

FIRE ALARM SYSTEM REPLACEMENT ADMINISTRATIVE OFFICE OF THE COURTS MATHESON COURTHOUSE 450 SOUTH STATE STREET SALT LAKE CITY, UT



STATE OF UTAH
DEPARTMENT OF ADMINISTRATIVE SERVICES
DIVISION OF FACILITIES CONSTRUCTION AND MANAGEMENT
4110 State Office Building / SLC, Utah 84114 / (801) 538-3018

DFCM PROJECT NO. 13244150



PROTECTION CONSULTANTS, INC.

1199 SOUTH MAIN STREET, SUITE #101 - CENTERVILLE, UT 84014 - 801.295.6070

CODE ANALYSIS

A. Applicable Codes:	Year
1. International Building Code	2012
2. International Fire Code	2012
3. ADA Accessibility Guidelines	1994
4. National Electrical Code (NFPA 70)	2011
5. International Mechanical Code	2012
6. Utah State Fire Marshal Rule R710-4	2013
7. National Fire Alarm Code (NFPA 72)	2010

B. Building Parameters:	Assembly (A-3)
1. Occupancy Group:	745,000 Sq.Ft.
2. Building Area:	SIX
3. Stories:	Type I-A
4. Type of Construction:	YES
5. Fire Sprinklers:	Single Occupancy
6. Occupancy Separations:	

DRAWING SCHEDULE

SHEET	DRAWING TITLE
FA-0	FIRE ALARM SYSTEM REPLACEMENT - COVER SHEET AND SCHEDULES
FA-1	FIRE ALARM SYSTEM REPLACEMENT - 1ST LEVEL SOUTH
FA-2	FIRE ALARM SYSTEM REPLACEMENT - 1ST LEVEL NORTH
FA-3	FIRE ALARM SYSTEM REPLACEMENT - 2ND LEVEL SOUTH
FA-4	FIRE ALARM SYSTEM REPLACEMENT - 2ND LEVEL NORTH
FA-5	FIRE ALARM SYSTEM REPLACEMENT - 3RD LEVEL SOUTH
FA-6	FIRE ALARM SYSTEM REPLACEMENT - 3RD LEVEL NORTH
FA-7	FIRE ALARM SYSTEM REPLACEMENT - 4TH LEVEL SOUTH
FA-8	FIRE ALARM SYSTEM REPLACEMENT - 4TH LEVEL NORTH
FA-9	FIRE ALARM SYSTEM REPLACEMENT - 5TH LEVEL SOUTH
FA-10	FIRE ALARM SYSTEM REPLACEMENT - 5TH LEVEL NORTH
FA-11	FIRE ALARM SYSTEM REPLACEMENT - 6TH LEVEL
FA-12	FIRE ALARM SYSTEM REPLACEMENT - PARKING LEVEL 1 NORTH
FA-13	FIRE ALARM SYSTEM REPLACEMENT - PARKING LEVEL 1 SOUTH
FA-14	FIRE ALARM SYSTEM REPLACEMENT - PARKING LEVEL 2 NORTH
FA-15	FIRE ALARM SYSTEM REPLACEMENT - PARKING LEVEL 2 SOUTH
FA-16	FIRE ALARM SYSTEM REPLACEMENT - PARKING LEVEL 3

SCHEDULE OF DEFERRED SUBMITTALS

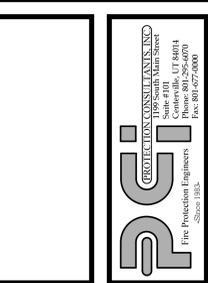
SUB #	DESCRIPTION
1	FIRE ALARM SYSTEM SHOP DRAWINGS
2	FIRE ALARM SYSTEM EQUIPMENT CUT SHEETS
3	FIRE ALARM SYSTEM BATTERY CALCULATIONS

SCHEDULE OF REQUIRED TESTS/INSPECTIONS

NUMBER	DESCRIPTION
1	CONDUIT/WIRING/ELECTRICAL - DFCM
2	FIRE ALARM BATTERY TESTS - USFM/DFCM
3	FIRE ALARM FUNCTIONAL TEST - USFM/DFCM
4	FIRE ALARM CIRCUIT INTEGRITY TESTS - USFM/DFCM
5	FIRE ALARM REMOTE STATION TRANSMISSION TESTS - USFM/DFCM

FIRE ALARM SYSTEM GENERAL NOTES

1. SCOPE OF WORK: WORK SHALL INCLUDE REPLACEMENT OF EXISTING FIRE/EMERGENCY VOICE ALARM SYSTEM WITH A NEW SYSTEM. EXISTING FIRE ALARM NOTIFICATION APPLIANCES SHALL BE REPLACED WITH NEW SPEAKER/STROBES AND SPACING OF NOTIFICATION APPLIANCES SHALL BE UPGRADED WHERE REQUIRED TO COMPLY WITH CURRENT IBC, NFPA 72 AND ADA REQUIREMENTS. EXISTING CONDUIT, J-BOXES AND WIRING MAY BE RECONFIGURED AND REUSED WHERE COMPATIBLE WITH NEW EQUIPMENT/CIRCUITS. INSTALL NEW CIRCUITS WHERE REQUIRED TO PROVIDE COMPLETE AND FUNCTIONAL FIRE ALARM/EMERGENCY VOICE ALARM SYSTEM. FIRE ALARM SYSTEMS SHALL CONFORM TO ALL APPLICABLE REQUIREMENTS OF THE IBC, IFC, NFPA 72, UTAH STATE FIRE MARSHAL'S OFFICE, EQUIPMENT MANUFACTURER, THESE DRAWINGS AND THE PROJECT SPECIFICATIONS.
2. APPLICABLE CODES/STANDARDS:
INTERNATIONAL BUILDING CODE - 2012 EDITION
INTERNATIONAL FIRE CODE - 2012 EDITION
UTAH STATE FIRE MARSHAL RULE R710-4
NFPA 70 - 2011 EDITION
NFPA 72 - 2010 EDITION
NFPA 80 - 2010 EDITION
NFPA 90A - 2010 EDITION
ASME A17.1 - 2007
UTAH STATE DFCM STANDARDS
3. QUALITY ASSURANCE: ALL EQUIPMENT, MATERIAL AND DEVICES USED FOR THE FIRE/EMERGENCY VOICE ALARM SYSTEMS INSTALLATION SHALL BE UL LISTED AND/OR FM APPROVED FOR USE IN FIRE PROTECTION SYSTEMS. ALL INITIATING DEVICES SHALL BE LISTED COMPATIBLE WITH THE FIRE ALARM CONTROL EQUIPMENT USED. MAJOR SYSTEM COMPONENTS (CONTROL PANELS, INITIATING DEVICES, ADDRESSABLE MODULES AND RELAYS, ETC.) SHALL BE FROM A SINGLE MANUFACTURER.
4. SUBMITTALS: FIRE ALARM SYSTEM CONTRACTOR SHALL PREPARE AND SUBMIT SHOP DRAWINGS TO UTAH STATE FIRE MARSHAL'S OFFICE, OWNER AND ENGINEER FOR REVIEW/ APPROVAL PRIOR TO ORDERING OR INSTALLING ANY EQUIPMENT. SUBMITTALS SHALL CONFORM TO THE CONSTRUCTION DOCUMENTS REQUIREMENTS OF IFC 907.1.1. SHOP DRAWINGS SHALL BE BASED ON THESE (ENGINEER'S) DRAWINGS. EACH DEFERRED SUBMITTAL SHALL HAVE THE PROJECT'S NAME, DFCM NUMBER, PROJECT ADDRESS, CONFORMANCE LETTER OR STAMP FROM THE DESIGNER AND A 3"x3" SPACE FOR THE APPROVAL STAMP ON THE FRONT PAGE. EACH DEFERRED SUBMITTAL SHALL BE ENTERED INTO THE EDMS SYSTEM.
5. DEMOLITION: IT IS THE INSTALLER'S RESPONSIBILITY FOR THE DEMOLITION OR PARTIAL DEMOLITION OF EACH EXISTING FIRE ALARM SYSTEM EXISTING DEVICES AND CONDUIT NOT BEING REPLACED AND REUSED THAT ARE VISIBLE, SUCH AS CABINETS NOTIFICATION APPLIANCES OR SMOKE DETECTORS SHALL BE REMOVED AND REMAINING WALL OR CEILING SURFACE REPAIRED OR REPLACED TO MATCH SURROUNDING AREA (UNO.). COVER PLATES MAY BE USED TO COVER UNUSED J-BOX BUT THEY SHALL BE LARGE ENOUGH TO ENTIRELY COVER J-BOX AND SHALL BE PAINTED TO MATCH THE COLOR OF THE WALL. REMOVE ALL UNUSED WIRE IN ALL REMAINING J-BOXES AND/OR CONDUITS. ANY CEILING TILE DAMAGED BY THE INSTALLER MUST BE REPLACED WITH THE SAME OR EQUIVALENT TILE.
6. WIRING/CONDUIT: EXISTING WIRING MAY BE REUSED WHERE FREE OF SHORTS OR GROUNDS AND COMPATIBLE WITH NEW CONTROL EQUIPMENT. NEW WIRING, WHERE REQUIRED, SHALL BE FREE OF SHORTS, SHORTS AND GROUNDS. ALL NEW WIRING SHALL BE INSTALLED IN METAL CLAD (WHEN RUN CONCEALED), RIGID CONDUIT OR EMT. FLEXIBLE CONDUIT MAY BE USED FOR DROPS TO SINGLE DEVICES (MAXIMUM 6'). MINIMUM CONDUIT SIZE SHALL BE 3/4". CONDUIT MAY BE RUN EXPOSED IN UNFINISHED AREAS, BUT SHALL BE INSTALLED CONCEALED ABOVE CEILINGS OR INSIDE WALLS IN FINISHED AREAS. EXPOSED CONDUIT SHALL BE PAINTED RED. ALL PENETRATIONS THROUGH RATED PARTITIONS SHALL BE STOPPED WITH A SUITABLE FIRESTOPPING COMPOUND. ALL WIRING USED IN THE FIRE ALARM SYSTEM SHALL BE FPL (FIRE POWER LIMITED) WITH MINIMUM 300V INSULATION OR EQUIVALENT AS PER NFPA 70 ARTICLE 760.
7. CIRCUIT CLASSIFICATION (PER NFPA 72): INITIATING DEVICE, NOTIFICATION APPLIANCE AND DATA CIRCUITS SHALL MEET THE REQUIREMENTS FOR CLASS A CIRCUITS. OUTGOING AND RETURN CONDUCTORS TO A SINGLE DEVICE SHALL BE RUN IN SEPARATE RACEWAY WHERE COMMON PATH EXCEEDS A DISTANCE OF 10'.
8. POWER: EXISTING 120VAC POWER CIRCUITS TO FIRE ALARM CONTROL EQUIPMENT MAY BE REUSED TO POWER NEW EQUIPMENT WHERE PRESENT, WHERE EXISTING 120VAC POWER CIRCUITS ARE NOT PRESENT INSTALL NEW CIRCUITS PER NFPA 70 FROM NEARBY POWER DISTRIBUTION PANELS. FURNISH A BATTERY BACKUP TO PROVIDE SECONDARY POWER SUPPLY TO EACH FIRE ALARM CONTROL PANEL AND POWER SUPPLY. BATTERY BACKUP SHALL BE OF SUFFICIENT CAPACITY TO PROVIDE 24 HOURS OF STANDBY POWER WITH AN ADDITIONAL RESERVE TO OPERATE THE SYSTEM FOR 15 MINUTES IN FULL ALARM.
9. INITIATING DEVICES:
SMOKE DETECTORS: INSTALL SMOKE DETECTORS ON CEILING/DECK OF ALL CORRIDORS AND LOBBIES AS WELL AS ALL AREAS OPEN TO CORRIDORS/LOBBIES. INSTALL ADDITIONAL DETECTORS ABOVE ALL FIRE ALARM SYSTEM CONTROL EQUIPMENT. DETECTORS SHALL BE LOCATED IN CONFORMANCE WITH NFPA 72 WITH A MAXIMUM SPACING OF 30 BETWEEN DETECTORS.
HEAT DETECTORS: INSTALL HEAT DETECTORS ON CEILING/DECK OF ELEVATOR EQUIPMENT AREAS, ELEVATOR SHAFTS AND OTHER AREAS AS INDICATED ON PLANS. HEAT DETECTORS SHALL BE FIXED TEMPERATURE TYPE (135 DEG-F). DETECTORS SHALL BE LOCATED IN CONFORMANCE WITH NFPA 72 WITH A MAXIMUM SPACING OF 50' BETWEEN DETECTORS.
DUCT SMOKE DETECTORS: INSTALL DUCT SMOKE DETECTORS WHERE INDICATED ON PLANS AND IN RETURN DUCTS OF ALL AIR MOVEMENT SYSTEMS WITH A CAPACITY IN EXCESS OF 2,000 CFM. REQUIRED NUMBER AND LOCATION OF DUCT SMOKE DETECTORS SHALL CONFORM TO IMC (2012) AND MANUFACTURER'S REQUIREMENTS. DUCT SMOKE DETECTORS ARE NOT REQUIRED WHERE ENTIRE AREA SERVED BY AIR MOVEMENT SYSTEM IS PROTECTED BY AREA SMOKE DETECTION SYSTEMS.
PROJECTED BEAM SMOKE DETECTORS: INSTALL PROJECTED BEAM TYPE SMOKE DETECTORS WHERE INDICATED ON PLANS. INSTALL IN ACCORDANCE WITH NFPA 72 AND MANUFACTURER'S REQUIREMENTS. DETECTORS SHALL BE SINGLE ENDED TYPE WITH ALL POWER/CONTROLS CONTAINED AT ONE END WITH A REFLECTOR UNIT ONLY ON THE OPPOSITE END. BEAM DETECTORS SHALL INCLUDE AN INTEGRATED TESTING SYSTEM UTILIZING OPAQUE SCREENS/FILTERS. TEST/RESET SWITCHES SHALL BE PROVIDED FOR EACH DETECTOR AND SHALL BE KEY OPERATED OR LOCATED WITHIN A SECURE ROOM.
MONITOR MODULES: INSTALL MONITOR MODULES TO FACILITATE CONNECTION OF EXISTING CONVENTIONAL INITIATING DEVICES (WATER FLOW VALVE SUPERVISORY, FIRE SUPPRESSION SYSTEMS, ETC.) THAT REMAIN TO NEW FIRE ALARM SYSTEM. PROVIDE A SEPARATE MONITOR MODULE FOR EACH WATER FLOW SWITCH. A SINGLE MONITOR MODULE MAY BE USED FOR MULTIPLE VALVE SUPERVISORY SWITCHES WHERE EACH OF THE VALVES CONNECTED TO THE MODULE SERVES THE SAME PURPOSE/ZONE.
10. NOTIFICATION APPLIANCES: PROVIDE AUDIBLE (VOICE) AND VISUAL NOTIFICATION APPLIANCES THROUGHOUT BUILDING WHERE INDICATED ON PLANS. NOTIFICATION APPLIANCES SHALL BE SPEAKER/STROBE TYPE DEVICES WITH ADJUSTABLE LIGHT INTENSITY (1504-1100C) AND VOLUME SETTINGS (1/4W - 2W). VOLUME OF SPEAKERS SHALL BE SUFFICIENT TO PROVIDE A SOUND LEVEL (AVERAGE ST) OF 5.0 IN ALL OCCUPIED AREAS. VOICE INTELLIGIBILITY IS NOT REQUIRED IN MECHANICAL SPACES, ATRIUM OR PRIVATE OFFICES. VISUAL ALARMS SHALL BE PROVIDED THROUGHOUT ALL BUILDING AREAS INCLUDING AREAS OF EACH BUILDING INCLUDING AREAS WITH POSSIBLE OCCUPANCY BY HEARING IMPAIRED PERSONS. STROBES SHALL FLASH IN SYNCHRONIZATION. NOTIFICATION APPLIANCES MAY BE WALL OR CEILING MOUNT. LOCATE WALL MOUNT DEVICES BETWEEN 80" AND 96" ABOVE FLOOR (ADJUST HEIGHT OF EXISTING J-BOXES AS REQUIRED). LOCATE NEW CEILING MOUNT DEVICES ON EXISTING CEILINGS.
11. NOTIFICATION APPLIANCE ZONING: PROVIDE A SEPARATE ZONE OF NOTIFICATION APPLIANCES FOR EACH FLOOR LEVEL OF EACH BUILDING. CONFIGURE VOICE ALARM CONTROL EQUIPMENT TO ALLOW MANUAL PAGING TO THREE SEPARATE ZONES (SOUTH, WEST AND NORTH) ON EACH FLOOR LEVEL OF BUILDING SEPARATELY AS WELL AS TO THE ENTIRE BUILDING. AUTOMATIC VOICE ALARM MESSAGES SHALL BE TRANSMITTED THROUGHOUT THE ENTIRE BUILDING WHERE FIRE ALARM INITIATING DEVICES HAVE ACTIVATED.
12. PROTECTED PREMISE FIRE SAFETY FUNCTIONS: INSTALL PROGRAMMABLE OUTPUT MODULES WITH RELAY CONTACTS TO INITIATE REQUIRED FIRE SAFETY FUNCTIONS (FAN SHUTDOWN, FIRE DOOR RELEASE, ELEVATOR RECALL, SMOKE CONTROL SYSTEM ACTIVATION, ETC.). OUTPUT MODULES SHALL BE INSTALLED WITHIN 36" OF DEVICE OR CIRCUIT CONTROLLED. ALL EXISTING PROTECTED PREMISE FIRE SAFETY FUNCTIONS CONTROLLED BY EXISTING FIRE ALARM SYSTEMS SHALL BE MIGRATED TO NEW SYSTEMS AND TESTED TO VERIFY PROPER FUNCTION.
13. PHASING: PLAN SEQUENCE OF WORK TO MINIMIZE DOWN TIME OF EXISTING FIRE ALARM SYSTEM. IT IS THE INSTALLER'S RESPONSIBILITY TO NOTIFY PROPER AUTHORITIES AND PROVIDE A FIRE WATCH DURING INTERRUPTIONS OF FIRE DETECTION AND ALARM SERVICE IN BUILDING. WORK IN ONLY ONE AREA OF THE BUILDING AT A TIME. COMPLETE ALL FIRE ALARM SYSTEM WORK IN ONE AREA BEFORE BEGINNING WORK IN THE NEXT AREA. ALL WORK SHALL BE SCHEDULED IN ADVANCE WITH THE BUILDING COORDINATOR.
14. TESTING: SCHEDULE AND PERFORM ALL ACCEPTANCE TESTS REQUIRED BY NFPA 72. TESTING SHALL BE WITNESSED BY STATE FIRE MARSHAL'S OFFICE, PROJECT ENGINEER, OWNER AND BUILDING MAINTENANCE PERSONNEL. SUBMIT A WRITTEN TESTING PLAN DETAILING EACH TEST TO BE PERFORMED TO EACH AGENCY AT LEAST TWO DAYS PRIOR TO SCHEDULED TEST. ALL INSPECTIONS AND TESTS MUST BE COMPLETED AND WRITTEN APPROVAL PROVIDED BY CODE INSPECTOR AND FIRE MARSHAL INSPECTOR PRIOR TO FINAL ACCEPTANCE.
15. PROTECTED PREMISE FIRE SAFETY FUNCTIONS: INSTALL PROGRAMMABLE OUTPUT MODULES WITH RELAY CONTACTS TO INITIATE REQUIRED FIRE SAFETY FUNCTIONS (FAN SHUTDOWN, ELEVATOR CONTROL, FIRE DOOR RELEASE ETC.). OUTPUT MODULES SHALL BE INSTALLED WITHIN 36" OF DEVICE OR CIRCUIT CONTROLLED. ALL EXISTING PROTECTED PREMISE FIRE SAFETY FUNCTIONS CONTROLLED BY EXISTING FIRE ALARM SYSTEM SHALL BE MIGRATED TO NEW SYSTEM AND TESTED TO VERIFY PROPER FUNCTION.
16. MAJOR SYSTEM COMPONENTS (CONTROL EQUIPMENT, POWER SUPPLIES, AMPLIFIERS, ETC.) FOR THE FIRE ALARM/EMERGENCY VOICE ALARM SYSTEM SHALL BE FROM A SINGLE MANUFACTURER TO ENSURE NETWORK INTEROPERABILITY. ALL PRODUCTS SHALL BE FURNISHED, INSTALLED, PROGRAMMED AND TESTED BY A FACTORY AUTHORIZED/TRAINED REPRESENTATIVE OF THE EQUIPMENT MANUFACTURER. FIRE ALARM EQUIPMENT INSTALLER SHALL HAVE A LOCAL OFFICE LOCATED WITHIN 75 MILES OF THE PROJECT LOCATION AND SHALL BE CAPABLE OF PROVIDING EMERGENCY SERVICE (INCLUDING PARTS/REPAIRS) WITHIN 24 HOURS OF NOTIFICATION BY CUSTOMER.
17. SYSTEM TYPE: FIRE ALARM SYSTEM SHALL MEET THE REQUIREMENTS FOR PROTECTED PREMISE FIRE ALARM SYSTEMS. SYSTEM SHALL PROVIDE OFF-PREMISE NOTIFICATION OF STATUS TO CENTRAL STATION DETERMINED BY OWNER. PROVIDE DIGITAL ALARM COMMUNICATION TRANSMITTER (EXISTING MAY BE RE-USED) FOR FIRE ALARM SIGNALS TO CENTRAL STATION.
18. IT IS THE INTENT OF THE DESIGN CONTAINED WITHIN THESE DOCUMENTS TO COMPLY WITH ALL REQUIREMENTS OF ALL STATE OF UTAH DFCM STANDARDS.



REVISIONS:	

DRAWING DATE:	11/8/13
REVISION DATE:	XX/XX/XX
JOB NUMBER:	104968
DWG ISSUE:	REVIEW
DRAWN BY:	BBH
CHECKED BY:	GTJ

ADMINISTRATIVE OFFICE OF THE COURTS
 MATHESON COURTHOUSE
 450 SOUTH STATE STREET
 SALT LAKE CITY, UTAH
FIRE ALARM SYSTEM REPLACEMENT
 DFCM PROJECT #13244150

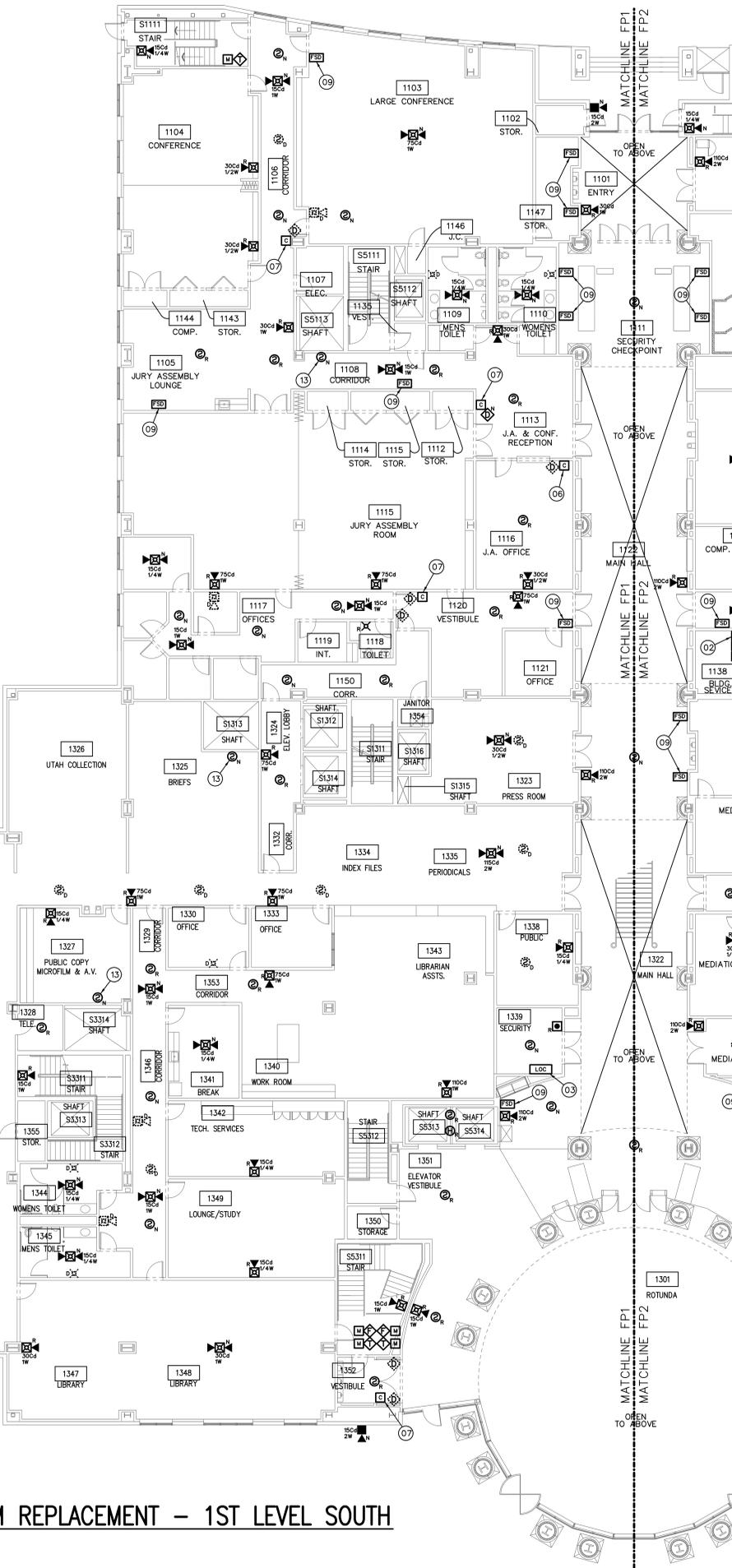
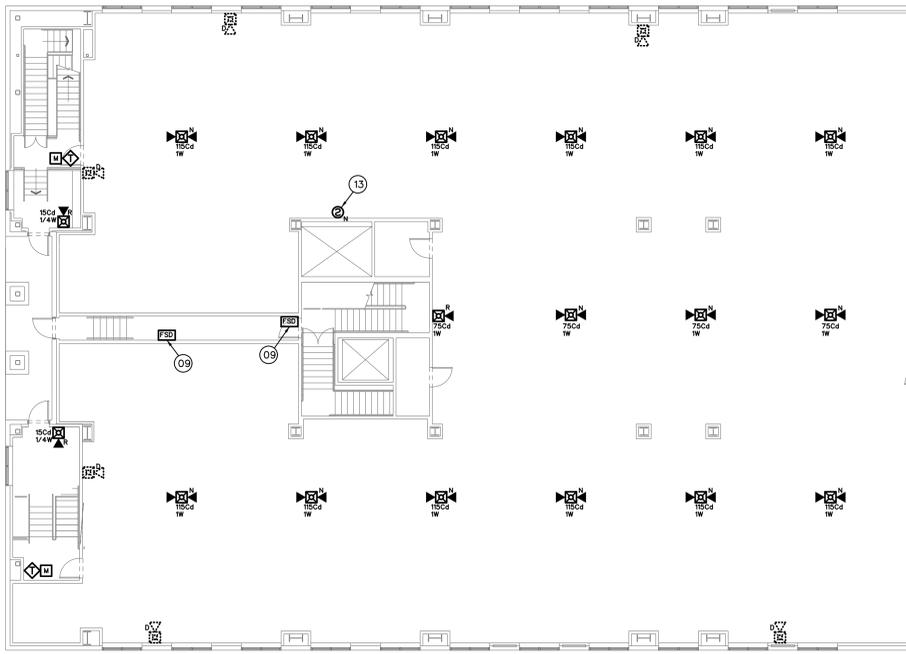
COVER SHEET AND
SCHEDULES

FA-0

FIRE ALARM EQUIPMENT LEGEND

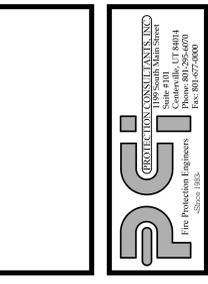
(QUANTITIES ARE ESTIMATES ONLY. CONTRACTOR TO VERIFY ACTUAL QUANTITIES FOR BID PURPOSES)

DEVICE	DESCRIPTION	EST. QTY.
FACP	FIRE/EMERGENCY VOICE ALARM CONTROL PANEL	1
FAPS	FIRE/EMERGENCY VOICE ALARM REMOTE POWER SUPPLY/AMPLIFIER	8
LOC	FIRE ALARM ANNUNCIATOR/EMERGENCY VOICE ALARM OPERATING CONSOLE	2
SUP	FIRE SUPPRESSION RELEASING CONTROL PANEL	1
TRANS	FIRE ALARM TRANSMITTER PANEL	1
PUMP	FIRE PUMP CONTROLLER	1
SD	SMOKE DETECTOR. NEW DEVICE ON NEW J-BOX.	228
SDR	SMOKE DETECTOR. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX.	316
SDR-D	SMOKE DETECTOR TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	114
SDR-N	BEAM TYPE SMOKE DETECTOR. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX.	3
HTD	FIXED TEMP HEAT DETECTOR. NEW DEVICE ON NEW J-BOX.	16
HTDR	FIXED TEMP HEAT DETECTOR. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX.	23
HTDR-D	HEAT DETECTOR TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	7
PS	PULL STATION. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX.	4
PS-D	PULL STATION TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	4
DS	DUCT SMOKE DETECTOR. REMOVE EXISTING DETECTOR AND SAMPLING TUBE AND INSTALL NEW IN SAME LOCATION.	9
AMM	ADDRESSABLE MONITOR MODULE. FOR CONNECTION OF CONVENTIONAL INITIATING DEVICE TO ADDRESSABLE FACP.	58
ACM	ADDRESSABLE CONTROL MODULE TO INITIATE PROTECTED PREMISE FIRE SAFETY FUNCTIONS.	124
FS	FIRE SPRINKLER VALVE SUPERVISORY SWITCH. EXISTING TO BE RE-USED.	33
FSR	FIRE SPRINKLER WATER FLOW SWITCH. EXISTING TO BE RE-USED.	21
WS	WALL MOUNT SPEAKER/STROBE. NEW DEVICE ON NEW J-BOX. MOUNT BETWEEN 80" & 96" AFF. SET CANDELA RATING AND VOLUME AS INDICATED.	63
WSR	WALL MOUNT SPEAKER/STROBE. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX. SET CANDELA RATING AND VOLUME AS INDICATED.	356
HS	HORN/STROBE TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	109
CS	CEILING MOUNT SPEAKER/STROBE. NEW DEVICE ON NEW J-BOX. SET CANDELA RATING AND VOLUME AS INDICATED.	343
CSR	CEILING MOUNT SPEAKER/STROBE. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX. SET CANDELA RATING AND VOLUME AS INDICATED.	1
CSN	CEILING MOUNT SPEAKER. INSTALL NEW DEVICE ON NEW J-BOX. SET VOLUME AS INDICATED.	38
WSN	WALL MOUNT STROBE. INSTALL NEW DEVICE ON EXISTING J-BOX. SET VOLUME AS INDICATED.	75
SDR-D	STROBE TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	94
ES	EXTERIOR SPEAKER/STROBE. NEW DEVICE ON NEW J-BOX. DEVICE AND J-BOX SHALL BE WEATHER-PROOF. SET CANDELA RATING AND VOLUME AS INDICATED.	4
MDO	MAGNETIC DOOR HOLD-OPEN DEVICE. EXISTING TO BE RE-USED. POWER TO BE PROVIDED FROM FACP OR REMOTE POWER SUPPLY.	120
MDO-N	MAGNETIC DOOR HOLD-OPEN DEVICE. INSTALL NEW DEVICE ON NEW J-BOX. POWER TO BE PROVIDED FROM FACP OR REMOTE POWER SUPPLY.	1
FSD	FIRE-SMOKE DAMPER. EXISTING TO BE RE-USED. POWER TO BE PROVIDED FROM FACP OR REMOTE POWER SUPPLY.	127



FIRE ALARM SYSTEM KEY NOTES

- REPLACE EXISTING FIRE/EMERGENCY VOICE ALARM CONTROL PANEL WITH NEW, ADDRESSABLE FIRE ALARM CONTROL PANEL WITH COMPLETE EMERGENCY VOICE ALARM CAPABILITIES, PROVIDE ALL REQUIRED CONTROL PANELS, AUDIO SYSTEM INTERFACES, MODULES, CABINETS, POWER SUPPLIES, ETC. TO PROVIDE A COMPLETE AND FUNCTIONAL FIRE/EMERGENCY VOICE ALARM SYSTEM COMPLIANT WITH ALL APPLICABLE PROVISIONS OF NFPA 72 AND THE INTERNATIONAL BUILDING/FIRE CODES. CONTROL PANEL SHALL HAVE SUFFICIENT CAPACITY TO MONITOR ALL INITIATING DEVICES SHOWN ON PLANS WITH AN ADDITIONAL SPARE CAPACITY OF 20% FOR FUTURE EXPANSION. EXISTING 120 VAC POWER CIRCUIT MAY BE RE-USED BUT PROVIDE NEW BATTERIES FOR SECONDARY POWER SUPPLY. EXISTING SLC, INITIATING DEVICE AND NOTIFICATION APPLIANCE (AUDIBLE AND VISUAL) CIRCUITS MAY BE RECONFIGURED AND RE-USED IF COMPLETELY FUNCTIONAL AND COMPATIBLE WITH NEW FACP/DEVICES. PROVIDE DIGITAL ALARM COMMUNICATOR/TRANSMITTER (EXISTING MAY BE RE-USED) AND CONNECT TO EXISTING PRIMARY AND SECONDARY PHONE LINES TO RELAY FIRE ALARM AND SUPERVISORY SIGNALS TO OFFPREMISE MONITORING COMPANY SELECTED BY OWNER.
- REPLACE EXISTING AUDIO AMPLIFIERS/TRANSPONDERS (AT FACP AND REMOTE LOCATIONS, WHERE PRESENT) WITH NEW EQUIPMENT LISTED COMPATIBLE AND INTERLOCKED WITH NEW FACP. AMPLIFIERS AND CIRCUIT WIRING SHALL HAVE SUFFICIENT CAPACITY TO PROVIDE A MINIMUM OF THREE PAGING ZONES (NORTH, SOUTH AND WEST) PER BUILDING LEVEL. AUDIO EQUIPMENT SHALL HAVE THE CAPABILITY OF STORING A MINIMUM OF EIGHT PRE-RECORDED MESSAGES THAT CAN BE BROADCAST TO THE ENTIRE BUILDING OR TO ANY INDIVIDUAL PAGING ZONE OR GROUP OF PAGING ZONES USING PROGRAMMABLE BUTTONS INTEGRATED INTO THE CONTROL EQUIPMENT. PROVIDE A MICROPHONE TO FACILITATE BROADCAST OF MANUAL MESSAGES TO THE ENTIRE BUILDING OR TO ANY INDIVIDUAL PAGING ZONE OR GROUP OF PAGING ZONES. AUDIO EQUIPMENT AND CIRCUITS SHALL HAVE SUFFICIENT CAPACITY TO PROVIDE POWER TO ALL SPEAKERS SHOWN ON PLANS WITH AN ADDITIONAL RESERVE CAPACITY OF 50% FOR FUTURE EXPANSION AND/OR VOLUME ADJUSTMENTS.
- FIRE ALARM ANNUNCIATOR PANEL AND EMERGENCY VOICE ALARM OPERATING CONSOLE. FIRE ALARM ANNUNCIATOR SHALL BE LOG TYPE TO DISPLAY STATUS OF FIRE ALARM SYSTEM WITH BUTTONS TO ALLOW FULL SYSTEM CONTROL (ACKNOWLEDGE, SILENCE, RESET, ETC.). EMERGENCY VOICE ALARM OPERATING CONSOLE SHALL HAVE BUTTONS FOR ACTIVATION OF PRE-RECORDED MESSAGES AND A BUILT-IN MICROPHONE FOR MANUAL MESSAGES. CONFIGURE OPERATING CONSOLE TO ALLOW VOICE MESSAGES TO BE BROADCAST TO INDIVIDUAL BUILDING ZONES OR TO ENTIRE BUILDING.
- DEMOLISH EXISTING NOTIFICATION APPLIANCE POWER SUPPLY AND REPLACE WITH NEW REMOTE POWER SUPPLY TO PROVIDE 24 VDC POWER TO NOTIFICATION APPLIANCES (STROBES) THROUGHOUT BUILDING. NUMBER AND LOCATION OF REMOTE POWER SUPPLIES SHALL BE SUFFICIENT TO PROVIDE A SEPARATE NOTIFICATION ZONE FOR EACH FLOOR LEVEL OF BUILDING. REQUIRED CAPACITY AND NUMBER OF POWER SUPPLIES TO BE DETERMINED BY CONTRACTOR. SURFACE MOUNT ON WALLS OF TELECOMMUNICATION ROOMS. CONNECT POWER SUPPLY TO MAGNETIC HOLD-OPEN DEVICES EXISTING MAY BE RE-USED IF PRESENT) THROUGH NORMALLY CLOSED CONTACTS OF CONTROL RELAY.
- EXISTING ROLLING FIRE DOOR (WON-DOOR) TO REMAIN. INSTALL ADDRESSABLE RELAY INTERFACED WITH DOOR CONTROLLER TO CLOSE FIRE DOOR UPON OPERATION OF SMOKE DETECTORS (SPOT TYPE OR PROJECTED BEAM TYPE) ON EITHER SIDE OF FIRE DOOR. TEST AUTOMATIC OPERATION OF FIRE DOOR AND ADJUST AS REQUIRED TO CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 80.
- EXISTING ROLL DOWN FIRE SHUTTER TO REMAIN. INSTALL ADDRESSABLE RELAY INTERFACED WITH FIRE SHUTTER CONTROLLER TO CLOSE SHUTTER UPON OPERATION OF SMOKE DETECTORS ON EITHER SIDE OF SHUTTER. TEST AUTOMATIC OPERATION OF FIRE SHUTTER AND ADJUST AS REQUIRED TO CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 80.
- EXISTING FIRE DOOR WITH NEW OR EXISTING (SEE LEGEND) MAGNETIC DOOR HOLD-OPEN DEVICE TO REMAIN. INSTALL ADDRESSABLE RELAY TO RELEASE MAGNETIC DOOR HOLDER UPON ACTIVATION OF ANY FIRE ALARM INITIATING DEVICE IN BUILDING. CONNECT POWER SUPPLY TO MAGNETIC HOLD-OPEN DEVICES (EXISTING MAY BE RE-USED IF PRESENT) THROUGH NORMALLY CLOSED CONTACTS OF CONTROL RELAY.
- EXISTING ELEVATOR CONTROL EQUIPMENT TO REMAIN. INSTALL ADDRESSABLE RELAYS TO INTERFACE EXISTING ELEVATOR CONTROLLERS TO NEW FIRE ALARM SYSTEM TO AUTOMATICALLY INITIATE THE FOLLOWING EMERGENCY FUNCTIONS:
1. PRIMARY RECALL
2. SECONDARY RECALL
3. CAB LIGHT ILLUMINATION
4. ELEVATOR POWER SHUNT/TRIP
EMERGENCY FUNCTIONS SHALL CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 72 AND ASME A17.1.
- EXISTING FIRE/SMOKE DAMPERS THROUGHOUT BUILDING TO REMAIN. REPLACE ALL EXISTING SMOKE DETECTORS PROVIDED TO CONTROL FIRE/SMOKE DAMPERS AND INSTALL NEW DETECTORS WHERE REQUIRED BY THE IBC OR IMC. NEW DETECTORS SHALL BE LISTED COMPATIBLE WITH THE FIRE ALARM SYSTEM. INSTALL PROGRAMMABLE RELAYS TO CLOSE DAMPERS UPON ACTUATION OF DETECTORS OR ANY OTHER FIRE ALARM INITIATING DEVICE IN THE BUILDING. NUMBER AND LOCATION OF DAMPERS, DETECTORS AND CONTROL RELAYS TO BE FIELD VERIFIED BY CONTRACTOR.
- EXISTING ATRIUM SMOKE EVACUATION SYSTEM TO REMAIN. INSTALL ADDRESSABLE RELAYS TO ACTIVATE SMOKE EVACUATION SYSTEM. PROVIDE RELAYS TO OPERATE ALL INTAKE/EXHAUST LOUVERS AND EXHAUST/MAKE-UP AIR FANS THAT ARE REQUIRED FOR PROPER OPERATION OF THE SMOKE EVACUATION SYSTEM. PROGRAM RELAYS TO ACTIVATE SMOKE EVACUATION SYSTEM UPON OPERATION OF ANY OF THE FOLLOWING INITIATING DEVICES:
1. WATER FLOW SWITCH FOR ATRIUM FIRE SPRINKLER ZONE
2. PROJECTED BEAM SMOKE DETECTORS AT TOP OF ATRIUM
3. SPOT TYPE SMOKE DETECTORS AROUND ATRIUM PERIMETER
COORDINATE SMOKE EVACUATION SYSTEM INTERFACE WITH OWNER AND MAINTENANCE CONTRACTOR FOR BUILDING CONTROLS. CONTRACTOR TO INCLUDE COST OF ALL REQUIRED SERVICE CALLS BY BUILDING CONTROLS MAINTENANCE CONTRACTOR IN BID.
- EXISTING SECURED EGRESS DOOR TO REMAIN. INSTALL ADDRESSABLE RELAY TO RELEASE SECURED DOOR UPON ACTIVATION OF ANY FIRE ALARM INITIATING DEVICE IN THE BUILDING. CONNECT POWER TO DOOR SECURITY HARDWARE (MAGNETIC PLATE OR ELECTRIC STRIKE) THROUGH NORMALLY CLOSED CONTACTS OF RELAY AND PROGRAM RELAY CONTACTS TO OPEN UPON ACTIVATION OF FIRE ALARM SYSTEM INTERRUPTING POWER SUPPLY TO SECURITY HARDWARE AND RELEASING DOOR. RELAY SHALL NOT RESET UNTIL THE FIRE ALARM SYSTEM IS RESTORED TO NORMAL CONDITION.
- INSTALL ADDRESSABLE RELAYS TO PROVIDE SHUTDOWN OF ALL AIR MOVEMENT SYSTEMS WITH A CAPACITY IN EXCESS OF 2,000 CFM. INSTALL A SEPARATE RELAY FOR EACH AIR MOVEMENT SYSTEM AND CONNECT RELAY OUTPUTS TO AIR MOVEMENT SYSTEM CONTROLS. EXISTING NEW CONTROL CIRCUITS MAY BE RE-USED IF COMPLETELY FUNCTIONAL. PROGRAM RELAYS TO SHUT DOWN AIR MOVEMENT SYSTEMS UPON ACTIVATION OF ANY DUCT MOUNTED SMOKE DETECTOR OR OTHER FIRE ALARM INITIATING DEVICE IN BUILDING. COORDINATE AIR MOVEMENT SYSTEM CONTROLS INTERFACE WITH OWNER AND MAINTENANCE CONTRACTOR FOR BUILDING CONTROLS. CONTRACTOR TO INCLUDE COST OF ALL REQUIRED SERVICE CALLS BY BUILDING CONTROLS MAINTENANCE CONTRACTOR IN BID.
- INSTALL SMOKE DETECTOR IN ACCORDANCE WITH IMC 606.2.3 AT CONNECTION OF RETURN AIR DUCT/PLENUM TO VERTICAL RETURN SHAFT ON EACH FLOOR LEVEL. SMOKE DETECTORS SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF NFPA 72 AND THE IMC. WHERE AIR VELOCITY IS LESS THAN 300 FPM PROVIDE A SPOT TYPE DETECTOR MOUNTED IN THE CENTER OF RETURN AIR FLOW AT THE CONNECTION TO THE VERTICAL RETURN SHAFT. WHERE AIR VELOCITY EXCEEDS 300 FPM PROVIDE A SAMPLING TUBE TYPE SMOKE DETECTOR WITH SAMPLING TUBE INSTALLED ACROSS RETURN AIR OPENING OR WITHIN RETURN AIR DUCT. CONTRACTOR TO DETERMINE AIR FLOW UNDER NORMAL OPERATING CONDITIONS TO DETERMINE APPROPRIATE DETECTOR TYPE FOR USE.
- EXISTING ELECTRIC FIRE PUMP AND FIRE SPRINKLER RISERS (WET AND DRY PIPE) TO REMAIN. INSTALL ADDRESSABLE MODULES TO FACILITATE CONNECTION OF FIRE PUMP CONTROLLER (PUMP RUNNING, AC POWER FAIL AND AC POWER PHASE REVERSAL), FIRE PUMP CONTROL VALVES, FIRE SPRINKLER CONTROL VALVES, FIRE SPRINKLER FLOW SWITCHES AND AIR PRESSURE SWITCHES TO NEW FIRE ALARM SYSTEM.
- EXISTING FIRE SUPPRESSION SYSTEM (INCLUDING SMOKE DETECTION SYSTEM) PROTECTING COMPUTER ROOM TO REMAIN. INSTALL ADDRESSABLE MODULES AT FIRE SUPPRESSION SYSTEM CONTROL PANEL TO RELAY FIRE SUPPRESSION SYSTEM ALARM, SUPERVISORY AND TROUBLE SIGNALS TO BUILDING FACP.
- TYPE I COOKING HOOD WITH EXISTING WET-CHEMICAL FIRE SUPPRESSION SYSTEM TO REMAIN. INSTALL ADDRESSABLE MODULE TO FACILITATE CONNECTION OF ACTIVATION RELAY FOR FIRE SUPPRESSION SYSTEM TO NEW FIRE ALARM SYSTEM. PROGRAM ACTIVATION OF FIRE SUPPRESSION SYSTEM AS A FIRE ALARM SIGNAL.



