDULES FOR ALL EQUIPMENT AND FINISHES INSTALLED.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE GOVERNMENTAL AGENCY HAVING JURISDICTION AND SHALL CONFORM TO ALL LIFE SAFETY AND SANITARY LAWS, CITY, COUNTY, STATE, AND/OR FEDERAL ORDINANCES WHICH APPLY.
- THE MANUFACTURER'S STANDARD DETAILS OR APPROVED SHOP DRAWINGS / DATA SHEETS, IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, SHALL APPLY UNLESS OTHERWISE DETAILED IN CONSTRUCTION DOCUMENTS.
- ASBESTOS OR ANY ASBESTOS CONTAINING MATERIAL SHALL NOT BE USED UNDER ANY CIRCUMSTANCES.

DIMENSIONING

- UNLESS OTHERWISE NOTED, PLAN DIMENSIONS ARE TAKEN FROM:
 - A. FACE OF STUD TO FACE OF STUD
 - B. FACE OF CONCRETE MASONRY UNIT OR FACE OF CONCRETE WALL TO FACE OF STUD
- DOORS NOT OTHERWISE DIMENSIONED SHALL BE: 8" FROM FACE OF ADJACENT MASONRY WALL TO ROUGH DOOR OPENING, 4" FROM FACE OF ADJACENT STUD WALL TO ROUGH DOOR OPENING. REFER TO DOOR SCHEDULE FOR LOCATIONS OF DOORS DIMENSIONED TO NEAREST CORNER.
- SEE LARGE SCALE FOR DETAILS FOR LOCATIONS AND ALIGNMENTS OF PARTITIONS NOT DIMENSIONED ON FLOOR PLANS.

BORRELLI PARTNERS
ARCHITECTURE PLANNING LANDSCAPE INTERIORS
700 VASSAR STREET
ORLANDO, FL 32804 (407) 418-1338

SIGNATURE AND DATED SEAL

CONSULTANTS

ARCHITECTURAL GENERAL INFORMATION

PROJECT ADDRESS: PRESIDENTS DRIVE
8100 PRESIDENTS DRIVE
ORLANDO, FLORIDA
OWNER NAME AND ADDRESS
ORANGE COUNTY UTILITIES
9150 CURRY FORD RD.
ORLANDO, FL
32835

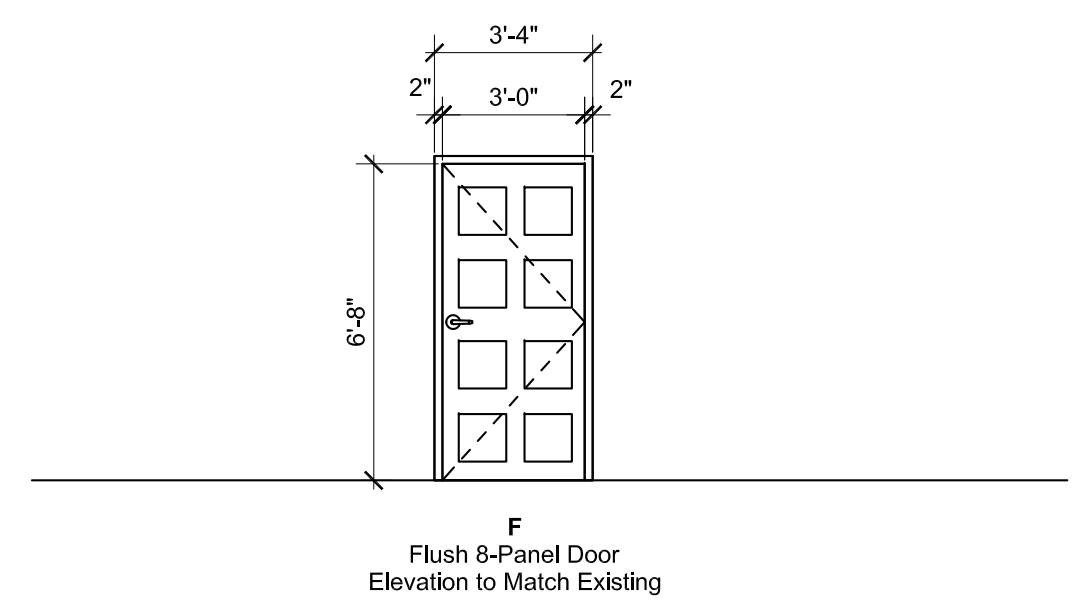
PROJECT NO.	17-002	REV.	DESCRIPTION	DATE	PROJECT ADDRESS	DATE	DESCRIPTION	DATE	DESCRIPTION	DATE
PHASE	PERMIT SET				PRESIDENTS DRIVE					
SCALE	1"=0'-0"		PERMIT COMMENTS	01-29-17	ORLANDO, FLORIDA					
FILE NAME	CAD FILE				OWNER NAME AND ADDRESS					
DRAWN BY	RP				ORANGE COUNTY UTILITIES					
CHECKED BY	JM				9150 CURRY FORD RD.					
DATE	12-5-2017				ORLANDO, FL					

A-0.1

OCU - PRESIDENTS DRIVE OPS CENTER - RETROFIT

ARB5890

JAMES L. MOORE



1 FIRST FLOOR PLAN
1/16"=1'-0"
PLAN NORTH

RENOVATION KEY NOTES
 ① NEW INTERIOR WALL TO ACT CEILING

CONSTRUCTION LEGEND:

 EXISTING CONSTRUCTION (LIGHTER)

 NEW CONSTRUCTION (DARKER)

Door Schedule													
Mark	Type	Door Material	Door Size			Frame Type	Frame Material	Frame Details			Name Type	Hardware Set	Remarks
			Width	Height	Thickness			Jamb	Head	Saddle			
101		WOOD	3' - 0"		0' - 1 3/4"		HM	HM	HM	HM	Flush	1.0	Existing
110		WOOD	3' - 0"		0' - 1 3/4"		HM	HM	HM	HM	Flush	2.0	Existing
110A	F	WOOD	3' - 0"	6' - 8"	0' - 1 3/4"		HM	HM	HM	HM	Flush	3.0	New
120		WOOD	3' - 0"		0' - 1 3/4"		HM	HM	HM	HM	Flush	4.0	Existing
131		WOOD	3' - 0"		0' - 1 3/4"		HM	HM	HM	HM	Flush	2.0	Existing
1187		WOOD	3' - 0"		0' - 1 3/4"		HM	HM	HM	HM	Flush	2.0	Existing
1205		WOOD	3' - 0"		0' - 1 3/4"		HM	HM	HM	HM	Flush	5.0	Existing
1216		WOOD	3' - 0"		0' - 1 3/4"		HM	HM	HM	HM	Flush	2.0	Existing

OCU - PRESIDENTS DRIVE OPS CENTER - RETROFIT

PROJECT NO. 17-02	REV.	DESCRIPTION	DATE	PROJECT ADDRESS	DRAWING TITLE	CONSULTANTS	SIGNATURE AND DATED SEAL
	PHASE PERMIT SET	SCALE 1"=0'-0"	FILE NAME CAD FILE	PRESIDENTS DRIVE 8100 PRESIDENTS DRIVE ORLANDO, FLORIDA			
DRAWN BY JM	CHECKED BY JM	DATE 12-2-2017	OWNER NAME AND ADDRESS				
			ORANGE COUNTY UTILITIES 9150 CURRY FORD RD. ORLANDO, FL 32835				



BORRELLI PARTNERS
 ARCHITECTURE PLANNING INTERIOR
 720 VASSAR STREET
 ORLANDO, FL 32804 (407) 418-1338
CONSULTANTS SHALL BE RESPONSIBLE FOR THE CONTENTS OF THIS DRAWING. THESE DRAWINGS SHALL NOT BE TRANSMITTED TO ANY OTHER PARTY EXCEPT AS NOTED TO THE ARCHITECT. COPYRIGHT BORRELLI + PARTNERS, A.C. 00/17

HVAC GENERAL NOTES

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE 2014 FLORIDA BUILDING CODE (5TH EDITION), THE 2014 FLORIDA MECHANICAL CODE (5TH EDITION), THE 2014 FLORIDA ENERGY EFFICIENCY CODE (5TH EDITION), ORANGE COUNTY BUILDING CODE COMPLIANCE OFFICE (BCCO) AND ALL OTHER APPLICABLE DESIGN GUIDELINES, CODES AND STANDARDS.
- CONTRACTOR SHALL VERIFY AND COORDINATE ALL DIMENSIONS IN THE FIELD FOR EQUIPMENT, DUCTWORK AND WALL PENETRATIONS.
- REFER TO ARCHITECTURAL DRAWINGS FOR CLEARANCES WITHIN THE CEILING SPACE, MECHANICAL ROOMS, LOCATIONS AND SIZES OF BEAMS AND CEILING AND SOFFIT HEIGHTS.
- DUCTWORK AND EQUIPMENT LOCATIONS AND CLEARANCES SHALL BE COORDINATED WITH GENERAL, PLUMBING, FIRE PROTECTION AND ELECTRICAL CONTRACTORS. REFER TO EXISTING ARCHITECTURAL PLANS FOR BUILDING SECTIONS AND DETAILS.
- CONNECTION TO ALL EQUIPMENT SHALL BE VERIFIED WITH MANUFACTURERS CERTIFIED DRAWINGS. TRANSITIONS TO ALL EQUIPMENT SHALL BE VERIFIED AND PROVIDED FOR ALL EQUIPMENT FURNISHED.
- ALL EQUIPMENT SHALL BE PROPERLY SUPPORTED AND ISOLATED TO PREVENT NOISE AND VIBRATION TRANSMISSION. ALL AIR HANDLING EQUIPMENT SHALL BE SUPPORTED OR SUSPENDED WITH SPRING VIBRATION ISOLATORS PADS. ALL CONNECTIONS BETWEEN AIR HANDLING EQUIPMENT AND DUCTWORK SHALL BE CANVAS FLEXIBLE CONNECTORS.
- ALL MECHANICAL EQUIPMENT SHALL BE LOCATED WITH RESPECT TO BUILDING CONSTRUCTION AND OTHER EQUIPMENT SO AS TO PERMIT ACCESS TO THE MECHANICAL EQUIPMENT IN CONFORMANCE WITH ANY CLEARANCE WHICH MAY BE RECOMMENDED BY THE MANUFACTURER OF THE EQUIPMENT. SUFFICIENT CLEARANCE SHALL BE MAINTAINED FOR CLEANING COILS, MOTORS, BURNERS, AS WELL AS CHANGING FILTERS. ALL EQUIPMENT SHALL BE LOCATED WITHIN THE MECHANICAL ROOM AND CEILING SPACES WITH ADEQUATE CLEARANCES FOR REPAIR AND MAINTENANCE. ALL PIPING AND DUCTWORK SHALL BE INSTALLED TO PROVIDE ADEQUATE CLEARANCE FOR ACCESS TO ALL EQUIPMENT. INSTALLATION OF ALL MECHANICAL EQUIPMENT SHALL COMPLY WITH THE MANUFACTURERS SPECIFICATION AND CLEARANCE REQUIREMENT.
- ALL CONDENSING UNITS SHALL BE MOUNTED ON 4" THICK CONCRETE PADS AND SHALL BE SECURED TO THE CONCRETE PAD WITH 2" WIDE 10 GAUGE GALVANIZED STEEL STRAPS EVERY 24" ON CENTER. INSTALLATION SHALL MEET THE WINDLOAD REQUIREMENTS OF THE 2014 FLORIDA BUILDING CODE.
- REFER TO THE EXISTING MECHANICAL AND ARCHITECTURAL DRAWINGS FOR LOCATIONS OF ALL FIRE AND SMOKE RATED PARTITIONS. ALL REFRIGERANT PIPING PENETRATIONS THROUGH FIRE RATED/SMOKE RATED PARTITIONS OR FLOORS AND CEILINGS SHALL BE SEALED WITH FIRE RATED CAULKING.
- FURNISH AND INSTALL INSULATED PVC CONDENSATE DRAINS WITH TRAPS FOR ALL COOLING COILS. DRAIN LINE SIZE SHALL MATCH THE OPENING OF THE CONDENSATE DRAIN PAN.
- ALL REFRIGERANT PIPING AND CONDENSATE PIPING SHALL BE FULLY SUPPORTED IT'S ENTIRE LENGTH AND SHALL BE ANCHORED TO PREVENT SWAY AND VIBRATION. PROVIDE SUPPORT SPACING AS REQUIRED BY 2014 FBCM SECTION 305.
- COORDINATE ALL CONTROL DEVICES WITH THE ELECTRICAL CONTRACTOR AND DDC CONTROL CONTRACTOR.
- ALL CONTROL WIRING AND INTERLOCK WIRING LOCATED IN MECHANICAL ROOMS, IN NON ACCESSIBLE CEILINGS AND EXPOSED TO OUTDOORS SHALL BE IN CONDUIT.
- THERMOSTAT LOCATIONS ARE TENTATIVE. FINAL THERMOSTAT LOCATIONS SHALL BE APPROVED BY THE OWNER PRIOR TO INSTALLATION. THERMOSTATS SHALL BE LOCATED 48"-54" ABOVE THE FINISHED FLOOR IN ACCORDANCE WITH ADA REQUIREMENTS AND THE 2010 FLORIDA ACCESSIBILITY CODE.
- ALL REFRIGERANT LINES FOR SPLIT SYSTEM DX UNITS SHALL HAVE FILTER DRYERS AND SIGHT GLASSES. ALL PIPING BELOW SLAB SHALL BE WITHOUT JOINTS AND RUN IN A PIPING CHASE OR CONDUIT OF SUFFICIENT SIZE TO ALLOW REPLACEMENT OF THE PIPING IN THE FUTURE. EACH END OF THE CHASE SHALL BE SEALED AIR TIGHT AND WATERTIGHT.
- ALL REFRIGERANT PIPING EXPOSED TO THE EXTERIOR SHALL BE INSULATED WITH 1" THICK CLOSED CELL FOAM INSULATION (ARMAFLEX) AND SHALL BE WRAPPED WITH ALUMINUM JACKETING OR PAINTED WITH U.V. INHIBITING ELASTOMERIC PAINT.
- ALL REFRIGERANT PIPING IN CONCEALED CHASES FOR SPLIT SYSTEM DX UNITS SHALL BE SOFT DRAWN TYPE K COPPER. SERVICE FITTINGS FOR REFRIGERANT LINES SHALL BE LOCATED IN A MANNER TO BE INACCESSIBLE TO THE PUBLIC. INSULATE ALL EXTERIOR EXPOSED REFRIGERANT LINES WITH 1" ARMAFLEX INSULATION AND WRAP WITH ALUMINUM JACKETING.
- CONTRACTOR SHALL LABEL ALL EQUIPMENT (FANS, AIR HANDLING UNITS AND CONDENSING UNITS) WITH ENGRAVED TYPE PHENOLIC LABELS PERMANENTLY AFFIXED TO THE EQUIPMENT. CONTRACTOR SHALL INSTALL ADDITIONAL PHENOLIC LABEL TO THE CEILING GRID TEE BELOW ANY CEILING MOUNTED EQUIPMENT LOCATED ABOVE ACOUSTICAL LAY-IN CEILINGS OR TO THE CEILING ACCESS PANEL LOCATED BELOW ANY CEILING MOUNTED EQUIPMENT LOCATED ABOVE GYPSUM BOARD CEILINGS.
- THE CONTRACTOR SHALL PROVIDE A WRITTEN GUARANTEE THAT SHALL WARRANT ALL WORKMANSHIP AND MATERIALS FOR ONE (1) YEAR. DURING THE FIRST YEAR ALL SYSTEM MALFUNCTIONS SHALL BE REPAIRED AT NO EXPENSE TO THE OWNER. THE COMPRESSORS SHALL HAVE A 5 YEAR WARRANTY (LABOR & MATERIALS).
- OPERATION AND MAINTENANCE MANUALS SHALL INCLUDE AS A SEPARATE SUBMITTAL ITEM, PREVENTATIVE MAINTENANCE REQUIREMENTS ALONG WITH TIME SCHEDULE(S) FOR EACH ITEM. THE SEQUENCE OF OPERATION SHALL ALSO INCLUDE A DEFINITIVE SEQUENCE OF OPERATION OF THE MECHANICAL SYSTEM AND COMPONENTS AS THEY FUNCTION INTEGRALLY AND INDEPENDENTLY WITH THE SYSTEM.
- THE CONTRACTOR SHALL PREPARE REDLINED AS-BUILT DRAWINGS OF THE HVAC SYSTEMS AT THE COMPLETION OF THE PROJECT CONSTRUCTION AND SHALL INCLUDE THOSE AS-BUILT DRAWINGS AT PROJECT CLOSEOUT ALONG WITH THE O&M MANUAL.
- THE CONTRACTOR SHALL PROVIDE A COMPLETE HVAC SHOP DRAWING SUBMITTAL TO THE ENGINEER FOR REVIEW AND APPROVAL. THE HVAC SUBMITTAL SHALL INCLUDE ALL AIR CONDITIONING EQUIPMENT, FANS, HEATERS, PUMP, PIPING DUCTWORK, INSULATION, DIFFUSERS, REGISTERS & GRILLES, CONTROLS, DAMPERS, HANGERS ETC. CONTRACTOR SHALL NOT ORDER ANY HVAC EQUIPMENT UNTIL THIS SUBMITTAL IS REVIEWED AND ACCEPTED BY THE ENGINEER OF RECORD. CONTRACTOR SHALL SUBMIT THE SHOP DRAWING AS ONE COMPLETE SUBMITTAL AND SHALL NOT PIECE MEAL THE SUBMITTAL SPREAD OUT OVER THE COURSE OF DAYS AND WEEKS. FAILURE TO SUBMIT A COMPLETE HVAC SHOP DRAWING SUBMITTAL SHALL RESULT IN AN IMMEDIATE REJECTION OF THE SHOP DRAWING SUBMITTAL.

