SYMBOL	QTY.	DESCRIPTION	CSFM
FARP	(E)	FIRE ALARM REMOTE PANEL SIEMENS MXL PSR-1 (EXISTING)	7300-0067:
	1	OPTION MODULE CARD CAGE SIEMENS MOM-4	7300-0067:
	1	ANALOG LOOP DRIVER MODULE SIEMENS ALD-21	7300-0067:
NAC	(E)	POWER BOOSTER SUPPLY WHEELOCK PS-12/24 (EXISTING)	7315-0785:
	,		
F	4	INTELLIGENT MANUAL PULL STATION SIEMENS MSI-10B	7150-0067:
<b>S</b>	44	ADDRESSABLE FIREPRINT FIRE DETECTOR SIEMENS FP-11	7272-0067:
	44	DETECTOR BASE FOR FP-11 SIEMENS DB-11	7300-0067:
® <sub>R</sub>	3	ADDRESSABLE FIREPRINT FIRE DETECTOR SIEMENS FP-11	7272-0067:
	3	DETECTOR BASE FOR FP-11 WITH RELAY SIEMENS DB-X11RS	7300-0067:
<u>\$</u>	15	ADDRESSABLE FIREPRINT FIRE DETECTOR SIEMENS FP-11	7272-0067:
	15	DUCT DETECTOR HOUSING WITH RELAY SIEMENS AD2-XHR	3240-0067:
	15	5.0 FOOT DUCT DETECTOR SAMPLING TUBE SIEMENS ST-50	
ММ	INTELLIGENT INTERFACE MODULE, SINGLE INPUT SIEMENS TRI-B6M		7300-0067:
СМ	15	INTELLIGENT INTERFACE MODULE, WITH RELAY SIEMENS TRI-R	7300-0067:
BT BR	5	BEAM DETECTOR TRANSMITTER/RECEIVER w/MIRROR SYSTEM SENSOR BEAM1224S	7260–1653:
	5	BEAM DETECTOR MOUNTING KIT SYSTEM SENSOR BEAMMMK	Not Applical
	5	BEAM DETECTOR TEST SWITCH WITH KEY SYSTEM SENSOR RTS451KEY	7300–1653:
# Fk	21	WALL MTD HORN/STROBE RED, # DENOTES CANDELA RATING WHEELOCK NS-24MCW-FR	7125-0785: 1
* F	WALL MTD STROBE RED, # DENOTES CANDELA RATING WHEELOCK RSS-24MCW		7300-0067:
M	6	MAGNETIC DOOR HOLDER FM998 MAGNETIC HOLD-OPEN, TRI-VOLT	NA

ABBREVIATIONS (E) = EXISTING(WP) = WEATHERPROOF

FIRE ALARM ADDRESS LEGEND

L----DEVICE ADDRESS

## = DEVICE ADDRESS

WHERE: X = LOOP NUMBER

ELEV MECH ROOM SMOKE DETECTOR | • | • | • | • | • | •

CAUSE

SMOKE DETECTOR

SPOT TYPE SMOKE DETECTOR

DESIGNATED LEVEL ELEV LOBBY

OTHER THAN DESIGNATED LEVEL

PHOTOELECTRIC BEAM DETECTOR

FIRE SPRINKLER WATER FLOW

FIRE ALARM TROUBLE (OPEN.

OR GROUNDS) ON INITIATION

FIRE SPRINKLER VALVE TAMPER

ELEV LOBBY SMOKE DETECTOR

DUCT SMOKE DETECTOR

MANUAL PULL STATION

SYSTEM SILENCE

SYSTEM RESET

POWER FAILURE

FIRE ALARM SYSTEM OPERATIONAL MATRIX

ALARM

THE FIRE ALARM SYSTEM IS AN AUTOMATIC ADDRESSABLE, POWER-LIMITED FIRE ALARM SYSTEM. MANUAL PULL STATIONS ARE PROVIDED AT ALL EXITS. SMOKE DETECTORS ARE PROVIDED FOR THE HVAC SYSTEM AND TO PROTECT THE FIRE ALARM CONTROL UNITS.

CLASS B. STYLE 4 SLC SYSTEM.

NOTIFICATION APPLIANCE CIRCUITS ARE CLASS B,

MINIMUM CONDUIT SIZE TO BE 3/4" FOR FIRE ALARM 2. SYSTEM.

