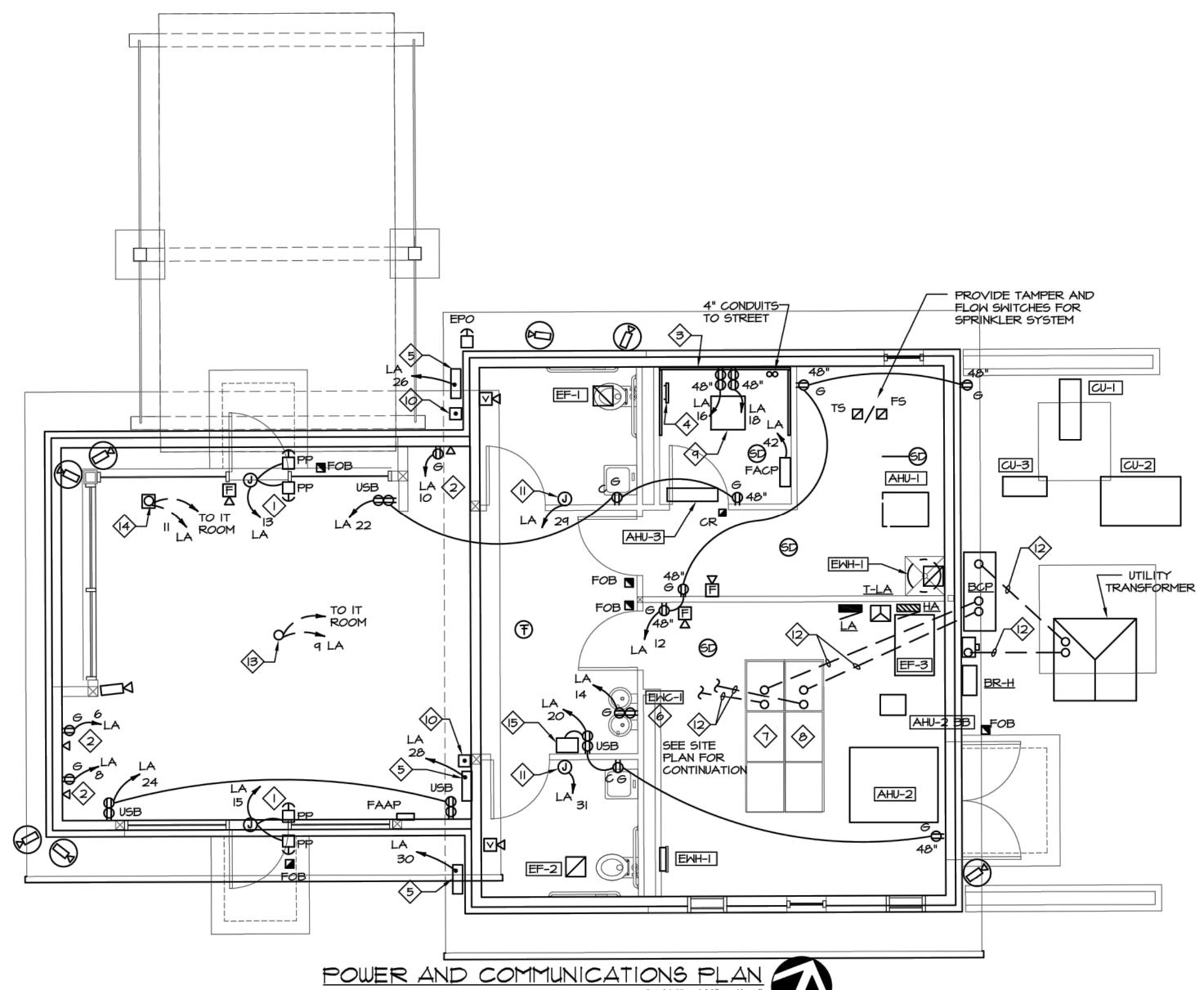


## FIRE ALARM SYSTEM BLOCK DIAGRAM

- I.) ALL 24VDC FIRE ALARM CABLE SHALL BE INSTALLED IN CONDUIT, OR SHALL BE FIRE ALARM/CONTROL TYPE MC CABLE (RED SHEATH). AT THE CONTRACTORS OPTION, PLENUM RATED CABLE MAY BE USED WITHOUT CONDUIT ONLY 2.) ABOVE ACCESSIBLE, LAY-IN CEILINGS, AND IN EXPOSED STRUCTURE AREAS ABOVE 12'-O" A.F.F.
- 3.) THE SYSTEM SUPPLIER SHALL DETERMINE THE SIZE, TYPE AND QUANTITY OF 24VDC CABLES FOR THE SYSTEM, AND SHALL FURNISH INSTALLATION FLOOR PLANS FOR REVIEW AND 4.) APPROVAL.

