

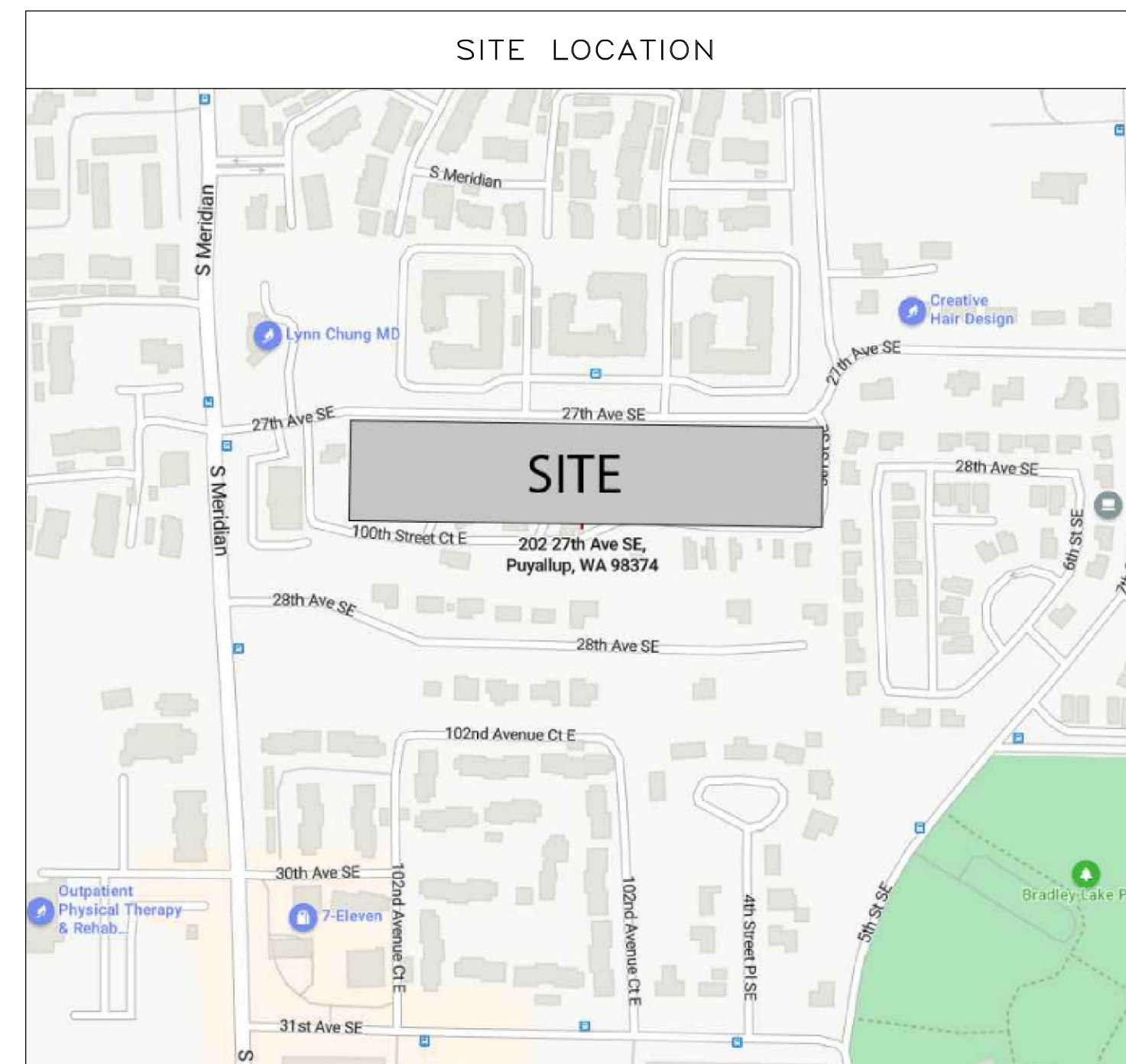
# BRADLEY HEIGHTS

BLDG E

## FIRE ALARM AND DETECTION SYSTEM

### PROJECT SCOPE

- |   |   |
|---|---|
| <ol style="list-style-type: none"> <li>1. PROVIDE AND INSTALL NEW SILENT KNIGHT 680B FIRE ALARM CONTROL PANEL AND NEW HONEYWELL HPF-PS10 REMOTE POWER SUPPLY FOR OCCUPANT NOTIFICATION.</li> <li>2. PROVIDE AND INSTALL 53 LOW FREQUENCY SOUNDER NOTIFICATION APPLIANCES.</li> <li>3. PROVIDE AND INSTALL 5 LOW FREQUENCY SOUNDER STROBE NOTIFICATION APPLIANCES.</li> <li>4. PROVIDE AND INSTALL 3 STROBE ONLY NOTIFICATION APPLIANCES.</li> <li>5. PROVIDE AND INSTALL 13 HORN/STROBE NOTIFICATION APPLIANCES &amp; 1 WATERFLOW BELL.