# NEVADA JOINT UNION HIGH SCHOOL DISTRICT

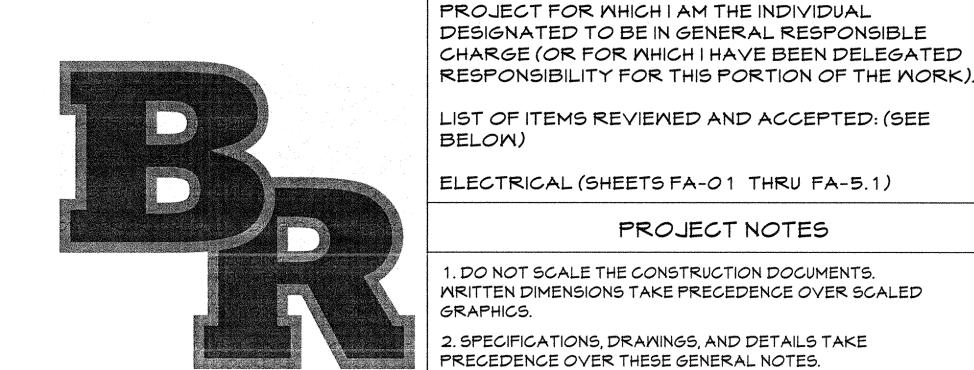


Master 42 border v21\_2017.pln 7:47 AM 12/20/17

# NEWFIREALARM SYSTEM

FOR

BEAR RIVER HIGH SCHOOL



PROJECT INFORMATION ARCHITECT'S STATEMENT

THESE DRAWINGS AND/OR SPECIFICATIONS AND/OR

CALCULATIONS FOR THE ITEMS LISTED BELOW HAVE BEEN PREPARED BY OTHER DESIGN PROFESSIONALS

WHO ARE LICENSED AND AUTHORIZED TO PREPARE SUCH DRAWINGS IN THIS STATE. THESE DOCUMENTS HAVE BEEN EXAMINED BY ME AND HAVE BEEN FOUND

TO MEET THE APPROPRIATE REQUIREMENTS OF TITLE

24, CALIFORNIA CODE OF REGULATIONS AND THE

THE ITEMS LISTED BELOW ARE ACCEPTABLE FOR

INCORPORATION INTO THE CONSTRUCTION OF THIS

PROJECT NOTES

2. SPECIFICATIONS, DRAWINGS, AND DETAILS TAKE

3. VERIFY EXISTING CONDITIONS PRIOR TO BEGINNING

TO PROCEEDING.

WORK, NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR

PROJECT SPECIFICATIONS PREPARED BY ME.

SCOPE: REPLACEMENT OF EXISTING FIRE ALARM

SITE: 11130 MAGNOLIA ROAD GRASS VALLEY CA

REPRESENTATIVE: PAUL PALMER (DISTRICT DIRECTOR) NEVADA JOINT UNION HIGH SCHOOL DISTRICT (530) 273-3351 EXT.#227

ZONING: P - PUBLIC

OCCUPANCY: EXISTING A, B, E, S OCCUPANCIES (NO CHANGES TO EXISTING OCCUPANCY PROPOSED)

CONSTRUCTION TYPE: VARIES - TYPE VN

AREA OF WORK: EXISTING BUILDINGS:

NON-SPRINKLERED BUILDING A - ADMINISTRATION/CLASSROOMS

NON-SPRINKLERED BUILDING B - CLASSROOMS

(E) SPRINKLERED BUILDING C - CLASSROOMS

NON-SPRINKLERED BUILDING D - CLASSROOMS

NON-SPRINKLERED BUILDING E - MULTIPURPOSE, CLASSROOMS, KITCHEN

NON-SPRINKLERED BUILDING F - GYMNASIUM

(E) SPRINKLERED BUILDING F ADDITION - GYMNASIUM, LOBBY,

NON-SPRINKLERED BUILDINGS G - RELOCATABLE CLASSROOMS

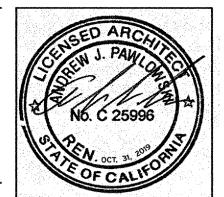
(E) SPRINKLERED BUILDING L - LIBRARY/CLASSROOMS

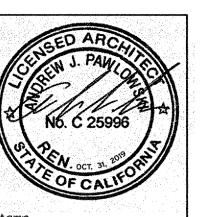
SHEET INDEX

(E) SPRINKLERED BUILDING PERFORMING ARTS - ASSEMBLY

NON-SPRINKLERED BUILDING N - POOL ENGLOSURE

NO ADDITIONAL BUILDING AREA PROPOSED





Revisions 1 DSA PLANCHECK 01

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copyright law.

COVER SHEET Title 19 CCR, Public Safety, State Fire Marshal Regulations Title 24 CCR, Part 1 - 2016 Building Standards Administrative Code Title 24 CCR, Part 2 – 2016 California Building Code, Vol. 1 & 2 (CBC) (2015 IBC, as amended by CA) SYMBOLS LIST & DRAWING INDEX Title 24 CCR, Part 3 – 2016 California Electrical Code (CEC) (2014 NEC, as amended by CA) FA-0.2 FIRE ALARM SCHEDULES Title 24 CCR, Part 4 - 2016 California Mechanical Code (CMC) (2015 IAPMO UMC, as amended by CA) FA-0.3 FIRE ALARM SCHEDULES/BATTERY CALCS Title 24 CCR, Part 5 – 2016 California Plumbing Code (CPC) (2015 IAPMO UPC, as amended by CA) FA-0.4 FIRE ALARM SCHEDULES/BATTERY CALCS Title 24 CCR, Part 6 ~ 2016 California Energy Code Title 24 CCR, Part 9 - 2016 California Fire Code (CFC) (2015 IFC, as FA-1.1 FIRE ALARM SITE PLAN amended by CA) Title 24 CCR, Part 11 - 2016 California Green Building Stds Code BLDG A&C - FIRE ALARM PLAN Title 24 CCR, Part 12 – 2016 California Referenced Standards (partial list - see CBC Ch. 35 and CFC Ch. 80) FA-2.2 BLDG D - FIRE ALARM PLAN 2016 NFPA 13, Installation of Sprinkler Systems (CA amended) 2013 NFPA 14, Installation of Standpipe and Hose Systems BLDG E - FIRE ALARM PLAN 2013 NFPA 17, Dry Chemical Extinguishing Systems 2013 NFPA 17A, Wet Chemical Extinguishing Systems 2016 NFPA 20, Installation of Stationary Pumps for Fire Protection FA-2.4 BLDG F & WEIGHT ROOM - FIRE ALARM PLAN 2013 NFPA 22, Water Tanks for Private Fire Protection FA-2.5 BLDG G & B - FIRE ALARM PLAN 2016 NFPA 72, National Fire Alarm Code (CA amended); See UL Std 1971 for "Visual Devices" FA-2.6 BLDG L - FIRE ALARM PLAN 2016 NFPA 80, Fire Door and Other Opening Protectives 2015 NFPA 2001, Clean Agent Fire Extinguishing Systems FA-2.7 BLDG M & N - FIRE ALARM PLAN 2005 UL 300, Class I Hood Fire Suppression Systems FA-2.8 PERFORMING ARTS BLDG - FIRE ALARM PLAN 1999 UL 521, Heat Detectors for Fire Protective Signaling Systems 2012 ICC 300, Bleachers, Folding and Telescopic Seating, and EXISTING BUILDING A & C - FIRE ALARM PLAN Grandstands (ICC 300-2012) FA-3.2 EXISTING BUILDING B - FIRE ALARM PLAN VICINITY MAP FA-3.3 EXISTING BUILDING L - FIRE ALARM PLAN EXISTING BUILDING M & N - FIRE ALARM PLAN EXISTING PERFORMING ARTS BLDG - FIRE ALARM PLAN FA-4.1 FIRE ALARM RISER DIAGRAM FA-4.2 FIRE ALARM RISER DIAGRAM FA-5.1 FIRE ALARM DETAILS G Holiday Market PROJECT DIRECTORY APPROVALS

CRG/RAB checked by:

12/20/17

66357-28 oro ject tracking #:

17-169

COVER SHEET

116222

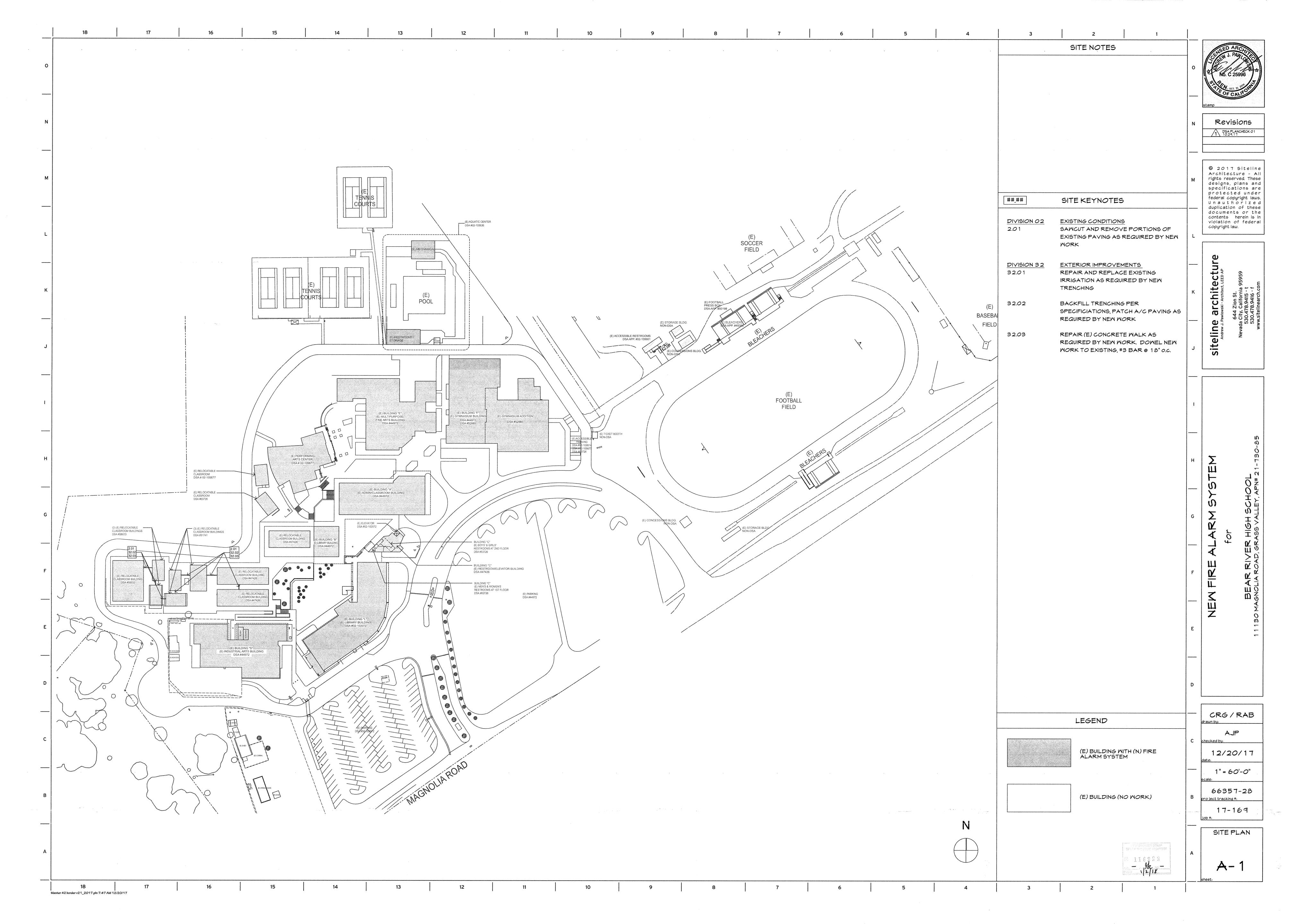
4. DO NOT MODIFY, CUT, OR OTHERWISE COMPROMISE THE INTEGRITY OF STRUCTURAL ELEMENTS. DIVISION 7 - THERMAL AND MOISTURE PROTECTION 5. FLASH, CAULK, AND SEAL WHERE SHOWN IN DRAWINGS AND WHERE REQUIRED TO PREVENT THE INFILTRATION OF 6. PENETRATIONS THROUGH FIRE RATED ASSEMBLIES SHALL BE SEALED WITH FIRE STOPPING. CODE ANALYSIS **Applicable Codes** 2016 NFPA 24, Installation of Private Fire Service Mains 11130 MAGNOLIA ROAD GRASS VALLEY, CA 95949 ARCHITECT: SITELINE ARCHITECTURE ANDREW PAWLOWSKI, #C25996 644 ZION STREET NEVADA CITY, CA 95959 (530) 478-9415 FAX: (530) 478-9416

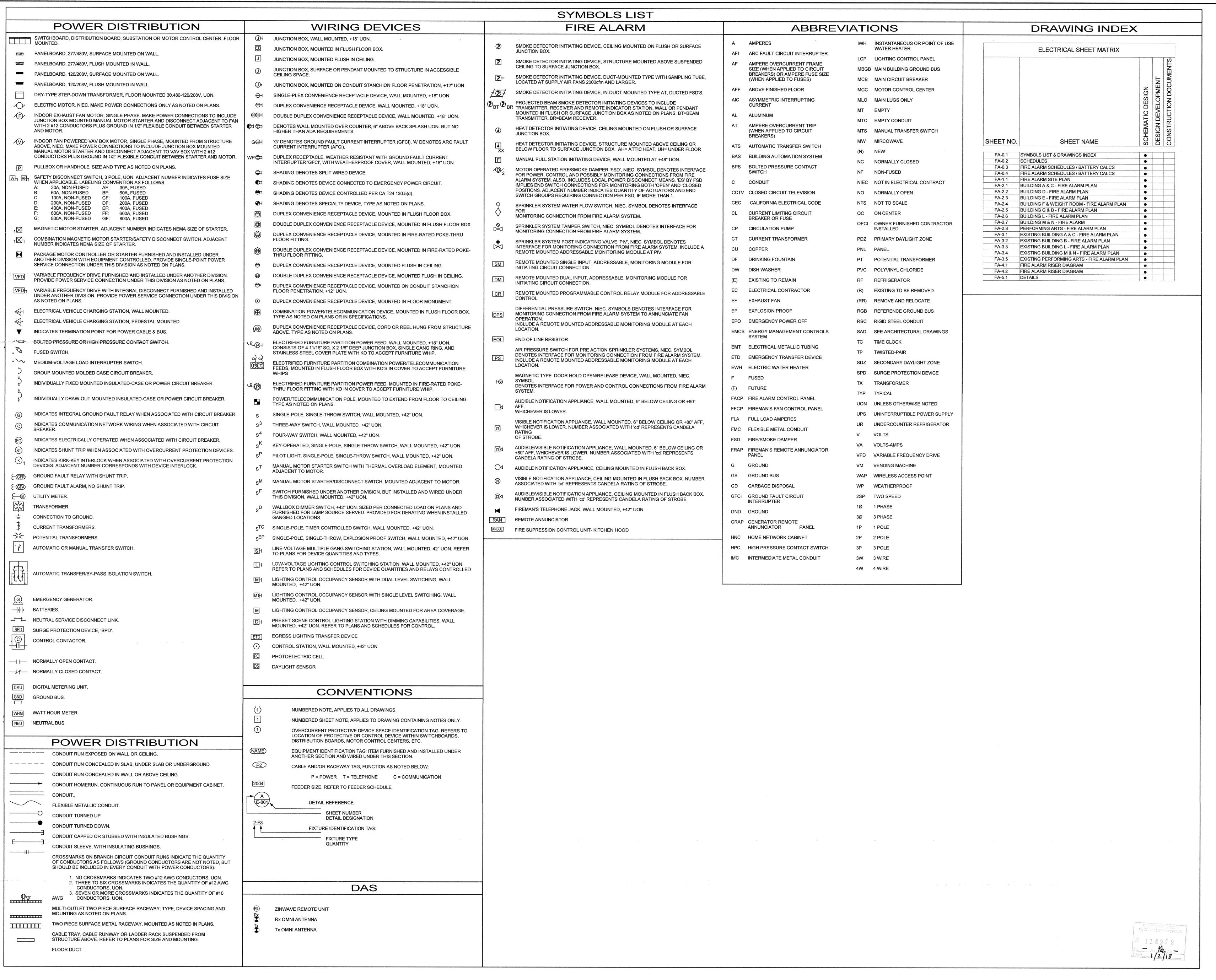
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ELECTRICAL ENGINEER: THE ENGINEERING ENTERPRISE

SCOTT WHEELER 1125 HIGH STREET AUBURN, CA

(530) 886-8556 ext. #102 FAX: (530) 886-8557









BRHS - NEW FIRE ALARM SYSTEM FOR NJUHSD 11130 MAGNOLIA ROAD, GRASS VALLE

DATE: 12/27/17
TITLE:

SYMBOLS LIST & DRAWINGS INDEX

DRAWING NO.

REVISIONS

# DESCRIPTION

**DESIGNER:**Designer

**SCALE:** 12" = 1'-0"

FA-0.1

	FIRE A	LARM S	SYSTE	M OPER	RATING	G MAT	RIX			
RESULT OF OPERATION	PULL STATION	HEAT DETECTOR	DUCT DETECTOR	AREA SMOKE DETECTOR	SYSTEM RESET	SIGNAL SILENCE	OPEN CIRCUIT, SHORT, ETC.	POWER LOSS	SPRINK. VALVE TAMPER	WATER FLOW ALARM
FACP ALARM	X	x		Х			The second secon			X
ANNUNCIATE ALARM	х	х		X						X
OFF SITE REPORTING ALARM	х	X	×	X					X	X
FACP TROUBLE						х	X	Х		Х
ANNUNCIATE TROUBLE			х			X	X	X		
OFF SITE REPORTING TROUBLE						Х	X	Х	X	
AUDIBLE ALARM	X	х		Х						X
VISUAL ALARM	X	Х		X			The control of Annual Section (Control of Section And Annual Annu			Х
SUPERVISING STATION	Х	X	х	Х			X		X	
HVAC SHUTDOWN			X							
DEACTIVATE AUDIBLES					х	Х				
DEACTIVATE VISUALS				ringi di Madalah Madalah di Andrian da Antrian sa salam sa menganya manan sa	X	X				
SYSTEM NORMAL				<del>черодня в постоя на пределення в постоя на по</del>	X					
ACTIVATE FIRE SPRINKLER BELL						en elemente a se grand, qui elemente, de la grande de elemente, per presi el se elemente el presi el presi el s				X
FIRE SMOKE DAMPER SHUTDOWN			X	Χ						

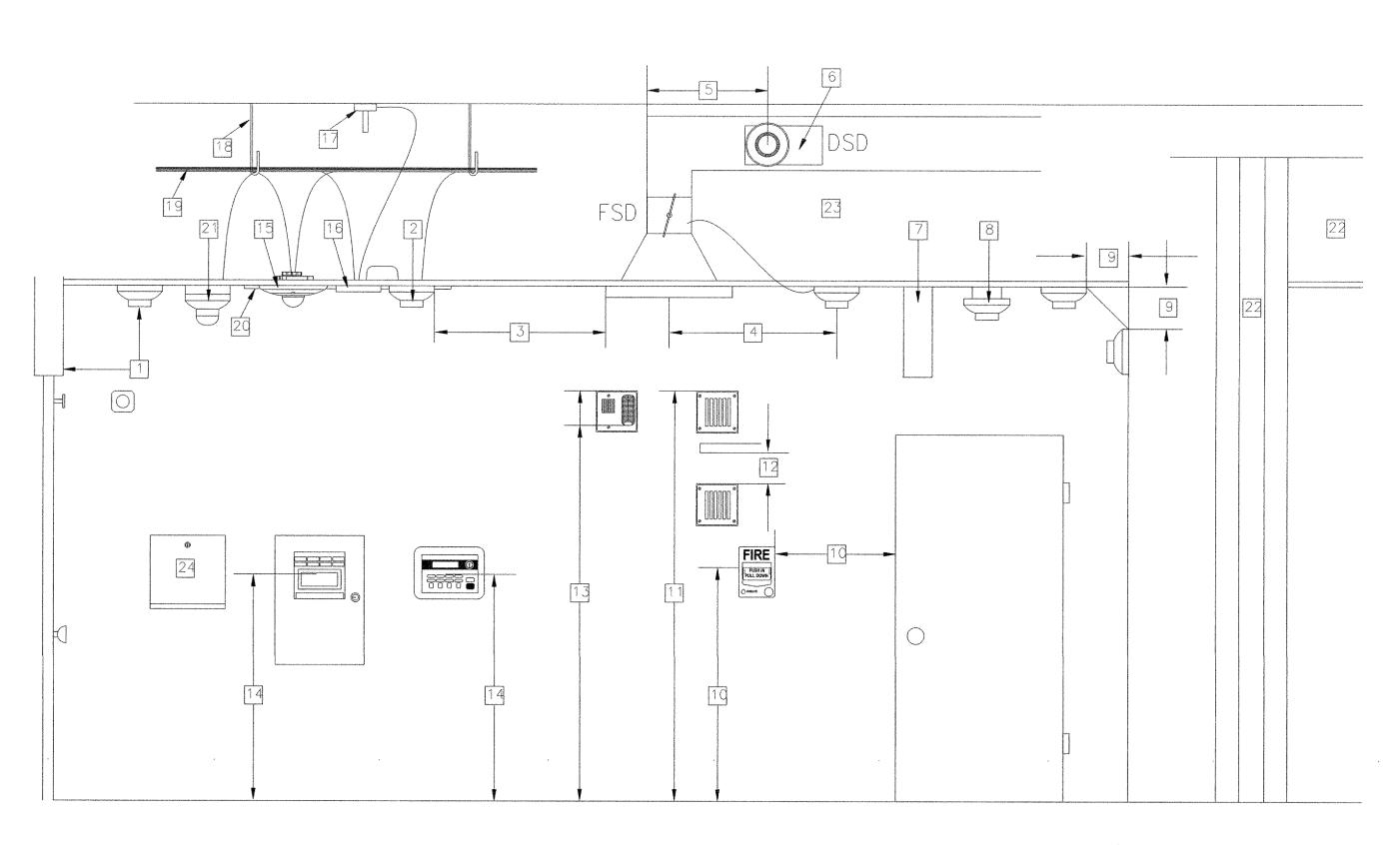
	FIRE A	LARM SYST	EM CABL	E SCHE	DULE
CABLE TAG	CABLE	NO. OF CONDUCTORS	COLOR	AWG	CABLE USE
Α	GENESIS	2(1PR)	RED/BLACK	#16	BUILDING INITIATION (SLC)
В	GENESIS	2(1PR)	RED/BLACK	#12	VISUAL NOTIFICATION
С	GENESIS	2(1PR)	RED/BLACK	#18	MONITORED CIRCUIT
D	AQUA SEAL	2(1PR)	RED/BLACK	#18	UG INITIATION
E	AQUA SEAL	2(1PR)	RED/BLACK	#12	UG VISUAL NOTIFICATION
F	AQUA SEAL	2(1PR)	RED/BLACK	#16	UG VOICE NOTIFICATION
	THHN	2	RED/BLACK	#12	POWER
S	GENESIS	2(1PR) OAS	RED/BLACK	#16	VOICE NOTIFICATION
FIBER		4 STRAND 62.5/125MMF			NETWORK CABLING