SCOPE OF WORK

THE HVAC SCOPE OF WORK FOR THIS PROJECT INCLUDES BUT IS NOT LIMITED TO ALL LABOR AND MATERIALS NECESSARY FOR THE FOLLOWING ITEMS:

- CONTRACTOR SHALL FURNISH AND INSTALL A NEW MINI SPLIT A/C SYSTEM (COOLING ONLY) FOR EQUIPMENT ROOM 110. THE SPLIT SYSTEM SHALL HAVE A WALL MOUNTED AIR HANDLING UNIT WITH ITS ASSOCIATED CONDENSING UNIT LOCATED AT GRADE OUTSIDE OF THE BUILDING.
- CONTRACTOR SHALL ROUTE THE SPLIT SYSTEM REFRIGERANT PIPING ABOVE THE CEILING TO THE EXTERIOR OF THE BUILDING.
- CONTRACTOR SHALL PROVIDE A CONDENSATE PUMP FOR AHU-1.1. CONDENSATE SHALL BE PIPED TO JANITOR CLOSET MOP SINK IN THE ADJACENT ROOM.
- PROVIDE CONTROLS FOR NEW A/C SYSTEM.

HVAC SYMBOL LEGEND			
	DUCT—FIRST DIM. IS WIDTH DUCT—SECOND DIM. IS HEIGHT		DUCT TAKE-OFF W/ VOLUME DAMPER
	DUCT ELBOW DOWN		POINT OF CONNECTION NEW TO EXISTING WORK
	DUCT ELBOW UP		POINT OF EXTENT OF REMOVAL OF EXISTING HVAC
	DUCT RISE		THERMOMETER
	DUCT DOWN		PRESSURE GAUGE
	DUCT UNDER POSITIVE PRESSURE		UNION OR FLANGE
	DUCT UNDER NEGATIVE PRESSURE		BALL OR BUTTERFLY VALVE
	ELBOW W/TURNING VANES		CHECK VALVE
	TAKE-OFF W/EXTRACTOR		MODULATING CONTROL VALVE
	FLEXIBLE DUCT		TWO POSITION CONTROL VALVE
	FLEXIBLE CONNECTION		PLUG VALVE W/ MEMORY
	SUPPLY AIR TERMINAL ARROW INDICATES THROW		FLEXIBLE PIPE
	RETURN OR EXHAUST AIR		STRAINER
	LINEAR DIFFUSERS		MANUAL AIR VENT
	SIDE MOUNTED EHD		AUTOMATIC AIR VENT
	BOTTOM MOUNTED EHD		3/4" HOSE END DRAIN PIPE
	FIRE DAMPER		CHILLED WATER SUPPLY
	SMOKE DAMPER		CHILLED WATER SUPPLY
	SMOKE AND FIRE DAMPER		HOT WATER SUPPLY
	VOLUME DAMPER		HOT WATER RETURN
	REMOTE VOLUME DAMPER		REFRIGERANT HOT GAS
	MOTORIZED DAMPER		REFRIGERANT LIQUID
	BACKDRAFT DAMPER		REFRIGERANT SUCTION
	SMOKE DETECTOR (DUCT MOUNTED)		CONDENSATE DRAIN
	CEILING ACCESS DOOR		PIPE ELBOW DOWN
	DUCT ACCESS DOOR		PIPE ELBOW UP
	HUMIDITY SENSOR		PIPE ELBOW
	ROOM SENSOR		PIPE TEE DOWN
	THERMOSTAT		PIPE TEE UP
			ROUND

HVAC ABBREVIATIONS			
AC	AIR CONDITIONING	HD	HUB DRAIN
AHU	AIR HANDLING UNIT	HOA	HAND/OFF/AUTOMATIC
AFF	ABOVE FINISHED FLOOR	HP	HORSEPOWER
BDD	BACKDRAFT DAMPER	HVAC	HEATING, VENTILATING & AIR CONDITIONING
BHP	BRAKE HORSEPOWER	H2O	WATER
BMS	BUILDING MANAGEMENT SYSTEM	INIT	INITIAL
BTU	BRITISH THERMAL UNIT	KSU	KITCHEN AIR SUPPLY UNIT
CF	CHEMICAL FEEDER	LAT	LVG. AIR TEMPERATURE
CFM	CUBIC FEET PER MINUTE	LD	LINEAR DIFFUSER
CLG	CEILING	LR	LINEAR RETURN
CYC	CYCLES	LVG	LEAVING
COND	CONDENSATE	LWT	LVG. WATER TEMPERATURE
CC	COOLING COIL	MAU	MAKE UP AIR UNIT (KITCHEN HOOD)
CD	CEILING DIFFUSER	MBH	MEGA BTU PER HOUR
CG	CEILING GRILLE	MD	MOTORIZED DAMPER
DIM	DIMENSION	NC	NOISE CRITERIA
DB	DRY BULB	NIC	NOT IN CONTRACT
F	DEGREES FAHRENHEIT	OA	OUTSIDE AIR
DWG	DRAWING	OPER	OPERATING
EA	EXHAUST AIR	OV	OUTLET VELOCITY
EAT	ENTERING AIR TEMPERATURE	PCF	PUMP, CHEMICAL FEED
EG	EXHAUST AIR GRILLE	PCH	PUMP, CHILLED WATER
EHC	ELECTRIC HEATING COIL	PD	PRESSURE DROP
EHD	ELECTRIC HEATER, DUCT	PH	PHASE
EHU	ELECTRIC UNIT HEATER	RG	RETURN AIR GRILLE
EHW	ELECTRIC HEATER, WALL	ROT	ROTATION
ENT	ENTERING	RPM	REVOLUTION PER MINUTE
ER	EXHAUST AIR REGISTER	RVD	REMOTE VOLUME DAMPER
EWT	ENT. WATER TEMPERATURE	SA	SUPPLY AIR
F	FILTER	SENS	SENSIBLE
FCU	FAN COIL UNIT	SD	SPLITTER DAMPER
EF	EXHAUST FAN	SP	STATIC PRESSURE
EFG	EXHAUST FAN, GREASE	SR	SUPPLY AIR REGISTER
FF	FLY FAN	TG	TRANSFER AIR GRILLE
FPI	FINS PER INCH	TEMP	TEMPERATURE
FPM	FEET PER MINUTE	UD	UNDERCUT DOOR
FR	FAN, RETURN	VG	VENT, GRAVITY
SF	SUPPLY FAN	W	WATTS
GPM	GALLONS PER MINUTE	WB	WET BULB
		W/	WITH

DESIGN CONDITION SCHEDULE

	SUMMER	WINTER
OUTDOOR	94 °F db/78 °F wb	35 °F db
INDOOR	75 °F db/50%RH MAX	72 °F db

NOTE: TEMPERATURE SETTINGS IS FOR SYSTEM ROOMS ONLY

SIGNATURE AND DATED SEAL

CONSULTANTS

DRAWING TITLE

PROJECT ADDRESS

REV. DESCRIPTION DATE

PROJECT NO. PHASE PERMIT SET SCALE FILE NAME DRAWN BY CHECKED BY DATE

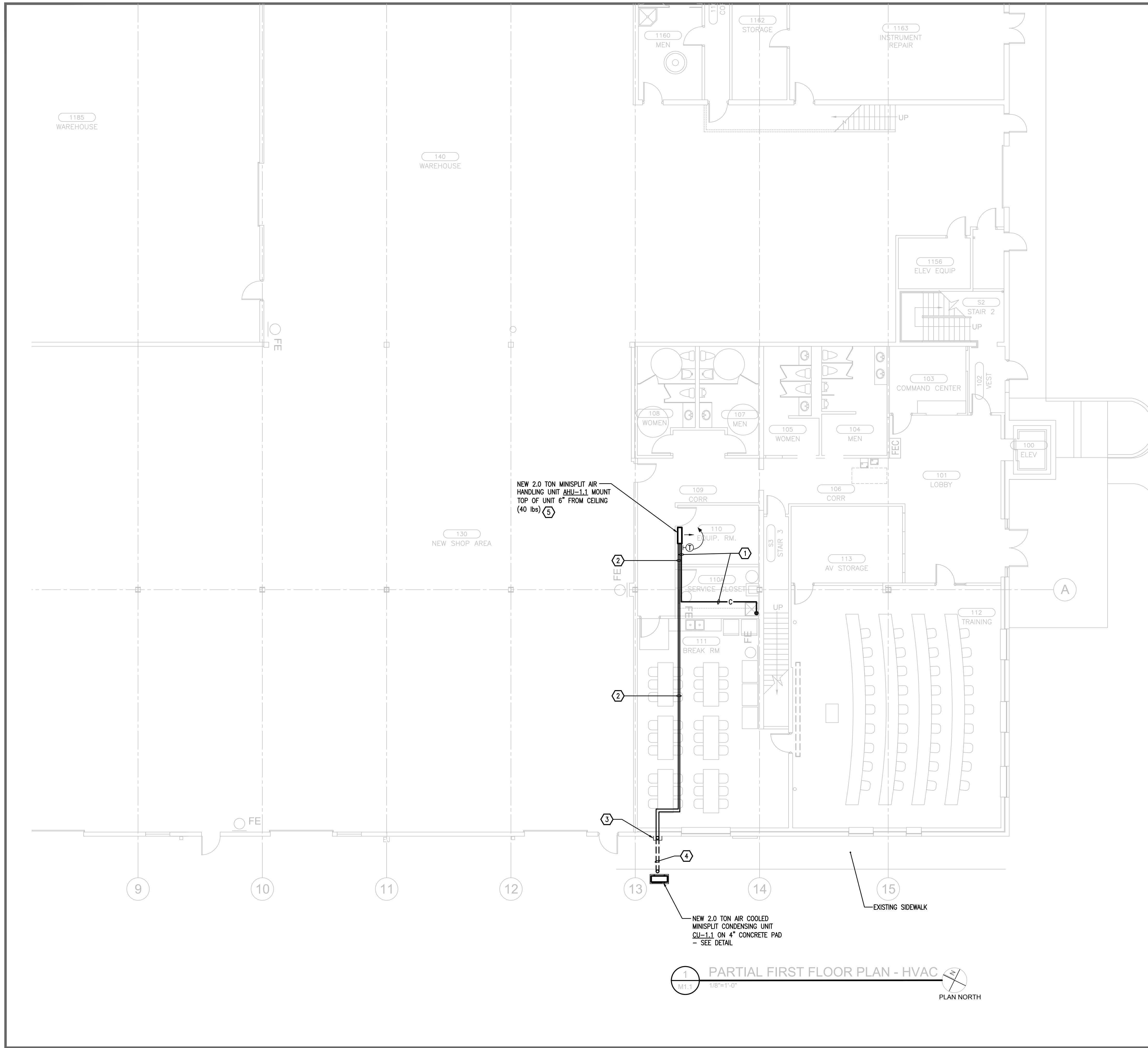
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BORRELLI PARTNERS
Architectural Planning, Landmarks, Interiors
720 VASSAR STREET
ORLANDO, FL 32804 (407) 418-1338
CONSULTANTS: THE CONSULTANTS OF THE DRAWING SHALL NOT BE RESPONSIBLE FOR THE CONTENTS OF THE DRAWING UNLESS SPECIFICALLY NOTED TO THE CONTRARY. PART EXCPT. IS AGREED TO BY THE ARCHITECT (C)BORRELLI PARTNERS, LLC (06/11)

BOBES ASSOCIATES
MECHANICAL ENGINEERING
10000 WINDY HOLLOW LANE, FL 32751
ORLANDO, FL 32826
TELEPHONE: 407-266-0822
FAX: 407-266-0822
FLORIDA STATE P.E. NUMBER: 5131

HVAC GENERAL NOTES AND SYMBOLS

OWNER NAME AND ADDRESS
PRESIDENTS DRIVE
8100 PRESIDENTS DRIVE
ORLANDO, FLORIDA
9150 CLURRY FORD RD.
ORLANDO, FL
32825



HVAC KEY NOTES

- ① ROUTE INSULATED PUMPED CONDENSATE DRAIN LINE IN CEILING SPACE AND SPILL OVER MOP SINK. CONTRACTOR TO REMOVE AND REPLACE CEILING TILES AS NECESSARY. REPLACE ANY TILES DAMAGED DURING CONSTRUCTION.
- ② ROUTE INSULATED REFRIGERANT LINES IN CEILING SPACE TO EXTERIOR OF BUILDING. CONTRACTOR TO REMOVE AND REPLACE CEILING TILES AS NECESSARY. REPLACE ANY TILES DAMAGED DURING CONSTRUCTION.
- ③ ROUTE INSULATED REFRIGERANT LINES DOWN ALONG EXTERIOR WALL AND THROUGH SIDE WALL. CORE DRILL WALL AND PATCH WALL CONCRETE PANEL AND SEAL OPENING. PROVIDE 3 SIDED VERTICAL GALVANIZED STEEL COVER/CHASE. PAINT COVER/CHASE TO MATCH BUILDING.
- ④ SAW CUT SLAB AND PATCH/REPAIR AS NECESSARY TO RUN 4" PVC CONDUIT UNDERSLAB FOR REFRIGERANT LINES.
- ⑤ PROVIDE WALL MOUNTED T-STAT AND CONTROLS AS NECESSARY TO INTEGRATE THE NEW A/C SYSTEM WITH THE EXISTING BUILDING AUTOMATION SYSTEM.

SEQUENCE OF CONTROLS

- 1. AHU-1.1/CU-1.1 SHALL BE CONTROLLED BY A WALL MOUNTED THERMOSTAT LOCATED IN EQUIPMENT ROOM 110.
- 2. AHU-1.1/CU-1.1 SHALL OPERATE CONTINUOUSLY 24 HOURS A DAY 7 DAYS A WEEK. THERE IS NO NIGHT SETBACK OR UNOCCUPIED MODE THIS SYSTEM.
- 2. CONTRACTOR SHALL PROVIDE CONTROLS AS NECESSARY TO INTEGRATE THIS SYSTEM WITH THE EXISTING BUILDING AUTOMATION SYSTEM. THE BAS SHALL MONITOR ROOM TEMPERATURE AND SYSTEM STATUS (ON/OFF).