REVISIONS:

DRAWING DATE: 11/8/13
 REVISION NUMBER: XX/XX/XX
 JOB NUMBER: 104968
 DWG ISSUE: REVIEW
 DRAWN BY: BBH
 CHECKED BY: GTJ

ADMINISTRATIVE OFFICE OF THE COURTS
 MATHESON COURTHOUSE
 450 SOUTH STATE STREET
 SALT LAKE CITY, UTAH

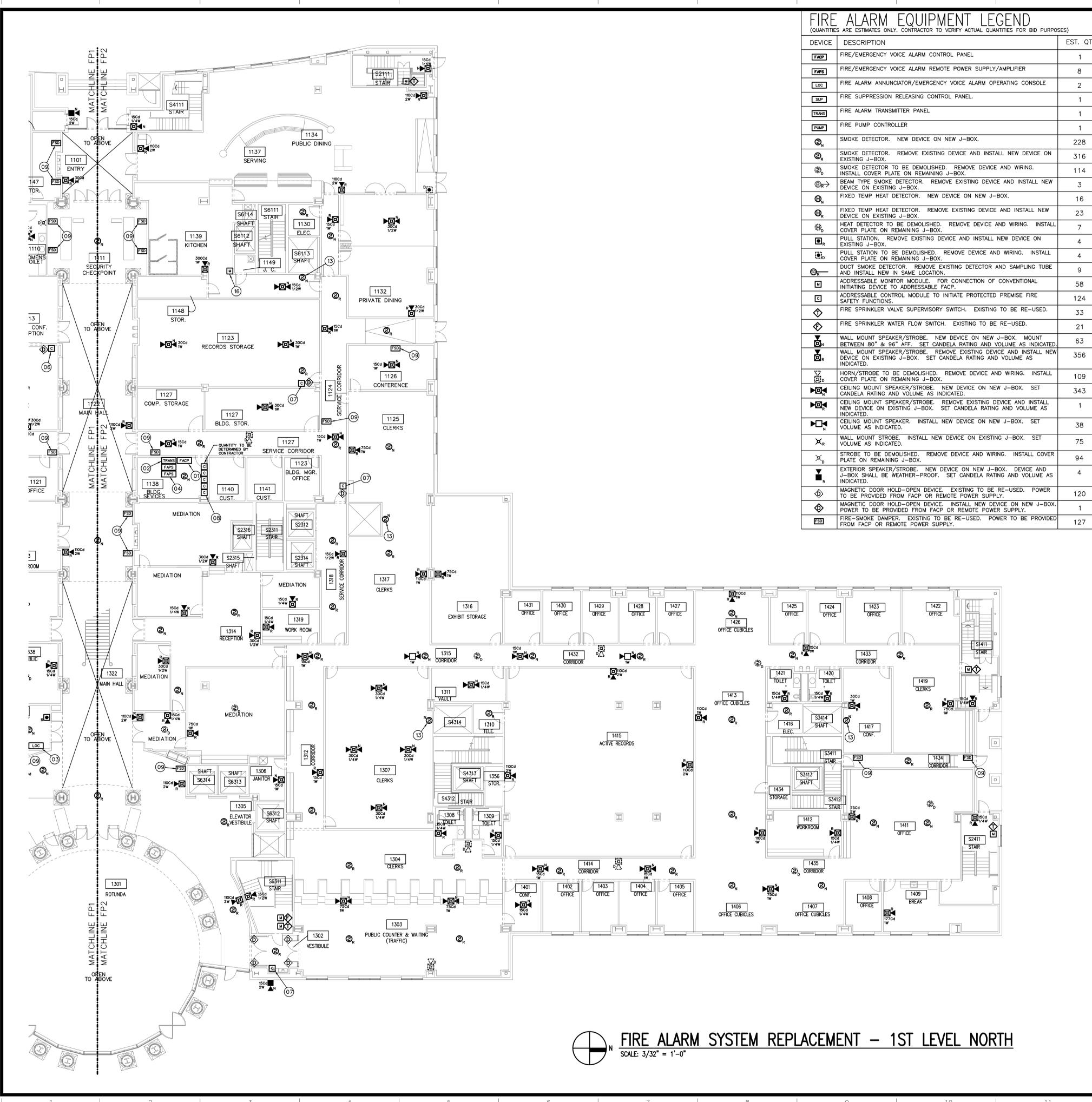
FIRE ALARM SYSTEM REPLACEMENT
 DFCM PROJECT #13244150



FIRE ALARM SYSTEM REPLACEMENT - 1ST LEVEL SOUTH

SCALE: 3/32" = 1'-0"

1ST LEVEL SOUTH
FA1



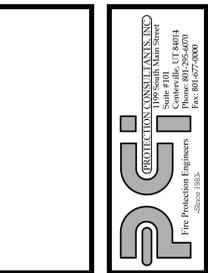
FIRE ALARM EQUIPMENT LEGEND

(QUANTITIES ARE ESTIMATES ONLY. CONTRACTOR TO VERIFY ACTUAL QUANTITIES FOR BID PURPOSES)

DEVICE	DESCRIPTION	EST. QTY.
FACP	FIRE/EMERGENCY VOICE ALARM CONTROL PANEL	1
FAPS	FIRE/EMERGENCY VOICE ALARM REMOTE POWER SUPPLY/AMPLIFIER	8
LOC	FIRE ALARM ANNUNCIATOR/EMERGENCY VOICE ALARM OPERATING CONSOLE	2
SUP	FIRE SUPPRESSION RELEASING CONTROL PANEL	1
TRANSP	FIRE ALARM TRANSMITTER PANEL	1
FPC	FIRE PUMP CONTROLLER	1
SD	SMOKE DETECTOR. NEW DEVICE ON NEW J-BOX.	228
SDR	SMOKE DETECTOR. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX.	316
SDR-D	SMOKE DETECTOR TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	114
SDR-B	BEAM TYPE SMOKE DETECTOR. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX.	3
SDR-F	FIXED TEMP HEAT DETECTOR. NEW DEVICE ON NEW J-BOX.	16
SDR-FD	FIXED TEMP HEAT DETECTOR. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX.	23
SDR-H	HEAT DETECTOR TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	7
PS	PULL STATION. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX.	4
PS-D	PULL STATION TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	4
SDR-DSD	DUCT SMOKE DETECTOR. REMOVE EXISTING DETECTOR AND SAMPLING TUBE AND INSTALL NEW IN SAME LOCATION.	9
AM	ADDRESSABLE MONITOR MODULE. FOR CONNECTION OF CONVENTIONAL INITIATING DEVICE TO ADDRESSABLE FACP.	58
ACM	ADDRESSABLE CONTROL MODULE TO INITIATE PROTECTED PREMISE FIRE SAFETY FUNCTIONS.	124
FSV	FIRE SPRINKLER VALVE SUPERVISORY SWITCH. EXISTING TO BE RE-USED.	33
FSW	FIRE SPRINKLER WATER FLOW SWITCH. EXISTING TO BE RE-USED.	21
WS	WALL MOUNT SPEAKER/STROBE. NEW DEVICE ON NEW J-BOX. MOUNT BETWEEN 80" & 96" AFT. SET CANDELA RATING AND VOLUME AS INDICATED.	63
WSR	WALL MOUNT SPEAKER/STROBE. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX. SET CANDELA RATING AND VOLUME AS INDICATED.	356
SDR-HSD	HORN/STROBE TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	109
CS	CEILING MOUNT SPEAKER/STROBE. NEW DEVICE ON NEW J-BOX. SET CANDELA RATING AND VOLUME AS INDICATED.	343
CSR	CEILING MOUNT SPEAKER/STROBE. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX. SET CANDELA RATING AND VOLUME AS INDICATED.	1
CSM	CEILING MOUNT SPEAKER. INSTALL NEW DEVICE ON NEW J-BOX. SET VOLUME AS INDICATED.	38
WSM	WALL MOUNT STROBE. INSTALL NEW DEVICE ON EXISTING J-BOX. SET VOLUME AS INDICATED.	75
SDR-HSD	STROBE TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	94
ES	EXTERIOR SPEAKER/STROBE. NEW DEVICE ON NEW J-BOX. DEVICE AND J-BOX SHALL BE WEATHER-PROOF. SET CANDELA RATING AND VOLUME AS INDICATED.	4
MDHO	MAGNETIC DOOR HOLD-OPEN DEVICE. EXISTING TO BE RE-USED. POWER TO BE PROVIDED FROM FACP OR REMOTE POWER SUPPLY.	120
MDHO-N	MAGNETIC DOOR HOLD-OPEN DEVICE. INSTALL NEW DEVICE ON NEW J-BOX. POWER TO BE PROVIDED FROM FACP OR REMOTE POWER SUPPLY.	1
FD	FIRE-SMOKE DAMPER. EXISTING TO BE RE-USED. POWER TO BE PROVIDED FROM FACP OR REMOTE POWER SUPPLY.	127

FIRE ALARM SYSTEM KEY NOTES

- REPLACE EXISTING FIRE/EMERGENCY VOICE ALARM CONTROL PANEL WITH NEW, ADDRESSABLE FIRE ALARM CONTROL PANEL WITH COMPLETE EMERGENCY VOICE ALARM CAPABILITIES. PROVIDE ALL REQUIRED CONTROL PANELS, AUDIO SYSTEM INTERFACES, MODULES, CABINETS, POWER SUPPLIES, ETC. TO PROVIDE A COMPLETE AND FUNCTIONAL FIRE/EMERGENCY VOICE ALARM SYSTEM COMPLIANT WITH ALL APPLICABLE PROVISIONS OF NFPA 72 AND THE INTERNATIONAL BUILDING/FIRE CODES. CONTROL PANEL SHALL HAVE SUFFICIENT CAPACITY TO MONITOR ALL INITIATING DEVICES SHOWN ON PLANS WITH AN ADDITIONAL SPARE CAPACITY OF 20% FOR FUTURE EXPANSION. EXISTING 120 VAC POWER CIRCUITS MAY BE RE-USED BUT PROVIDE NEW BATTERIES FOR SECONDARY POWER SUPPLY. EXISTING SLC, INITIATING DEVICE AND NOTIFICATION APPLIANCE (AUDIBLE AND VISUAL) CIRCUITS MAY BE RECONFIGURED AND RE-USED IF COMPLETELY FUNCTIONAL AND COMPATIBLE WITH NEW FACP/DEVICE. PROVIDE DIGITAL ALARM COMMUNICATOR/TRANSMITTER (EXISTING MAY BE RE-USED) AND CONNECT TO EXISTING PRIMARY AND SECONDARY PHONE LINES TO RELAY FIRE ALARM AND SUPERVISORY SIGNALS TO OFF-PREMISE MONITORING COMPANY SELECTED BY OWNER.
- REPLACE EXISTING AUDIO AMPLIFIERS/TRANSPONDERS (AT FACP AND REMOTE LOCATIONS, WHERE PRESENT) WITH NEW EQUIPMENT LISTED COMPATIBLE AND INTERLOCKED WITH NEW FACP. AMPLIFIERS AND CIRCUIT WIRING SHALL HAVE SUFFICIENT CAPACITY TO PROVIDE A MINIMUM OF THREE PAGING ZONES (NORTH, SOUTH AND WEST) PER BUILDING LEVEL. AUDIO EQUIPMENT SHALL HAVE THE CAPABILITY OF STORING A MINIMUM OF EIGHT PRE-RECORDED MESSAGES THAT CAN BE BROADCAST TO THE ENTIRE BUILDING OR TO ANY INDIVIDUAL PAGING ZONE OR GROUP OF PAGING ZONES USING PROGRAMMABLE BUTTONS INTEGRATED INTO THE CONTROL EQUIPMENT. PROVIDE A MICROPHONE TO FACILITATE BROADCAST OF MANUAL MESSAGES TO THE ENTIRE BUILDING OR TO ANY INDIVIDUAL PAGING ZONE OR GROUP OF PAGING ZONES. AUDIO EQUIPMENT AND CIRCUITS SHALL HAVE SUFFICIENT CAPACITY TO PROVIDE POWER TO ALL SPEAKERS SHOWN ON PLANS WITH AN ADDITIONAL RESERVE CAPACITY OF 50% FOR FUTURE EXPANSION AND/OR VOLUME ADJUSTMENTS.
- FIRE ALARM ANNUNCIATOR PANEL AND EMERGENCY VOICE ALARM OPERATING CONSOLE. FIRE ALARM ANNUNCIATOR SHALL BE LCD TYPE TO DISPLAY STATUS OF FIRE ALARM SYSTEM WITH BUTTONS TO ALLOW FULL SYSTEM CONTROL (ACKNOWLEDGE, SILENCE, RESET, ETC.). EMERGENCY VOICE ALARM OPERATING CONSOLE SHALL HAVE BUTTONS FOR ACTIVATION OF PRE-RECORDED MESSAGES AND A BUILT-IN MICROPHONE FOR MANUAL MESSAGES. CONFIGURE OPERATING CONSOLE TO ALLOW VOICE MESSAGES TO BE BROADCAST TO INDIVIDUAL BUILDING ZONES OR TO ENTIRE BUILDING.
- DEMOLISH EXISTING NOTIFICATION APPLIANCE POWER SUPPLY AND REPLACE WITH NEW REMOTE POWER SUPPLY TO PROVIDE 24 VDC POWER TO NOTIFICATION APPLIANCES (STROBES) THROUGHOUT BUILDING. NUMBER AND LOCATION OF REMOTE POWER SUPPLIES SHALL BE SUFFICIENT TO PROVIDE A SEPARATE NOTIFICATION ZONE FOR EACH FLOOR LEVEL OF BUILDING. REQUIRED CAPACITY AND NUMBER OF POWER SUPPLIES TO BE DETERMINED BY CONTRACTOR. SURFACE MOUNT ON WALLS. TELECOMMUNICATIONS ROOMS. CONNECT TO POWER SUPPLY TO BUILDING FACP TO PROVIDE ACTIVATION OF NOTIFICATION APPLIANCES AND TROUBLE SUPERVISION. EXISTING 120 VAC POWER CIRCUITS MAY BE RE-USED BUT PROVIDE NEW BATTERIES FOR SECONDARY POWER SUPPLY. CONFIGURE POWER SUPPLIES TO SYNCHRONIZE VISUAL SIGNALS OF ALL NOTIFICATION APPLIANCES LOCATED WITHIN A SINGLE FIELD OF VIEW.
- EXISTING ROLLING FIRE DOOR (WON-DOOR) TO REMAIN. INSTALL ADDRESSABLE RELAY INTERFACED WITH DOOR CONTROLLER TO CLOSE FIRE DOOR UPON OPERATION OF SMOKE DETECTORS (SPOT TYPE OR PROJECTED BEAM TYPE) ON EITHER SIDE OF FIRE DOOR. TEST AUTOMATIC OPERATION OF FIRE DOOR AND ADJUST AS REQUIRED TO CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 80.
- EXISTING ROLL DOWN FIRE SHUTTER TO REMAIN. INSTALL ADDRESSABLE RELAY INTERFACED WITH FIRE SHUTTER CONTROLLER TO CLOSE SHUTTER UPON OPERATION OF SMOKE DETECTORS ON EITHER SIDE OF SHUTTER. TEST AUTOMATIC OPERATION OF FIRE SHUTTER AND ADJUST AS REQUIRED TO CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 80.
- EXISTING FIRE DOOR WITH NEW OR EXISTING (SEE LEGEND) MAGNETIC DOOR HOLD-OPEN DEVICE TO REMAIN. INSTALL ADDRESSABLE RELAY TO RELEASE MAGNETIC DOOR HOLDER UPON ACTIVATION OF ANY FIRE ALARM INITIATING DEVICE IN BUILDING. CONNECT POWER SUPPLY TO MAGNETIC HOLD-OPEN DEVICES (EXISTING MAY BE RE-USED IF PRESENT) THROUGH NORMALLY CLOSED CONTACTS OF CONTROL RELAY.
- EXISTING ELEVATOR CONTROL EQUIPMENT TO REMAIN. INSTALL ADDRESSABLE RELAYS TO INTERFACE EXISTING ELEVATOR CONTROLLERS TO NEW FIRE ALARM SYSTEM TO AUTOMATICALLY INITIATE THE FOLLOWING EMERGENCY FUNCTIONS:
 - PRIMARY RECALL
 - SECONDARY RECALL
 - CAB LIGHT ILLUMINATION
 - ELEVATOR POWER SHUNT/TRIP
 EMERGENCY FUNCTIONS SHALL CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 72 AND ASME A17.1.
- EXISTING FIRE/SMOKE DAMPERS THROUGHOUT BUILDING TO REMAIN. REPLACE ALL EXISTING SMOKE DETECTORS PROVIDED TO CONTROL FIRE/SMOKE DAMPERS AND INSTALL NEW DETECTORS WHERE REQUIRED BY THE BIDDING DOCUMENTS. NEW DETECTORS SHALL BE LISTED AND COMPATIBLE WITH THE FIRE ALARM SYSTEM. INSTALL PROGRAMMABLE RELAY TO CLOSE DAMPERS UPON ACTIVATION OF DETECTORS OR ANY OTHER FIRE ALARM INITIATING DEVICE IN THE BUILDING. NUMBER AND LOCATION OF DAMPERS, DETECTORS AND CONTROL RELAYS TO BE FIELD VERIFIED BY CONTRACTOR.
- EXISTING ATRIUM SMOKE EVACUATION SYSTEM TO REMAIN. INSTALL ADDRESSABLE RELAYS TO ACTIVATE SMOKE EVACUATION SYSTEM. PROVIDE RELAYS TO OPERATE ALL INTAKE/EXHAUST LOUVERS AND EXHAUST/MAKE-UP AIR FANS THAT ARE REQUIRED FOR PROPER OPERATION OF THE SMOKE EVACUATION SYSTEM. PROGRAM RELAYS TO ACTIVATE SMOKE EVACUATION SYSTEM UPON OPERATION OF ANY OF THE FOLLOWING INITIATING DEVICES:
 - WATER FLOW SWITCH FOR ATRIUM FIRE SPRINKLER ZONE
 - PROJECTED BEAM SMOKE DETECTORS AT TOP OF ATRIUM
 - SPOT TYPE SMOKE DETECTORS AROUND ATRIUM PERIMETER
 COORDINATE SMOKE EVACUATION SYSTEM INTERFACE WITH OWNER AND MAINTENANCE CONTRACTOR FOR BUILDING CONTROLS. CONTRACTOR TO INCLUDE COST OF ALL REQUIRED SERVICE CALLS BY BUILDING CONTROLS MAINTENANCE CONTRACTOR IN BID.
- EXISTING SECURED EGRESS DOOR TO REMAIN. INSTALL ADDRESSABLE RELAY TO RELEASE SECURED DOOR UPON ACTIVATION OF ANY FIRE ALARM INITIATING DEVICE IN THE BUILDING. CONNECT POWER TO DOOR SECURITY HARDWARE (MAGNETIC PLATE OR ELECTRIC STRIKE) THROUGH NORMALLY CLOSED CONTACTS OF RELAY AND PROGRAM RELAY CONTACTS TO OPEN UPON ACTIVATION OF FIRE ALARM SYSTEM INTERRUPTING POWER SUPPLY TO SECURITY HARDWARE AND RELEASING DOOR. RELAY SHALL NOT RESET UNTIL THE FIRE ALARM SYSTEM IS RESTORED TO NORMAL CONDITION.
- INSTALL ADDRESSABLE RELAYS TO PROVIDE SHUTDOWN OF ALL AIR MOVEMENT SYSTEMS WITH A CAPACITY IN EXCESS OF 2,000 CFM. INSTALL A SEPARATE RELAY FOR EACH AIR MOVEMENT SYSTEM AND CONNECT RELAY OUTPUTS TO AIR MOVEMENT SYSTEM CONTROLS. EXISTING NEW CONTROL CIRCUITS MAY BE RE-USED IF COMPLETELY FUNCTIONAL. PROGRAM RELAYS TO SHUT DOWN AIR MOVEMENT SYSTEMS UPON ACTIVATION OF ANY DUCT MOUNTED SMOKE DETECTOR OR OTHER FIRE ALARM INITIATING DEVICE IN BUILDING. COORDINATE AIR MOVEMENT SYSTEM CONTROLS INTERFACE WITH OWNER AND MAINTENANCE CONTRACTOR FOR BUILDING CONTROLS. CONTRACTOR TO INCLUDE COST OF ALL REQUIRED SERVICE CALLS BY BUILDING CONTROLS MAINTENANCE CONTRACTOR IN BID.
- INSTALL SMOKE DETECTOR IN ACCORDANCE WITH IMC 608.2.3 AT CONNECTION OF RETURN AIR DUCT/PLENUM TO VERTICAL RETURN SHAFT ON EACH FLOOR LEVEL. SMOKE DETECTORS SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF NFPA 72 AND THE IMC. WHERE AIR VELOCITY IS LESS THAN 300 FPM PROVIDE A SPOT TYPE DETECTOR MOUNTED IN THE CENTER OF RETURN AIR FLOW AT THE CONNECTION TO THE VERTICAL RETURN SHAFT. WHERE AIR VELOCITY EXCEEDS 300 FPM PROVIDE A SAMPLING TUBE TYPE SMOKE DETECTOR WITH SAMPLING TUBE INSTALLED ACROSS RETURN AIR OPENING OR WITHIN RETURN AIR DUCT. CONTRACTOR TO DETERMINE AIR FLOW UNDER NORMAL OPERATING CONDITIONS TO DETERMINE APPROPRIATE DETECTOR TYPE FOR USE.
- EXISTING ELECTRIC FIRE PUMP AND FIRE SPRINKLER RISERS (WET AND DRY PIPE) TO REMAIN. INSTALL ADDRESSABLE MODULES TO FACILITATE CONNECTION OF FIRE PUMP CONTROLLER (PUMP RUNNING, AC POWER FAIL AND AC POWER PHASE REVERSAL), FIRE PUMP CONTROL VALVES, FIRE SPRINKLER CONTROL VALVES, FIRE SPRINKLER FLOW SWITCHES AND AIR PRESSURE SWITCHES TO NEW FIRE ALARM SYSTEM.
- EXISTING FIRE SUPPRESSION SYSTEM (INCLUDING SMOKE DETECTION SYSTEM) PROTECTING COMPUTER ROOM TO REMAIN. INSTALL ADDRESSABLE MODULES AT FIRE SUPPRESSION SYSTEM CONTROL PANEL TO RELAY FIRE SUPPRESSION SYSTEM ALARM, SUPERVISORY AND TROUBLE SIGNALS TO BUILDING FACP.
- TYPE I COOKING HOOD WITH EXISTING WET-CHEMICAL FIRE SUPPRESSION SYSTEM TO REMAIN. INSTALL ADDRESSABLE MODULE TO FACILITATE CONNECTION OF ACTIVATION RELAY FOR FIRE SUPPRESSION SYSTEM TO NEW FIRE ALARM SYSTEM. PROGRAM ACTIVATION OF FIRE SUPPRESSION SYSTEM AS A FIRE ALARM SIGNAL.



REVISIONS:

DRAWING DATE: 11/8/13
 REVISION NUMBER: XX/XX/XX
 JOB NUMBER: 104968
 DWG ISSUE: REVIEW
 DRAWN BY: BBH
 CHECKED BY: GTJ

ADMINISTRATIVE OFFICE OF THE COURTS
 MATHESON COURTHOUSE
 450 SOUTH STATE STREET
 SALT LAKE CITY, UTAH

FIRE ALARM SYSTEM REPLACEMENT
 DFCM PROJECT #13244150

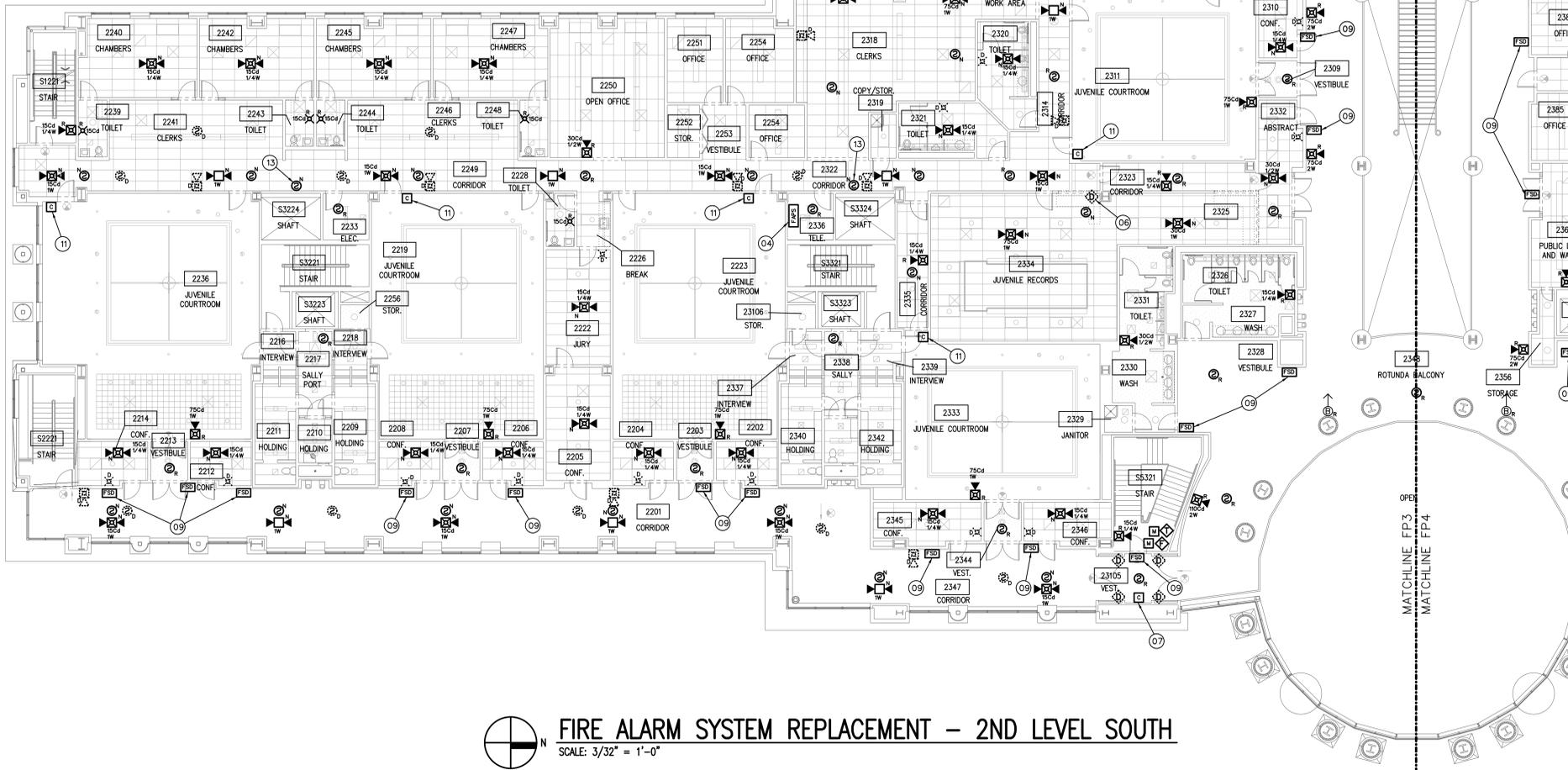
1ST LEVEL NORTH
 FA2

FIRE ALARM SYSTEM REPLACEMENT - 1ST LEVEL NORTH
 SCALE: 3/32" = 1'-0"

FIRE ALARM EQUIPMENT LEGEND

(QUANTITIES ARE ESTIMATES ONLY. CONTRACTOR TO VERIFY ACTUAL QUANTITIES FOR BID PURPOSES)

DEVICE	DESCRIPTION	EST. QTY.
FACP	FIRE/EMERGENCY VOICE ALARM CONTROL PANEL	1
FAPS	FIRE/EMERGENCY VOICE ALARM REMOTE POWER SUPPLY/AMPLIFIER	8
LOC	FIRE ALARM ANNUNCIATOR/EMERGENCY VOICE ALARM OPERATING CONSOLE	2
SRP	FIRE SUPPRESSION RELEASING CONTROL PANEL	1
TRNS	FIRE ALARM TRANSMITTER PANEL	1
FCN	FIRE PUMP CONTROLLER	1
SD	SMOKE DETECTOR. NEW DEVICE ON NEW J-BOX.	228
SDR	SMOKE DETECTOR. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX.	316
SDR	SMOKE DETECTOR TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	114
SDR	BEAM TYPE SMOKE DETECTOR. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX.	3
SD	FIXED TEMP HEAT DETECTOR. NEW DEVICE ON NEW J-BOX.	16
SDR	FIXED TEMP HEAT DETECTOR. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX.	23
SDR	HEAT DETECTOR TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	7
SDR	PULL STATION. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX.	4
SDR	PULL STATION TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	4
SDR	DUCT SMOKE DETECTOR. REMOVE EXISTING DETECTOR AND SAMPLING TUBE AND INSTALL NEW IN SAME LOCATION.	9
SDR	ADDRESSABLE MONITOR MODULE. FOR CONNECTION OF CONVENTIONAL INITIATING DEVICE TO ADDRESSABLE FACP.	58
SDR	ADDRESSABLE CONTROL MODULE TO INITIATE PROTECTED PREMISE FIRE SAFETY FUNCTIONS.	124
SDR	FIRE SPRINKLER VALVE SUPERVISORY SWITCH. EXISTING TO BE RE-USED.	33
SDR	FIRE SPRINKLER WATER FLOW SWITCH. EXISTING TO BE RE-USED.	21
SDR	WALL MOUNT SPEAKER/STROBE. NEW DEVICE ON NEW J-BOX. MOUNT BETWEEN 80" & 96" AFF. SET CANDELA RATING AND VOLUME AS INDICATED.	63
SDR	WALL MOUNT SPEAKER/STROBE. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX. SET CANDELA RATING AND VOLUME AS INDICATED.	356
SDR	HORN/STROBE TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	109
SDR	CEILING MOUNT SPEAKER/STROBE. NEW DEVICE ON NEW J-BOX. SET CANDELA RATING AND VOLUME AS INDICATED.	343
SDR	CEILING MOUNT SPEAKER/STROBE. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX. SET CANDELA RATING AND VOLUME AS INDICATED.	1
SDR	CEILING MOUNT SPEAKER. INSTALL NEW DEVICE ON NEW J-BOX. SET VOLUME AS INDICATED.	38
SDR	WALL MOUNT STROBE. INSTALL NEW DEVICE ON EXISTING J-BOX. SET VOLUME AS INDICATED.	75
SDR	STROBE TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	94
SDR	EXTERIOR SPEAKER/STROBE. NEW DEVICE ON NEW J-BOX. DEVICE AND J-BOX SHALL BE WEATHER-PROOF. SET CANDELA RATING AND VOLUME AS INDICATED.	4
SDR	MAGNETIC DOOR HOLD-OPEN DEVICE. EXISTING TO BE RE-USED. POWER TO BE PROVIDED FROM FACP OR REMOTE POWER SUPPLY.	120
SDR	MAGNETIC DOOR HOLD-OPEN DEVICE. INSTALL NEW DEVICE ON NEW J-BOX. POWER TO BE PROVIDED FROM FACP OR REMOTE POWER SUPPLY.	1
SDR	FIRE-SMOKE DAMPER. EXISTING TO BE RE-USED. POWER TO BE PROVIDED FROM FACP OR REMOTE POWER SUPPLY.	127



FIRE ALARM SYSTEM REPLACEMENT - 2ND LEVEL SOUTH
SCALE: 3/32" = 1'-0"

FIRE ALARM SYSTEM KEY NOTES

- REPLACE EXISTING FIRE/EMERGENCY VOICE ALARM CONTROL PANEL WITH NEW, ADDRESSABLE FIRE ALARM CONTROL PANEL WITH COMPLETE EMERGENCY VOICE ALARM CAPABILITIES. PROVIDE ALL REQUIRED CONTROL PANELS, AUDIO SYSTEM INTERFACES, MODULES, CABINETS, POWER SUPPLIES, ETC. TO PROVIDE A COMPLETE AND FUNCTIONAL FIRE/EMERGENCY VOICE ALARM SYSTEM COMPLIANT WITH ALL APPLICABLE PROVISIONS OF NFPA 72 AND THE INTERNATIONAL BUILDING/FIRE CODES. CONTROL PANEL SHALL HAVE SUFFICIENT CAPACITY TO MONITOR ALL INITIATING DEVICES SHOWN ON PLANS WITH AN ADDITIONAL SPARE CAPACITY OF 20% FOR FUTURE EXPANSION. EXISTING 120 VAC POWER CIRCUIT MAY BE RE-USED BUT PROVIDE NEW BATTERIES FOR SECONDARY POWER SUPPLY. EXISTING SLC INITIATING DEVICE AND NOTIFICATION APPLIANCE (AUDIBLE AND VISUAL) CIRCUITS MAY BE RECONFIGURED AND RE-USED IF COMPLETELY FUNCTIONAL AND COMPATIBLE WITH NEW FACP/DEVICES. PROVIDE DIGITAL ALARM COMMUNICATOR/TRANSMITTER (EXISTING MAY BE RE-USED) AND CONNECT TO EXISTING PRIMARY AND SECONDARY PHONE LINES TO RELAY FIRE ALARM AND SUPERVISORY SIGNALS TO OFFPREMISE MONITORING COMPANY SELECTED BY OWNER.
- REPLACE EXISTING AUDIO AMPLIFIERS/TRANSFORMERS (AT FACP AND REMOTE LOCATIONS, WHERE PRESENT) WITH NEW EQUIPMENT LISTED COMPATIBLE AND INTERLOCKED WITH NEW FACP. AMPLIFIERS AND CIRCUIT WIRING SHALL HAVE SUFFICIENT CAPACITY TO PROVIDE A MINIMUM OF THREE PAGING ZONES (NORTH, SOUTH AND WEST) PER BUILDING LEVEL. AUDIO EQUIPMENT SHALL HAVE THE CAPABILITY OF STORING A MINIMUM OF EIGHT PRE-RECORDED MESSAGES THAT CAN BE BROADCAST TO THE ENTIRE BUILDING OR TO ANY INDIVIDUAL PAGING ZONE OR GROUP OF PAGING ZONES USING PROGRAMMABLE BUTTONS INTEGRATED INTO THE CONTROL EQUIPMENT. PROVIDE A MICROPHONE TO FACILITATE BROADCAST OF MANUAL MESSAGES TO THE ENTIRE BUILDING OR TO ANY INDIVIDUAL PAGING ZONE OR GROUP OF PAGING ZONES. AUDIO EQUIPMENT AND CIRCUITS SHALL HAVE SUFFICIENT CAPACITY TO PROVIDE POWER TO ALL SPEAKERS SHOWN ON PLANS WITH AN ADDITIONAL RESERVE CAPACITY OF 50% FOR FUTURE EXPANSION AND/OR VOLUME ADJUSTMENTS.
- FIRE ALARM ANNUNCIATOR PANEL AND EMERGENCY VOICE ALARM OPERATING CONSOLE. FIRE ALARM ANNUNCIATOR SHALL BE LOG TYPE TO DISPLAY STATUS OF FIRE ALARM SYSTEM WITH BUTTONS TO ALLOW FULL SYSTEM CONTROL (ACKNOWLEDGE, SILENCE, RESET, ETC.). EMERGENCY VOICE ALARM OPERATING CONSOLE SHALL HAVE BUTTONS FOR ACTIVATION OF PRE-RECORDED MESSAGES AND A BUILT-IN MICROPHONE FOR MANUAL MESSAGES. CONFIGURE OPERATING CONSOLE TO ALLOW VOICE MESSAGES TO BE BROADCAST TO INDIVIDUAL BUILDING ZONES OR TO ENTIRE BUILDING.
- DEMOLISH EXISTING NOTIFICATION APPLIANCE POWER SUPPLY AND REPLACE WITH NEW REMOTE POWER SUPPLY TO PROVIDE 24 HOUR POWER TO NOTIFICATION APPLIANCES (STROBES) THROUGHOUT BUILDING. NUMBER AND LOCATION OF REMOTE POWER SUPPLIES SHALL BE SUFFICIENT TO PROVIDE A SEPARATE NOTIFICATION ZONE FOR EACH FLOOR LEVEL OF BUILDING. REQUIRED CAPACITY AND NUMBER OF POWER SUPPLIES TO BE DETERMINED BY CONTRACTOR. SURFACE MOUNTED TELECOMMUNICATIONS TELEPHONE EQUIPMENT SHALL BE CONNECTED TO MAGNETIC HOLD-OPEN DEVICES (EXISTING MAY BE RE-USED IF PRESENT) THROUGH NORMALLY CLOSED CONTACTS OF CONTROL RELAY.
- EXISTING ROLLING FIRE DOOR (WON-DOOR) TO REMAIN. INSTALL ADDRESSABLE RELAY INTERFACED WITH DOOR CONTROLLER TO CLOSE FIRE DOOR UPON OPERATION OF SMOKE DETECTORS (SPOT TYPE OR PROJECTED BEAM TYPE) ON EITHER SIDE OF FIRE DOOR. TEST AUTOMATIC OPERATION OF FIRE DOOR AND ADJUST AS REQUIRED TO CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 80.
- EXISTING ROLL DOWN FIRE SHUTTER TO REMAIN. INSTALL ADDRESSABLE RELAY INTERFACED WITH FIRE SHUTTER CONTROLLER TO CLOSE SHUTTER UPON OPERATION OF SMOKE DETECTORS ON EITHER SIDE OF SHUTTER. TEST AUTOMATIC OPERATION OF FIRE SHUTTER AND ADJUST AS REQUIRED TO CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 80.
- EXISTING FIRE DOOR WITH NEW OR EXISTING (SEE LEGEND) MAGNETIC DOOR HOLD-OPEN DEVICE TO REMAIN. INSTALL ADDRESSABLE RELAY TO RELEASE MAGNETIC DOOR HOLDER UPON ACTIVATION OF ANY FIRE ALARM INITIATING DEVICE IN BUILDING. CONNECT POWER SUPPLY TO MAGNETIC HOLD-OPEN DEVICES (EXISTING MAY BE RE-USED IF PRESENT) THROUGH NORMALLY CLOSED CONTACTS OF CONTROL RELAY.
- EXISTING ELEVATOR CONTROL EQUIPMENT TO REMAIN. INSTALL ADDRESSABLE RELAYS TO INTERFACE EXISTING ELEVATOR CONTROLLERS TO NEW FIRE ALARM SYSTEM TO AUTOMATICALLY INITIATE THE FOLLOWING EMERGENCY FUNCTIONS:
 - PRIMARY RECALL
 - SECONDARY RECALL
 - CAB LIGHT ILLUMINATION
 - ELEVATOR POWER SHUNT/TRIP
 EMERGENCY FUNCTIONS SHALL CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 72 AND ASME A17.1.
- EXISTING FIRE/SMOKE DAMPERS THROUGHOUT BUILDING TO REMAIN. REPLACE ALL EXISTING SMOKE DETECTORS PROVIDED TO CONTROL FIRE/SMOKE DAMPERS AND INSTALL NEW DETECTORS WHERE REQUIRED BY THE IBC OR IMC. NEW DETECTORS SHALL BE LISTED AND COMPATIBLE WITH THE FIRE ALARM SYSTEM. INSTALL PROGRAMMABLE RELAY TO CLOSE DAMPERS UPON ACTUATION OF DETECTORS OR ANY OTHER FIRE ALARM INITIATING DEVICE IN THE BUILDING. NUMBER AND LOCATION OF DAMPERS, DETECTORS AND CONTROL RELAYS TO BE FIELD VERIFIED BY CONTRACTOR.
- EXISTING ATRIUM SMOKE EVACUATION SYSTEM TO REMAIN. INSTALL ADDRESSABLE RELAYS TO ACTIVATE SMOKE EVACUATION SYSTEM. PROVIDE RELAYS TO OPERATE ALL INTAKE/EXHAUST LOUVERS AND EXHAUST/MAKE-UP AIR FANS THAT ARE REQUIRED FOR PROPER OPERATION OF THE SMOKE EVACUATION SYSTEM. PROGRAM RELAYS TO ACTIVATE SMOKE EVACUATION SYSTEM UPON OPERATION OF ANY OF THE FOLLOWING INITIATING DEVICES:
 - WATER FLOW SWITCH FOR ATRIUM FIRE SPRINKLER ZONE
 - PROJECTED BEAM SMOKE DETECTORS AT TOP OF ATRIUM
 - SPOT TYPE SMOKE DETECTORS AROUND ATRIUM PERIMETER
 COORDINATE SMOKE EVACUATION SYSTEM INTERFACE WITH OWNER AND MAINTENANCE CONTRACTOR FOR BUILDING CONTROLS. CONTRACTOR TO INCLUDE COST OF ALL REQUIRED SERVICE CALLS BY BUILDING CONTROLS MAINTENANCE CONTRACTOR IN BID.
- EXISTING SECURED EGRESS DOOR TO REMAIN. INSTALL ADDRESSABLE RELAY TO RELEASE SECURED DOOR UPON ACTIVATION OF ANY FIRE ALARM INITIATING DEVICE IN THE BUILDING. CONNECT POWER TO DOOR SECURITY HARDWARE (MAGNETIC PLATE OR ELECTRIC STRIKE) THROUGH NORMALLY CLOSED CONTACTS OF RELAY AND PROGRAM RELAY CONTACTS TO OPEN UPON ACTIVATION OF FIRE ALARM SYSTEM INTERRUPTING POWER SUPPLY TO SECURITY HARDWARE AND RELEASING DOOR. RELAY SHALL NOT RESET UNTIL THE FIRE ALARM SYSTEM IS RESTORED TO NORMAL CONDITION.
- INSTALL ADDRESSABLE RELAYS TO PROVIDE SHUTDOWN OF ALL AIR MOVEMENT SYSTEMS WITH A CAPACITY IN EXCESS OF 2,000 CFM. INSTALL A SEPARATE RELAY FOR EACH AIR MOVEMENT SYSTEM AND CONNECT RELAY OUTPUTS TO AIR MOVEMENT SYSTEM CONTROLS. EXISTING NEW CONTROL CIRCUITS MAY BE RE-USED IF COMPLETELY FUNCTIONAL. PROGRAM RELAYS TO SHUT DOWN AIR MOVEMENT SYSTEMS UPON ACTIVATION OF ANY DUCT MOUNTED SMOKE DETECTOR OR OTHER FIRE ALARM INITIATING DEVICE IN BUILDING. COORDINATE AIR MOVEMENT SYSTEM CONTROLS INTERFACE WITH OWNER AND MAINTENANCE CONTRACTOR FOR BUILDING CONTROLS. CONTRACTOR TO INCLUDE COST OF ALL REQUIRED SERVICE CALLS BY BUILDING CONTROLS MAINTENANCE CONTRACTOR IN BID.
- INSTALL SMOKE DETECTOR IN ACCORDANCE WITH IMC 606.2.3 AT CONNECTION OF RETURN AIR DUCT/PLENUM TO VERTICAL RETURN SHAFT ON EACH FLOOR LEVEL. SMOKE DETECTORS SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF NFPA 72 AND THE IMC. WHERE AIR VELOCITY IS LESS THAN 300 FPM PROVIDE A SPOT TYPE DETECTOR MOUNTED IN THE CENTER OF RETURN AIR FLOW AT THE CONNECTION TO THE VERTICAL RETURN SHAFT. WHERE AIR VELOCITY EXCEEDS 300 FPM PROVIDE A SAMPLING TUBE TYPE SMOKE DETECTOR WITH SAMPLING TUBE INSTALLED ACROSS RETURN AIR OPENING OR WITHIN RETURN AIR DUCT. CONTRACTOR TO DETERMINE AIR FLOW UNDER NORMAL OPERATING CONDITIONS TO DETERMINE APPROPRIATE DETECTOR TYPE FOR USE.
- EXISTING ELECTRIC FIRE PUMP AND FIRE SPRINKLER RISERS (WET AND DRY PIPE) TO REMAIN. INSTALL ADDRESSABLE MODULES TO FACILITATE CONNECTION OF FIRE PUMP CONTROLLER (PUMP RUNNING, AC POWER FAIL AND AC POWER PHASE REVERSAL), FIRE PUMP CONTROL VALVES, FIRE SPRINKLER CONTROL VALVES, FIRE SPRINKLER FLOW SWITCHES AND AIR PRESSURE SWITCHES TO NEW FIRE ALARM SYSTEM.
- EXISTING FIRE SUPPRESSION SYSTEM (INCLUDING SMOKE DETECTION SYSTEM) PROTECTING COMPUTER ROOM TO REMAIN. INSTALL ADDRESSABLE MODULES AT FIRE SUPPRESSION SYSTEM CONTROL PANEL TO RELAY FIRE SUPPRESSION SYSTEM ALARM, SUPERVISORY AND TROUBLE SIGNALS TO BUILDING FACP.
- TYPE I COOKING HOOD WITH EXISTING WET-CHEMICAL FIRE SUPPRESSION SYSTEM TO REMAIN. INSTALL ADDRESSABLE MODULE TO FACILITATE CONNECTION OF ACTIVATION RELAY FOR FIRE SUPPRESSION SYSTEM TO NEW FIRE ALARM SYSTEM. PROGRAM ACTIVATION OF FIRE SUPPRESSION SYSTEM AS A FIRE ALARM SIGNAL.