	FIRE ALARM	SYSTEM CC	MPONENT	SCHEDULE	
SYMBOL	EQUIPMENT/DEVICE	MANUFACTURER	MODEL / PART #	CSFM LISTING YEAR	CSFM LISTING NO.
FACP	FIRE ALARM CONTROL PANEL	GAMEWELL - FCI	E3	6/30/2018	7165-1703:0125
AMP-X	FIRE ALARM VOICE APLIFIER	GAMEWELL - FCI	AM-50 SERIES	6/30/2018	7165-1703:0125
LOC	FIRE ALARM VOICE REMOTE MICROPHONE WITH LCD	GAMEWELL - FCI	LOC	6/30/2018	7165-1703:0125
BP-X	FIRE ALARM BOOSTER PANEL	GAMEWELL - FCI	HPFF8	6/30/2018	7315-1637:0102
<b>②</b>	ADDRESSABLE PHOTO-ELECTRIC SMOKE DETECTOR	GAMEWELL - FCI	ASD-PL2F	6/30/2018	7272-1703:0121
•	ADDRESSABLE HEAT DETECTOR (135F)	GAMEWELL - FCI	ATD-L2F	6/30/2018	7270-1703:0115
XX XX	CONVENTIONAL HEAT DETECTOR (190F) AH= ATTIC HEAT UH=UNDER FLOOR	GAMEWELL - FCI	5600 SERIES	6/30/2018	7270-1653:0167
<u> </u>	ADDRESSABLE DUCT SMOKE DETECTOR WITH RELAY	GAMEWELL - FCI	DNR WITH ASD-PL2FR	6/30/2018	7272-1703:0121
(S)———(S) BE	BEAM SMOKE DETECTOR WITH KEYED REMOTE TEST SWITCH	GAMEWELL - FCI	ABD-2F	6/30/2018	7260-1703:0120
SM	ADDRESSABLE SINGLE MONITOR MODULE	GAMEWELL - FCI	AMM-4F	6/30/2018	7300-1703:0102
DM	ADDRESSABLE DUAL MONITOR MODULE	GAMEWELL - FCI	AMM-2IF	6/30/2018	7300-1703:0107
CR	ADDRESSABLE CONTROL RELAY MODULE	GAMEWELL - FCI	AOM-2SF	6/30/2018	7300-1703:0102
F	PULL STATION	GAMEWELL - FCI	MS-7 SERIES	6/30/2018	7150-1703:0119
⊠⊲XXcd 15/30/75/110/135	SPEAKER/STROBE # INDICATES CANDELLA SETTING AS REQ,	SYSTEM SENSOR SPECTR ALERT, /30/75/110/135	SPSRL	6/30/2018	7320-1653:0505
XXcd 15/30/75/110	STROBE # INDICATES CANDELLA SETTING AS REQ,	SYSTEM SENSOR SPECTR ALERT, SR 15/30/75/110	SRL	6/30/2018	7125-1653:0504
₩P	WEATHER PROOF SPEAKER	SYSTEM SENSOR SPECTR ALERT, SPRK	SPRK	6/30/2018	7320-1653:201

NOTE: QUANTITIES OF DEVICES SHOWN ON THIS SCHEDULE ARE ESTIMATED DEVICES INSTALLED. THE CONTRACTOR IS RESPONSIBLE FOR REPLACEMENT OF ALL COMPONENTS SHOWN ON FLOOR PLANS. THESE QUANTITIES, DO NOT INCLUDE SPARE DEVICES. REFER TO SPECIFICATIONS FOR SPARE DEVICE QUANTITIES.

### NUMBERED SHEET NOTES

- 1. MOUNT DOOR HOLDER SMOKE DETECTOR MAXIMUM 3' FROM DOOR AND A MINIMUM OF 1'.
- MAXIMUM DISTANCE BETWEEN SMOKE DETECTORS IS 30' AND 15' FROM WALLS, MAXIMUM DISTANCE FROM A CORNER IS 21' WITH CEILING LESS 10' OR LESS.
- 3. MOUNT SMOKE DETECTOR MINIMUM OF 3' AWAY FROM DIFFUSER VENT.
- 4. MOUNT SMOKE DETECTOR FOR FIRE SMOKE DAMPER (FSD) WITHIN 3' OF SUPPLY VENT.
- 5. DUCT SMOKE DETECTOR SHALL BE MOUNTED 6 TO 10 TIMES THE DIAMETER OF DUCT FROM BEND OR
- WHERE DUCT SMOKE DETECTORS ARE INSTALLED IN CONCEALED LOCATIONS OR GREATER THAN 10' AFF, DETECTORS SHALL BE PROVIDED WITH A REMOTE INDICATOR OR SUPERVISORY INDICATION ACCEPTABLE WITH AUTHORITY HAVING JURISDICTION (AHJ). ALL HVAC GREATER THAN 2000cfm SHALL HAVE A DUCT DETECTOR IN THE SUPPLY AIR DUCT. GREATER THAN 15,000cfm SHALL HAVE ONE IN BOTH SUPPLY AND RETURN AIR DUCTS. HOWEVER SHALL NOT BE REQUIRED WHERE THE ENTIRE SPACE SERVED BY THE AIR DISTRIBUTION SYSTEM IS PROTECTED BY SMOKE DETECTORS.
- BEAM POCKET SPOT DETECTOR ARE REQUIRED FOR BEAMS GREATER THAN 18" BELOW CEILING AND SPACED MORE THAN 8' ON CENTER. EACH BAY FORMED BY BEAM SHALL BE TREATED AS A SEPARATE AREA. BEAMS LESS THAN 12" IN DEPTH AND SPACED LESS THAN 8' ON CENTER SHALL HAVE
- DETECTORS INSTALLED ON THE BOTTOM OF THE BEAM. 7.1. OR, CEILINGS WITH BEAM DEPTHS LESS THAN 10 PERCENT OF THE CEILING HEIGHT, SMOOTH CEILING SPACING IS PERMITTED AND DETECTORS PLACED ON THE BOTTOM OF THE BEAM. BEAMS EQUAL TO OR GREATER THAN 10 PERCENT OF CEILING HEIGHT WITH BEAM SPACING GREATER THAN 40 PERCENT OF CEILING HEIGHT, SPOT DETECTORS SHALL BE LOCATED IN EACH CELL. NFPA 72 17.7.3.2.4.2
- 8. BEAMS PROJECTING LESS THAN 4" SHALL BE TREATED AS A SMOOTH CEILING.
- 9. SMOKE DETECTORS SHALL BE MOUNTED ON THE CEILING MINIMUM 4" FROM WALL, AND 4" MINIMUM TO 12" MAXIMUM FROM CEILING MOUNTED ON WALL.
- 10. MOUNT MANUAL PULL STATIONS AT 48" TO ACTIVATING CONTROL AFF, AND NO GREATER THAN 5' FROM
- 11. MOUNT EXTERNAL HORN AT 90" MINIMUM AND 100" MAXIMUM TO THE TOP OF THE DEVICE.
- 12. FOR APPLICATIONS WHERE THE STRUCTURE IS BELOW 90", MOUNT HORN AS HIGH AS WITH A MINIMUM OF 6" CLEARANCE TOT HE TOP OF THE DEVICE.
- 13. MOUNT HORN / SPEAKER STROBE AND STROBE ONLY THE THE ENTIRE LENS IS WITHIN 80" AND 96" AFF.
- 14. MOUNT FIRE ALARM CONTROL PANELS AND ANNUNCIATORS AT A MAXIMUM OF 48" TO THE TOP OF THE CONTROL PANEL OR KEY BOARDS. CBC 1117B.0 (3).
- 15. CEILING MOUNTED HORN / SPEAKER STROBE
- MONITOR MODULE
- 17. RATE ANTICIPATOR HEAT DETECTOR, MOUNTED IN ABOVE CEILING / ATTIC SPACE.
- 18. APPROVED WIRE MANAGEMENT, ie J-HOOK OR D-RING.
- 19. ABOVE CEILING CIRCUITS ROUTING IN AN ACCESSIBLE ATTIC SPACE.
- 20. NON-ACCESSIBLE CEILINGS MUST USE EITHER EMT OR APPROVED WIREMOLD RACEWAY, AS SHOWN
- 21. MULTI-CRITERIA PHOTOELECTRIC SMOKE / CO DETECTOR WITH SOUNDER BASE. MOUNT IN AREAS WHERE FOSSIL FUEL IS USED
- 22. SMOKE / HEAT DETECTION COVERAGE IS REQUIRED IN ALL COMBUSTIBLE AREAS, UNLESS: 22.1. CEILING IS ATTACHED DIRECTLY TO THE UNDERSIDE OF THE SUPPORTING BEAM OR ROOF DECK.
- 22.2. CONCEALED SPACE IS ENTIRELY FILLED WITH NON-COMBUSTIBLE INSULATION. 22.3. THE SMALL CONCEALED SPACE OVER ROOMS THAT DO NOT EXCEED 50 SQ. FT. IN AREA.
- 22.4. SPACES FORMED BY FACING STUDS OR SOLID JOISTS IN WALLS, FLOORS, OR CEILINGS WHERE THE FACING STUD OR SOLID JOIST IS LESS THAN 6".
- INACCESSIBLE SPACES THAT DO NOT MEET THIS CRITERIA MUST BE MADE ACCESSIBLE AND DETECTION MUST BE INSTALLED, NFPA72 17.5.3.1.1
- 23. DETECTION FOR CONCEALED ACCESSIBLE SPACES ABOVE SUSPENDED CEILING USED AS A RETURN PLENUM SHALL BE PROVIDED AT EACH CONNECTION FROM RETURN AIR PLENUM AT CENTRAL AIR HANDLING UNIT. NFPA 72 17.5.3.1.4
- 24. WITH EVERY NEW FIRE ALARM SYSTEM A DOCUMENTATION CABINET SHALL BE INSTALLED AT THE FIRE ALARM CONTROL PANEL OR AT ANOTHER LOCATION APPROVED BY AHJ. THE CABINET SHALL BE PROMINENTLY LABELED "SYSTEM RECORD DOCUMENTS".





### FIRE ALARM NOTES

- WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE REGULATIONS, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
- STATE CALIFORNIA CODE OF REGULATIONS (CCR) 2016 TITLE 24 CALIFORNIA BUILDING CODE PART 2, 2016 CALIFORNIA BUILDING CODE (CBC), 2015 IBC. PART 3, 2016 CALIFORNIA ELECTRICAL CODE (CEC), 2014 NEC. PART 4, 2016 CALIFORNIA MECHANICAL CONDE (CMC), 2015 UMC.
- PART 5, 2016 CALIFORNIA PLUMBING CODE (CPC), 2015/UPC. PART 9, 2016 CALIFORNIA FIRE CODE (CFC) BASED ON 2015 IFC. 2016 NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 13, 72, 80, 90A, 99, AND 101.
- INSTALLATION OF THE SYSTEMS SHALL NOT BE STARTED UNTIL DETAILED DESIGN DOCUMENTATION AND SPECIFICATIONS, INCLUDING STATE FIRE MARSHALL LISTING SHEETS FOR EACH COMPONENT OF THE SYSTEM HAS BEEN APPROVED BY DSA.

ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF A DSA PROJECT INSPECTOR.

- 3. UPON COMPLETION OF INSTALLATION OF THE SYSTEMS, A SATISFACTORY TEST OF THE
- 4. A STAMPED SET OF APPROVED FIRE ALARM DESIGN DOCUMENTS SHALL BE ON THE JOB SITE AND USED FOR INSTALLATION.
- 5. ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE CODE OR RECOGNIZED STANDARDS SHALL BE BROUGHT TO THE ATTENTION OF DSA AND THE ARCHITECT/ENGINEER OF RECORD.
- 6. DSA, ARCHITECT/ENGINEER AND OWNER SHALL BE NOTIFIED A MINIMUM OF 48 HOURS PRIOR
- ALL PENETRATIONS THROUGH RATED ASSEMBLIES, REQUIRING OPENING PROTECTION SHALL
- 8. AUDIBLE DEVICES SHALL PROVIDE A SOUND PRESSURE LEVEL OF 15DECIBLES (Dba) ABOVE THE AVERAGE AMBIENT SOUND LEVEL OR 5 Dba ABOVE THE MAXIMUM SOUND LEVEL HAVING A DURATION AT LEAST 60 SECONDS, WHICHEVER IS GREATER, IN EVERY OCCUPIED SPACE WITHIN THE BUILDING.
- 9. AUDIBLE DEVICES SHALL BE SYNCHRONIZED TEMPORAL CODE 3 PATTERN.

TO THE FINAL INSPECTION AND/ OR TESTING.

SIZED PER CEC.

10. THE CONTRACTOR SHALL ADJUST/INSTALL DEVICES TO MAXIMIZE PERFORMANCE AND TO MINIMIZE FALSE ALARMS.

BE PROVIDED WITHIN THE SPECIFICATION WITHIN THE FIRE ALARM SECTION.

- 11. VISUAL DEVICES SHOULD NOT EXCEED 2 FLASHES PER SECOND AND SHOULD NOT BE SLOWER THAN 1 FLASH EVERY SECOND. THE DEVICE SHALL HAVE A PULSING LIGHT SOURCE NOT LESS THAN 15 CANDELLA. VISUAL DEVICES WITHIN 55' FROM EACH OTHER SHALL BE SYNCHRONIZED.
- 12. UNDERGROUND AND EXTERIOR CONDUIT TO HAVE WATERTIGHT FITTINGS AND WIRE TO BE APPROVED FOR WET LOCATIONS.
- 13. ALL FIRE ALARM WIRING SHALL BE FLP OR FPLP (FIRE POWER LIMITED OR FIRE POWER LIMITED PLENUM) AS REQUIRED FOR APPLICATION. WIRING IN CONDUIT ABOVE GROUND MAY BE THHN OR THWN.
- 14. PER CEC STANDARDS, ALL WIRING IS TO BE PULLED THROUGH EACH JUNCTION BOX AND CONNECTED DIRECTLY TO EACH FIRE DEVICE. DO NOT SPLICE THE WIRE. ALL BOXES TO BE
- 15. SMOKE DETECTORS SHALL BE NOT CLOSER THAN 1' FROM SPRINKLERS OR 3' FROM ANY SUPPLY DIFFUSER. IN AREA OF CONSTRUCTION OR POSSIBLE DAMAGE/CONTAMINATION OF NEWLY INSTALLED FIRE ALARM DEVICES SHALL BE COVERED UNTIL AREA IS READY TO BE TURNED OVER TO THE OWNER.
- 16. ALL FIRE ALARM CIRCUITS ARE TO BE IN CONDUIT, SURFACE RACEWAY OR OPEN RUN ABOVE THE CEILINGS, UNDER FLOORS AND IN WALLS IN A NEAT AND PROTECTED MANNER AS INDICATED ON THE DESIGN DOCUMENTS. EXPOSED CIRCUITS ARE ONLY PERMITTED WHEN NOTED AS EXPOSED ON DESIGN DOCUMENTS.
- 17. FIRE ALARM PANEL, REMOTES, AND COMPONENTS SHALL BE SECURED TO MOUNTING SURFACES PER MANUFACTURERS SPECIFICATIONS. NO DEVICE SHALL EXCEED THE WEIGHT OF 20 LBS. WITHOUT SPECIAL MOUNTING DETAILS.
- 18. A DEDICATED BRANCH CIRCUIT SHALL BE PROVIDED FOR FIRE ALARM EQUIPMENT. THIS CIRCUIT SHALL BE ENERGIZED FROM A COMMON USE AREA PANEL AND SHALL HAVE OTHER OUTLETS. THE BREAKER SHALL HAVE A RED LOCKING DEVICE TO BLOCK THE HANDLE IN THE "ON" POSITION. THE CIRCUIT BREAKER SHALL BE LABELED "FIRE ALARM CIRCUIT CONTROL". CIRCUIT ID TO BE LABELED AT FIRE PANEL/EXPANDERS.
- 19. THE INSTALLER CONTRACTOR SHALL PROVIDE A RECORD OF COMPLETION PER NFPA 72. FIGURE 10.18.2.1.1.
- 20. THE INSTALLING CONTRACTOR SHALL PROVIDE SYSTEM PROGRAMMING FOR SUPERVISORY MONITORING PER CBC SECTION 901.6.2.
- 21. SUPERVISORY MONITORING SHALL BE TESTED AND VERIFIED AS SENDING CORRECT SIGNALS IN CONJUNCTION WITH FINAL ACCEPTANCE TEST.
- 22. OWNER SHALL BE RESPONSIBLE FOR ESTABLISHING A FIRE SYSTEM MONITORING CONTRACT OR PROVISIONS. AUTOMATIC FIRE ALARM SYSTEMS SHALL TRANSMIT THE ALARM, SUPERVISORY AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION AS REQUIRED BY NFPA 72 AND CBC 907.6.5.2. THE SUPERVISING STATION SHALL BE LISTED AS EITHER UUFX OR UUIS BY UL OR SHALL MEET THE REQUIREMENTS OF FM STANDARD 3011.
- 23. BEFORE REQUESTING FINAL APPROVAL OF THE INSTALLATION THE INSTALLING CONTRACTOR SHALL FURNISH A WRITTEN STATEMENT TO THE DSA PROJECT INSPECTOR TO THE EFFECT THAT THE SYSTEM HAS BEEN INSTALLED AND TESTED IN ACCORDANCE WITH THE (2013) NFPA
- 24. TEST, INSPECTION AND MAINTENANCE SHALL COMPLY WITH NFPA 72 CHAPTER 14 REQUIREMENTS.

### FIRE ALARM SYSTEM DESCRIPTION

SCOPE OF THIS PROJECT IS TO INCORPORATE A NEW FIRE ALARM SYSTEM WITH VOICE EVACUATION, INCLUDING FACP, VOICE AMPLIFIERS, POWER SUPPLIES, MICROPHONE, INITIATION. NOTIFICATION AND CONTROL DEVICES AS SHOWN ON PLANS AND SPECIFICATIONS. IN AREAS WHERE SCOPE OF NEW WORK IS LIMITED TO INSTALLATION OF FIRE ALARM DEVICES. INFRASTRUCTURE, INCLUDING PATHWAY, DEVICE BOXES, ETC. PROVIDE ALL NEW CABLING: CABLING SHALL BE INSTALLED IN CONDUIT OR SURFACE RACEWAY, OR EXPOSED IN ACCESSIBLE CEILING SPACE.