1 PARTIAL FIRST FLOOR PLAN - HVAC
 1/8"=1'-0"
 PLAN NORTH

OCU - PRESIDENTS DRIVE OPS CENTER - RETROFIT

PROJECT NO. 17-102	DESCRIPTION PERMIT SET	DATE	PROJECT ADDRESS PRESIDENTS DRIVE 8100 PRESIDENTS DRIVE ORLANDO, FLORIDA	DRAWING TITLE FIRST FLOOR PLAN - HVAC	CONSULTANTS BOBES ASSOCIATES CONSULTING ENGINEERS 10000 WINDY HOLLOW LANE, SUITE 200 ORLANDO, FLORIDA 32825 PHONE: 407.262.0822 FAX: 407.262.0822 FLORIDA STATE P.E. NUMBER: 5131	SIGNATURE AND DATED SEAL AUGUSTO E. BOBES JR., P.E. FLORIDA P.E. # 39410
PHASE SCALE 1"=0'-0"	FILE NAME CAD FILE	DRAWN BY MB	OWNER NAME AND ADDRESS ORANGE COUNTY UTILITIES 9150 CLURRY FORD RD. ORLANDO, FL 32825			
CHECKED BY AB/J	DATE 12-7-2017					



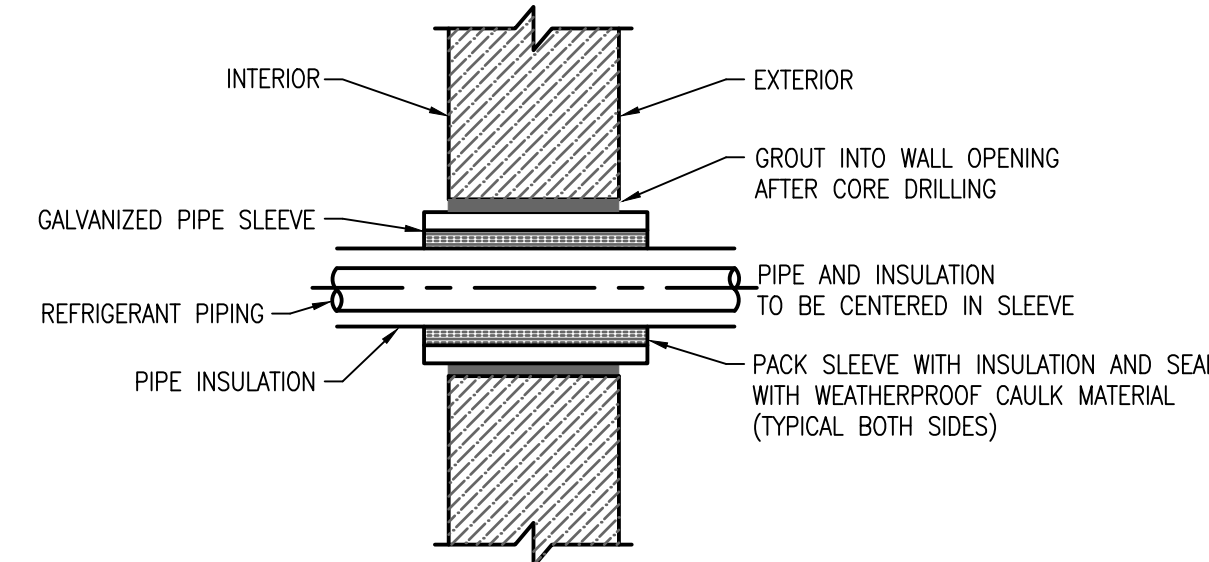
BORRELLI PARTNERS
 ARCHITECTURE PLANNING INTERIORS
 720 VASSAR STREET
 ORLANDO, FL 32804 (407) 418-1338
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AIR HANDLING UNIT SCHEDULE

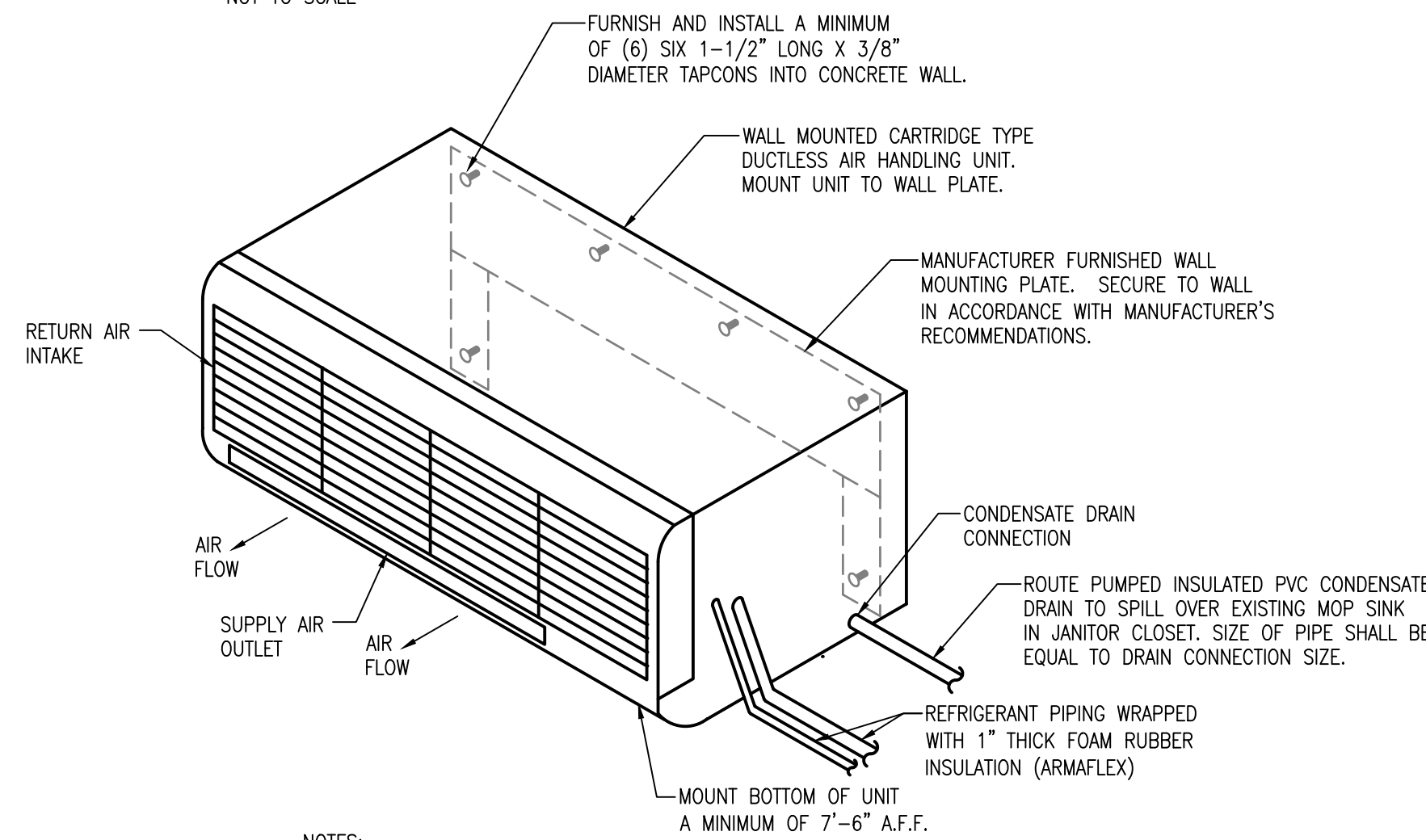
UNIT NUMBER	NOMINAL CAPACITY (TONS)	LEVEL	LOCATION	FAN DATA										DX COOLING COIL DATA										ELECTRIC HEATING COIL						UNIT ELECTRICAL DATA		CONTROLS	FILTER DATA		EFFICIENCY SEER/EER	MANUFACTURER/MODEL	WEIGHT (lbs)
				AREA SERVED	SUPPLY AIR (CFM)	OUTSIDE AIR (CFM)	TOTAL STATIC IN. W.G.	EXTERNAL STATIC IN. W.G.	MAX OUTLET VEL. F.P.M.	RPM	BHP	HP	TOTAL CAPACITY (MBH)	SENSIBLE CAPACITY (MBH)		FACE AREA	NO. ROWS	STATIG IN. W.G.	ENT. AIR °F		LVG. AIR °F		KW.	VOLTS/PHASE	CYCLES	HEATER FLA	UNIT MCA	UNIT FUSE	TYPE	CLEAN P.D. IN W.C.	SIZE						
														DB	WB				DB	WB	--	--										--	--				
AHU-1.1	2.0	2	SYS ROOM 604	SYS ROOM 604	420-640	0															208	1	60		0.45	NA	WIRED T-STAT/DDC CONTROLS				17.5	CARRIER 40MHH-024B-3	31				

NOTES

1. AHU SHALL UTILIZE R410A REFRIGERANT.
2. BLOWER MOTOR SHALL BE DIRECT DRIVE.
3. UNIT SHALL HAVE NO HEATING- COOLING ONLY.
4. AHU SHALL BE WALL MOUNTED CARTRIDGE TYPE WITH INTEGRAL CONDENSATE PUMP.
5. UNIT SHALL BE CONTROLLED BY UNITED TECHNOLOGIES DDC CONTROL SYSTEM.
6. POWER SHALL BE FED FROM OUTDOOR UNIT.



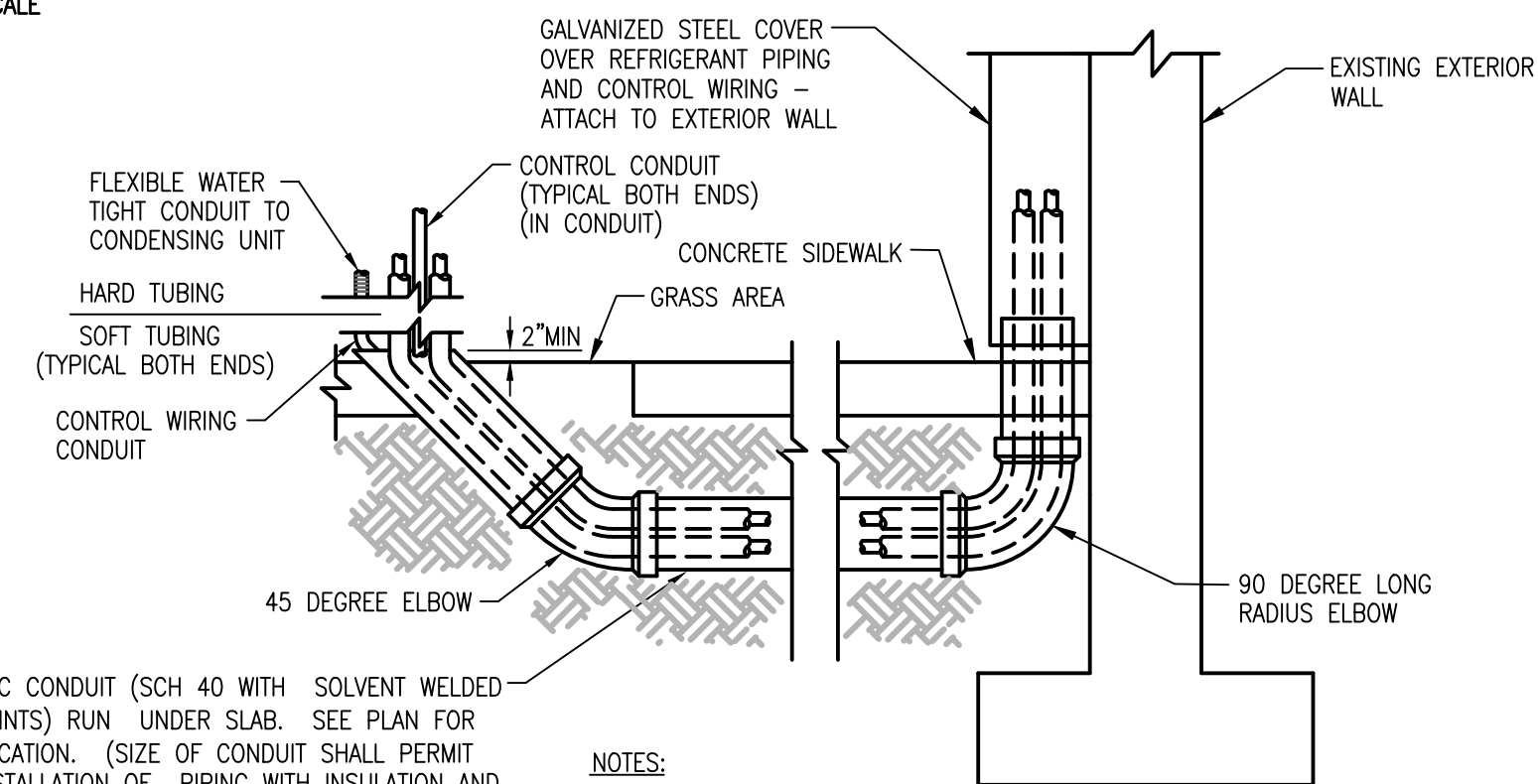
REFRIGERANT PIPING WALL PENETRATION DETAIL
NOT TO SCALE



NOTES:

1. ALL REFRIGERANT AND CONDENSATE DRAIN PIPE PENETRATIONS OF EXISTING FIRE RATED WALL SHALL BE SEALED WITH APPROVED FIRE RATED CAULKING.
2. PROVIDE MANUFACTURER'S AUXILIARY DRAIN PAN SENSOR AND ACCESSORY CONDENSATE PUMP FOR EACH AIR HANDLING UNIT. CONDENSATE PUMP IS INTEGRAL TO AHU AND IS INTERNALLY POWERED BY ITS AIR HANDLING UNIT.

DUCTLESS AIR HANDLING UNIT MOUNTING DETAIL
NOT TO SCALE



NOTES:

1. SLEEVES FOR CONDUITS SHALL BE CAST INTO FOUNDATION WALL POUR COORDINATE SIZES REQUIRED AND LOCATIONS WITH CONTRACTORS OF OTHER DIVISIONS PRIOR TO INSTALLATION.
2. CONDUITS WHICH MUST PASS BELOW STRUCTURAL FOUNDATIONS SHALL HAVE MINIMUM 6" FINE GRAVEL AROUND PERIMETER 2'-0" TO EITHER SIDE OF STRUCTURE - FIRMLY TAMPED.
3. ALL BACKFILLING SHALL BE FIRMLY TAMPED, PRIOR TO LANDSCAPE WORK. EXCAVATION AND BACKFILL SHALL BE IN ACCORDANCE WITH DIVISION 15 SPECIFICATIONS.
4. ALL EXPOSED PIPING (INTERIOR AND EXTERIOR) SHALL BE WRAPPED WITH AN ALUMINUM JACKET.

PIPE CHASE SIZES	
SUCTION PIPE SIZE	PVC REFRIGERANT PIPE CHASE SIZE
5/8" TO 1 5/8"	4"
1 7/8" TO 2 5/8"	6"
3 1/8" TO 4 1/8"	8"

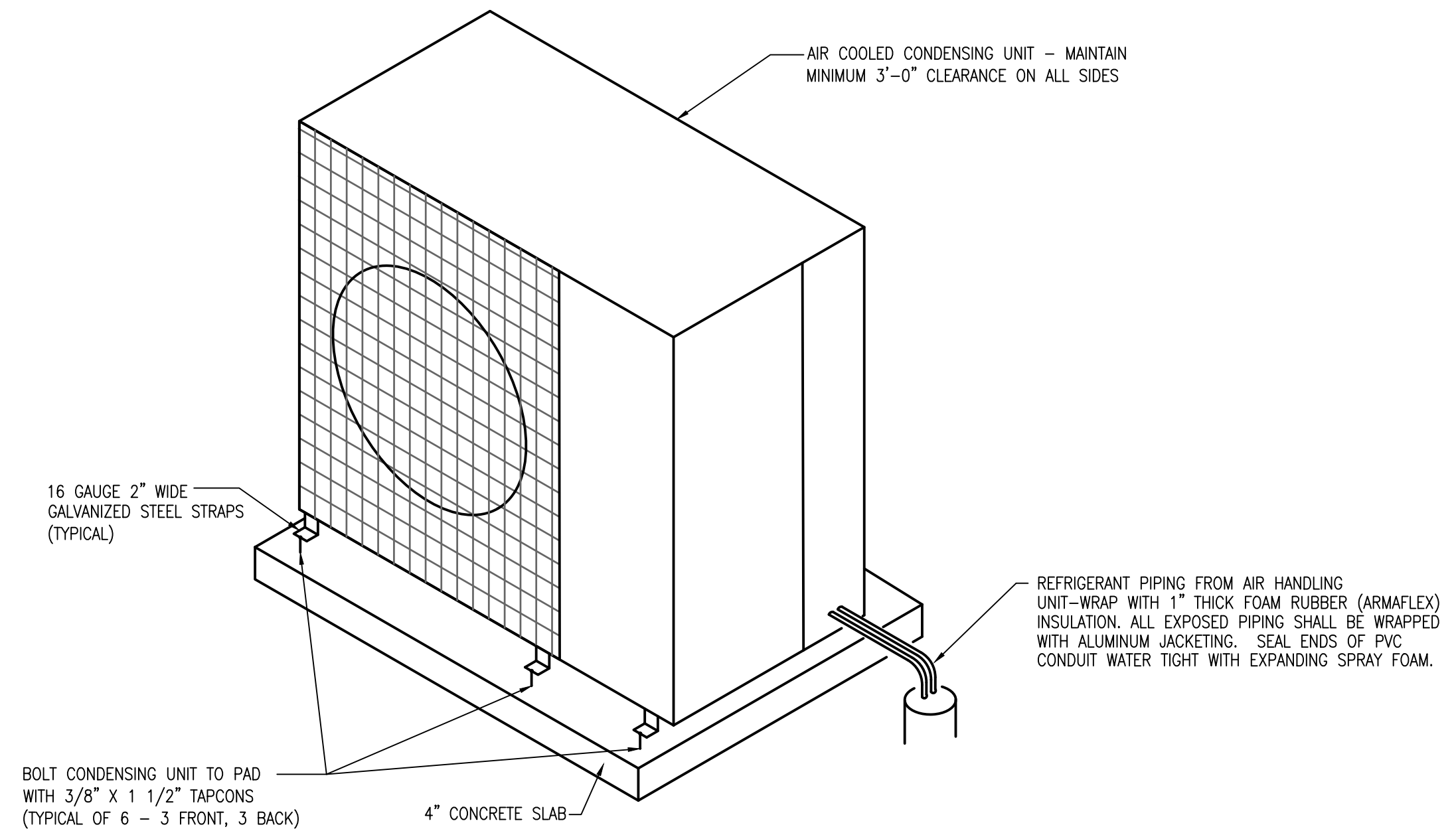
REFRIGERANT PIPING CONDUIT DETAIL
NOT TO SCALE