10/8/13
ENGINEER'S STAMP

DFCM REVIEW STAMP

USFM REVIEW STAMP

REVISIONS:

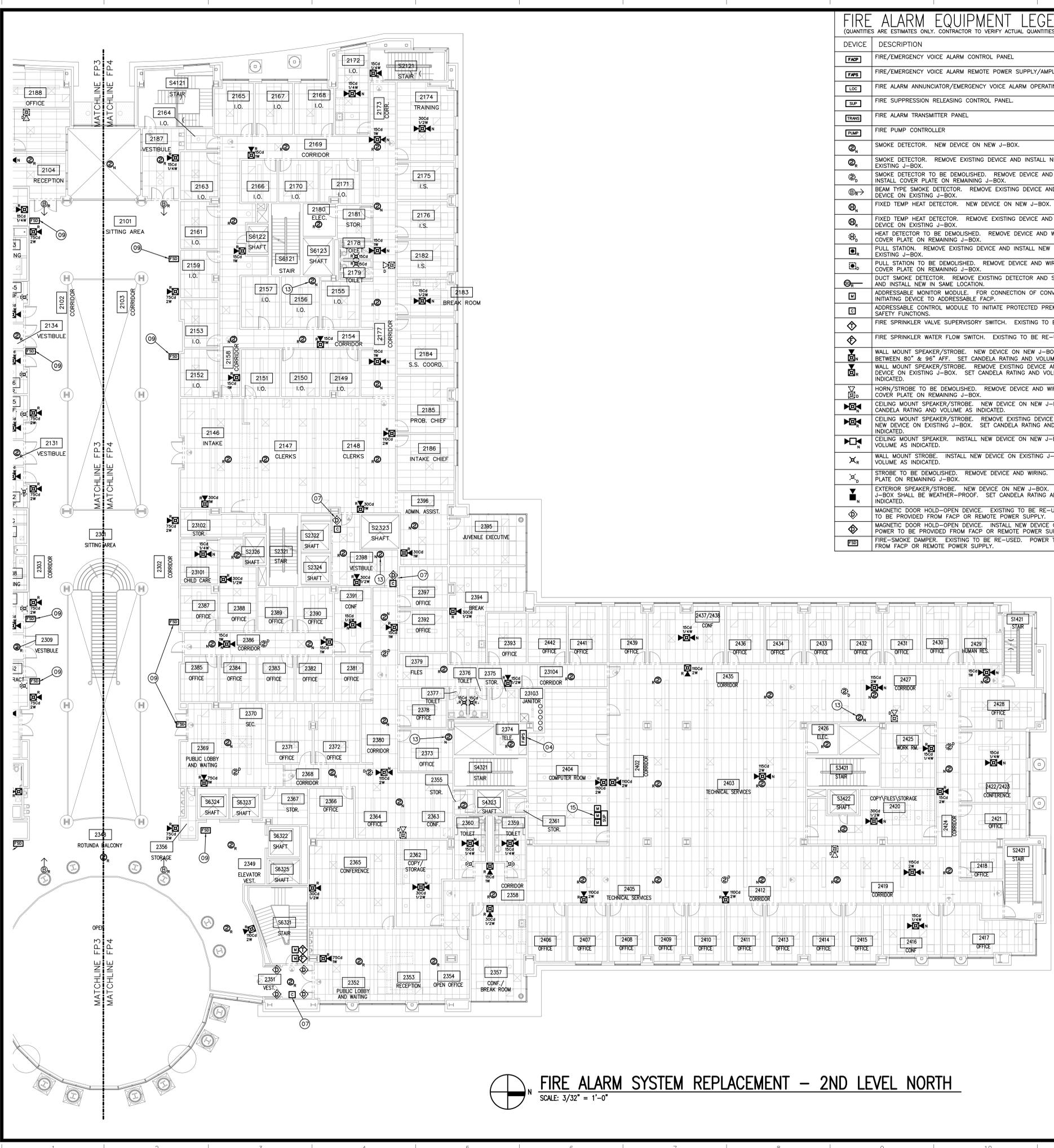
DRAWING DATE: 11/8/13
REVISION NUMBER: XX/XX/XX
JOB NUMBER: 104968
DWG ISSUE: REVIEW
DRAWN BY: BBH
CHECKED BY: GTJ

ADMINISTRATIVE OFFICE OF THE COURTS
MATHESON COURTHOUSE
450 SOUTH STATE STREET
SALT LAKE CITY, UTAH

FIRE ALARM SYSTEM REPLACEMENT
DFCM PROJECT #13244150

2ND LEVEL SOUTH

FA3



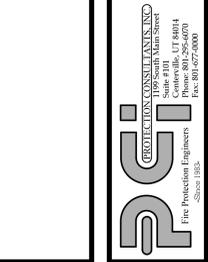
FIRE ALARM EQUIPMENT LEGEND

(QUANTITIES ARE ESTIMATES ONLY. CONTRACTOR TO VERIFY ACTUAL QUANTITIES FOR BID PURPOSES)

DEVICE	DESCRIPTION	EST. QTY.
FACP	FIRE/EMERGENCY VOICE ALARM CONTROL PANEL	1
FAPS	FIRE/EMERGENCY VOICE ALARM REMOTE POWER SUPPLY/AMPLIFIER	8
LOC	FIRE ALARM ANNUNCIATOR/EMERGENCY VOICE ALARM OPERATING CONSOLE	2
SUP	FIRE SUPPRESSION RELEASING CONTROL PANEL	1
TRANSP	FIRE ALARM TRANSMITTER PANEL	1
FCMP	FIRE PUMP CONTROLLER	1
SD	SMOKE DETECTOR. NEW DEVICE ON NEW J-BOX.	228
SDR	SMOKE DETECTOR. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX.	316
SDR-D	SMOKE DETECTOR TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	114
SDR-B	BEAM TYPE SMOKE DETECTOR. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX.	3
HTD	FIXED TEMP HEAT DETECTOR. NEW DEVICE ON NEW J-BOX.	16
HTDR	FIXED TEMP HEAT DETECTOR. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX.	23
HTDR-D	HEAT DETECTOR TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	7
PST	PULL STATION. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX.	4
PST-D	PULL STATION TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	4
SDR-D	DUCT SMOKE DETECTOR. REMOVE EXISTING DETECTOR AND SAMPLING TUBE AND INSTALL NEW IN SAME LOCATION.	9
AMM	ADDRESSABLE MONITOR MODULE. FOR CONNECTION OF CONVENTIONAL INITIATING DEVICE TO ADDRESSABLE FACP.	58
ACM	ADDRESSABLE CONTROL MODULE TO INITIATE PROTECTED PREMISE FIRE SAFETY FUNCTIONS.	124
FSV	FIRE SPRINKLER VALVE SUPERVISORY SWITCH. EXISTING TO BE RE-USED.	33
FW	FIRE SPRINKLER WATER FLOW SWITCH. EXISTING TO BE RE-USED.	21
MS	WALL MOUNT SPEAKER/STROBE. NEW DEVICE ON NEW J-BOX. MOUNT BETWEEN 80" & 96" AFT. SET CANDELA RATING AND VOLUME AS INDICATED.	63
MSR	WALL MOUNT SPEAKER/STROBE. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX. SET CANDELA RATING AND VOLUME AS INDICATED.	356
MSR-D	HORN/STROBE TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	109
MSR-N	CEILING MOUNT SPEAKER/STROBE. NEW DEVICE ON NEW J-BOX. SET CANDELA RATING AND VOLUME AS INDICATED.	343
MSR-R	CEILING MOUNT SPEAKER/STROBE. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX. SET CANDELA RATING AND VOLUME AS INDICATED.	1
MSR-S	CEILING MOUNT SPEAKER. INSTALL NEW DEVICE ON NEW J-BOX. SET VOLUME AS INDICATED.	38
MSR-T	WALL MOUNT STROBE. INSTALL NEW DEVICE ON EXISTING J-BOX. SET VOLUME AS INDICATED.	75
MSR-D	STROBE TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	94
MSR-N	EXTERIOR SPEAKER/STROBE. NEW DEVICE ON NEW J-BOX. DEVICE AND J-BOX SHALL BE WEATHER-PROOF. SET CANDELA RATING AND VOLUME AS INDICATED.	4
MDH	MAGNETIC DOOR HOLD-OPEN DEVICE. EXISTING TO BE RE-USED. POWER TO BE PROVIDED FROM FACP OR REMOTE POWER SUPPLY.	120
MDH-N	MAGNETIC DOOR HOLD-OPEN DEVICE. INSTALL NEW DEVICE ON NEW J-BOX. POWER TO BE PROVIDED FROM FACP OR REMOTE POWER SUPPLY.	1
FD	FIRE-SMOKE DAMPER. EXISTING TO BE RE-USED. POWER TO BE PROVIDED FROM FACP OR REMOTE POWER SUPPLY.	127

FIRE ALARM SYSTEM KEY NOTES

- REPLACE EXISTING FIRE/EMERGENCY VOICE ALARM CONTROL PANEL WITH NEW, ADDRESSABLE FIRE ALARM CONTROL PANEL WITH COMPLETE EMERGENCY VOICE ALARM CAPABILITIES. PROVIDE ALL REQUIRED CONTROL PANELS, AUDIO SYSTEM INTERFACES, MODULES, CABINETS, POWER SUPPLIES, ETC. TO PROVIDE A COMPLETE AND FUNCTIONAL FIRE/EMERGENCY VOICE ALARM SYSTEM COMPLIANT WITH ALL APPLICABLE PROVISIONS OF NFPA 72 AND THE INTERNATIONAL BUILDING/FIRE CODES. CONTROL PANEL SHALL HAVE SUFFICIENT CAPACITY TO MONITOR ALL INITIATING DEVICES SHOWN ON PLANS WITH AN ADDITIONAL SPARE CAPACITY OF 20% FOR FUTURE EXPANSION. EXISTING 120 VAC POWER CIRCUITS MAY BE RE-USED BUT PROVIDE NEW BATTERIES FOR SECONDARY POWER SUPPLY. EXISTING SLC, INITIATING DEVICE AND NOTIFICATION APPLIANCE (AUDIBLE AND VISUAL) CIRCUITS MAY BE RECONFIGURED AND RE-USED IF COMPLETELY FUNCTIONAL AND COMPATIBLE WITH NEW FACP/DEVICES. PROVIDE DIGITAL ALARM COMMUNICATOR/TRANSMITTER (EXISTING MAY BE RE-USED) AND CONNECT TO EXISTING PRIMARY AND SECONDARY PHONE LINES TO RELAY FIRE ALARM AND SUPERVISORY SIGNALS TO OFFPREMISE MONITORING COMPANY SELECTED BY OWNER.
- REPLACE EXISTING AUDIO AMPLIFIERS/TRANSPONDERS (AT FACP AND REMOTE LOCATIONS, WHERE PRESENT) WITH NEW EQUIPMENT LISTED COMPATIBLE AND INTERLOCKED WITH NEW FACP. AMPLIFIERS AND CIRCUIT WIRING SHALL HAVE SUFFICIENT CAPACITY TO PROVIDE A MINIMUM OF THREE PAGING ZONES (NORTH, SOUTH AND WEST) PER BUILDING LEVEL. AUDIO EQUIPMENT SHALL HAVE THE CAPABILITY OF STORING A MINIMUM OF EIGHT PRE-RECORDED MESSAGES THAT CAN BE BROADCAST TO THE ENTIRE BUILDING OR TO ANY INDIVIDUAL PAGING ZONE OR GROUP OF PAGING ZONES USING PROGRAMMABLE BUTTONS INTEGRATED INTO THE CONTROL EQUIPMENT. PROVIDE A MICROPHONE TO FACILITATE BROADCAST OF MANUAL MESSAGES TO THE ENTIRE BUILDING OR TO ANY INDIVIDUAL PAGING ZONE OR GROUP OF PAGING ZONES. AUDIO EQUIPMENT AND CIRCUITS SHALL HAVE SUFFICIENT CAPACITY TO PROVIDE POWER TO ALL SPEAKERS SHOWN ON PLANS WITH AN ADDITIONAL RESERVE CAPACITY OF 50% FOR FUTURE EXPANSION AND/OR VOLUME ADJUSTMENTS.
- FIRE ALARM ANNUNCIATOR PANEL AND EMERGENCY VOICE ALARM OPERATING CONSOLE. FIRE ALARM ANNUNCIATOR SHALL BE LCD TYPE TO DISPLAY STATUS OF FIRE ALARM SYSTEM WITH BUTTONS TO ALLOW FULL SYSTEM CONTROL (ACKNOWLEDGE, SILENCE, RESET, ETC.). EMERGENCY VOICE ALARM OPERATING CONSOLE SHALL HAVE BUTTONS FOR ACTIVATION OF PRE-RECORDED MESSAGES AND A BUILT-IN MICROPHONE FOR MANUAL MESSAGES. CONFIGURE OPERATING CONSOLE TO ALLOW VOICE MESSAGES TO BE BROADCAST TO INDIVIDUAL BUILDING ZONES OR TO ENTIRE BUILDING.
- DEMOLISH EXISTING NOTIFICATION APPLIANCE POWER SUPPLY AND REPLACE WITH NEW REMOTE POWER SUPPLY TO PROVIDE 24 VDC POWER TO NOTIFICATION APPLIANCES (STROBES) THROUGHOUT BUILDING. NUMBER AND LOCATION OF REMOTE POWER SUPPLIES SHALL BE SUFFICIENT TO PROVIDE A SEPARATE NOTIFICATION ZONE FOR EACH FLOOR LEVEL OF BUILDING. REQUIRED CAPACITY AND NUMBER OF POWER SUPPLIES TO BE DETERMINED BY CONTRACTOR. SURFACE MOUNTED TELECOMMUNICATIONS ROOMS. CONNECT POWER SUPPLIES TO BUILDING FACP TO PROVIDE ACTIVATION OF NOTIFICATION APPLIANCES AND TROUBLE SUPERVISION. EXISTING 120 VAC POWER CIRCUITS MAY BE RE-USED BUT PROVIDE NEW BATTERIES FOR SECONDARY POWER SUPPLY. CONFIGURE POWER SUPPLIES TO SYNCHRONIZE VISUAL SIGNALS OF ALL NOTIFICATION APPLIANCES LOCATED WITHIN A SINGLE FIELD OF VIEW.
- EXISTING ROLLING FIRE DOOR (WON-DOOR) TO REMAIN. INSTALL ADDRESSABLE RELAY INTERFACED WITH DOOR CONTROLLER TO CLOSE FIRE DOOR UPON OPERATION OF SMOKE DETECTORS (SPOT TYPE OR PROJECTED BEAM TYPE) ON EITHER SIDE OF FIRE DOOR. TEST AUTOMATIC OPERATION OF FIRE DOOR AND ADJUST AS REQUIRED TO CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 80.
- EXISTING ROLL DOWN FIRE SHUTTER TO REMAIN. INSTALL ADDRESSABLE RELAY INTERFACED WITH FIRE SHUTTER CONTROLLER TO CLOSE SHUTTER UPON OPERATION OF SMOKE DETECTORS ON EITHER SIDE OF SHUTTER. TEST AUTOMATIC OPERATION OF FIRE SHUTTER AND ADJUST AS REQUIRED TO CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 80.
- EXISTING FIRE DOOR WITH NEW OR EXISTING (SEE LEGEND) MAGNETIC DOOR HOLD-OPEN DEVICE TO REMAIN. INSTALL ADDRESSABLE RELAY TO RELEASE MAGNETIC DOOR HOLD-OPEN ACTIVATION OF ANY FIRE ALARM INITIATING DEVICE IN BUILDING. CONNECT POWER SUPPLY TO MAGNETIC HOLD-OPEN DEVICES (EXISTING MAY BE RE-USED IF PRESENT) THROUGH NORMALLY CLOSED CONTACTS OF CONTROL RELAY.
- EXISTING ELEVATOR CONTROL EQUIPMENT TO REMAIN. INSTALL ADDRESSABLE RELAYS TO INTERFACE EXISTING ELEVATOR CONTROLLERS TO NEW FIRE ALARM SYSTEM TO AUTOMATICALLY INITIATE THE FOLLOWING EMERGENCY FUNCTIONS:
1. PRIMARY RECALL
2. SECONDARY RECALL
3. CAB LIGHT ILLUMINATION
4. ELEVATOR POWER SHUNT/TRIP
EMERGENCY FUNCTIONS SHALL CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 72 AND ASME A17.1.
- EXISTING FIRE/SMOKE DAMPERS THROUGHOUT BUILDING TO REMAIN. REPLACE ALL EXISTING SMOKE DETECTORS PROVIDED TO CONTROL FIRE/SMOKE DAMPERS AND INSTALL NEW DETECTORS WHERE REQUIRED BY THE IBC OR IMC. NEW DETECTORS SHALL BE LISTED COMPATIBLE WITH THE FIRE ALARM SYSTEM. INSTALL PROGRAMMABLE RELAY TO CLOSE DAMPERS UPON ACTUATION OF DETECTORS OR ANY OTHER FIRE ALARM INITIATING DEVICE IN THE BUILDING. NUMBER AND LOCATION OF DAMPERS, DETECTORS AND CONTROL RELAYS TO BE FIELD VERIFIED BY CONTRACTOR.
- EXISTING ATRIUM SMOKE EVACUATION SYSTEM TO REMAIN. INSTALL ADDRESSABLE RELAYS TO ACTIVATE SMOKE EVACUATION SYSTEM. PROVIDE RELAYS TO OPERATE ALL INTAKE/EXHAUST LOUVERS AND EXHAUST/MAKE-UP AIR FANS THAT ARE REQUIRED FOR PROPER OPERATION OF THE SMOKE EVACUATION SYSTEM. CONTRACTOR TO INCLUDE COST OF ALL REQUIRED SERVICE CALLS UPON OPERATION OF ANY OF THE FOLLOWING INITIATING DEVICES:
1. WATER FLOW SWITCH FOR ATRIUM FIRE SPRINKLER ZONE
2. PROJECTED BEAM SMOKE DETECTORS AT TOP OF ATRIUM
3. SPOT TYPE SMOKE DETECTORS AROUND ATRIUM PERIMETER
COORDINATE SMOKE EVACUATION SYSTEM INTERFACE WITH OWNER AND MAINTENANCE CONTRACTOR FOR BUILDING CONTROLS. CONTRACTOR TO INCLUDE COST OF ALL REQUIRED SERVICE CALLS BY BUILDING CONTROLS MAINTENANCE CONTRACTOR IN BID.
- EXISTING SECURED EGRESS DOOR TO REMAIN. INSTALL ADDRESSABLE RELAY TO RELEASE SECURED DOOR UPON ACTIVATION OF ANY FIRE ALARM INITIATING DEVICE IN THE BUILDING. CONNECT POWER TO DOOR SECURITY HARDWARE (MAGNETIC PLATE OR ELECTRIC STRIKE) THROUGH NORMALLY CLOSED CONTACTS OF RELAY AND PROGRAM RELAY CONTACTS TO OPEN UPON ACTIVATION OF FIRE ALARM SYSTEM INTERRUPTING POWER SUPPLY TO SECURITY HARDWARE AND RELEASING DOOR. RELAY SHALL NOT RESET UNTIL THE FIRE ALARM SYSTEM IS RESTORED TO NORMAL CONDITION.
- INSTALL ADDRESSABLE RELAYS TO PROVIDE SHUTDOWN OF ALL AIR MOVEMENT SYSTEMS WITH A CAPACITY IN EXCESS OF 2,000 CFM. INSTALL A SEPARATE RELAY FOR EACH AIR MOVEMENT SYSTEM AND CONNECT RELAY OUTPUTS TO AIR MOVEMENT SYSTEM CONTROLS. EXISTING NEW CONTROL CIRCUITS MAY BE RE-USED IF COMPLETELY FUNCTIONAL. PROGRAM RELAYS TO SHUT DOWN AIR MOVEMENT SYSTEMS UPON ACTIVATION OF ANY DUCT MOUNTED SMOKE DETECTOR OR OTHER FIRE ALARM INITIATING DEVICE IN BUILDING. COORDINATE AIR MOVEMENT SYSTEM CONTROLS INTERFACE WITH OWNER AND MAINTENANCE CONTRACTOR FOR BUILDING CONTROLS. CONTRACTOR TO INCLUDE COST OF ALL REQUIRED SERVICE CALLS BY BUILDING CONTROLS MAINTENANCE CONTRACTOR IN BID.
- INSTALL SMOKE DETECTOR IN ACCORDANCE WITH IMC 606.2.3 AT CONNECTION OF RETURN AIR DUCT/PLENUM TO VERTICAL RETURN SHAFT ON EACH FLOOR LEVEL. SMOKE DETECTORS SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF NFPA 72 AND THE IMC. WHERE AIR VELOCITY IS LESS THAN 300 FPM PROVIDE A SPOT TYPE DETECTOR MOUNTED IN THE CENTER OF RETURN AIR FLOW AT THE CONNECTION TO THE VERTICAL RETURN SHAFT, WHERE AIR VELOCITY EXCEEDS 300 FPM PROVIDE A SAMPLING TUBE TYPE SMOKE DETECTOR WITH SAMPLING TUBE INSTALLED ACROSS RETURN AIR OPENING OR WITHIN RETURN AIR DUCT. CONTRACTOR TO DETERMINE AIR FLOW UNDER NORMAL OPERATING CONDITIONS TO DETERMINE APPROPRIATE DETECTOR TYPE FOR USE.
- EXISTING ELECTRIC FIRE PUMP AND FIRE SPRINKLER RISERS (WET AND DRY PIPE) TO REMAIN. INSTALL ADDRESSABLE MODULES TO FACILITATE CONNECTION OF FIRE PUMP CONTROLLER (PUMP RUNNING, AC POWER FAIL AND AC POWER PHASE REVERSAL), FIRE PUMP CONTROL VALVES, FIRE SPRINKLER CONTROL VALVES, FIRE SPRINKLER FLOW SWITCHES AND AIR PRESSURE SWITCHES TO NEW FIRE ALARM SYSTEM.
- EXISTING FIRE SUPPRESSION SYSTEM (INCLUDING SMOKE DETECTION SYSTEM) PROTECTING COMPUTER ROOM TO REMAIN. INSTALL ADDRESSABLE MODULES AT FIRE SUPPRESSION SYSTEM CONTROL PANEL TO RELAY FIRE SUPPRESSION SYSTEM ALARM, SUPERVISORY AND TROUBLE SIGNALS TO BUILDING FACP.
- TYPE I COOKING HOOD WITH EXISTING WET-CHEMICAL FIRE SUPPRESSION SYSTEM TO REMAIN. INSTALL ADDRESSABLE MODULE TO FACILITATE CONNECTION OF ACTIVATION RELAY FOR FIRE SUPPRESSION SYSTEM TO NEW FIRE ALARM SYSTEM. PROGRAM ACTIVATION OF FIRE SUPPRESSION SYSTEM AS A FIRE ALARM SIGNAL.



REVISIONS:

DRAWING DATE: 11/8/13
 REVISION NUMBER: XX/XX/XX
 JOB NUMBER: 104968
 DWG ISSUE: REVIEW
 DRAWN BY: BBH
 CHECKED BY: GTJ

ADMINISTRATIVE OFFICE OF THE COURTS
 MATHESON COURTHOUSE
 450 SOUTH STATE STREET
 SALT LAKE CITY, UTAH

FIRE ALARM SYSTEM REPLACEMENT
 DFCM PROJECT #13241150

2ND LEVEL NORTH
 FA4

FIRE ALARM SYSTEM REPLACEMENT - 2ND LEVEL NORTH
 SCALE: 3/32" = 1'-0"

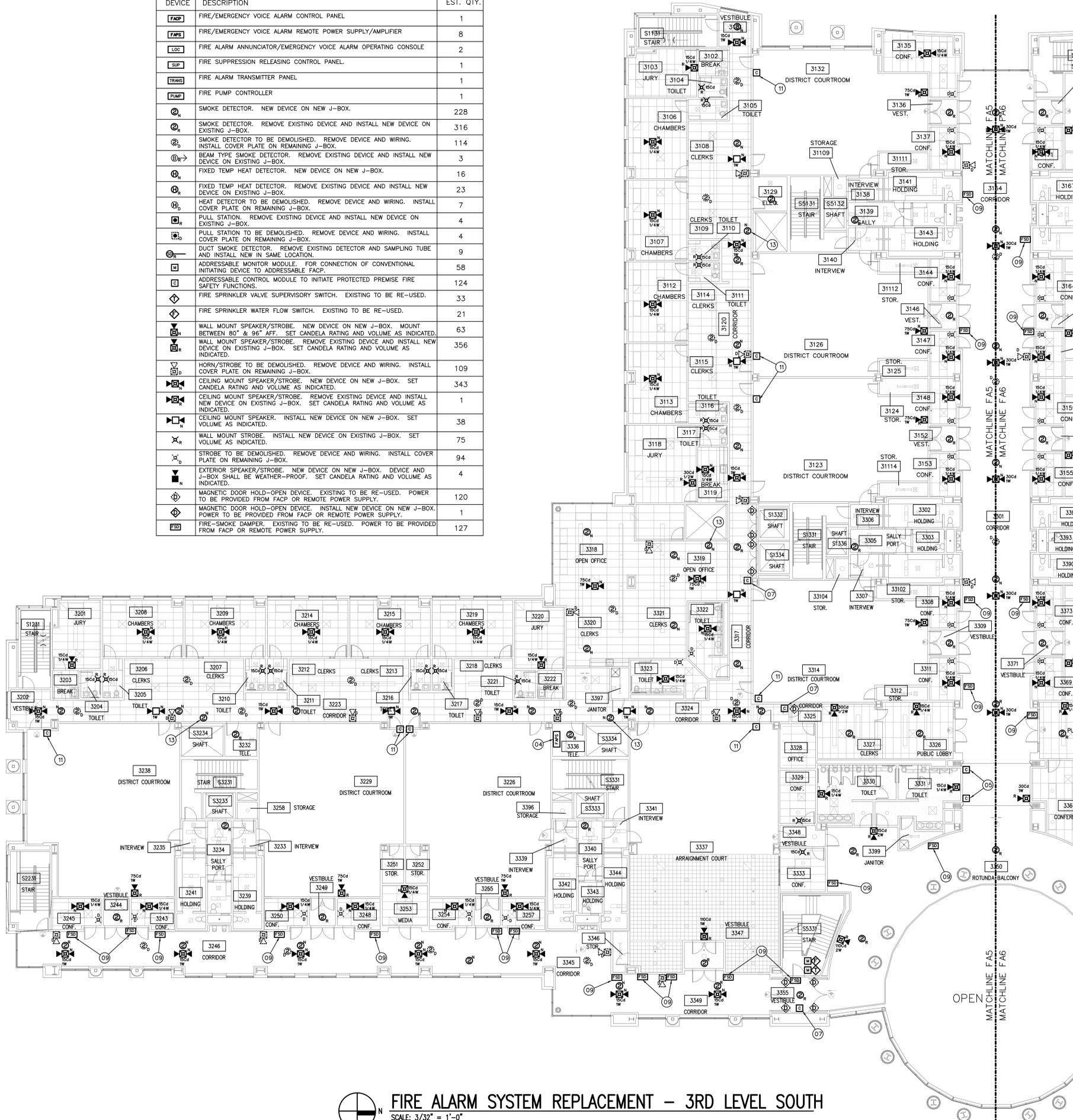
FIRE ALARM EQUIPMENT LEGEND

(QUANTITIES ARE ESTIMATES ONLY. CONTRACTOR TO VERIFY ACTUAL QUANTITIES FOR BID PURPOSES)

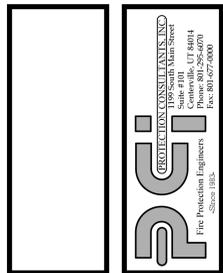
DEVICE	DESCRIPTION	EST. QTY.
FACP	FIRE/EMERGENCY VOICE ALARM CONTROL PANEL	1
FAPS	FIRE/EMERGENCY VOICE ALARM REMOTE POWER SUPPLY/AMPLIFIER	8
LOC	FIRE ALARM ANNUNCIATOR/EMERGENCY VOICE ALARM OPERATING CONSOLE	2
SRP	FIRE SUPPRESSION RELEASING CONTROL PANEL	1
TRNS	FIRE ALARM TRANSMITTER PANEL	1
FCN	FIRE PUMP CONTROLLER	1
SD	SMOKE DETECTOR. NEW DEVICE ON NEW J-BOX.	228
SDR	SMOKE DETECTOR. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX.	316
SDD	SMOKE DETECTOR TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	114
SDS	BEAM TYPE SMOKE DETECTOR. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX.	3
SDH	FIXED TEMP HEAT DETECTOR. NEW DEVICE ON NEW J-BOX.	16
SDHR	FIXED TEMP HEAT DETECTOR. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX.	23
SDHS	HEAT DETECTOR TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	7
SDI	PULL STATION. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX.	4
SDID	PULL STATION TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	4
SDIS	DUCT SMOKE DETECTOR. REMOVE EXISTING DETECTOR AND SAMPLING TUBE AND INSTALL NEW IN SAME LOCATION.	9
SDM	ADDRESSABLE MONITOR MODULE. FOR CONNECTION OF CONVENTIONAL INITIATING DEVICE TO ADDRESSABLE FACP.	58
SDMC	ADDRESSABLE CONTROL MODULE TO INITIATE PROTECTED PREMISE FIRE SAFETY FUNCTIONS.	124
SDSV	FIRE SPRINKLER VALVE SUPERVISORY SWITCH. EXISTING TO BE RE-USED.	33
SDSW	FIRE SPRINKLER WATER FLOW SWITCH. EXISTING TO BE RE-USED.	21
SDW	WALL MOUNT SPEAKER/STROBE. NEW DEVICE ON NEW J-BOX. MOUNT BETWEEN 80" & 96" AFF. SET CANDELA RATING AND VOLUME AS INDICATED.	63
SDWR	WALL MOUNT SPEAKER/STROBE. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX. SET CANDELA RATING AND VOLUME AS INDICATED.	356
SDWS	HORN/STROBE TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	109
SDX	CEILING MOUNT SPEAKER/STROBE. NEW DEVICE ON NEW J-BOX. SET CANDELA RATING AND VOLUME AS INDICATED.	343
SDXR	CEILING MOUNT SPEAKER/STROBE. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX. SET CANDELA RATING AND VOLUME AS INDICATED.	1
SDXS	CEILING MOUNT SPEAKER. INSTALL NEW DEVICE ON NEW J-BOX. SET VOLUME AS INDICATED.	38
SDY	WALL MOUNT STROBE. INSTALL NEW DEVICE ON EXISTING J-BOX. SET VOLUME AS INDICATED.	75
SDYR	STROBE TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	94
SDYS	EXTERIOR SPEAKER/STROBE. NEW DEVICE ON NEW J-BOX. DEVICE AND J-BOX SHALL BE WEATHER-PROOF. SET CANDELA RATING AND VOLUME AS INDICATED.	4
SDZ	MAGNETIC DOOR HOLD-OPEN DEVICE. EXISTING TO BE RE-USED. POWER TO BE PROVIDED FROM FACP OR REMOTE POWER SUPPLY.	120
SDZR	MAGNETIC DOOR HOLD-OPEN DEVICE. INSTALL NEW DEVICE ON NEW J-BOX. POWER TO BE PROVIDED FROM FACP OR REMOTE POWER SUPPLY.	1
SDZS	FIRE-SMOKE DAMPER. EXISTING TO BE RE-USED. POWER TO BE PROVIDED FROM FACP OR REMOTE POWER SUPPLY.	127

FIRE ALARM SYSTEM KEY NOTES

- REPLACE EXISTING FIRE/EMERGENCY VOICE ALARM CONTROL PANEL WITH NEW, ADDRESSABLE FIRE ALARM CONTROL PANEL WITH COMPLETE EMERGENCY VOICE ALARM CAPABILITIES. PROVIDE ALL REQUIRED CONTROL PANELS, AUDIO SYSTEM INTERFACES, MODULES, CABINETS, POWER SUPPLIES, ETC. TO PROVIDE A COMPLETE AND FUNCTIONAL FIRE/EMERGENCY VOICE ALARM SYSTEM COMPLIANT WITH ALL APPLICABLE PROVISIONS OF NFPA 72 AND THE INTERNATIONAL BUILDING/FIRE CODES. CONTROL PANEL SHALL HAVE SUFFICIENT CAPACITY TO MONITOR ALL INITIATING DEVICES SHOWN ON PLANS WITH AN ADDITIONAL SPARE CAPACITY OF 20% FOR FUTURE EXPANSION. EXISTING 120 VAC POWER CIRCUIT MAY BE RE-USED BUT PROVIDE NEW BATTERIES FOR SECONDARY POWER SUPPLY. EXISTING SLC, INITIATING DEVICE AND NOTIFICATION APPLIANCE (AUDIBLE AND VISUAL) CIRCUITS MAY BE RECONFIGURED AND RE-USED IF COMPLETELY FUNCTIONAL AND COMPATIBLE WITH NEW FACP/DEVICES. PROVIDE DIGITAL ALARM COMMUNICATOR/TRANSMITTER (EXISTING MAY BE RE-USED) AND CONNECT TO EXISTING PRIMARY AND SECONDARY PHONE LINES TO RELAY FIRE ALARM AND SUPERVISORY SIGNALS TO OFFPREMISE MONITORING COMPANY SELECTED BY OWNER.
- REPLACE EXISTING AUDIO AMPLIFIERS/TRANSPONDERS (AT FACP AND REMOTE LOCATIONS, WHERE PRESENT) WITH NEW EQUIPMENT LISTED COMPATIBLE AND INTERLOCKED WITH NEW FACP. AMPLIFIERS AND CIRCUIT WIRING SHALL HAVE SUFFICIENT CAPACITY TO PROVIDE A MINIMUM OF THREE PAGING ZONES (NORTH, SOUTH AND WEST) PER BUILDING LEVEL. AUDIO EQUIPMENT SHALL HAVE THE CAPABILITY OF STORING A MINIMUM OF EIGHT PRE-RECORDED MESSAGES THAT CAN BE BROADCAST BY THE ENTIRE BUILDING OR TO ANY INDIVIDUAL PAGING ZONE OR GROUP OF PAGING ZONES USING PROGRAMMABLE BUTTONS INTEGRATED INTO THE CONTROL EQUIPMENT. PROVIDE A MICROPHONE TO FACILITATE BROADCAST OF MANUAL MESSAGES TO THE ENTIRE BUILDING OR TO ANY INDIVIDUAL PAGING ZONE OR GROUP OF PAGING ZONES. AUDIO EQUIPMENT AND CIRCUITS SHALL HAVE SUFFICIENT CAPACITY TO PROVIDE POWER TO ALL SPEAKERS SHOWN ON PLANS WITH AN ADDITIONAL RESERVE CAPACITY OF 50% FOR FUTURE EXPANSION AND/OR VOLUME ADJUSTMENTS.
- FIRE ALARM ANNUNCIATOR PANEL AND EMERGENCY VOICE ALARM OPERATING CONSOLE. FIRE ALARM ANNUNCIATOR SHALL BE LOG TYPE TO DISPLAY STATUS OF FIRE ALARM SYSTEM WITH BUTTONS TO ALLOW FULL SYSTEM CONTROL (ACKNOWLEDGE, SILENCE, RESET, ETC.). EMERGENCY VOICE ALARM OPERATING CONSOLE SHALL HAVE BUTTONS FOR ACTIVATION OF PRE-RECORDED MESSAGES AND A BUILT-IN MICROPHONE FOR MANUAL MESSAGES. CONFIGURE OPERATING CONSOLE TO ALLOW VOICE MESSAGES TO BE BROADCAST TO INDIVIDUAL BUILDING ZONES OR TO ENTIRE BUILDING.
- DEMOLISH EXISTING NOTIFICATION APPLIANCE POWER SUPPLY AND REPLACE WITH NEW REMOTE POWER SUPPLY TO PROVIDE 24 HOUR POWER TO NOTIFICATION APPLIANCES (STROBES) THROUGHOUT BUILDING. NUMBER AND LOCATION OF REMOTE POWER SUPPLIES SHALL BE SUFFICIENT TO PROVIDE A SEPARATE NOTIFICATION ZONE FOR EACH FLOOR LEVEL OF BUILDING. REQUIRED CAPACITY AND NUMBER OF POWER SUPPLIES TO BE DETERMINED BY CONTRACTOR. SURFACE MOUNTED TELECOMMUNICATIONS TELEPHONE EQUIPMENT SHALL BE CONNECTED TO MAGNETIC HOLD-OPEN DEVICES EXISTING MAY BE RE-USED IF PRESENT) THROUGH NORMALLY CLOSED CONTACTS OF CONTROL RELAY.
- EXISTING ROLLING FIRE DOOR (WON-DOOR) TO REMAIN. INSTALL ADDRESSABLE RELAY INTERFACED WITH DOOR CONTROLLER TO CLOSE FIRE DOOR UPON OPERATION OF SMOKE DETECTORS (SPOT TYPE OR PROJECTED BEAM TYPE) ON EITHER SIDE OF FIRE DOOR. TEST AUTOMATIC OPERATION OF FIRE DOOR AND ADJUST AS REQUIRED TO CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 80.
- EXISTING ROLL DOWN FIRE SHUTTER TO REMAIN. INSTALL ADDRESSABLE RELAY INTERFACED WITH FIRE SHUTTER CONTROLLER TO CLOSE SHUTTER UPON OPERATION OF SMOKE DETECTORS ON EITHER SIDE OF SHUTTER. TEST AUTOMATIC OPERATION OF FIRE SHUTTER AND ADJUST AS REQUIRED TO CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 80.
- EXISTING FIRE DOOR WITH NEW OR EXISTING (SEE LEGEND) MAGNETIC DOOR HOLD-OPEN DEVICE TO REMAIN. INSTALL ADDRESSABLE RELAY TO RELEASE MAGNETIC DOOR HOLDER UPON ACTIVATION OF ANY FIRE ALARM INITIATING DEVICE IN BUILDING. CONNECT POWER SUPPLY TO MAGNETIC HOLD-OPEN DEVICES (EXISTING MAY BE RE-USED IF PRESENT) THROUGH NORMALLY CLOSED CONTACTS OF CONTROL RELAY.
- EXISTING ELEVATOR CONTROL EQUIPMENT TO REMAIN. INSTALL ADDRESSABLE RELAYS TO INTERFACE EXISTING ELEVATOR CONTROLLERS TO NEW FIRE ALARM SYSTEM TO AUTOMATICALLY INITIATE THE FOLLOWING EMERGENCY FUNCTIONS:
 - PRIMARY RECALL
 - SECONDARY RECALL
 - CAB LIGHT ILLUMINATION
 - ELEVATOR POWER SHUNT/TRIP
 EMERGENCY FUNCTIONS SHALL CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 72 AND ASME A17.1.
- EXISTING FIRE/SMOKE DAMPERS THROUGHOUT BUILDING TO REMAIN. REPLACE ALL EXISTING SMOKE DETECTORS PROVIDED TO CONTROL FIRE/SMOKE DAMPERS AND INSTALL NEW DETECTORS WHERE REQUIRED BY THE IBC OR IMC. NEW DETECTORS SHALL BE LISTED, COMPATIBLE WITH THE FIRE ALARM SYSTEM. INSTALL PROGRAMMABLE RELAY TO CLOSE DAMPERS UPON ACTUATION OF DETECTORS OR ANY OTHER FIRE ALARM INITIATING DEVICE IN THE BUILDING. NUMBER AND LOCATION OF DAMPERS, DETECTORS AND CONTROL RELAYS TO BE FIELD VERIFIED BY CONTRACTOR.
- EXISTING ATRIUM SMOKE EVACUATION SYSTEM TO REMAIN. INSTALL ADDRESSABLE RELAYS TO ACTIVATE SMOKE EVACUATION SYSTEM. PROVIDE RELAYS TO OPERATE ALL INTAKE/EXHAUST LOUVERS AND EXHAUST/MAKE-UP AIR FANS THAT ARE REQUIRED FOR PROPER OPERATION OF THE SMOKE EVACUATION SYSTEM. PROGRAM RELAYS TO ACTIVATE SMOKE EVACUATION SYSTEM UPON OPERATION OF ANY OF THE FOLLOWING INITIATING DEVICES:
 - WATER FLOW SWITCH FOR ATRIUM FIRE SPRINKLER ZONE
 - PROJECTED BEAM SMOKE DETECTORS AT TOP OF ATRIUM
 - SPOT TYPE SMOKE DETECTORS AROUND ATRIUM PERIMETER
 COORDINATE SMOKE EVACUATION SYSTEM INTERFACE WITH OWNER AND MAINTENANCE CONTRACTOR FOR BUILDING CONTROLS. CONTRACTOR TO INCLUDE COST OF ALL REQUIRED SERVICE CALLS BY BUILDING CONTROLS MAINTENANCE CONTRACTOR IN BID.
- INSTALL SECURED EGRESS DOOR TO REMAIN. INSTALL ADDRESSABLE RELAY TO RELEASE SECURED DOOR UPON ACTIVATION OF ANY FIRE ALARM INITIATING DEVICE IN THE BUILDING. CONNECT POWER TO DOOR SECURITY HARDWARE (MAGNETIC PLATE OR ELECTRIC STRIKE) THROUGH NORMALLY CLOSED CONTACTS OF RELAY AND PROGRAM RELAY CONTACTS TO OPEN UPON ACTIVATION OF FIRE ALARM SYSTEM INTERRUPTING POWER SUPPLY TO SECURITY HARDWARE AND RELEASING DOOR. RELAY SHALL NOT RESET UNTIL THE FIRE ALARM SYSTEM IS RESTORED TO NORMAL CONDITION.
- INSTALL ADDRESSABLE RELAYS TO PROVIDE SHUTDOWN OF ALL AIR MOVEMENT SYSTEMS WITH A CAPACITY IN EXCESS OF 2,000 CFM. INSTALL A SEPARATE RELAY FOR EACH AIR MOVEMENT SYSTEM AND CONNECT RELAY OUTPUTS TO AIR MOVEMENT SYSTEM CONTROLS. EXISTING NEW CONTROL CIRCUITS MAY BE RE-USED IF COMPLETELY FUNCTIONAL. PROGRAM RELAYS TO SHUT DOWN AIR MOVEMENT SYSTEMS UPON ACTIVATION OF ANY DUCT MOUNTED SMOKE DETECTOR OR OTHER FIRE ALARM INITIATING DEVICE IN BUILDING. COORDINATE AIR MOVEMENT SYSTEM CONTROLS INTERFACE WITH OWNER AND MAINTENANCE CONTRACTOR FOR BUILDING CONTROLS. CONTRACTOR TO INCLUDE COST OF ALL REQUIRED SERVICE CALLS BY BUILDING CONTROLS MAINTENANCE CONTRACTOR IN BID.
- INSTALL SMOKE DETECTOR IN ACCORDANCE WITH IMC 606.2.3 AT CONNECTION OF RETURN AIR DUCT/PLENUM TO VERTICAL RETURN SHAFT ON EACH FLOOR LEVEL. SMOKE DETECTORS SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF NFPA 72 AND THE IMC. WHERE AIR VELOCITY IS LESS THAN 300 FPM PROVIDE A SPOT TYPE DETECTOR MOUNTED IN THE CENTER OF RETURN AIR FLOW AT THE CONNECTION TO THE VERTICAL RETURN SHAFT. WHERE AIR VELOCITY EXCEEDS 300 FPM PROVIDE A SAMPLING TUBE TYPE SMOKE DETECTOR WITH SAMPLING TUBE INSTALLED ACROSS RETURN AIR OPENING OR WITHIN RETURN AIR DUCT. CONTRACTOR TO DETERMINE AIR FLOW UNDER NORMAL OPERATING CONDITIONS TO DETERMINE APPROPRIATE DETECTOR TYPE FOR USE.
- EXISTING ELECTRIC FIRE PUMP AND FIRE SPRINKLER RISERS (WET AND DRY PIPE) TO REMAIN. INSTALL ADDRESSABLE MODULES TO FACILITATE CONNECTION OF FIRE PUMP CONTROLLER (PUMP RUNNING, AC POWER FAIL AND AC POWER PHASE REVERSAL), FIRE PUMP CONTROL VALVES, FIRE SPRINKLER CONTROL VALVES, FIRE SPRINKLER FLOW SWITCHES AND AIR PRESSURE SWITCHES TO NEW FIRE ALARM SYSTEM.
- EXISTING FIRE SUPPRESSION SYSTEM (INCLUDING SMOKE DETECTION SYSTEM) PROTECTING COMPUTER ROOM TO REMAIN. INSTALL ADDRESSABLE MODULES AT FIRE SUPPRESSION SYSTEM CONTROL PANEL TO RELAY FIRE SUPPRESSION SYSTEM ALARM, SUPERVISORY AND TROUBLE SIGNALS TO BUILDING FACP.
- TYPE I COOKING HOOD WITH EXISTING WET-CHEMICAL FIRE SUPPRESSION SYSTEM TO REMAIN. INSTALL ADDRESSABLE MODULE TO FACILITATE CONNECTION OF ACTIVATION RELAY FOR FIRE SUPPRESSION SYSTEM TO NEW FIRE ALARM SYSTEM. PROGRAM ACTIVATION OF FIRE SUPPRESSION SYSTEM AS A FIRE ALARM SIGNAL.