3. 10% MAXIMUM VOLTAGE DROP AND 80% MAXIMUM CURRENT ALLOWED FOR NOTIFICATION APPLIANCE

LISTING NUMBERS FOR EACH COMPONENT HAVE BEEN APPROVED BY DSA. UPON COMPLETION OF 5. THE INSTALLATION, A TEST OF THE ENTIRE SYSTEM

SHALL BE MADE IN THE PRESENCE OF THE DSA INSPECTOR OF RECORD. 6. UPON COMPLETION OF SYSTEM INSTALLATION, THE SYSTEM SHALL BE TESTED IN THE PRESENCE OF AND IN A MANNER ACCEPTABLE TO DSA/PROJECT

NECESSARY TESTING EQUIPMENT INCLUDING A "SOUND LEVEL METER" TO CHECK ACCEPTABLE 7. DECIBEL LEVELS OF AUDIBLE DEVICES. PROVIDE TEST RESULTS PER THE NFPA 72 "RECORD OF COMPLETION" TO ARCHITECT, DSA, PROJECT INSPECTOR, OWNER, AND TO THE LOCAL FIRE

AUTHORITY.

INSPECTOR. THE CONTRACTOR MUST SUPPLY

THE "END OF LINE RESISTANCE" FOR EACH CIRCUIT SHALL BE TESTED IN THE PRESENCE OF THE PROJECT INSPECTOR AND SHALL NOT EXCEED A MAXIMUM OF 10% OF THE 24 VOLT SYSTEM. EACH COMPONENT IN THE CIRCUIT SHALL NOT EXCEED THE LISTED MANUFACTURER'S MINIMUM OPERATING

8. VOLTAGES. SEE NFPA 72, LOOP RESISTANCE. THIS SECTION REQUIRES THAT ALL INITIATING AND INDICATING (NOTIFICATION APPLIANCE) CIRCUITS TO BE MEASURED AND RECORDED.

PENETRATIONS OF ALL FIRE-RESISTIVE WALLS SHALL BE PROTECTED IN ACCORDANCE WITH THE CALIFORNIA BUIDING CODE.

ALARM INDICATING DEVICES OF A FIRE ALARM SYSTEM INTENDED TO ALERT ALL OCCUPANTS SHALL 9 CAUSE A LEVEL OF AUDIBILTY OF NOT LESS THAN 15 dBA ABOVE THE AVERAGE AMBIENT NOISE

LEVELS OR 5 dBA ABOVE THE MAXIMUM SOUND

LEVEL HAVING A DURATION OF 60 SECONDS 10. WHICH-EVER IS GREATER. MEASURED 5' ABOVE THE FLOOR. AMBIENT NOISE LEVELS MEANS THE LEVEL THAT CAN BE NORMALLY EXPECTED WHEN THE FACILITY. BUILDING, ROOM, OR AREA IS FUNCTIONING UNDER NORMAL OPERATING OR WORKING CONDITIONS (NFPA 72, SEC. 7.4.2).

THE ALARM SYSTEM SHALL ACTIVATE A MEANS OF WARNING TO ALERT THE HEARING IMPAIRED. FLASHING VISUAL WARNINGS SHALL HAVE A FLASH RATE NOT EXCEEDING 2 FLASHES PER SECOND (2 HZ) NOR BE LESS THAN ONE FLASH PER SECOND (1

HZ). STROBE SIGNALING DEVICES FOR THE HEARING 1. IMPAIRED SHALL BE STATE FIRE MARSHAL APPROVED AND LISTED (NFPA 72, SEC. 7.5.2). STROBES SHALL

BE SYNCHRONIZED.