CONDENSING UNIT SCHEDULE

UNIT NUMBER	NOMINAL CAPACITY (TONS)	COOLING CAPACITY BTU/HR AT ARI CONDITIONS	EER/ SEER	ELECTRICAL						MANUFACTURER/MODEL	UNIT WEIGHT		
				COMPRESSOR		FAN FLA	UNIT						
				LRA	RLA		LRA	MCA	FUSE			VOLTS/PHASE	CYCLE
CU-1.1	2.0	24,000	17.5				16.0	25	208	1	60	CARRIER 38MHRC24A-3	145

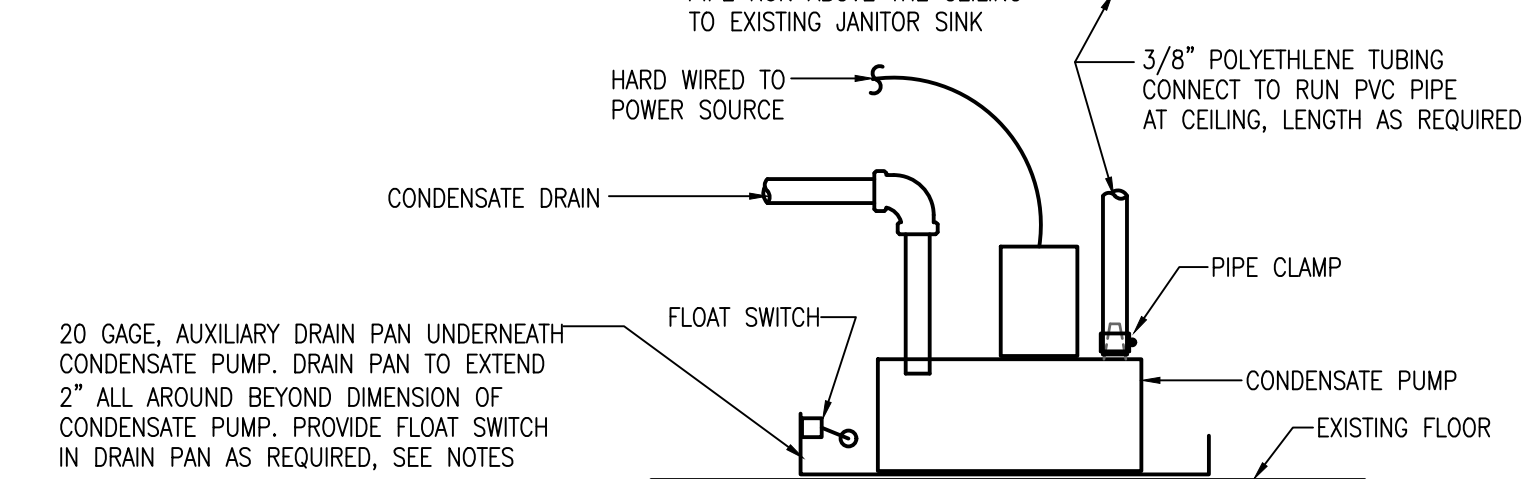
NOTES

1. CONDENSING UNIT SHALL UTILIZE R-410A REFRIGERANT.
2. PROVIDE FACTORY FABRICATED HAIL GUARD ON CONDENSING UNIT COIL.
3. CONTRACTOR SHALL SECURE CONDENSING UNIT TO CONCRETE SERVICE PAD IN ACCORDANCE WITH WIND LOAD REQUIREMENTS AS SET FORTH IN THE 2015 FLORIDA BUILDING CODE WITH 2016 AND 2017 SUPPLEMENTS.
4. COMPRESSOR SHOULD BE ROTARY TYPE INVERTER.
5. UNIT SHALL BE A MULTISPLIT CONDENSING UNIT.



VERTICAL CONDENSING UNIT DETAIL
NOT TO SCALE

CONDENSATE PUMP DETAIL



NOTES

1. CONDENSATE PUMP SHALL BE LITTLE GIANT MODEL VCM-20ULS OR EQUAL, 120 VOLTS, 1/30 HP, WITH SAFETY SWITCH. AND 1/2 GALLON TANK. SAFETY SWITCH SHALL SHUT DOWN ITS ASSOCIATED AHU UPON ACTIVATION.
2. PROVIDE FLOAT SWITCH IN DRAIN PAN IF CONDENSATE PUMP DOES NOT HAVE A SAFETY SWITCH. UPON ACTIVATION OF FLOAT SWITCH IT SHALL DE-ACTIVATE AIR HANDLING EQUIPMENT ASSOCIATED WITH THE CONDENSATE PUMP.
3. IF 6 FOOT POWER CORD IS FURNISHED, PROVIDE STRAP OVER/AROUND PLUG TO PREVENT EASY REMOVAL OF PLUG FROM WALL OUTLET.

CONDENSATE PUMP DETAIL
NOT TO SCALE

SIGNATURE AND DATED SEAL

CONSULTANTS

DRAWING TITLE

PROJECT ADDRESS

DATE

REV.

DESCRIPTION

17-102

PERMIT SET

SCALE

FILE NAME

DRAWN BY

CHECKED BY

DATE

12-7-2017

DATE

DATE

DATE

DATE

BORRELLI PARTNERS
720 VASSAR STREET
ORLANDO, FL 32804 (407) 418-1338
AUGUSTO E. ROBES JR., P.E.
FLORIDA P.E. # 39410

BOBES ASSOCIATES
CONSULTING ENGINEERS
1950 CLURRY FORD RD.
ORLANDO, FL 32805
FLORIDA STATE P.E. NUMBER: 5131

HVAC SCHEDULES AND DETAILS

PRESIDENTS DRIVE
8100 PRESIDENTS DRIVE
ORLANDO, FLORIDA
OWNER NAME AND ADDRESS
ORANGE COUNTY UTILITIES
9150 CLURRY FORD RD.
ORLANDO, FL
32805

M-5.1

SECURITY CAMERA MODEL SCHEDULE #					
CAMERA #	CAMERA MANUFACTURER	TYPE OF CAMERA	CAMERA PART #	COMMENTS	LOCATION
1	AXIS	DOME / 2MP	P3225-LVE	MOUNTED MIDWAY OF THE UPPER STRUCTURE	OUTER BUILDING
2	AXIS	DOME / 2MP	P3225-LVE	MOUNTED MIDWAY OF THE UPPER STRUCTURE	OUTER BUILDING
3	AXIS	BULLET / 8MP	P1428-E	MOUNTED MIDWAY OF THE UPPER STRUCTURE	OUTER BUILDING
4	AXIS	180 DEGREE / 5MP	Q3709-PVE	MOUNTED MIDWAY OF THE UPPER STRUCTURE	OUTER BUILDING
5	AXIS	BULLET / 8MP	P1428-E	MOUNTED MIDWAY OF THE UPPER STRUCTURE	OUTER BUILDING
6	AXIS	180 DEGREE / 5MP	Q3709-PVE	MOUNTED MIDWAY OF THE UPPER STRUCTURE	OUTER BUILDING
7	AXIS	BULLET / 8MP	P1428-E	MOUNTED MIDWAY OF THE UPPER STRUCTURE	OUTER BUILDING
8	AXIS	BULLET / 8MP	P1428-E	MOUNTED MIDWAY OF THE UPPER STRUCTURE	OUTER BUILDING
9	AXIS	180 DEGREE / 5MP	Q3709-PVE	MOUNTED MIDWAY OF THE UPPER STRUCTURE	OUTER BUILDING
10	AXIS	DOME / 2MP	P3225-LVE	MOUNTED MIDWAY OF THE UPPER STRUCTURE	OUTER BUILDING
11	AXIS	180 DEGREE / 5MP	Q3709-PVE	OUTER EVE	BACK COVER
12	AXIS	360 DEGREE / 5MP	M3027-LVE	CEILING - UNDER EVE	BACK COVER
13	AXIS	360 DEGREE / 5MP	M3027-LVE	CEILING - UNDER EVE	BACK COVER
14	AXIS	DOME / 2MP	P3225-LVE	OUTER EVE	BACK COVER
15	AXIS	180 DEGREE / 5MP	Q3709-PVE	MOUNTED AT SAME LEVEL AS OLD CAMERAS	NORTH GUARD SHACK
16	AXIS	DOME / 2MP	P3225-LVE	MOUNTED AT SAME LEVEL AS OLD CAMERAS	NORTH GUARD SHACK
17	AXIS	180 DEGREE / 5MP	Q3709-PVE	CEILING MOUNTED	FUEL PUMP
18	AXIS	DOME / 2MP	P3225-LVE	CEILING MOUNTED	FUEL PUMP
19	AXIS	DOME / 2MP	P3225-LVE	CEILING MOUNTED	FUEL PUMP
20	AXIS	DOME / 2MP	P3225-LVE	MOUNTED AT SAME LEVEL AS OLD CAMERAS	SOUTH GUARD SHACK
21	AXIS	DOME / 2MP	P3225-LVE	MOUNTED AT SAME LEVEL AS OLD CAMERAS	SOUTH GUARD SHACK
22	AXIS	180 DEGREE / 5MP	Q3709-PVE	MOUNTED AT SAME LEVEL AS OLD CAMERAS	MAIN EXTERIOR
23	AXIS	180 DEGREE / 5MP	Q3709-PVE	MOUNTED AT SAME LEVEL AS OLD CAMERAS	MAIN EXTERIOR
24	AXIS	DOME / 2MP	P3225-LVE	REPLACE EXISTING	MAIN EXTERIOR
25	AXIS	DOME / 2MP	P3225-LVE	REPLACE EXISTING	MAIN EXTERIOR
26	AXIS	180 DEGREE / 5MP	Q3709-PVE	16' TO 18' HEIGHT	MAIN EXTERIOR
27	AXIS	180 DEGREE / 5MP	Q3709-PVE	16' TO 18' HEIGHT	MAIN EXTERIOR
28	AXIS	180 DEGREE / 5MP	Q3709-PVE	16' TO 18' HEIGHT	MAIN EXTERIOR
29	AXIS	DOME / 2MP	P3225-LVE	HALLWAY CEILING MOUNT	OPERATIONS BLDG. INTERIOR
30	AXIS	DOME / 2MP	P3225-LVE	HALLWAY CEILING MOUNT	OPERATIONS BLDG. INTERIOR
31	AXIS	DOME / 2MP	P3225-LVE	HALLWAY CEILING MOUNT	OPERATIONS BLDG. INTERIOR
32	AXIS	DOME / 2MP	P3225-LVE	HALLWAY CEILING MOUNT	OPERATIONS BLDG. INTERIOR
33	AXIS	DOME / 2MP	P3225-LVE	12'	OPERATIONS BLDG. INTERIOR
34	AXIS	DOME / 2MP	P3225-LVE	CEILING	OPERATIONS BLDG. INTERIOR
35	AXIS	360 DEGREE / 5MP	M3027-LVE	CEILING	OPERATIONS BLDG. INTERIOR
36	AXIS	360 DEGREE / 5MP	M3027-LVE	CEILING	OPERATIONS BLDG. INTERIOR
37	AXIS	360 DEGREE / 5MP	M3027-LVE	CEILING	OPERATIONS BLDG. INTERIOR
38	AXIS	DOME / 2MP	P3225-LVE	WALL MOUNTED	OPERATIONS BLDG. INTERIOR
39	AXIS	DOME / 2MP	P3225-LVE	HALLWAY CEILING MOUNT	OPERATIONS BLDG. INTERIOR
40	AXIS	DOME / 2MP	P3225-LVE	MOUNT ON WALL AT CEILING	OPERATIONS BLDG. INTERIOR
41	AXIS	DOME / 2MP	P3225-LVE	MOUNT ON WALL AT CEILING	OPERATIONS BLDG. INTERIOR
R45 SURGE	DTK-RM12POE	GIGABIT WITH POE PROTECTION			

CARD READER MODEL SCHEDULE #					
CARD READER #	CARD READER MANUFACTURER	TYPE OF CARD READER	CARD READER PART #	COMMENTS	LOCATION
1	LENEL			WITH PIN	NORTH GATE
2	LENEL			WITH PIN	SOUTH GATE
3	LENEL			WITH PIN	OPERATIONS BLDG.
4	LENEL			WITH PIN	OPERATIONS BLDG.
5	LENEL			WITH PIN	OPERATIONS BLDG.
6	LENEL			WITH PIN	OPERATIONS BLDG.
7	LENEL			WITH PIN	OPERATIONS BLDG.
8	LENEL			WITH PIN	OPERATIONS BLDG.
9	LENEL			WITH PIN	OPERATIONS BLDG.

CARD READERS FOR ORANGE COUNTY SHALL BE ALLEGION #MTK15, #MT15 AND #MT11. COORDINATE WITH ORANGE COUNTY I.T. DEPARTMENT.

PER FFPC 6TH EDITION, ANY DOOR ASSEMBLIES IN THE MEANS OF EGRESS EQUIPPED WITH ELECTRICAL LOCK HARDWARE THAT PREVENTS EGRESS SHALL COMPLY WITH SECTION 7.2.1.6.2 OF NFPA 101, 2015 EDITION. ORANGE COUNTY TO VERIFY COMPLIANCE.

THE ORANGE COUNTY SYSTEMS STANDARDS ARE LENEL, AVIGILON AND STENTOFON. THE CONTRACTOR MUST UNDERSTAND AND HAVE EXPERIENCE WORKING WITH THESE SPECIFIC SYSTEMS TO INSTALL AND CONFIGURE THEM. THE CONTRACTOR MUST BE LENEL CERTIFIED TO INSTALL AND PROGRAM THE HARDWARE INTO THE ORANGE COUNTY ACCESS CONTROL SYSTEM.

ELECTRICAL GENERAL NOTES

- BRANCH WIRING IS NOT SHOWN GRAPHICALLY ON DRAWING AND IS INDICATED BY CIRCUIT NUMBERS BESIDE FIXTURES, DEVICES AND EQUIPMENT. PROVIDE COMPLETE WIRING SYSTEM WHETHER OR NOT INDICATED GRAPHICALLY.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH FLORIDA BUILDING CODE 6th EDITION (2017 FBC), THE 2014 NATIONAL ELECTRICAL CODE (NEC), ALL APPLICABLE LOCAL, COUNTY, AND STATE CODES AND STANDARDS, ALL REQUIREMENTS OF THE SERVICING ELECTRIC UTILITY AND THE AMERICANS WITH DISABILITIES ACT (ADA).
- COORDINATE ALL WORK DONE UNDER THIS DIVISION WITH WORK TO BE PERFORMED UNDER DIVISION 15.
- COORDINATE WITH OTHER TRADES FOR EXACT LOCATIONS OF ALL MOTORS AND OTHER EQUIPMENT TO BE INSTALLED AND/OR WIRED UNDER THIS DIVISION BUT FURNISHED UNDER ANOTHER DIVISION OF THE SPECIFICATIONS.
- ALL BRANCH CIRCUITS FOR 120 VOLT, 20 AMP CIRCUITS EXCEEDING EIGHTY FEET IN LENGTH SHALL BE INCREASED IN SIZE AS REQUIRED TO ALLOW FOR VOLTAGE DROP LOSSES.
- PACK ALL SLEEVES FOR CONDUITS PASSING THROUGH FIRE RATED WALLS AND FLOOR SLABS WITH FIRE RESISTANT MATERIALS. ALL PENETRATIONS SHALL BE UL RATED.
- ALL EMPTY CONDUITS (EC) SHALL BE PROVIDED WITH NYLON PULL WIRES.
- TYPE AC CABLE AND ELECTRICAL NON-METALLIC TUBING SHALL NOT BE PERMITTED. TYPE MC CABLE IS PERMITTED AS LONG AS IT IS ACCEPTABLE TO THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ).
- COORDINATE THE REQUIRED SIZE OF ALL CIRCUIT BREAKERS FEEDING EQUIPMENT (I.E. MOTORS, HVAC, KITCHEN 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 MANUFACTURER'S RECOMMENDATIONS.
- ALL CONDUITS IN OR UNDER SLAB OR UNDERGROUND SHALL BE PVC SCHEDULE 40.
- ALL CONDUITS ABOVE SLAB, WHETHER EXPOSED OR CONCEALED, SHALL BE EMT, IMC, OR RIGID GALVANIZED STEEL.
- FLEXIBLE METAL RACEWAYS SHALL NOT EXCEED 6' IN LENGTH.
- "LIQUID-TIGHT" TYPE FLEXIBLE WEATHERPROOF RACEWAYS SHALL HAVE A METALLIC INTERIOR AND NOT EXCEED 6' IN LENGTH.
- ALL BOXES, PLASTER RINGS, EXTENSION RINGS, AND BOX COVERS SHALL BE METAL.
- ALL CONDUITS SHALL BE PARALLEL AND PERPENDICULAR TO STRUCTURAL MEMBERS.
- ALL BENDS SHALL BE MADE IN CONDUIT USING PROPER EQUIPMENT AND MEET NATIONAL ELECTRICAL CODE (NEC) REQUIREMENTS.
- ALL WIRE, INCLUDING BUT NOT LIMITED TO FEEDERS AND BRANCH CIRCUIT WIRING, SHALL BE COPPER - #12 AWG THIN MINIMUM EXCEPT FOR LOW-VOLTAGE WIRING FOR COMMUNICATIONS SYSTEMS, WHICH MAY BE SMALLER.
- ALL BREAKERS SHALL BE "FULL SIZE". NO TANDEM, PIGGY BACK, TWIN, OR HALF SIZE BREAKERS WILL BE ACCEPTED.
- ALL DEVICES SHALL BE COMMERCIAL OR SPECIFICATION GRADE.
- ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY POWER AND TEMPORARY LIGHTING DURING CONSTRUCTION. TEMPORARY POWER SHALL PROVIDE ADEQUATE POWER FOR NORMAL CONSTRUCTION USE. TEMPORARY LIGHTING SHALL PROVIDE ADEQUATE LIGHT SO THAT THE INDIVIDUAL TRADES WORK CAN BE COMPLETED.
- ALL ELECTRICAL EQUIPMENT SHALL BE UL LISTED.
- A GREEN INSULATED COPPER GROUND CONDUCTOR SHALL BE INSTALLED IN ALL RACEWAYS.
- GROUNDING SYSTEM SHALL BE IN ACCORDANCE WITH NEC ARTICLE 250 AND APPLICABLE REQUIREMENTS OF IEEE STANDARDS 142 AND 241.
- CONDUCTORS ARE SIZED FOR VOLTAGE DROP PER N.E.C. ARTICLES 210.19(A) NOTE 4, 215.2(A)(1)NOTE 2 AND THE 2017 F.B.C. ENERGY CONSERVATION CODE C405.6.3. ELECTRICAL CONTRACTOR SHALL PERFORM VOLTAGE DROP CALCULATIONS IN ACCORDANCE WITH N.E.C. ARTICLES 210.19(A)(1)NOTE 4, 215.2(A)NOTE 2 AND THE 2017 F.B.C. ENERGY CONSERVATION CODE C405.6.3 ON ANY CIRCUITS THAT ARE INSTALLED THAT DIFFER FROM THE DESIGN SHOWN IN THESE PLANS. FEEDER CONDUCTORS AND BRANCH CIRCUIT CONDUCTORS SHALL EACH BE SIZED FOR A MAXIMUM VOLTAGE DROP OF 3% AND A COMBINED MAXIMUM VOLTAGE DROP OF 5% TOTAL.