FIRE ALARM SYSTEM REPLACEMENT - 3RD LEVEL SOUTH
SCALE: 3/32" = 1'-0"



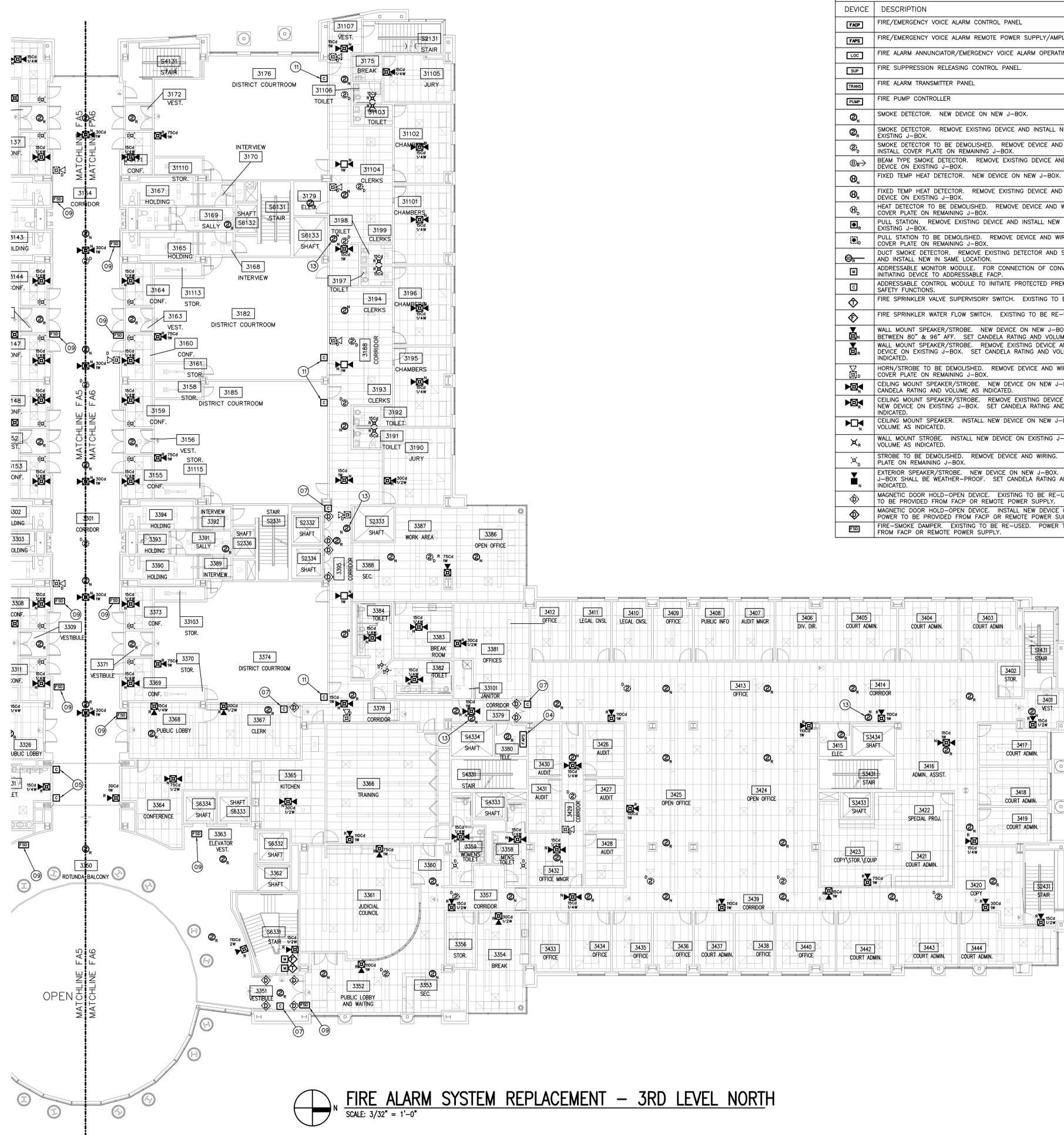
REVISIONS:

DRAWING DATE: 11/8/13
REVISION NUMBER: XX/XX/XX
JOB NUMBER: 104968
DWG ISSUE: REVIEW
DRAWN BY: BBH
CHECKED BY: GTJ

ADMINISTRATIVE OFFICE OF THE COURTS
MATHESON COURTHOUSE
450 SOUTH STATE STREET
SALT LAKE CITY, UTAH

FIRE ALARM SYSTEM REPLACEMENT
DFCM PROJECT #13244150

3RD LEVEL SOUTH
FA5



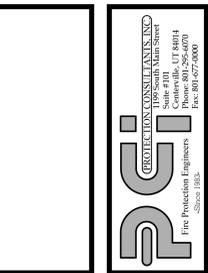
FIRE ALARM SYSTEM REPLACEMENT - 3RD LEVEL NORTH
 SCALE: 3/32" = 1'-0"

FIRE ALARM EQUIPMENT LEGEND
 (QUANTITIES ARE ESTIMATES ONLY. CONTRACTOR TO VERIFY ACTUAL QUANTITIES FOR BID PURPOSES)

DEVICE	DESCRIPTION	EST. QTY.
FACP	FIRE/EMERGENCY VOICE ALARM CONTROL PANEL	1
FAPS	FIRE/EMERGENCY VOICE ALARM REMOTE POWER SUPPLY/AMPLIFIER	8
LOC	FIRE ALARM ANNUNCIATOR/EMERGENCY VOICE ALARM OPERATING CONSOLE	2
SUP	FIRE SUPPRESSION RELEASING CONTROL PANEL	1
TRANSP	FIRE ALARM TRANSMITTER PANEL	1
FCMP	FIRE PUMP CONTROLLER	1
SD	SMOKE DETECTOR. NEW DEVICE ON NEW J-BOX.	228
SDR	SMOKE DETECTOR. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX.	316
SDR-D	SMOKE DETECTOR TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	114
SDR-N	BEAM TYPE SMOKE DETECTOR. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX.	3
HTD	FIXED TEMP HEAT DETECTOR. NEW DEVICE ON NEW J-BOX.	16
HTDR	FIXED TEMP HEAT DETECTOR. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX.	23
HTD-D	HEAT DETECTOR TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	7
PST	PULL STATION. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX.	4
PST-D	PULL STATION TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	4
SDS	DUCT SMOKE DETECTOR. REMOVE EXISTING DETECTOR AND SAMPLING TUBE AND INSTALL NEW IN SAME LOCATION.	9
AMM	ADDRESSABLE MONITOR MODULE. FOR CONNECTION OF CONVENTIONAL INITIATING DEVICE TO ADDRESSABLE FACP.	58
ACM	ADDRESSABLE CONTROL MODULE TO INITIATE PROTECTED PREMISE FIRE SAFETY FUNCTIONS.	124
FSV	FIRE SPRINKLER VALVE SUPERVISORY SWITCH. EXISTING TO BE RE-USED.	33
WFS	FIRE SPRINKLER WATER FLOW SWITCH. EXISTING TO BE RE-USED.	21
MS	WALL MOUNT SPEAKER/STROBE. NEW DEVICE ON NEW J-BOX. MOUNT BETWEEN 80' & 96' AFT. SET CANDELA RATING AND VOLUME AS INDICATED.	63
MSR	WALL MOUNT SPEAKER/STROBE. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX. SET CANDELA RATING AND VOLUME AS INDICATED.	356
MSR-D	HORN/STROBE TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	109
MSR-N	CEILING MOUNT SPEAKER/STROBE. NEW DEVICE ON NEW J-BOX. SET CANDELA RATING AND VOLUME AS INDICATED.	343
MSR-R	CEILING MOUNT SPEAKER/STROBE. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX. SET CANDELA RATING AND VOLUME AS INDICATED.	1
MSR-S	CEILING MOUNT SPEAKER. INSTALL NEW DEVICE ON NEW J-BOX. SET VOLUME AS INDICATED.	38
MSR-T	WALL MOUNT STROBE. INSTALL NEW DEVICE ON EXISTING J-BOX. SET VOLUME AS INDICATED.	75
MSR-D	STROBE TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	94
MSR-N	EXTERIOR SPEAKER/STROBE. NEW DEVICE ON NEW J-BOX. DEVICE AND J-BOX SHALL BE WEATHER-PROOF. SET CANDELA RATING AND VOLUME AS INDICATED.	4
MDH	MAGNETIC DOOR HOLD-OPEN DEVICE. EXISTING TO BE RE-USED. POWER TO BE PROVIDED FROM FACP OR REMOTE POWER SUPPLY.	120
MDH-N	MAGNETIC DOOR HOLD-OPEN DEVICE. INSTALL NEW DEVICE ON NEW J-BOX. POWER TO BE PROVIDED FROM FACP OR REMOTE POWER SUPPLY.	1
PSD	FIRE-SMOKE DAMPER. EXISTING TO BE RE-USED. POWER TO BE PROVIDED FROM FACP OR REMOTE POWER SUPPLY.	127

FIRE ALARM SYSTEM KEY NOTES

- REPLACE EXISTING FIRE/EMERGENCY VOICE ALARM CONTROL PANEL WITH NEW, ADDRESSABLE FIRE ALARM CONTROL PANEL WITH COMPLETE EMERGENCY VOICE ALARM CAPABILITIES. PROVIDE ALL REQUIRED CONTROL PANELS, AUDIO SYSTEM INTERFACES, MODULES, CABINETS, POWER SUPPLIES, ETC. TO PROVIDE A COMPLETE AND FUNCTIONAL FIRE/EMERGENCY VOICE ALARM SYSTEM COMPLIANT WITH ALL APPLICABLE PROVISIONS OF NFPA 72 AND THE INTERNATIONAL BUILDING/FIRE CODES. CONTROL PANEL SHALL HAVE SUFFICIENT CAPACITY TO MONITOR ALL INITIATING DEVICES SHOWN ON PLANS WITH AN ADDITIONAL SPARE CAPACITY OF 20% FOR FUTURE EXPANSION. EXISTING 120 VAC POWER CIRCUITS MAY BE RE-USED BUT PROVIDE NEW BATTERIES FOR SECONDARY POWER SUPPLY. EXISTING SLC, INITIATING DEVICE AND NOTIFICATION APPLIANCE (AUDIBLE AND VISUAL) CIRCUITS MAY BE RECONFIGURED AND RE-USED IF COMPLETELY FUNCTIONAL AND COMPATIBLE WITH NEW FACP/DEVICES. PROVIDE DIGITAL ALARM COMMUNICATOR/TRANSMITTER (EXISTING MAY BE RE-USED) AND CONNECT TO EXISTING PRIMARY AND SECONDARY PHONE LINES TO RELAY FIRE ALARM AND SUPERVISORY SIGNALS TO OFF-PREMISE MONITORING COMPANY SELECTED BY OWNER.
- REPLACE EXISTING AUDIO AMPLIFIERS/TRANSPONDERS (AT FACP AND REMOTE LOCATIONS, WHERE PRESENT) WITH NEW EQUIPMENT LISTED COMPATIBLE AND INTERLOCKED WITH NEW FACP. AMPLIFIERS AND CIRCUIT WIRING SHALL HAVE SUFFICIENT CAPACITY TO PROVIDE A MINIMUM OF THREE PAGING ZONES (NORTH, SOUTH AND WEST) PER BUILDING LEVEL. AUDIO EQUIPMENT SHALL HAVE THE CAPABILITY OF STORING A MINIMUM OF EIGHT PRE-RECORDED MESSAGES THAT CAN BE BROADCAST TO THE ENTIRE BUILDING OR TO ANY INDIVIDUAL PAGING ZONE OR GROUP OF PAGING ZONES USING PROGRAMMABLE BUTTONS INTEGRATED INTO THE CONTROL EQUIPMENT. PROVIDE A MICROPHONE TO FACILITATE BROADCAST OF MANUAL MESSAGES TO THE ENTIRE BUILDING OR TO ANY INDIVIDUAL PAGING ZONE OR GROUP OF PAGING ZONES. AUDIO EQUIPMENT AND CIRCUITS SHALL HAVE SUFFICIENT CAPACITY TO PROVIDE POWER TO ALL SPEAKERS SHOWN ON PLANS WITH AN ADDITIONAL RESERVE CAPACITY OF 50% FOR FUTURE EXPANSION AND/OR VOLUME ADJUSTMENTS.
- FIRE ALARM ANNUNCIATOR PANEL AND EMERGENCY VOICE ALARM OPERATING CONSOLE. FIRE ALARM ANNUNCIATOR SHALL BE LCD TYPE TO DISPLAY STATUS OF FIRE ALARM SYSTEM WITH BUTTONS TO ALLOW FULL SYSTEM CONTROL (ACKNOWLEDGE, SILENCE, RESET, ETC.). EMERGENCY VOICE ALARM OPERATING CONSOLE SHALL HAVE BUTTONS FOR ACTIVATION OF PRE-RECORDED MESSAGES AND A BUILT-IN MICROPHONE FOR MANUAL MESSAGES. CONFIGURE OPERATING CONSOLE TO ALLOW VOICE MESSAGES TO BE BROADCAST TO INDIVIDUAL BUILDING ZONES OR TO ENTIRE BUILDING.
- DEMOLISH EXISTING NOTIFICATION APPLIANCE POWER SUPPLY AND REPLACE WITH NEW REMOTE POWER SUPPLY. PROVIDE FULL SYSTEM CONTROL (ACKNOWLEDGE, SILENCE, RESET, ETC.). EMERGENCY VOICE ALARM OPERATING CONSOLE SHALL HAVE BUTTONS FOR ACTIVATION OF PRE-RECORDED MESSAGES AND A BUILT-IN MICROPHONE FOR MANUAL MESSAGES. CONFIGURE OPERATING CONSOLE TO ALLOW VOICE MESSAGES TO BE BROADCAST TO INDIVIDUAL BUILDING ZONES OR TO ENTIRE BUILDING.
- EXISTING ROLLING FIRE DOOR (WON-DOOR) TO REMAIN. INSTALL ADDRESSABLE RELAY INTERFACED WITH DOOR CONTROLLER TO CLOSE FIRE DOOR UPON OPERATION OF SMOKE DETECTORS (SPOT TYPE OR PROJECTED BEAM TYPE) ON EITHER SIDE OF FIRE DOOR. TEST AUTOMATIC OPERATION OF FIRE DOOR AND ADJUST AS REQUIRED TO CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 80.
- EXISTING ROLL DOWN FIRE SHUTTER TO REMAIN. INSTALL ADDRESSABLE RELAY INTERFACED WITH FIRE SHUTTER CONTROLLER TO CLOSE SHUTTER UPON OPERATION OF SMOKE DETECTORS ON EITHER SIDE OF SHUTTER. TEST AUTOMATIC OPERATION OF FIRE SHUTTER AND ADJUST AS REQUIRED TO CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 80.
- EXISTING FIRE DOOR WITH NEW OR EXISTING (SEE LEGEND) MAGNETIC DOOR HOLD-OPEN DEVICE TO REMAIN. INSTALL ADDRESSABLE RELAY TO RELEASE MAGNETIC DOOR HOLDER UPON ACTIVATION OF ANY FIRE ALARM INITIATING DEVICE IN BUILDING. CONNECT POWER SUPPLY TO MAGNETIC HOLD-OPEN DEVICES. EXISTING RELAY MAY BE RE-USED IF PRESENT) THROUGH NORMALLY CLOSED CONTACTS OF CONTROL RELAY.
- EXISTING ELEVATOR CONTROL EQUIPMENT TO REMAIN. INSTALL ADDRESSABLE RELAYS TO INTERFACE EXISTING ELEVATOR CONTROLLERS TO NEW FIRE ALARM SYSTEM TO AUTOMATICALLY INITIATE THE FOLLOWING EMERGENCY FUNCTIONS:
 1. PRIMARY RECALL
 2. SECONDARY RECALL
 3. CAB LIGHT ILLUMINATION
 4. ELEVATOR POWER SHUNT/TRIP
 EMERGENCY FUNCTIONS SHALL CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 72 AND ASME A17.1.
- EXISTING FIRE/SMOKE DAMPERS THROUGHOUT BUILDING TO REMAIN. REPLACE ALL EXISTING SMOKE DETECTORS PROVIDED TO CONTROL FIRE/SMOKE DAMPERS AND INSTALL NEW DETECTORS WHERE REQUIRED BY THE IBC OR IMC. NEW DETECTORS SHALL BE LISTED COMPATIBLE WITH THE FIRE ALARM SYSTEM. INSTALL PROGRAMMABLE RELAY TO CLOSE DAMPERS UPON ACTUATION OF DETECTORS OR ANY OTHER FIRE ALARM INITIATING DEVICE IN THE BUILDING. NUMBER AND LOCATION OF DAMPERS, DETECTORS AND CONTROL RELAYS TO BE FIELD VERIFIED BY CONTRACTOR.
- EXISTING ATRIUM SMOKE EVACUATION SYSTEM TO REMAIN. INSTALL ADDRESSABLE RELAYS TO ACTIVATE SMOKE EVACUATION SYSTEM. PROVIDE RELAYS TO OPERATE ALL INTAKE/EXHAUST LOUVERS AND EXHAUST/MAKE-UP AIR FANS THAT ARE REQUIRED FOR PROPER OPERATION OF THE SMOKE EVACUATION SYSTEM. PROGRAM RELAYS TO ACTIVATE SMOKE EVACUATION SYSTEM UPON OPERATION OF ANY OF THE FOLLOWING INITIATING DEVICES:
 1. WATER FLOW SWITCH FOR ATRIUM FIRE SPRINKLER ZONE
 2. PROJECTED BEAM SMOKE DETECTOR AT TOP OF ATRIUM
 3. SPOT TYPE SMOKE DETECTORS AROUND ATRIUM PERIMETER
 COORDINATE SMOKE EVACUATION SYSTEM INTERFACE WITH OWNER AND MAINTENANCE CONTRACTOR FOR BUILDING CONTROLS. CONTRACTOR TO INCLUDE COST OF ALL REQUIRED SERVICE CALLS BY BUILDING CONTROLS MAINTENANCE CONTRACTOR IN BID.
- EXISTING SECURED EGRESS DOOR TO REMAIN. INSTALL ADDRESSABLE RELAY TO RELEASE SECURED DOOR UPON ACTIVATION OF ANY FIRE ALARM INITIATING DEVICE IN THE BUILDING. CONNECT POWER TO DOOR SECURITY HARDWARE (MAGNETIC PLATE OR ELECTRIC STRIKE) THROUGH NORMALLY CLOSED CONTACTS OF RELAY AND PROGRAM RELAY CONTACTS TO OPEN UPON ACTIVATION OF FIRE ALARM SYSTEM INTERRUPTING POWER SUPPLY TO SECURITY HARDWARE AND RELEASING DOOR. RELAY SHALL NOT RESET UNTIL THE FIRE ALARM SYSTEM IS RESTORED TO NORMAL CONDITION.
- INSTALL ADDRESSABLE RELAYS TO PROVIDE SHUTDOWN OF ALL AIR MOVEMENT SYSTEMS WITH A CAPACITY IN EXCESS OF 2,000 CFM. INSTALL A SEPARATE RELAY FOR EACH AIR MOVEMENT SYSTEM AND CONNECT RELAY OUTPUTS TO AIR MOVEMENT SYSTEM CONTROLS. EXISTING NEW CONTROL CIRCUITS MAY BE RE-USED IF COMPLETELY FUNCTIONAL. PROGRAM RELAYS TO SHUT DOWN AIR MOVEMENT SYSTEMS UPON ACTIVATION OF ANY DUCT MOUNTED SMOKE DETECTOR OR OTHER FIRE ALARM INITIATING DEVICE IN BUILDING. COORDINATE AIR MOVEMENT SYSTEM CONTROLS INTERFACE WITH OWNER AND MAINTENANCE CONTRACTOR FOR BUILDING CONTROLS. CONTRACTOR TO INCLUDE COST OF ALL REQUIRED SERVICE CALLS BY BUILDING CONTROLS MAINTENANCE CONTRACTOR IN BID.
- INSTALL SMOKE DETECTOR IN ACCORDANCE WITH IMC 606.2.3 AT CONNECTION OF RETURN AIR DUCT/PLENUM TO VERTICAL RETURN SHAFT ON EACH FLOOR LEVEL. SMOKE DETECTORS SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF NFPA 72 AND THE IMC. WHERE AIR VELOCITY IS LESS THAN 300 FPM PROVIDE A SPOT TYPE DETECTOR MOUNTED IN THE CENTER OF RETURN AIR FLOW AT THE CONNECTION TO THE VERTICAL RETURN SHAFT. WHERE AIR VELOCITY EXCEEDS 300 FPM PROVIDE A SAMPLING TUBE TYPE SMOKE DETECTOR WITH SAMPLING TUBE INSTALLED ACROSS RETURN AIR OPENING OR WITHIN RETURN AIR DUCT. CONTRACTOR TO DETERMINE AIR FLOW UNDER NORMAL OPERATING CONDITIONS TO DETERMINE APPROPRIATE DETECTOR TYPE FOR USE.
- EXISTING ELECTRIC FIRE PUMP AND FIRE SPRINKLER RISERS (WET AND DRY PIPE) TO REMAIN. INSTALL ADDRESSABLE MODULES TO FACILITATE CONNECTION OF FIRE PUMP CONTROLLER (PUMP RUNNING, AC POWER FAIL AND AC POWER PHASE REVERSAL), FIRE PUMP CONTROL VALVES, FIRE SPRINKLER CONTROL VALVES, FIRE SPRINKLER FLOW SWITCHES AND AIR PRESSURE SWITCHES TO NEW FIRE ALARM SYSTEM.
- EXISTING FIRE SUPPRESSION SYSTEM (INCLUDING SMOKE DETECTION SYSTEM) PROTECTING COMPUTER ROOM TO REMAIN. INSTALL ADDRESSABLE MODULES AT FIRE SUPPRESSION SYSTEM CONTROL PANEL TO RELAY FIRE SUPPRESSION SYSTEM ALARM, SUPERVISORY AND TROUBLE SIGNALS TO BUILDING FACP.
- TYPE I COOKING HOOD WITH EXISTING WET-CHEMICAL FIRE SUPPRESSION SYSTEM TO REMAIN. INSTALL ADDRESSABLE MODULE TO FACILITATE CONNECTION OF ACTIVATION RELAY FOR FIRE SUPPRESSION SYSTEM TO NEW FIRE ALARM SYSTEM. PROGRAM ACTIVATION OF FIRE SUPPRESSION SYSTEM AS A FIRE ALARM SIGNAL.



REVISIONS:

DRAWING DATE: 11/8/13
 REVISION DATE: XX/XX/XX
 JOB NUMBER: 104968
 DWG ISSUE: REVIEW
 DRAWN BY: BBH
 CHECKED BY: GTJ

ADMINISTRATIVE OFFICE OF THE COURTS
 MATHESON COURTHOUSE
 450 SOUTH STATE STREET
 SALT LAKE CITY, UTAH

FIRE ALARM SYSTEM REPLACEMENT
 DFCM PROJECT #13244150

3RD LEVEL NORTH
FA6

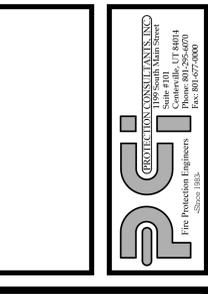
FIRE ALARM EQUIPMENT LEGEND

(QUANTITIES ARE ESTIMATES ONLY. CONTRACTOR TO VERIFY ACTUAL QUANTITIES FOR BID PURPOSES)

DEVICE	DESCRIPTION	EST. QTY.
FACP	FIRE/EMERGENCY VOICE ALARM CONTROL PANEL	1
FAPS	FIRE/EMERGENCY VOICE ALARM REMOTE POWER SUPPLY/AMPLIFIER	8
LOC	FIRE ALARM ANNUNCIATOR/EMERGENCY VOICE ALARM OPERATING CONSOLE	2
SRP	FIRE SUPPRESSION RELEASING CONTROL PANEL	1
TRNS	FIRE ALARM TRANSMITTER PANEL	1
FPC	FIRE PUMP CONTROLLER	1
SD	SMOKE DETECTOR. NEW DEVICE ON NEW J-BOX.	228
SDR	SMOKE DETECTOR. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX.	316
SDR-D	SMOKE DETECTOR TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	114
SDR-N	BEAM TYPE SMOKE DETECTOR. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX.	3
SDR-F	FIXED TEMP HEAT DETECTOR. NEW DEVICE ON NEW J-BOX.	16
SDR-FD	FIXED TEMP HEAT DETECTOR. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX.	23
SDR-H	HEAT DETECTOR TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	7
SDR-P	PULL STATION. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX.	4
SDR-PD	PULL STATION TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	4
SDR-S	DUCT SMOKE DETECTOR. REMOVE EXISTING DETECTOR AND SAMPLING TUBE AND INSTALL NEW IN SAME LOCATION.	9
SDR-SM	ADDRESSABLE MONITOR MODULE. FOR CONNECTION OF CONVENTIONAL INITIATING DEVICE TO ADDRESSABLE FACP.	58
SDR-SM2	ADDRESSABLE CONTROL MODULE TO INITIATE PROTECTED PREMISE FIRE SAFETY FUNCTIONS.	124
SDR-SV	FIRE SPRINKLER VALVE SUPERVISORY SWITCH. EXISTING TO BE RE-USED.	33
SDR-SV2	FIRE SPRINKLER WATER FLOW SWITCH. EXISTING TO BE RE-USED.	21
SDR-SW	WALL MOUNT SPEAKER/STROBE. NEW DEVICE ON NEW J-BOX. MOUNT BETWEEN 80" & 96" AFF. SET CANDELA RATING AND VOLUME AS INDICATED.	63
SDR-SW2	WALL MOUNT SPEAKER/STROBE. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX. SET CANDELA RATING AND VOLUME AS INDICATED.	356
SDR-SW3	HORN/STROBE TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	109
SDR-SW4	CEILING MOUNT SPEAKER/STROBE. NEW DEVICE ON NEW J-BOX. SET CANDELA RATING AND VOLUME AS INDICATED.	343
SDR-SW5	CEILING MOUNT SPEAKER/STROBE. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX. SET CANDELA RATING AND VOLUME AS INDICATED.	1
SDR-SW6	CEILING MOUNT SPEAKER. INSTALL NEW DEVICE ON NEW J-BOX. SET VOLUME AS INDICATED.	38
SDR-SW7	WALL MOUNT STROBE. INSTALL NEW DEVICE ON EXISTING J-BOX. SET VOLUME AS INDICATED.	75
SDR-SW8	STROBE TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	94
SDR-SW9	EXTERIOR SPEAKER/STROBE. NEW DEVICE ON NEW J-BOX. DEVICE AND J-BOX SHALL BE WEATHER-PROOF. SET CANDELA RATING AND VOLUME AS INDICATED.	4
SDR-SW10	MAGNETIC DOOR HOLD-OPEN DEVICE. EXISTING TO BE RE-USED. POWER TO BE PROVIDED FROM FACP OR REMOTE POWER SUPPLY.	120
SDR-SW11	MAGNETIC DOOR HOLD-OPEN DEVICE. INSTALL NEW DEVICE ON NEW J-BOX. POWER TO BE PROVIDED FROM FACP OR REMOTE POWER SUPPLY.	1
SDR-SW12	FIRE-SMOKE DAMPER. EXISTING TO BE RE-USED. POWER TO BE PROVIDED FROM FACP OR REMOTE POWER SUPPLY.	127

FIRE ALARM SYSTEM KEY NOTES

- REPLACE EXISTING FIRE/EMERGENCY VOICE ALARM CONTROL PANEL WITH NEW, ADDRESSABLE FIRE ALARM CONTROL PANEL WITH COMPLETE EMERGENCY VOICE ALARM CAPABILITIES. PROVIDE ALL REQUIRED CONTROL PANELS, AUDIO SYSTEM INTERFACES, MODULES, CABINETS, POWER SUPPLIES, ETC. TO PROVIDE A COMPLETE AND FUNCTIONAL FIRE/EMERGENCY VOICE ALARM SYSTEM COMPLIANT WITH ALL APPLICABLE PROVISIONS OF NFPA 72 AND THE INTERNATIONAL BUILDING/FIRE CODES. CONTROL PANEL SHALL HAVE SUFFICIENT CAPACITY TO MONITOR ALL INITIATING DEVICES SHOWN ON PLANS WITH AN ADDITIONAL SPARE CAPACITY OF 20% FOR FUTURE EXPANSION. EXISTING 120 VAC POWER CIRCUITS MAY BE RE-USED BUT PROVIDE NEW BATTERIES FOR SECONDARY POWER SUPPLY. EXISTING SLC, INITIATING DEVICE AND NOTIFICATION APPLIANCE (AUDIBLE AND VISUAL) CIRCUITS MAY BE RECONFIGURED AND RE-USED IF COMPLETELY FUNCTIONAL AND COMPATIBLE WITH NEW FACP/DEVICES. PROVIDE DIGITAL ALARM COMMUNICATOR/TRANSMITTER (EXISTING MAY BE RE-USED) AND CONNECT TO EXISTING PRIMARY AND SECONDARY PHONE LINES TO RELAY FIRE ALARM AND SUPERVISORY SIGNALS TO OFFPREMISE MONITORING COMPANY SELECTED BY OWNER.
- REPLACE EXISTING AUDIO AMPLIFIERS/TRANSPONDERS (AT FACP AND REMOTE LOCATIONS, WHERE PRESENT) WITH NEW EQUIPMENT LISTED COMPATIBLE AND INTERLOCKED WITH NEW FACP. AMPLIFIERS AND CIRCUIT WIRING SHALL HAVE SUFFICIENT CAPACITY TO PROVIDE A MINIMUM OF THREE PAGING ZONES (NORTH, SOUTH AND WEST) PER BUILDING LEVEL. AUDIO EQUIPMENT SHALL HAVE THE CAPABILITY OF STORING A MINIMUM OF EIGHT PRE-RECORDED MESSAGES THAT CAN BE BROADCAST TO THE ENTIRE BUILDING OR TO ANY INDIVIDUAL PAGING ZONE OR GROUP OF PAGING ZONES USING PROGRAMMABLE BUTTONS INTEGRATED INTO THE CONTROL EQUIPMENT. PROVIDE A MICROPHONE TO FACILITATE BROADCAST OF MANUAL MESSAGES TO THE ENTIRE BUILDING OR TO ANY INDIVIDUAL PAGING ZONE OR GROUP OF PAGING ZONES. AUDIO EQUIPMENT AND CIRCUITS SHALL HAVE SUFFICIENT CAPACITY TO PROVIDE POWER TO ALL SPEAKERS SHOWN ON PLANS WITH AN ADDITIONAL RESERVE CAPACITY OF 50% FOR FUTURE EXPANSION AND/OR VOLUME ADJUSTMENTS.
- FIRE ALARM ANNUNCIATOR PANEL AND EMERGENCY VOICE ALARM OPERATING CONSOLE. FIRE ALARM ANNUNCIATOR SHALL BE LOG TYPE TO DISPLAY STATUS OF FIRE ALARM SYSTEM WITH BUTTONS TO ALLOW FULL SYSTEM CONTROL (ACKNOWLEDGE, SILENCE, RESET, ETC.). EMERGENCY VOICE ALARM OPERATING CONSOLE SHALL HAVE BUTTONS FOR ACTIVATION OF PRE-RECORDED MESSAGES AND A BUILT-IN MICROPHONE FOR MANUAL MESSAGES. CONFIGURE OPERATING CONSOLE TO ALLOW VOICE MESSAGES TO BE BROADCAST TO INDIVIDUAL BUILDING ZONES OR TO ENTIRE BUILDING.
- DEMOLISH EXISTING NOTIFICATION APPLIANCE POWER SUPPLY AND REPLACE WITH NEW REMOTE POWER SUPPLY TO PROVIDE 24 VDC POWER TO NOTIFICATION APPLIANCES (STROBES) THROUGHOUT BUILDING. NUMBER AND LOCATION OF REMOTE POWER SUPPLIES SHALL BE SUFFICIENT TO PROVIDE A SEPARATE NOTIFICATION ZONE FOR EACH FLOOR LEVEL OF BUILDING. REQUIRED CAPACITY AND NUMBER OF POWER SUPPLIES TO BE DETERMINED BY CONTRACTOR. SURFACE MOUNTED NOTIFICATION APPLIANCES SHALL BE PROVIDED WITH SUFFICIENT CAPACITY TO PROVIDE ACTIVATION OF NOTIFICATION APPLIANCES AND TROUBLE SUPERVISION. EXISTING 120 VAC POWER CIRCUITS MAY BE RE-USED BUT PROVIDE NEW BATTERIES FOR SECONDARY POWER SUPPLY. CONFIGURE POWER SUPPLIES TO SYNCHRONIZE VISUAL SIGNALS OF ALL NOTIFICATION APPLIANCES LOCATED WITHIN A SINGLE FIELD OF VIEW.
- EXISTING ROLLING FIRE DOOR (WON-DOOR) TO REMAIN. INSTALL ADDRESSABLE RELAY INTERFACED WITH DOOR CONTROLLER TO CLOSE FIRE DOOR UPON OPERATION OF SMOKE DETECTORS (SPOT TYPE OR PROJECTED BEAM TYPE) ON EITHER SIDE OF FIRE DOOR. TEST AUTOMATIC OPERATION OF FIRE DOOR AND ADJUST AS REQUIRED TO CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 80.
- EXISTING ROLL DOWN FIRE SHUTTER TO REMAIN. INSTALL ADDRESSABLE RELAY INTERFACED WITH FIRE SHUTTER CONTROLLER TO CLOSE SHUTTER UPON OPERATION OF SMOKE DETECTORS ON EITHER SIDE OF SHUTTER. TEST AUTOMATIC OPERATION OF FIRE SHUTTER AND ADJUST AS REQUIRED TO CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 80.
- EXISTING FIRE DOOR WITH NEW OR EXISTING (SEE LEGEND) MAGNETIC DOOR HOLD-OPEN DEVICE TO REMAIN. INSTALL ADDRESSABLE RELAY TO RELEASE MAGNETIC DOOR HOLDER UPON ACTIVATION OF ANY FIRE ALARM INITIATING DEVICE IN BUILDING. CONNECT POWER SUPPLY TO MAGNETIC HOLD-OPEN DEVICES (EXISTING MAY BE RE-USED IF PRESENT) THROUGH NORMALLY CLOSED CONTACTS OF CONTROL RELAY.
- EXISTING ELEVATOR CONTROL EQUIPMENT TO REMAIN. INSTALL ADDRESSABLE RELAYS TO INTERFACE EXISTING ELEVATOR CONTROLLERS TO NEW FIRE ALARM SYSTEM TO AUTOMATICALLY INITIATE THE FOLLOWING EMERGENCY FUNCTIONS:
 - PRIMARY RECALL
 - SECONDARY RECALL
 - CAB LIGHT ILLUMINATION
 - ELEVATOR POWER SHUNT/TRIP
 EMERGENCY FUNCTIONS SHALL CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 72 AND ASME A17.1.
- EXISTING FIRE/SMOKE DAMPERS THROUGHOUT BUILDING TO REMAIN. REPLACE ALL EXISTING SMOKE DETECTORS PROVIDED TO CONTROL FIRE/SMOKE DAMPERS AND INSTALL NEW DETECTORS WHERE REQUIRED BY THE IBC OR IMC. NEW DETECTORS SHALL BE LISTED AND COMPATIBLE WITH THE FIRE ALARM SYSTEM. INSTALL PROGRAMMABLE RELAY TO CLOSE DAMPERS UPON ACTUATION OF DETECTORS OR ANY OTHER FIRE ALARM INITIATING DEVICE IN THE BUILDING. NUMBER AND LOCATION OF DAMPERS, DETECTORS AND CONTROL RELAYS TO BE FIELD VERIFIED BY CONTRACTOR.
- EXISTING ATRIUM SMOKE EVACUATION SYSTEM TO REMAIN. INSTALL ADDRESSABLE RELAYS TO ACTIVATE SMOKE EVACUATION SYSTEM. PROVIDE RELAYS TO OPERATE ALL INTAKE/EXHAUST LOUVERS AND EXHAUST/MAKE-UP AIR FANS THAT ARE REQUIRED FOR PROPER OPERATION OF THE SMOKE EVACUATION SYSTEM. PROGRAM RELAYS TO ACTIVATE SMOKE EVACUATION SYSTEM UPON OPERATION OF ANY OF THE FOLLOWING INITIATING DEVICES:
 - WATER FLOW SWITCH FOR ATRIUM FIRE SPRINKLER ZONE
 - PROJECTED BEAM SMOKE DETECTORS AT TOP OF ATRIUM
 - SPOT TYPE SMOKE DETECTORS AROUND ATRIUM PERIMETER
 COORDINATE SMOKE EVACUATION SYSTEM INTERFACE WITH OWNER AND MAINTENANCE CONTRACTOR FOR BUILDING CONTROLS. CONTRACTOR TO INCLUDE COST OF ALL REQUIRED SERVICE CALLS BY BUILDING CONTROLS MAINTENANCE CONTRACTOR IN BID.
- EXISTING SECURED EGRESS DOOR TO REMAIN. INSTALL ADDRESSABLE RELAY TO RELEASE SECURED DOOR UPON ACTIVATION OF ANY FIRE ALARM INITIATING DEVICE IN THE BUILDING. CONNECT POWER TO DOOR SECURITY HARDWARE (MAGNETIC PLATE OR ELECTRIC STRIKE) THROUGH NORMALLY CLOSED CONTACTS OF RELAY AND PROGRAM RELAY CONTACTS TO OPEN UPON ACTIVATION OF FIRE ALARM SYSTEM INTERRUPTING POWER SUPPLY TO SECURITY HARDWARE AND RELEASING DOOR. RELAY SHALL NOT RESET UNTIL THE FIRE ALARM SYSTEM IS RESTORED TO NORMAL CONDITION.
- INSTALL ADDRESSABLE RELAYS TO PROVIDE SHUTDOWN OF ALL AIR MOVEMENT SYSTEMS WITH A CAPACITY IN EXCESS OF 2,000 CFM. INSTALL A SEPARATE RELAY FOR EACH AIR MOVEMENT SYSTEM AND CONNECT RELAY OUTPUTS TO AIR MOVEMENT SYSTEM CONTROLS. EXISTING NEW CONTROL CIRCUITS MAY BE RE-USED IF COMPLETELY FUNCTIONAL. PROGRAM RELAYS TO SHUT DOWN AIR MOVEMENT SYSTEMS UPON ACTIVATION OF ANY DUCT MOUNTED SMOKE DETECTOR OR OTHER FIRE ALARM INITIATING DEVICE IN BUILDING. COORDINATE AIR MOVEMENT SYSTEM CONTROLS INTERFACE WITH OWNER AND MAINTENANCE CONTRACTOR FOR BUILDING CONTROLS. CONTRACTOR TO INCLUDE COST OF ALL REQUIRED SERVICE CALLS BY BUILDING CONTROLS MAINTENANCE CONTRACTOR IN BID.
- INSTALL SMOKE DETECTOR IN ACCORDANCE WITH IMC 606.2.3 AT CONNECTION OF RETURN AIR DUCT/PLENUM TO VERTICAL RETURN SHAFT ON EACH FLOOR LEVEL. SMOKE DETECTORS SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF NFPA 72 AND THE IMC. WHERE AIR VELOCITY IS LESS THAN 300 FPM PROVIDE A SPOT TYPE DETECTOR MOUNTED IN THE CENTER OF RETURN AIR FLOW AT THE CONNECTION TO THE VERTICAL RETURN SHAFT. WHERE AIR VELOCITY EXCEEDS 300 FPM PROVIDE A SAMPLING TUBE TYPE SMOKE DETECTOR WITH SAMPLING TUBE INSTALLED ACROSS RETURN AIR OPENING OR WITHIN RETURN AIR DUCT. CONTRACTOR TO DETERMINE AIR FLOW UNDER NORMAL OPERATING CONDITIONS TO DETERMINE APPROPRIATE DETECTOR TYPE FOR USE.
- EXISTING ELECTRIC FIRE PUMP AND FIRE SPRINKLER RISERS (WET AND DRY PIPE) TO REMAIN. INSTALL ADDRESSABLE MODULES TO FACILITATE CONNECTION OF FIRE PUMP CONTROLLER (PUMP RUNNING, AC POWER FAIL AND AC POWER PHASE REVERSAL), FIRE PUMP CONTROL VALVES, FIRE SPRINKLER CONTROL VALVES, FIRE SPRINKLER FLOW SWITCHES AND AIR PRESSURE SWITCHES TO NEW FIRE ALARM SYSTEM.
- EXISTING FIRE SUPPRESSION SYSTEM (INCLUDING SMOKE DETECTION SYSTEM) PROTECTING COMPUTER ROOM TO REMAIN. INSTALL ADDRESSABLE MODULES AT FIRE SUPPRESSION SYSTEM CONTROL PANEL TO RELAY FIRE SUPPRESSION SYSTEM ALARM, SUPERVISORY AND TROUBLE SIGNALS TO BUILDING FACP.
- TYPE I COOKING HOOD WITH EXISTING WET-CHEMICAL FIRE SUPPRESSION SYSTEM TO REMAIN. INSTALL ADDRESSABLE MODULE TO FACILITATE CONNECTION OF ACTIVATION RELAY FOR FIRE SUPPRESSION SYSTEM TO NEW FIRE ALARM SYSTEM. PROGRAM ACTIVATION OF FIRE SUPPRESSION SYSTEM AS A FIRE ALARM SIGNAL.