</li> <li>6. PROVIDE AND INSTALL 22 MANUAL PULL STATIONS.</li> </ol> | <ol style="list-style-type: none"> <li>7. PROVIDE AND INSTALL 1 SMOKE DETECTOR FOR FACP &amp; PS10.</li> <li>8. PROVIDE AND INSTALL 2 DUAL-INPUT MODULES.</li> <li>9. PROVIDE AND INSTALL 16 HEAT DETECTORS.</li> <li>10. PROVIDE AND INSTALL A HONEYWELL HW-AV-LTE-M CELLULAR COMMUNICATOR.</li> </ol> |
|---|---|



SITE LOCATION

### APPLICABLE CODES & STANDARDS

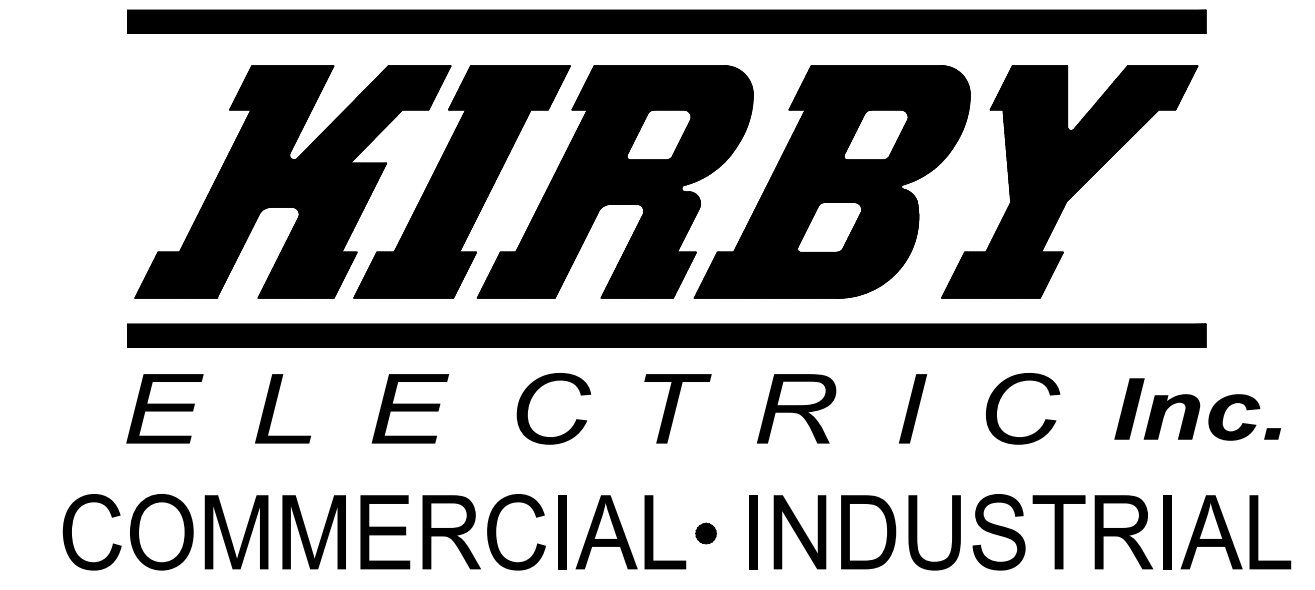
2022 NATIONAL FIRE ALARM & SIGNALING CODE NFPA72  
 2023 NATIONAL ELECTRICAL CODE (NEC) NFPA70  
 2021 INTERNATIONAL FIRE CODE (IFC) WITH WASHINGTON STATE AMENDMENTS  
 2021 INTERNATIONAL BUILDING CODE (IBC) WITH WASHINGTON STATE AMENDMENTS