PROJECT SCOPE OF WORK

THE PROJECT SCOPE CONSISTS OF THE FOLLOWING:

- FURNISH AND INSTALL ALL POWER PROVISIONS, RACEWAYS, LOW VOLTAGE DATA CABLING, CAMERAS, ACCESS CONTROL CARD READERS, SWITCHES, ETC. TO PROVIDE FOR A COMPLETE SYSTEM.
- CREATION OF A NEW SERVER ROOM IN THE 1ST FLOOR OPERATIONS BUILDING TO HOUSE THE SECURITY SYSTEM EQUIPMENT.
- ADDITION OF AN AIR COOLED MINI SPLIT AIR CONDITIONING SYSTEM FOR THE NEW SECURITY SYSTEM SERVER ROOM IN THE OPERATIONS BUILDING.
- CREATION OF A NEW SECURITY COMMAND CONTROL ROOM IN THE 1ST FLOOR LOBBY OF OPERATIONS BUILDING.
- ADDITION OF TWO CAMERAS AT EACH OF THE TWO EXISTING GUARD SHACKS.
- ADDITION OF NEW CARD READERS FOR THE GATES AT THE TWO ENTRANCES TO THE CAMPUS.
- ADDITION OF CAMERAS AND CARD READERS IN THE OPERATIONS BUILDING.
- ADDITION OF CAMERAS AT THE STEEL STAGING STRUCTURE AT THE NORTH SIDE OF THE SITE.
- ADDITION OF CAMERAS AT THE COVERED STAGING STRUCTURE LOCATED DUE NORTH OF THE OPERATIONS BUILDING.

ELECTRICAL SYMBOL LIST

(SOME SYMBOLS MAY NOT BE USED ON THIS PROJECT.)

- QUAD RECEPTACLE
- 20A, 2 POLE, 125V GROUNDED DUPLEX RECEPTACLE. 18" AFF UNLESS OTHERWISE NOTED. G = GROUND FAULT INTERRUPTER
- 20A, 2 POLE, 125V GROUNDED DUPLEX RECEPTACLE. MOUNTED ABOVE COUNTERTOP UNLESS OTHERWISE NOTED.
- NEMA TYPE L14-30 RECEPTACLE.
- TELEPHONE WALL OUTLET 18" AFF UNLESS OTHERWISE NOTED. PROVIDE 1" EC TO CEILING SPACE.
- TELEPHONE AND DATA DUPLEX OUTLET, LEVITON CAT. #41688-1 OR EQUAL. 18" AFF UNLESS OTHERWISE NOTED. PROVIDE 1" EC TO CEILING SPACE.
- TELEVISION OUTLET WITH 1" EC TO TTB. 18" AFF UNLESS OTHERWISE NOTED.
- CEILING MOUNTED OR IN-GRADE JUNCTION BOX
- WALL MOUNTED JUNCTION BOX
- CONNECTION TO EQUIPMENT
- PUSHBUTTON
- MOTOR HORSEPOWER RATED TOGGLE SWITCH BY DIVISION 15
- NONFUSED DISCONNECT SWITCH. NUMBERS INDICATE SWITCH SIZE.
- FUSED DISCONNECT SWITCH. FUSES SIZED AS SHOWN ON DRAWINGS.
- MOTOR
- PANELBOARD
- SECURITY CONTROL PANEL
- SECURITY CAMERA
- SECURITY SYSTEM DOOR CONTACT
- SECURITY SYSTEM ALARM HORN
- CARD READER
- CARD READER/PIN
- ABOVE FINISHED FLOOR
- AHU
- CU
- EC
- EF
- FINISHED FLOOR
- G
- IG
- WP

OCU - PRESIDENTS DRIVE OPS CENTER - RETROFIT

DRAWING TITLE

REV.	DESCRIPTION	DATE	PROJECT ADDRESS
17-102	PERMIT SET	01-29-18	PRESIDENTS DRIVE
1	PERMIT COMMENTS	03-30-18	8100 PRESIDENTS DRIVE ORLANDO, FLORIDA
2	OWNER COMMENTS		OWNER NAME AND ADDRESS ORANGE COUNTY UTILITIES 9150 CLIBRY FORD RD. ORLANDO, FL 32837

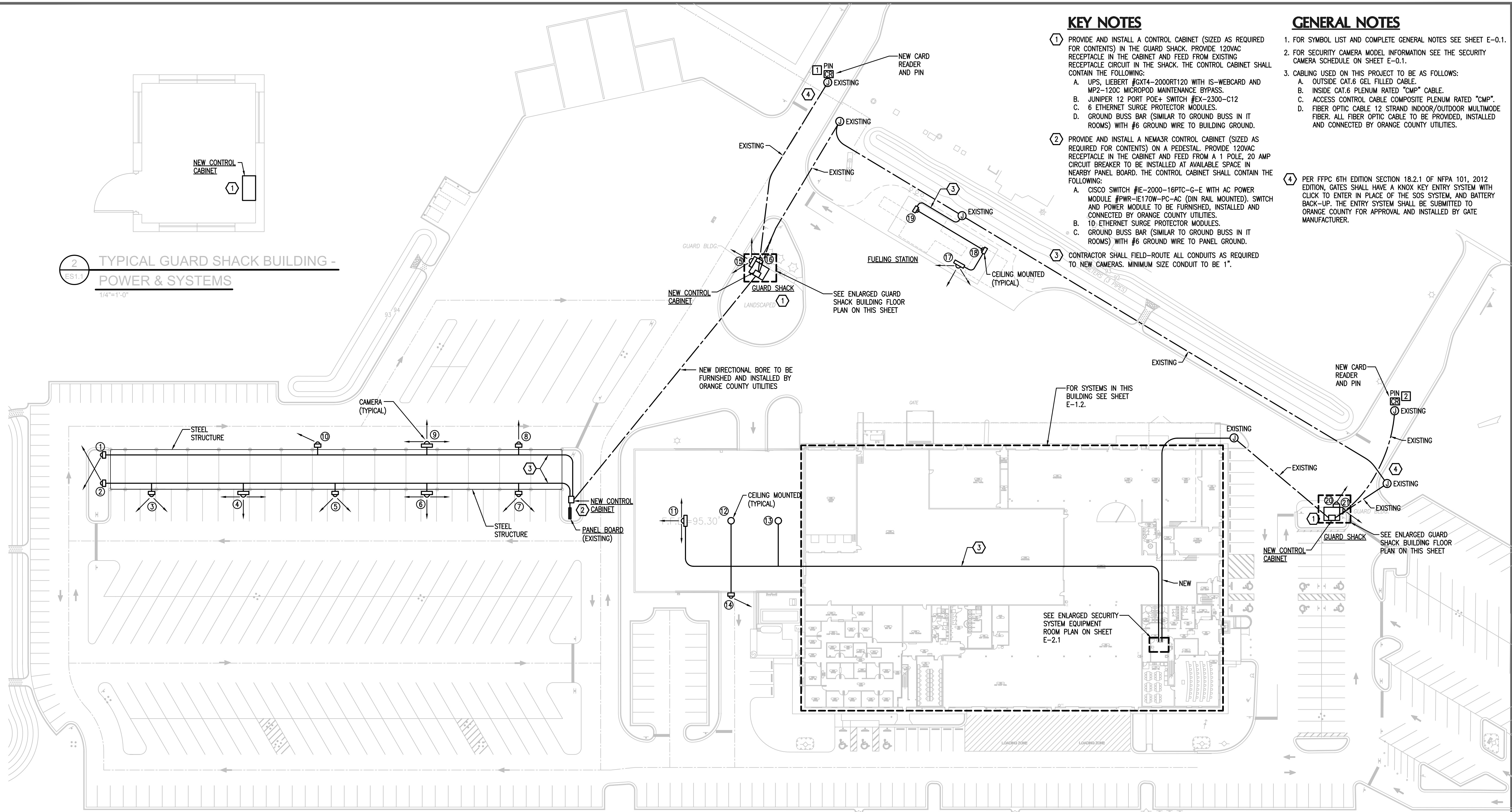
CONSULTANTS

BOBES ASSOCIATES
CONSULTING ENGINEERS
1500 W. UNIVERSITY AVENUE, FL 32711
TELEPHONE: 407.666.0802
FAX: 407.666.0802
FLORIDA STATE P.E. NUMBER: 5131

SIGNATURE AND DATED SEAL

BORRELLI PARTNERS
ARCHITECTURE PLANNING INTERIORS
720 VASSAR STREET
ORLANDO, FL 32804 407.418.1338
REGISTERED PROFESSIONAL ARCHITECT
BY THE CONTRACT, THE CONSULTANT'S DRAWINGS SHALL NOT BE REPRODUCED OR COPIED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF BORRELLI PARTNERS. (SAC 00011)





KEY NOTES

- 1 PROVIDE AND INSTALL A CONTROL CABINET (SIZED AS REQUIRED FOR CONTENTS) IN THE GUARD SHACK. PROVIDE 120VAC RECEPTACLE IN THE CABINET AND FEED FROM EXISTING RECEPTACLE CIRCUIT IN THE SHACK. THE CONTROL CABINET SHALL CONTAIN THE FOLLOWING:
 - A. UPS, LIEBERT #CX4-2000RT120 WITH IS-WEBCARD AND MP2-120C MICROPOD MAINTENANCE BYPASS.
 - B. JUNIPER 12 PORT POE+ SWITCH #EX-2300-C12
 - C. 6 ETHERNET SURGE PROTECTOR MODULES.
 - D. GROUND BUSS BAR (SIMILAR TO GROUND BUSS IN IT ROOMS) WITH #6 GROUND WIRE TO BUILDING GROUND.
- 2 PROVIDE AND INSTALL A NEMA3R CONTROL CABINET (SIZED AS REQUIRED FOR CONTENTS) ON A PEDESTAL. PROVIDE 120VAC RECEPTACLE IN THE CABINET AND FEED FROM A 1 POLE, 20 AMP CIRCUIT BREAKER TO BE INSTALLED AT AVAILABLE SPACE IN NEARBY PANEL BOARD. THE CONTROL CABINET SHALL CONTAIN THE FOLLOWING:
 - A. CISCO SWITCH #IE-2000-16PTC-G-E WITH AC POWER MODULE #PWR-IE170W-PC-AC (DIN RAIL MOUNTED). SWITCH AND POWER MODULE TO BE FURNISHED, INSTALLED AND CONNECTED BY ORANGE COUNTY UTILITIES.
 - B. 10 ETHERNET SURGE PROTECTOR MODULES.
 - C. GROUND BUSS BAR (SIMILAR TO GROUND BUSS IN IT ROOMS) WITH #6 GROUND WIRE TO BUILDING GROUND.
- 3 CONTRACTOR SHALL FIELD-ROUTE ALL CONDUITS AS REQUIRED TO NEW CAMERAS. MINIMUM SIZE CONDUIT TO BE 1".

GENERAL NOTES

1. FOR SYMBOL LIST AND COMPLETE GENERAL NOTES SEE SHEET E-0.1.
2. FOR SECURITY CAMERA MODEL INFORMATION SEE THE SECURITY CAMERA SCHEDULE ON SHEET E-0.1.
3. CABLING USED ON THIS PROJECT TO BE AS FOLLOWS:
 - A. OUTSIDE CAT.6 GEL FILLED CABLE.
 - B. INSIDE CAT.6 PLENUM RATED "CMP" CABLE.
 - C. ACCESS CONTROL CABLE COMPOSITE PLENUM RATED "CMP".
 - D. FIBER OPTIC CABLE 12 STRAND INDOOR/OUTDOOR MULTIMODE FIBER. ALL FIBER OPTIC CABLE TO BE PROVIDED, INSTALLED AND CONNECTED BY ORANGE COUNTY UTILITIES.
4. PER NFPA 70-2012 SECTION 18.2.1 OF NFPA 101, 2012 EDITION, GATES SHALL HAVE A KNOX KEY ENTRY SYSTEM WITH CLICK TO ENTER IN PLACE OF THE SOS SYSTEM, AND BATTERY BACK-UP. THE ENTRY SYSTEM SHALL BE SUBMITTED TO ORANGE COUNTY FOR APPROVAL AND INSTALLED BY GATE MANUFACTURER.