VERIFY QUANTITY AND LOCATION OF SPRINKLER SYSTEM TAMPER AND FLOW SWITCHES WITH THE SPRINKLER SYSTEM CONTRACTOR.

REFER TO THE SPECIFICATIONS FOR ADDITIONAL SYSTEM REQUIREMENTS. ALL POWER SUPPLIES AND BATTERIES SHALL HAVE A 25% SPARE (MINIMUM) CAPACITY FOR FUTURE DEVICES



## MECHANICAL EQUIPMENT WIRING SCHEDULE

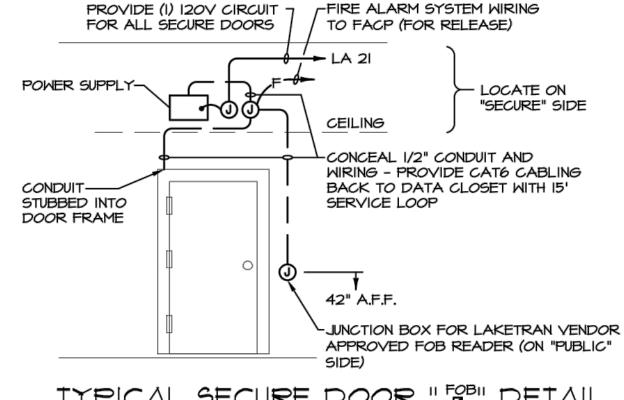
"DC"= DIRECT CONNECT COMBINATION STARTER SET DISCONNECT SET DISCONNECT SET DISCONNECT SET DISCONNECT STARTER SENTICH (I) JUNCTION BOX													
ITEM NO.	EQUIPMENT	HP	KW	FLA	VOLTS	Φ	CONNECTION BY EC	PANEL / CKT.NO.		BKR POLES	WIRING AND CONDUIT	NOTES	
AHU-I CU-I	SPLIT SYSTEM #I	-	17.5	-	480	3	2	HA / 8, 10, 12	25	3	3-10 AMG \$ 1-10 AMG GND - 3/4" C.		
AHU-2 CU-2	SPLIT SYSTEM #2	-	2.3	-	208	I	2	LA / 2,4	20	2	2-12 AMG \$ 1-12 AMG GND - 3/4" C.		
AHU-2 BB	AHU-2 BRANCH BOX	-	0.1	-	208	ı	3	LA / I,3	15	2	2-12 AMG \$ 1-12 AMG GND - 3/4" C.		
AHU-3 CU-3	SPLIT SYSTEM #3	-	2.3	-	208	1	2	LA / 17,19	30	2	2-10 AMG \$ 1-10 AMG GND - 3/4" C.	0	
EF-I	EXHAUST FAN #I	FRAC	0.04	-	120	ı	DC (5)	LA /7 ④	20	ı	2-12 AMG \$ 1-12 AMG GND - 3/4" C.		
EF-2	EXHAUST FAN #2	FRAC	0.04	-	120	I	DC (5)	LA /7 ④	20	ı	2-12 AMG \$ 1-12 AMG GND - 3/4" C.		
EF-3	EXHAUST FAN #3	2		-	480	3	<u></u> 30/3	HA / 14, 16, 18	15	3	3-12 AWG \$ 1-12 AWG GND - 3/4" C.	6	
HTR-I	ELECTRIC HEATER	-	4.8	-	208	ı	☐ 30AS	LA / 32, 34	30	2	2-10 AMG \$ 1-10 AMG GND - 3/4" C.		
EMH-I	ELECTRIC WATER HEATER	-	2.0	-	120	ī	□ 30A5	LA / 5	25	ı	2-10 AWG & 1-10 AWG GND - 3/4" C.		