FIRE ALARM SYSTEM: CLASS B IDC: CLASS B SLC CIRCUIT: CLASS B NOTIFICATION CIRCUIT: CLASS B





**REVISIONS** 

# DESCRIPTION

**DESIGNER:**Designer

**DATE:** 12/27/17

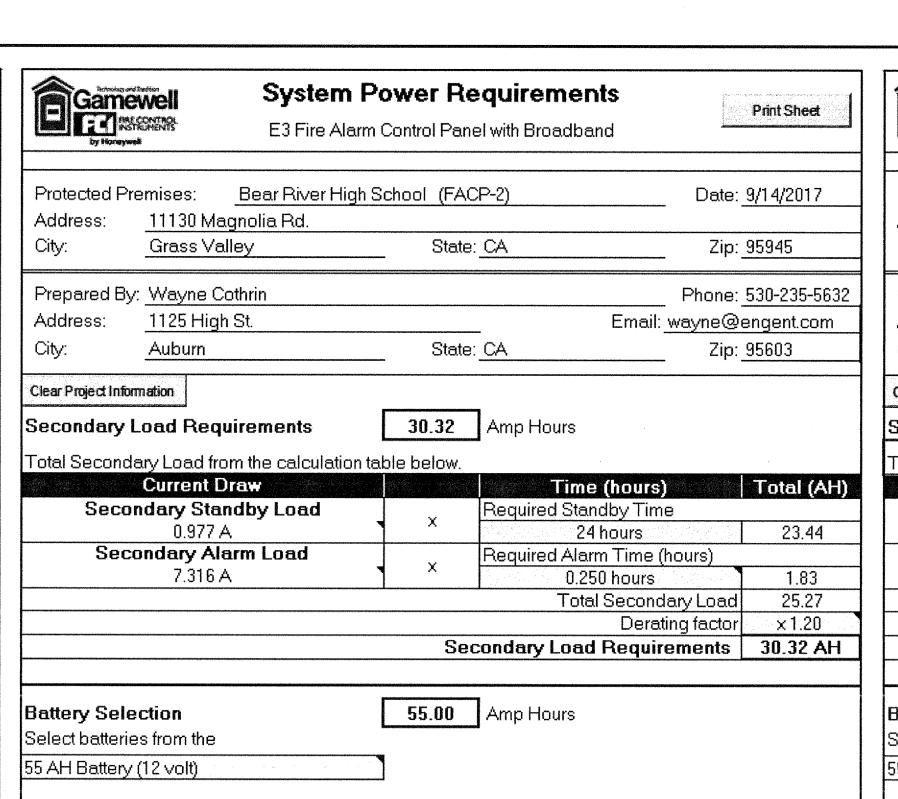
SCALE: 12" = 1'-0"

**SCHEDULES** 

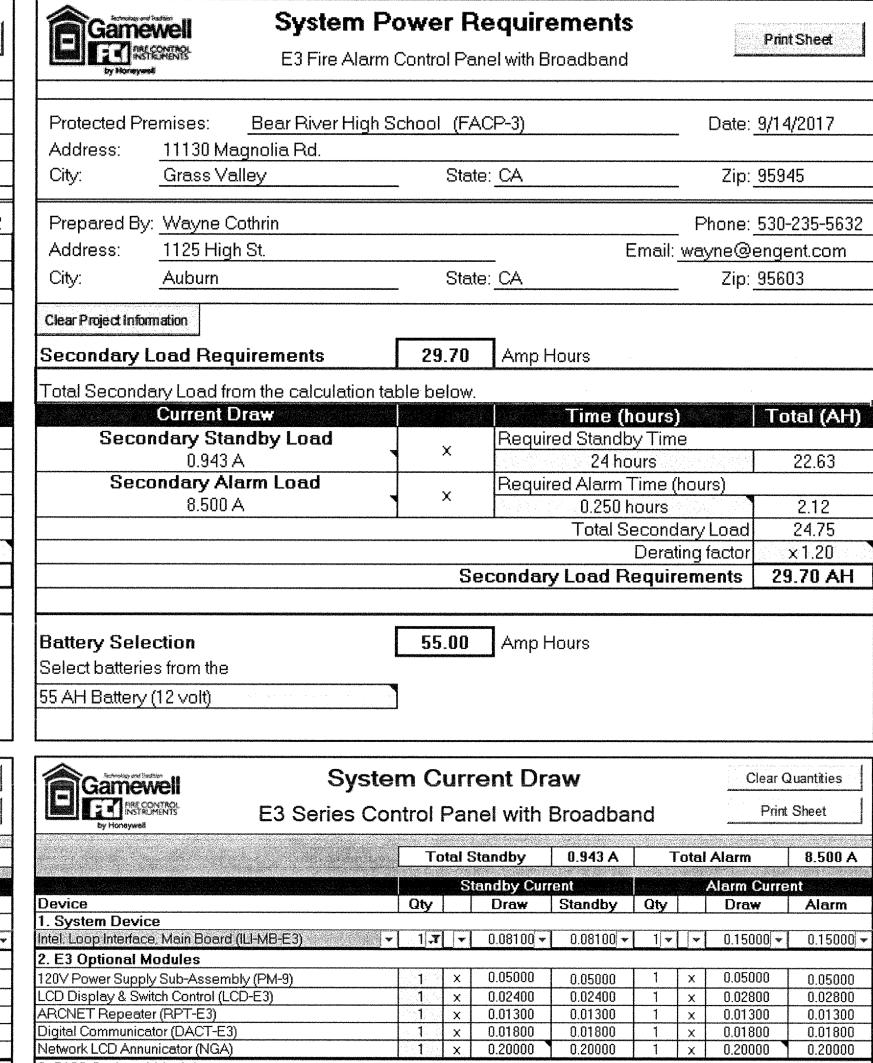
DRAWING NO.

FA-0.2

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Protected Premises Address: 11130	: <u>Be</u> : ) Magnoli	ar River H ia Rd.	High S	choc	ol (Fa	ACP-1)				Date: <u>9</u> /1	4/2017
Anna Core House St. Little House	s Valley	ioru.			Sta	ite: <u>CA</u>				Zip: <u>95</u>	945
Prepared By: <u>Wayr</u> Address: 1125	Verderlich bereicht bestellt b	)						Ewa	***************************************	hone: <u>53</u>	
City: Aubu	High St. rn			<del></del>	Sta	 .te:_ <u>CA</u>		Ema	uii. <u>Wa</u> y	yne@eng Zip: <u>95</u>	
Clear Project Information								rhe e general de la constitución d		nt financia (in contra de la cont	
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55 AH Battery (12 volt											
<u> </u>											
Gamewell FI MARKENING	E3	•	•			ent Dinel with	r <b>aw</b> Broadb	and		According with according consistences	Quantities nt Sheet
by Honeywell						Standby	1.061 A		Total	Alarm	7.101
Device I. System Device				Qty	S	andby Cu Draw	rrent Standby	Qt	The second second second	Alarm Cur Draw	rent Alarm
ntel. Loop Interface, Main Bo 2. E3 Optional Modules			•	/ <u>\$</u> 1 €		0.08100		· · · · · · · · · · · · · · · · · · ·		0.15000	0.15000
20V Power Supply Sub-Ass LCD Display & Switch Contro ARCNET Repeater (RPT-E:	ol (LCD-E3)	-9)		1 1 1	X X X	0.05000 0.02400 0.01300	0.05000 0.02400 0.01300	1	X X	0.05000 0.02800 0.01300	0.05000 0.02800 0.01300
Digital Communicator (DACT Network LCD Annunicator (N 3. <b>7100 Optional Module</b> :	GA)			33 <b>1</b> 33 333 <b>1</b> 33	X	0.01800 0.20000	0.01800		×	0.01800 0.20000	0.01800
I. INI-VGC Command Centel. Network Command Centel. Network Command Centel Sub-ass	nter (INI-VG0 sembly (ASI	M-16)		1 2	×	0.15000 0.01100	0.15000	2	××	0.15000 0.01100	0.15000
/oice Paging Microphone (N 5. <b>INI-VGX Voice Gatew</b> a ntel. Network Voice Gatewa	y (INI-VGX)			2 1	×     ×	0.00100 0.15000	0.00200	1 1	×	0.00100 0.15000	0.00200
Amplifier Sub-assembly, 50 v 5. INI-VGE Command Ce 7. Smoke Detectors/Mod	nter Voice			2	Lxl	0,08600	0.17200			2.20600	4.41200
ASD-PL2F Addressable Sm ATD-L2F Addressable Heat AOM-2RF Addressable Rela	Detector	Dr		52 16 20	X X X	0.00030 0.00020 0.00038	0.01560 0.00320 0.00750	16	X	0.00650 0.00650 0.00650	0.33800 0.10400
ONR Addressable Duct Dete AMM-2IF Monitor Module B. Notification Appliance	ector			8 20	×	0.00030 0.00750	0.00240 0.15000	8	X	0.00650 0.00570	0.05200 0.11400
SPSRL15 SPSRL30			×	3 2	×	0.00000	0.00000		×	0.06000 0.08300	0.18000
SPSRL75			* *	7	Tota	0.00000 al Standby Load	94 I III I <i>1</i> 4	2000	×   	0.13600 Fotal Alarn Load	
	FΔ	CP-1	RP.	.R (							
Power Supply: BP-B					Jai		Location: Blo	ig A - R(	OOM 10	3 	
Notification Circuit Loadi DEVICE SPEAKER STROBE	<b>cd</b> 15	LOAD/EA 60.00	NAC1	N	AC2 9	NAC3	NAC4 2	NAC	NAC	TOTAL 840.00	
SPEAKER STROBE SPEAKER STROBE SPEAKER STROBE	30 75 110	83.00 136.00 179.00	2		1	6				166.00 1,088.00	
STROBE STROBE STROBE	15 30 75	54.00 74.00 121.00	4				5			486.00	
STROBE	110	162.00			***************************************						
Notification A	فيتعدن فالتناقيات ويتصفحن بيسيد بإنسر	cuit Loading: pacity - 20%	The second liverage of the second	00 (	623.00	816.00	390.00 270.00			2,580.00 516.00	
Notification Circuit Volta	*	CIRCUIT			MPS)	DISTANCE		\WG	%VD	VD	
NAC1 NAC2 NAC3			0.75 0.62 0.82			150 230 279	0	#12 #12 #12	1.55% 1.97% 3.09%	0.37 0.47 0.74	
NAC4 NAC			0.39					#12 #12 #12 #12		0.74	
Battery Calculation						Panel Loa		11 12			
Totals Panel Cu		the state of the s	Alarm 3096.	00	~ ~	Pan	el Capacity (/ Panel Load (/		6.00 3.10		
Standby A	ent (Amps). in Standby: Amp Hours: es in Alarm:	24		30				M A	raila ble C	Capacity	
Total Alarm A	Amp Hours:		1.	55		1					
Provide a 7	***		THERW	_ /ISE N	OTED	en e					
FACP-2 AM	D 1	And Andrews Andrews (Control of the Control of the			50 V	Vatt V	oice Ar	np			
FACF-2 AIVI		ondary P	ower	Sour	ce R	equirem	ents				_
Device Type		Qty S	tandby Curren			ps) Total		iry Alan rrent Di		ent (am ps) Total	
. System OWAMP		1 X	00	100	=	0 0100	+	0 2480			
. Speakers		0 X					0 X 0 X	0.2480	1998a		-
. <b>speakers</b> Inter Number of Watts @ : Inter Number of Watts @ :		0 X			= =	0.0000	0 X	0.0400 0.0450		0.9225	-
rearranger of YVallS (0)	. J. I VIIIS		Standb			0.0000		<u>0.0450</u> Alarm I		0.9225	1



Gamewell	,	>y	ste	m C	uri	ent Dr	aw			Clear C	uantitie
FC FARE CONTROL E3	Seri	es	Cor	ntrol	Pai	nel with	Broadl	oand		Print	Sheet
We at the Second			1111	To	otal S	Standby	0.977	٠ <u> </u>	Fota	Alarm	7.31
					S	tandby Cur	rent			Alarm Curre	nt
Device				Qty		Draw	Standb	y Qty		Draw	Alaı
<ol> <li>System Device Intel: Loop Interface, Main Board (ILI-MB-E</li> </ol>	:3)			1 7	    -	0.08100 🕶	0.0810	] - 1 -	T -	0.15000	0.15
2. E3 Optional Modules	)		· ·	1 7		0.00100,*	0.0010	1 4 10		0.13000 🕶	0.13
120V Power Supply Sub-Assembly (PM-9	·····			<u> 1</u>	×	0.05000	0.0500	1 1	Τ×	0.05000	0.05
LCD Display & Switch Control (LCD-E3)	·	*******	·	1	X	0.02400	0.0340		<del> </del>	0.02800	0.03
ARCNET Repeater (RPT-E3)		**********	***************	1	×	0.01300	0.0130		<del>                                     </del>	0.01300	0.01
Digital Communicator (DACT-E3)	<del></del>	~~~~	***************************************	1	×	0.01800	0.0180		×	0.01800	0.01
Network LCD Annunicator (NGA)				1	×	0.20000	0.2000	] 1	×	0.20000	0.20
3. 7100 Optional Modules											
4. INI-VGC Command Center											
Intel. Network Command Center (INI-VGC)				1	X	0.15000	0.15000		×	0.15000	0.15
Addressable Switch Sub-assembly (ASM	<del>-16)</del>		***************************************	2	X	0.01100	0.02200		X	0.01100	0.02
Voice Paging Microphone (Microphone)				2	Х	0.00100	0.00200	) 2	X	0.00100	0.00
5. INI-VGX Voice Gateway Intel. Network Voice Gateway (INI-VGX)				1 1		0.15000	0.15000	1 T 1	TU	0.15000	0.15
Amplifier Sub-assembly, 50 watt 25V (AM-	50)		***************************************	2	X	0.08600	0.17200		X	2.20600	4.41
6. INI-YGE Command Center Voice		av	****			0.0000			1	E:E0000	
7. Šmoke Detectors/Modules									activities con and		
ASD-PL2F Addressable Smoke Detector			***************************************	28	×	0.00030	0.00840	) 28	×	0.00650	0.18
ATD-L2F Addressable Heat Detector	**************************************	<del></del>	tal-est emiliani-americani	2	X	0.00020	0.00040		×	0.00650	0.01
DNR Addressable Duct Detector	4000 CO			2	×	0.00030	0.00060		×	0.00650	0.01
AMM-2IF Monitor Module			*****	11	×	0.00750	0.08250	) 11	×	0.00570	0.06
MS7-AF Manual Pull Station	#150m00000-012000-012000	ederal verse		9	Х	0.00030	0.00270	) 9	X	0.00030	0.00
8. Notification Appliances	***	************									
SPSRL15			~	4	х	0.00000	0.00000	) 4	×	0.06000	0.24
SPSRL30			₩.	6	х	0.00000	0.00000	) 6	×	0.08300	0.49
SPSRL75			~	3	×	0.00000	0.00000	3	×	0.13600	0.40
SPSRL110	manen es timbro es anticipar esta materialidad		~	2	×	0.00000	0.00000	) 2	×	0.17900	0.35
SRL15	transcription of the contract		-	5	X	0.00000	0.00000		X	0.05400	0.27
SRL30		***************************************	-	1	x	0.00000	0.00000		x	0.07400	0.07
JRDV			-		لسسا	al Standby				Fotal Alarm	*******
			<b>V</b>		. i Ut	aı stanuby Load:	0.977 /	١ .	,	Load:	7.31
						LUQU.	<u> </u>			Ludu.	
FACP-2 AMP 1			likina apikina pod nisapopo jelajaja po polojeko n	5	0 V	Natt Vo	oice A	mp			
Seco	ndary	Po	wer	Sour	ce F	Requireme	ents				
a magazine engeleta kantiga a lengua sangka perangkan pendalah bermanakan naguru salah pendalah meneri Bangan pendalah pend Bangan pendalah penda				Currer						ent (amps)	
Device Type	Qty	2, 2, 1, 2	Curre	nt Draw		Total	Qty Ci	ırrent Dra	W	Total	
1. System	T	·,		***************************************			nenaen karrin en de servicen er servicen en se de selecte de servicen de se				
50W AMP	11	X	0.0	100	=	0.0100	0 X	0.2480			
		X			=		0 X	0.2480	T=1		
	0	X	roditerostes ———————————————————————————————————		=		0 X		† <u>₌</u> †	annan menengan pelakuah kecila inseksia mendida menanda Semes dibantun secera da Arbeita da	
2 Spankara		10					<u> </u>		1-1		
2. Speakers	Τ	T.J	~ ~	000		1		0.0400			
Enter Number of Watts @ 25Vrms	0	X		000	= -		0 X	0.0400	╀	d - con social browning for color on a semantic color on and social soci	
	20.5	X	0.0	000	╚	0.0000	21 X	0.0450	ᆂ	0.9225	
Enter Number of Watts @ 70.7Vrms				y Load	1	0.0100		Alarm Lo	-	0.9225	



System Power Requirements

FACP-4 AMP 1 Secondary Po	ower			Vatt Voi		p			
			Tot	al Standby Load:	0.943 A			Total Alarm Load:	8.500
SRL30	•	9	×	0.00000	0.00000	9	×	0.07400	0.6660
SRL15	▼	10	×	0.00000	0.00000	10	х	0.05400	0.5400
SPSRL110	•	7	×	0.00000	0.00000	7	×	0.17900	1.2530
SPSRL30	<b>T</b>	2	x	0.00000	0.00000	2	×	0.08300	0.1660
SPSRL15	~	5	×	0.00000	0.00000	5	×	0.06000	0.3000
8. Notification Appliances			1	T	*****	T			
MS7-AF Manual Pull Station	rings in the second second	3	×	0.00030	0.00090	3	×	0.00030	0.0009
AMM-2IF Monitor Module		6	Х	0.00750	0.04500	6	Х	0.00570	0.0342
DNR Addressable Duct Detector		2	х	0.00030	0.00060	2	×	0.00650	0.0130
ATD-L2F Addressable Heat Detector	***************************************	10	×	0.00020	0.00200	10	×	0.00650	0.0650
ASD-PL2F Addressable Smoke Detector	***************************************	41	×	0.00030	0.01230	41	Ι×	0.00650	0.2665
7. Smoke Detectors/Modules		AND THE STREET, TAKEN					esianyayayayay		
Amplifier Sub-assembly, 50 watt 25V (AM-50)  6. INI-VGE Command Center Voice Gateway		<u> </u>	Х	0.08600	0.17200	<u> </u>	l x	2.20600	4.4120
Intel. Network Voice Gateway (INI-VGX)		2	X	0.15000	0.15000 0.17200	1 2	×	0.15000	0.1500
5. INI-VGX Voice Gateway		7	γ	_	0.4.5.0.0.0		·		
Voice Paging Microphone (Microphone)		2	Х	0.00100	0.00200	2	Х	0.00100	0.0020
Intel. Network Command Center (INI-VGC) Addressable Switch Sub-assembly (ASM-16)		2	×	0.01100	0.15000 0.02200	2	×	0.15000 0.01100	0.1500 0.0220

1 X 0.0100 = 0.0100 0 X 0.2480

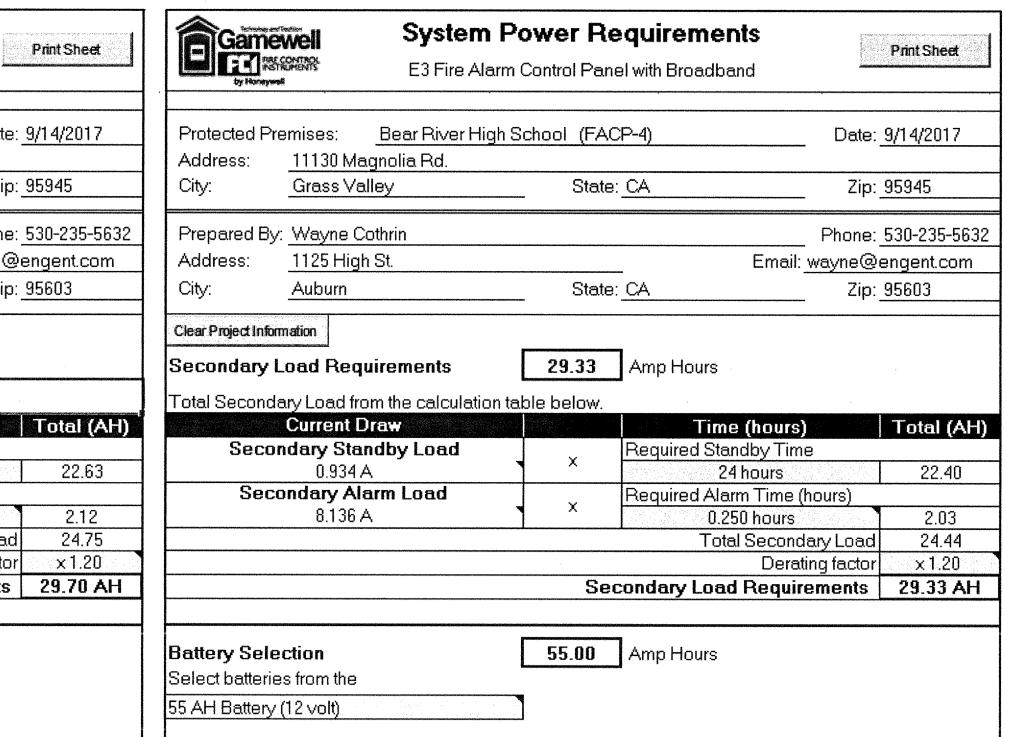
Total Standby Load 0.0100 Total Alarm Load 1.5975

Enter Number of Watts @ 70.7Vrms | 35.5 | X | 0.0000 | = | 0.0000 | 36 | X | 0.0450 | = | 1.5975

ARCNET Repeater (RPT-E3)
Digital Communicator (DACT-E3)
Network LCD Annunicator (NGA)

3. 7100 Optional Modules
4. INI-VGC Command Center
Intel. Network Command Center (INI-VGC)