TROUBLESUPERVISORY

WIRE SCHEDULE

PAIR #12 SOLID OR STRANDED

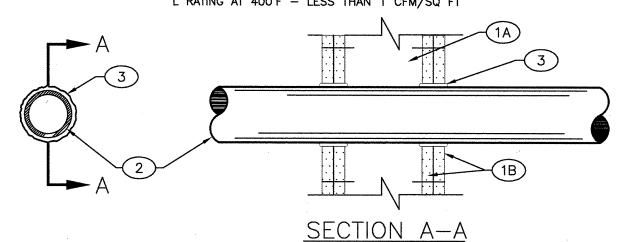
D 1 PAIR #12 SOLID OR STRANDED

1 PAIR #16 TWISTED AND SHIELDED INITIATING DEVICES

NOTIFICATION DEVICE

24VDC POWER

### FIRESTOP SYSTEMS (XHEZ) SYSTEMS NO. W-L-1001 F RATINGS - 1,2,3 AND 4 HR (SEE ITEMS 2 AND 3) T RATINGS - 0,1,2,3 AND 4 HR (SEE ITEM 3) L RATING AT AMBIENT - LESS THAN 1 CFM/SQ F L RATING AT 400°F - LESS THAN 1 CFM/SQ FT



THROUGH-PENETRATION

1. WALL ASSEMBLY - THE 1.2.3 OR 4 HR FIRE-RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL OR PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:

A. STUDS - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS (MAX 2 HR FIRE RATED ASSEMBLIES) OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. LUMBER SPACED 16 IN. O.C. WITH NOM 2 BY 4 IN. LUMBER END PLATES AND CROSS BRACES. STEEL STUDS TO BE MIN 3-5/8 IN. WIDE BY 1-3/8 IN. DEEP CHANNELS SPACED MAX 24 IN. O.C.

B. GYPSUM BOARD\* - NOM 1/2 OR 5/8 IN. THICK, 4 FT. WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM WALLBOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX DIAM. OF OPENING IS 26 IN.

2. THROUGH PENETRANT — ONE METALLIC PIPE, CONDUIT OR TUBING INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE BETWEEN PIPE, CONDUIT OR TUBING AND PERIPHERY OF OPENING SHALL BE MIN OF O IN. (POINT CONTACT) TO MAX 2 IN. PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED:

A. STEEL PIPE - NOM 24 IN. DIAM. (OR SMALLER), SCHEDULE 10 (OR HEAVIER) STEEL PIPE.

B. IRON PIPE - NOM 24 IN. DIAM. (OR SMALLER), SERVICE WEIGHT (OR HEAVIER) CAST IRON SOIL PIPE, NOM 12 IN. DIAM. (OR SMALLER) OR CLASS 50 (OR HEAVIER) DUCTILE IRON PRESSURE PIPE.

C. CONDUIT - NOM 6 IN. DIAM. (OR SMALLER) STEEL CONDUIT OR NOM 4 IN. DIAM. (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING.

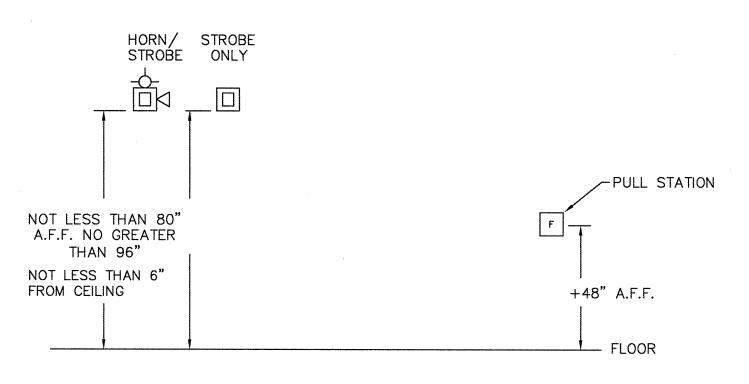
D. COPPER TUBING - NOM 6 IN. DIAM. (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING.

E. COPPER PIPE - NOM 6 IN. DIAM. (OR SMALLER) REGULAR (OR HEAVIER)

3. FILL, VOID OR CAVITY MATERIAL\* - CAULK OR SEALANT - MIN 5/8, 1-1/4, 1-7/8 AND 2-1/2 IN. THICKNESS OF CAULK FOR 1, 2, 3 AND 4 HR RATED ASSEMBLIES. RESPECTIVELY, APPLIED WITHIN ANNULUS, FLUSH WITH BOTH SURFACES OF WALL MIN 1/4 IN. DIAM. BEAD OF CAULK APPLIED TO GYPSUM BOARD/PENETRANT INTERFACE AT POINT CONTACT LOCATION ON BOTH SIDES OF WALL. THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS DEPENDANT UPON THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED. AS SHOWN IN THE FOLLOWING TABLE. THE HOURLY T RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE TYPE OR SIZE OF THE PIPE OR CONDUIT AND THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS TABULATED BELOW:

MAX PIPE OR CONDUIT DIAM, IN.	ANNULAR SPACE, IN.	F RATING, HOUR	T RATING, HOUR
1	0 TO 3/16	1 OR 2	0+, 1 OR 2
1	1/4 TO 1/2	3 OR 4	3 OR 4
4	0 TO 1/4	1 OR 2	0
6	1/4 TO 1/2	3 OR 4	0
12	3/16 TO 3/8	1 OR 2	0

+WHEN COPPER PIPE IS USED, T RATING IS O HOUR. 3M COMPANY - CP 25WB+CAULK OR FB-3000 WT SEALANT. \* BEARING THE UL CLASSIFICATION MARKING.



#### MOUNTING HEIGHT REQUIREMENTS NO SCALE

# FIRE ALARM MONITORING NOTE

AUTOMATIC FIRE ALARM SYSTEM SHALL TRANSMIT THE ALARM. SUPERVISORY AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION AS REQUIRED BY NFPA 72 AS AMENDED BY ARTICLE 91. THE SUPERVISING STATION SHALL BE LISTED AS EITHER UUFX OR UUJS BY UNDERWRITERS LABORATORY OR SHALL MEET THE REQUIREMENTS OF FACTORY MUTUAL RESEARCH APPROVAL STANDARD 3011. SUPERVISION OF SYSTEM AND LEASED TELEPHONE LINES SHALL BE ARRANGED BY OWNER.

#### DRAWING INDEX

FA-01 FIRE ALARM SYMBOL LIST, NOTES, MATRIX & DRAWING INDEX

FA-02 (E) FACP DETAIL AND CALCULATIONS

FA-03 WIRING OF DEVICES

FA-04 FIRE ALARM RISER DIAGRAM AND CALCULATIONS

FA-05 FIRE ALARM PLAN - BUILDING 5 AND 6 FIRST FLOOR

FA-06 FIRE ALARM PLAN - BUILDING 5 SECOND FLOOR FA-07 FIRE ALARM PLAN - BUILDING 5 THIRD FLOOR

### INSTALLATION NOTES:

1. THE FIRE ALARM SYSTEM SHALL CONFORM TO THE ADOPTED EDITIONS OF THE CALIFORNIA ELECTRICAL CODE ARTICLE 760, CALIFORNIA CODE OF REGULATIONS TITLES 19 AND 24, AS APPLICABLE TO THIS PROJECT, AND NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) STANDARD 72.

INSTALLATION OF THE SYSTEM SHALL NOT BE STARTED UNTIL DETAILED PLANS AND SPECIFICATIONS, INCLUDING CALIFORNIA STATE FIRE MARSHAL LISTING NUMBERS FOR EACH COMPONENT OF THE SYSTEM HAVE BEEN APPROVED BY DSA.

3. A MINIMUM OF 48 HOURS NOTICE SHALL BE REQUIRED FOR ANY INSPECTION AND/OR TESTING.

4. A STAMPED SET OF APPROVED FIRE ALARM PLANS SHALL BE ON THE JOB SITE AND USED FOR INSTALLATION. ANY DEVIATION FROM APPROVED PLANS, INCLUDING THE SUBSITUTION OF DEVICES, SHALL BE APPROVED BY DSA.

DISCREPANCIES BETWEEN THE DRAWINGS AND THE CODE OR RECOGNIZED STANDARDS SHALL BE BROUGHT TO THE ATTENTION OF THE INSPECTOR OF

A CERTIFICATE OF COMPLIANCE SHALL BE PREPARED BY THE INSTALLER AND GIVEN TO THE INSPECTOR UPON COMPLETION OF THE INSTALLATION.

ALL FIRE ALARM CIRCUITS ARE CONTINUOUS FROM DEVICE TO DEVICE. SPLICES ARE NOT ALLOWED UNLESS IN COVERED JUNCTION BOXES ON APPROVED TERMINAL BLOCKS. WHEN SPLICING TSP, IT IS NECESSARY THAT ALL SUCH CONNECTIONS BE SOLDERED (RESIN-CORE SOLDER). CRIMPED IN METAL SLEEVES, ENCAPSULATED WITH AN EPOXY RESIN OR JOINED BY WIRE NUTS. WHEN SOLDER OR CRIMPED METAL SLEEVES ARE USED, THE JUNCTION MUST BE INSULATED WITH A HIGH GRADE ELECTRICAL TAPE AS SOUND AS THE ORIGINAL INSULATING JACKET. CONTINUITY OF THE SHIELD MUST BE MAINTAINED.