2 TYPICAL GUARD SHACK BUILDING - POWER & SYSTEMS
1/4"=1'-0"

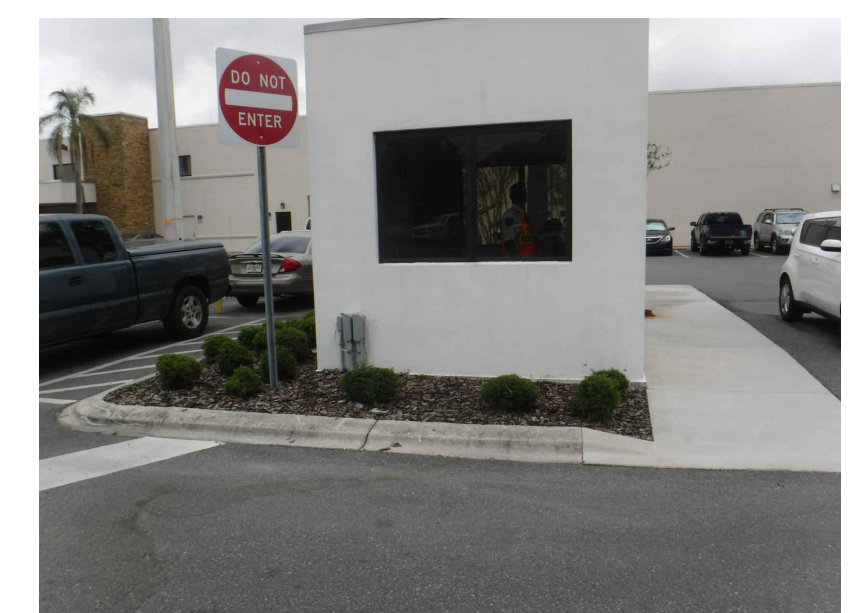
1 SITE PLAN - ELECTRICAL - POWER & SYSTEMS
1"=40'-0"
PLAN NORTH



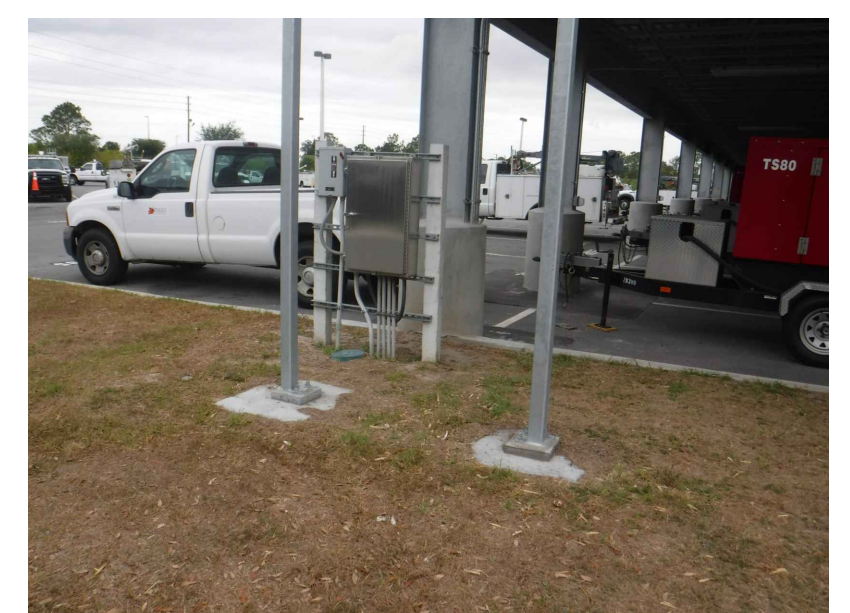
PROPOSED LOCATION OF GUARD SHACK CABINET



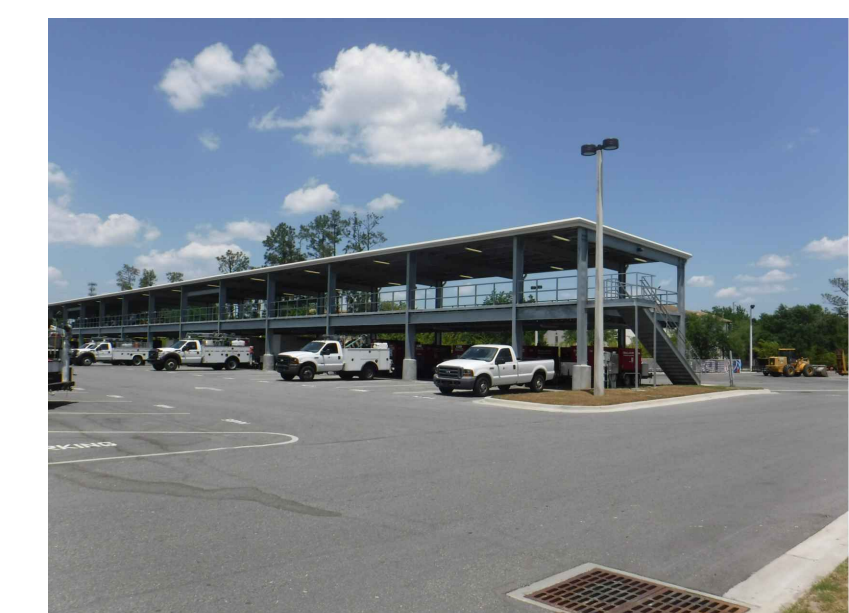
EXISTING GUARD SHACK (NORTH)



EXISTING GUARD SHACK (SOUTH)



PROPOSED LOCATION OF STAGING STRUCTURE CONTROL CABINET



EXISTING STAGING STRUCTURE

OCU - PRESIDENTS DRIVE OPS CENTER - RETROFIT

BORRELLI PARTNERS
Architectural Planning, Landscape, Interior
720 VASSAR STREET
ORLANDO, FL 32804 (407) 418-1338
PROFESSIONAL SEAL
BY THE CONTRACTOR, THE CONTENTS OF THIS DRAWING SHALL NOT BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.
PARTICIPATION AS ARORED BY THE ARCHITECT: BORRELLI PARTNERS, LLC (00011)

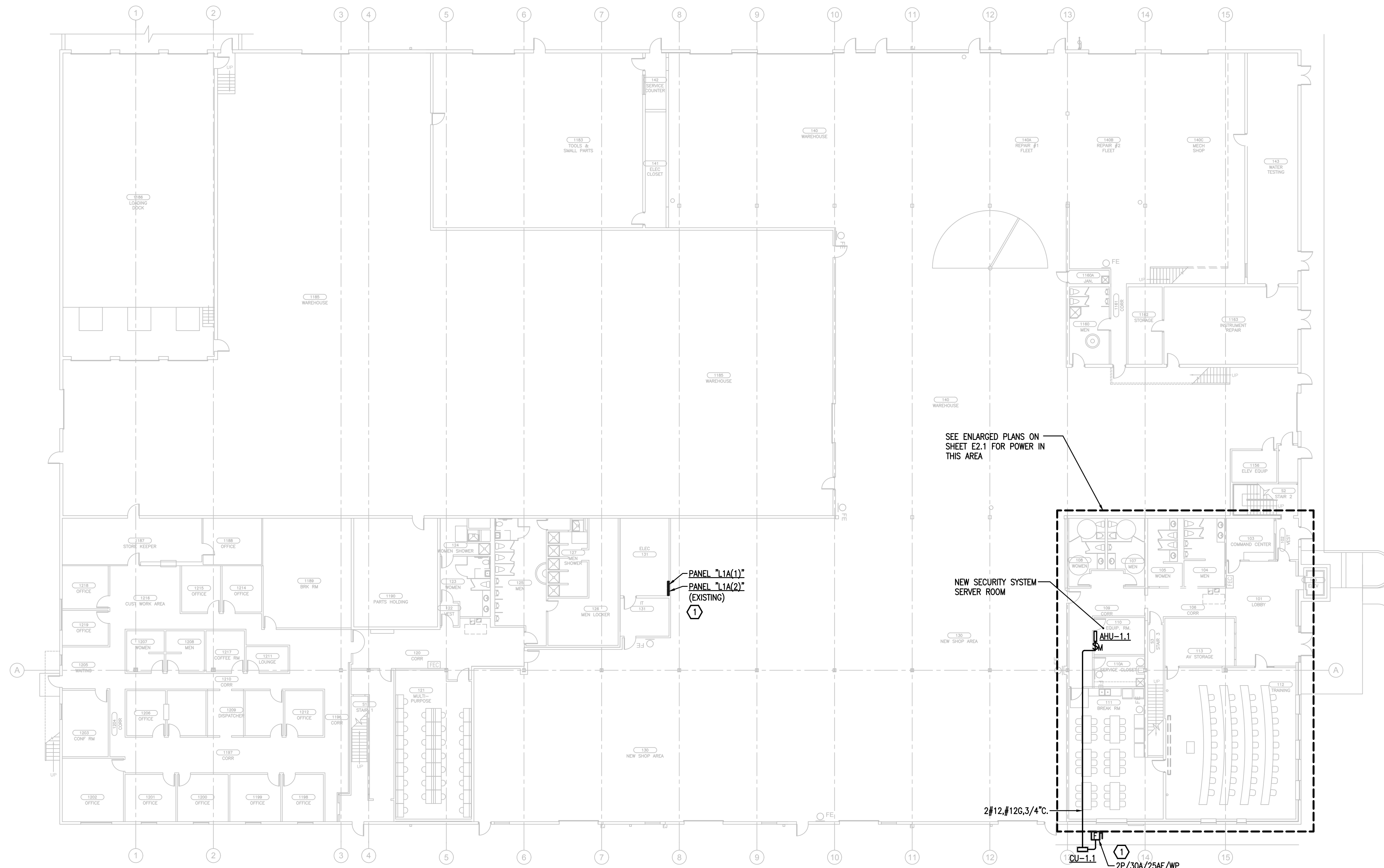
SIGNATURE AND DATED SEAL
CONSULTANTS
AUGUSTO E. ROBES JR., P.E.
FLORIDA STATE P.E. # 39410

BOBES ASSOCIATES
CONSULTING ENGINEERS
15000 WINDY HOLLOW DRIVE
ORLANDO, FL 32837
TELEPHONE: 407.666.0802
FAX: 407.666.0802
FLORIDA STATE P.E. NUMBER: 5131

DRAWING TITLE
SITE PLAN - ELECTRICAL - POWER & SYSTEMS

REV.	DESCRIPTION	DATE	PROJECT ADDRESS
17-102	PERMIT COMMENTS	01-29-18	PRESIDENTS DRIVE 8100 PRESIDENTS DRIVE ORLANDO, FLORIDA
17-102	OWNER COMMENTS	03-30-18	OWNER NAME AND ADDRESS ORANGE COUNTY UTILITIES 9150 CLARY FORD RD. ORLANDO, FL 32825
	PERMIT SET	01-29-18	
	SCALE	1" = 40'-0"	
	FILE NAME	ES-1.1	
	DRAWN BY	MB	
	CHECKED BY	AB/JF	
	DATE	12-7-2017	

ES-1.1



E-1.1 FIRST FLOOR PLAN - POWER
1/16"=1'-0"
PLAN NORTH



EXISTING 250 AMP PANEL WITH 250 AMP MAIN BREAKER
ESTIMATED EXISTING CONNECTED LOAD ON TWO SECTION PANEL L1A(1)(2) IS 52.4KVA OR 146 AMPS. ESTIMATED ADDITIONAL CONNECTED LOAD FROM THIS SCOPE OF WORK IS 17.8KVA OR 49 AMPS FOR A NEW CONNECTED LOAD OF 195 AMPS.

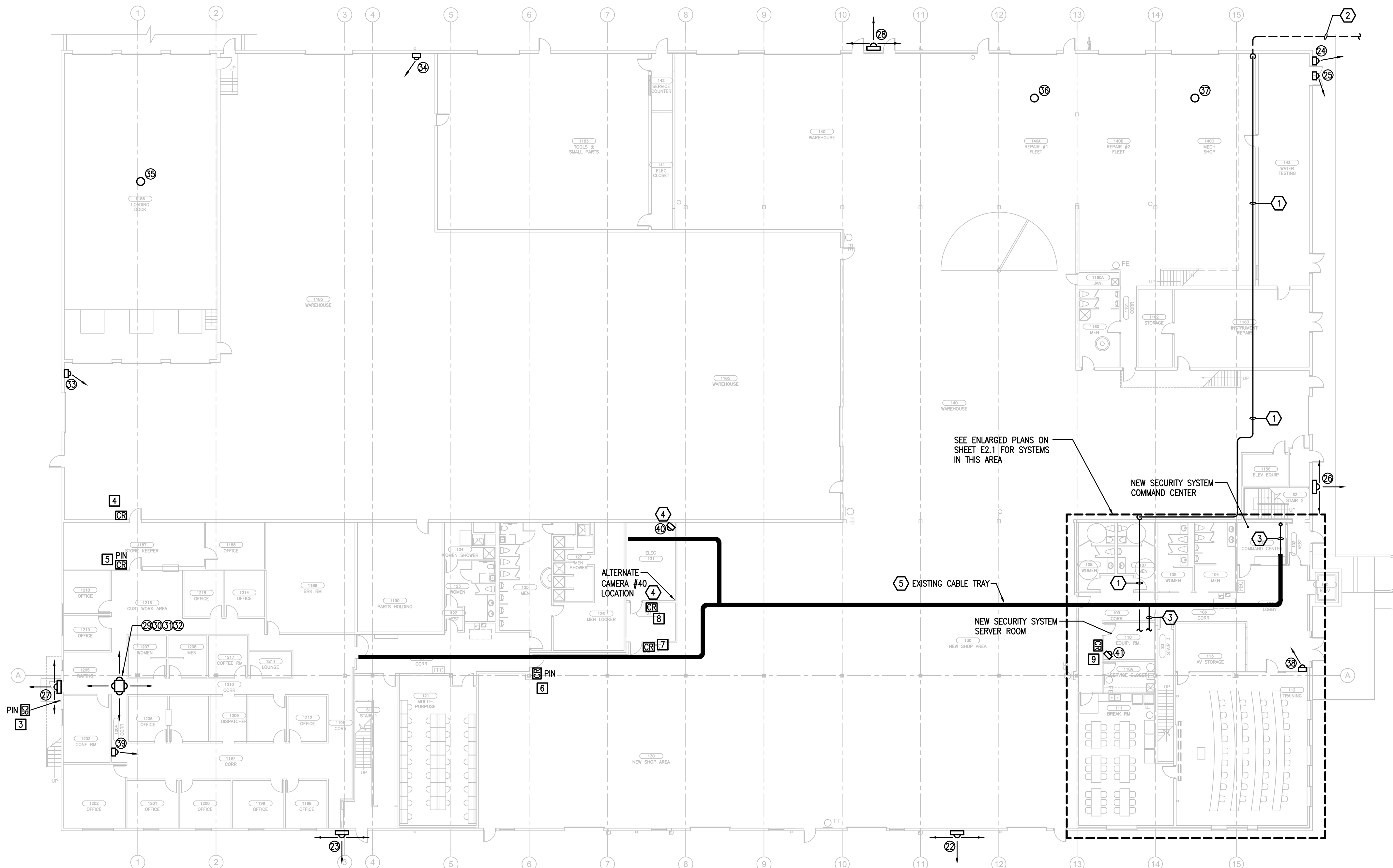
KEY NOTES
1. INSTALL A 2 POLE, 25 AMP CIRCUIT BREAKER IN PANEL "L1A(2)" AT AVAILABLE SPACES SHOWN TO FEED NEW AHU/CU-1.1. UPDATE PANEL CIRCUIT DIRECTORY WITH NEW LOAD.

GENERAL NOTES
1. REFER TO COMPLETE GENERAL NOTES ON SHEET E-0.1.
2. FOR EXACT LOCATIONS OF MECHANICAL EQUIPMENT AND EQUIPMENT POINT OF CONNECTION, REFER TO MECHANICAL DRAWINGS AND MANUFACTURER'S SHOP DRAWINGS.
3. ALL CIRCUIT FEEDERS AND DISCONNECTS SHALL BE SIZED AND LOCATED PER REQUIREMENTS OF NATIONAL ELECTRICAL CODE. CONTRACTOR IS TO VERIFY DISCONNECT SWITCH AND FUSE SIZES WITH SELECTED EQUIPMENT MANUFACTURER'S SHOP DRAWING PRIOR TO PLACING ORDER AND PROVIDE EVERYTHING AS REQUIRED. CONTRACTOR IS TO COORDINATE ALL ELECTRICAL REQUIREMENTS WITH MANUFACTURER/OWNER'S PURCHASING AGENT/COMMISSIONING AGENT/ELECTRICAL ENGINEER PRIOR TO ORDERING EQUIPMENT AND INSTALLING ELECTRICAL OUTLETS FOR EQUIPMENT FURNISHED BY OTHERS TO ASSURE CORRECT ELECTRICAL REQUIREMENTS AND CONNECTIONS ARE PROVIDED.