Enter Number of Watts @ 25Vrms 0 X 0.0000



Gamewell System	m C	uri	ent Dr	aw			Clear Q	uantities
FI ARE CONTROL E3 Series Cor	ntrol	Par	nel with I	Broadba	nd		Print	Sheet
	Т	otal S	Standby	0.934 A	T	otal	Alarm	8.136 A
		100	-		114			
Davies		5	tandby Curr	many and the contract of the c			Alarm Curre	Andreas and the description of the contract of
Device 1. System Device	Qty	L	Draw	Standby	Qty	L	Draw	Alarm
	1.7		0.08100 -	0.08100 🕶	1 -		0.15000	0.15000
	10 T T	7	0.00100	0.00100	II Y	¥	0.15000 🕶	0.15000
2. E3 Optional Modules	18002797	T T	0.05000		-		0.05000 1	
120V Power Supply Sub-Assembly (PM-9)	1	×	0.05000	0.05000	1	×	0.05000	0.05000
LCD Display & Switch Control (LCD-E3)	1	×	0.02400	0.02400	1	×	0.02800	0.02800
ARCNET Repeater (RPT-E3)	1	×	0.01300	0.01300	1	×	0.01300	0.01300
Digital Communicator (DACT-E3)	1	×	0.01800	0.01800	1	×	0.01800	0.01800
Network LCD Annunicator (NGA)		X	0.20000	0.20000	1	Х	0.20000	0.20000
3. 7100 Optional Modules		icio tanàna			Market Green Andrews			
4. INI-VGC Command Center						,		
Intel. Network Command Center (INI-VGC)	1	×	0.15000	0.15000		×	0.15000	0.15000
Addressable Switch Sub-assembly (ASM-16)	2	×	0.01100	0.02200	2	X	0.01100	0.02200
Voice Paging Microphone (Microphone)	2	×	0.00100	0.00200	2	Х	0.00100	0.00200
5. INI-VGX Voice Gateway	Г		0.45000	0.15000			0.15000	~ + = ~ ~ ~
Intel. Network Voice Gateway (INI-VGX)	2	X	0.15000	0.15000 0.17200	1	×	0.15000	0.15000
Amplifier Sub-assembly, 50 watt 25V (AM-50)	<u> </u>	X	0.08600	0.17200	2	X	2,20600	4,41200
6. INI-VGE Command Center Voice Gateway	**********							
7. Smoke Detectors/Modules		г	0.00000	0.00750	O.C.		0.00050	0 4 0 0 F 0
ASD-PL2F Addressable Smoke Detector	25	X	0.00030	0.00750	25	×	0.00650	0.16250
ATD-L2F Addressable Heat Detector	22	X	0.00020	0.00440	22	×	0.00650	0.14300
AMM-2IF Monitor Module	5	X	0.00750	0.03750	5	X	0.00570	0.02850
MS7-AF Manual Pull Station	7	×	0.00030	0.00210	7	Х	0.00030	0.00210
8. Notification Appliances	r	т т			Mikordum se contentum solution in a			***************************************
SPSRL15	3	×	0.00000	0.00000	3	×	0.06000	0.18000
SPSRL30 ▼	5	×	0.00000	0.00000	5	×	0.08300	0.41500
SPSRL75 ▼	6	×	0.00000	0.00000	6	×	0.13600	0.81600
SPSRL110	2	×	0.00000	0.00000	2	×	0.17900	0.35800
SPSRL135	4	x	0.00000	0.00000	4	x	0.20900	0.83600
▼			al Standby Load:	0.934 A	1		otal Alarm Load:	8.136 A

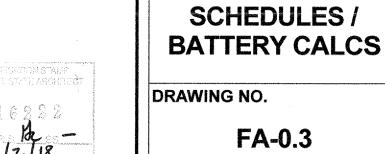
Seco	ndary	Po	wer Sou	rce	Requirem	ents	i						
	Standby Current (amps)							Secondary Alarm Current (amp					
Device Type	Qty		Current Drav	v	Total	Qty		Current Draw		Total			
1. System													
50W AMP	1	Х	0.0100	=	0.0100	0	Х	0.2480	=				
		Х		=		0	Х	0.2480	=				
	0	Х		=		0	Х		=				
2. Speakers									with the control of				
Enter Number of Watts @ 25Vrms	0	х	0.0000	T=1		0	х	0.0400	=				
Enter Number of Watts @ 70.7Vrms	35.5	х	0.0000	=	0.0000	36	Х	0.0450	=	1.5975			
	Tot	al S	tandby Loa	nd	0.0100		Ta	tal Alarm Lo	a ci	1.5975			

	FA	CP-4 F	NL	B Ca	lcula	tions			
Power Supply: FACP-3	Milinia i provinci majerio provinci ma		talah kati ingga saki saki saki saki saki saki saki sak	i de complementario de la c	**************************************	Location:	Bldg E - F	OOM 114	
Notification Circuit Loading	ıg		***************************************		· · · · · · · · · · · · · · · · · · ·				
DEVICE	cd	LOAD/EA	NAC1	NAC2	NAC3	NAC4	NAC	NAC	TOTA
SPEAKER STROBE	15	60.00							
SPEAKER STROBE	30	83.00	11						83.
SPEAKER STROBE	75	136.00	2						272.
SPEAKER STROBE	110	179.00			ļ				
STROBE	15	54.00	44						216.
STROBE	30	74.00			<b></b>	<b> </b>	·····		ļ
STROBE STROBE	75	142.00							
SPEAKER STROBE	110 135	162.00 209.00			<b></b>				<b>_</b>
SPEAKER STRUBE	133	209.00						***************************************	<b>-</b>
								-	<del> </del>
Notification Ap	nliance Cir	ruit Loading:	571.00		<del> </del>	<b></b>			571.
		pacity - 20%	0.20		<del> </del>				114.5
Cpui C	rr diale oa	pacity - 20 /0	0.20			L		***************************************	114.
Notification Circuit Voltage	e Drop	*****							
CIRCUIT ID	<u> </u>	CIRCUIT	CURRENT	(AMPS)	DISTANC	E (FEET)	AWG	%VD	VD
NAC1			0.57	pan of		00	#12	2.36%	0.57
NAC2	<del></del>				<u> </u>		#12	2.0070	0.57
NAC3	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~					****	#12		<b> </b>
NAC4		<b></b>		terior de la companya			#12	dentiririnariyada qirdinaraya saqaa	
NAC			***************************************	ente mai fici describera de describera pelos po			#12	***************************************	l
NAC			***************************************	**************			#12		
Standby A Minutes Total Alarm A Minumum Batter	nt (Amps) Standby: mp Hours in Alarm: mp Hours	24 y Required:	Alarm 685.20 0.69 30 0.34 0.34 AH		Panel Lo Pa	nel Capacit Panel Loa	d (Amps):		pacity
1 Tovide a ra		A UNI ESS O	THERWIS	F NOTED	The second secon				*****
L	SED AS m/								
ALL LOADS ARE EXPRESS  FACP-4 AMI				50 V	Watt \	/oice	Amp		
ALL LOADS ARE EXPRESS	2	ondary P	ower S	THE TANKE OF THE STREET, STREE			Amp		<b>2444-2-10-10-10-10-10-10-10-10-10-10-10-10-10-</b>
FACP-4 AMI	2	s	tandby C	ource l	Require	ments Seco	ondary Al		
ALL LOADS ARE EXPRESS	2			ource l	Require	ments			ent (am Tota

Total Standby Load 0.0100 Total Alarm Load 0.4950







**REVISIONS** 

# DESCRIPTION

**DESIGNER:**Designer

**SCALE:** 12" = 1'-0"

**FIRE ALARM** 

DATE: 12/27/17

Game	AACH		quirements	Print Sheet
by Horeywel		iarm Control Pani	el with Broadband	
Protected Pre	mises: Bear River Hic	gh School (FACP-	5) Date	9/14/2017
	11130 Magnolia Rd.			. The same of the
City.	Grass Valley	State	CA Zip	95945
Prepared By:	Wayne Cothrin		Phone	530-235-5632
Address:	1125 High St.		Email: wayne@e	,
City:	Auburn	State		95603
_	oad Requirements yLoad from the calculation t Current Draw	43.93 able below.	Amp Hours  Time (hours)	Total (AH)
Sec	ondary Standby Load		Required Standby Time	
	1.380 A	×	24 hours	33.13
Se	condary Alarm Load		Required Alarm Time (hours)	
	13.917 A	×	0.250 hours	3.48
			Total Secondary Load	<del></del>
			Derating factor	
			Secondary Load Requirements	43.93 AH
Battery Select Select batteries		55.00	Amp Hours	
55 AH Battery (1	The state of the s	***************************************		

Gamewell Syste	am C	un	ent Dra	IW/		A CANADA ANTA A SANJA ANTA	Clear Q	uantities		
E3 Series Co	ntrol	Par	nel with E	Broadban	d		Print Sheet			
		otal S	Standby	Company of the last of the las	Total	13.917 A				
		Ç	tandby Curr		SECTION N		Alarm Cune			
Device	Qty		Draw	Standby	Qty		Draw	<u>Alarm</u>		
1. System Device		4			- Prisoned					
Intel, Loop Interface, Main Board (ILI-MB-E3)	1 4	*	0.08100 🕶	0.08100 🕶	1 🔻	Y	0.15000 🕶	0.15000		
2. E3 Optional Modules			-		·····			*****		
120V Power Supply Sub-Assembly (PM-9)	1 1	×	0.05000	0.05000	1	×	0.05000	0.05000		
LCD Display & Switch Control (LCD-E3)	1 1	Х	0.02400	0.02400	1	Х	0.02800	0.02800		
ARCNET Repeater (RPT-E3)	1 1	X	0.01300	0.01300	1	X	0.01300	0.01300		
Digital Communicator (DACT-E3)	1 1	Х	0.01800	0.01800	1	Х	0.01800	0.01800		
Network LCD Annunicator (NGA)	1	X	0.20000	0.20000	1	×	0.20000	0.20000		
3. 7100 Optional Modules										
4. INI-VGC Command Center		**************								
Intel. Network Command Center (INI-VGC)		X	0.15000	0.15000	1	Х	0.15000	0.15000		
Addressable Switch Sub-assembly (ASM-16)	2	Х	0.01100	0.02200	2	Х	0.01100	0.02200		
Voice Paging Microphone (Microphone)	2	X	0.00100	0.00200	2	Х	0.00100	0.00200		
5. INI-VGX Voice Gateway										
Intel, Network Voice Gateway (INI-VGX)	1 1	X	0.15000	0.15000	1	Х	0.15000	0.15000		
Amplifier Sub-assembly, 50 watt 25V (AM-50)	4	X	0.08600	0.34400	4	X	2.20600	8,82400		
6. INI-VGE Command Center Voice Gateway		nanda dall'il consequencia di sociali								
7. Šmoke Detectors/Modules										
ASD-PL2F Addressable Smoke Detector	162	X	0.00030	0.04860	162	×	0.00650	1.05300		
ATD-L2F Addressable Heat Detector	36	×	0.00020	0.00720	36	×	0.00650	0.23400		
DNR Addressable Duct Detector	2	Х	0.00030	0.00060	2	×	0.00650	0.01300		
AMM-2F Monitor Module	36	×	0.00750	0.27000	36	×	0.00570	0.20520		
8. Notification Appliances	sudu en	·!·······		***************************************		l	**************************************			
SPSRL1S V	11	×	0.00000	0.00000	11	x	0.06000	0.66000		
SPSRL30	4	×	0.00000	0.00000	4		0.08300	0.33200		
SPSRL75	<del>  7</del>	×	0.00000	0.00000	7	X	0.13600	0.95200		
SPSRL110	3	X	0.00000	0.00000	3		0.17900	0.53700		
	16	1	0.00000	0.00000	6	X	0.05400			
SRU15	1 0	X Ta	otal Standby		0	[ X ]	Total Alarm	0.32400		
			Load	1.380 A			Load:	13.917 A		

FACP-5 AMP 1	50 Watt Voice Amp											
Seco	ndary	Po	wer Sou	rce I	Requirem	ents	;					
		Sta	andby Curre	nt (ar	nps)	Se	Secondary Alarm Current (					
Device Type	Qty	(	Current Dray	N	Total	Qty		Current Drav		Total		
1. System												
50W AMP	1	x	0.0100	=	0.0100	0	Х	0.2480	=			
		X				0	Χ	0.2480	=			
	0	X		=		0	χ		=			
2. Speakers												
Enter Number of Watts @ 25Vrms	0	Х	0.0000	=		0	Х	0.0400	=			
Enter Number of Watts @ 70.7Vrms	39	X	0.0000	]=[	0.0000	39	Х	0.0450	T=1	1.7550		
	Tot	tal S	tandby Loa	ad	0.0100		Tot	al Alarm Lo	ad	1.7550		

	******	400 to 100 to	· · · · · · · · · · · · · · · · · · ·						-
Power Supply: FACP-5				entervision (Control of Control		Location:	88g D - R	OOM 118	-
Notification Circuit Loading					_				
DEVICE	<u>cd</u>	LOAD/EA	NAC1	NA C2	NAC3	NA C4	NAC	NAC	TOTAL
SPEAKERSTROBE	15	60.00	2	3	1				360.0
SPEAKER STROBE	30	83.00		1		***************************************			83.0
SPEAKER STROBE	75	135.00	3	2	2				952.0
SPEAKER STROBE	110	179.00	1	11	1				537.0
STROBE	15	54.00		1	1				108.0
STRO8E	30	74.00			3				222.0
STROBE	75	121.00							
STROBE.	110	162.00							<u> </u>
	······································								
Notification Appli	iance Cir	cuit Loading:	707.00	768.00	787.00				2,282.00
Snare/Fi	erteuro Ca	pacity - 20%	0.20			1		***************************************	452.4
Notification Circuit Voltage Dro CIRCUIT ID			CURRENT (	AMPS)	DISTANCI		AWG	%VD	מע
Notification Circuit Voltage Dro CIRCUIT ID NAC1			CURRENT (	AMPS)	50	)	#12	0.49%	VD 0.12
Notification Circuit Voltage Dro CIRCUIT ID NAC1 NAC2			0.71 0.77	AMPS)	50 71	) ,	#12 #12	0.49% 0.79%	VD 0.12 0.19
Notification Circuit Voltage Dro CIRCUIT ID NAC1 NAC2 NAC3			CURRENT (	AMPS)	50	) ,	#12 #12 #12	0.49%	VD 0.12
Notification Circuit Voltage Dro CIRCUIT ID NAC1 NAC2 NAC3 NAC4			0.71 0.77	AMPS)	50 71	) ,	#12 #12 #12 #12	0.49% 0.79%	VD 0.12 0.19
Notification Circuit Voltage Dro CIRCUIT ID NAC1 NAC2 NAC3 NAC4			0.71 0.77	AMPS)	50 71	) ,	#12 #12 #12 #12 #12	0.49% 0.79%	VD 0.12 0.19
Notification Circuit Voltage Dro CIRCUIT ID NAC1 NAC2 NAC3 NAC4 NAC			0.71 0.77		56 75 11	) 5 0	#12 #12 #12 #12	0.49% 0.79%	VD 0.12 0.19
Notification Circuit Voltage Dro CIRCUIT ID NAC1 NAC2 NAC3 NAC4		CIRCUIT	0.71 0.77 0.77 0.79		56 75 11 Panel Load	) 5 0	#12 #12 #12 #12 #12 #12	0.49% 0.79% 1.19%	VD 0.12 0.19
Notification Circuit Voltage Dro CIRCUIT ID NAC1 NAC2 NAC3 NAC4 NAC NAC	ор	CIRCUIT (	0.71 0.77 0.79 0.79		56 75 11 Panel Load	o ding nel Capacit	#12 #12 #12 #12 #12 #12 #12	0.49% 0.79% 1.19%	VD 0.12 0.19
Notification Circuit Voltage Dro CIRCUIT ID NAC1 NAC2 NAC3 NAC4 NAC NAC Battery Calculation	op  nt (mA):	Super.	0.71 0.77 0.79 0.79 Alarm 2714.40		56 75 11 Panel Load	o ding nel Capacit	#12 #12 #12 #12 #12 #12	0.49% 0.79% 1.19%	VD 0.12 0.19
Notification Circuit Voltage Dro CIRCUIT ID NAC1 NAC2 NAC3 NAC4 NAC NAC Battery Calculation  Totals Panel Current (	op nt (mA): (Amps):	Super.	0.71 0.77 0.79 0.79 Alamn 2714.40		56 75 11 Panel Load	o ding nel Capacit	#12 #12 #12 #12 #12 #12 #12	0.49% 0.79% 1.19%	VD 0.12 0.19
Notification Circuit Voltage Dro CIRCUIT ID NAC1 NAC2 NAC3 NAC4 NAC NAC Battery Calculation Total Panel Current ( Hours in S	op nt (mA): (Amps):	Super.	0.71 0.77 0.79 0.79 Alarm 2714.40		56 75 11 Panel Load	o ding nel Capacit	#12 #12 #12 #12 #12 #12 // (Amps):	0.49% 0.79% 1.19%	VD 0.12 0.19 0.29
Notification Circuit Voltage Dro CIRCUIT ID NAC1 NAC2 NAC3 NAC4 NAC NAC Battery Calculation Total Panel Current ( Hours in Standby Amp	op nt (mA): (Amps): tandby:	Super.	O.71 0.77 0.79 0.79 Alarm 2714.40 2.71		56 75 11 Panel Load	o ding nel Capacit	#12 #12 #12 #12 #12 #12 // (Amps):	0.49% 0.79% 1.19% 6.00 2.71	VD 0.12 0.19 0.29
Notification Circuit Voltage Dro CIRCUIT ID NAC1 NAC2 NAC3 NAC4 NAC Battery Calculation  Total Panel Current ( Hours in Standby Amp Minutes in	op (Amps): tandby: Hours:	Super.	O.71 0.77 0.79 0.79 Alarm 2714.40 2.71		56 75 11 Panel Load	o ding nel Capacit	#12 #12 #12 #12 #12 #12 // (Amps):	0.49% 0.79% 1.19% 6.00 2.71	VD 0.12 0.19 0.29
Notification Circuit Voltage Dro CIRCUIT ID NAC1 NAC2 NAC3 NAC4 NAC NAC Battery Calculation  Total Panel Current ( Hours in Standby Amp Minutes in Total Alarm Amp	op op (Amps): tandby: o Hours: o Hours:	Super.	O.71 0.77 0.79 0.79 Alarm 2714.40 2.71		56 75 11 Panel Load	o ding nel Capacit	#12 #12 #12 #12 #12 #12 // (Amps):	0.49% 0.79% 1.19% 6.00 2.71	VD 0.12 0.19 0.29
Notification Circuit Voltage Dro CIRCUIT ID NAC1 NAC2 NAC3 NAC4 NAC Battery Calculation  Total Panel Current ( Hours in Standby Amp Minutes in	op op (Amps): tandby: o Hours: o Hours:	Super.	O.71 0.77 0.79 0.79 Alarm 2714.40 2.71		56 75 11 Panel Load	o ding nel Capacit	#12 #12 #12 #12 #12 #12 // (Amps):	0.49% 0.79% 1.19% 6.00 2.71	VD 0.12 0.19 0.29

FACP-5 AMP 3	50 Watt Voice Amp									
Seco	ndary	P	ower Sour	се	Requirem	ents	j			
garage to the second of the second of		St	andby Curre	nt (	am ps)	Se	co	ndary Alarm	Curr	ent (amps)
Device Type	Qty				Total	Qty		Current Draw		Total
1. System		·		·	***					
50W AMP	1	Х	0.0100	<u> =</u>	0.0100	0	X	0.2480	=	
		Х		=		0	X	0.2480	=	
	0	Х		=		0	Х		=	
2. Speakers										
Enter Number of Watts @ 25Vrms	0	Х	0.0000	=		0	Х	0.0400	T=1	
Enter Number of Watts @ 70.7Vrms	21	х	0.0000	=	0.0000	21	Х	0.0450	=	0.9450
	Tota	al s	Standby Loa	d	0.0100		Tc	tal Alarm Lo	ad	0.9450

FACP-5 AMP 2	50 Watt Voice Amp										
Seco	ndary	Po	wer Sou	rce	Requirem	ents	į				
		Sta	andby Curre	nt (a	mps)	Se	con	dary Alarm	Curr	ent (amps)	
Device Type	Qty Current Draw			N	Total	Qty C		Current Draw		Total	
1. Sy stem		angua manangan					************				
50W AMP	1	x	0.0100		0.0100	0	X	0.2480			
		x		=		0	X	0.2480	=		
	0	x		=		0	χ		=		
2. Speakers											
Enter Number of Watts @ 25Vrms	0	Х	0.0000	=		0	Х	0.0400	T=1	***************************************	
Enter Number of Watts @ 70.7Vrms	24.5	Х	0.0000	=	0.0000	25	Х	0.0450	=	1.1025	
	Tot	al S	tandby Loa	ad	0.0100	100 Total Alarm Load					