NUMBER ADJACENT TO ADDRESSABLE DEVICES INDICATES SLC# AND ADDRESS. NUMBER ADJACENT TO NOTIFICATION APPLIANCES INDICATES CIRCUIT NUMBER AND DEVICE SEQUENCE, E.G., NA1-7 IS THE 7TH DEVICE ON CIRCUIT A1.

9. THE FIRE ALARM SIGNALS SHALL BE DISTINCTIVE IN SOUND FROM ANY OTHER SIGNALS AND THAT THIS SOUND NOT BE USED FOR ANY OTHER PURPOSE. TO MEET THIS REQUIREMENT, THE FIRE ALARM SIGNAL USED TO NOTIFY BUILDING OCCUPANTS OF THE NEED TO EVACUATE (LEAVE THE BUILDING) SHALL MATCH EXISTING SOUND & PATTERN.

10. AREA SMOKE DETECTORS SHALL NOT BE LOCATED CLOSER THAN 3'-0" FROM: (a.) THE DOOR TO A KITCHEN OR A BATHROOM CONTAINING A TUB OR SHOWER. (b.) SUPPLY REGISTERS OF A FORCED AIR HEATING OR

COOLING SYSTEM.

11. ALL EXTERIOR AND UNDERGROUND CONDUIT SHALL BE WATERTIGHT. 12. ALL WIRING SHALL BE IN CONDUIT.

#### (E)MXL-R-FIRE ALARM SYSTEM WIRING GUIDELINES

1. ALL WIRING MUST COMPLY WITH LOCAL AND CALIFORNIA ELECTRICAL CODES. ALL WIRING MUST BE DONE AS DESCRIBED IN NOTES 2 & 6 BELOW, TO OBTAIN SAFE AND PROPER SYSTEM OPERATION.

2. EARTH GROUND THE MXL ENCLOSURE PROPERLY; SEE LATEST EDITION OF NATIONAL ELECTRICAL CODES FOR APPROVED METHODS. CONDUIT GROUND IS NOT ADEQUATE

3. SEPARATE ALL WIRING FOR INITIATING DEVICES (i.e., DETECTORS, MANUAL STATIONS, TRI MODULES, ETC) FROM ALL OTHER WIRING IN THE MXL-IQ

4. INSULATE ALL CABLE DRAIN WIRES FROM ANY CONDUIT OR OTHER EARTH GROUNDED ELECTRICAL BOX, INCLUDING THOSE IN THE MXL ENCLOSURE.

5. CONNECT SHIELD CABLE DRAIN WIRE ONLY AT SPECIFIED LOCATION INSIDE THE MXL ENCLOSURE. 6. EARTH GROUND ALL CONDUIT RUNS THROUGHOUT THE INSTALLATON.

7. LINE RESISTANCE IS MEASURED AT THE ALD-21 MODULE SCREW TERMINALS. THE END OF THE LOOP MUST BE SHORTED, THE ALD-21 MODULE MUST BE REMOVED FROM THE SCREW TERMINALS, AND NO ADDRESSABLE DEVICES MAY BE INSTALLED.

8. LINE CAPACITANCE IS MEASURED AT THE ALD-21 MODULE SCREW TERMINALS THE END OF THE LOOP(S) MUST BE OPEN. THE ALD-21 MODULE MUST BE REMOVED FROM THE SCREW TERMINALS AND NO ADDRESSABLE DEVICES MAY BE INSTALLED.

9. ALL 110/120 VAC CIRCUITS SHALL BE INSTALLED IN DEDICATED CONDUIT. 10. ALD-21 LOOP WIRING MUST NOT BE IN THE SAME CONDUIT AS CODED AUDIBLE WIRING.