### OCCUPANCY & BUILDING

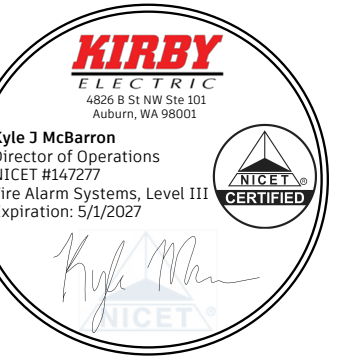
OCCUPANCY : R-2  
 USE : RESIDENTIAL  
 BUILDING AREA : 35,927 S.F.

### PROJECT CONTACTS

PROJECT MANAGER	DENNIS RISHKOVOY	dennis@kirbyelectric.com
FOREMAN	---	---
DESIGNER	DANIEL KOPYTIN	danielko@kirbyelectric.com
DIRECTOR OF OPERATIONS	KYLE MCBARRON	kylem@kirbyelectric.com
TECHNICIAN SCHEDULING	ANDRACO DICKSON	andraco@kirbyelectric.com



FIRE ALARM SHEET INDEX	
Sheet Number	Sheet Title
EFO.00	COVER SHEET
EFO.01	FIRE ALARM DETAILS
EFO.02	PANEL DETAILS
EFO.03	DEVICE DETAILS
EF1.01	ONE-LINE RISER DIAGRAM
EF2.01	FIRE ALARM PANEL CALCULATIONS
EF3.01	BASEMENT & LEVEL 1 FIRE ALARM PLAN
EF3.02	LEVEL 2 & 3 FIRE ALARM PLAN
EF3.03	ROOF FIRE ALARM PLAN