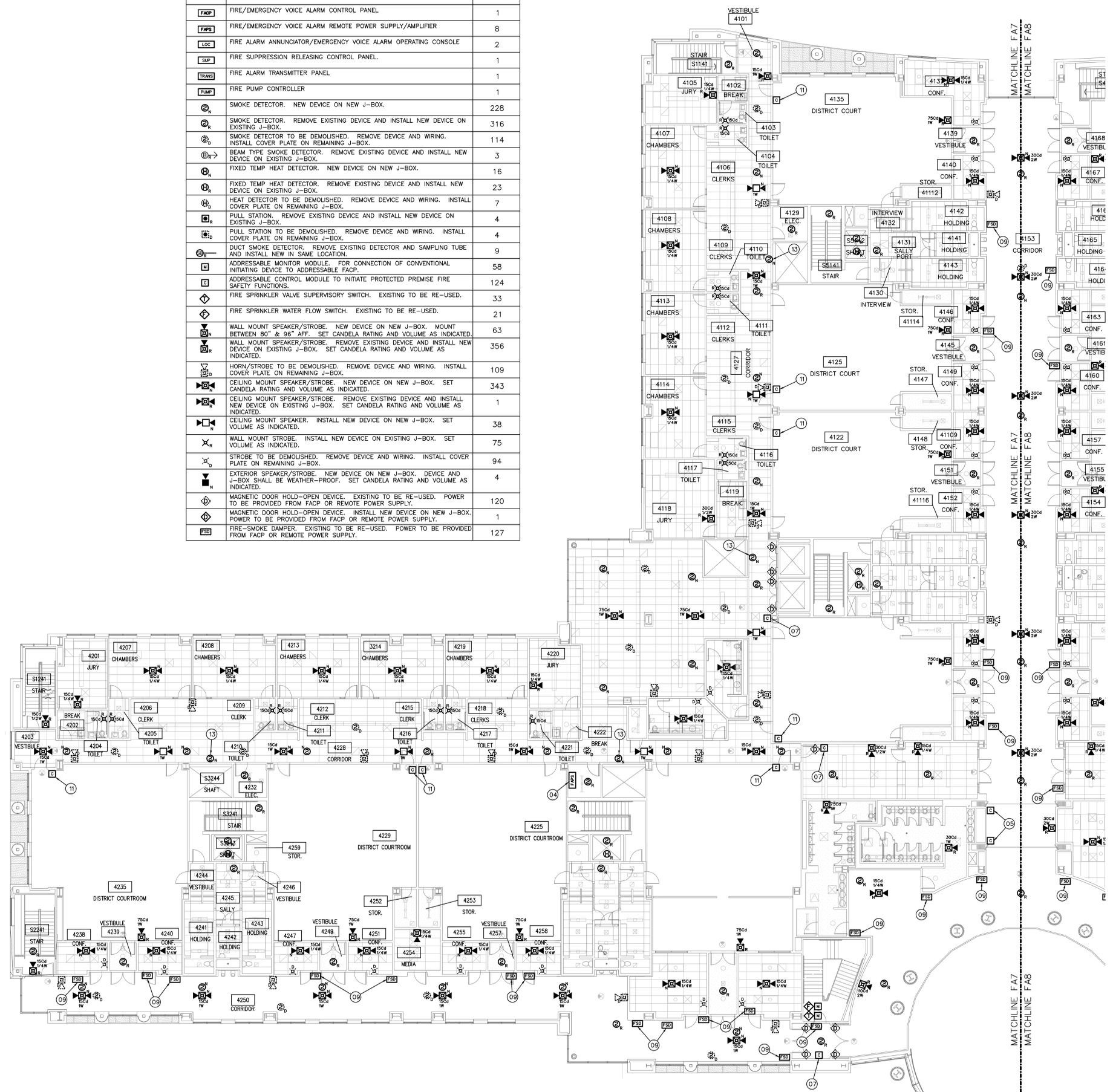
REVISIONS:

DRAWING DATE: 11/8/13
 REVISION NUMBER: XX/XX/XX
 JOB NUMBER: 104968
 DWG ISSUE: REVIEW
 DRAWN BY: BBH
 CHECKED BY: GTJ

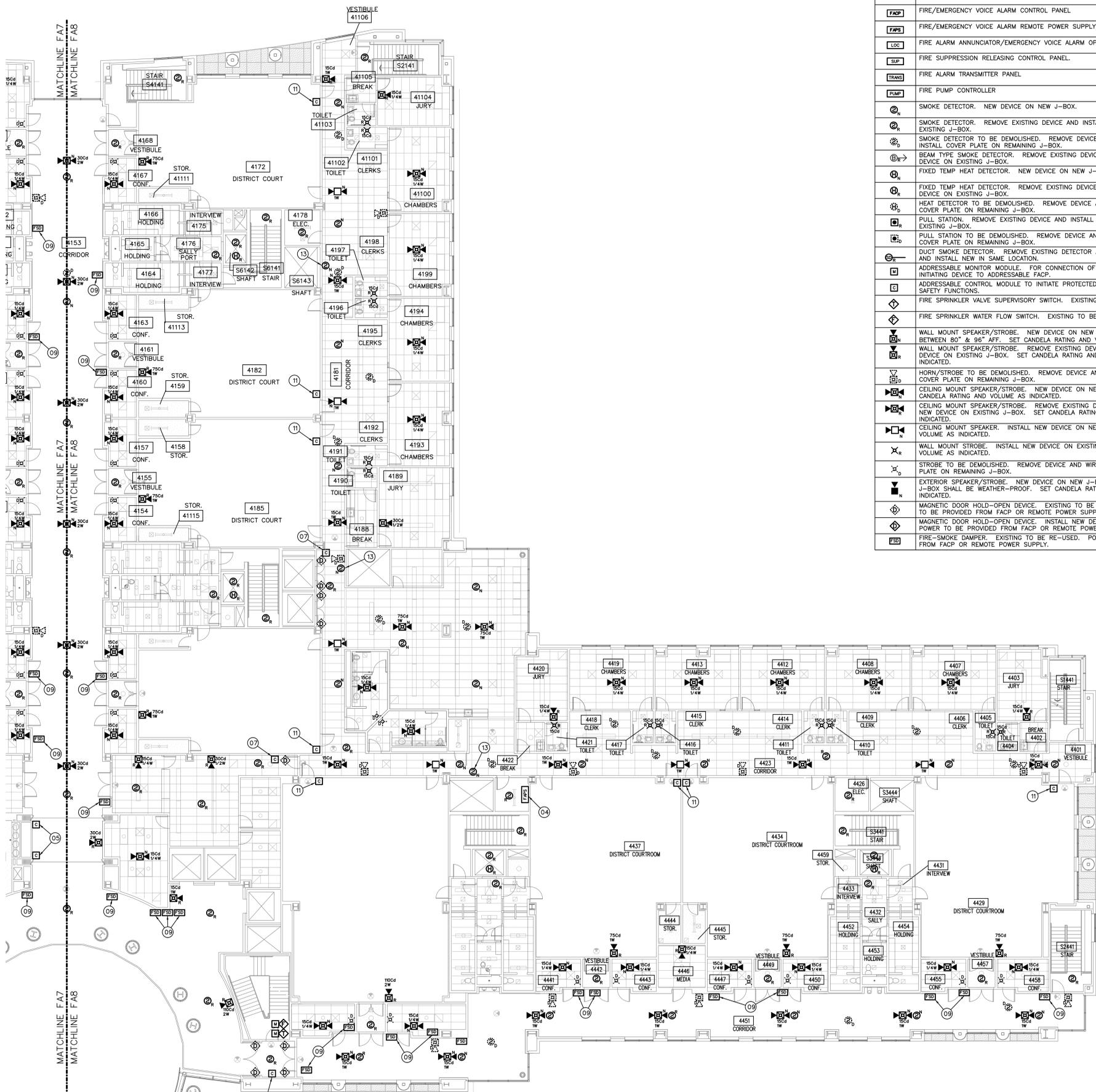
ADMINISTRATIVE OFFICE OF THE COURTS
 MATHESON COURTHOUSE
 450 SOUTH STATE STREET
 SALT LAKE CITY, UTAH

FIRE ALARM SYSTEM REPLACEMENT
 DFCM PROJECT #13244150

4TH LEVEL SOUTH
FA7



FIRE ALARM SYSTEM REPLACEMENT - 4TH LEVEL SOUTH
 SCALE: 3/32" = 1'-0"



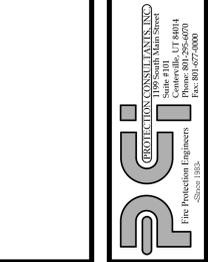
FIRE ALARM EQUIPMENT LEGEND

(QUANTITIES ARE ESTIMATES ONLY. CONTRACTOR TO VERIFY ACTUAL QUANTITIES FOR BID PURPOSES)

DEVICE	DESCRIPTION	EST. QTY.
FACP	FIRE/EMERGENCY VOICE ALARM CONTROL PANEL	1
FAPS	FIRE/EMERGENCY VOICE ALARM REMOTE POWER SUPPLY/AMPLIFIER	8
LOC	FIRE ALARM ANNUNCIATOR/EMERGENCY VOICE ALARM OPERATING CONSOLE	2
SUP	FIRE SUPPRESSION RELEASING CONTROL PANEL	1
TRAMP	FIRE ALARM TRANSMITTER PANEL	1
FCMP	FIRE PUMP CONTROLLER	1
SD	SMOKE DETECTOR. NEW DEVICE ON NEW J-BOX.	228
SDR	SMOKE DETECTOR. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX.	316
SDR-D	SMOKE DETECTOR TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	114
SDW	BEAM TYPE SMOKE DETECTOR. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX.	3
HTD	FIXED TEMP HEAT DETECTOR. NEW DEVICE ON NEW J-BOX.	16
HTDR	FIXED TEMP HEAT DETECTOR. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX.	23
HTDR-D	HEAT DETECTOR TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	7
PS	PULL STATION. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX.	4
PS-D	PULL STATION TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	4
SDS	DUCT SMOKE DETECTOR. REMOVE EXISTING DETECTOR AND SAMPLING TUBE AND INSTALL NEW IN SAME LOCATION.	9
AMM	ADDRESSABLE MONITOR MODULE. FOR CONNECTION OF CONVENTIONAL INITIATING DEVICE TO ADDRESSABLE FACP.	58
ACM	ADDRESSABLE CONTROL MODULE TO INITIATE PROTECTED PREMISE FIRE SAFETY FUNCTIONS.	124
SV	FIRE SPRINKLER VALVE SUPERVISORY SWITCH. EXISTING TO BE RE-USED.	33
SW	FIRE SPRINKLER WATER FLOW SWITCH. EXISTING TO BE RE-USED.	21
WS	WALL MOUNT SPEAKER/STROBE. NEW DEVICE ON NEW J-BOX. MOUNT BETWEEN 80" & 96" AFT. SET CANDELA RATING AND VOLUME AS INDICATED.	63
WSR	WALL MOUNT SPEAKER/STROBE. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX. SET CANDELA RATING AND VOLUME AS INDICATED.	356
HS	HORN/STROBE TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	109
CS	CEILING MOUNT SPEAKER/STROBE. NEW DEVICE ON NEW J-BOX. SET CANDELA RATING AND VOLUME AS INDICATED.	343
CSR	CEILING MOUNT SPEAKER/STROBE. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX. SET CANDELA RATING AND VOLUME AS INDICATED.	1
CSN	CEILING MOUNT SPEAKER. INSTALL NEW DEVICE ON NEW J-BOX. SET VOLUME AS INDICATED.	38
WSR	WALL MOUNT STROBE. INSTALL NEW DEVICE ON EXISTING J-BOX. SET VOLUME AS INDICATED.	75
SR-D	STROBE TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	94
ES	EXTERIOR SPEAKER/STROBE. NEW DEVICE ON NEW J-BOX. DEVICE AND J-BOX SHALL BE WEATHER-PROOF. SET CANDELA RATING AND VOLUME AS INDICATED.	4
MDO	MAGNETIC DOOR HOLD-OPEN DEVICE. EXISTING TO BE RE-USED. POWER TO BE PROVIDED FROM FACP OR REMOTE POWER SUPPLY.	120
MDOR	MAGNETIC DOOR HOLD-OPEN DEVICE. INSTALL NEW DEVICE ON NEW J-BOX. POWER TO BE PROVIDED FROM FACP OR REMOTE POWER SUPPLY.	1
PSD	FIRE-SMOKE DAMPER. EXISTING TO BE RE-USED. POWER TO BE PROVIDED FROM FACP OR REMOTE POWER SUPPLY.	127

FIRE ALARM SYSTEM KEY NOTES

- REPLACE EXISTING FIRE/EMERGENCY VOICE ALARM CONTROL PANEL WITH NEW, ADDRESSABLE FIRE ALARM CONTROL PANEL WITH COMPLETE EMERGENCY VOICE ALARM CAPABILITIES. PROVIDE ALL REQUIRED CONTROL PANELS, AUDIO SYSTEM INTERFACES, MODULES, CABINETS, POWER SUPPLIES, ETC. TO PROVIDE A COMPLETE AND FUNCTIONAL FIRE/EMERGENCY VOICE ALARM SYSTEM COMPLIANT WITH ALL APPLICABLE PROVISIONS OF NFPA 72 AND THE INTERNATIONAL BUILDING/FIRE CODES. CONTROL PANEL SHALL HAVE SUFFICIENT CAPACITY TO MONITOR ALL INITIATING DEVICES SHOWN ON PLANS WITH AN ADDITIONAL SPARE CAPACITY OF 20% FOR FUTURE EXPANSION. EXISTING 120 VAC POWER CIRCUIT MAY BE RE-USED TO PROVIDE NEW BATTERIES FOR SECONDARY POWER SUPPLY. EXISTING SLC, INITIATING DEVICE AND NOTIFICATION APPLIANCE (AUDIBLE AND VISUAL) CIRCUITS MAY BE RECONFIGURED AND RE-USED IF COMPLETELY FUNCTIONAL AND COMPATIBLE WITH NEW FACP/DEVICES. PROVIDE DIGITAL ALARM COMMUNICATOR/TRANSMITTER (EXISTING MAY BE RE-USED) AND CONNECT TO EXISTING PRIMARY AND SECONDARY PHONE LINES TO RELAY FIRE ALARM AND SUPERVISORY SIGNALS TO OFF-PREMISE MONITORING COMPANY SELECTED BY OWNER.
- REPLACE EXISTING AUDIO AMPLIFIERS/TRANSPONDERS (AT FACP AND REMOTE LOCATIONS, WHERE PRESENT) WITH NEW EQUIPMENT LISTED COMPATIBLE AND INTERLOCKED WITH NEW FACP. AMPLIFIERS AND CIRCUIT WIRING SHALL HAVE SUFFICIENT CAPACITY TO PROVIDE A MINIMUM OF THREE PAGING ZONES (NORTH, SOUTH AND WEST) PER BUILDING LEVEL. AUDIO EQUIPMENT SHALL HAVE THE CAPABILITY OF STORING A MINIMUM OF EIGHT PRE-RECORDED MESSAGES THAT CAN BE BROADCAST TO THE ENTIRE BUILDING OR TO ANY INDIVIDUAL PAGING ZONE OR GROUP OF PAGING ZONES USING PROGRAMMABLE BUTTONS INTEGRATED INTO THE CONTROL EQUIPMENT. PROVIDE A MICROPHONE TO FACILITATE BROADCAST OF MANUAL MESSAGES TO THE ENTIRE BUILDING OR TO ANY INDIVIDUAL PAGING ZONE OR GROUP OF PAGING ZONES. AUDIO EQUIPMENT AND CIRCUITS SHALL HAVE SUFFICIENT CAPACITY TO PROVIDE POWER TO ALL SPEAKERS SHOWN ON PLANS WITH AN ADDITIONAL RESERVE CAPACITY OF 50% FOR FUTURE EXPANSION AND/OR VOLUME ADJUSTMENTS.
- FIRE ALARM ANNUNCIATOR PANEL AND EMERGENCY VOICE ALARM OPERATING CONSOLE. FIRE ALARM ANNUNCIATOR SHALL BE LCD TYPE TO DISPLAY STATUS OF FIRE ALARM SYSTEM WITH BUTTONS TO ALLOW FULL SYSTEM CONTROL (ACKNOWLEDGE, SILENCE, RESET, ETC.). EMERGENCY VOICE ALARM OPERATING CONSOLE SHALL HAVE BUTTONS FOR ACTIVATION OF PRE-RECORDED MESSAGES AND A BUILT-IN MICROPHONE FOR MANUAL MESSAGES. CONFIGURE OPERATING CONSOLE TO ALLOW VOICE MESSAGES TO BE BROADCAST TO INDIVIDUAL BUILDING ZONES OR TO ENTIRE BUILDING.
- DEMOLISH EXISTING NOTIFICATION APPLIANCE POWER SUPPLY AND REPLACE WITH NEW REMOTE POWER SUPPLY TO PROVIDE 24 VDC POWER TO NOTIFICATION APPLIANCES (STROBES) THROUGHOUT BUILDING. NUMBER AND LOCATION OF REMOTE POWER SUPPLIES SHALL BE SUFFICIENT TO PROVIDE A SEPARATE NOTIFICATION ZONE FOR EACH FLOOR LEVEL OF BUILDING. REQUIRED CAPACITY AND NUMBER OF POWER SUPPLIES TO BE DETERMINED BY CONTRACTOR. SURFACE MOUNT TELECOMMUNICATIONS ROOMS. CONNECT POWER SUPPLIES TO BUILDING FACP TO PROVIDE ACTIVATION OF NOTIFICATION APPLIANCES AND TROUBLE SUPERVISION. EXISTING 120 VAC POWER CIRCUITS MAY BE RE-USED BUT PROVIDE NEW BATTERIES FOR SECONDARY POWER SUPPLY. CONFIGURE POWER SUPPLIES TO SYNCHRONIZE VISUAL SIGNALS OF ALL NOTIFICATION APPLIANCES LOCATED WITHIN A SINGLE FIELD OF VIEW.
- EXISTING ROLLING FIRE DOOR (WON-DOOR) TO REMAIN. INSTALL ADDRESSABLE RELAY INTERFACED WITH DOOR CONTROLLER TO CLOSE FIRE DOOR UPON OPERATION OF SMOKE DETECTORS (SPOT TYPE OR PROJECTED BEAM TYPE) ON EITHER SIDE OF FIRE DOOR. TEST AUTOMATIC OPERATION OF FIRE DOOR AND ADJUST AS REQUIRED TO CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 80.
- EXISTING ROLL DOWN FIRE SHUTTER TO REMAIN. INSTALL ADDRESSABLE RELAY INTERFACED WITH FIRE SHUTTER CONTROLLER TO CLOSE SHUTTER UPON OPERATION OF SMOKE DETECTORS ON EITHER SIDE OF SHUTTER. TEST AUTOMATIC OPERATION OF FIRE SHUTTER AND ADJUST AS REQUIRED TO CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 80.
- EXISTING FIRE DOOR WITH NEW OR EXISTING (SEE LEGEND) MAGNETIC DOOR HOLD-OPEN DEVICE TO REMAIN. INSTALL ADDRESSABLE RELAY TO RELEASE MAGNETIC DOOR HOLDER UPON ACTIVATION OF ANY FIRE ALARM INITIATING DEVICE IN BUILDING. CONNECT POWER SUPPLY TO MAGNETIC HOLD-OPEN DEVICES (EXISTING MAY BE RE-USED IF PRESENT) THROUGH NORMALLY CLOSED CONTACTS OF CONTROL RELAY.
- EXISTING ELEVATOR CONTROL EQUIPMENT TO REMAIN. INSTALL ADDRESSABLE RELAYS TO INTERFACE EXISTING ELEVATOR CONTROLLERS TO NEW FIRE ALARM SYSTEM TO AUTOMATICALLY INITIATE THE FOLLOWING EMERGENCY FUNCTIONS:
 - PRIMARY RECALL
 - SECONDARY RECALL
 - CAB LIGHT ILLUMINATION
 - ELEVATOR POWER SHUNT/TRIP
 EMERGENCY FUNCTIONS SHALL CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 72 AND ASME A17.1.
- EXISTING FIRE/SMOKE DAMPERS THROUGHOUT BUILDING TO REMAIN. REPLACE ALL EXISTING SMOKE DETECTORS PROVIDED TO CONTROL FIRE/SMOKE DAMPERS AND INSTALL NEW DETECTORS WHERE REQUIRED BY THE IBC OR IMC. NEW DETECTORS SHALL BE LISTED AND COMPATIBLE WITH THE FIRE ALARM SYSTEM. INSTALL PROGRAMMABLE RELAY TO CLOSE DAMPERS UPON ACTUATION OF DETECTORS OR ANY OTHER FIRE ALARM INITIATING DEVICE IN THE BUILDING. NUMBER AND LOCATION OF DAMPERS, DETECTORS AND CONTROL RELAYS TO BE FIELD VERIFIED BY CONTRACTOR.
- EXISTING ATRIUM SMOKE EVACUATION SYSTEM TO REMAIN. INSTALL ADDRESSABLE RELAYS TO ACTIVATE SMOKE EVACUATION SYSTEM. PROVIDE RELAYS TO OPERATE ALL INTAKE/EXHAUST LOUVERS AND EXHAUST/MAKE-UP AIR FANS THAT ARE REQUIRED FOR PROPER OPERATION OF THE SMOKE EVACUATION SYSTEM. PROGRAM RELAYS TO ACTIVATE THE SMOKE EVACUATION SYSTEM UPON OPERATION OF ANY OF THE FOLLOWING INITIATING DEVICES:
 - WATER FLOW SWITCH FOR ATRIUM FIRE SPRINKLER ZONE
 - PROJECTED BEAM SMOKE DETECTORS AT TOP OF ATRIUM
 - SPOT TYPE SMOKE DETECTORS AROUND ATRIUM PERIMETER
 COORDINATE SMOKE EVACUATION SYSTEM INTERFACE WITH OWNER AND MAINTENANCE CONTRACTOR FOR BUILDING CONTROLS. CONTRACTOR TO INCLUDE COST OF ALL REQUIRED SERVICE CALLS BY BUILDING CONTROLS MAINTENANCE CONTRACTOR IN BID.
- EXISTING SECURED EGRESS DOOR TO REMAIN. INSTALL ADDRESSABLE RELAY TO RELEASE SECURED DOOR UPON ACTIVATION OF ANY FIRE ALARM INITIATING DEVICE IN THE BUILDING. CONNECT POWER TO DOOR SECURITY HARDWARE (MAGNETIC PLATE OR ELECTRIC STRIKE) THROUGH NORMALLY CLOSED CONTACTS OF RELAY AND PROGRAM RELAY CONTACTS TO OPEN UPON ACTIVATION OF FIRE ALARM SYSTEM INTERRUPTING POWER SUPPLY TO SECURITY HARDWARE AND RELEASING DOOR. RELAY SHALL NOT RESET UNTIL THE FIRE ALARM SYSTEM IS RESTORED TO NORMAL CONDITION.
- INSTALL ADDRESSABLE RELAYS TO PROVIDE SHUTDOWN OF ALL AIR MOVEMENT SYSTEMS WITH A CAPACITY IN EXCESS OF 2,000 CFM. INSTALL A SEPARATE RELAY FOR EACH AIR MOVEMENT SYSTEM AND CONNECT RELAY OUTPUTS TO AIR MOVEMENT SYSTEM CONTROLS. EXISTING NEW CONTROL CIRCUITS MAY BE RE-USED IF COMPLETELY FUNCTIONAL. PROGRAM RELAYS TO SHUT DOWN AIR MOVEMENT SYSTEMS UPON ACTIVATION OF ANY DUCT MOUNTED SMOKE DETECTOR OR OTHER FIRE ALARM INITIATING DEVICE IN BUILDING. COORDINATE AIR MOVEMENT SYSTEM CONTROLS INTERFACE WITH OWNER AND MAINTENANCE CONTRACTOR FOR BUILDING CONTROLS. CONTRACTOR TO INCLUDE COST OF ALL REQUIRED SERVICE CALLS BY BUILDING CONTROLS MAINTENANCE CONTRACTOR IN BID.
- INSTALL SMOKE DETECTOR IN ACCORDANCE WITH IMC 606.2.3 AT CONNECTION OF RETURN AIR DUCT/PLENUM TO VERTICAL RETURN SHAFT ON EACH FLOOR LEVEL. SMOKE DETECTORS SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF NFPA 72 AND THE IMC. WHERE AIR VELOCITY IS LESS THAN 300 FPM PROVIDE A SPOT TYPE DETECTOR MOUNTED IN THE CENTER OF RETURN AIR FLOW AT THE CONNECTION TO THE VERTICAL RETURN SHAFT. WHERE AIR VELOCITY EXCEEDS 300 FPM PROVIDE A SAMPLING TUBE TYPE SMOKE DETECTOR WITH SAMPLING TUBE INSTALLED ACROSS RETURN AIR OPENING OR WITHIN RETURN AIR DUCT. CONTRACTOR TO DETERMINE AIR FLOW UNDER NORMAL OPERATING CONDITIONS TO DETERMINE APPROPRIATE DETECTOR TYPE FOR USE.
- EXISTING ELECTRIC FIRE PUMP AND FIRE SPRINKLER RISERS (WET AND DRY PIPE) TO REMAIN. INSTALL ADDRESSABLE MODULES TO FACILITATE CONNECTION OF FIRE PUMP CONTROLLER (PUMP RUNNING, AC POWER FAIL AND AC POWER PHASE REVERSAL), FIRE PUMP CONTROL VALVES, FIRE SPRINKLER CONTROL VALVES, FIRE SPRINKLER FLOW SWITCHES AND AIR PRESSURE SWITCHES TO NEW FIRE ALARM SYSTEM.
- EXISTING FIRE SUPPRESSION SYSTEM (INCLUDING SMOKE DETECTION SYSTEM) PROTECTING COMPUTER ROOM TO REMAIN. INSTALL ADDRESSABLE MODULES AT FIRE SUPPRESSION SYSTEM CONTROL PANEL TO RELAY FIRE SUPPRESSION SYSTEM ALARM, SUPERVISORY AND TROUBLE SIGNALS TO BUILDING FACP.
- TYPE I COOKING HOOD WITH EXISTING WET-CHEMICAL FIRE SUPPRESSION SYSTEM TO REMAIN. INSTALL ADDRESSABLE MODULE TO FACILITATE CONNECTION OF ACTIVATION RELAY FOR FIRE SUPPRESSION SYSTEM TO NEW FIRE ALARM SYSTEM. PROGRAM ACTIVATION OF FIRE SUPPRESSION SYSTEM AS A FIRE ALARM SIGNAL.



REVISIONS:

DRAWING DATE: 11/8/13
 REVISION NUMBER: XX/XX/XX
 JOB NUMBER: 104968
 DWG ISSUE: REVIEW
 DRAWN BY: BBH
 CHECKED BY: GTJ

ADMINISTRATIVE OFFICE OF THE COURTS
 MATHESON COURTHOUSE
 450 SOUTH STATE STREET
 SALT LAKE CITY, UTAH

FIRE ALARM SYSTEM REPLACEMENT
 DFCM PROJECT #13244150

FIRE ALARM SYSTEM REPLACEMENT - 4TH LEVEL NORTH
 SCALE: 3/32" = 1'-0"

4TH LEVEL NORTH
 FA8

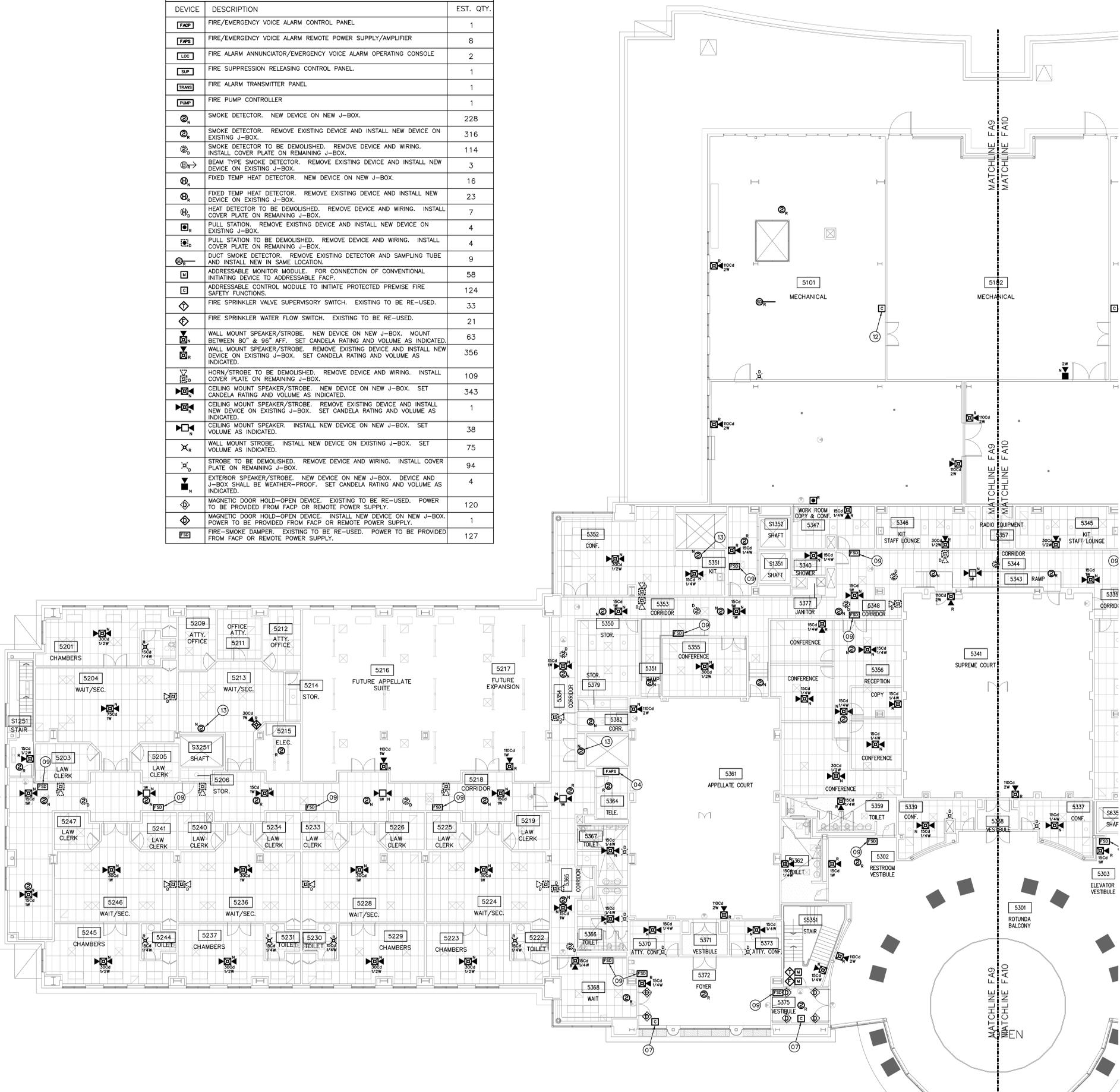
FIRE ALARM EQUIPMENT LEGEND

(QUANTITIES ARE ESTIMATES ONLY. CONTRACTOR TO VERIFY ACTUAL QUANTITIES FOR BID PURPOSES)

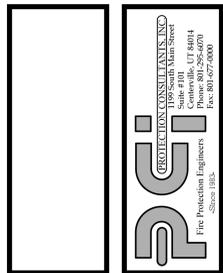
DEVICE	DESCRIPTION	EST. QTY.
FACP	FIRE/EMERGENCY VOICE ALARM CONTROL PANEL	1
FAPS	FIRE/EMERGENCY VOICE ALARM REMOTE POWER SUPPLY/AMPLIFIER	8
LOC	FIRE ALARM ANNUNCIATOR/EMERGENCY VOICE ALARM OPERATING CONSOLE	2
SUP	FIRE SUPPRESSION RELEASING CONTROL PANEL	1
TRANS	FIRE ALARM TRANSMITTER PANEL	1
FPC	FIRE PUMP CONTROLLER	1
SD	SMOKE DETECTOR. NEW DEVICE ON NEW J-BOX.	228
SDR	SMOKE DETECTOR. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX.	316
SDD	SMOKE DETECTOR TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	114
SDR>	BEAM TYPE SMOKE DETECTOR. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX.	3
SDN	FIXED TEMP HEAT DETECTOR. NEW DEVICE ON NEW J-BOX.	16
SDNR	FIXED TEMP HEAT DETECTOR. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX.	23
SDND	HEAT DETECTOR TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	7
SDR	PULL STATION. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX.	4
SDDR	PULL STATION TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	4
SDR	DUCT SMOKE DETECTOR. REMOVE EXISTING DETECTOR AND SAMPLING TUBE AND INSTALL NEW IN SAME LOCATION.	9
AM	ADDRESSABLE MONITOR MODULE. FOR CONNECTION OF CONVENTIONAL INITIATING DEVICE TO ADDRESSABLE FACP.	58
ACM	ADDRESSABLE CONTROL MODULE TO INITIATE PROTECTED PREMISE FIRE SAFETY FUNCTIONS.	124
FS	FIRE SPRINKLER VALVE SUPERVISORY SWITCH. EXISTING TO BE RE-USED.	33
FSW	FIRE SPRINKLER WATER FLOW SWITCH. EXISTING TO BE RE-USED.	21
WS	WALL MOUNT SPEAKER/STROBE. NEW DEVICE ON NEW J-BOX. MOUNT BETWEEN 80" & 84" AFF. SET CANDELA RATING AND VOLUME AS INDICATED.	63
WSR	WALL MOUNT SPEAKER/STROBE. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX. SET CANDELA RATING AND VOLUME AS INDICATED.	356
WSDD	HORN/STROBE TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	109
CS	CEILING MOUNT SPEAKER/STROBE. NEW DEVICE ON NEW J-BOX. SET CANDELA RATING AND VOLUME AS INDICATED.	343
CSR	CEILING MOUNT SPEAKER/STROBE. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX. SET CANDELA RATING AND VOLUME AS INDICATED.	1
CSN	CEILING MOUNT SPEAKER. INSTALL NEW DEVICE ON NEW J-BOX. SET VOLUME AS INDICATED.	38
WSN	WALL MOUNT STROBE. INSTALL NEW DEVICE ON EXISTING J-BOX. SET VOLUME AS INDICATED.	75
SDN	STROBE TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	94
ES	EXTERIOR SPEAKER/STROBE. NEW DEVICE ON NEW J-BOX. DEVICE AND J-BOX SHALL BE WEATHER-PROOF. SET CANDELA RATING AND VOLUME AS INDICATED.	4
MDO	MAGNETIC DOOR HOLD-OPEN DEVICE. EXISTING TO BE RE-USED. POWER TO BE PROVIDED FROM FACP OR REMOTE POWER SUPPLY.	120
MDN	MAGNETIC DOOR HOLD-OPEN DEVICE. INSTALL NEW DEVICE ON NEW J-BOX. POWER TO BE PROVIDED FROM FACP OR REMOTE POWER SUPPLY.	1
FS	FIRE-SMOKE DAMPER. EXISTING TO BE RE-USED. POWER TO BE PROVIDED FROM FACP OR REMOTE POWER SUPPLY.	127