11. ALL INITIATING CIRCUITS ARE RATED POWER LIMITED AND SHALL BE WIRED IN ACCORDANCE WITH APPLICABLE CODES. 12. UNDERGROUND WIRING IS PERMISSIBLE IF ALL NEC WIRING REQUIREMENTS

13. OVERHEAD OR EXTERIOR WIRING IS NOT RECOMMENDED.

ARE MET.

## WIRING REQUIREMENTS

• THE DRAIN SHIELD IS A VERY IMPORTANT PART OF THE SYSTEM INSTALLATION. WE WOULD NOT SPECIFY SHIELDED CABLE IF IT WAS NOT NECESSARY. SHIELDS SHOULD BE KEPT CONTINUOUS THROUGHOUT THE CIRCUIT AND KEPT FREE FROM ANY REFERENCE TO EARTH GROUND.

• SHIELDED CABLE CAN BE FPL, FPLR, OR FPLP. SIEMENS INTELLIGENT ADDRESSABLE DEVICES REQUIRE SHIELDED CABLE.

• NOTIFICATION APPLIANCES (I.E. - HORN/STROBES, HORNS, ETC.) REQUIRE NON-SHIELDED

• UNDERGROUND CABLE, WHETHER OR NOT INSTALLED IN CONDUIT, SHALL BE LISTED AS UNDERGROUND BURIAL TYPE.

WIRING IS TO BE INSTALLED POINT TO POINT WITH NO SPLICING.

## GENERAL ELECTRICAL NOTES

1. ALL WIRING AND INSTALLATION MUST CONFORM WITH PROJECT SPECIFICATIONS, APPLICABLE CODE SUMARIES. DRAWINGS AND REQUIREMENTS ADOPTED BY NFPA.

2. SMOKE DETECTORS SHALL NOT BE INSTALLED WITHIN 3 FEET OF SUPPLY AIR OUTLETS OR RETURN AIR DIFFUSERS.

3. ALL SMOKE DETECTORS AND INITIATING DEVICES WIRING SHALL BE INSTALLED MINIMUM 3 FEET FROM ELECTRONIC BALLAST (LIGHTING FIXTURES)

4. WHEN INSTALLING INITIATING AND NOTIFICATION DEVICES, POLARITY MUST BE

5. ALL NOTIFICATION CIRCUIT WIRES MUST BE SUPERVISED. HENCE, NO PARALLEL BRANCHING OF WIRES IS PERMISSIBLE (T-TAPPING). ALL AUDIBLE SIGNALING DEVICES SHALL PRODUCE A DISTINCTIVE THREE-PULSE TEMPORAL TONE, AUDIBLE SIGNALS SHALL HAVE A SOUND LEVEL OF NOT LESS THAN 75dbA AT 10' OR AT LEAST 15dbA ABOVE THE AVERAGE AMBIENT SOUND LEVEL, WHICHEVER IS GRATER, BUT NOT MORE THAN 110dbA AT THE MINIMUM HEARING DISTANCE FROM THE AUDIBLE APPLIANCE (PER NFPA 72 CH. 4, 1999 ED.) WHEN MORE THAN TWO (2) VISUAL DEVICES ARE IN THE SAME VIEWING PLANE THE VISUAL DEVICES SHALL BE SYNCHRONIZED AS REQUIRED BY NFPA 72 CH. 4, 1999 EDITION.

6. DO NOT INSTALL ADDRESSABLE DEVICES PRIOR TO PROGRAMMING. (SEE NOTE

7. ALL 24 VDC WIRE TO BE INSTALLED IN DEDICATED CONDUIT SEPARATE FROM 120 VAC WIRING, IN ACCORDANCE WITH CURRENT NATIONAL AND STATE ELECTRICAL CODES.

8. CONDUIT SIZING TO BE DETERMINED BY THE ELECTRICAL CONTRACTOR, AND

SHALL CONFORM TO CONDUIT FILL CAPACITIES AS PER REQUIREMENTS OF CURRENT EDITIONS OF NATIONAL AND STATE ELECTRICAL CODES. 9. DO NOT APPLY 120 VAC POWER TO CONTROL PANEL UNTIL A SIEMENS FIRE

SAFETY SERVICE TECHNICIAN HAS INSPECTED ALL SYSTEM WIRING CONNECTIONS AND HAS APPROVED THE SYSTEM TO BE TURNED ON. 10. ALL PLUG-IN TYPE DETECTORS REQUIRE A 4" OCTAGONAL, 1-1/2"" OR