BRADLEY HEIGHTS  
BUILDING E

27TH AVE SE AND 5TH ST SE, PUYALLUP, WA 98374

### REVISIONS:

△ (2026-05-14)  
INITIAL SET

SHEET NUMBER: EFO.00

SHEET TITLE:  
COVER SHEET

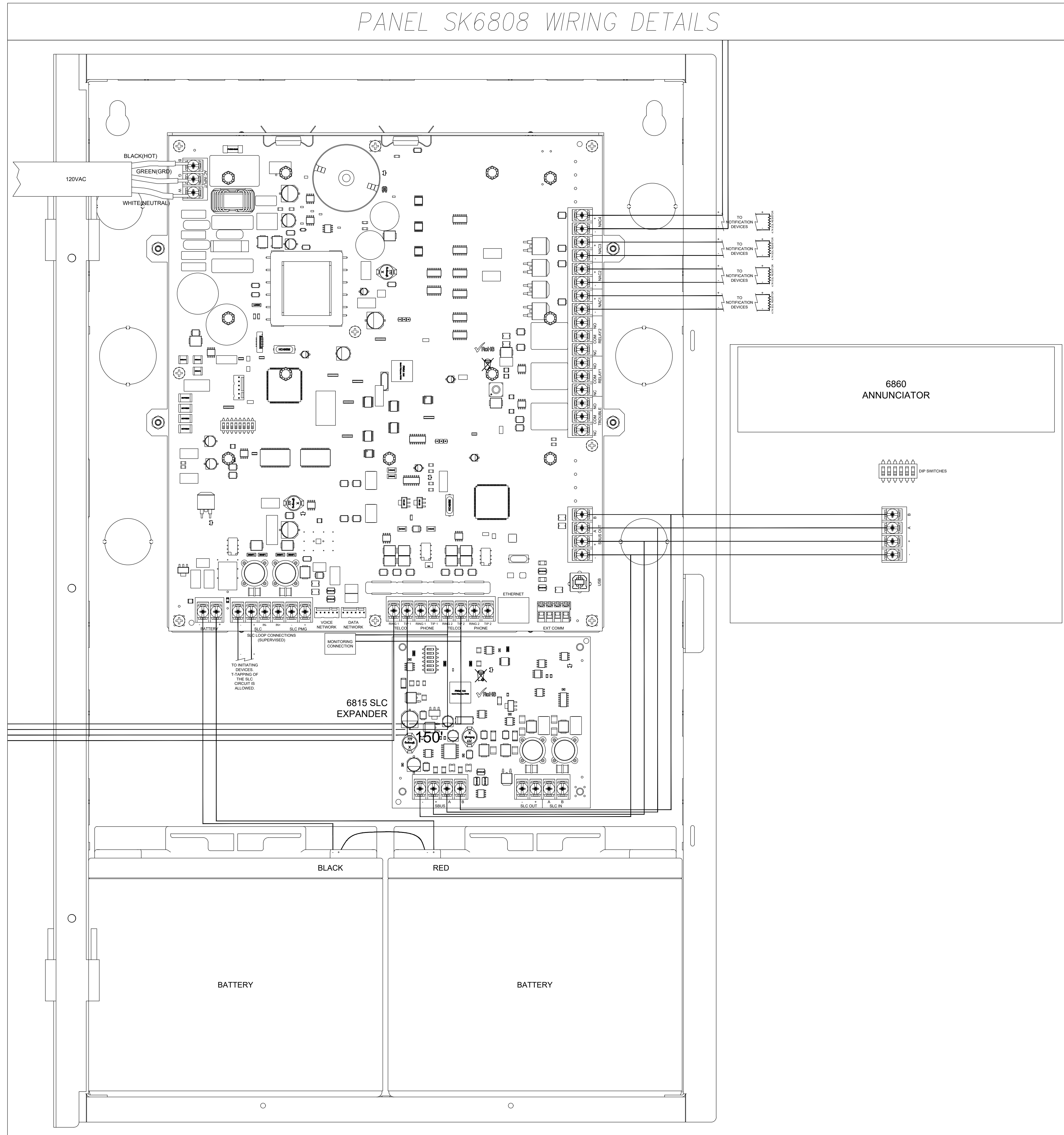
PLOT DATE: 05-14-26

DESIGNED BY: D.S.K.

JOB NUMBER: 25-058



PANEL SK6808 WIRING DETAILS



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REVISIONS:  
 (2026-05-14)  
 INITIAL SET

