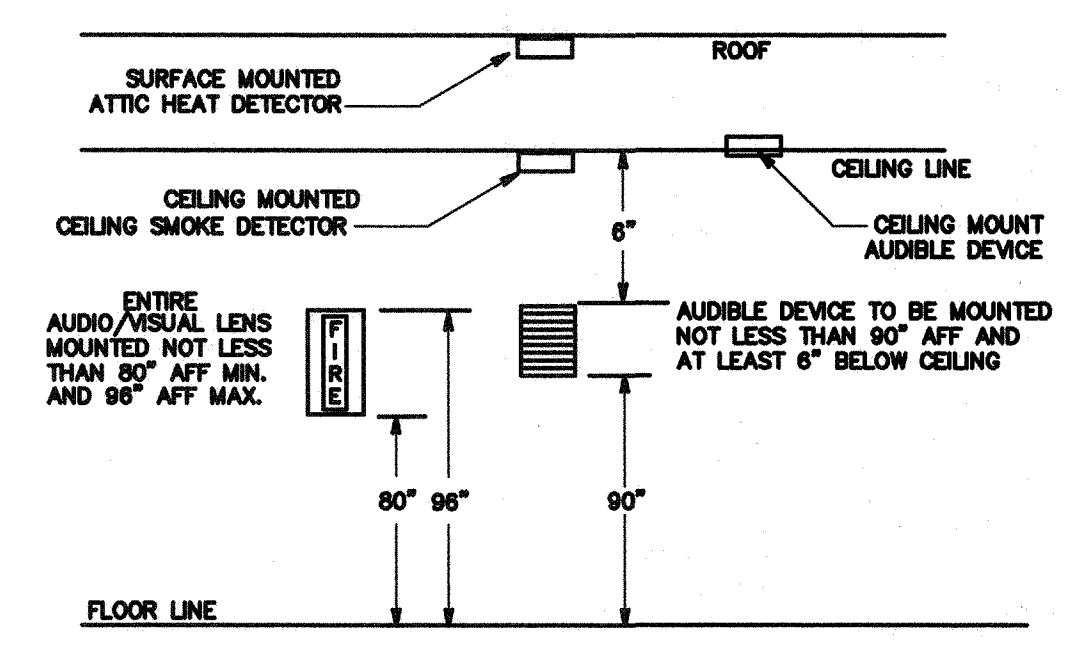


POWER AND SIGNAL PLAN

SCALE : 1/8" = 1' - 0"

SERVING		120/240V 1Ø 3W		REAR		FLUSH	
		100 AMP MAIN BREAKER		10,000 AIC		NEMA 1	
NO	NOTE	AMP	AVG	AMP	AVG	AMP	AVG
1	RECEPTACLE	12/12	20/1	10/17.3		60/2	8/10
2	RECEPTACLE	12/12	20/1	0.7/7.1		HVAC	3.5 TON
3	SPACE	12/12	20/1			20/1	12/12
4	SPACE	12/12	20/1			20/1	12/12
5	SPACE	12/12	20/1			20/1	12/12
6	INT/EXT LIGHTS	12/12	20/1	0.9		20/1	12/12
7	INT LIGHTS	12/12	20/1	0.8/0.1		20/1	12/12
8	INT LIGHTS	12/12	20/1			20/1	12/12

NOTES:
 1. PROVIDE CIRCUIT DIRECTORY INSIDE PANEL.
 2. PROVIDE NEW MATCHING BREAKER AND MECHANICAL LOCK ON BREAKER PER NFPA 72, 10.6.5.2 DEDICATED CIRCUIT, MECHANICALLY PROTECTED (LOCKOUT), RED MARKING, ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL, IDENTIFIED AS FIRE ALARM, EMERGENCY COMMUNICATIONS OR FIRE ALARM/ESS. LOCATION OF CIRCUIT DISCONNECT (BREAKER) PERMANENTLY IDENTIFIED AT THE FIRE ALARM CONTROL UNIT.



1 TYPICAL FIRE ALARM DEVICES MTD DETAIL
N.T.S.

MEP COMPONENT ANCHORAGE NOTES

ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DATA APPROVED CONSTRUCTION DOCUMENTS. WHERE NO DETAILS IS PROVIDED, THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2013 CBC, SECTIONS 1910A.1.10 THROUGH 1910A.1.20 AND ACE 7-10 CHAPTER 13, 20 AND 30.

- ALL PERMANENT EQUIPMENT AND COMPONENTS.
- TEMPORARY OR MOVABLE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HUNG WIRES) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTROLYTES, GAS OR LIQUID.
- MOVABLE EQUIPMENT WHICH IS SUPPORTED IN ONE PLACE FOR MORE THAN 8 HOURS AND HEAVIER THAN 400 POUNDS ARE REQUIRED TO BE ANCHORED WITH TEMPORARY ATTACHMENTS.