FIRE ALARM SYSTEM KEY NOTES

- REPLACE EXISTING FIRE/EMERGENCY VOICE ALARM CONTROL PANEL WITH NEW, ADDRESSABLE FIRE ALARM CONTROL PANEL WITH COMPLETE EMERGENCY VOICE ALARM CAPABILITIES. PROVIDE ALL REQUIRED CONTROL PANELS, AUDIO SYSTEM INTERFACES, MODULES, CABINETS, POWER SUPPLIES, ETC. TO PROVIDE A COMPLETE AND FUNCTIONAL FIRE/EMERGENCY VOICE ALARM SYSTEM COMPLIANT WITH ALL APPLICABLE PROVISIONS OF NFPA 72 AND THE INTERNATIONAL BUILDING/FIRE CODES. CONTROL PANEL SHALL HAVE SUFFICIENT CAPACITY TO MONITOR ALL INITIATING DEVICES SHOWN ON PLANS WITH AN ADDITIONAL SPARE CAPACITY OF 20% FOR FUTURE EXPANSION. EXISTING 120 VAC POWER CIRCUIT MAY BE RE-USED BUT PROVIDE NEW BATTERIES FOR SECONDARY POWER SUPPLY. EXISTING SLC, INITIATING DEVICE AND NOTIFICATION APPLIANCE (AUDIBLE AND VISUAL) CIRCUITS MAY BE RE-CONFIGURED AND RE-USED IF COMPLETELY FUNCTIONAL AND COMPATIBLE WITH NEW FACP/DEVICES. PROVIDE DIGITAL ALARM COMMUNICATOR/TRANSMITTER (EXISTING MAY BE RE-USED) AND CONNECT TO EXISTING PRIMARY AND SECONDARY PHONE LINES TO RELAY FIRE ALARM AND SUPERVISORY SIGNALS TO OFFPREMISE MONITORING COMPANY SELECTED BY OWNER.
- REPLACE EXISTING AUDIO AMPLIFIERS/TRANSPONDERS (AT FACP AND REMOTE LOCATIONS, WHERE PRESENT) WITH NEW EQUIPMENT LISTED COMPATIBLE AND INTERLOCKED WITH NEW FACP. AMPLIFIERS AND CIRCUIT WIRING SHALL HAVE SUFFICIENT CAPACITY TO PROVIDE A MINIMUM OF THREE PAGING ZONES (NORTH, SOUTH AND WEST) PER BUILDING LEVEL. AUDIO EQUIPMENT SHALL HAVE THE CAPABILITY OF STORING A MINIMUM OF EIGHT PRE-RECORDED MESSAGES THAT CAN BE BROADCAST TO THE ENTIRE BUILDING OR TO ANY INDIVIDUAL PAGING ZONE OR GROUP OF PAGING ZONES USING PROGRAMMABLE BUTTONS INTEGRATED INTO THE CONTROL EQUIPMENT. PROVIDE A MICROPHONE TO FACILITATE BROADCAST OF MANUAL MESSAGES TO THE ENTIRE BUILDING OR TO ANY INDIVIDUAL PAGING ZONE OR GROUP OF PAGING ZONES. AUDIO EQUIPMENT AND CIRCUITS SHALL HAVE SUFFICIENT CAPACITY TO PROVIDE POWER TO ALL SPEAKERS SHOWN ON PLANS WITH AN ADDITIONAL RESERVE CAPACITY OF 50% FOR FUTURE EXPANSION AND/OR VOLUME ADJUSTMENTS.
- FIRE ALARM ANNUNCIATOR PANEL AND EMERGENCY VOICE ALARM OPERATING CONSOLE. FIRE ALARM ANNUNCIATOR SHALL BE LOG TYPE TO DISPLAY STATUS OF FIRE ALARM SYSTEM WITH BUTTONS TO ALLOW FULL SYSTEM CONTROL (ACKNOWLEDGE, SILENCE, RESET, ETC.). EMERGENCY VOICE ALARM OPERATING CONSOLE SHALL HAVE BUTTONS FOR ACTIVATION OF PRE-RECORDED MESSAGES AND A BUILT-IN MICROPHONE FOR MANUAL MESSAGES. CONFIGURE OPERATING CONSOLE TO ALLOW VOICE MESSAGES TO BE BROADCAST TO INDIVIDUAL BUILDING ZONES OR TO ENTIRE BUILDING.
- DEMOLISH EXISTING NOTIFICATION APPLIANCE POWER SUPPLY AND REPLACE WITH NEW REMOTE POWER SUPPLY TO PROVIDE 24 HOUR POWER TO NOTIFICATION APPLIANCES (STROBES) THROUGHOUT BUILDING. NUMBER AND LOCATION OF REMOTE POWER SUPPLIES SHALL BE SUFFICIENT TO PROVIDE A SEPARATE NOTIFICATION ZONE FOR EACH FLOOR LEVEL OF BUILDING. REQUIRED CAPACITY AND NUMBER OF POWER SUPPLIES TO BE DETERMINED BY CONTRACTOR. SURFACE MOUNTED TELEPHONE WALLS OF TELEPHONE ROOMS. CONNECT POWER SUPPLY TO BUILDING FACP TO PROVIDE ACTIVATION OF NOTIFICATION APPLIANCES AND TROUBLE SUPERVISION. EXISTING 120 VAC POWER CIRCUITS MAY BE RE-USED BUT PROVIDE NEW BATTERIES FOR SECONDARY POWER SUPPLY. CONFIGURE POWER SUPPLIES TO SYNCHRONIZE VISUAL SIGNALS OF ALL NOTIFICATION APPLIANCES LOCATED WITHIN A SINGLE FIELD OF VIEW.
- EXISTING ROLLING FIRE DOOR (WON-DOOR) TO REMAIN. INSTALL ADDRESSABLE RELAY INTERFACED WITH DOOR CONTROLLER TO CLOSE FIRE DOOR UPON OPERATION OF SMOKE DETECTORS (SPOT TYPE OR PROJECTED BEAM TYPE) ON EITHER SIDE OF FIRE DOOR. TEST AUTOMATIC OPERATION OF FIRE DOOR AND ADJUST AS REQUIRED TO CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 80.
- EXISTING ROLL DOWN FIRE SHUTTER TO REMAIN. INSTALL ADDRESSABLE RELAY INTERFACED WITH FIRE SHUTTER CONTROLLER TO CLOSE SHUTTER UPON OPERATION OF SMOKE DETECTORS ON EITHER SIDE OF SHUTTER. TEST AUTOMATIC OPERATION OF FIRE SHUTTER AND ADJUST AS REQUIRED TO CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 80.
- EXISTING FIRE DOOR WITH NEW OR EXISTING (SEE LEGEND) MAGNETIC DOOR HOLD-OPEN DEVICE TO REMAIN. INSTALL ADDRESSABLE RELAY TO RELEASE MAGNETIC DOOR HOLDER UPON ACTIVATION OF ANY FIRE ALARM INITIATING DEVICE IN BUILDING. CONNECT POWER SUPPLY TO MAGNETIC HOLD-OPEN DEVICES (EXISTING MAY BE RE-USED IF PRESENT) THROUGH NORMALLY CLOSED CONTACTS OF CONTROL RELAY.
- EXISTING ELEVATOR CONTROL EQUIPMENT TO REMAIN. INSTALL ADDRESSABLE RELAYS TO INTERFACE EXISTING ELEVATOR CONTROLLERS TO NEW FIRE ALARM SYSTEM TO AUTOMATICALLY INITIATE THE FOLLOWING EMERGENCY FUNCTIONS:
 - PRIMARY RECALL
 - SECONDARY RECALL
 - CAB LIGHT ILLUMINATION
 - ELEVATOR POWER SHUNT/TRIP
 EMERGENCY FUNCTIONS SHALL CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 72 AND ASME A17.1.
- EXISTING FIRE/SMOKE DAMPERS THROUGHOUT BUILDING TO REMAIN. REPLACE ALL EXISTING SMOKE DETECTORS PROVIDED TO CONTROL FIRE/SMOKE DAMPERS AND INSTALL NEW DETECTORS WHERE REQUIRED BY THE IBC OR IMC. NEW DETECTORS SHALL BE LISTED COMPATIBLE WITH THE FIRE ALARM SYSTEM. INSTALL PROGRAMMABLE RELAY TO CLOSE DAMPERS UPON ACTUATION OF DETECTORS OR ANY OTHER FIRE ALARM INITIATING DEVICE IN THE BUILDING. NUMBER AND LOCATION OF DAMPERS, DETECTORS AND CONTROL RELAYS TO BE FIELD VERIFIED BY CONTRACTOR.
- EXISTING ATRIUM SMOKE EVACUATION SYSTEM TO REMAIN. INSTALL ADDRESSABLE RELAYS TO ACTIVATE SMOKE EVACUATION SYSTEM. PROVIDE RELAYS TO OPERATE ALL INTAKE/EXHAUST LOUVERS AND EXHAUST/MAKE-UP AIR FANS THAT ARE REQUIRED FOR PROPER OPERATION OF THE SMOKE EVACUATION SYSTEM. PROGRAM RELAYS TO ACTIVATE SMOKE EVACUATION SYSTEM UPON OPERATION OF ANY OF THE FOLLOWING INITIATING DEVICES:
 - WATER FLOW SWITCH FOR ATRIUM FIRE SPRINKLER ZONE
 - PROJECTED BEAM SMOKE DETECTORS AT TOP OF ATRIUM
 - SPOT TYPE SMOKE DETECTORS AROUND ATRIUM PERIMETER
 COORDINATE SMOKE EVACUATION SYSTEM INTERFACE WITH OWNER AND MAINTENANCE CONTRACTOR FOR BUILDING CONTROLS. CONTRACTOR TO INCLUDE COST OF ALL REQUIRED SERVICE CALLS BY BUILDING CONTROLS MAINTENANCE CONTRACTOR IN BID.
- EXISTING SECURED EGRESS DOOR TO REMAIN. INSTALL ADDRESSABLE RELAY TO RELEASE SECURED DOOR UPON ACTIVATION OF ANY FIRE ALARM INITIATING DEVICE IN THE BUILDING. CONNECT POWER TO DOOR SECURITY HARDWARE (MAGNETIC PLATE OR ELECTRIC STRIKE) THROUGH NORMALLY CLOSED CONTACTS OF RELAY AND PROGRAM RELAY CONTACTS TO OPEN UPON ACTIVATION OF FIRE ALARM SYSTEM INTERRUPTING POWER SUPPLY TO SECURITY HARDWARE AND RELEASING DOOR. RELAY SHALL NOT RESET UNTIL THE FIRE ALARM SYSTEM IS RESTORED TO NORMAL CONDITION.
- INSTALL ADDRESSABLE RELAYS TO PROVIDE SHUTDOWN OF ALL AIR MOVEMENT SYSTEMS WITH A CAPACITY IN EXCESS OF 2,000 CFM. INSTALL A SEPARATE RELAY FOR EACH AIR MOVEMENT SYSTEM AND CONNECT RELAY OUTPUTS TO AIR MOVEMENT SYSTEM CONTROLS. EXISTING NEW CONTROL CIRCUITS MAY BE RE-USED IF COMPLETELY FUNCTIONAL. PROGRAM RELAYS TO SHUT DOWN AIR MOVEMENT SYSTEMS UPON ACTIVATION OF ANY DUCT MOUNTED SMOKE DETECTOR OR OTHER FIRE ALARM INITIATING DEVICE IN BUILDING. COORDINATE AIR MOVEMENT SYSTEM CONTROLS INTERFACE WITH OWNER AND MAINTENANCE CONTRACTOR FOR BUILDING CONTROLS. CONTRACTOR TO INCLUDE COST OF ALL REQUIRED SERVICE CALLS BY BUILDING CONTROLS MAINTENANCE CONTRACTOR IN BID.
- INSTALL SMOKE DETECTOR IN ACCORDANCE WITH IMC 606.2.3 AT CONNECTION OF RETURN AIR DUCT/PLENUM TO VERTICAL RETURN SHAFT ON EACH FLOOR LEVEL. SMOKE DETECTORS SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF NFPA 72 AND THE IMC. WHERE AIR VELOCITY IS LESS THAN 300 FPM PROVIDE A SPOT TYPE DETECTOR MOUNTED IN THE CENTER OF RETURN AIR FLOW AT THE CONNECTION TO THE VERTICAL RETURN SHAFT, WHERE AIR VELOCITY EXCEEDS 300 FPM PROVIDE A SAMPLING TUBE TYPE SMOKE DETECTOR WITH SAMPLING TUBE INSTALLED ACROSS RETURN AIR OPENING OR WITHIN RETURN AIR DUCT. CONTRACTOR TO DETERMINE AIR FLOW UNDER NORMAL OPERATING CONDITIONS TO DETERMINE APPROPRIATE DETECTOR TYPE FOR USE.
- EXISTING ELECTRIC FIRE PUMP AND FIRE SPRINKLER RISERS (WET AND DRY PIPE) TO REMAIN. INSTALL ADDRESSABLE MODULES TO FACILITATE CONNECTION OF FIRE PUMP CONTROLLER (PUMP RUNNING, AC POWER FAIL AND AC POWER PHASE REVERSAL), FIRE PUMP CONTROL VALVES, FIRE SPRINKLER CONTROL VALVES, FIRE SPRINKLER FLOW SWITCHES AND AIR PRESSURE SWITCHES TO NEW FIRE ALARM SYSTEM.
- EXISTING FIRE SUPPRESSION SYSTEM (INCLUDING SMOKE DETECTION SYSTEM) PROTECTING COMPUTER ROOM TO REMAIN. INSTALL ADDRESSABLE MODULES AT FIRE SUPPRESSION SYSTEM CONTROL PANEL TO RELAY FIRE SUPPRESSION SYSTEM ALARM, SUPERVISORY AND TROUBLE SIGNALS TO BUILDING FACP.
- TYPE I COOKING HOOD WITH EXISTING WET-CHEMICAL FIRE SUPPRESSION SYSTEM TO REMAIN. INSTALL ADDRESSABLE MODULE TO FACILITATE CONNECTION OF ACTIVATION RELAY FOR FIRE SUPPRESSION SYSTEM TO NEW FIRE ALARM SYSTEM. PROGRAM ACTIVATION OF FIRE SUPPRESSION SYSTEM AS A FIRE ALARM SIGNAL.



FIRE ALARM SYSTEM REPLACEMENT - 5TH LEVEL SOUTH
 SCALE: 3/32" = 1'-0"



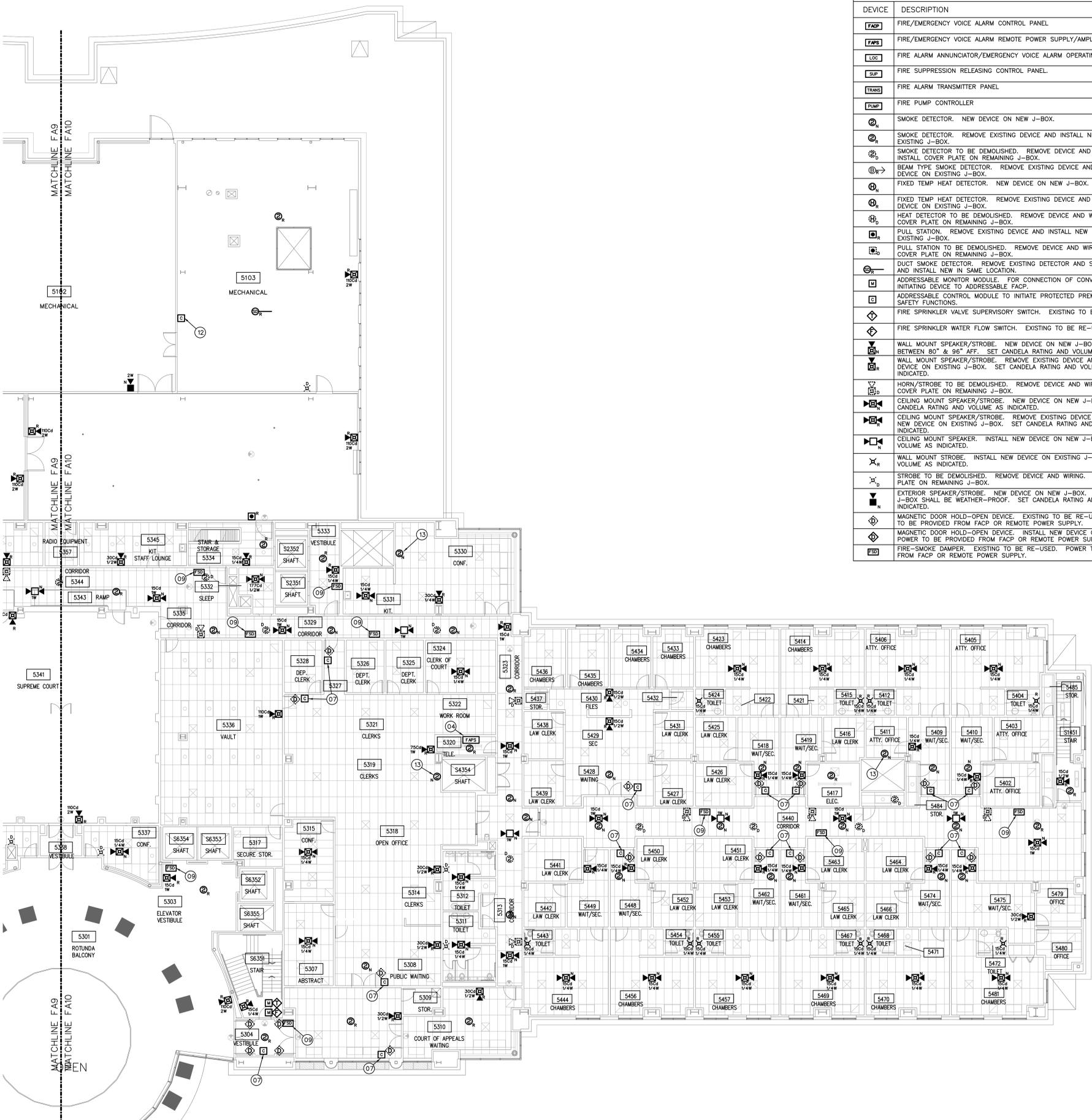
REVISIONS:

DRAWING DATE: 11/8/13
 REVISION NUMBER: XX/XX/XX
 JOB NUMBER: 104968
 DWG ISSUE: REVIEW
 DRAWN BY: BBH
 CHECKED BY: GTJ

ADMINISTRATIVE OFFICE OF THE COURTS
 MATHESON COURTHOUSE
 450 SOUTH STATE STREET
 SALT LAKE CITY, UTAH

FIRE ALARM SYSTEM REPLACEMENT
 DFCM PROJECT #13244150

5TH LEVEL SOUTH
FA9



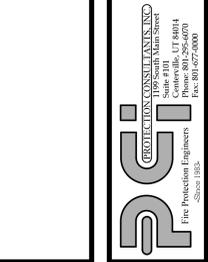
FIRE ALARM SYSTEM REPLACEMENT – 5TH LEVEL NORTH
 SCALE: 3/32" = 1'-0"

FIRE ALARM EQUIPMENT LEGEND
 (QUANTITIES ARE ESTIMATES ONLY. CONTRACTOR TO VERIFY ACTUAL QUANTITIES FOR BID PURPOSES)

DEVICE	DESCRIPTION	EST. QTY.
[FACP]	FIRE/EMERGENCY VOICE ALARM CONTROL PANEL	1
[FAPS]	FIRE/EMERGENCY VOICE ALARM REMOTE POWER SUPPLY/AMPLIFIER	8
[LOC]	FIRE ALARM ANNUNCIATOR/EMERGENCY VOICE ALARM OPERATING CONSOLE	2
[SUP]	FIRE SUPPRESSION RELEASING CONTROL PANEL	1
[TRANSP]	FIRE ALARM TRANSMITTER PANEL	1
[FCMP]	FIRE PUMP CONTROLLER	1
[SMD]	SMOKE DETECTOR. NEW DEVICE ON NEW J-BOX.	228
[SMD-R]	SMOKE DETECTOR. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX.	316
[SMD-D]	SMOKE DETECTOR TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	114
[SMD-N]	BEAM TYPE SMOKE DETECTOR. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX.	3
[HTD]	FIXED TEMP HEAT DETECTOR. NEW DEVICE ON NEW J-BOX.	16
[HTD-R]	FIXED TEMP HEAT DETECTOR. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX.	23
[HTD-D]	HEAT DETECTOR TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	7
[PUS]	PULL STATION. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX.	4
[PUS-D]	PULL STATION TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	4
[DSM]	DUCT SMOKE DETECTOR. REMOVE EXISTING DETECTOR AND SAMPLING TUBE AND INSTALL NEW IN SAME LOCATION.	9
[AMM]	ADDRESSABLE MONITOR MODULE. FOR CONNECTION OF CONVENTIONAL INITIATING DEVICE TO ADDRESSABLE FACP.	58
[ACM]	ADDRESSABLE CONTROL MODULE TO INITIATE PROTECTED PREMISE FIRE SAFETY FUNCTIONS.	124
[FSSV]	FIRE SPRINKLER VALVE SUPERVISORY SWITCH. EXISTING TO BE RE-USED.	33
[FWS]	FIRE SPRINKLER WATER FLOW SWITCH. EXISTING TO BE RE-USED.	21
[MS]	WALL MOUNT SPEAKER/STROBE. NEW DEVICE ON NEW J-BOX. MOUNT BETWEEN 80' & 96' AFT. SET CANDELA RATING AND VOLUME AS INDICATED.	63
[MS-R]	WALL MOUNT SPEAKER/STROBE. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX. SET CANDELA RATING AND VOLUME AS INDICATED.	356
[HSD]	HORN/STROBE TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	109
[CSM]	CEILING MOUNT SPEAKER/STROBE. NEW DEVICE ON NEW J-BOX. SET CANDELA RATING AND VOLUME AS INDICATED.	343
[CSM-R]	CEILING MOUNT SPEAKER/STROBE. REMOVE EXISTING DEVICE AND INSTALL NEW DEVICE ON EXISTING J-BOX. SET CANDELA RATING AND VOLUME AS INDICATED.	1
[CSM-N]	CEILING MOUNT SPEAKER. INSTALL NEW DEVICE ON NEW J-BOX. SET VOLUME AS INDICATED.	38
[MSR]	WALL MOUNT STROBE. INSTALL NEW DEVICE ON EXISTING J-BOX. SET VOLUME AS INDICATED.	75
[SD-D]	STROBE TO BE DEMOLISHED. REMOVE DEVICE AND WIRING. INSTALL COVER PLATE ON REMAINING J-BOX.	94
[ESM]	EXTERIOR SPEAKER/STROBE. NEW DEVICE ON NEW J-BOX. DEVICE AND J-BOX SHALL BE WEATHER-PROOF. SET CANDELA RATING AND VOLUME AS INDICATED.	4
[MDO]	MAGNETIC DOOR HOLD-OPEN DEVICE. EXISTING TO BE RE-USED. POWER TO BE PROVIDED FROM FACP OR REMOTE POWER SUPPLY.	120
[MDO-N]	MAGNETIC DOOR HOLD-OPEN DEVICE. INSTALL NEW DEVICE ON NEW J-BOX. POWER TO BE PROVIDED FROM FACP OR REMOTE POWER SUPPLY.	1
[FSD]	FIRE-SMOKE DAMPER. EXISTING TO BE RE-USED. POWER TO BE PROVIDED FROM FACP OR REMOTE POWER SUPPLY.	127

FIRE ALARM SYSTEM KEY NOTES

- REPLACE EXISTING FIRE/EMERGENCY VOICE ALARM CONTROL PANEL WITH NEW, ADDRESSABLE FIRE ALARM CONTROL PANEL WITH COMPLETE EMERGENCY VOICE ALARM CAPABILITIES. PROVIDE ALL REQUIRED CONTROL PANELS, AUDIO SYSTEM INTERFACES, MODULES, CABINETS, POWER SUPPLIES, ETC. TO PROVIDE A COMPLETE AND FUNCTIONAL FIRE/EMERGENCY VOICE ALARM SYSTEM COMPLIANT WITH ALL APPLICABLE PROVISIONS OF NFPA 72 AND THE INTERNATIONAL BUILDING CODES. CONTROL PANEL SHALL HAVE SUFFICIENT CAPACITY TO MONITOR ALL INITIATING DEVICES SHOWN ON PLANS WITH AN ADDITIONAL SPARE CAPACITY OF 20% FOR FUTURE EXPANSION. EXISTING 120 VAC POWER CIRCUIT MAY BE RE-USED BUT PROVIDE NEW BATTERIES FOR SECONDARY POWER SUPPLY. EXISTING SLC, INITIATING DEVICE AND NOTIFICATION APPLIANCE (AUDIBLE AND VISUAL) CIRCUITS MAY BE RECONFIGURED AND RE-USED IF COMPLETELY FUNCTIONAL AND COMPATIBLE WITH NEW FACP/DEVICES. PROVIDE DIGITAL ALARM COMMUNICATOR/TRANSMITTER (EXISTING MAY BE RE-USED) AND CONNECT TO EXISTING PRIMARY AND SECONDARY PHONE LINES TO RELAY FIRE ALARM AND SUPERVISORY SIGNALS TO OFF-PREMISE MONITORING COMPANY SELECTED BY OWNER.
- REPLACE EXISTING AUDIO AMPLIFIERS/TRANSPONDERS (AT FACP AND REMOTE LOCATIONS, WHERE PRESENT) WITH NEW EQUIPMENT LISTED COMPATIBLE AND INTERLOCKED WITH NEW FACP. AMPLIFIERS AND CIRCUIT WIRING SHALL HAVE SUFFICIENT CAPACITY TO PROVIDE A MINIMUM OF THREE PAGING ZONES (NORTH, SOUTH AND WEST) PER BUILDING LEVEL. AUDIO EQUIPMENT SHALL HAVE THE CAPABILITY OF STORING A MINIMUM OF EIGHT PRE-RECORDED MESSAGES THAT CAN BE BROADCAST TO THE ENTIRE BUILDING OR TO ANY INDIVIDUAL PAGING ZONE OR GROUP OF PAGING ZONES USING PROGRAMMABLE BUTTONS INTEGRATED INTO THE CONTROL EQUIPMENT. PROVIDE A MICROPHONE TO FACILITATE BROADCAST OF MANUAL MESSAGES TO THE ENTIRE BUILDING OR TO ANY INDIVIDUAL PAGING ZONE OR GROUP OF PAGING ZONES. AUDIO EQUIPMENT AND CIRCUITS SHALL HAVE SUFFICIENT CAPACITY TO PROVIDE POWER TO ALL SPEAKERS SHOWN ON PLANS WITH AN ADDITIONAL RESERVE CAPACITY OF 50% FOR FUTURE EXPANSION AND/OR VOLUME ADJUSTMENTS.
- FIRE ALARM ANNUNCIATOR PANEL AND EMERGENCY VOICE ALARM OPERATING CONSOLE. FIRE ALARM ANNUNCIATOR SHALL BE LOG TYPE TO DISPLAY STATUS OF FIRE ALARM SYSTEM WITH BUTTONS TO ALLOW FULL SYSTEM CONTROL (ACKNOWLEDGE, SILENCE, RESET, ETC.). EMERGENCY VOICE ALARM OPERATING CONSOLE SHALL HAVE BUTTONS FOR ACTIVATION OF PRE-RECORDED MESSAGES AND A BUILT-IN MICROPHONE FOR MANUAL MESSAGES. CONFIGURE OPERATING CONSOLE TO ALLOW VOICE MESSAGES TO BE BROADCAST TO INDIVIDUAL BUILDING ZONES OR TO ENTIRE BUILDING.
- DEMOLISH EXISTING NOTIFICATION APPLIANCE POWER SUPPLY AND REPLACE WITH NEW REMOTE POWER SUPPLY TO PROVIDE 24 VDC POWER TO NOTIFICATION APPLIANCES (STROBES) THROUGHOUT BUILDING. NUMBER AND LOCATION OF REMOTE POWER SUPPLIES SHALL BE SUFFICIENT TO PROVIDE A SEPARATE NOTIFICATION ZONE FOR EACH FLOOR LEVEL OF BUILDING. REQUIRED CAPACITY AND NUMBER OF POWER SUPPLIES TO BE DETERMINED BY CONTRACTOR. SURFACE MOUNT ON WALLS OF TELECOMMUNICATIONS ROOMS. CONNECT POWER SUPPLY TO BUILDING FACP TO PROVIDE ACTIVATION OF NOTIFICATION APPLIANCES AND TROUBLE SUPERVISION. EXISTING 120 VAC POWER CIRCUITS MAY BE RE-USED BUT PROVIDE NEW BATTERIES FOR SECONDARY POWER SUPPLY. CONFIGURE POWER SUPPLIES TO SYNCHRONIZE VISUAL SIGNALS OF ALL NOTIFICATION APPLIANCES LOCATED WITHIN A SINGLE FIELD OF VIEW.
- EXISTING ROLLING FIRE DOOR (WON-DOOR) TO REMAIN. INSTALL ADDRESSABLE RELAY INTERFACED WITH DOOR CONTROLLER TO CLOSE FIRE DOOR UPON OPERATION OF SMOKE DETECTORS (SPOT TYPE OR PROJECTED BEAM TYPE) ON EITHER SIDE OF FIRE DOOR. TEST AUTOMATIC OPERATION OF FIRE DOOR AND ADJUST AS REQUIRED TO CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 80.
- EXISTING ROLL DOWN FIRE SHUTTER TO REMAIN. INSTALL ADDRESSABLE RELAY INTERFACED WITH FIRE SHUTTER CONTROLLER TO CLOSE SHUTTER UPON OPERATION OF SMOKE DETECTORS ON EITHER SIDE OF SHUTTER. TEST AUTOMATIC OPERATION OF FIRE SHUTTER AND ADJUST AS REQUIRED TO CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 80.
- EXISTING FIRE DOOR WITH NEW OR EXISTING (SEE LEGEND) MAGNETIC DOOR HOLD-OPEN DEVICE TO REMAIN. INSTALL ADDRESSABLE RELAY TO RELEASE MAGNETIC DOOR HOLDER UPON ACTIVATION OF ANY FIRE ALARM INITIATING DEVICE IN BUILDING. CONNECT POWER SUPPLY TO MAGNETIC HOLD-OPEN DEVICES (EXISTING MAY BE RE-USED IF PRESENT) THROUGH NORMALLY CLOSED CONTACTS OF CONTROL RELAY.
- EXISTING ELEVATOR CONTROL EQUIPMENT TO REMAIN. INSTALL ADDRESSABLE RELAYS TO INTERFACE EXISTING ELEVATOR CONTROLLERS TO NEW FIRE ALARM SYSTEM TO AUTOMATICALLY INITIATE THE FOLLOWING EMERGENCY FUNCTIONS:
 1. PRIMARY RECALL
 2. SECONDARY RECALL
 3. CAB LIGHT ILLUMINATION
 4. ELEVATOR POWER SHUNT/TRIP
 EMERGENCY FUNCTIONS SHALL CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 72 AND ASME A17.1.
- EXISTING FIRE/SMOKE DAMPERS THROUGHOUT BUILDING TO REMAIN. REPLACE ALL EXISTING SMOKE DETECTORS PROVIDED TO CONTROL FIRE/SMOKE DAMPERS AND INSTALL NEW DETECTORS WHERE REQUIRED BY THE BRC OR IMC. NEW DETECTORS SHALL BE LISTED AND COMPATIBLE WITH THE FIRE ALARM SYSTEM. INSTALL PROGRAMMABLE RELAY TO CLOSE DAMPERS UPON ACTIVATION OF DETECTORS OR ANY OTHER FIRE ALARM INITIATING DEVICE IN THE BUILDING. NUMBER AND LOCATION OF DAMPERS, DETECTORS AND CONTROL RELAYS TO BE FIELD VERIFIED BY CONTRACTOR.
- EXISTING ATRIUM SMOKE EVACUATION SYSTEM TO REMAIN. INSTALL ADDRESSABLE RELAYS TO ACTIVATE SMOKE EVACUATION SYSTEM. PROVIDE RELAYS TO OPERATE ALL INTAKE/EXHAUST LOUVERS AND EXHAUST/MAKE-UP AIR FANS THAT ARE REQUIRED FOR PROPER OPERATION OF THE SMOKE EVACUATION SYSTEM. PROGRAM RELAYS TO ACTIVATE SMOKE EVACUATION SYSTEM UPON OPERATION OF ANY OF THE FOLLOWING INITIATING DEVICES:
 1. WATER FLOW SWITCH FOR ATRIUM FIRE SPRINKLER ZONE
 2. PROJECTED BEAM SMOKE DETECTORS AT TOP OF ATRIUM
 3. SPOT TYPE SMOKE DETECTORS AROUND ATRIUM PERIMETER
 COORDINATE SMOKE EVACUATION SYSTEM INTERFACE WITH OWNER AND MAINTENANCE CONTRACTOR FOR BUILDING CONTROLS. CONTRACTOR TO INCLUDE COST OF ALL REQUIRED SERVICE CALLS BY BUILDING CONTROLS MAINTENANCE CONTRACTOR IN BID.
- EXISTING SECURED EGRESS DOOR TO REMAIN. INSTALL ADDRESSABLE RELAY TO RELEASE SECURED DOOR UPON ACTIVATION OF ANY FIRE ALARM INITIATING DEVICE IN THE BUILDING. CONNECT POWER TO DOOR SECURITY HARDWARE (MAGNETIC PLATE OR ELECTRIC STRIKE) THROUGH NORMALLY CLOSED CONTACTS OF RELAY AND PROGRAM RELAY CONTACTS TO OPEN UPON ACTIVATION OF FIRE ALARM SYSTEM INTERRUPTING POWER SUPPLY TO SECURITY HARDWARE AND RELEASING DOOR. RELAY SHALL NOT RESET UNTIL THE FIRE ALARM SYSTEM IS RESTORED TO NORMAL CONDITION.
- INSTALL ADDRESSABLE RELAYS TO PROVIDE SHUTDOWN OF ALL AIR MOVEMENT SYSTEMS WITH A CAPACITY IN EXCESS OF 2,000 CFM. INSTALL A SEPARATE RELAY FOR EACH AIR MOVEMENT SYSTEM AND CONNECT RELAY OUTPUTS TO AIR MOVEMENT SYSTEM CONTROLS. EXISTING NEW CONTROL CIRCUITS MAY BE RE-USED IF COMPLETELY FUNCTIONAL. PROGRAM RELAYS TO SHUT DOWN AIR MOVEMENT SYSTEMS UPON ACTIVATION OF ANY DUCT MOUNTED SMOKE DETECTOR OR OTHER FIRE ALARM INITIATING DEVICE IN BUILDING. COORDINATE AIR MOVEMENT SYSTEM CONTROLS INTERFACE WITH OWNER AND MAINTENANCE CONTRACTOR FOR BUILDING CONTROLS. CONTRACTOR TO INCLUDE COST OF ALL REQUIRED SERVICE CALLS BY BUILDING CONTROLS MAINTENANCE CONTRACTOR IN BID.
- INSTALL SMOKE DETECTOR IN ACCORDANCE WITH IMC 606.2.3 AT CONNECTION OF RETURN AIR DUCT/PLENUM TO VERTICAL RETURN SHAFT ON EACH FLOOR LEVEL. SMOKE DETECTORS SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF NFPA 72 AND THE IMC. WHERE AIR VELOCITY IS LESS THAN 300 FPM PROVIDE A SPOT TYPE DETECTOR MOUNTED IN THE CENTER OF RETURN AIR FLOW AT THE CONNECTION TO THE VERTICAL RETURN SHAFT, WHERE AIR VELOCITY EXCEEDS 300 FPM PROVIDE A SAMPLING TUBE TYPE SMOKE DETECTOR WITH SAMPLING TUBE INSTALLED ACROSS RETURN AIR OPENING OR WITHIN RETURN AIR DUCT. CONTRACTOR TO DETERMINE AIR FLOW UNDER NORMAL OPERATING CONDITIONS TO DETERMINE APPROPRIATE DETECTOR TYPE FOR USE.
- EXISTING ELECTRIC FIRE PUMP AND FIRE SPRINKLER RISERS (WET AND DRY PIPE) TO REMAIN. INSTALL ADDRESSABLE MODULES TO FACILITATE CONNECTION OF FIRE PUMP CONTROLLER (PUMP RUNNING, AC POWER FAIL AND AC POWER PHASE REVERSAL), FIRE PUMP CONTROL VALVES, FIRE SPRINKLER CONTROL VALVES, FIRE SPRINKLER FLOW SWITCHES AND AIR PRESSURE SWITCHES TO NEW FIRE ALARM SYSTEM.
- EXISTING FIRE SUPPRESSION SYSTEM (INCLUDING SMOKE DETECTION SYSTEM) PROTECTING COMPUTER ROOM TO REMAIN. INSTALL ADDRESSABLE MODULES AT FIRE SUPPRESSION SYSTEM CONTROL PANEL TO RELAY FIRE SUPPRESSION SYSTEM ALARM, SUPERVISORY AND TROUBLE SIGNALS TO BUILDING FACP.
- TYPE I COOKING HOOD WITH EXISTING WET-CHEMICAL FIRE SUPPRESSION SYSTEM TO REMAIN. INSTALL ADDRESSABLE MODULE TO FACILITATE CONNECTION OF ACTIVATION RELAY FOR FIRE SUPPRESSION SYSTEM TO NEW FIRE ALARM SYSTEM. PROGRAM ACTIVATION OF FIRE SUPPRESSION SYSTEM AS A FIRE ALARM SIGNAL.



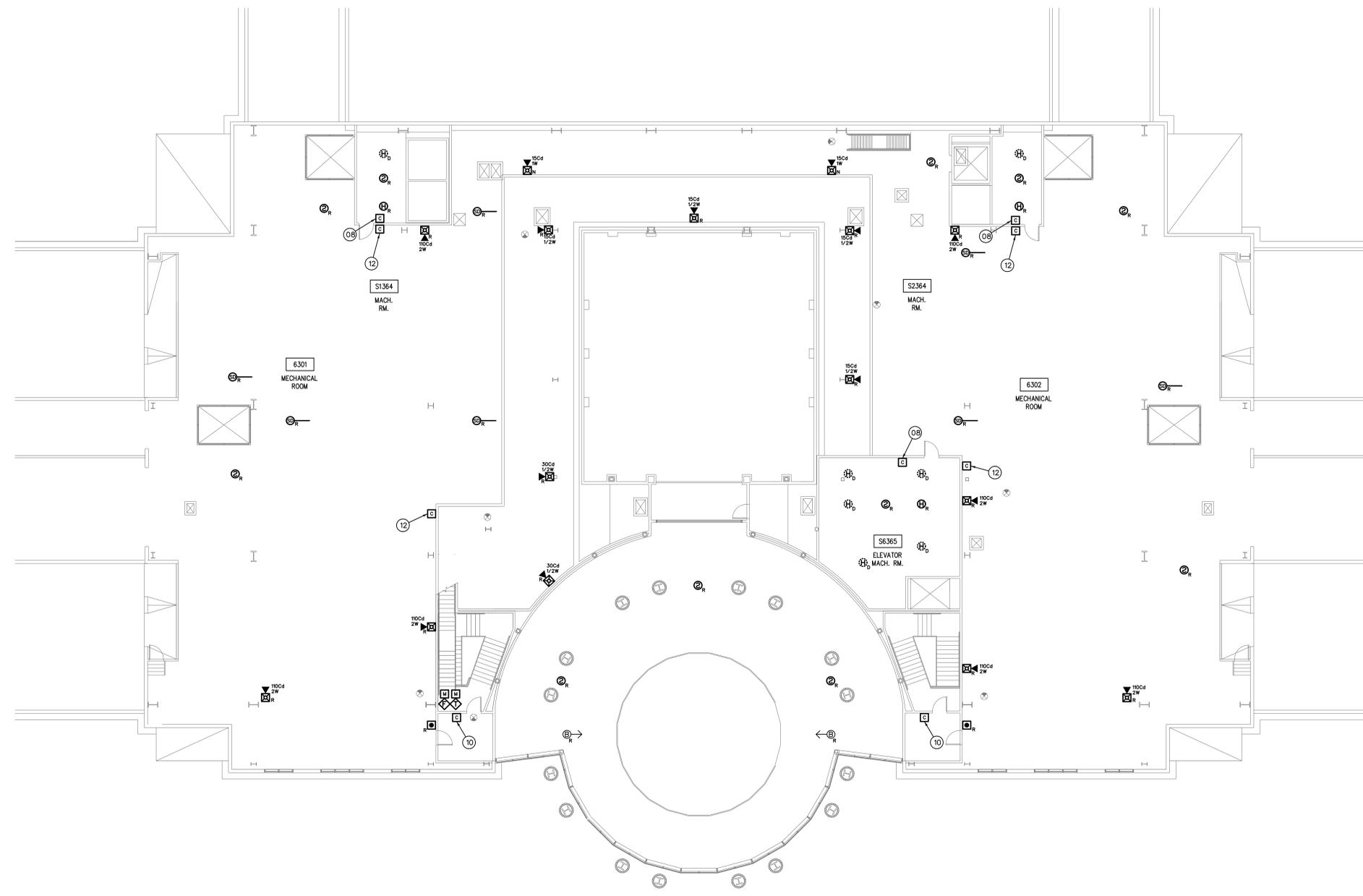
REVISIONS:

DRAWING DATE: 11/8/13
 REVISION DATE: XX/XX/XX
 JOB NUMBER: 104968
 DWG ISSUE: REVIEW
 DRAWN BY: BBH
 CHECKED BY: GTJ

ADMINISTRATIVE OFFICE OF THE COURTS
 MATHESON COURTHOUSE
 450 SOUTH STATE STREET
 SALT LAKE CITY, UTAH

FIRE ALARM SYSTEM REPLACEMENT
 DFCM PROJECT #13244150

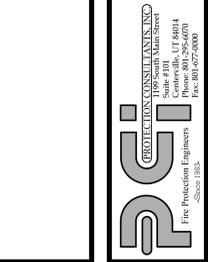
5TH LEVEL NORTH
FA10



FIRE ALARM SYSTEM REPLACEMENT - 6TH LEVEL
 SCALE: 3/32" = 1'-0"