SHEET NUMBER: EF0.02

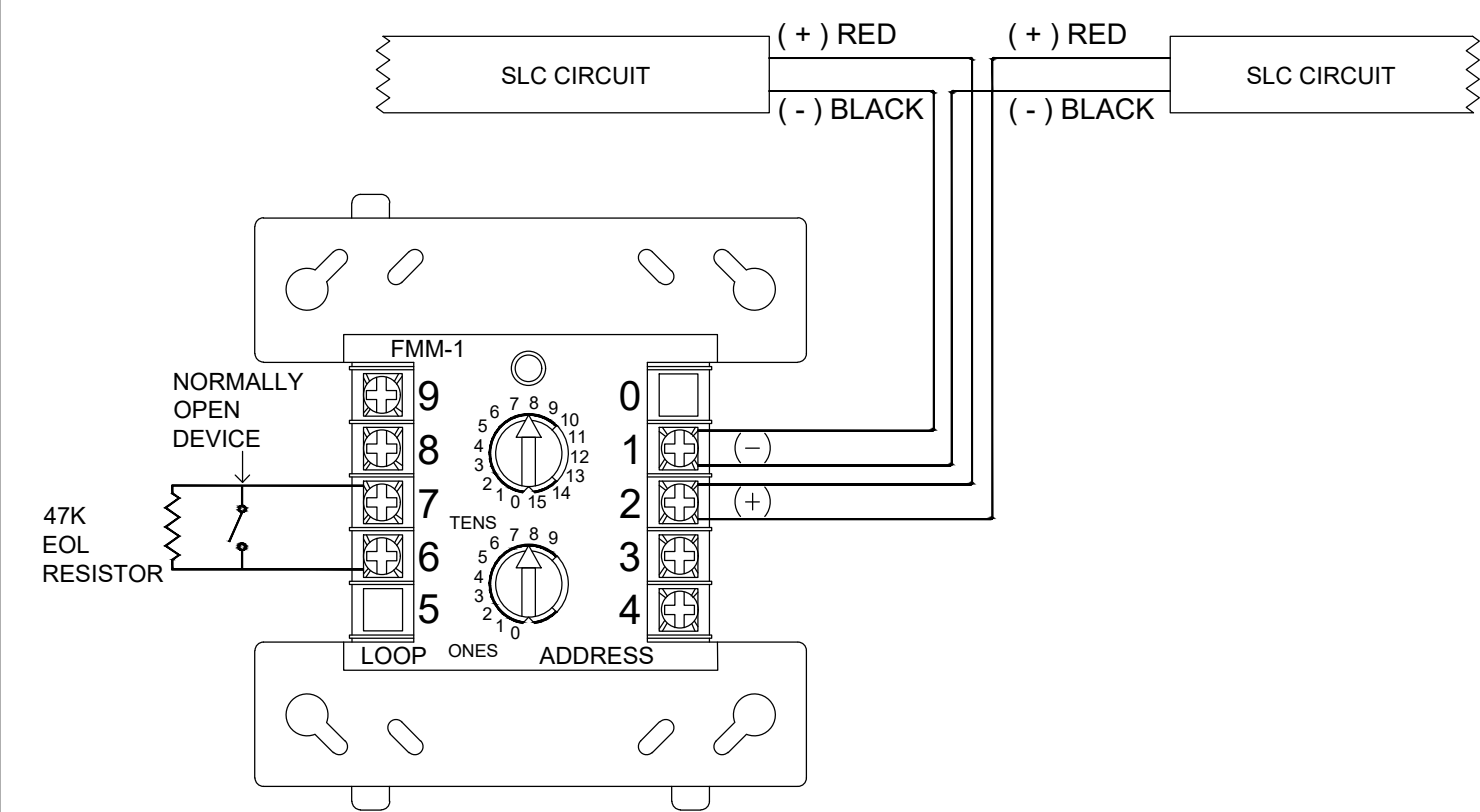
SHEET TITLE:  
 PANEL DETAILS

PLOT DATE: 05-14-26

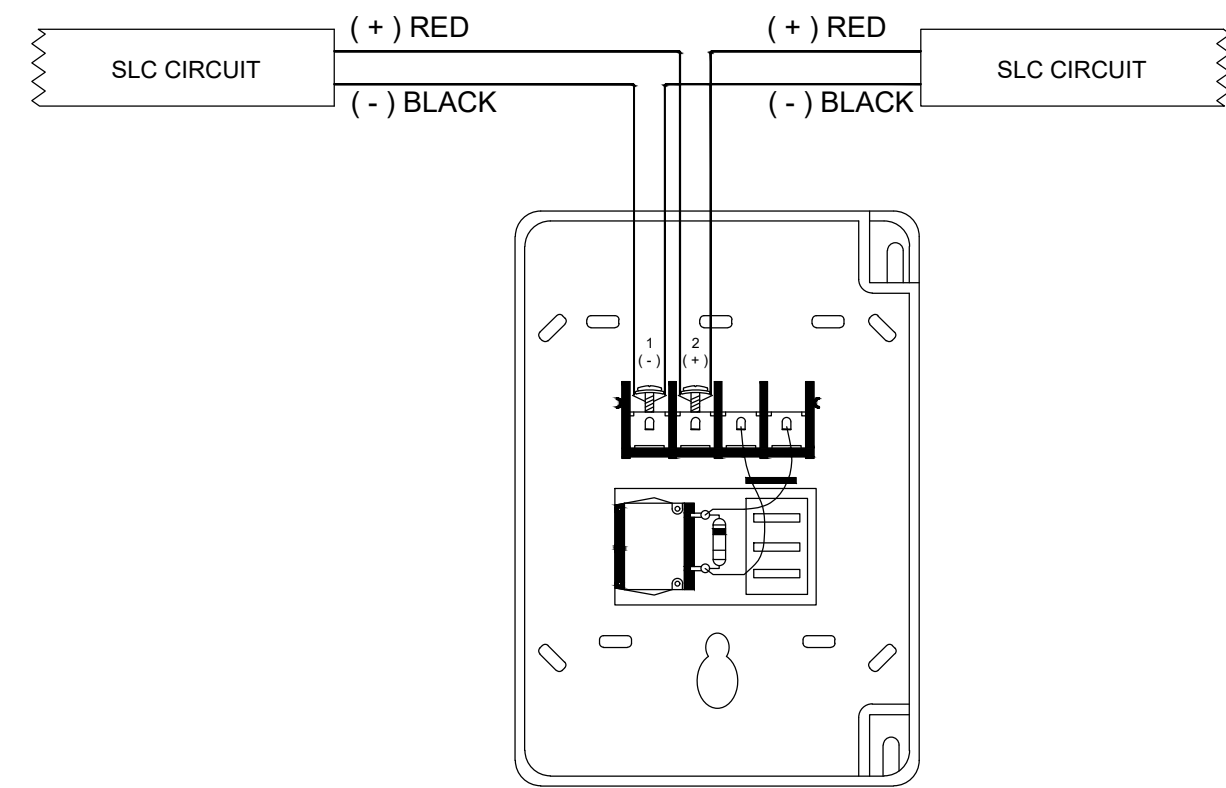
DESIGNED BY: D.S.K.