	-FA	CP-5 F	JINT F		ivaia				
Power Supply: FACP-5						Location:	Bldg (3		
Notification Circuit Loading DEVICE	cd	LOAD/EA	NAC1	NAC2	NAC3	NAC4	NAC	NAC	TOTAL
SPEAKER STROBE	15	60.00		107702	10.00	111.50	141111		4 67 1 7 16
SPEAKER STROBE	30	83.00							<b> </b>
SPEAKER STROBE	75	136.00	4	4	3			***************************************	1,496,00
SPEAKER STROBE	110	179.00			44	***************************************			1,430.00
STROBE	15	54.00						***************************************	
STROBE	30	74.00				***************************************			
STROBE	<u></u>	<del></del>						*******************	
STROBE	110	121.00 162.00							<b> </b>
SIRUDE	110	102.00			***************************************				
							***************************************		
	···								
Notification Appl			544.00	544.00	408.00	*****			1,496.00
Spare/F	uture Ca	pacity - 20%	0.20			1			299.20
	ор		CURRENT (	AMPS)	DISTANC	E (FEET)	AW/G	%VD	l VD
CIRCUIT ID NAC1	ор		CURRENT (	AMPS)	10	10	#12	0.75%	<b>V</b> D 0.18
CIRCUIT ID NAC1 NAC2	ор		O.54 0.54	AMPS)	10 13	0 0	#12 #12	0.75% 0.97%	VD 0.18 0.23
CIRCUIT ID NAC1 NAC2 NAC3	ор		CURRENT (	AMPS)	10	0 0	#12 #12 #12	0.75%	<b>V</b> D 0.18
CIRCUIT ID NAC1 NAC2 NAC3 NAC4	ор		O.54 0.54	AMPS)	10 13	0 0	#12 #12 #12 #12	0.75% 0.97%	VD 0.18 0.23
CIRCUIT ID NAC1 NAC2 NAC3 NAC4 NAC	ор		O.54 0.54	AMPS)	10 13	0 0	#12 #12 #12 #12 #12	0.75% 0.97%	VD 0.18 0.23
CIRCUIT ID NAC1 NAC2 NAC3 NAC4 NAC	ор		O.54 0.54	AMPS)	10 13	0 0	#12 #12 #12 #12	0.75% 0.97%	VD 0.18 0.23
CIRCUIT ID  NAC1  NAC2  NAC3  NAC4  NAC	ор		O.54 0.54		10 13 20	00 00 00	#12 #12 #12 #12 #12	0.75% 0.97%	VD 0.18 0.23
CIRCUIT ID  NAC1  NAC2  NAC3  NAC4  NAC	ор	CIRCUIT	0.54 0.54 0.54 0.41		10 13 20 Panel Load	00 30 00 ding	#12 #12 #12 #12 #12 #12	0.75% 0.97% 1.12%	VD 0.18 0.23
CIRCUIT ID NAC1 NAC2 NAC3 NAC4 NAC NAC NAC		CIRCUIT (	0.54 0.54 0.41 Alarm		10 13 20 Panel Load	ding	#12 #12 #12 #12 #12 #12 #12	0.75% 0.97% 1.12%	VD 0.18 0.23
CIRCUIT ID  NAC1  NAC2  NAC3  NAC4  NAC  NAC  NAC  Totals Panel Curre	ent (mA):	CIRCUIT (	0.54 0.54 0.41 0.41 Alarm 1795.20		10 13 20 Panel Load	ding	#12 #12 #12 #12 #12 #12	0.75% 0.97% 1.12%	VD 0.18 0.23
CIRCUIT ID  NAC1  NAC2  NAC3  NAC4  NAC  NAC  Battery Calculation  Totals Panel Current	ent (mA): (Amps):	CIRCUIT O	0.54 0.54 0.41 0.41 Alarm 1795.20 1.80		10 13 20 Panel Load	ding	#12 #12 #12 #12 #12 #12 #12	0.75% 0.97% 1.12%	VD 0.18 0.23
Total Panel Current Hours in S	ent (mA): (Amps): Standby:	Super.	O.54 0.54 0.41 Alarm 1795.20 1.80		10 13 20 Panel Load	ding	#12 #12 #12 #12 #12 #12 #12	0.75% 0.97% 1.12%	VD 0.18 0.23 0.27
CIRCUIT ID  NAC1  NAC2  NAC3  NAC4  NAC  NAC  NAC  Totals Panel Current  Hours in S  Standby Amp	ent (mA): (Amps): Standby: p Hours:	Super.	O.54 0.54 0.41 Alarm 1795.20 1.80		10 13 20 Panel Load	ding	#12 #12 #12 #12 #12 #12 #12	0.75% 0.97% 1.12% 6.00 1.80	VD 0.18 0.23 0.27
CIRCUIT ID NAC1 NAC2 NAC3 NAC4 NAC NAC NAC  Totals Panel Current Hours in S Standby Amp	ent (mA): (Amps): Standby: p Hours: n Alarm:	Super.	Alarm 1795.20 1.80		10 13 20 Panel Load	ding	#12 #12 #12 #12 #12 #12 #12	0.75% 0.97% 1.12% 6.00 1.80	VD 0.18 0.23 0.27
CIRCUIT ID  NAC1  NAC2  NAC3  NAC4  NAC  NAC  NAC  Totals Panel Current  Hours in S  Standby Amp  Minutes in  Total Alarm Amp	ent (mA): (Amps): Standby: p Hours: n Alarm: p Hours:	Super.	Alarm 1795.20 1.80		10 13 20 Panel Load	ding	#12 #12 #12 #12 #12 #12 #12	0.75% 0.97% 1.12% 6.00 1.80	VD 0.18 0.23 0.27
CIRCUIT ID NAC1 NAC2 NAC3 NAC4 NAC NAC NAC  Totals Panel Current Hours in S Standby Amp	ent (mA): (Amps): Standby: p Hours: n Alarm: p Hours:	Super.	Alarm 1795.20 1.80		10 13 20 Panel Load	ding	#12 #12 #12 #12 #12 #12 #12	0.75% 0.97% 1.12% 6.00 1.80	VD 0.18 0.23 0.27
CIRCUIT ID  NAC1  NAC2  NAC3  NAC4  NAC  NAC  NAC  Totals Panel Current  Hours in S  Standby Amp  Minutes in  Total Alarm Amp	ent (mA): (Amps): Standby: p Hours: n Alarm: p Hours: Capacit	Super.  24	Alarm 1795.20 1.80		10 13 20 Panel Load	ding	#12 #12 #12 #12 #12 #12 #12	0.75% 0.97% 1.12% 6.00 1.80	VD 0.18 0.23 0.27

FACP-5 AMP 4	50 Watt Voice Amp										
Seco	ndary	Po	ower Sour	се	Requirem	ents	}				
		St	andby Curre	nt (a	mps)	Se	con	dary Alarm	Curr	ent (amps)	
Device Type	Qty	i in equ	<b>Current Drav</b>	٧	Total	Qty Current Dra		w	Total		
1. System		-		Printers (no consequence							
50W AMP	1	X	0.0100	=	0.0100	0	Х	0.2480	=		
		X		=		0	X	0.2480	=		
	0	Х		=		0	X		=		
2. Speakers		,									
Enter Number of Watts @ 25Vrms	0	Х	0.0000	=		0	X	0.0400	=		
Enter Number of Watts @ 70.7Vrms	19	Х	0.0000	=	0.0000	19	Х	0.0450	=	0.8550	
and range of video (g re. vinio	Tot	al S	Standby Loa	d	0.0100		Tota	al Alarm Lo	oad	0.8550	

	FA	CP-5	PNL	E Ca	lculat	ions			
Power Supply: FACP-5						Location:	Bldg D - F	ROOM 118	
Notification Circuit Loadin	***************************************	TIOAD/EAT	WACA T	11400	NACO		1140	1 1140	Tearin
DEVICE OTDORE	<u>cd</u>	LOAD/EA	NAC1	NAC2	NAC3	NAC4	NAC	NAC	TOTAL
SPEAKER STROBE	<u>15</u>	60.00		***************************************	****			<del> </del>	
SPEAKER STROBE	30	83.00					***************************************		1
SPEAKER STROBE	75	136.00	6	6					1,632.0
SPEAKER STROBE	110	179.00							<b></b>
STROBE	15	54.00						<del> </del>	ļ
STROBE	30	74.00			<del> </del>		******************************		
STROBE STROBE	75 110	121.00					<del></del>	<del> </del>	-
STRUBE	IIV	162.00							
hate adian	A national A	31 5	040.00	040.00					4 200 0
Notification	Appliance Ci	rcuit Loading:	816.00	816.00		1		1	1,632.0
Notification Circuit Voltag		apacity - 20%[	0.20	(AMDE)	DISTANC	E (EEET)	A 1 & 2 P		
			CURRENT	(AMPS)	***********	E (FEET)	AWG #12	%VD 3.37%	VD
Notification Circuit Voltag			ann	(AMPS)	DISTANC 30	00	<b>AWG</b> #12 #12	3.37%	<b>VD</b> 0.81
Notification Circuit Voltag CIRCUIT ID NAC1			CURRENT (	(AMPS)	3(	00	#12		
Notification Circuit Voltag CIRC UIT ID NAC1 NAC2			CURRENT (	(AMPS)	3(	00	#12 #12 #12	3.37%	VD 0.81
Notification Circuit Voltag CIRCUIT ID NAC1 NAC2 NAC3			CURRENT (	(AMPS)	3(	00	#12 #12	3.37%	VD 0.81
Notification Circuit Voltag CIRCUIT ID NAC1 NAC2 NAC3 NAC4			CURRENT (	(AMPS)	3(	00	#12 #12 #12 #12	3.37%	<b>VD</b> 0.81
Notification Circuit Voltag CIRC UIT ID NAC1 NAC2 NAC3 NAC4 NAC			CURRENT (		3(	00	#12 #12 #12 #12 #12	3.37%	<b>VD</b> 0.81
Notification Circuit Voltag CIRCUIT ID NAC1 NAC2 NAC3 NAC4 NAC		CIRCUIT	0.82 0.82		3( 2( Panel Loa	00 00 ding	#12 #12 #12 #12 #12 #12 #12	3.37% 2.25%	VD 0.81
Notification Circuit Voltage CIRCUIT ID NAC1 NAC2 NAC3 NAC4 NAC NAC	e Drop	CIRCUIT C	0.82 0.82 0.82		3( 2( Panel Loa	ding	#12 #12 #12 #12 #12 #12 #12	3.37% 2.25% 6.00	VD 0.81
Notification Circuit Voltage CIRC UIT ID NAC 1 NAC 2 NAC 3 NAC 4 NAC NAC NAC NAC NAC  Battery Calculation  Totals Panel C	e Drop	CIRCUIT C	0.82 0.82 0.82 Marm 1958.40		3( 2( Panel Loa	00 00 ding	#12 #12 #12 #12 #12 #12 #12	3.37% 2.25% 6.00	VD 0.81
Notification Circuit Voltage CIRC UIT ID NAC1 NAC2 NAC3 NAC4 NAC NAC NAC  Battery Calculation  Totals Panel Cur	e Drop  Current (mA) Tent (Amps)	Super.	0.82 0.82 0.82		3( 2( Panel Loa	ding	#12 #12 #12 #12 #12 #12 #12	3.37% 2.25% 6.00	VD 0.81
Notification Circuit Voltage CIRC UIT ID NAC1 NAC2 NAC3 NAC4 NAC NAC Battery Calculation  Totals Panel Cur Hours	e Drop  current (mA) rent (Amps) in Standby	Super.	0.82 0.82 0.82 Marm 1958.40		3( 2( Panel Loa	ding	#12 #12 #12 #12 #12 #12 #10 #12	3.37% 2.25% 6.00	VD 0.81 0.54
Notification Circuit Voltage CIRC UIT ID NAC1 NAC2 NAC3 NAC4 NAC NAC  Battery Calculation  Totals Panel Curr Hours Standby	e Drop  urrent (mA) rent (Amps) in Standby: Amp Hours	Super.	0.82 0.82 0.82 Marm 1958.40 1.96		3( 2( Panel Loa	ding	#12 #12 #12 #12 #12 #12 #10 #12	3.37% 2.25% 6.00 1.96	VD 0.81 0.54
Notification Circuit Voltage CIRC UIT ID NAC1 NAC2 NAC3 NAC4 NAC NAC  Battery Calculation  Totals Panel Currents Hours Standby Minute	e Drop  current (mA) rent (Amps) in Standby Amp Hours tes in Alarm	Super.	0.82 0.82 0.82 <b>Alarm</b> 1958.40 1.96		3( 2( Panel Loa	ding	#12 #12 #12 #12 #12 #12 #10 #12	3.37% 2.25% 6.00 1.96	VD 0.81 0.54
Notification Circuit Voltage CIRC UIT ID NAC1 NAC2 NAC3 NAC4 NAC NAC  Battery Calculation  Totals Panel C Total Panel Curr Hours Standby Minut Total Alarm	e Drop  current (mA) rent (Amps) in Standby Amp Hours tes in Alarm Amp Hours	Super.	0.82 0.82 0.82 0.82 Alarm 1958.40 1.96		3( 2( Panel Loa	ding	#12 #12 #12 #12 #12 #12 #10 #12	3.37% 2.25% 6.00 1.96	VD 0.81 0.54
Notification Circuit Voltage CIRC UIT ID NAC1 NAC2 NAC3 NAC4 NAC NAC  Battery Calculation  Totals Panel Currents Hours Standby Minute	e Drop  current (mA) rent (Amps) in Standby Amp Hours tes in Alarm Amp Hours	Super.	0.82 0.82 0.82 0.82 Alarm 1958.40 1.96		3( 2( Panel Loa	ding	#12 #12 #12 #12 #12 #12 #10 #12	3.37% 2.25% 6.00 1.96	VD 0.81 0.54

FACP-5 AMP 5	50 Watt Voice Amp										
Seco	ndary	P	ower Sou	rce	Requirem	ents				***************************************	
		S	andby Curre	nt (a	mps)	Se	COI	ndary Alarm	Сигте	nt (amps)	
Device Type	Qty		Current Dra	W	Total	Qty		Current Dra	W	Total	
1. System											
50W AMP	1	X	0.0100	=	0.0100	0	χ	0.2480	=		
		X		=		0	Х	0.2480	=		
	0	Х		=		0	χ		=		
2. Speakers											
Enter Number of Watts@ 25Vrms	0	0 X 0.0000 = 0 X 0.040		0.0400	=						
Enter Number of Watts@ 70.7Vrms	18	Х	0.0000	=	0.0000	18	χ	0.0450	=	0.8100	
	Tot	tal :	Standby Lo	ad	0.0100		Tot	al Alarm Lo	ad	0.8100	

# DESCRIPTION DESIGNER:Designer

1125 HIGH STREET AUBURN, CA 95603 (530) 886-8556

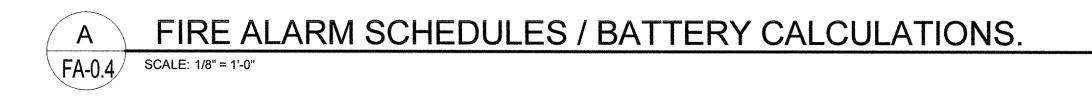
SCALE: 1/8" = 1'-0" DATE: 12/27/17

REVISIONS

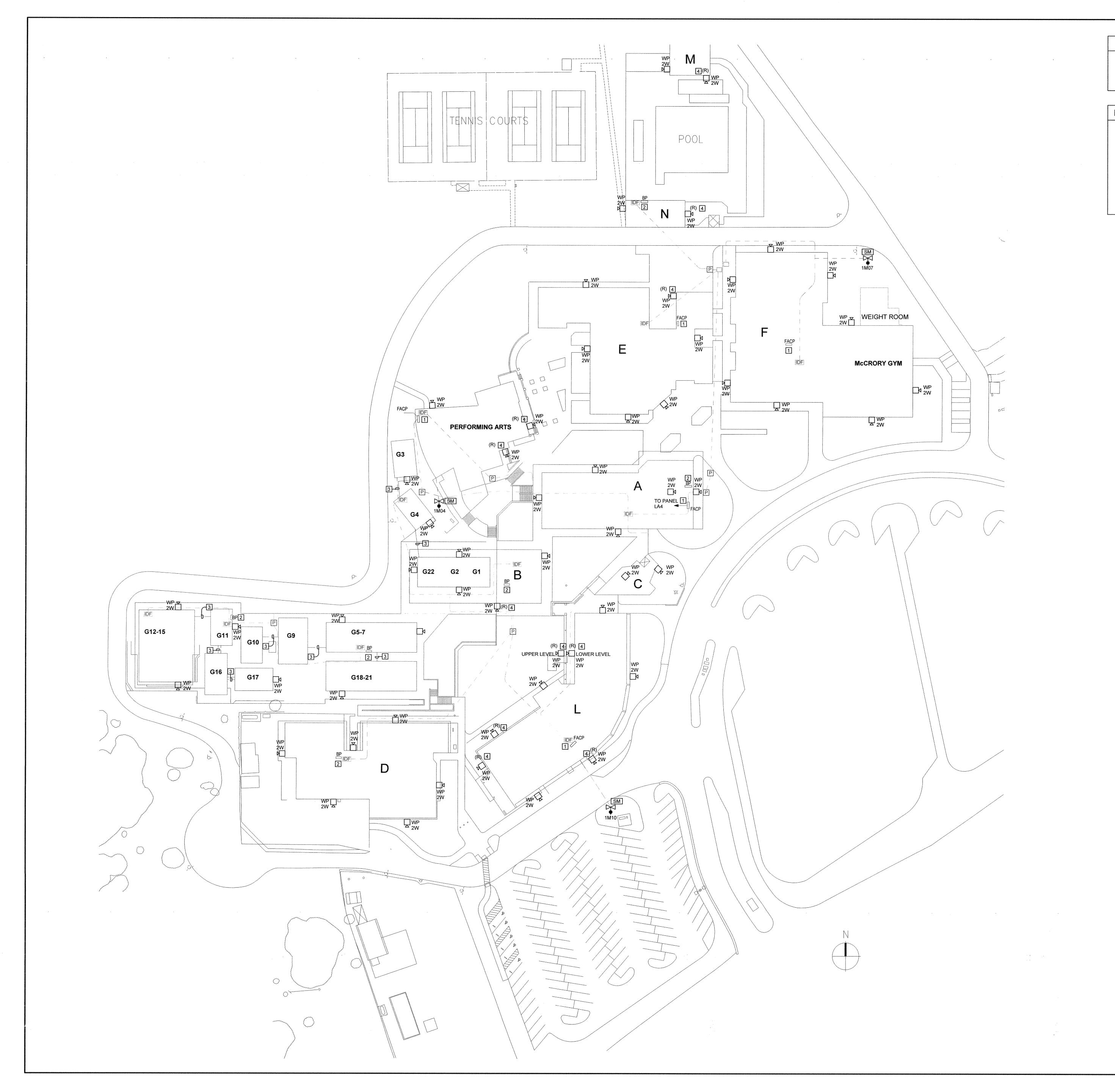
FIRE ALARM SCHEDULES / BATTERY CALCS

DRAWING NO.

FA-0.4







### GENERAL SHEET NOTES

A ALL CONDUIT, PULL BOXES AND IDF'S ARE EXISTING UNLESS OTHERWISE NOTED.

# The Engineering Enterprise Consulting Engineers 1125 HIGH STREET AUBURN, CA 95603 (530) 886-8556



### \*\* NUMBERED SHEET NOTES

- 1 FIRE ALARM CONTROL PANEL, REFERENCE FA4.1 AND FA4.2 FOR POWER, AND ADDITIONAL REQUIREMENTS.
- FIRE ALARM POWER BOOSTER PANEL, REFERENCE FA4.1 AND FA4.2 FOR POWER AND ADDITIONAL REQUIREMENTS.
- PROVIDE ADDITIONAL 1.5" UNDERGROUND CONDUIT FOR FIRE ALARM PATHWAY. PROVIDE A 12"X12"X6" NEMA 3R TERMINAL CABINET ON EACH END OF CONDUIT. STUB CONDUIT IN ABOVE CEILING.
- 4 REMOVE EXISTING WEATHER PROOF HORN AND REPLACE IT WITH A NEW WEATHER PROOF SPEAKER.