DEEPER MOUNTING BOX. REFER TO DETAIL DRAWINGS FOR DEVICE WIRING AND

MOUNTING CONDITIONS. 11. 120 VAC INPUT CONNECTIONS TO THE FIRE ALARM CONTROL PANEL LIGHT AND POWER SERVICE SHALL BE ON DEDICATED BRANCH CIRCUIT(S). THE CIRCUIT(S) AND CONNECTIONS SHALL BE MECHANICALLY PROTECTED. CIRCUIT DISCONNECTION MEANS SHALL HAVE A RED MARKING, SHALL BE ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL, AND SHALL BE IDENTIFIED AS FIRE ALARM

CIRCUIT CONTROL. THE LOCATION OF THE CIRCUIT DISCONNECTING MEANS

SHALL BE PERMANENTLY IDENTIFIED AT THE FIRE ALARM CONTROL UNIT.

12. INSTALLATION MATERIALS SUCH AS CONDUITS, FITTINGS, JUNCTION BOXES, TERMINAL CABINETS, PULL BOXES, HANGERS, ETC. ARE SUPPLIED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. ALL WIRING IS TO BE FROM DEVICE TERMINAL TO DEVICE TERMINAL SPLICES AND WIRE NUTS ARE NOT

13. ANY DEVIATION FROM THE DESIGN AND LOCATION OF EQUIPMENT SHOWN MUST FIRST HAVE A WRITTEN APPROVAL FROM SIEMENS FIRE SAFETY. ANY DEVIATION FROM DESIGN MUST ALSO BE INDICATED ON SIEMENS FIRE SAFETY SHOP DRAWINGS (BLUEPRINTS) AND RETURNED TO SIEMENS FIRE SAFETY AT TIME OF JOB COMPLETION.

14. SHOWN IN THIS DRAWING SET IS SIEMENS FIRE SAFETY ENGINEERED FIRE ALARM SYSTEM PER CONTRACTUAL DESIGN DRAWINGS AND SPECIFICATIONS. a) CONTRACTOR SHALL NOT DEVIATE BY NOT MORE THAN 5% FROM THE

FINAL APPROVED SHOP DRAWINGS. b) WIRE RUNS HAVE BEEN ENGINEERED TO COMPLY WITH SPECIFIC VOLTAGE DROP REQUIREMENTS. ANY DEVIATION FROM SHOWN WIRE RUNS WHICH RESULTS IN NONCOMPLIANCE WITH VOLTAGE DROP REQUIREMENTS SHALL BE

THE SOLE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.

c) THESE SUBMITTED SHOP DRAWINGS ARE COMPLETE. SIEMENS FIRE SAFETY SHALL NOT BEAR ANY ADDITIONAL COSTS OF RE-ENGINEERING RECORD DRAWINGS (AS-BUILTS).

15. ALL SMOKE DETECTORS (NEW OR EXISTING) SHALL BE PROTECTED FROM DUST AND DEBRIS DURING CONSTRUCTION. SMOKE-SENSING DETECTORS SHALL NOT BE INSTALLED UNTIL AFTER THE CONSTRUCTION CLEANUP OF ALL TRADES IS COMPLETE AND FINAL. PER NFPA 72 (CHAPTER 2-6.3.1.3) 1999 EDITION.

Exception: WHERE REQUIRED BY THE AUTHORITY HAVING JURISDICTION FOR PROTECTION DURING CONSTRUCTION. DETECTORS THAT HAVE BEEN INSTALLED DURING CONSTRUCTION AND FOUND TO HAVE A SENSITIVITY OUTSIDE THE LISTED AND MARKED SENSITIVITY RANGE SHALL BE CLEANED OR REPLACED AT AN ADDITIONAL COST TO THE CONTRACTOR.