THE ATTACHMENT OF THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE, BUT NEED NOT BE DETAIL ON THE PLANS. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT.

- COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT.
- COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HANG FROM A WALL.

FOR THOSE ELEMENTS THAT DO NOT REQUIRE DETAILS ON THE APPROVED DRAWINGS, THE INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD AND THE DATA DISTRICT STRUCTURAL ENGINEER. THE PROJECT INSPECTOR SHALL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCE AND DISPLACEMENTS PRESCRIBED IN ACE 7-10 SECTION 13.3 AS DEFINED IN ACE 7-10 SECTION 12.A.8, 13.A.5.8 AND 2013 CBC, SECTION 1910A.1.23, 1910A.1.24, 1910A.1.25 AND 1910A.1.26.

THE BRACING AND ATTACHMENTS TO THE STRUCTURE SHALL BE DETAIL ON THE APPROVED DRAWINGS OR THEY SHALL COMPLY WITH ONE OF THE CORRO PRE-APPROVALS (CPM #) AS MODIFIED TO MEET ANCHORAGE REQUIREMENTS OF ACI 308, APPENDIX D.

COPIES OF THE MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF PIPING AND BRACING OF THE PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS.

THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

SHEET NOTES

- APPROXIMATE LOCATION FOR NEW FIRE ALARM SIGNAL AND AUDIO BOOSTER PANEL. PROVIDE 110V POWER CONNECTION AND DEDICATED CIRCUIT FROM PANEL A-12. SEE DRAWING E-3 FOR MORE INFORMATION.
- PROVIDE POWER CONNECTION FOR RELOCATABLE BUILDING PRE-WIRED PANEL. SEE SINGLE LINE DIAGRAM ON DRAWING E-4.
- PROVIDE 2" EMT BETWEEN BUILDINGS AND STUB INTO BUILDING CEILING CAVITY FOR SIGNAL WIRING RACEWAY. CORE DRILL AND SEAL EXTERIOR WALL AS REQUIRED. PULL BACK PA/TC TELE CABLE TO ADMIN OFFICE MASTER EQUIPMENT FOR NEW DEVICES CONNECTION. SEE RISER DIAGRAMS.
- PROVIDE #6 COPPER GROUNDING CONDUCTOR AND BOND TO EACH SECTION STRUCTURAL STEEL BEAM. FIELD VERIFY EXACT LOCATION WITH GENERAL CONTRACTOR PRIOR TO INSTALLATION.
- NEW SECURITY ALARM PANEL AND SYSTEM. PROVIDE 110V POWER CONNECTION AND INTERCONNECTION TO #8 MASTER EQUIPMENT IN ADMIN OFFICE. FIELD VERIFY EXACT LOCATION AND REQUIREMENT WITH OWNER PRIOR TO INSTALLATION. SEE RISER DIAGRAM.
- NEW IDF AND CABINET SURFACE MOUNTED BELOW CEILING. PROVIDE 110V POWER CONNECTION, DATA SWITCH, FO CABLE AND DATA CABLE PATCH PANEL FOR NEW DATA OUTLET CONNECTION. PROVIDE FO CABLE TO #8 IDF IN ADMIN OFFICE FOR INTERCONNECTION. FIELD VERIFY EXACT LOCATION AND REQUIREMENT WITH OWNER PRIOR TO INSTALLATION. SEE RISER DIAGRAM.
- DATA AND POWER OUTLET AT CEILING FOR SMART BOARD. FIELD VERIFY EXACT LOCATION AND REQUIREMENT WITH OWNER PRIOR TO INSTALLATION. SEE RISER DIAGRAM.
- PROVIDE 50 PAIR PUNCH DOWN BLOCK AND SURFACE MOUNTED BELOW CEILING FOR INTERCOM / TELEPHONE WIRING TERMINATION.
- INTERCEPT EXISTING U/G SIGNAL CONDUITS AND INSTALL CHRISTY N30 PULL BOX, REROUTE AND RECONNECT EXISTING U/G CONDUITS AND WIRING PER ORIGINAL. DO NOT SPlice SIGNAL CONDUCTOR INSIDE PULL BOX. RE PULL NEW CONDUCTORS AS REQUIRED. FIELD VERIFY EXACT LOCATION AND CONDITION PRIOR TO DEMOLITION.
- APPROXIMATE LOCATION FOR 70KVA XFMR. PROVIDE SAFETY DISCONNECT SWITCH ON (3) 4" PRIMARY SIDE. SEE SINGLE LINE DIAGRAM. FIELD VERIFY LOCATION.
- APPROXIMATE LOCATION FOR EXISTING PANEL H. PROVIDE NEW CONDUITS AND FEEDERS FOR NEW PRE-WIRED PANEL POWER CONNECTION. SEE SINGLE LINE DIAGRAM.
- SNW CUT AND PATCH EXISTING GROUND TO INSTALL NEW U/G POWER CONDUITS AND CONDUCTORS PER PLANS. SEE SINGLE LINE DIAGRAM.
- NEW 24"x24"x4" NEMA3R SIGNAL TO SURFACE MOUNTED ON EXTERIOR WALL AT CEILING LEVEL. PROVIDE (2) 2" STUB INTO BUILDING ATTIC CAVITY. SEE SIGNAL RISER DIAGRAM.
- INTERCEPT EXISTING U/G SIGNAL CONDUITS TO REMAIN AND REUSE PER PLANS. REROUTE AND RE-PULL NEW CONDUCTORS AS REQUIRED. SEE RISER DIAGRAMS.
- INTERCEPT EXISTING AERIAL CABLE AND INSTALL 24"x24"x4" NEMA3R PULL BOX. EXTEND NEW CONDUIT AND CONDUCTORS TO NEW PRE-WIRED PANEL PER PLANS. SEE SINGLE LINE DIAGRAM. FIELD VERIFY LOCATION WITH OWNER AND GENERAL CONTRACTOR PRIOR TO INSTALLATION.
- SNW CUT AND PATCH EXISTING GROUND TO INSTALL NEW U/G SIGNAL CONDUITS AND CONDUCTORS. RE PULL NEW CONDUCTORS TO RECONNECT EXISTING SIGNAL CIRCUITS DUE TO RELOCATED BUILDING REMOVED. FIELD VERIFY EXISTING CONDITION PRIOR TO DEMOLITION.