BRHS - NEW FIRE ALARM SYST FOR NJUHSD 11130 MAGNOLIA ROAD, GRASS V

REVISIONS

DESIGNER:Designer

SCALE: 1" = 40'-0"

DATE: 12/27/17

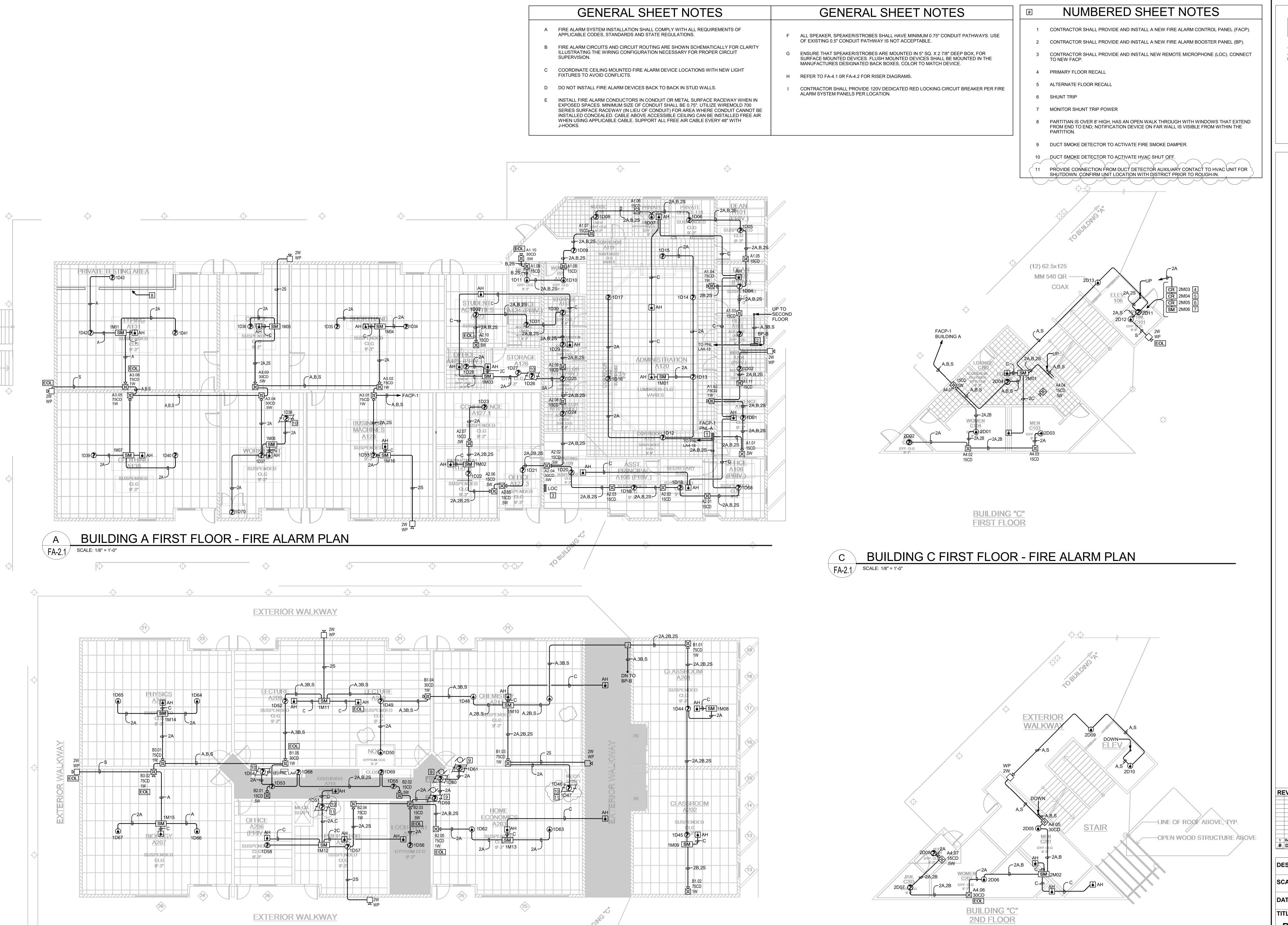
# DESCRIPTION

TITLE:

FIRE ALARM SITE PLAN

DRAWING NO.

FA-1.1



BUILDING A SECOND FLOOR - FIRE ALARM PLAN

RIDG "A"

1125 HIGH STREET AUBURN, CA 95603 (530) 886-8556



**DESIGNER:**Designer

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

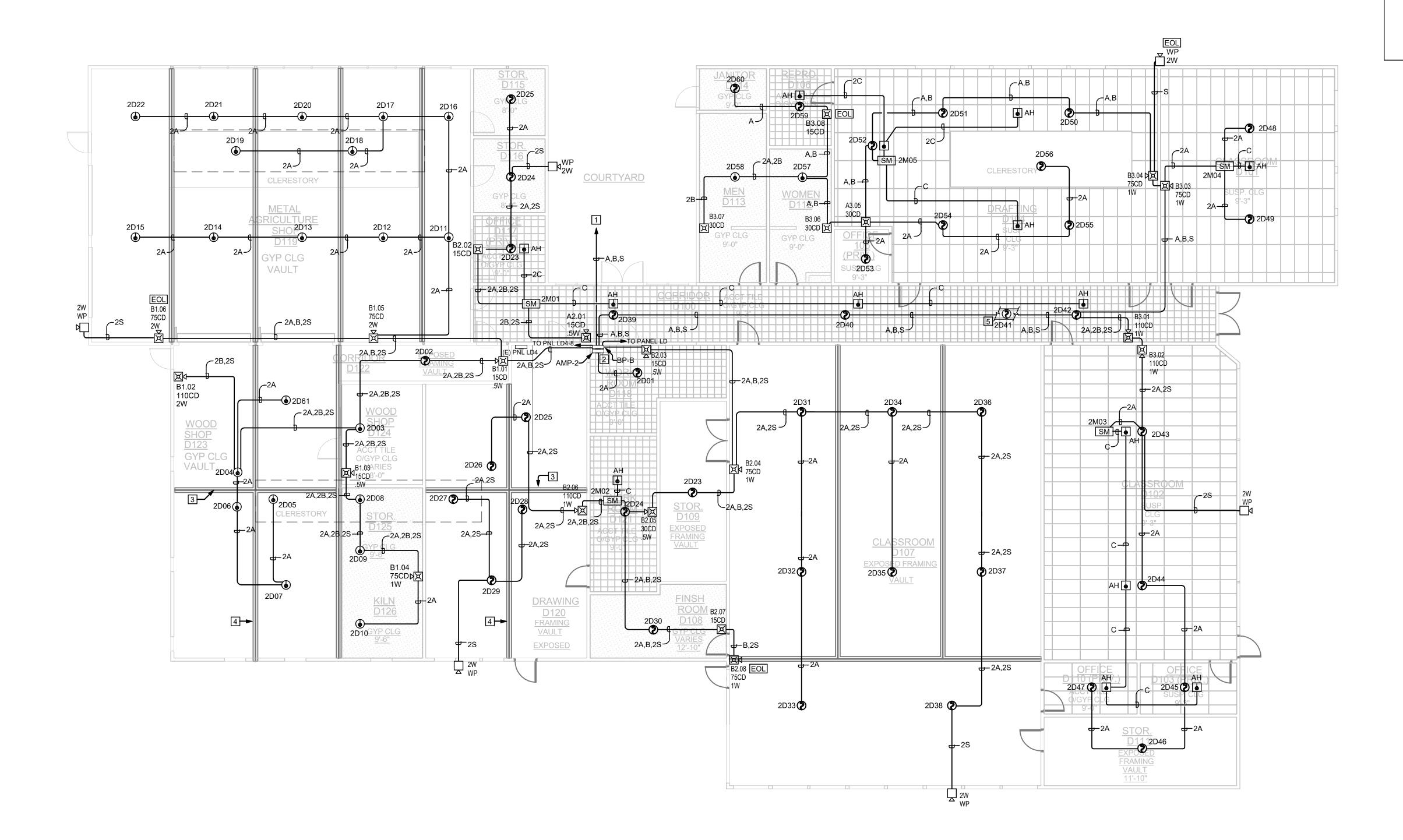
**DATE:**01/08/18

**BUILDING A & C -**FIRE ALARM PLAN

DRAWING NO.

BUILDING C SECOND FLOOR - FIRE ALARM PLAN

FA-2.1 SCALE: 1/8" = 1'-0"



### A

BUILDING D - FIRE ALARM PLAN

FA-2.2 SCALE: 1/8" = 1'-0"

### GENERAL SHEET NOTES

- A FIRE ALARM SYSTEM INSTALLATION SHALL COMPLY WITH ALL REQUIREMENTS OF APPLICABLE CODES, STANDARDS AND STATE REGULATIONS.
- B FIRE ALARM CIRCUITS AND CIRCUIT ROUTING ARE SHOWN SCHEMATICALLY FOR CLARITY ILLUSTRATING THE WIRING CONFIGURATION NECESSARY FOR PROPER CIRCUIT SUPERVISION.
- C COORDINATE CEILING MOUNTED FIRE ALARM DEVICE LOCATIONS WITH NEW LIGHT FIXTURES TO AVOID CONFLICTS.
- D DO NOT INSTALL FIRE ALARM DEVICES BACK TO BACK IN STUD WALLS.
- E INSTALL FIRE ALARM CONDUCTORS IN CONDUIT OR METAL SURFACE RACEWAY WHEN IN EXPOSED SPACES. MINIMUM SIZE OF CONDUIT SHALL BE 0.75". UTILIZE WIREMOLD 700 SERIES SURFACE RACEWAY (IN LIEU OF CONDUIT) FOR AREA WHERE CONDUIT CANNOT BE INSTALLED CONCEALED. CABLE ABOVE ACCESSIBLE CEILING CAN BE INSTALLED FREE AIR WHEN USING APPLICABLE CABLE. SUPPORT ALL FREE AIR CABLE EVERY 48" WITH
- F ALL SPEAKER, SPEAKER/STROBES SHALL HAVE MINIMUM 0.75" CONDUIT PATHWAYS. USE OF EXISTING 0.5" CONDUIT PATHWAY IS NOT ACCEPTABLE.
- G ENSURE THAT SPEAKER/STROBES ARE MOUNTED IN 5" SQ. X 2 7/8" DEEP BOX, FOR SURFACE MOUNTED DEVICES. FLUSH MOUNTED DEVICES SHALL BE MOUNTED IN THE MANUFACTURES DESIGNATED BACK BOXES, COLOR TO MATCH DEVICE.
- H REFER TO FA-4.1 0R FA-4.2 FOR RISER DIAGRAMS.
- I CONTRACTOR SHALL PROVIDE 120V DEDICATED RED LOCKING CIRCUIT BREAKER PER FIRE ALARM SYSTEM PANELS PER LOCATION.
- J DETECTORS ON SLOPED CEILINGS SHALL BE LOCATED NO MORE THAN 36" FROM PEAK.

### NUMBERED SHEET NOTES

- 1 TO FACP LOCATED IN BUILDING L.
- 2 CONTRACTOR SHALL PROVIDE AND INSTALL A NEW FIRE ALARM BOOSTER PANEL (BP) AND VOICE AMPLIFIER (AMP).
- 3 MAIN BEAM INDICATING CEILING 'PEAK'.
- 4 4"X4" CROSS BEAMS
- 5 DUCT SMOKE DETECTOR TO ACTIVATE HVAC SHUT OFF.





NJUHSD 11130 MAGNOLIA ROAD, GRASS VALLE

REVISION

**DESIGNER**:Designer

# DESCRIPTION

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

**DATE**:01/08/18

BUILDING D - FIRE ALARM PLAN

DRAWING NO.

# **②**1D04 BOILER ~2A,2S ROOM E118 STORAGE SERVICE COURT GYP. BD. @ 9"-3" RAFTERS GYP. BD. @ VARIES RAFTERS E119.2 GYP. BD. @ RAFTERS 7'-11" WALK-IN FREEZER 2B,2S -

BUILDING E - FIRE ALARM PLAN

FA-2.3 SCALE: 1/8" = 1'-0"

### GENERAL SHEET NOTES

- A FIRE ALARM SYSTEM INSTALLATION SHALL COMPLY WITH ALL REQUIREMENTS OF APPLICABLE CODES, STANDARDS AND STATE REGULATIONS.
- B FIRE ALARM CIRCUITS AND CIRCUIT ROUTING ARE SHOWN SCHEMATICALLY FOR CLARITY ILLUSTRATING THE WIRING CONFIGURATION NECESSARY FOR PROPER CIRCUIT SUPERVISION.
- C COORDINATE CEILING MOUNTED FIRE ALARM DEVICE LOCATIONS WITH NEW LIGHT FIXTURES TO AVOID CONFLICTS.
- D DO NOT INSTALL FIRE ALARM DEVICES BACK TO BACK IN STUD WALLS.
- E INSTALL FIRE ALARM CONDUCTORS IN CONDUIT OR METAL SURFACE RACEWAY WHEN IN EXPOSED SPACES. MINIMUM SIZE OF CONDUIT SHALL BE 0.75". UTILIZE WIREMOLD 700 SERIES SURFACE RACEWAY (IN LIEU OF CONDUIT) FOR AREA WHERE CONDUIT CANNOT BE INSTALLED CONCEALED. CABLE ABOVE ACCESSIBLE CEILING CAN BE INSTALLED FREE AIR WHEN USING APPLICABLE CABLE. SUPPORT ALL FREE AIR CABLE EVERY 48" WITH J-HOOKS.
- F ALL SPEAKER, SPEAKER/STROBES SHALL HAVE MINIMUM 0.75" CONDUIT PATHWAYS. USE OF EXISTING 0.5" CONDUIT PATHWAY IS NOT ACCEPTABLE.
- G ENSURE THAT SPEAKER/STROBES ARE MOUNTED IN 5" SQ. X 2 7/8" DEEP BOX, FOR SURFACE MOUNTED DEVICES. FLUSH MOUNTED DEVICES SHALL BE MOUNTED IN THE MANUFACTURES DESIGNATED BACK BOXES, COLOR TO MATCH DEVICE.
- H REFER TO FA-4.1 0R FA-4.2 FOR RISER DIAGRAMS.
- I CONTRACTOR SHALL PROVIDE 120V DEDICATED RED LOCKING CIRCUIT BREAKER PER FIRE ALARM SYSTEM PANELS PER LOCATION.
- J DETECTORS ON SLOPED CEILINGS SHALL BE LOCATED NO MORE THAN 36" FROM PEAK.

### NUMBERED SHEET NOTES

- 1 REMOVE EXISTING WEATHER PROOF HORN AND REPLACE IT WITH A NEW WEATEHR PROOF SPEAKER.
- 2 CONTRACTOR SHALL PROVIDE AND INSTALL A NEW FIRE ALARM CONTROL PANEL (FACP).
- 3 CONTRACTOR SHALL PROVIDE AND INSTALL NEW REMOTE MICROPHONE (LOC). CONNECT
- 4 COORDINATE LOCATION OF HOOD FIRE SUPPRESSION SYSTEM WITH FIRE SUPPRESSION INSTALLATION CONTRACTOR.
- 5 DUCT SMOKE DETECTOR TO ACTIVATE HVAC SHUT OFF.





# DESCRIPTION

**DESIGNER:**Designer **SCALE**: 1/8" = 1'-0"

**DATE:**01/08/18

**BUILDING E - FIRE** 

**ALARM PLAN** 

DRAWING NO.

FA-2.4 SCALE: 1/8" = 1'-0"

### GENERAL SHEET NOTES

- A FIRE ALARM SYSTEM INSTALLATION SHALL COMPLY WITH ALL REQUIREMENTS OF APPLICABLE CODES, STANDARDS AND STATE REGULATIONS.
- B FIRE ALARM CIRCUITS AND CIRCUIT ROUTING ARE SHOWN SCHEMATICALLY FOR CLARITY ILLUSTRATING THE WIRING CONFIGURATION NECESSARY FOR PROPER CIRCUIT SUPERVISION.
- C COORDINATE CEILING MOUNTED FIRE ALARM DEVICE LOCATIONS WITH NEW LIGHT FIXTURES TO AVOID CONFLICTS.
- D DO NOT INSTALL FIRE ALARM DEVICES BACK TO BACK IN STUD WALLS.
- E INSTALL FIRE ALARM CONDUCTORS IN CONDUIT OR METAL SURFACE RACEWAY WHEN IN EXPOSED SPACES. MINIMUM SIZE OF CONDUIT SHALL BE 0.75". UTILIZE WIREMOLD 700 SERIES SURFACE RACEWAY (IN LIEU OF CONDUIT) FOR AREA WHERE CONDUIT CANNOT BE INSTALLED CONCEALED. CABLE ABOVE ACCESSIBLE CEILING CAN BE INSTALLED FREE AIR WHEN USING APPLICABLE CABLE. SUPPORT ALL FREE AIR CABLE EVERY 48" WITH J-HOOKS.
- F ALL SPEAKER, SPEAKER/STROBES SHALL HAVE MINIMUM 0.75" CONDUIT PATHWAYS. USE OF EXISTING 0.5" CONDUIT PATHWAY IS NOT ACCEPTABLE.
- G ENSURE THAT SPEAKER/STROBES ARE MOUNTED IN 5" SQ. X 2 7/8" DEEP BOX, FOR SURFACE MOUNTED DEVICES. FLUSH MOUNTED DEVICES SHALL BE MOUNTED IN THE MANUFACTURES DESIGNATED BACK BOXES, COLOR TO MATCH DEVICE.
- H REFER TO FA-4.1 0R FA-4.2 FOR RISER DIAGRAMS.
- I CONTRACTOR SHALL PROVIDE 120V DEDICATED RED LOCKING CIRCUIT BREAKER PER FIRE ALARM SYSTEM PANELS PER LOCATION.

### NUMBERED SHEET NOTES

- 1 CONTRACTOR SHALL PROVIDE AND INSTALL A NEW FIRE ALARM CONTROL PANEL (FACP). LOCATION AS SHOPWN MAY NOT BE AXACT. COORDINATE WITH GENERAL CONTRACTOR, FACP MUST BE IN A LOCATION THAT IS CLOSE TO EXISTING IDF.
- 2 CONTRACTOR SHALL PROVIDE AND INSTALL A NEW REMOTE VOICE COMMUNICATOR.

  CONNECT TO NEW FACE.

  3 REMOVE EXISTING FIRE ALARM MANUAL PULL STATION PROVIDE COVER PLATE TO CO



(530) 886-8556



FOR NJUHSD GRASS VAL

REVISIO

Revision 1

**DESIGNER**:Designer

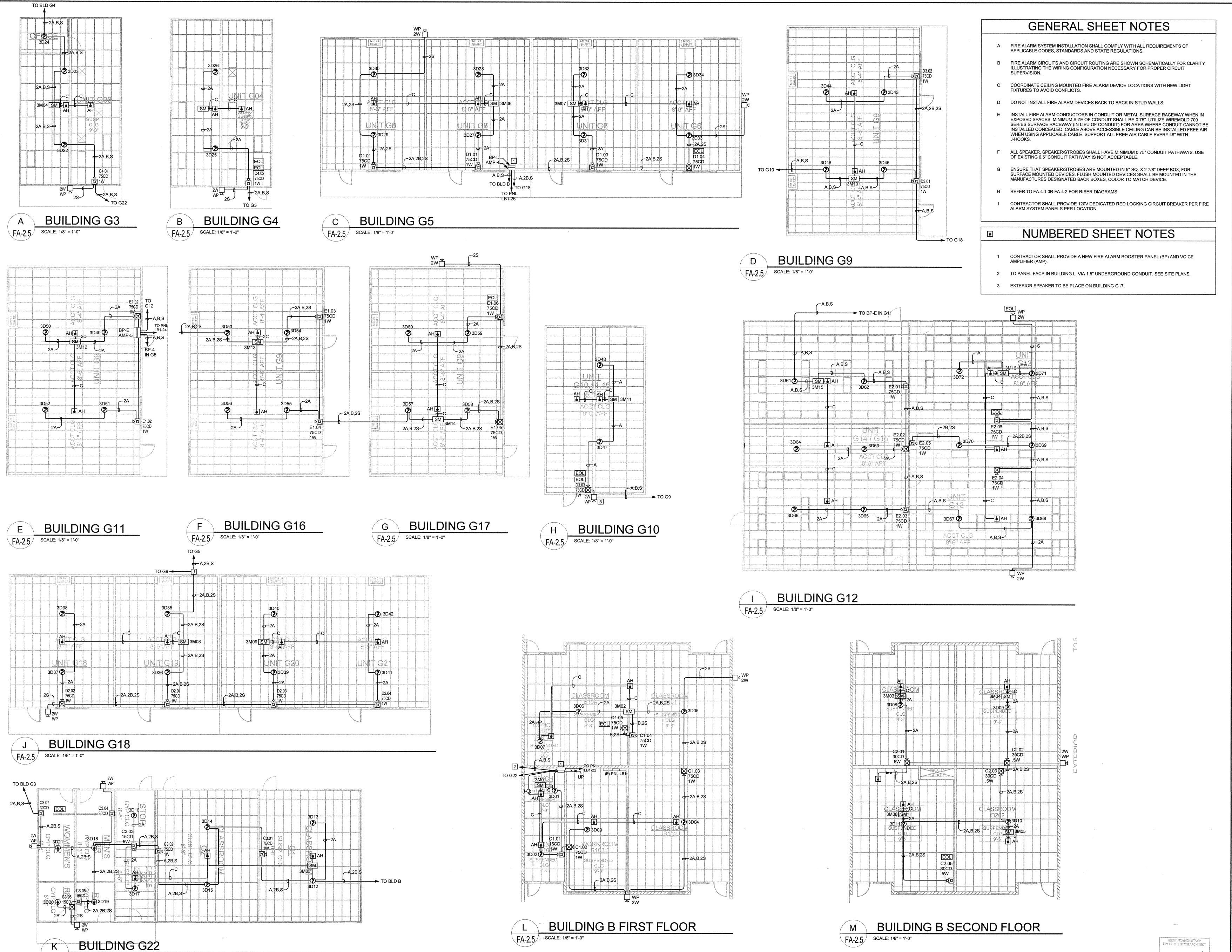
**SCALE**: 1/8" = 1'-0"

# DESCRIPTION

**DATE:**01/08/18

BUILDING F & WEIGHT ROOM - FIRE ALARM PLAN

DRAWING NO.



FA-2.5 SCALE: 1/8" = 1'-0"

1125 HIGH STREET AUBURN, CA 95603

(530) 886-8556



REVISIONS

# DESCRIPTION

**DESIGNER:**Designer

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

**DATE:** 12/27/17

**BUILDING G & B -**FIRE ALARM PLAN

DRAWING NO.