FIRE ALARM SYSTEM KEY NOTES

- 01 REPLACE EXISTING FIRE/EMERGENCY VOICE ALARM CONTROL PANEL WITH NEW, ADDRESSABLE FIRE ALARM CONTROL PANEL WITH COMPLETE EMERGENCY VOICE ALARM CAPABILITIES. PROVIDE ALL REQUIRED CONTROL PANELS, AUDIO SYSTEM INTERFACES, MODULES, CABINETS, POWER SUPPLIES, ETC. TO PROVIDE A COMPLETE AND FUNCTIONAL FIRE/EMERGENCY VOICE ALARM SYSTEM COMPLIANT WITH ALL APPLICABLE PROVISIONS OF NFPA 72 AND THE INTERNATIONAL BUILDING/FIRE CODES. CONTROL PANEL SHALL HAVE SUFFICIENT CAPACITY TO MONITOR ALL INITIATING DEVICES SHOWN ON PLANS WITH AN ADDITIONAL SPARE CAPACITY OF 20% FOR FUTURE EXPANSION. EXISTING 120 VAC POWER CIRCUIT MAY BE RE-USED BUT PROVIDE NEW BATTERIES FOR SECONDARY POWER SUPPLY. EXISTING SLC, INITIATING DEVICE AND NOTIFICATION APPLIANCE (AUDIBLE AND VISUAL) CIRCUITS MAY BE RECONFIGURED AND RE-USED IF COMPLETELY FUNCTIONAL AND COMPATIBLE WITH NEW FACP/DEVICES. PROVIDE DIGITAL ALARM COMMUNICATOR/TRANSMITTER (EXISTING MAY BE RE-USED) AND CONNECT TO EXISTING PRIMARY AND SECONDARY PHONE LINES TO RELAY FIRE ALARM AND SUPERVISORY SIGNALS TO OFFPREMISE MONITORING COMPANY SELECTED BY OWNER.
- 02 REPLACE EXISTING AUDIO AMPLIFIERS/TRANSPONDERS (AT FACP AND REMOTE LOCATIONS, WHERE PRESENT) WITH NEW EQUIPMENT LISTED COMPATIBLE AND INTERLOCKED WITH NEW FACP. AMPLIFIERS AND CIRCUIT WIRING SHALL HAVE SUFFICIENT CAPACITY TO PROVIDE A MINIMUM OF THREE PAGING ZONES (NORTH, SOUTH AND WEST) PER BUILDING LEVEL. AUDIO EQUIPMENT SHALL HAVE THE CAPABILITY OF STORING A MINIMUM OF EIGHT PRE-RECORDED MESSAGES THAT CAN BE BROADCAST TO THE ENTIRE BUILDING OR TO ANY INDIVIDUAL PAGING ZONE OR GROUP OF PAGING ZONES USING PROGRAMMABLE BUTTONS INTEGRATED INTO THE CONTROL EQUIPMENT. PROVIDE A MICROPHONE TO FACILITATE BROADCAST OF MANUAL MESSAGES TO THE ENTIRE BUILDING OR TO ANY INDIVIDUAL PAGING ZONE OR GROUP OF PAGING ZONES. AUDIO EQUIPMENT AND CIRCUITS SHALL HAVE SUFFICIENT CAPACITY TO PROVIDE POWER TO ALL SPEAKERS SHOWN ON PLANS WITH AN ADDITIONAL RESERVE CAPACITY OF 50% FOR FUTURE EXPANSION AND/OR VOLUME ADJUSTMENTS.
- 03 FIRE ALARM ANNUNCIATOR PANEL AND EMERGENCY VOICE ALARM OPERATING CONSOLE. FIRE ALARM ANNUNCIATOR SHALL BE LCD TYPE TO DISPLAY STATUS OF FIRE ALARM SYSTEM WITH BUTTONS TO ALLOW FULL SYSTEM CONTROL (ACKNOWLEDGE, SILENCE, RESET, ETC.). EMERGENCY VOICE ALARM OPERATING CONSOLE SHALL HAVE BUTTONS FOR ACTIVATION OF PRE-RECORDED MESSAGES AND A BUILT-IN MICROPHONE FOR MANUAL MESSAGES. CONFIGURE OPERATING CONSOLE TO ALLOW VOICE MESSAGES TO BE BROADCAST TO INDIVIDUAL BUILDING ZONES OR TO ENTIRE BUILDING.
- 04 DEMOLISH EXISTING NOTIFICATION APPLIANCE POWER SUPPLY AND REPLACE WITH NEW REMOTE POWER SUPPLY TO PROVIDE 24 VDC POWER TO NOTIFICATION APPLIANCES (STROBES) THROUGHOUT BUILDING. NUMBER AND LOCATION OF REMOTE POWER SUPPLIES SHALL BE SUFFICIENT TO PROVIDE A SEPARATE NOTIFICATION ZONE FOR EACH FLOOR LEVEL OF BUILDING. REQUIRED CAPACITY AND NUMBER OF POWER SUPPLIES TO BE DETERMINED BY CONTRACTOR, SURFACE MOUNT ON WALLS OF TELECOMMUNICATIONS ROOMS. CONNECT POWER SUPPLIES TO BUILDING FACP TO PROVIDE ACTIVATION OF NOTIFICATION APPLIANCES AND TROUBLE SUPERVISION. EXISTING 120 VAC POWER CIRCUITS MAY BE RE-USED BUT PROVIDE NEW BATTERIES FOR SECONDARY POWER SUPPLY. CONFIGURE POWER SUPPLIES TO SYNCHRONIZE VISUAL SIGNALS OF ALL NOTIFICATION APPLIANCES LOCATED WITHIN A SINGLE FIELD OF VIEW.
- 05 EXISTING ROLLING FIRE DOOR (WON-DOOR) TO REMAIN. INSTALL ADDRESSABLE RELAY INTERFACED WITH DOOR CONTROLLER TO CLOSE FIRE DOOR UPON OPERATION OF SMOKE DETECTORS (SPOT TYPE OR PROJECTED BEAM TYPE) ON EITHER SIDE OF FIRE DOOR. TEST AUTOMATIC OPERATION OF FIRE DOOR AND ADJUST AS REQUIRED TO CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 80.
- 06 EXISTING ROLL DOWN FIRE SHUTTER TO REMAIN. INSTALL ADDRESSABLE RELAY INTERFACED WITH FIRE SHUTTER CONTROLLER TO CLOSE SHUTTER UPON OPERATION OF SMOKE DETECTORS ON EITHER SIDE OF SHUTTER. TEST AUTOMATIC OPERATION OF FIRE SHUTTER AND ADJUST AS REQUIRED TO CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 80.
- 07 EXISTING FIRE DOOR WITH NEW OR EXISTING (SEE LEGEND) MAGNETIC DOOR HOLD-OPEN DEVICE TO REMAIN. INSTALL ADDRESSABLE RELAY TO RELEASE MAGNETIC DOOR HOLDER UPON ACTIVATION OF ANY FIRE ALARM INITIATING DEVICE IN BUILDING. CONNECT POWER SUPPLY TO MAGNETIC HOLD-OPEN DEVICES (EXISTING MAY BE RE-USED IF PRESENT) THROUGH NORMALLY CLOSED CONTACTS OF CONTROL RELAY.
- 08 EXISTING ELEVATOR CONTROL EQUIPMENT TO REMAIN. INSTALL ADDRESSABLE RELAYS TO INTERFACE EXISTING ELEVATOR CONTROLLERS TO NEW FIRE ALARM SYSTEM TO AUTOMATICALLY INITIATE THE FOLLOWING EMERGENCY FUNCTIONS:
 1. PRIMARY RECALL
 2. SECONDARY RECALL
 3. CAB LIGHT ILLUMINATION
 4. ELEVATOR POWER SHUNT/TRIP
 EMERGENCY FUNCTIONS SHALL CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 72 AND ASME A17.1.
- 09 EXISTING FIRE/SMOKE DAMPERS THROUGHOUT BUILDING TO REMAIN. REPLACE ALL EXISTING SMOKE DETECTORS PROVIDED TO CONTROL FIRE/SMOKE DAMPERS AND INSTALL NEW DETECTORS WHERE REQUIRED BY THE BID OR IBC. NEW DETECTORS SHALL BE LISTED COMPATIBLE WITH THE FIRE ALARM SYSTEM. INSTALL PROGRAMMABLE RELAY TO CLOSE DAMPERS UPON ACTUATION OF DETECTORS OR ANY OTHER FIRE ALARM INITIATING DEVICE IN THE BUILDING. NUMBER AND LOCATION OF DAMPERS, DETECTORS AND CONTROL RELAYS TO BE FIELD VERIFIED BY CONTRACTOR.
- 10 EXISTING ATRIUM SMOKE EVACUATION SYSTEM TO REMAIN. INSTALL ADDRESSABLE RELAYS TO ACTIVATE SMOKE EVACUATION SYSTEM. PROVIDE RELAYS TO OPERATE ALL INTAKE/EXHAUST LOUVERS AND EXHAUST/MAKE-UP AIR FANS THAT ARE REQUIRED FOR PROPER OPERATION OF THE SMOKE EVACUATION SYSTEM. PROGRAM RELAYS TO ACTIVATE SMOKE EVACUATION SYSTEM UPON OPERATION OF ANY OF THE FOLLOWING INITIATING DEVICES:
 1. WATER FLOW SWITCH FOR ATRIUM FIRE SPRINKLER ZONE
 2. PROJECTED BEAM SMOKE DETECTORS AT TOP OF ATRIUM
 3. SPOT TYPE SMOKE DETECTORS AROUND ATRIUM PERIMETER
 COORDINATE SMOKE EVACUATION SYSTEM INTERFACE WITH OWNER AND MAINTENANCE CONTRACTOR FOR BUILDING CONTROLS. CONTRACTOR TO INCLUDE COST OF ALL REQUIRED SERVICE CALLS BY BUILDING CONTROLS MAINTENANCE CONTRACTOR IN BID.
- 11 EXISTING SECURED EGRESS DOOR TO REMAIN. INSTALL ADDRESSABLE RELAY TO RELEASE SECURED DOOR UPON ACTIVATION OF ANY FIRE ALARM INITIATING DEVICE IN THE BUILDING. CONNECT POWER TO DOOR SECURITY HARDWARE (MAGNETIC PLATE OR ELECTRIC STRIKE) THROUGH NORMALLY CLOSED CONTACTS OF RELAY AND PROGRAM RELAY CONTACTS TO OPEN UPON ACTIVATION OF FIRE ALARM SYSTEM INTERRUPTING POWER SUPPLY TO SECURITY HARDWARE AND RELEASING DOOR. RELAY SHALL NOT RESET UNTIL THE FIRE ALARM SYSTEM IS RESTORED TO NORMAL CONDITION.
- 12 INSTALL ADDRESSABLE RELAYS TO PROVIDE SHUTDOWN OF ALL AIR MOVEMENT SYSTEMS WITH A CAPACITY IN EXCESS OF 2,000 CFM. INSTALL A SEPARATE RELAY FOR EACH AIR MOVEMENT SYSTEM AND CONNECT RELAY OUTPUTS TO AIR MOVEMENT SYSTEM CONTROLS. EXISTING NEW CONTROL CIRCUITS MAY BE RE-USED IF COMPLETELY FUNCTIONAL. PROGRAM RELAYS TO SHUT DOWN AIR MOVEMENT SYSTEMS UPON ACTIVATION OF ANY DUCT MOUNTED SMOKE DETECTOR OR OTHER FIRE ALARM INITIATING DEVICE IN BUILDING. COORDINATE AIR MOVEMENT SYSTEM CONTROLS INTERFACE WITH OWNER AND MAINTENANCE CONTRACTOR FOR BUILDING CONTROLS. CONTRACTOR TO INCLUDE COST OF ALL REQUIRED SERVICE CALLS BY BUILDING CONTROLS MAINTENANCE CONTRACTOR IN BID.
- 13 INSTALL SMOKE DETECTOR IN ACCORDANCE WITH IMC 606.2.3 AT CONNECTION OF RETURN AIR DUCT/PLENUM TO VERTICAL RETURN SHAFT ON EACH FLOOR LEVEL. SMOKE DETECTORS SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF NFPA 72 AND THE IMC. WHERE AIR VELOCITY IS LESS THAN 300 FPM PROVIDE A SPOT TYPE DETECTOR MOUNTED IN THE CENTER OF RETURN AIR FLOW AT THE CONNECTION TO THE VERTICAL RETURN SHAFT. WHERE AIR VELOCITY EXCEEDS 300 FPM PROVIDE A SAMPLING TUBE TYPE SMOKE DETECTOR WITH SAMPLING TUBE INSTALLED ACROSS RETURN AIR OPENING OR WITHIN RETURN AIR DUCT. CONTRACTOR TO DETERMINE AIR FLOW UNDER NORMAL OPERATING CONDITIONS TO DETERMINE APPROPRIATE DETECTOR TYPE FOR USE.
- 14 EXISTING ELECTRIC FIRE PUMP AND FIRE SPRINKLER RISERS (WET AND DRY PIPE) TO REMAIN. INSTALL ADDRESSABLE MODULES TO FACILITATE CONNECTION OF FIRE PUMP CONTROLLER (PUMP RUNNING, AC POWER FAIL AND AC POWER PHASE REVERSAL), FIRE PUMP CONTROL VALVES, FIRE SPRINKLER CONTROL VALVES, FIRE SPRINKLER FLOW SWITCHES AND AIR PRESSURE SWITCHES TO NEW FIRE ALARM SYSTEM.
- 15 EXISTING FIRE SUPPRESSION SYSTEM (INCLUDING SMOKE DETECTION SYSTEM) PROTECTING COMPUTER ROOM TO REMAIN. INSTALL ADDRESSABLE MODULES AT FIRE SUPPRESSION SYSTEM CONTROL PANEL TO RELAY FIRE SUPPRESSION SYSTEM ALARM, SUPERVISORY AND TROUBLE SIGNALS TO BUILDING FACP.
- 16 TYPE I COOKING HOOD WITH EXISTING WET-CHEMICAL FIRE SUPPRESSION SYSTEM TO REMAIN. INSTALL ADDRESSABLE MODULE TO FACILITATE CONNECTION OF ACTIVATION RELAY FOR FIRE SUPPRESSION SYSTEM TO NEW FIRE ALARM SYSTEM. PROGRAM ACTIVATION OF FIRE SUPPRESSION SYSTEM AS A FIRE ALARM SIGNAL.



REVISIONS:

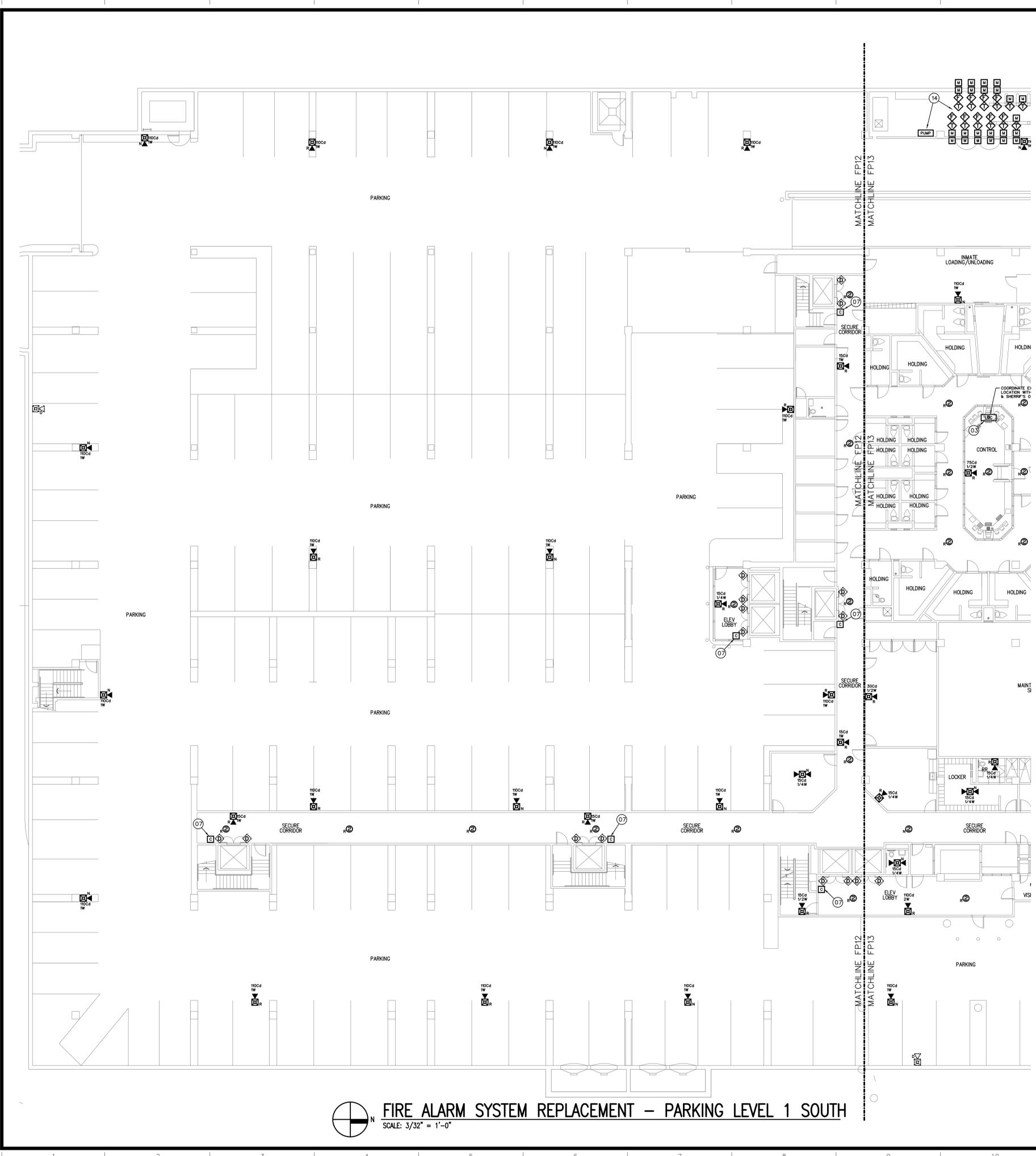
NO.	DESCRIPTION	DATE

DRAWING DATE: 11/8/13
 REVISION NUMBER: XX/XX/XX
 JOB NUMBER: 104968
 DWG ISSUE: REVIEW
 DRAWN BY: BBH
 CHECKED BY: GTJ

ADMINISTRATIVE OFFICE OF THE COURTS
 MATHESON COURTHOUSE
 450 SOUTH STATE STREET
 SALT LAKE CITY, UTAH

FIRE ALARM SYSTEM REPLACEMENT
 DFCM PROJECT #13244150

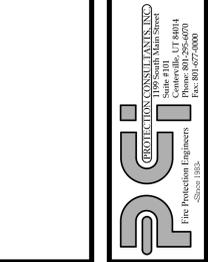
6TH LEVEL
FA11



FIRE ALARM SYSTEM REPLACEMENT – PARKING LEVEL 1 SOUTH
 SCALE: 3/32" = 1'-0"

FIRE ALARM SYSTEM KEY NOTES

- 01 REPLACE EXISTING FIRE/EMERGENCY VOICE ALARM CONTROL PANEL WITH NEW, ADDRESSABLE FIRE ALARM CONTROL PANEL WITH COMPLETE EMERGENCY VOICE ALARM CAPABILITIES. PROVIDE ALL REQUIRED CONTROL PANELS, AUDIO SYSTEM INTERFACES, MODULES, CABINETS, POWER SUPPLIES, ETC. TO PROVIDE A COMPLETE AND FUNCTIONAL FIRE/EMERGENCY VOICE ALARM SYSTEM COMPLIANT WITH ALL APPLICABLE PROVISIONS OF NFPA 72 AND THE INTERNATIONAL BUILDING/FIRE CODES. CONTROL PANEL SHALL HAVE SUFFICIENT CAPACITY TO MONITOR ALL INITIATING DEVICES SHOWN ON PLANS WITH AN ADDITIONAL SPARE CAPACITY OF 20% FOR FUTURE EXPANSION. EXISTING 120 VAC POWER CIRCUIT MAY BE RE-USED BUT PROVIDE NEW BATTERIES FOR SECONDARY POWER SUPPLY. EXISTING SLC, INITIATING DEVICE AND NOTIFICATION APPLIANCE (AUDIBLE AND VISUAL) CIRCUITS MAY BE RECONFIGURED AND RE-USED IF COMPLETELY FUNCTIONAL AND COMPATIBLE WITH NEW FACP/DEVICES. PROVIDE DIGITAL ALARM COMMUNICATOR/TRANSMITTER (EXISTING MAY BE RE-USED) AND CONNECT TO EXISTING PRIMARY AND SECONDARY PHONE LINES TO RELAY FIRE ALARM AND SUPERVISORY SIGNALS TO OFFPREMISE MONITORING COMPANY SELECTED BY OWNER.
- 02 REPLACE EXISTING AUDIO AMPLIFIERS/TRANSPONDERS (AT FACP AND REMOTE LOCATIONS, WHERE PRESENT) WITH NEW EQUIPMENT LISTED COMPATIBLE AND INTERLOCKED WITH NEW FACP. AMPLIFIERS AND CIRCUIT WIRING SHALL HAVE SUFFICIENT CAPACITY TO PROVIDE A MINIMUM OF THREE PAGING ZONES (NORTH, SOUTH AND WEST) PER BUILDING LEVEL. AUDIO EQUIPMENT SHALL HAVE THE CAPABILITY OF STORING A MINIMUM OF EIGHT PRE-RECORDED MESSAGES THAT CAN BE BROADCAST TO THE ENTIRE BUILDING OR TO ANY INDIVIDUAL PAGING ZONE OR GROUP OF PAGING ZONES USING PROGRAMMABLE BUTTONS INTEGRATED INTO THE CONTROL EQUIPMENT. PROVIDE A MICROPHONE TO FACILITATE BROADCAST OF MANUAL MESSAGES TO THE ENTIRE BUILDING OR TO ANY INDIVIDUAL PAGING ZONE OR GROUP OF PAGING ZONES. AUDIO EQUIPMENT AND CIRCUITS SHALL HAVE SUFFICIENT CAPACITY TO PROVIDE POWER TO ALL SPEAKERS SHOWN ON PLANS WITH AN ADDITIONAL RESERVE CAPACITY OF 50% FOR FUTURE EXPANSION AND/OR VOLUME ADJUSTMENTS.
- 03 FIRE ALARM ANNUNCIATOR PANEL AND EMERGENCY VOICE ALARM OPERATING CONSOLE. FIRE ALARM ANNUNCIATOR SHALL BE LCD TYPE TO DISPLAY STATUS OF FIRE ALARM SYSTEM WITH BUTTONS TO ALLOW FULL SYSTEM CONTROL (ACKNOWLEDGE, SILENCE, RESET, ETC.). EMERGENCY VOICE ALARM OPERATING CONSOLE SHALL HAVE BUTTONS FOR ACTIVATION OF PRE-RECORDED MESSAGES AND A BUILT-IN MICROPHONE FOR MANUAL MESSAGES. CONFIGURE OPERATING CONSOLE TO ALLOW VOICE MESSAGES TO BE BROADCAST TO INDIVIDUAL BUILDING ZONES OR TO ENTIRE BUILDING.
- 04 DEMOLISH EXISTING NOTIFICATION APPLIANCE POWER SUPPLY AND REPLACE WITH NEW REMOTE POWER SUPPLY TO PROVIDE 24 VDC POWER TO NOTIFICATION APPLIANCES (STROBES) THROUGHOUT BUILDING. NUMBER AND LOCATION OF REMOTE POWER SUPPLIES SHALL BE SUFFICIENT TO PROVIDE A SEPARATE NOTIFICATION ZONE FOR EACH FLOOR LEVEL OF BUILDING. REQUIRED CAPACITY AND NUMBER OF POWER SUPPLIES TO BE DETERMINED BY CONTRACTOR. SURFACE MOUNT ON WALLS OF TELECOMMUNICATIONS ROOMS. CONNECT POWER SUPPLIES TO BUILDING FACP TO PROVIDE ACTIVATION OF NOTIFICATION APPLIANCES AND TROUBLE SUPERVISION. EXISTING 120 VAC POWER CIRCUITS MAY BE RE-USED BUT PROVIDE NEW BATTERIES FOR SECONDARY POWER SUPPLY. CONFIGURE POWER SUPPLIES TO SYNCHRONIZE VISUAL SIGNALS OF ALL NOTIFICATION APPLIANCES LOCATED WITHIN A SINGLE FIELD OF VIEW.
- 05 EXISTING ROLLING FIRE DOOR (WON-DOOR) TO REMAIN. INSTALL ADDRESSABLE RELAY INTERFACED WITH DOOR CONTROLLER TO CLOSE FIRE DOOR UPON OPERATION OF SMOKE DETECTORS (SPOT TYPE OR PROJECTED BEAM TYPE) ON EITHER SIDE OF FIRE DOOR. TEST AUTOMATIC OPERATION OF FIRE DOOR AND ADJUST AS REQUIRED TO CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 80.
- 06 EXISTING ROLL DOWN FIRE SHUTTER TO REMAIN. INSTALL ADDRESSABLE RELAY INTERFACED WITH FIRE SHUTTER CONTROLLER TO CLOSE SHUTTER UPON OPERATION OF SMOKE DETECTORS ON EITHER SIDE OF SHUTTER. TEST AUTOMATIC OPERATION OF FIRE SHUTTER AND ADJUST AS REQUIRED TO CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 80.
- 07 EXISTING FIRE DOOR WITH NEW OR EXISTING (SEE LEGEND) MAGNETIC DOOR HOLD-OPEN DEVICE TO REMAIN. INSTALL ADDRESSABLE RELAY TO RELEASE MAGNETIC DOOR HOLDER UPON ACTIVATION OF ANY FIRE ALARM INITIATING DEVICE IN BUILDING. CONNECT POWER SUPPLY TO MAGNETIC HOLD-OPEN DEVICES (EXISTING MAY BE RE-USED IF PRESENT) THROUGH NORMALLY CLOSED CONTACTS OF CONTROL RELAY.
- 08 EXISTING ELEVATOR CONTROL EQUIPMENT TO REMAIN. INSTALL ADDRESSABLE RELAYS TO INTERFACE EXISTING ELEVATOR CONTROLLERS TO NEW FIRE ALARM SYSTEM TO AUTOMATICALLY INITIATE THE FOLLOWING EMERGENCY FUNCTIONS:
 1. PRIMARY RECALL
 2. SECONDARY RECALL
 3. CAB LIGHT ILLUMINATION
 4. ELEVATOR POWER SHUNT/TRIP
 EMERGENCY FUNCTIONS SHALL CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 72 AND ASME A17.1.
- 09 EXISTING FIRE/SMOKE DAMPERS THROUGHOUT BUILDING TO REMAIN. REPLACE ALL EXISTING SMOKE DETECTORS PROVIDED TO CONTROL FIRE/SMOKE DAMPERS AND SMOKE DETECTORS WHERE REQUIRED BY THE IRC OR IMC. NEW DETECTORS SHALL BE LISTED COMPATIBLE WITH THE FIRE ALARM SYSTEM. INSTALL PROGRAMMABLE RELAY TO CLOSE DAMPERS UPON ACTUATION OF DETECTORS OR ANY OTHER FIRE ALARM INITIATING DEVICE IN THE BUILDING. NUMBER AND LOCATION OF DAMPERS, DETECTORS AND CONTROL RELAYS TO BE FIELD VERIFIED BY CONTRACTOR.
- 10 EXISTING ATRIUM SMOKE EVACUATION SYSTEM TO REMAIN. INSTALL ADDRESSABLE RELAYS TO ACTIVATE SMOKE EVACUATION SYSTEM. PROVIDE RELAYS TO OPERATE ALL INTAKE/EXHAUST LOUVERS AND EXHAUST/MAKE-UP AIR FANS THAT ARE REQUIRED FOR PROPER OPERATION OF THE SMOKE EVACUATION SYSTEM. PROGRAM RELAYS TO ACTIVATE SMOKE EVACUATION SYSTEM UPON OPERATION OF ANY OF THE FOLLOWING INITIATING DEVICES:
 1. WATER FLOW SWITCH FOR ATRIUM FIRE SPRINKLER ZONE
 2. PROJECTED BEAM SMOKE DETECTORS AT TOP OF ATRIUM
 3. SPOT TYPE SMOKE DETECTORS AROUND ATRIUM PERIMETER
 COORDINATE SMOKE EVACUATION SYSTEM INTERFACE WITH OWNER AND MAINTENANCE CONTRACTOR FOR BUILDING CONTROLS. CONTRACTOR TO INCLUDE COST OF ALL REQUIRED SERVICE CALLS BY BUILDING CONTROLS MAINTENANCE CONTRACTOR IN BID.
- 11 EXISTING SECURED EGRESS DOOR TO REMAIN. INSTALL ADDRESSABLE RELAY TO RELEASE SECURED DOOR UPON ACTIVATION OF ANY FIRE ALARM INITIATING DEVICE IN THE BUILDING. CONNECT POWER TO DOOR SECURITY HARDWARE (MAGNETIC PLATE OR ELECTRIC STRIKE) THROUGH NORMALLY CLOSED CONTACTS OF RELAY AND PROGRAM RELAY CONTACTS TO OPEN UPON ACTIVATION OF FIRE ALARM SYSTEM INTERRUPTING POWER SUPPLY TO SECURITY HARDWARE AND RELEASING DOOR. RELAY SHALL NOT RESET UNTIL THE FIRE ALARM SYSTEM IS RESTORED TO NORMAL CONDITION.
- 12 INSTALL ADDRESSABLE RELAYS TO PROVIDE SHUTDOWN OF ALL AIR MOVEMENT SYSTEMS WITH A CAPACITY IN EXCESS OF 2,000 CFM. INSTALL A SEPARATE RELAY FOR EACH AIR MOVEMENT SYSTEM AND CONNECT RELAY OUTPUTS TO AIR MOVEMENT SYSTEM CONTROLS. EXISTING NEW CONTROL CIRCUITS MAY BE RE-USED IF COMPLETELY FUNCTIONAL. PROGRAM RELAYS TO SHUT DOWN AIR MOVEMENT SYSTEMS UPON ACTIVATION OF ANY DUCT MOUNTED SMOKE DETECTOR OR OTHER FIRE ALARM INITIATING DEVICE IN BUILDING. COORDINATE AIR MOVEMENT SYSTEM CONTROLS INTERFACE WITH OWNER AND MAINTENANCE CONTRACTOR FOR BUILDING CONTROLS. CONTRACTOR TO INCLUDE COST OF ALL REQUIRED SERVICE CALLS BY BUILDING CONTROLS MAINTENANCE CONTRACTOR IN BID.
- 13 INSTALL SMOKE DETECTOR IN ACCORDANCE WITH IMC 606.2.3 AT CONNECTION OF RETURN AIR DUCT/PLENUM TO VERTICAL RETURN SHAFT ON EACH FLOOR LEVEL. SMOKE DETECTORS SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF NFPA 72 AND THE IMC. WHERE AIR VELOCITY IS LESS THAN 300 FPM PROVIDE A SPOT TYPE DETECTOR MOUNTED IN THE CENTER OF RETURN AIR FLOW AT THE CONNECTION TO THE VERTICAL RETURN SHAFT. WHERE AIR VELOCITY EXCEEDS 300 FPM PROVIDE A SAMPLING TUBE TYPE SMOKE DETECTOR WITH SAMPLING TUBE INSTALLED ACROSS RETURN AIR OPENING OR WITHIN RETURN AIR DUCT. CONTRACTOR TO DETERMINE AIR FLOW UNDER NORMAL OPERATING CONDITIONS TO DETERMINE APPROPRIATE DETECTOR TYPE FOR USE.
- 14 EXISTING ELECTRIC FIRE PUMP AND FIRE SPRINKLER RISERS (WET AND DRY PIPE) TO REMAIN. INSTALL ADDRESSABLE MODULES TO FACILITATE CONNECTION OF FIRE PUMP CONTROLLER (PUMP RUNNING, AC POWER FAIL AND AC POWER PHASE REVERSAL), FIRE PUMP CONTROL VALVES, FIRE SPRINKLER CONTROL VALVES, FIRE SPRINKLER FLOW SWITCHES AND AIR PRESSURE SWITCHES TO NEW FIRE ALARM SYSTEM.
- 15 EXISTING FIRE SUPPRESSION SYSTEM (INCLUDING SMOKE DETECTION SYSTEM) PROTECTING COMPUTER ROOM TO REMAIN. INSTALL ADDRESSABLE MODULES AT FIRE SUPPRESSION SYSTEM CONTROL PANEL TO RELAY FIRE SUPPRESSION SYSTEM ALARM, SUPERVISORY AND TROUBLE SIGNALS TO BUILDING FACP.
- 16 TYPE I COOKING HOOD WITH EXISTING WET-CHEMICAL FIRE SUPPRESSION SYSTEM TO REMAIN. INSTALL ADDRESSABLE MODULE TO FACILITATE CONNECTION OF ACTIVATION RELAY FOR FIRE SUPPRESSION SYSTEM TO NEW FIRE ALARM SYSTEM. PROGRAM ACTIVATION OF FIRE SUPPRESSION SYSTEM AS A FIRE ALARM SIGNAL.



REVISIONS:

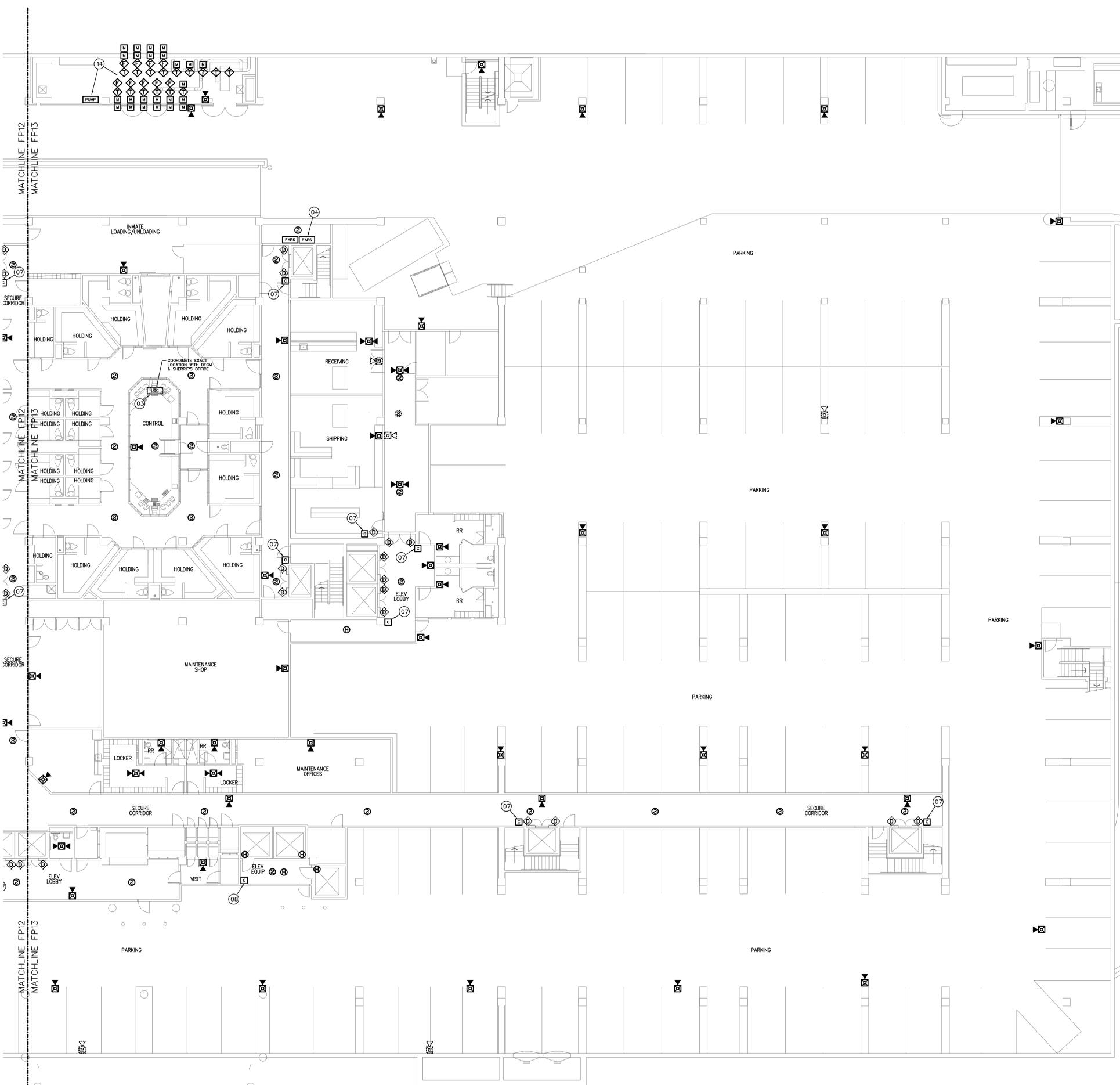
NO.	DESCRIPTION	DATE

DRAWING DATE: 11/8/13
 REVISION NUMBER: XX/XX/XX
 JOB NUMBER: 104968
 DWG ISSUE: REVIEW
 DRAWN BY: BBH
 CHECKED BY: GTJ

ADMINISTRATIVE OFFICE OF THE COURTS
 MATHESON COURTHOUSE
 450 SOUTH STATE STREET
 SALT LAKE CITY, UTAH

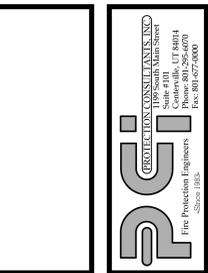
FIRE ALARM SYSTEM REPLACEMENT
 DFCM PROJECT #13244150

PARKING
 LEVEL 1 SOUTH
FA12



FIRE ALARM SYSTEM KEY NOTES

- 01 REPLACE EXISTING FIRE/EMERGENCY VOICE ALARM CONTROL PANEL WITH NEW, ADDRESSABLE FIRE ALARM CONTROL PANEL WITH COMPLETE EMERGENCY VOICE ALARM CAPABILITIES. PROVIDE ALL REQUIRED CONTROL PANELS, AUDIO SYSTEM INTERFACES, MODULES, CABINETS, POWER SUPPLIES, ETC. TO PROVIDE A COMPLETE AND FUNCTIONAL FIRE/EMERGENCY VOICE ALARM SYSTEM COMPLIANT WITH ALL APPLICABLE PROVISIONS OF NFPA 72 AND THE INTERNATIONAL BUILDING/FIRE CODES. CONTROL PANEL SHALL HAVE SUFFICIENT CAPACITY TO MONITOR ALL INITIATING DEVICES SHOWN ON PLANS WITH AN ADDITIONAL SPARE CAPACITY OF 20% FOR FUTURE EXPANSION. EXISTING 120 VAC POWER CIRCUIT MAY BE RE-USED BUT PROVIDE NEW BATTERIES FOR SECONDARY POWER SUPPLY. EXISTING SLC, INITIATING DEVICE AND NOTIFICATION APPLIANCE (AUDIBLE AND VISUAL) CIRCUITS MAY BE RE-CONFIGURED AND RE-USED IF COMPLETELY FUNCTIONAL AND COMPATIBLE WITH NEW FACP/DEVICES. PROVIDE DIGITAL ALARM COMMUNICATOR/TRANSMITTER (EXISTING MAY BE RE-USED) AND CONNECT TO EXISTING PRIMARY AND SECONDARY PHONE LINES TO RELAY FIRE ALARM AND SUPERVISORY SIGNALS TO OFFPREMISE MONITORING COMPANY SELECTED BY OWNER.
- 02 REPLACE EXISTING AUDIO AMPLIFIERS/TRANSPONDERS (AT FACP AND REMOTE LOCATIONS, WHERE PRESENT) WITH NEW EQUIPMENT LISTED COMPATIBLE AND INTERLOCKED WITH NEW FACP. AMPLIFIERS AND CIRCUIT WIRING SHALL HAVE SUFFICIENT CAPACITY TO PROVIDE A MINIMUM OF THREE PAGING ZONES (NORTH, SOUTH AND WEST) PER BUILDING LEVEL. AUDIO EQUIPMENT SHALL HAVE THE CAPABILITY OF STORING A MINIMUM OF EIGHT PRE-RECORDED MESSAGES THAT CAN BE BROADCAST TO THE ENTIRE BUILDING OR TO ANY INDIVIDUAL PAGING ZONE OR GROUP OF PAGING ZONES USING PROGRAMMABLE BUTTONS INTEGRATED INTO THE CONTROL EQUIPMENT. PROVIDE A MICROPHONE TO FACILITATE BROADCAST OF MANUAL MESSAGES TO THE ENTIRE BUILDING OR TO ANY INDIVIDUAL PAGING ZONE OR GROUP OF PAGING ZONES. AUDIO EQUIPMENT AND CIRCUITS SHALL HAVE SUFFICIENT CAPACITY TO PROVIDE POWER TO ALL SPEAKERS SHOWN ON PLANS WITH AN ADDITIONAL RESERVE CAPACITY OF 50% FOR FUTURE EXPANSION AND/OR VOLUME ADJUSTMENTS.
- 03 FIRE ALARM ANNUNCIATOR PANEL AND EMERGENCY VOICE ALARM OPERATING CONSOLE. FIRE ALARM ANNUNCIATOR SHALL BE LCD TYPE TO DISPLAY STATUS OF FIRE ALARM SYSTEM WITH BUTTONS TO ALLOW FULL SYSTEM CONTROL (ACKNOWLEDGE, SILENCE, RESET, ETC.). EMERGENCY VOICE ALARM OPERATING CONSOLE SHALL HAVE BUTTONS FOR ACTIVATION OF PRE-RECORDED MESSAGES AND A BUILT-IN MICROPHONE FOR MANUAL MESSAGES. CONFIGURE OPERATING CONSOLE TO ALLOW VOICE MESSAGES TO BE BROADCAST TO INDIVIDUAL BUILDING ZONES OR TO ENTIRE BUILDING.
- 04 DEMOLISH EXISTING NOTIFICATION APPLIANCE POWER SUPPLY AND REPLACE WITH NEW REMOTE POWER SUPPLY TO PROVIDE 24 VDC POWER TO NOTIFICATION APPLIANCES (STROBES) THROUGHOUT BUILDING. NUMBER AND LOCATION OF REMOTE POWER SUPPLIES SHALL BE SUFFICIENT TO PROVIDE A SEPARATE NOTIFICATION ZONE FOR EACH FLOOR LEVEL OF BUILDING. REQUIRED CAPACITY AND NUMBER OF POWER SUPPLIES TO BE DETERMINED BY CONTRACTOR. SURFACE MOUNT ON WALLS OF TELECOMMUNICATIONS ROOMS. CONNECT POWER SUPPLIES TO BUILDING FACP TO PROVIDE ACTIVATION OF NOTIFICATION APPLIANCES AND TROUBLE SUPERVISION. EXISTING 120 VAC POWER CIRCUITS MAY BE RE-USED BUT PROVIDE NEW BATTERIES FOR SECONDARY POWER SUPPLY. CONFIGURE POWER SUPPLIES TO SYNCHRONIZE VISUAL SIGNALS OF ALL NOTIFICATION APPLIANCES LOCATED WITHIN A SINGLE FIELD OF VIEW.
- 05 EXISTING ROLLING FIRE DOOR (WON-DOOR) TO REMAIN. INSTALL ADDRESSABLE RELAY INTERFACED WITH DOOR CONTROLLER TO CLOSE FIRE DOOR UPON OPERATION OF SMOKE DETECTORS (SPOT TYPE OR PROJECTED BEAM TYPE) ON EITHER SIDE OF FIRE DOOR. TEST AUTOMATIC OPERATION OF FIRE DOOR AND ADJUST AS REQUIRED TO CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 80.
- 06 EXISTING ROLL DOWN FIRE SHUTTER TO REMAIN. INSTALL ADDRESSABLE RELAY INTERFACED WITH FIRE SHUTTER CONTROLLER TO CLOSE SHUTTER UPON OPERATION OF SMOKE DETECTORS ON EITHER SIDE OF SHUTTER. TEST AUTOMATIC OPERATION OF FIRE SHUTTER AND ADJUST AS REQUIRED TO CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 80.
- 07 EXISTING FIRE DOOR WITH NEW OR EXISTING (SEE LEGEND) MAGNETIC DOOR HOLD-OPEN DEVICE TO REMAIN. INSTALL ADDRESSABLE RELAY TO RELEASE MAGNETIC DOOR HOLDER UPON ACTIVATION OF ANY FIRE ALARM INITIATING DEVICE IN BUILDING. CONNECT POWER SUPPLY TO MAGNETIC HOLD-OPEN DEVICES (EXISTING MAY BE RE-USED IF PRESENT) THROUGH NORMALLY CLOSED CONTACTS OF CONTROL RELAY.
- 08 EXISTING ELEVATOR CONTROL EQUIPMENT TO REMAIN. INSTALL ADDRESSABLE RELAYS TO INTERFACE EXISTING ELEVATOR CONTROLLERS TO NEW FIRE ALARM SYSTEM TO AUTOMATICALLY INITIATE THE FOLLOWING EMERGENCY FUNCTIONS:
 1. PRIMARY RECALL
 2. SECONDARY RECALL
 3. CAB LIGHT ILLUMINATION
 4. ELEVATOR POWER SHUNT/TRIP
 EMERGENCY FUNCTIONS SHALL CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 72 AND ASME A17.1.
- 09 EXISTING FIRE/SMOKE DAMPERS THROUGHOUT BUILDING TO REMAIN. REPLACE ALL EXISTING SMOKE DETECTORS PROVIDED TO CONTROL FIRE/SMOKE DAMPERS AND INSTALL NEW DETECTORS WHERE REQUIRED BY THE IRC. NEW DETECTORS SHALL BE LISTED COMPATIBLE WITH THE FIRE ALARM SYSTEM. INSTALL PROGRAMMABLE RELAY TO CLOSE DAMPERS UPON ACTUATION OF DETECTORS OR ANY OTHER FIRE ALARM INITIATING DEVICE IN THE BUILDING. NUMBER AND LOCATION OF DAMPERS, DETECTORS AND CONTROL RELAYS TO BE FIELD VERIFIED BY CONTRACTOR.
- 10 EXISTING ATRIUM SMOKE EVACUATION SYSTEM TO REMAIN. INSTALL ADDRESSABLE RELAYS TO ACTIVATE SMOKE EVACUATION SYSTEM. PROVIDE RELAYS TO OPERATE ALL INTAKE/EXHAUST LOUVERS AND EXHAUST/MAKE-UP AIR FANS THAT ARE REQUIRED FOR PROPER OPERATION OF THE SMOKE EVACUATION SYSTEM. PROGRAM RELAYS TO ACTIVATE SMOKE EVACUATION SYSTEM UPON OPERATION OF ANY OF THE FOLLOWING INITIATING DEVICES:
 1. WATER FLOW SWITCH FOR ATRIUM FIRE SPRINKLER ZONE
 2. PROJECTED BEAM SMOKE DETECTORS AT TOP OF ATRIUM
 3. SPOT TYPE SMOKE DETECTORS AROUND ATRIUM PERIMETER
 COORDINATE SMOKE EVACUATION SYSTEM INTERFACE WITH OWNER AND MAINTENANCE CONTRACTOR FOR BUILDING CONTROLS. CONTRACTOR TO INCLUDE COST OF ALL REQUIRED SERVICE CALLS BY BUILDING CONTROLS MAINTENANCE CONTRACTOR IN BID.
- 11 EXISTING SECURED EGRESS DOOR TO REMAIN. INSTALL ADDRESSABLE RELAY TO RELEASE SECURED DOOR UPON ACTIVATION OF ANY FIRE ALARM INITIATING DEVICE IN THE BUILDING. CONNECT POWER TO DOOR SECURITY HARDWARE (MAGNETIC PLATE OR ELECTRIC STRIKE) THROUGH NORMALLY CLOSED CONTACTS OF RELAY AND PROGRAM RELAY CONTACTS TO OPEN UPON ACTIVATION OF FIRE ALARM SYSTEM INTERRUPTING POWER SUPPLY TO SECURITY HARDWARE AND RELEASING DOOR. RELAY SHALL NOT RESET UNTIL THE FIRE ALARM SYSTEM IS RESTORED TO NORMAL CONDITION.
- 12 INSTALL ADDRESSABLE RELAYS TO PROVIDE SHUTDOWN OF ALL AIR MOVEMENT SYSTEMS WITH A CAPACITY IN EXCESS OF 2,000 CFM. INSTALL A SEPARATE RELAY FOR EACH AIR MOVEMENT SYSTEM AND CONNECT RELAY OUTPUTS TO AIR MOVEMENT SYSTEM CONTROLS. EXISTING NEW CONTROL CIRCUITS MAY BE RE-USED IF COMPLETELY FUNCTIONAL. PROGRAM RELAYS TO SHUT DOWN AIR MOVEMENT SYSTEMS UPON ACTIVATION OF ANY DUCT MOUNTED SMOKE DETECTOR OR OTHER FIRE ALARM INITIATING DEVICE IN BUILDING. COORDINATE AIR MOVEMENT SYSTEM CONTROLS INTERFACE WITH OWNER AND MAINTENANCE CONTRACTOR FOR BUILDING CONTROLS. CONTRACTOR TO INCLUDE COST OF ALL REQUIRED SERVICE CALLS BY BUILDING CONTROLS MAINTENANCE CONTRACTOR IN BID.
- 13 INSTALL SMOKE DETECTOR IN ACCORDANCE WITH IMC 606.2.3 AT CONNECTION OF RETURN AIR DUCT/PLENUM TO VERTICAL RETURN SHAFT ON EACH FLOOR LEVEL. SMOKE DETECTORS SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF NFPA 72 AND THE IMC. WHERE AIR VELOCITY IS LESS THAN 300 FPM PROVIDE A SPOT TYPE DETECTOR MOUNTED IN THE CENTER OF RETURN AIR FLOW AT THE CONNECTION TO THE VERTICAL RETURN SHAFT. WHERE AIR VELOCITY EXCEEDS 300 FPM PROVIDE A SAMPLING TUBE TYPE SMOKE DETECTOR WITH SAMPLING TUBE INSTALLED ACROSS RETURN AIR OPENING OR WITHIN RETURN AIR DUCT. CONTRACTOR TO DETERMINE AIR FLOW UNDER NORMAL OPERATING CONDITIONS TO DETERMINE APPROPRIATE DETECTOR TYPE FOR USE.
- 14 EXISTING ELECTRIC FIRE PUMP AND FIRE SPRINKLER RISERS (WET AND DRY PIPE) TO REMAIN. INSTALL ADDRESSABLE MODULES TO FACILITATE CONNECTION OF FIRE PUMP CONTROLLER (PUMP RUNNING, AC POWER FAIL AND AC POWER PHASE REVERSAL), FIRE PUMP CONTROL VALVES, FIRE SPRINKLER CONTROL VALVES, FIRE SPRINKLER FLOW SWITCHES AND AIR PRESSURE SWITCHES TO NEW FIRE ALARM SYSTEM.
- 15 EXISTING FIRE SUPPRESSION SYSTEM (INCLUDING SMOKE DETECTION SYSTEM) PROTECTING COMPUTER ROOM TO REMAIN. INSTALL ADDRESSABLE MODULES AT FIRE SUPPRESSION SYSTEM CONTROL PANEL TO RELAY FIRE SUPPRESSION SYSTEM ALARM, SUPERVISORY AND TROUBLE SIGNALS TO BUILDING FACP.
- 16 TYPE I COOKING HOOD WITH EXISTING WET-CHEMICAL FIRE SUPPRESSION SYSTEM TO REMAIN. INSTALL ADDRESSABLE MODULE TO FACILITATE CONNECTION OF ACTIVATION RELAY FOR FIRE SUPPRESSION SYSTEM TO NEW FIRE ALARM SYSTEM. PROGRAM ACTIVATION OF FIRE SUPPRESSION SYSTEM AS A FIRE ALARM SIGNAL.