## O SCHEDULE NOTES

- I. DUCT SMOKE DETECTOR MOUNTED BY MECHANICAL CONTRACTOR, FURNISHED AND WIRED BY ELECTRICAL CONTRACTOR.
- EQUIPMENT HAS A SINGLE POINT CONNECTION. SEE WIRING DIAGRAM.
- 3. EQUIPMENT HAS A FACTORY DISCONNECT SWITCH.
- 4. EQUIPMENT SHARES CIRCUIT WITH OTHER EQUIPMENT.
- 5. PROVIDE AN INTERLOCKING RELAY TO CONTROL 120V EXHAUST FAN WITH 27TV LIGHTS THAT SERVE THE SPACE.
- 6. FAN TO INTERLOCK WITH LOUVER IN CHARGING ROOM

## 

- I. NEW MOTORIZED DOORS WITH PUSH PAD CONTROLS 120 VOLT, I PHASE. E.C. TO INSTALL ALL POWER AND CONTROL WIRING AND MOUNT PUSH PAD CONTROL STATIONS. ALL CONDUIT AND WIRING MUST BE CONCEALED. FIELD VERIFY ROUTING AND PUSH PAD LOCATIONS WITH OWNER/ARCHITECT PRIOR TO ROUGH-IN.
- 2. VENDING MACHINE. PROVIDE READILY ACCESSIBLE GFCI DEVICE AS REQUIRED BY CODE.
- 3. E.C. TO PROVIDE 8'Hx3/4"D PAINTED TREATED PLYWOOD FOR TELE/DATA EQUIPMENT INSTALLED ON WALLS OF I.T. ROOM.
- 4. I2"X2"XI/4" CU GROUND BAR WITH INSULATED STAND-OFFS, AND #6
  COPPER GROUND TO EXISTING BUILDING GROUNDING ELECTRODE SYSTEM.
- LED SCHEDULE SIGN 120V. PROVIDE (I) ONE CAT6 ETHERNET CABLE IN 3/4" CONDUIT FROM SIGN TO SERVER ROOM.
- ELECTRIC WATER COOLER, PROVIDE READILY ACCESSIBLE GFCI DEVICE AS REQUIRED BY CODE.
- 7. ABB BATTERY CHARGING CABINETS (TYPICAL FOR THREE) MOUNTED TO METAL FRAMES SEE ONE LINE DIAGRAM AND CONDUIT STUB-UP LOCATION DETAILS ON DRAWING E-I.
- 8. FUTURE ABB BATTERY CHARGING CABINETS (TYPICAL FOR THREE). PROVIDE CONDUIT STUBS AND CAPS THROUGH FLOOR SLAB BELOW FUTURE CABINETS. SEE ONE LINE.
- 9. PROVIDE WALL MOUNTED DATA RACK AND LOW VOLTAGE WIRE MANAGEMENT. ALL HEAD-END EQUIPMENT IN RACK IS TO BE PROVIDED BY LAKETRAN'S I.T. AND SECURITY VENDORS.
- 10. ADA TYPE PUSHBUTTON FOR TOUCH TO SPEAK OPERATION OF SCHEDULE SIGN SPEAKER, MOUNTED AT 48" ABOVE FINISHED FLOOR.
- II. XCELERATOR #XL-SB-I2OV ELECTRIC HAND DRYER WITH STAINLESS STEEL COVER I2OV, I.46KW. CONFIRM LOCATION WITH OWNER AND ARCHITECT PRIOR TO ROUGH-IN.
- UNDERGROUND PVC CONDUITS SEE ONE LINE DIAGRAM FOR SIZES AND WIRING. TYPICAL.
- 13. TWO (2) I" UNDERGROUND PVC CONDUITS BELOW FLOOR SLAB FOR POWER AND USB CHARGING STATIONS IN BENCHES. COORDINATE EXACT STUB UP LOCATION IN FIELD WITH GENERAL CONTRACTOR AND OWNER'S REP.
- 14. NEW POWER AND USB CHARGING STATION PEDESTAL WITH TWO (2) I"
  UNDERGROUND PVC CONDUITS BELOW FLOOR SLAB. COORDINATE EXACT
  STUB UP LOCATION FOR PEDESTAL IN FIELD WITH GENERAL CONTRACTOR
  AND OWNER'S REP.
- 15. BLUE EMERGENCY PHONE WITH 120 VOLT POWER AND DEDICATED PHONE LINE TO IT ROOM.



TYPICAL SECURE DOOR " DETAIL NO SCALE

NOTE: VERIFY ALL JUNCTION BOXES, CONDUITS, AND POWER REQUIREMENTS WITH LAKETRAN SECURITY VENDOR BEFORE ROUGH-IN. KEY FOB READERS AND SECURE DOOR EQUIPMENT FURNISHED AND PROGRAMMED BY LAKETRAN VENDOR, INSTALLED AND WIRED BY E.C.



33851 Curtis Blvd., 216 Eastlake, Ohio 44095 † 440.953.8760 f 440.953.1289 www.tecinc1.com

cleveland | columbus | pittsburgh

PROJECT NO.

190065

DISCIPLINE

ELECTRICAL

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