BUILDING L FIRST FLOOR - FIRE ALARM PLAN

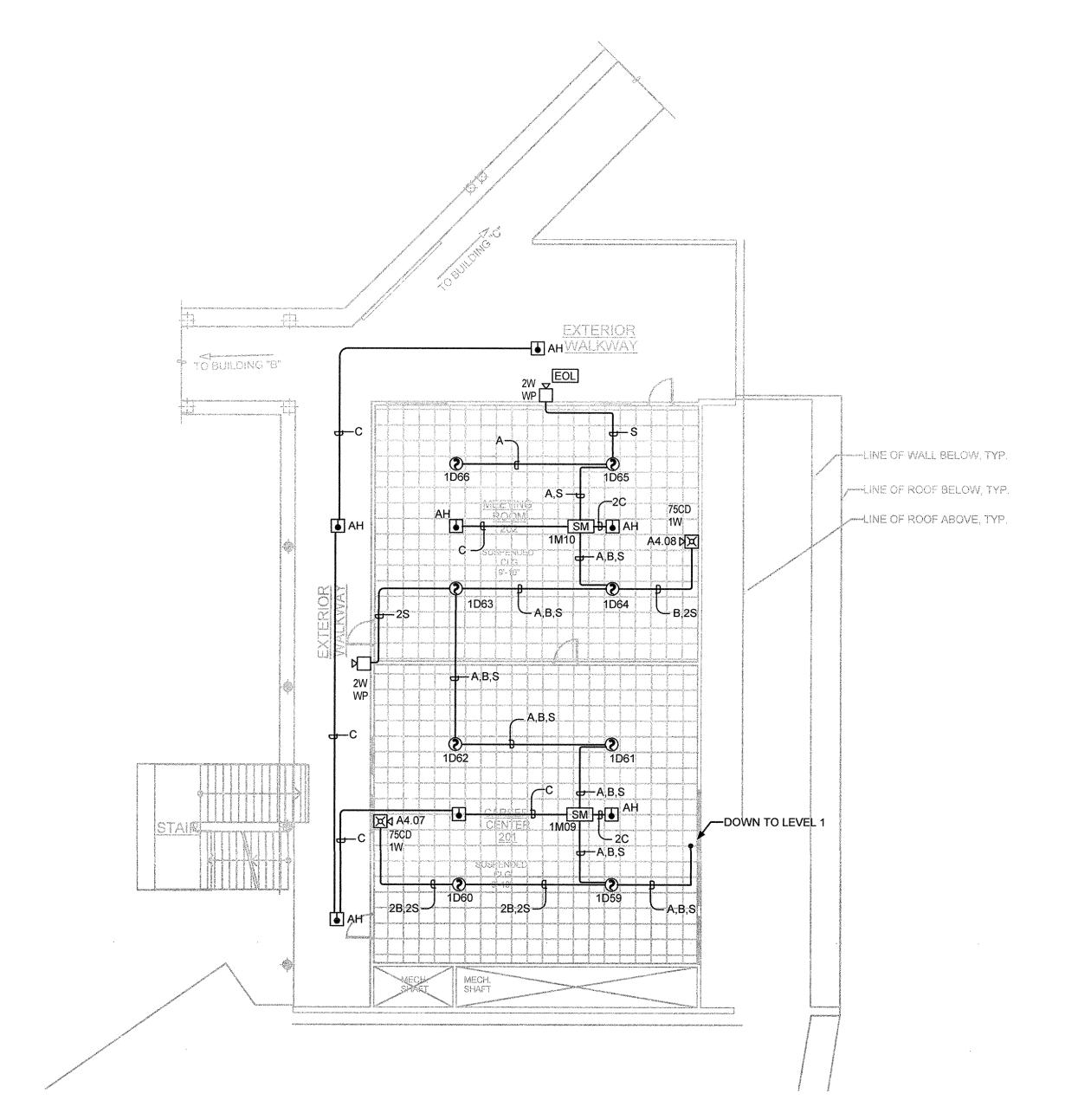
### GENERAL SHEET NOTES

- A FIRE ALARM SYSTEM INSTALLATION SHALL COMPLY WITH ALL REQUIREMENTS OF APPLICABLE CODES, STANDARDS AND STATE REGULATIONS.
- B FIRE ALARM CIRCUITS AND CIRCUIT ROUTING ARE SHOWN SCHEMATICALLY FOR CLARITY ILLUSTRATING THE WIRING CONFIGURATION NECESSARY FOR PROPER CIRCUIT SUPERVISION
- C COORDINATE CEILING MOUNTED FIRE ALARM DEVICE LOCATIONS WITH NEW LIGHT FIXTURES TO AVOID CONFLICTS.
- D DO NOT INSTALL FIRE ALARM DEVICES BACK TO BACK IN STUD WALLS.
- E INSTALL FIRE ALARM CONDUCTORS IN CONDUIT OR METAL SURFACE RACEWAY WHEN IN EXPOSED SPACES. MINIMUM SIZE OF CONDUIT SHALL BE 0.75". UTILIZE WIREMOLD 700 SERIES SURFACE RACEWAY (IN LIEU OF CONDUIT) FOR AREA WHERE CONDUIT CANNOT BE INSTALLED CONCEALED. CABLE ABOVE ACCESSIBLE CEILING CAN BE INSTALLED FREE AIR WHEN USING APPLICABLE CABLE. SUPPORT ALL FREE AIR CABLE EVERY 48" WITH
- ALL SPEAKER, SPEAKER/STROBES SHALL HAVE MINIMUM 0.75" CONDUIT PATHWAYS. USE OF EXISTING 0.5" CONDUIT PATHWAY IS NOT ACCEPTABLE.
- G ENSURE THAT SPEAKER/STROBES ARE MOUNTED IN 5" SQ. X 2 7/8" DEEP BOX, FOR SURFACE MOUNTED DEVICES. FLUSH MOUNTED DEVICES SHALL BE MOUNTED IN THE MANUFACTURES DESIGNATED BACK BOXES, COLOR TO MATCH DEVICE.
- H REFER TO FA-4.1 0R FA-4.2 FOR RISER DIAGRAMS.
- I CONTRACTOR SHALL PROVIDE 120V DEDICATED RED LOCKING CIRCUIT BREAKER PER FIRE ALARM SYSTEM PANELS PER LOCATION.
- DETECTORS ON SLOPED CEILINGS SHALL BE LOCATED NO MORE THAN 36" FROM PEAK.

### **MUMBERED SHEET NOTES**

- 1 REMOVE EXISTING WEATHER PROOF HORN AND REPLACE IT WITH A NEW WEATEHR PROOF SPEAKER.
- PROOF SPEAKER.

  2 CONTRACTOR SHALL PROVIDE AND INSTALL A NEW FIRE ALARM CONTROL PANEL (FACP).
- 3 CONTRACTOR SHALL PROVIDE AND INSTALL NEW REMOTE MICROPHONE (LOC). CONNECT TO NEW FACP.
- 4 WALL DOES NOT EXTENED TO CEILING THUS ONLY ONE "ATTIC HEAT" REQUIRED.



B BUILDING L SECOND FLOOR - FIRE ALARM PLAN

FA-2 6 SCALE: 3/32" = 1'-0"



The Engineering Enterprise
Consulting Engineers

1125 HIGH STREET
AUBURN, CA 95603
(530) 886-8556



FOR NJUHSD ALASS VALL

REVISIONS

# DESCRIPTION

DESIGNER:Designer

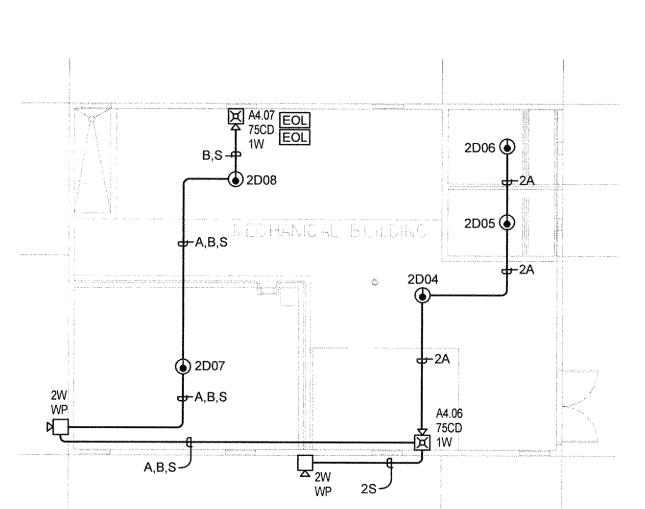
SCALE: 3/32" = 1'-0"

DATE: 12/27/17

TITLE:
BUILDING L - FIRE

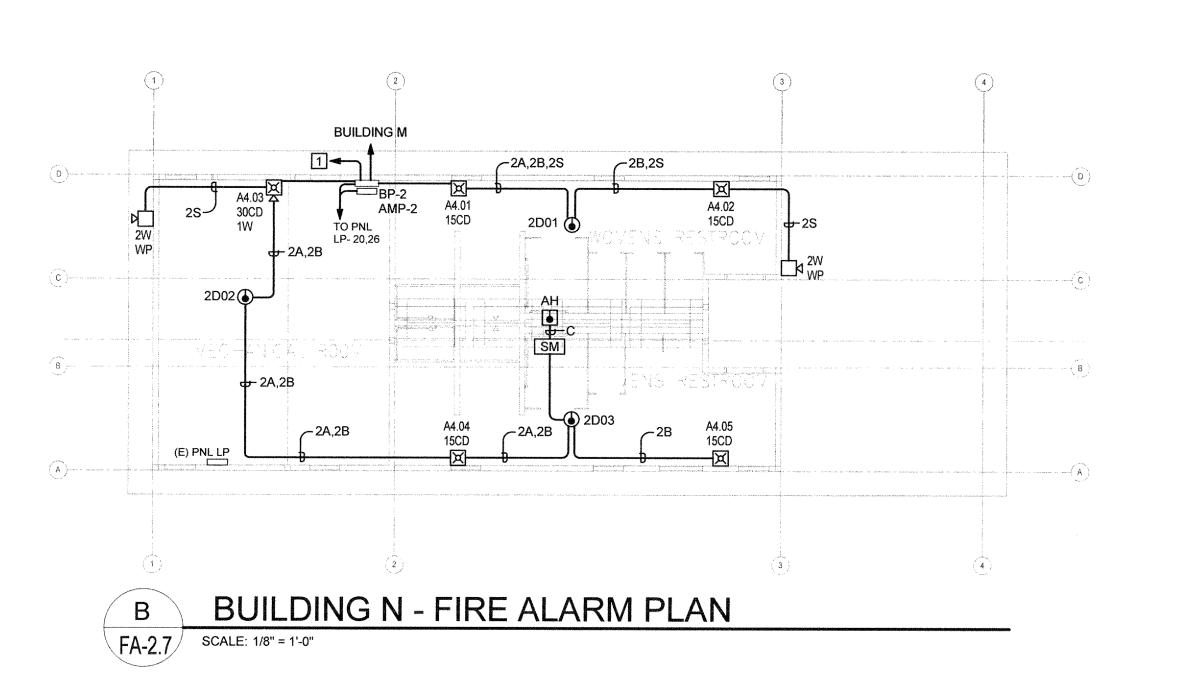
**ALARM PLAN** 

DRAWING NO.



A BUILDING M - FIRE ALARM PLAN

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



### GENERAL SHEET NOTES

- A FIRE ALARM SYSTEM INSTALLATION SHALL COMPLY WITH ALL REQUIREMENTS OF APPLICABLE CODES, STANDARDS AND STATE REGULATIONS.
- B FIRE ALARM CIRCUITS AND CIRCUIT ROUTING ARE SHOWN SCHEMATICALLY FOR CLARITY ILLUSTRATING THE WIRING CONFIGURATION NECESSARY FOR PROPER CIRCUIT SUPERVISION
- C COORDINATE CEILING MOUNTED FIRE ALARM DEVICE LOCATIONS WITH NEW LIGHT FIXTURES TO AVOID CONFLICTS.
- D DO NOT INSTALL FIRE ALARM DEVICES BACK TO BACK IN STUD WALLS.
- INSTALL FIRE ALARM CONDUCTORS IN CONDUIT OR METAL SURFACE RACEWAY WHEN IN EXPOSED SPACES. MINIMUM SIZE OF CONDUIT SHALL BE 0.75". UTILIZE WIREMOLD 700 SERIES SURFACE RACEWAY (IN LIEU OF CONDUIT) FOR AREA WHERE CONDUIT CANNOT BE INSTALLED CONCEALED. CABLE ABOVE ACCESSIBLE CEILING CAN BE INSTALLED FREE AIR WHEN USING APPLICABLE CABLE. SUPPORT ALL FREE AIR CABLE EVERY 48" WITH
- F ALL SPEAKER, SPEAKER/STROBES SHALL HAVE MINIMUM 0.75" CONDUIT PATHWAYS. USE OF EXISTING 0.5" CONDUIT PATHWAY IS NOT ACCEPTABLE.
- G ENSURE THAT SPEAKER/STROBES ARE MOUNTED IN 5" SQ. X 2 7/8" DEEP BOX, FOR SURFACE MOUNTED DEVICES. FLUSH MOUNTED DEVICES SHALL BE MOUNTED IN THE MANUFACTURES DESIGNATED BACK BOXES, COLOR TO MATCH DEVICE.
- H REFER TO FA-4.1 0R FA-4.2 FOR RISER DIAGRAMS.
- I CONTRACTOR SHALL PROVIDE 120V DEDICATED RED LOCKING CIRCUIT BREAKER PER FIRE ALARM SYSTEM PANELS PER LOCATION.

### MUMBERED SHEET NOTES

1 REMOVE EXISTING FACP AND INSTALL A NEW FIRE ALARM BOOSTER PANEL IN ITS PLACE. CONNECT TO NEW FACP-4 LOCATED IN BUILDING F.





FOR NJUHSD NJUHSD GRASS VAI

REVISIONS

# DESCRIPTION

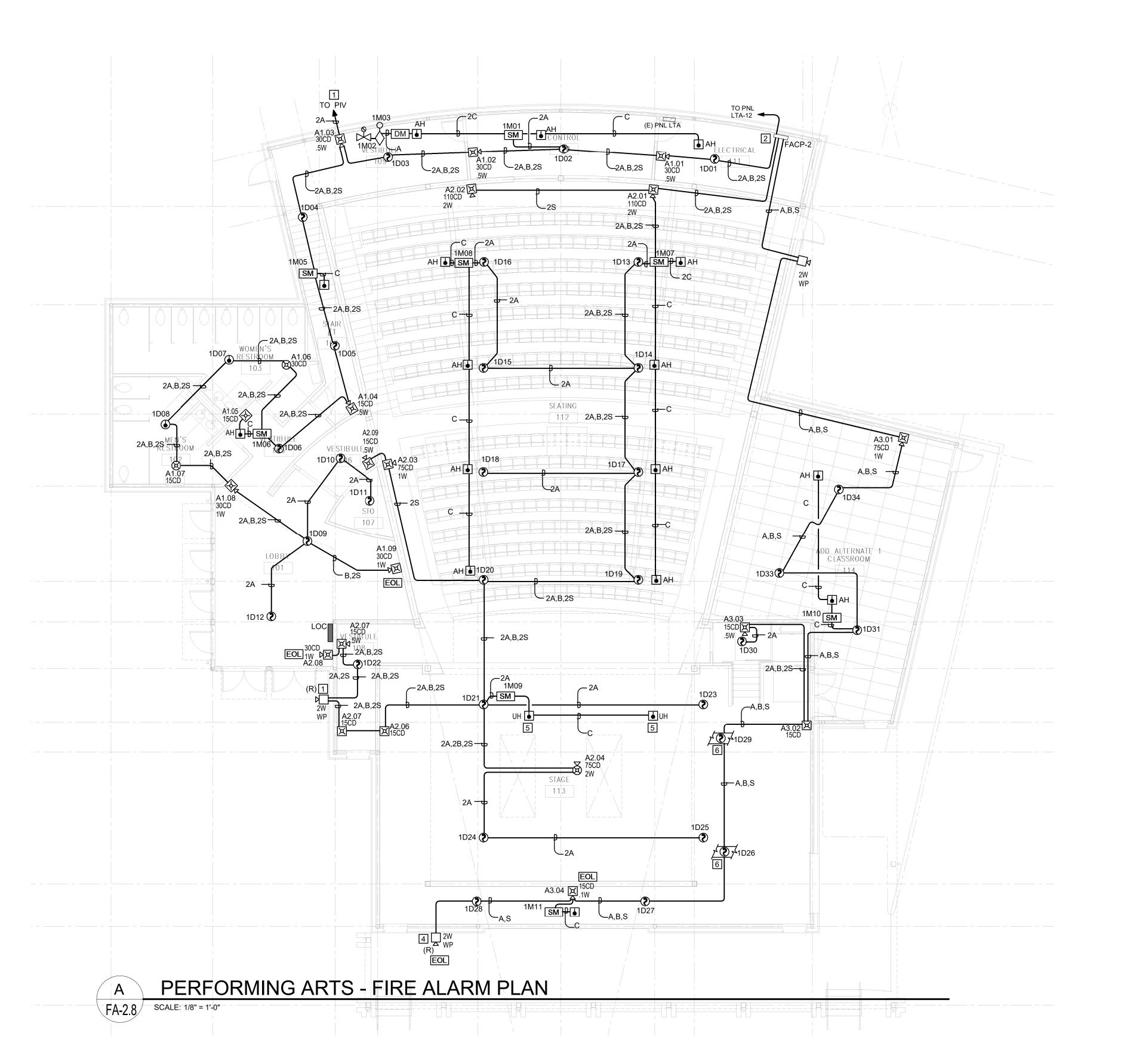
DESIGNER:Designer

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

DATE: 12/27/17

BUILDING M & N -FIRE ALARM

DRAWING NO.



### GENERAL SHEET NOTES

- A FIRE ALARM SYSTEM INSTALLATION SHALL COMPLY WITH ALL REQUIREMENTS OF APPLICABLE CODES, STANDARDS AND STATE REGULATIONS.
- B FIRE ALARM CIRCUITS AND CIRCUIT ROUTING ARE SHOWN SCHEMATICALLY FOR CLARITY ILLUSTRATING THE WIRING CONFIGURATION NECESSARY FOR PROPER CIRCUIT SUPERVISION.
- C COORDINATE CEILING MOUNTED FIRE ALARM DEVICE LOCATIONS WITH NEW LIGHT FIXTURES TO AVOID CONFLICTS.
- D DO NOT INSTALL FIRE ALARM DEVICES BACK TO BACK IN STUD WALLS.
- E INSTALL FIRE ALARM CONDUCTORS IN CONDUIT OR METAL SURFACE RACEWAY WHEN IN EXPOSED SPACES. MINIMUM SIZE OF CONDUIT SHALL BE 0.75". UTILIZE WIREMOLD 700 SERIES SURFACE RACEWAY (IN LIEU OF CONDUIT) FOR AREA WHERE CONDUIT CANNOT BE INSTALLED CONCEALED. CABLE ABOVE ACCESSIBLE CEILING CAN BE INSTALLED FREE AIR WHEN USING APPLICABLE CABLE. SUPPORT ALL FREE AIR CABLE EVERY 48" WITH J-HOOKS.
- F ALL SPEAKER, SPEAKER/STROBES SHALL HAVE MINIMUM 0.75" CONDUIT PATHWAYS. USE OF EXISTING 0.5" CONDUIT PATHWAY IS NOT ACCEPTABLE.
- G ENSURE THAT SPEAKER/STROBES ARE MOUNTED IN 5" SQ. X 2 7/8" DEEP BOX, FOR SURFACE MOUNTED DEVICES. FLUSH MOUNTED DEVICES SHALL BE MOUNTED IN THE MANUFACTURES DESIGNATED BACK BOXES, COLOR TO MATCH DEVICE.
- H REFER TO FA-4.1 0R FA-4.2 FOR RISER DIAGRAMS.
- I CONTRACTOR SHALL PROVIDE 120V DEDICATED RED LOCKING CIRCUIT BREAKER PER FIRE ALARM SYSTEM PANELS PER LOCATION.

### NUMBERED SHEET NOTES

- 1 REFER TO SITE PLAN FOR EXACT LOCATION.
- 2 CONTRACTOR SHALL PROVIDE AND INSTALL A NEW FIRE ALARM CONTROL PANEL (FACP).
- 3 CONTRACTOR SHALL PROVIDE A NEW FIRE ALARM REMOTE COMMUNICATOR PANEL (LOC). CONNECT TO NEW FACP.
- 4 REMOVE EXISTING WEATHER PROOF HORN AND REPLACE IT WITH A NEW WEATEHR PROOF SPEAKER.
- 5 PLACE DEVICE UNDER THE STAGE.
- 6 DUCT SMOKE DETECTOR TO ACTIVATE HVAC SHUT OFF.





NJUHSD 11130 MAGNOLIA ROAD, GRASS VALLE

<b>PEVISIO</b>

**DESIGNER**:Designer

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

**DATE:**01/08/18

PERFORMING ARTS - FIRE ALARM PLAN

# DESCRIPTION DATE

DRAWING NO.







REVISIONS

**DESIGNER:**Designer

# DESCRIPTION

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

**DATE:** 12/27/17

**EXISTING BUILDING A & C -**

DRAWING NO.