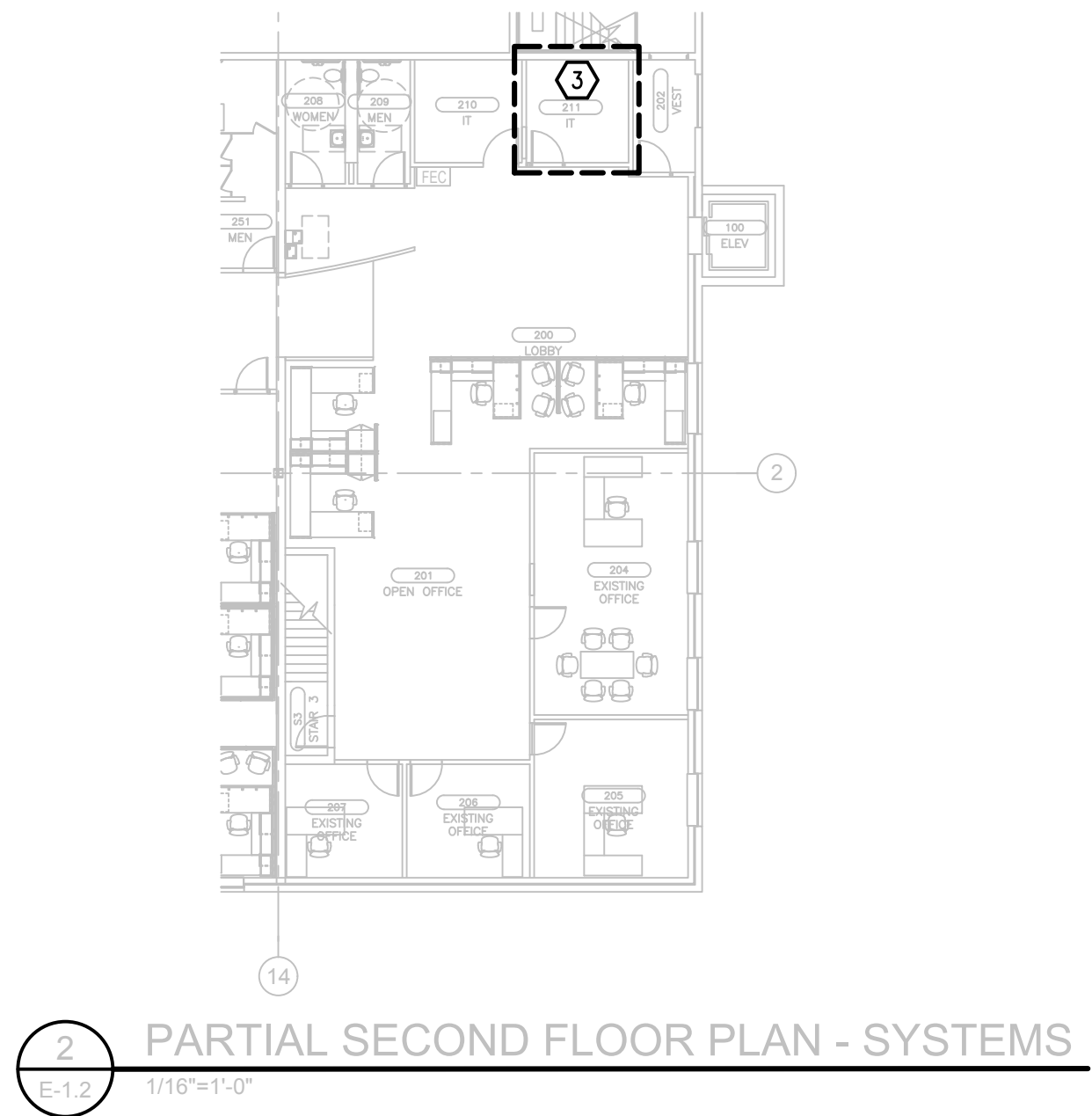
OCU - PRESIDENTS DRIVE OPS CENTER - RETROFIT

PROJECT NO.	17-102	DESCRIPTION	DATE	PROJECT ADDRESS	CONSULTANTS	SIGNATURE AND DATED SEAL
PHASE	PERMIT SET	PERMIT COMMENTS	01-29-18	PRESIDENTS DRIVE	BORRELLI PARTNERS Architectural Planning, Landmark, Interior 720 VASSAR STREET ORLANDO, FL 32804 (407) 418-1338 <small>UNLESS INDICATED OTHERWISE, THE CONTENTS OF THIS DRAWING SHALL NOT BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM. THIS DOCUMENT IS THE PROPERTY OF BORRELLI PARTNERS. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED IN THE TITLE BLOCK. ANY OTHER USE IS STRICTLY PROHIBITED. © 2018 BORRELLI PARTNERS. ALL RIGHTS RESERVED.</small>	
SCALE	OWNER COMMENTS	03-30-18	8100 PRESIDENTS DRIVE ORLANDO, FLORIDA	BOBES ASSOCIATES CONSULTING ENGINEERS 1500 W. WINDY HILL BLVD., SUITE 200 ORLANDO, FL 32837 TELEPHONE: 407.666.0822 FAX: 407.666.0822 FLORIDA STATE P.E. NUMBER: 5131		
FILE NAME	OWNER NAME AND ADDRESS			OWNER NAME AND ADDRESS 9150 CLURRY FORD RD. ORLANDO, FL 32825	FIRST FLOOR PLAN - POWER	
DRAWN BY						
CHECKED BY						
DATE						





1 FIRST FLOOR PLAN - SYSTEMS
 E-1.2 1/16"=1'-0"
 PLAN NORTH



2 PARTIAL SECOND FLOOR PLAN - SYSTEMS
 E-1.2 1/16"=1'-0"

GENERAL NOTES

1. FOR COMPLETE GENERAL NOTES SEE SHEET E-0.1.
2. FOR SECURITY CAMERA MODEL INFORMATION SEE THE SECURITY CAMERA SCHEDULE ON SHEET E-0.1.
3. CABLING USED ON THIS PROJECT TO BE AS FOLLOWS:
 A. OUTSIDE CAT.6 GEL FILLED CABLE.
 B. INSIDE CAT.6 PLENUM RATED "CMP" CABLE.
 C. ACCESS CONTROL CABLE COMPOSITE PLENUM RATED "CMP".
 D. FIBER OPTIC CABLE 12 STRAND INDOOR/OUTDOOR MULTIMODE FIBER. ALL FIBER OPTIC CABLE TO BE PROVIDED, INSTALLED AND CONNECTED BY ORANGE COUNTY UTILITIES.

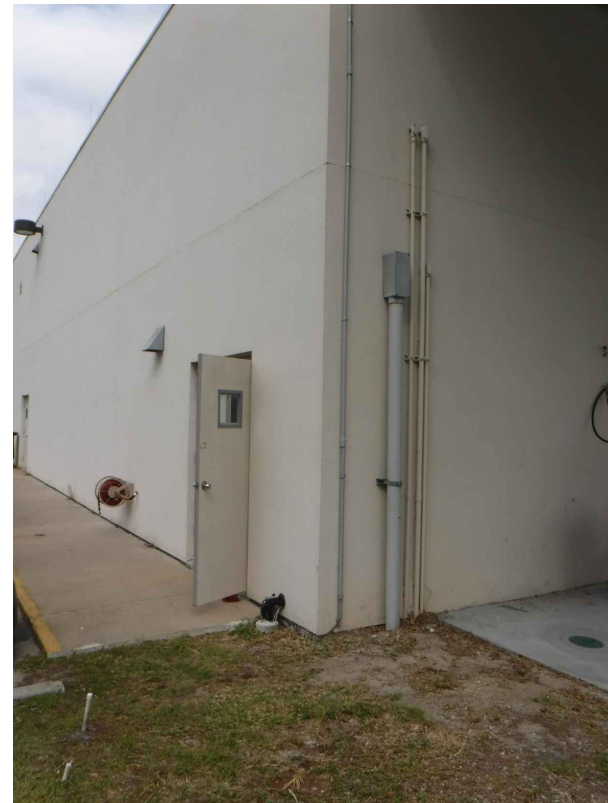
KEY NOTES

- 1 NEW 3" CONDUIT (NO INNER DUCT) FOR FIBER OPTIC CABLING IN CEILING OR TIGHT TO STRUCTURE.
- 2 NEW 3" CONDUIT FOR FIBER OPTIC CABLING UNDERGROUND TO EXISTING PULL BOX APPROXIMATELY 20'-30' FROM BUILDING.
- 3 FIBER OPTIC CABLING ROUTED IN EXISTING CABLE TRAY AND CONDUIT FROM NEW SERVER ROOM TO IT ROOM 211 ON SECOND FLOOR. SEE PARTIAL SECOND FLOOR PLAN.
- 4 ADD A CAMERA IN THE ELECTRICAL ROOM LOOKING AT THE PANEL BOARDS. THE PLACEMENT OF THE CAMERA SHALL BE DETERMINED AT TIME OF INSTALLATION TO DETERMINE THE BEST LOCATION FOR BEST COVERAGE.
- 5 CONTRACTOR SHALL FIELD-ROUTE ALL CONDUITS AS REQUIRED FROM EXISTING CABLE TRAY TO NEW CAMERAS AND CARD READERS. MINIMUM SIZE CONDUIT TO BE 1".

OCU - PRESIDENTS DRIVE OPS CENTER - RETROFIT

PROJECT NO. 17-102		REV. 1	DESCRIPTION PERMIT COMMENTS	DATE 01-29-18	PROJECT ADDRESS PRESIDENTS DRIVE 8100 PRESIDENTS DRIVE ORLANDO, FLORIDA
PHASE	PERMIT SET	2	OWNER COMMENTS	03-30-18	OWNER NAME AND ADDRESS ORANGE COUNTY UTILITIES 9150 CLARY FORD RD. ORLANDO, FL 32825
SCALE	FILE NAME	1"-00"=0'	CAD FILE	MB	
DRAWN BY	CHECKED BY	AB/JF	DATE	12-7-2017	
CONSULTANTS			DRAWING TITLE		
BOBES ASSOCIATES CONSULTING ENGINEERS 1500 W. WINDY HILL BLVD., SUITE 200 ORLANDO, FLORIDA 32817 TELEPHONE: 407.656.0822 FLORIDA STATE P.E. NUMBER: 5131			SIGNATURE AND DATED SEAL AUGUSTO E. BOBES JR., P.E. FLORIDA P.E. # 39410		
BORELLI PARTNERS ARCHITECTURE PLANNING LANDSCAPE INTERIOR 720 VASSAR STREET ORLANDO, FL 32804 (407) 418-1338 <small>UNLESS OTHERWISE NOTED, THE CONTENTS OF THIS DRAWING SHALL NOT BE WARRANTED TO ANY OTHER PARTY. COPYRIGHT IS RESERVED BY THE ARCHITECT. COPYRIGHT BORELLI + PARTNERS, LLC 00011</small>			FIRST FLOOR PLAN - SYSTEMS		

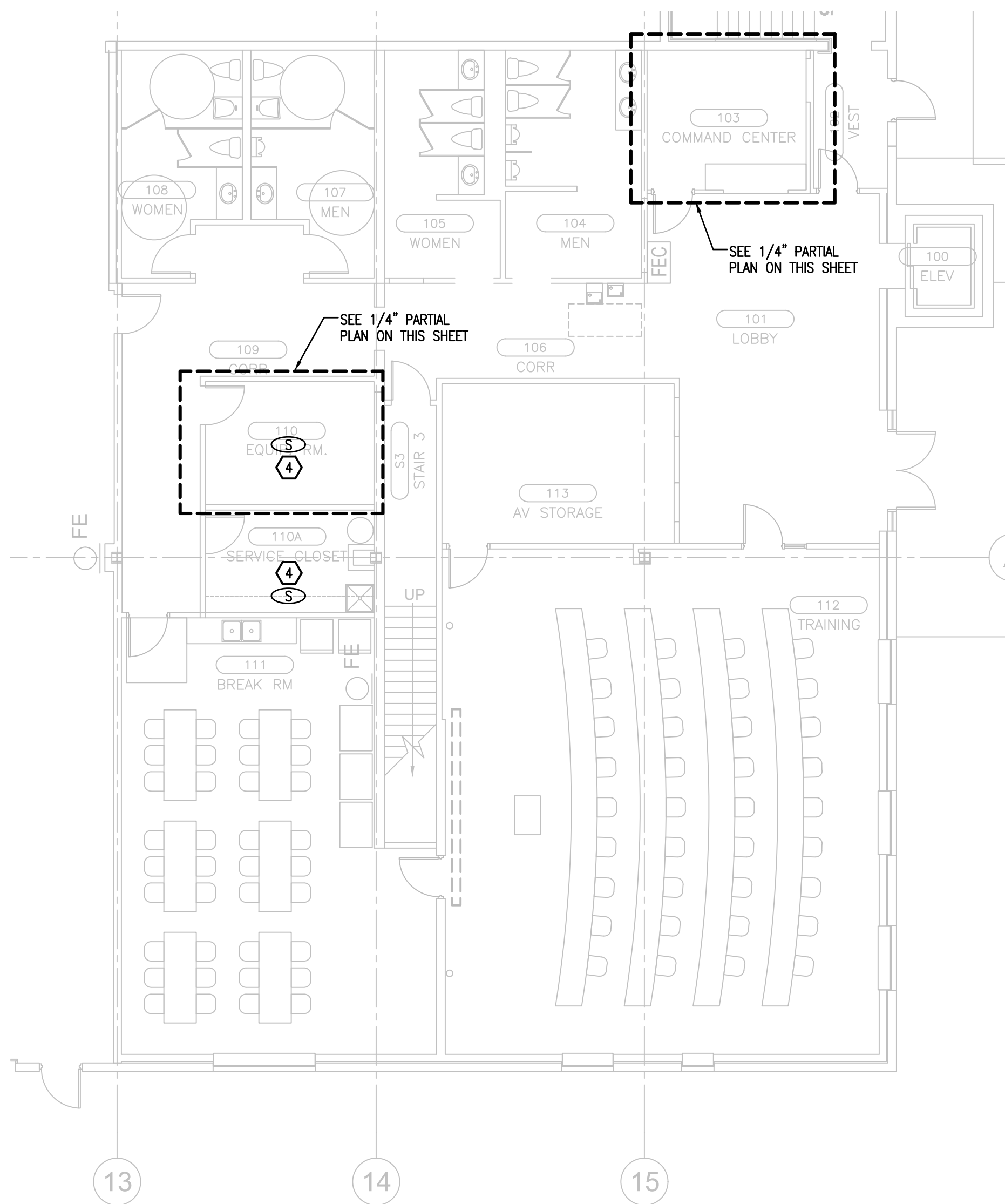




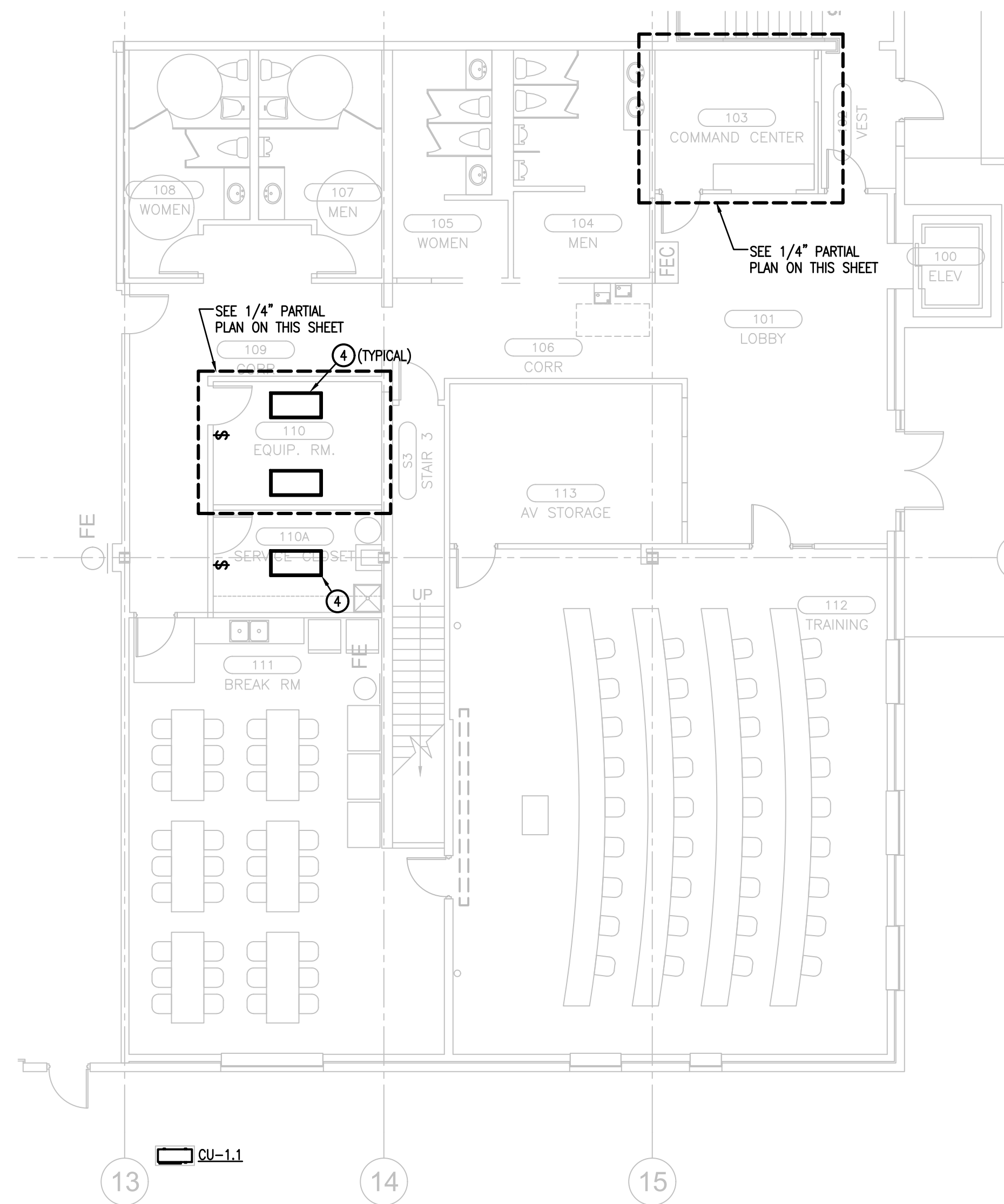
OPERATIONS BUILDING SOUTHEAST CORNER - PROPOSED CONDUIT ROUTING LOCATION



EXISTING F.A. EQUIPMENT TO REMAIN IN NEW SECURITY SYSTEM COMMAND CENTER



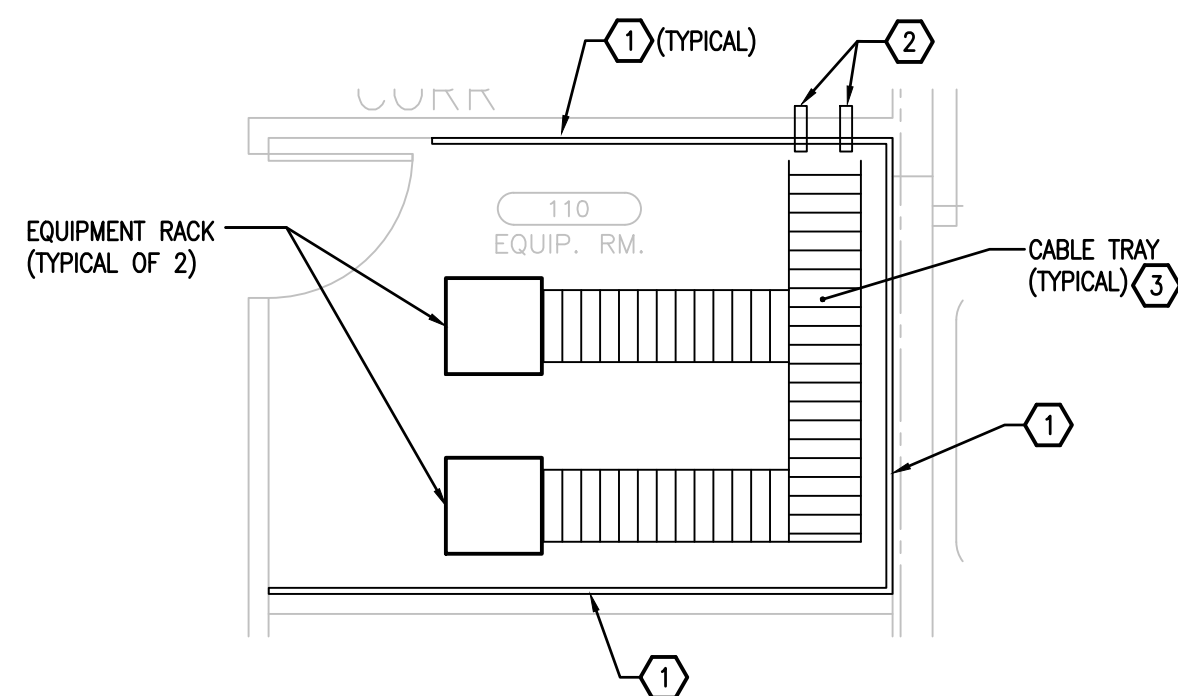
2 FIRST FLOOR PLAN - SYSTEMS
E-2.1 1/8"=1'-0"
PLAN NORTH