SIGNAL AND COMM. LEGEND

- SECURITY ALARM SYSTEM**
- DISC: DIGITAL SECURITY ALARM CONTROL PANEL, MODEL SONTROL (64ZONE). INTERFACE WITH EXISTING BUILDING MASTER SECURITY ALARM PANEL AS REQUIRED.
 - LD: LED NEON - MATCH EXISTING EQUIPMENT AS REQUIRED.
 - UD: DUAL TECHNOLOGY CEILING MOUNT DETECTOR. MATCH EXISTING EQUIPMENT AS REQUIRED.
 - EX: EXTERIOR BELL (SIREN) - DISCONNECT WITH WEATHERPROOF BACKBOX AND TAMPER SWITCH.
 - DC: DOOR CONTACT SWITCH. RECESS ABOVE DOOR JAMB AT OPEN SIDE.
 - B: INDOOR SECURITY ALARM CABLE. WEST PENN #241
 - B1: OUTDOOR SECURITY ALARM CABLE. WEST PENN #AQC224
- COMMUNICATION (TELEPHONE/INTERCOM) SYSTEM**
- HP: HANDSET/P PHONE - FIELD VERIFY MODEL NO. AND MATCH EXISTING MASTER EQUIPMENT AS REQUIRED.
 - SP: CEILING SPEAKER - RAULAND #JSD221 W/ACC1000 BAFFLE. PROVIDE BACKBOX AND CEILING SUPPORT AS REQUIRED.
 - SP1: OUTDOOR SPEAKER - ATLAS #AFT15 HORN W/AFMR AND LONELL (#284 FOR SURFACE, #9757 FOR RECESS) BACK BOX W/SULK GRILL.
 - T: OUTDOOR TELE/AC CABLE. 22AWG SOLID COPPER 12 PAIR SHIELDED AND 12 PAIR UNSHIELDED CABLE.
 - T1: INDOOR TELEPHONE CABLE. CAT.3 22AWG SOLID COPPER 4UTP SHIELDED CABLE.
 - P1: OUTDOOR PA/AC CABLE - WEST PENN #AQC-369
- DATA COMMUNICATION SYSTEM**
- 2: DATA OUTLET - LEVITON CAT 5E (DUAL RECEPTACLE RED IN COLOR FOR ADMINISTRATIVE)
 - 2: DATA OUTLET - LEVITON CAT 5E (DUAL RECEPTACLE BLUE IN COLOR FOR INSTRUCTIONAL)
 - FO: RISER OPTIC CABLE 1/4" INNER DUCT WITH J-HOOK IN ATTIC AND 2" FOR OUTDOOR. SEE RISER DIAGRAM FOR MODEL NO.
 - C1: (ONE) CAT 5E 22AWG 4UTP. SEE RISER DIAGRAM FOR MODEL NO.
 - C2: (TWO) CAT 5E 22AWG 4UTP. SEE RISER DIAGRAM FOR MODEL NO.
- NOTES:**
- ALL SIGNAL CONDUCTORS CANNOT SPLICE INSIDE PULL BOX. CONDUCTOR MUST BE CONTINUE RUN BETWEEN SIGNAL DEVICES BACK BOX OR ABOVE GROUND TERMINAL CABINET.

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Rev. No.	Date	Revision Description

POWER AND SIGNAL PLAN

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 Designer: J. CHONG
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