02 116222 AC FLS 1253 DATE 1/2/8

FA-3.1

FIRE ALARM PLAN

# EXTERIOR WALKWAY CLASSROOM GLASSROOM GLASSROOM OFFICE B 105 B 105 G 25 G 25 G 25 G 35 GLASSROOM GL

A EXISTING BUILDING B FIRST FLOOR - FIRE ALARM PLAN

FA-3.2 SCALE: 1/8" = 1'-0"

### GENERAL SHEET NOTES

- A TO REMOVE ALL UNUSED DEVICES, CIRCUITRY AND CONDUIT BACK TO SOURCE.
- B WHEN A DEVICE IS REMOVED FROM AN EXISTING WALL WHICH WILL REMAIN, PATCH WALL TO MATCH EXISTING OR NEW FINISH.
- C WHERE EXISTING OR NEW FINISH.

  C WHERE EXISTING FIRE ALARM DEVICES ARE TO BE REMOVED, THE CONTRACTOR SHALL ALSO REMOVE ALL CONDUCTORS SERVING THE DEVICE. ABANDONED CONDUITS AND BOXES CAN BE RE-USED TO PULL NEW CONDUCTORS THROUGH FOR SERVICE DEVICES DOWN STREAM. DO NOT SPLICE IN ABANDONED DEVICE BOXES.
- D REMOVE ALL UNUSED FIRE ALARM CONTROL PANELS, BOOSTER PANELS AND REMOTE ANNUNCIATORS.





# BRHS - NEW FIRE ALARM SYSTEM FOR NJUHSD 11130 MAGNOLIA ROAD, GRASS VALLE

REVISIONS

# DESCRIPTION

DESIGNER:Designer

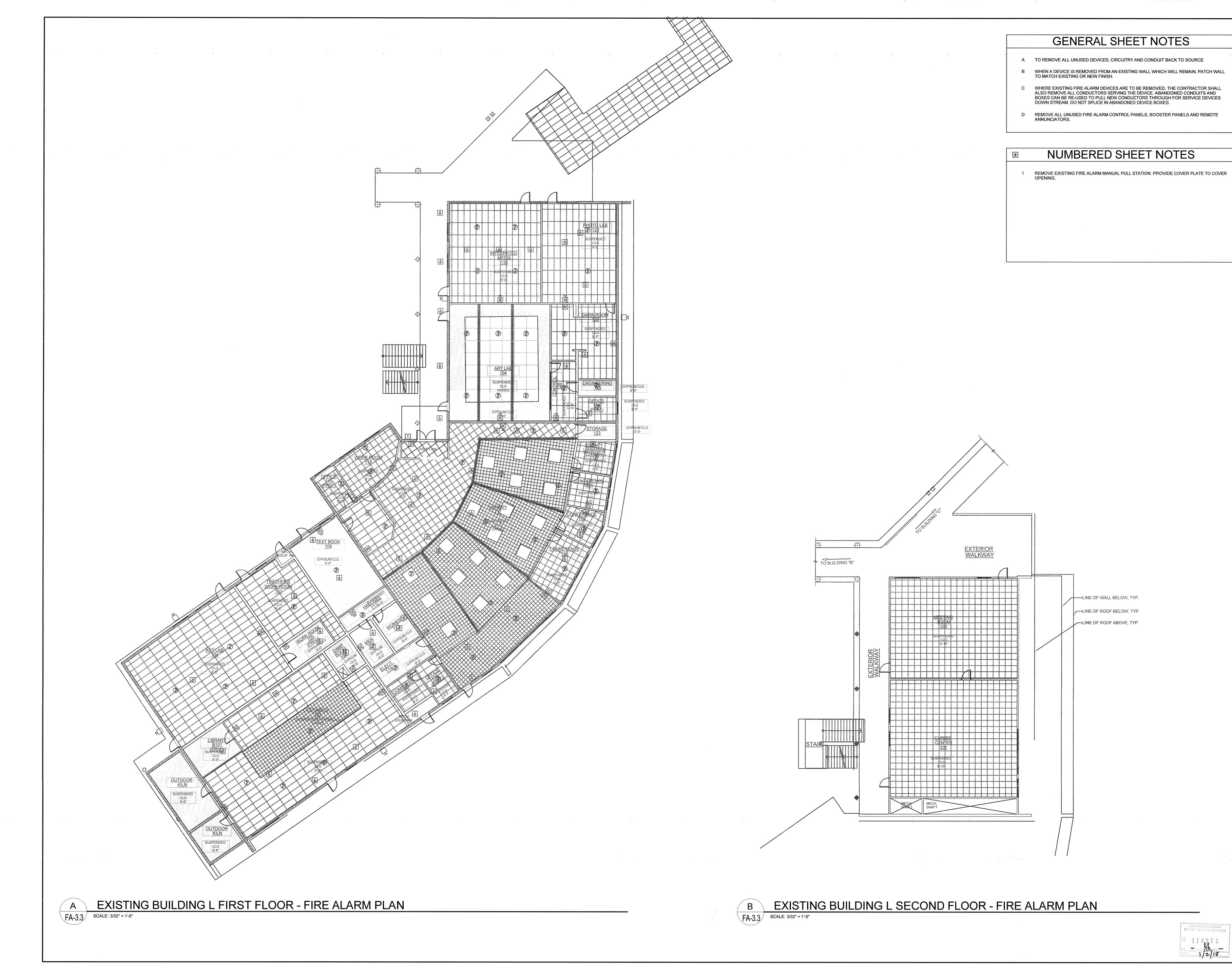
SCALE: 1/8" = 1'-0"

DATE:12/27/17

EXISTING BUILDING B - FIRE ALARM PLAN

DRAWING NO.









**REVISIONS** 

# DESCRIPTION

DESIGNER:Designer

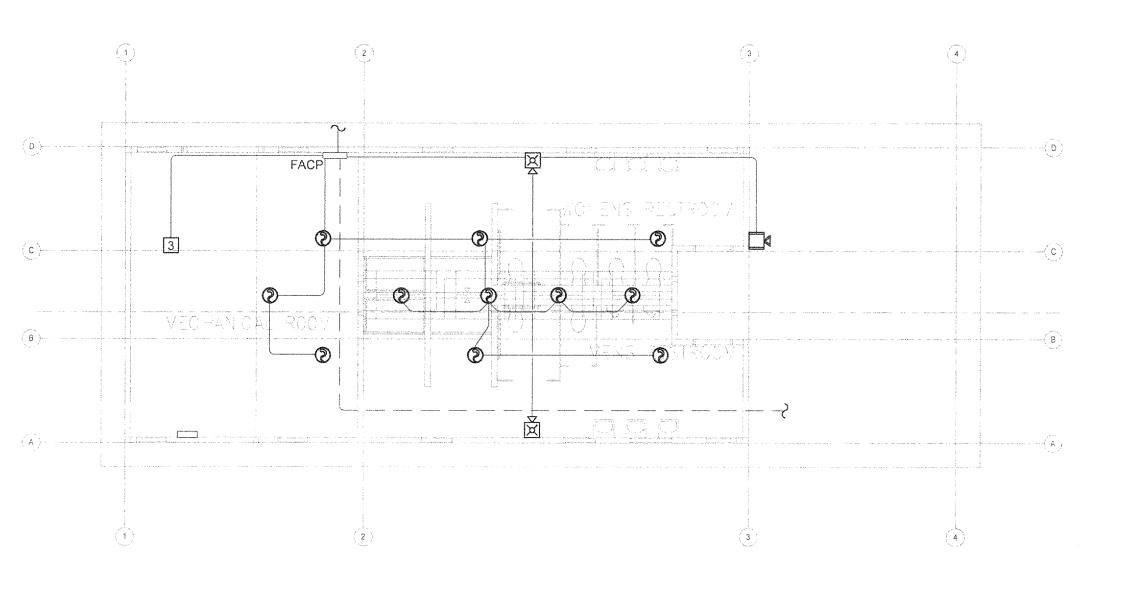
**SCALE:** 3/32" = 1'-0"

DATE: 12/27/17

**EXISTING** BUILDING L - FIRE ALARM PLAN

DRAWING NO.

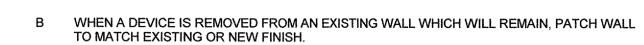




EXISTING BUILDING N - FIRE ALARM PLAN

GENERAL SHEET NOTES

A TO REMOVE ALL UNUSED DEVICES, CIRCUITRY AND CONDUIT BACK TO SOURCE.



C WHERE EXISTING FIRE ALARM DEVICES ARE TO BE REMOVED, THE CONTRACTOR SHALL ALSO REMOVE ALL CONDUCTORS SERVING THE DEVICE. ABANDONED CONDUITS AND BOXES CAN BE RE-USED TO PULL NEW CONDUCTORS THROUGH FOR SERVICE DEVICES DOWN STREAM. DO NOT SPLICE IN ABANDONED DEVICE BOXES.

D REMOVE ALL UNUSED FIRE ALARM CONTROL PANELS, BOOSTER PANELS AND REMOTE ANNUNCIATORS.





BRHS - NEW FIRE ALARM SYSTEM
FOR
NJUHSD

REVISIONS

# DESCRIPTION

DESIGNER:Designer

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

DATE: 12/27/17

EXISTING
BUILDING M & N FIRE ALARM PLAN

DRAWING NO.



FA-3.5 SCALE: 1/8" = 1'-0"

### GENERAL SHEET NOTES

- A TO REMOVE ALL UNUSED DEVICES, CIRCUITRY AND CONDUIT BACK TO SOURCE.
- B WHEN A DEVICE IS REMOVED FROM AN EXISTING WALL WHICH WILL REMAIN, PATCH WALL TO MATCH EXISTING OR NEW FINISH.
  - WHERE EXISTING OR NEW FINISH.

    WHERE EXISTING FIRE ALARM DEVICES ARE TO BE REMOVED, THE CONTRACTOR SHALL ALSO REMOVE ALL CONDUCTORS SERVING THE DEVICE. ABANDONED CONDUITS AND BOXES CAN BE RE-USED TO PULL NEW CONDUCTORS THROUGH FOR SERVICE DEVICES DOWN STREAM. DO NOT SPLICE IN ABANDONED DEVICE BOXES.
- D REMOVE ALL UNUSED FIRE ALARM CONTROL PANELS, BOOSTER PANELS AND REMOTE ANNUNCIATORS.

### NUMBERED SHEET NOTES

1 REMOVE EXISTING FIRE ALARM MANUAL PULL STATION. PROVIDE COVER PLATE TO COVER OPENING.





FOR NJUHSD ALASS VALLEY

REVISION

# DESCRIPTION

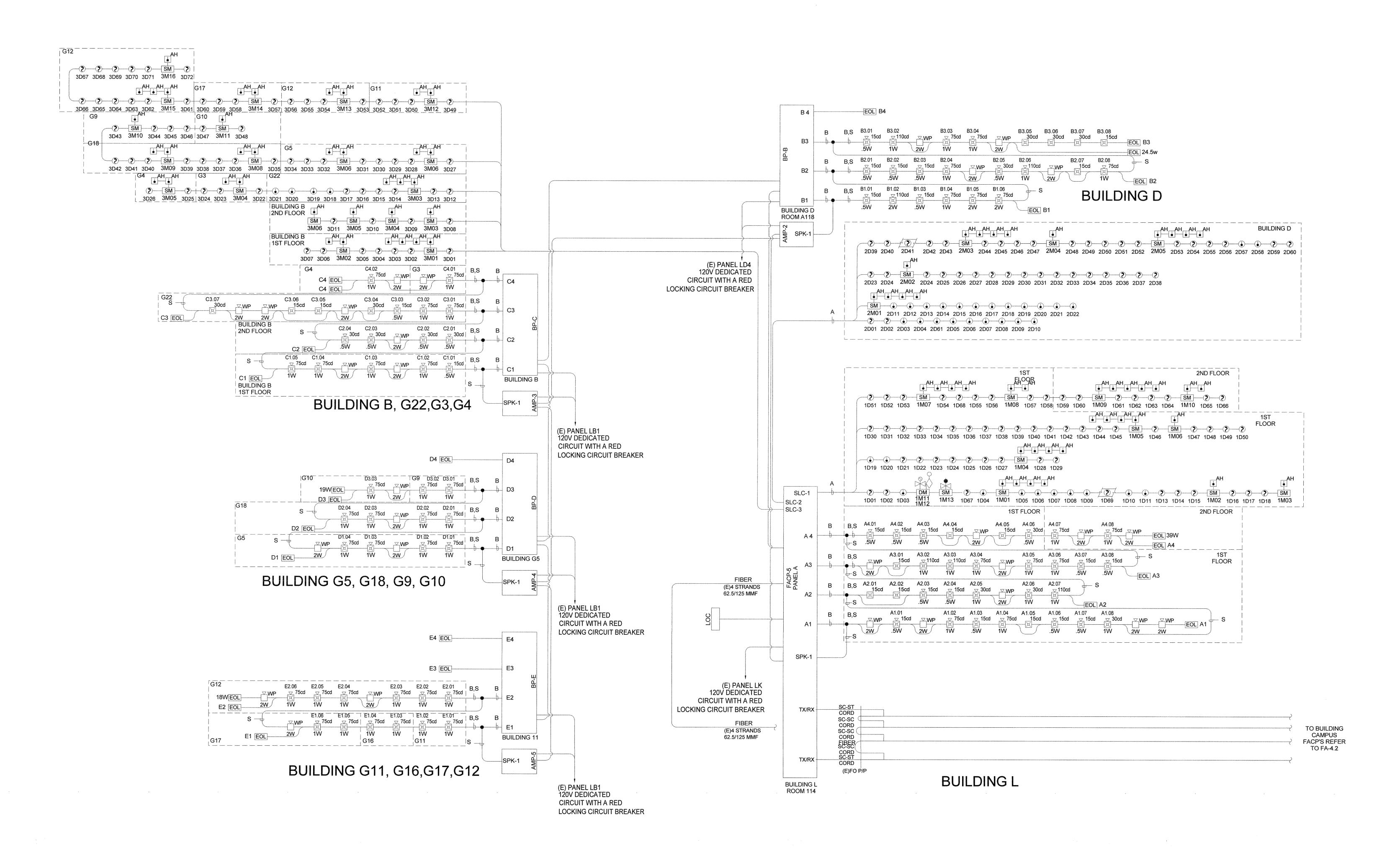
DESIGNER:Designer

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

DATE: 12/27/17

EXISTING
PERFORMING
ARTS - FIRE
ALARM PLAN
DRAWING NO.





A FIRE ALARM RISER

FA-4.1 NOT TO SCALE

**DESIGNER:**Designer **SCALE:** 12" = 1'-0" **DATE:** 12/27/17

# DESCRIPTION

REVISIONS

FIRE ALARM
RISER DIAGRAM

DRAWING NO.
FA-4.1





BRHS - NEW FIRE ALARM SYSTEM
FOR
NJUHSD
A1130 MAGNOLIA ROAD, GRASS VALLEY

REVISIONS

**DESIGNER**:Designer

# DESCRIPTION

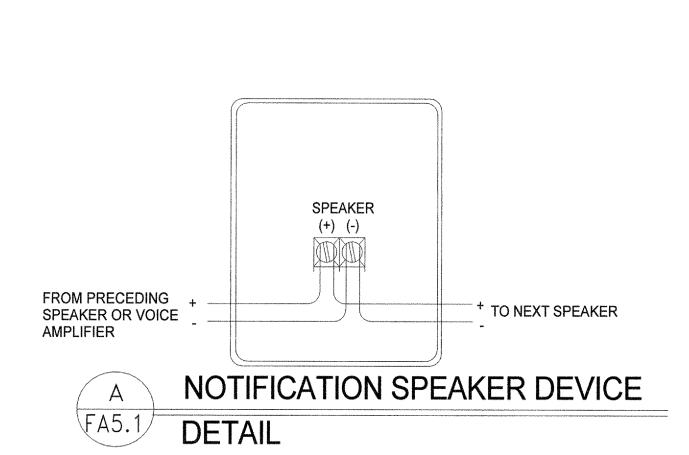
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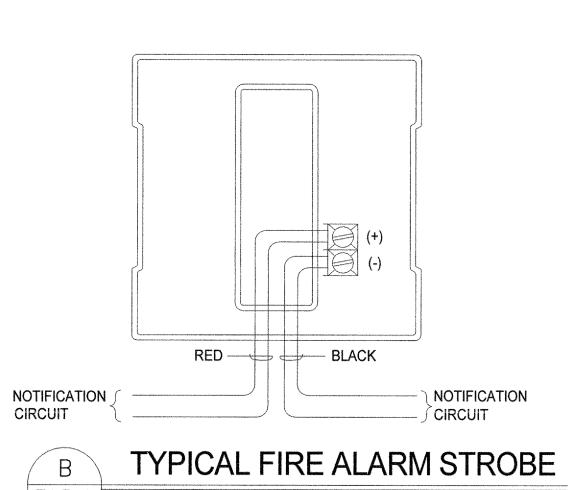
**DATE:**01/08/18

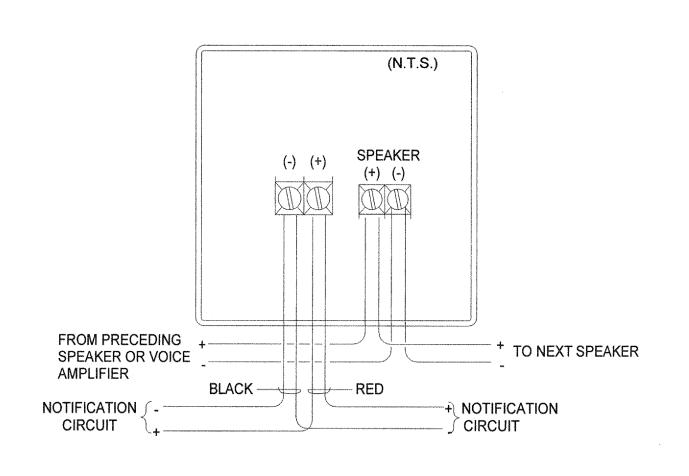
FIRE ALARM RISER DIAGRAM

DRAWING NO.

FA-4.2







TYPICAL NOTIFICATION SPEAKER/STROBE

(N.T.S.)

System No. W-L-1054 F Ratings - 1 and 2 Hr (See Items 1 and 3) L Rating At Ambient - Less Than 1 CFM/Sq Ft L Rating At 400 F - 4 CFM/Sq Ft SECTION A-A

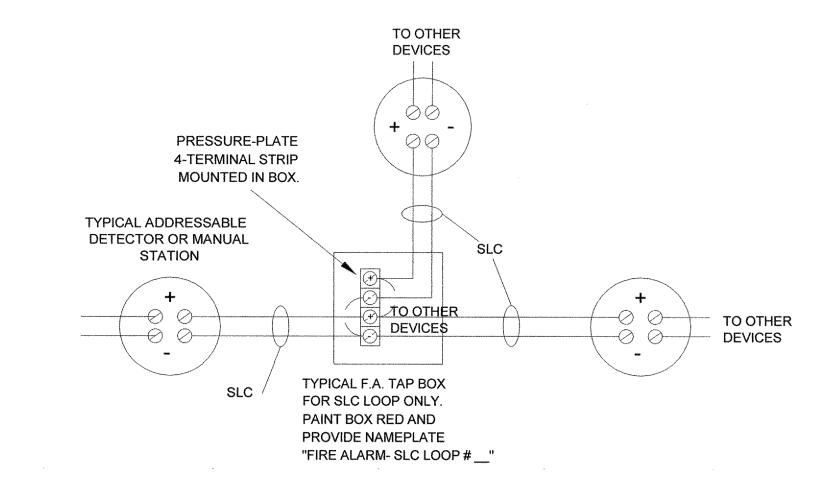
1. Wall Assembly The 1 or 2 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features: A. Studs Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC. Steel studs to be min 2-1/2 in. wide and spaced max 24 in. OC. When steel studs are used and the diam of opening exceeds the width of stud cavity, the opening shall be framed on all sides using lengths of steel stud installed between the vertical studs and screw-attached to the steel studs at each end. The framed opening in the wall shall be 4 to 6 in. wider and 4 to 6 in. higher than the diam of the penetrating item such that, when the penetrating item is installed in the opening, a 2 to 3 in. clearance is present between the penetrating item and the framing on all four sides. B. Gypsum Board\* 5/8 in. thick, 4 ft wide with square or tapered edges. The gypsum board 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 32-1/4 in. for steel stud walls. Max diam of opening is 14-1/2 in. for wood stud walls. The F Rating of the firestop system is equal to the fire rating of the wall 2. Through-Penetrants -- One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. The annular space shall be min 0 in. to max 2-1/4 in. Pipe may be installed with continuous point contact. Pipe, conduit or tubing may be installed at an angle not greater than 45 degrees from perpendicular. 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 30 in diam (or smaller) Schedule 10 (or heavier) steel pipe. B. Iron Pipe -- Nom 30 in. diam (or smaller) cast or ductile iron pipe. C. Conduit -- Nom 4 in diam (or smaller) steel electrical metallic tubing or 6 in. diam steel conduit. 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) copper pipe. 3. Fill, Void or Cavity Material\* -- Sealant -- Min 5/8 in. thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point or continuous contact locations between pipe and wall, a min 1/2 in. diam bead of fill material shall be applied at the pipe wall interface on both surfaces HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC -- FS-One Sealant \*Bearing the UL Classification Mark







FIRE STOP SYSTEMS



TYPICAL FIRE ALARM T-TAP

DRAWING NO.

REVISIONS

# DESCRIPTION

**DESIGNER:**Designer

**SCALE:** 12" = 1'-0"

**DETAILS** 

FA-5.1

**DATE:** 12/27/17

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