REVISIONS:

NO.	DATE	DESCRIPTION

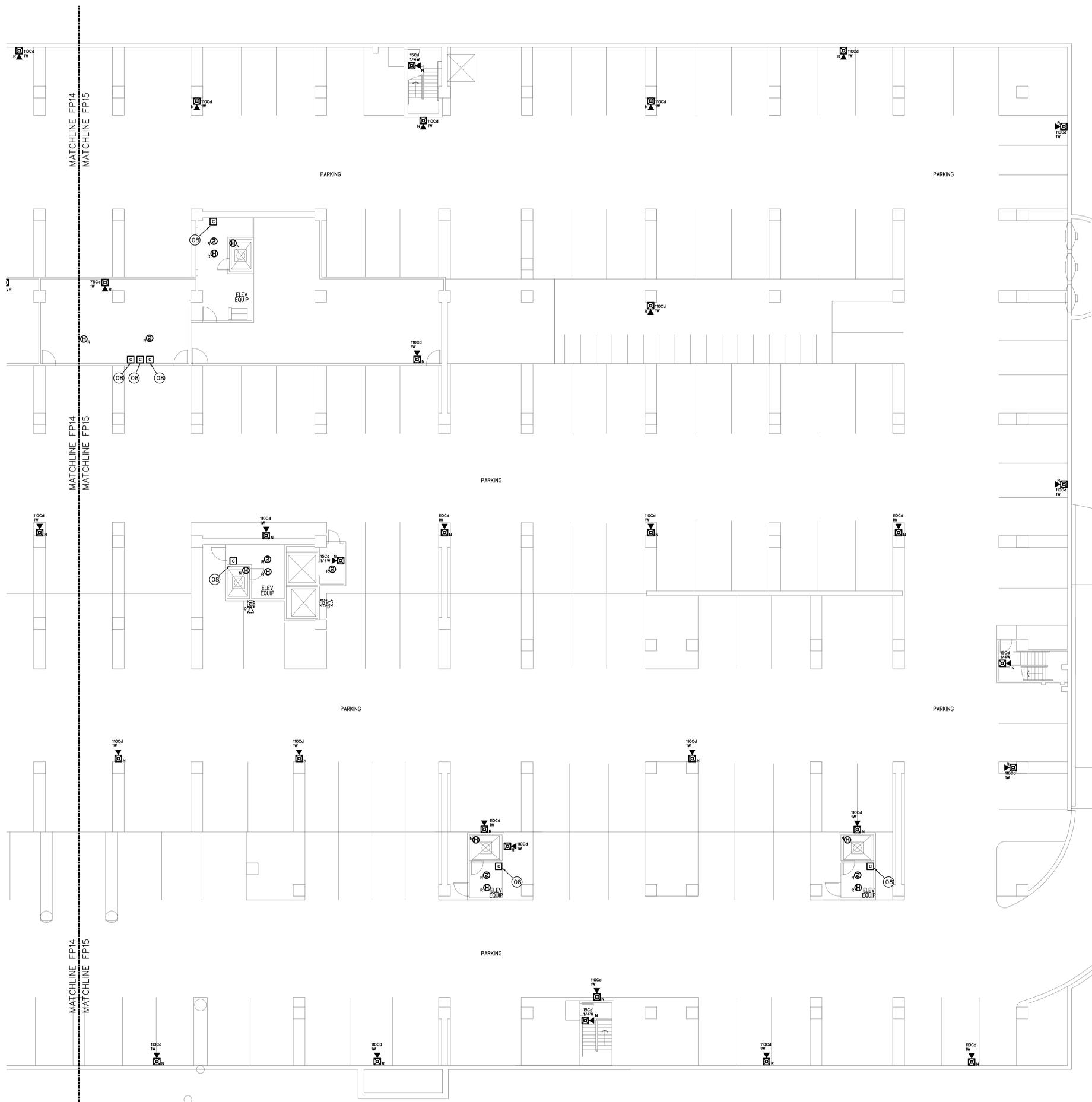
DRAWING DATE: 11/8/13
 REVISION DATE: XXX/XX/XX
 JOB NUMBER: 104968
 DWG ISSUE: REVIEW
 DRAWN BY: BBH
 CHECKED BY: GTJ

ADMINISTRATIVE OFFICE OF THE COURTS
 MATHESON COURTHOUSE
 450 SOUTH STATE STREET
 SALT LAKE CITY, UTAH

FIRE ALARM SYSTEM REPLACEMENT
 DFCM PROJECT #13244150

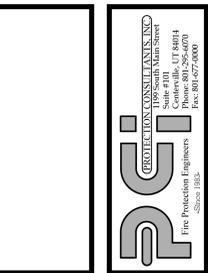
FIRE ALARM SYSTEM REPLACEMENT – PARKING LEVEL 1 NORTH
 SCALE: 3/32" = 1'-0"

PARKING
 LEVEL 1 NORTH
FA13



FIRE ALARM SYSTEM KEY NOTES

- 01 REPLACE EXISTING FIRE/EMERGENCY VOICE ALARM CONTROL PANEL WITH NEW, ADDRESSABLE FIRE ALARM CONTROL PANEL WITH COMPLETE EMERGENCY VOICE ALARM CAPABILITIES. PROVIDE ALL REQUIRED CONTROL PANELS, AUDIO SYSTEM INTERFACES, MODULES, CABINETS, POWER SUPPLIES, ETC. TO PROVIDE A COMPLETE AND FUNCTIONAL FIRE/EMERGENCY VOICE ALARM SYSTEM COMPLIANT WITH ALL APPLICABLE PROVISIONS OF NFPA 72 AND THE INTERNATIONAL BUILDING/FIRE CODES. CONTROL PANEL SHALL HAVE SUFFICIENT CAPACITY TO MONITOR ALL INITIATING DEVICES SHOWN ON PLANS WITH AN ADDITIONAL SPARE CAPACITY OF 20% FOR FUTURE EXPANSION. EXISTING 120 VAC POWER CIRCUIT MAY BE RE-USED BUT PROVIDE NEW BATTERIES FOR SECONDARY POWER SUPPLY. EXISTING SLC, INITIATING DEVICE AND NOTIFICATION APPLIANCE (AUDIBLE AND VISUAL) CIRCUITS MAY BE RECONFIGURED AND RE-USED IF COMPLETELY FUNCTIONAL AND COMPATIBLE WITH NEW FACP/DEVICE. PROVIDE DIGITAL ALARM COMMUNICATOR/TRANSMITTER (EXISTING MAY BE RE-USED) AND CONNECT TO EXISTING PRIMARY AND SECONDARY PHONE LINES TO RELAY FIRE ALARM AND SUPERVISORY SIGNALS TO OFFPREMISE MONITORING COMPANY SELECTED BY OWNER.
- 02 REPLACE EXISTING AUDIO AMPLIFIERS/TRANSPONDERS (AT FACP AND REMOTE LOCATIONS, WHERE PRESENT) WITH NEW EQUIPMENT LISTED COMPATIBLE AND INTERLOCKED WITH NEW FACP. AMPLIFIERS AND CIRCUIT WIRING SHALL HAVE SUFFICIENT CAPACITY TO PROVIDE A MINIMUM OF THREE PAGING ZONES (NORTH, SOUTH AND WEST) PER BUILDING LEVEL. AUDIO EQUIPMENT SHALL HAVE THE CAPABILITY OF STORING A MINIMUM OF EIGHT PRE-RECORDED MESSAGES THAT CAN BE BROADCAST TO THE ENTIRE BUILDING OR TO ANY INDIVIDUAL PAGING ZONE OR GROUP OF PAGING ZONES USING PROGRAMMABLE BUTTONS INTEGRATED INTO THE CONTROL EQUIPMENT. PROVIDE A MICROPHONE TO FACILITATE BROADCAST OF MANUAL MESSAGES TO THE ENTIRE BUILDING OR TO ANY INDIVIDUAL PAGING ZONE OR GROUP OF PAGING ZONES. AUDIO EQUIPMENT AND CIRCUITS SHALL HAVE SUFFICIENT CAPACITY TO PROVIDE POWER TO ALL SPEAKERS SHOWN ON PLANS WITH AN ADDITIONAL RESERVE CAPACITY OF 50% FOR FUTURE EXPANSION AND/OR VOLUME ADJUSTMENTS.
- 03 FIRE ALARM ANNUNCIATOR PANEL AND EMERGENCY VOICE ALARM OPERATING CONSOLE. FIRE ALARM ANNUNCIATOR SHALL BE LCD TYPE TO DISPLAY STATUS OF FIRE ALARM SYSTEM WITH BUTTONS TO ALLOW FULL SYSTEM CONTROL (ACKNOWLEDGE, SILENCE, RESET, ETC.). EMERGENCY VOICE ALARM OPERATING CONSOLE SHALL HAVE BUTTONS FOR ACTIVATION OF PRE-RECORDED MESSAGES AND A BUILT-IN MICROPHONE FOR MANUAL MESSAGES. CONFIGURE OPERATING CONSOLE TO ALLOW VOICE MESSAGES TO BE BROADCAST TO INDIVIDUAL BUILDING ZONES OR TO ENTIRE BUILDING.
- 04 DEMOLISH EXISTING NOTIFICATION APPLIANCE POWER SUPPLY AND REPLACE WITH NEW REMOTE POWER SUPPLY TO PROVIDE 24 VDC POWER TO NOTIFICATION APPLIANCES (STROBES) THROUGHOUT BUILDING. NUMBER AND LOCATION OF REMOTE POWER SUPPLIES SHALL BE SUFFICIENT TO PROVIDE A SEPARATE NOTIFICATION ZONE FOR EACH FLOOR LEVEL OF BUILDING. REQUIRED CAPACITY AND NUMBER OF POWER SUPPLIES TO BE DETERMINED BY CONTRACTOR. SURFACE MOUNT ON WALLS OF TELECOMMUNICATIONS ROOMS. CONNECT POWER SUPPLIES TO BUILDING FACP TO PROVIDE ACTIVATION OF NOTIFICATION APPLIANCES AND TROUBLE SUPERVISION. EXISTING 120 VAC POWER CIRCUITS MAY BE RE-USED BUT PROVIDE NEW BATTERIES FOR SECONDARY POWER SUPPLY. CONFIGURE POWER SUPPLIES TO SYNCHRONIZE VISUAL SIGNALS OF ALL NOTIFICATION APPLIANCES LOCATED WITHIN A SINGLE FIELD OF VIEW.
- 05 EXISTING ROLLING FIRE DOOR (WON-DOOR) TO REMAIN. INSTALL ADDRESSABLE RELAY INTERFACED WITH DOOR CONTROLLER TO CLOSE FIRE DOOR UPON OPERATION OF SMOKE DETECTORS (SPOT TYPE OR PROJECTED BEAM TYPE) ON EITHER SIDE OF FIRE DOOR. TEST AUTOMATIC OPERATION OF FIRE DOOR AND ADJUST AS REQUIRED TO CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 80.
- 06 EXISTING ROLL DOWN FIRE SHUTTER TO REMAIN. INSTALL ADDRESSABLE RELAY INTERFACED WITH FIRE SHUTTER CONTROLLER TO CLOSE SHUTTER UPON OPERATION OF SMOKE DETECTORS ON EITHER SIDE OF SHUTTER. TEST AUTOMATIC OPERATION OF FIRE SHUTTER AND ADJUST AS REQUIRED TO CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 80.
- 07 EXISTING FIRE DOOR WITH NEW OR EXISTING (SEE LEGEND) MAGNETIC DOOR HOLD-OPEN DEVICE TO REMAIN. INSTALL ADDRESSABLE RELAY TO RELEASE MAGNETIC DOOR HOLDER UPON ACTIVATION OF ANY FIRE ALARM INITIATING DEVICE IN BUILDING. CONNECT POWER SUPPLY TO MAGNETIC HOLD-OPEN DEVICES (EXISTING MAY BE RE-USED IF PRESENT) THROUGH NORMALLY CLOSED CONTACTS OF CONTROL RELAY.
- 08 EXISTING ELEVATOR CONTROL EQUIPMENT TO REMAIN. INSTALL ADDRESSABLE RELAYS TO INTERFACE EXISTING ELEVATOR CONTROLLERS TO NEW FIRE ALARM SYSTEM TO AUTOMATICALLY INITIATE THE FOLLOWING EMERGENCY FUNCTIONS:
 1. PRIMARY RECALL
 2. SECONDARY RECALL
 3. CAB LIGHT ILLUMINATION
 4. ELEVATOR POWER SHUNT/TRIP
 EMERGENCY FUNCTIONS SHALL CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 72 AND ASME A17.1.
- 09 EXISTING FIRE/SMOKE DAMPERS THROUGHOUT BUILDING TO REMAIN. REPLACE ALL EXISTING SMOKE DETECTORS PROVIDED TO CONTROL FIRE/SMOKE DAMPERS AND INSTALL NEW DETECTORS WHERE REQUIRED BY THE IRC OR IMC. NEW DETECTORS SHALL BE LISTED COMPATIBLE WITH THE FIRE ALARM SYSTEM. INSTALL PROGRAMMABLE RELAY TO CLOSE DAMPERS UPON ACTUATION OF DETECTORS OR ANY OTHER FIRE ALARM INITIATING DEVICE IN THE BUILDING. NUMBER AND LOCATION OF DAMPERS, DETECTORS AND CONTROL RELAYS TO BE FIELD VERIFIED BY CONTRACTOR.
- 10 EXISTING ATRIUM SMOKE EVACUATION SYSTEM TO REMAIN. INSTALL ADDRESSABLE RELAYS TO ACTIVATE SMOKE EVACUATION SYSTEM. PROVIDE RELAYS TO OPERATE ALL INTAKE/EXHAUST LOUVERS AND EXHAUST/MAKE-UP AIR FANS THAT ARE REQUIRED FOR PROPER OPERATION OF THE SMOKE EVACUATION SYSTEM. PROGRAM RELAYS TO ACTIVATE SMOKE EVACUATION SYSTEM UPON OPERATION OF ANY OF THE FOLLOWING INITIATING DEVICES:
 1. WATER FLOW SWITCH FOR ATRIUM FIRE SPRINKLER ZONE
 2. PROJECTED BEAM SMOKE DETECTORS AT TOP OF ATRIUM
 3. SPOT TYPE SMOKE DETECTORS AROUND ATRIUM PERIMETER
 COORDINATE SMOKE EVACUATION SYSTEM INTERFACE WITH OWNER AND MAINTENANCE CONTRACTOR FOR BUILDING CONTROLS. CONTRACTOR TO INCLUDE COST OF ALL REQUIRED SERVICE CALLS BY BUILDING CONTROLS MAINTENANCE CONTRACTOR IN BID.
- 11 EXISTING SECURED EGRESS DOOR TO REMAIN. INSTALL ADDRESSABLE RELAY TO RELEASE SECURED DOOR UPON ACTIVATION OF ANY FIRE ALARM INITIATING DEVICE IN THE BUILDING. CONNECT POWER TO DOOR SECURITY HARDWARE (MAGNETIC PLATE OR ELECTRIC STRIKE) THROUGH NORMALLY CLOSED CONTACTS OF RELAY AND PROGRAM RELAY CONTACTS TO OPEN UPON ACTIVATION OF FIRE ALARM SYSTEM INTERRUPTING POWER SUPPLY TO SECURITY HARDWARE AND RELEASING DOOR. RELAY SHALL NOT RESET UNTIL THE FIRE ALARM SYSTEM IS RESTORED TO NORMAL CONDITION.
- 12 INSTALL ADDRESSABLE RELAYS TO PROVIDE SHUTDOWN OF ALL AIR MOVEMENT SYSTEMS WITH A CAPACITY IN EXCESS OF 2,000 CFM. INSTALL A SEPARATE RELAY FOR EACH AIR MOVEMENT SYSTEM AND CONNECT RELAY OUTPUTS TO AIR MOVEMENT SYSTEM CONTROLS. EXISTING NEW CONTROL CIRCUITS MAY BE RE-USED IF COMPLETELY FUNCTIONAL. PROGRAM RELAYS TO SHUT DOWN AIR MOVEMENT SYSTEMS UPON ACTIVATION OF ANY DUCT MOUNTED SMOKE DETECTOR OR OTHER FIRE ALARM INITIATING DEVICE IN BUILDING. COORDINATE AIR MOVEMENT SYSTEM CONTROLS INTERFACE WITH OWNER AND MAINTENANCE CONTRACTOR FOR BUILDING CONTROLS. CONTRACTOR TO INCLUDE COST OF ALL REQUIRED SERVICE CALLS BY BUILDING CONTROLS MAINTENANCE CONTRACTOR IN BID.
- 13 INSTALL SMOKE DETECTOR IN ACCORDANCE WITH IMC 606.2.3 AT CONNECTION OF RETURN AIR DUCT/PLENUM TO VERTICAL RETURN SHAFT ON EACH FLOOR LEVEL. SMOKE DETECTORS SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF NFPA 72 AND THE IMC. WHERE AIR VELOCITY IS LESS THAN 300 FPM PROVIDE A SPOT TYPE DETECTOR MOUNTED IN THE CENTER OF RETURN AIR FLOW AT THE CONNECTION TO THE VERTICAL RETURN SHAFT. WHERE AIR VELOCITY EXCEEDS 300 FPM PROVIDE A SAMPLING TUBE TYPE SMOKE DETECTOR WITH SAMPLING TUBE INSTALLED ACROSS RETURN AIR OPENING OR WITHIN RETURN AIR DUCT. CONTRACTOR TO DETERMINE AIR FLOW UNDER NORMAL OPERATING CONDITIONS TO DETERMINE APPROPRIATE DETECTOR TYPE FOR USE.
- 14 EXISTING ELECTRIC FIRE PUMP AND FIRE SPRINKLER RISERS (WET AND DRY PIPE) TO REMAIN. INSTALL ADDRESSABLE MODULES TO FACILITATE CONNECTION OF FIRE PUMP CONTROLLER (PUMP RUNNING, AC POWER FAIL AND AC POWER PHASE REVERSAL), FIRE PUMP CONTROL VALVES, FIRE SPRINKLER CONTROL VALVES, FIRE SPRINKLER FLOW SWITCHES AND AIR PRESSURE SWITCHES TO NEW FIRE ALARM SYSTEM.
- 15 EXISTING FIRE SUPPRESSION SYSTEM (INCLUDING SMOKE DETECTION SYSTEM) PROTECTING COMPUTER ROOM TO REMAIN. INSTALL ADDRESSABLE MODULES AT FIRE SUPPRESSION SYSTEM CONTROL PANEL TO RELAY FIRE SUPPRESSION SYSTEM ALARM, SUPERVISORY AND TROUBLE SIGNALS TO BUILDING FACP.
- 16 TYPE I COOKING HOOD WITH EXISTING WET-CHEMICAL FIRE SUPPRESSION SYSTEM TO REMAIN. INSTALL ADDRESSABLE MODULE TO FACILITATE CONNECTION OF ACTIVATION RELAY FOR FIRE SUPPRESSION SYSTEM TO NEW FIRE ALARM SYSTEM. PROGRAM ACTIVATION OF FIRE SUPPRESSION SYSTEM AS A FIRE ALARM SIGNAL.



REVISIONS:

NO.	DATE	DESCRIPTION

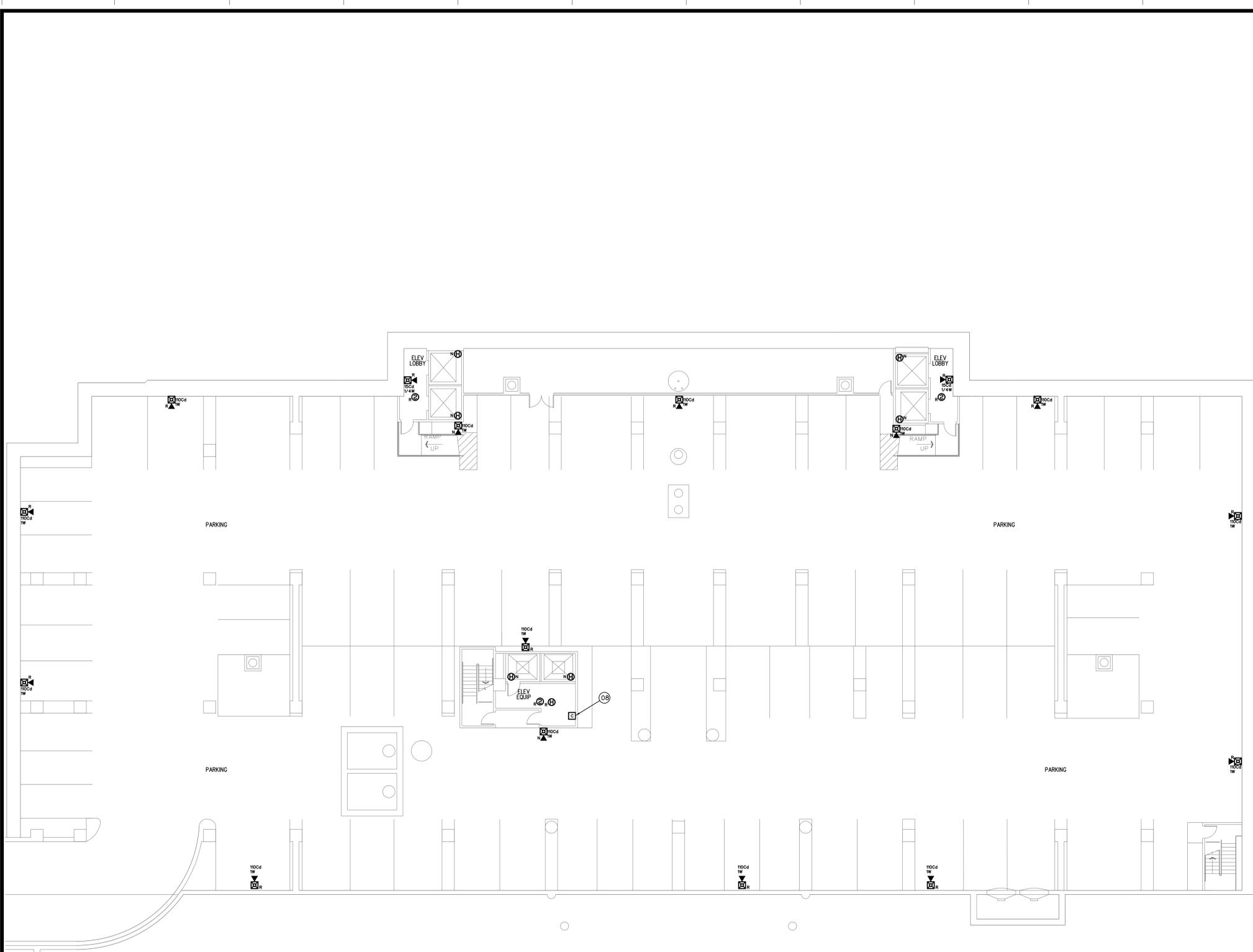
DRAWING DATE: 11/8/13
 REVISION DATE: XX/XX/XX
 JOB NUMBER: 104968
 DWG ISSUE: REVIEW
 DRAWN BY: BBH
 CHECKED BY: GTJ

ADMINISTRATIVE OFFICE OF THE COURTS
 MATHESON COURTHOUSE
 450 SOUTH STATE STREET
 SALT LAKE CITY, UTAH

FIRE ALARM SYSTEM REPLACEMENT
 DFCM PROJECT #13244150

PARKING
 LEVEL 2 NORTH
FA15

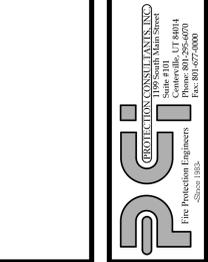
FIRE ALARM SYSTEM REPLACEMENT – PARKING LEVEL 2 SOUTH
 SCALE: 3/32" = 1'-0"



FIRE ALARM SYSTEM REPLACEMENT – PARKING LEVEL 3
 SCALE: 3/32" = 1'-0"

FIRE ALARM SYSTEM KEY NOTES

- 01 REPLACE EXISTING FIRE/EMERGENCY VOICE ALARM CONTROL PANEL WITH NEW, ADDRESSABLE FIRE ALARM CONTROL PANEL WITH COMPLETE EMERGENCY VOICE ALARM CAPABILITIES. PROVIDE ALL REQUIRED CONTROL PANELS, AUDIO SYSTEM INTERFACES, MODULES, CABINETS, POWER SUPPLIES, ETC. TO PROVIDE A COMPLETE AND FUNCTIONAL FIRE/EMERGENCY VOICE ALARM SYSTEM COMPLIANT WITH ALL APPLICABLE PROVISIONS OF NFPA 72 AND THE INTERNATIONAL BUILDING/FIRE CODES. CONTROL PANEL SHALL HAVE SUFFICIENT CAPACITY TO MONITOR ALL INITIATING DEVICES SHOWN ON PLANS WITH AN ADDITIONAL SPARE CAPACITY OF 20% FOR FUTURE EXPANSION. EXISTING 120 VAC POWER CIRCUIT MAY BE RE-USED BUT PROVIDE NEW BATTERIES FOR SECONDARY POWER SUPPLY. EXISTING SLC, INITIATING DEVICE AND NOTIFICATION APPLIANCE (AUDIBLE AND VISUAL) CIRCUITS MAY BE RECONFIGURED AND RE-USED IF COMPLETELY FUNCTIONAL AND COMPATIBLE WITH NEW FACP/DEVICES. PROVIDE DIGITAL ALARM COMMUNICATOR/TRANSMITTER (EXISTING MAY BE RE-USED) AND CONNECT TO EXISTING PRIMARY AND SECONDARY PHONE LINES TO RELAY FIRE ALARM AND SUPERVISORY SIGNALS TO OFFPREMISE MONITORING COMPANY SELECTED BY OWNER.
- 02 REPLACE EXISTING AUDIO AMPLIFIERS/TRANSPONDERS (AT FACP AND REMOTE LOCATIONS, WHERE PRESENT) WITH NEW EQUIPMENT LISTED COMPATIBLE AND INTERLOCKED WITH NEW FACP. AMPLIFIERS AND CIRCUIT WIRING SHALL HAVE SUFFICIENT CAPACITY TO PROVIDE A MINIMUM OF THREE PAGING ZONES (NORTH, SOUTH AND WEST) PER BUILDING LEVEL. AUDIO EQUIPMENT SHALL HAVE THE CAPABILITY OF STORING A MINIMUM OF EIGHT PRE-RECORDED MESSAGES THAT CAN BE BROADCAST TO THE ENTIRE BUILDING OR TO ANY INDIVIDUAL PAGING ZONE OR GROUP OF PAGING ZONES USING PROGRAMMABLE BUTTONS INTEGRATED INTO THE CONTROL EQUIPMENT. PROVIDE A MICROPHONE TO FACILITATE BROADCAST OF MANUAL MESSAGES TO THE ENTIRE BUILDING OR TO ANY INDIVIDUAL PAGING ZONE OR GROUP OF PAGING ZONES. AUDIO EQUIPMENT AND CIRCUITS SHALL HAVE SUFFICIENT CAPACITY TO PROVIDE POWER TO ALL SPEAKERS SHOWN ON PLANS WITH AN ADDITIONAL RESERVE CAPACITY OF 50% FOR FUTURE EXPANSION AND/OR VOLUME ADJUSTMENTS.
- 03 FIRE ALARM ANNUNCIATOR PANEL AND EMERGENCY VOICE ALARM OPERATING CONSOLE. FIRE ALARM ANNUNCIATOR SHALL BE LCD TYPE TO DISPLAY STATUS OF FIRE ALARM SYSTEM WITH BUTTONS TO ALLOW FULL SYSTEM CONTROL (ACKNOWLEDGE, SILENCE, RESET, ETC.). EMERGENCY VOICE ALARM OPERATING CONSOLE SHALL HAVE BUTTONS FOR ACTIVATION OF PRE-RECORDED MESSAGES AND A BUILT-IN MICROPHONE FOR MANUAL MESSAGES. CONFIGURE OPERATING CONSOLE TO ALLOW VOICE MESSAGES TO BE BROADCAST TO INDIVIDUAL BUILDING ZONES OR TO ENTIRE BUILDING.
- 04 DEMOLISH EXISTING NOTIFICATION APPLIANCE POWER SUPPLY AND REPLACE WITH NEW REMOTE POWER SUPPLY TO PROVIDE 24 VDC POWER TO NOTIFICATION APPLIANCES (STROBES) THROUGHOUT BUILDING. NUMBER AND LOCATION OF REMOTE POWER SUPPLIES SHALL BE SUFFICIENT TO PROVIDE A SEPARATE NOTIFICATION ZONE FOR EACH FLOOR LEVEL OF BUILDING. REQUIRED CAPACITY AND NUMBER OF POWER SUPPLIES TO BE DETERMINED BY CONTRACTOR, SURFACE MOUNT ON WALLS OF TELECOMMUNICATIONS ROOMS. CONNECT POWER SUPPLIES TO BUILDING FACP TO PROVIDE ACTIVATION OF NOTIFICATION APPLIANCES AND TROUBLE SUPERVISION. EXISTING 120 VAC POWER CIRCUITS MAY BE RE-USED BUT PROVIDE NEW BATTERIES FOR SECONDARY POWER SUPPLY. CONFIGURE POWER SUPPLIES TO SYNCHRONIZE VISUAL SIGNALS OF ALL NOTIFICATION APPLIANCES LOCATED WITHIN A SINGLE FIELD OF VIEW.
- 05 EXISTING ROLLING FIRE DOOR (WON-DOOR) TO REMAIN. INSTALL ADDRESSABLE RELAY INTERFACED WITH DOOR CONTROLLER TO CLOSE FIRE DOOR UPON OPERATION OF SMOKE DETECTORS (SPOT TYPE OR PROJECTED BEAM TYPE) ON EITHER SIDE OF FIRE DOOR. TEST AUTOMATIC OPERATION OF FIRE DOOR AND ADJUST AS REQUIRED TO CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 80.
- 06 EXISTING ROLL DOWN FIRE SHUTTER TO REMAIN. INSTALL ADDRESSABLE RELAY INTERFACED WITH FIRE SHUTTER CONTROLLER TO CLOSE SHUTTER UPON OPERATION OF SMOKE DETECTORS ON EITHER SIDE OF SHUTTER. TEST AUTOMATIC OPERATION OF FIRE SHUTTER AND ADJUST AS REQUIRED TO CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 80.
- 07 EXISTING FIRE DOOR WITH NEW OR EXISTING (SEE LEGEND) MAGNETIC DOOR HOLD-OPEN DEVICE TO REMAIN. INSTALL ADDRESSABLE RELAY TO RELEASE MAGNETIC DOOR HOLDER UPON ACTIVATION OF ANY FIRE ALARM INITIATING DEVICE IN BUILDING. CONNECT POWER SUPPLY TO MAGNETIC HOLD-OPEN DEVICES (EXISTING MAY BE RE-USED IF PRESENT) THROUGH NORMALLY CLOSED CONTACTS OF CONTROL RELAY.
- 08 EXISTING ELEVATOR CONTROL EQUIPMENT TO REMAIN. INSTALL ADDRESSABLE RELAYS TO INTERFACE EXISTING ELEVATOR CONTROLLERS TO NEW FIRE ALARM SYSTEM TO AUTOMATICALLY INITIATE THE FOLLOWING EMERGENCY FUNCTIONS:
 1. PRIMARY RECALL
 2. SECONDARY RECALL
 3. CAB LIGHT ILLUMINATION
 4. ELEVATOR POWER SHUNT/TRIP
 EMERGENCY FUNCTIONS SHALL CONFORM TO ALL APPLICABLE REQUIREMENTS OF NFPA 72 AND ASME A17.1.
- 09 EXISTING FIRE/SMOKE DAMPERS THROUGHOUT BUILDING TO REMAIN. REPLACE ALL EXISTING SMOKE DETECTORS PROVIDED TO CONTROL FIRE/SMOKE DAMPERS AND INSTALL NEW DETECTORS WHERE REQUIRED BY THE BID OR IFC. NEW DETECTORS SHALL BE LISTED COMPATIBLE WITH THE FIRE ALARM SYSTEM. INSTALL PROGRAMMABLE RELAY TO CLOSE DAMPERS UPON ACTUATION OF DETECTORS OR ANY OTHER FIRE ALARM INITIATING DEVICE IN THE BUILDING. NUMBER AND LOCATION OF DAMPERS, DETECTORS AND CONTROL RELAYS TO BE FIELD VERIFIED BY CONTRACTOR.
- 10 EXISTING ATRIUM SMOKE EVACUATION SYSTEM TO REMAIN. INSTALL ADDRESSABLE RELAYS TO ACTIVATE SMOKE EVACUATION SYSTEM. PROVIDE RELAYS TO OPERATE ALL INTAKE/EXHAUST LOUVERS AND EXHAUST/MAKE-UP AIR FANS THAT ARE REQUIRED FOR PROPER OPERATION OF THE SMOKE EVACUATION SYSTEM. PROGRAM RELAYS TO ACTIVATE SMOKE EVACUATION SYSTEM UPON OPERATION OF ANY OF THE FOLLOWING INITIATING DEVICES:
 1. WATER FLOW SWITCH FOR ATRIUM FIRE SPRINKLER ZONE
 2. PROJECTED BEAM SMOKE DETECTORS AT TOP OF ATRIUM
 3. SPOT TYPE SMOKE DETECTORS AROUND ATRIUM PERIMETER
 COORDINATE SMOKE EVACUATION SYSTEM INTERFACE WITH OWNER AND MAINTENANCE CONTRACTOR FOR BUILDING CONTROLS. CONTRACTOR TO INCLUDE COST OF ALL REQUIRED SERVICE CALLS BY BUILDING CONTROLS MAINTENANCE CONTRACTOR IN BID.
- 11 EXISTING SECURED EGRESS DOOR TO REMAIN. INSTALL ADDRESSABLE RELAY TO RELEASE SECURED DOOR UPON ACTIVATION OF ANY FIRE ALARM INITIATING DEVICE IN THE BUILDING. CONNECT POWER TO DOOR SECURITY HARDWARE (MAGNETIC PLATE OR ELECTRIC STRIKE) THROUGH NORMALLY CLOSED CONTACTS OF RELAY AND PROGRAM RELAY CONTACTS TO OPEN UPON ACTIVATION OF FIRE ALARM SYSTEM INTERRUPTING POWER SUPPLY TO SECURITY HARDWARE AND RELEASING DOOR. RELAY SHALL NOT RESET UNTIL THE FIRE ALARM SYSTEM IS RESTORED TO NORMAL CONDITION.
- 12 INSTALL ADDRESSABLE RELAYS TO PROVIDE SHUTDOWN OF ALL AIR MOVEMENT SYSTEMS WITH A CAPACITY IN EXCESS OF 2,000 CFM. INSTALL A SEPARATE RELAY FOR EACH AIR MOVEMENT SYSTEM AND CONNECT RELAY OUTPUTS TO AIR MOVEMENT SYSTEM CONTROLS. EXISTING NEW CONTROL CIRCUITS MAY BE RE-USED IF COMPLETELY FUNCTIONAL. PROGRAM RELAYS TO SHUT DOWN AIR MOVEMENT SYSTEMS UPON ACTIVATION OF ANY DUCT MOUNTED SMOKE DETECTOR OR OTHER FIRE ALARM INITIATING DEVICE IN BUILDING. COORDINATE AIR MOVEMENT SYSTEM CONTROLS INTERFACE WITH OWNER AND MAINTENANCE CONTRACTOR FOR BUILDING CONTROLS. CONTRACTOR TO INCLUDE COST OF ALL REQUIRED SERVICE CALLS BY BUILDING CONTROLS MAINTENANCE CONTRACTOR IN BID.
- 13 INSTALL SMOKE DETECTOR IN ACCORDANCE WITH IMC 606.2.3 AT CONNECTION OF RETURN AIR DUCT/PLENUM TO VERTICAL RETURN SHAFT ON EACH FLOOR LEVEL. SMOKE DETECTORS SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF NFPA 72 AND THE IMC. WHERE AIR VELOCITY IS LESS THAN 300 FPM PROVIDE A SPOT TYPE DETECTOR MOUNTED IN THE CENTER OF RETURN AIR FLOW AT THE CONNECTION TO THE VERTICAL RETURN SHAFT. WHERE AIR VELOCITY EXCEEDS 300 FPM PROVIDE A SAMPLING TUBE TYPE SMOKE DETECTOR WITH SAMPLING TUBE INSTALLED ACROSS RETURN AIR OPENING OR WITHIN RETURN AIR DUCT. CONTRACTOR TO DETERMINE AIR FLOW UNDER NORMAL OPERATING CONDITIONS TO DETERMINE APPROPRIATE DETECTOR TYPE FOR USE.
- 14 EXISTING ELECTRIC FIRE PUMP AND FIRE SPRINKLER RISERS (WET AND DRY PIPE) TO REMAIN. INSTALL ADDRESSABLE MODULES TO FACILITATE CONNECTION OF FIRE PUMP CONTROLLER (PUMP RUNNING, AC POWER FAIL AND AC POWER PHASE REVERSAL), FIRE PUMP CONTROL VALVES, FIRE SPRINKLER CONTROL VALVES, FIRE SPRINKLER FLOW SWITCHES AND AIR PRESSURE SWITCHES TO NEW FIRE ALARM SYSTEM.
- 15 EXISTING FIRE SUPPRESSION SYSTEM (INCLUDING SMOKE DETECTION SYSTEM) PROTECTING COMPUTER ROOM TO REMAIN. INSTALL ADDRESSABLE MODULES AT FIRE SUPPRESSION SYSTEM CONTROL PANEL TO RELAY FIRE SUPPRESSION SYSTEM ALARM, SUPERVISORY AND TROUBLE SIGNALS TO BUILDING FACP.
- 16 TYPE I COOKING HOOD WITH EXISTING WET-CHEMICAL FIRE SUPPRESSION SYSTEM TO REMAIN. INSTALL ADDRESSABLE MODULE TO FACILITATE CONNECTION OF ACTIVATION RELAY FOR FIRE SUPPRESSION SYSTEM TO NEW FIRE ALARM SYSTEM. PROGRAM ACTIVATION OF FIRE SUPPRESSION SYSTEM AS A FIRE ALARM SIGNAL.



REVISIONS:

NO.	DATE	DESCRIPTION

DRAWING DATE: 11/8/13
 REVISION NUMBER: XX/XX/XX
 JOB NUMBER: 104968
 DWG ISSUE: REVIEW
 DRAWN BY: BBH
 CHECKED BY: GTJ

ADMINISTRATIVE OFFICE OF THE COURTS
 MATHESON COURTHOUSE
 450 SOUTH STATE STREET
 SALT LAKE CITY, UTAH

FIRE ALARM SYSTEM REPLACEMENT
 DFCM PROJECT #13244150

PARKING LEVEL 3
FA16