16. POWER SERVICES SHALL BE ON A DEDICATED BRANCH CIRCUIT WIT A RED MARKING AND IDENTIFIED AS "FIRE ALARM CIRCUIT CONTROL"

17. PROVIDE TEMPORAL—THREE DISTINCTIVE FIRE ALARM SOUND.

18. THE STROBE FLASH RATE SHALL NOT EXCEED TWO (2) FLASHES PER SECOND NOR BE LESS THAN ONE FLASH PER SECOND.

19. FINAL FIRE ALARM TEST SHALL BE MADE WITH THE DSA INSPECTOR OF RECORD (IOR). LOCAL FIRE AUTHORITY SHALL BE NOTIFIED OF DATE AND TIME OF FINAL FIRE ALARM TESTING AND SHALL ASSIST/WITNESS SUCH TESTING WHEN

20. FIRE ALARM CONTRACTOR SHALL PROVIDE A "RECORD OF COMPLETION" TO THE INSPECTOR OF RECORD (IOR)/DSA AFTER COMPLETION OF OPERATIONAL ACCEPTANCE TEST.

WIRING GUIDELINES

#### PLENUM CABLE VS. NON-PLENUM

THE NEC RECOGNIZES 3 TYPES OF POWER LIMITED FIRE ALARM CABLING: FPL - THIS IS A GENERAL USE POWER LIMITED FIRE ALARM CABLE. IT CANNOT BE USED IN A

PLENUM SPACE OR FOR RISERS (CABLING BETWEEN FLOORS), CABLE MUST BE IN CONDUIT. FPLR - THIS IS A POWER LIMITED RISER RATED CABLE THAT CAN BE USED FOR GENERAL PURPOSES OR BETWEEN FLOORS. IT CANNOT BE USED IN A PLENUM SPACE, CABLE MUST BE IN CONDUIT.

FPLP - THIS IS A POWER LIMITED CABLE THAT CAN BE USED IN A PLENUM, RISER, OR FOR MACCA GENERAL PURPOSE.

A PLENUM IS ANY AREA USED TO CONDUCT ENVIRONMENTAL AIR. PLENUM SPACES CAN BE DUCTWORK, THE SPACE ABOVE A DROP CEILING, OR BELOW A RAISED FLOOR. BECAUSE THESE SPACES ARE BEING USED FOR THE AIR HANDLING SYSTEM. THERE ARE STRICT RULES THAT MUST BE FOLLOWED TO REDUCE THE RISK OF INTRODUCING TOXIC FUMES IN THE EVENT OF A FIRE SINCE FIRE ALARM CABLING IS OFTEN INSTALLED EXPOSED, WITHOUT CONDUIT, ABOVE DROP CEILINGS THE CABLING MUST BE RATED FOR USE IN A PLENUM SPACE.

SCOPE OF WORK PROVIDE EXPANSION OF AN EXISTING ADDRESSABLE FIRE ALARM SYSTEM.

FIRE RATED WALL.

REVISIONS Revision

IE DRAWING AND DESIGN HEREIN SHALL NOT BE DUPLICATED,

USED OR DISCLOSED TO OTHERS FOR PROCUREMENT OR OTHER PURPOSE (EXCEPT AS OTHERWISE AUTHORIZED BY CONTRACT) WITHOUT WRITTEN PERMISSION OF SIEMENS INDUSTRY. ALL OTHÉR

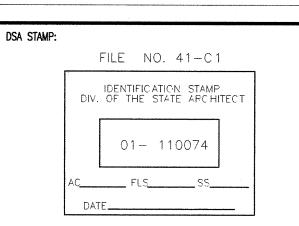
By Date Appr.

ALL OTHER REPRODUCTIONS SHALL BEAR THIS NOTICE.

DESIGN ENGINEER: PROJECT 2007-0731 CONTACT Valuatia la valtes

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JOB NAME & LOCATION (STREET ADDRESS) FIRE ALARM

SAN MATEO COUNTY COMMUNITY COLLEGE DISTRICT

# CAÑADA COLLEGE BUILDINGS 5 AND 6

**MODERNIZATION** 4200 FARM HILL BOULEVARD

REDWOOD CITY, CA 94061 SHEET CONTENTS: COVER/ DRAWING

NDEX/ EQUIPMENT LIST INSTALLATION TYPE

 □ NEW INSTALLATION □ DESIGN/BUILD ☑ PER CONTRACT DOCUMENT ■ EXISTING BASE JOB # \_ OTHERS \_\_\_\_ SYSTEM SALES REP.: Kelly Rogers

Jesse Mangosing DRAWN BY: Ronald Babiera CAD FILENAME: 440P-070529.DWG

April 07, 2010 May 11, 2010

JOB NUMBER FA-01

440P-070529 NET NUMBER 5249672