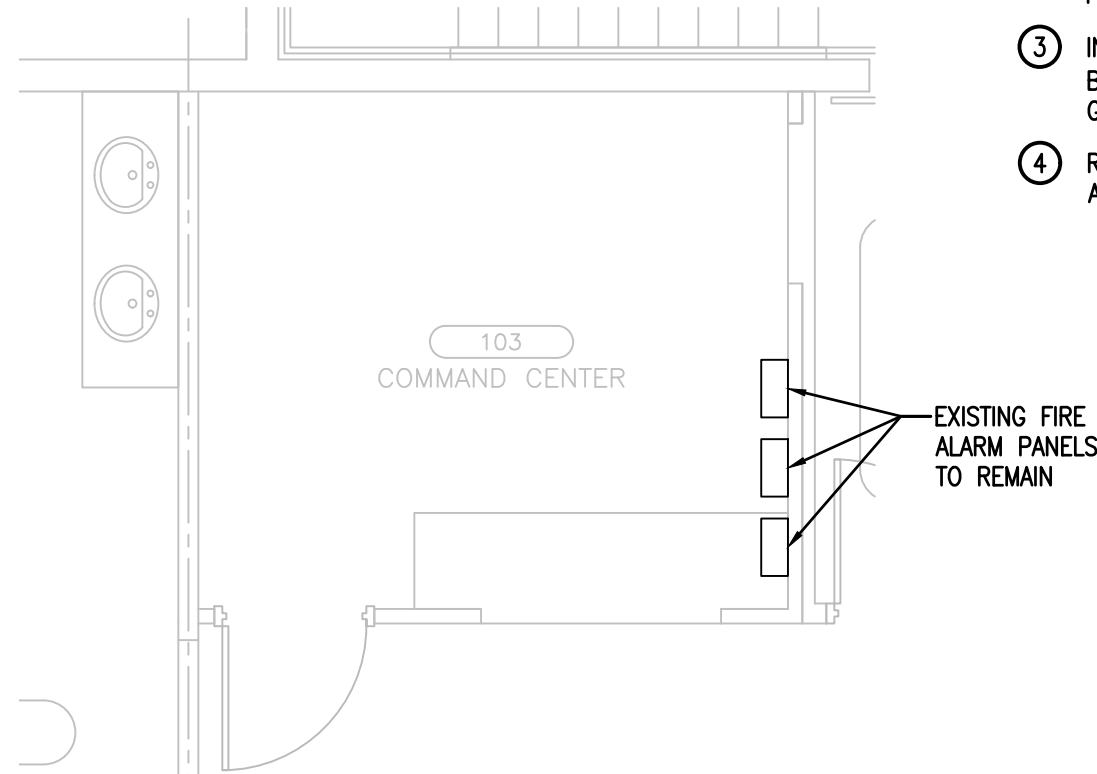
1 FIRST FLOOR PLAN - POWER & LIGHTING
E-2.1 1/8"=1'-0"
PLAN NORTH

SYSTEMS KEY NOTES

- 1 3/4" FIRE RATED PLYWOOD FROM 2'-0" A.F.F. TO CEILING.
- 2 SLEEVE THROUGH FIRE RATED WALL.
- 3 LADDER CABLE TRAY (CHATSWORTH OR EQUAL) TO MATCH EXISTING TRAYS IN OTHER IT ROOMS IN THE BUILDING. CABLE TRAY TO BE FURNISHED AND INSTALLED BY ORANGE COUNTY UTILITIES.
- 4 RELOCATE EXISTING SMOKE DETECTOR IN NEW EQUIPMENT ROOM IF REQUIRED AND INSTALL A NEW SMOKE DETECTOR IN THE SERVICE CLOSET.



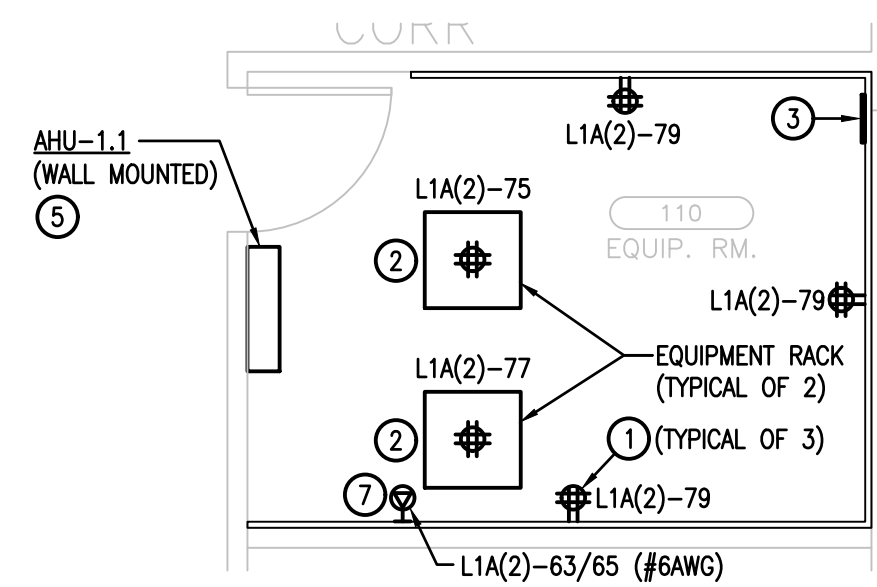
6 SECURITY SYSTEM EQUIPMENT ROOM - SYSTEMS
E-2.1 1/4"=1'-0"



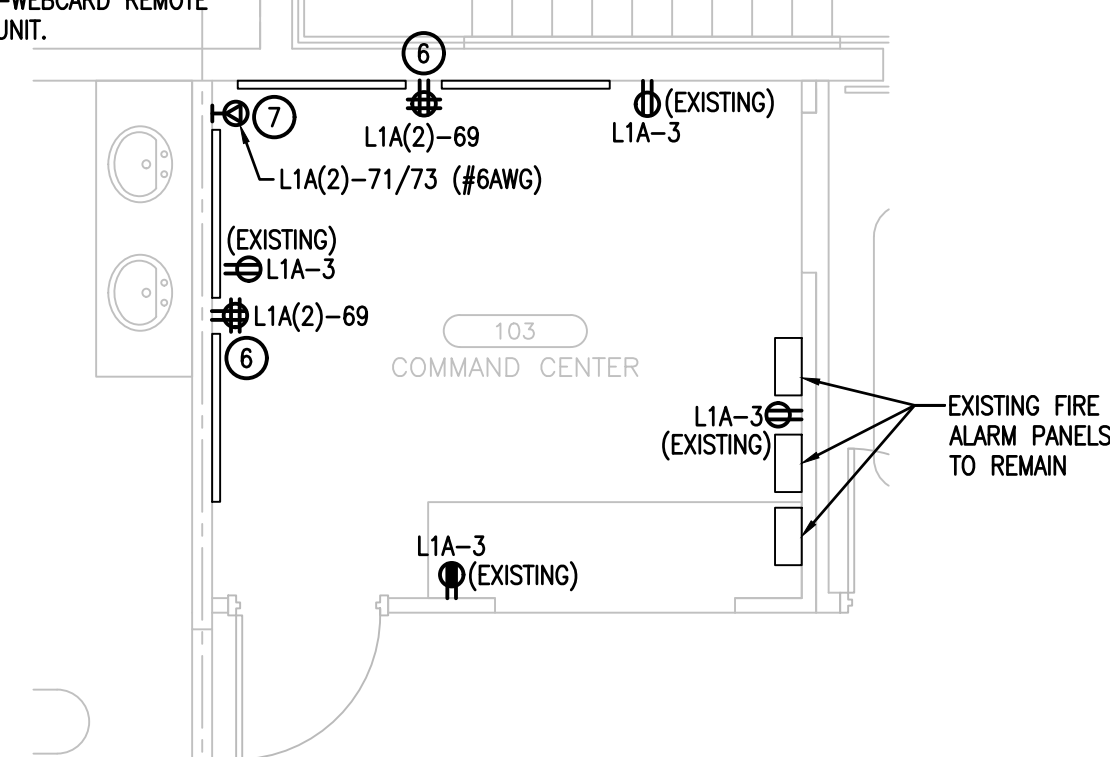
5 COMMAND CENTER FLOOR PLAN - SYSTEMS
E-2.1 1/4"=1'-0"

POWER & LIGHTING KEY NOTES

- 1 INSTALL A 1 POLE, 20 AMP CIRCUIT BREAKER IN PANEL "L1A(2)" AT AVAILABLE SPACE SHOWN (OR USE EXISTING SPARE CIRCUIT BREAKER IF AVAILABLE) AND PROVIDE POWER FOR QUAD RECEPTACLES TO BE MOUNTED ON NEW BACK BOARD. RECEPTACLE LOCATIONS AND INSTALLATION SHALL BE SIMILAR TO OTHER IT ROOMS IN THE BUILDING. SEE SHEET E-1.1 FOR LOCATION OF PANEL "L1A(2)".
- 2 INSTALL A 1 POLE, 20 AMP CIRCUIT BREAKER IN PANEL "L1A(2)" AT AVAILABLE SPACE SHOWN (OR USE EXISTING SPARE CIRCUIT BREAKER IF AVAILABLE) AND PROVIDE POWER FOR QUAD RECEPTACLE TO BE MOUNTED FLUSH IN THE CEILING ABOVE THE EQUIPMENT RACK. SEE SHEET E-1.1 FOR LOCATION OF PANEL "L1A(2)".
- 3 INSTALL AN EQUIPMENT GROUND BAR ON THE BACK BOARD TO MATCH GROUND BARS IN OTHER IT ROOMS IN THE BUILDING. INSTALL A #6 INSULATED COPPER GROUND WIRE FROM GROUND BAR TO BUILDING GROUND.
- 4 RECONFIGURE AND RECIRCUIT EXISTING LIGHT FIXTURES AS REQUIRED TO ACCOMMODATE NEW ROOM LAYOUTS.
- 5 POWER FOR AHU-1.1 IS FED FROM THE EXTERIOR CONDENSING UNIT.
- 6 PROVIDE POWER FOR WALL-MOUNTED VIDEO MONITORS FROM AN EXISTING SPARE 1 POLE, 20 AMP CIRCUIT BREAKER IN PANEL SHOWN. MONITORS SHALL BE NEC MULTISYNC V463 V SERIES, 46" CLASS, WITH ARTICULATING MOUNTS AND ALL WIRING FOR CONNECTION TO PC. PC SHALL BE DELL PRECISION #T3420SFF WITH QUAD VIDEO CARD AND ALL ACCESSORIES AS REQUIRED BY OWNER.
- 7 INSTALL A NEMA L14-30 RECEPTACLE TO PROVIDE POWER FOR A UPS SYSTEM. REPLACE SPARE 1 POLE, 20 AMP CIRCUIT BREAKERS IN PANEL INDICATED WITH A 2 POLE, 30 AMP CIRCUIT BREAKER. COORDINATE RECEPTACLE LOCATION WITH OWNER. UPS SHALL BE LIEBERT #GXT4-6000RT208 WITH IS-WEBCARD REMOTE MANAGEMENT ADAPTER AND PD2-001 POWER DISTRIBUTION UNIT.



4 SECURITY SYSTEM EQUIPMENT ROOM - POWER
E-2.1 1/4"=1'-0"



3 COMMAND CENTER FLOOR PLAN - POWER
E-2.1 1/4"=1'-0"

GENERAL NOTES

1. REFER TO COMPLETE GENERAL NOTES ON SHEET E-0.1.
2. FOR EXACT LOCATIONS OF MECHANICAL EQUIPMENT AND EQUIPMENT POINT OF CONNECTION, REFER TO MECHANICAL DRAWINGS AND MANUFACTURER'S SHOP DRAWINGS.
3. ALL CIRCUIT FEEDERS AND DISCONNECTS SHALL BE SIZED AND LOCATED PER REQUIREMENTS OF NATIONAL ELECTRICAL CODE. CONTRACTOR IS TO VERIFY DISCONNECT SWITCH AND FUSE SIZES WITH SELECTED EQUIPMENT MANUFACTURER'S SHOP DRAWING PRIOR TO PLACING ORDER AND PROVIDE EVERYTHING AS REQUIRED. CONTRACTOR IS TO COORDINATE ALL ELECTRICAL REQUIREMENTS WITH MANUFACTURER/OWNER'S PURCHASING AGENT/COMMISSIONING AGENT/ELECTRICAL ENGINEER PRIOR TO ORDERING EQUIPMENT AND INSTALLING ELECTRICAL OUTLETS FOR EQUIPMENT FURNISHED BY OTHERS TO ASSURE CORRECT ELECTRICAL REQUIREMENTS AND CONNECTIONS ARE PROVIDED.
4. LETTERS AND NUMBERS ON THE PLAN THAT ARE SHOWN NEXT TO DEVICES INDICATE THE PANEL AND CIRCUIT NUMBER FEEDING THAT DEVICE. EXAMPLE - L1A-3. UPDATE PANEL CIRCUIT DIRECTORY WITH NEW LOAD INFORMATION IN ANY PANEL AFFECTED BY THIS SCOPE OF WORK.
5. ALL NEW 120V CIRCUITS FROM PANEL "L1A(2)" SHALL BE #10AWG MINIMUM TO ALLOW FOR VOLTAGE DROP.

OCU - PRESIDENTS DRIVE OPS CENTER - RETROFIT

<p>BORELLI PARTNERS ARCHITECTURE PLANNING INTERIORS 720 VASSAR STREET ORLANDO, FL 32804 (407) 418-1338</p>		<p>BOBES ASSOCIATES CONSULTING ENGINEERS 1500 W. BOBES BLVD., SUITE 100 ORLANDO, FL 32837 TELEPHONE: (407) 266-0802 FAX: (407) 266-0802 FLORIDA STATE P.E. NUMBER: 5131</p>	
SIGNATURE AND DATED SEAL		CONSULTANTS	
DRAWING TITLE		ENLARGED FLOOR PLANS POWER AND SYSTEMS	
PROJECT NO.	17-102	DESCRIPTION	PROJECT ADDRESS
PHASE	PERMIT SET	DATE	PRESIDENTS DRIVE
SCALE	OWNER COMMENTS	DATE	8100 PRESIDENTS DRIVE ORLANDO, FLORIDA
FILE NAME	OWNER COMMENTS	DATE	OWNER NAME AND ADDRESS
DRAWN BY	CAD FILE	DATE	ORANGE COUNTY UTILITIES 9150 CLARY FORD RD. ORLANDO, FL 32837
CHECKED BY	DATE	DATE	
DATE	12-7-2017	DATE	