JOB NUMBER: 25-058

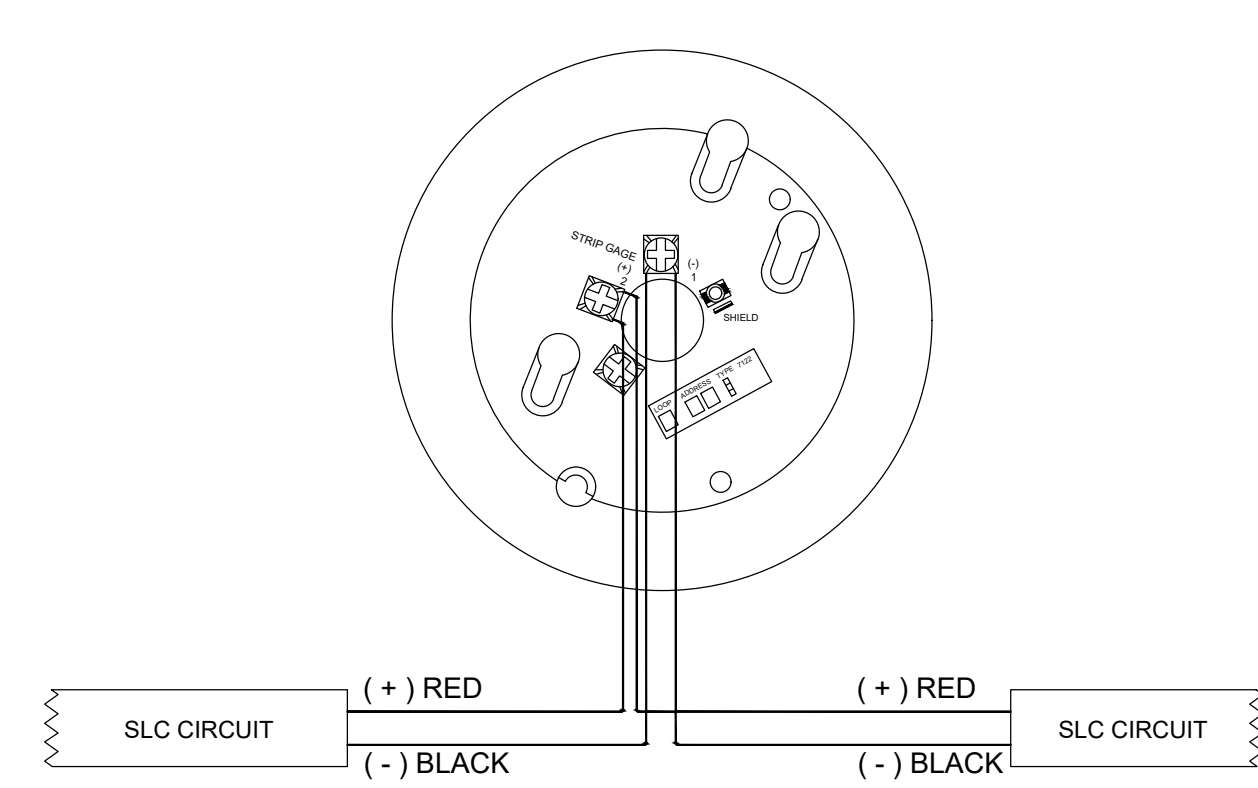
INPUT MODULE



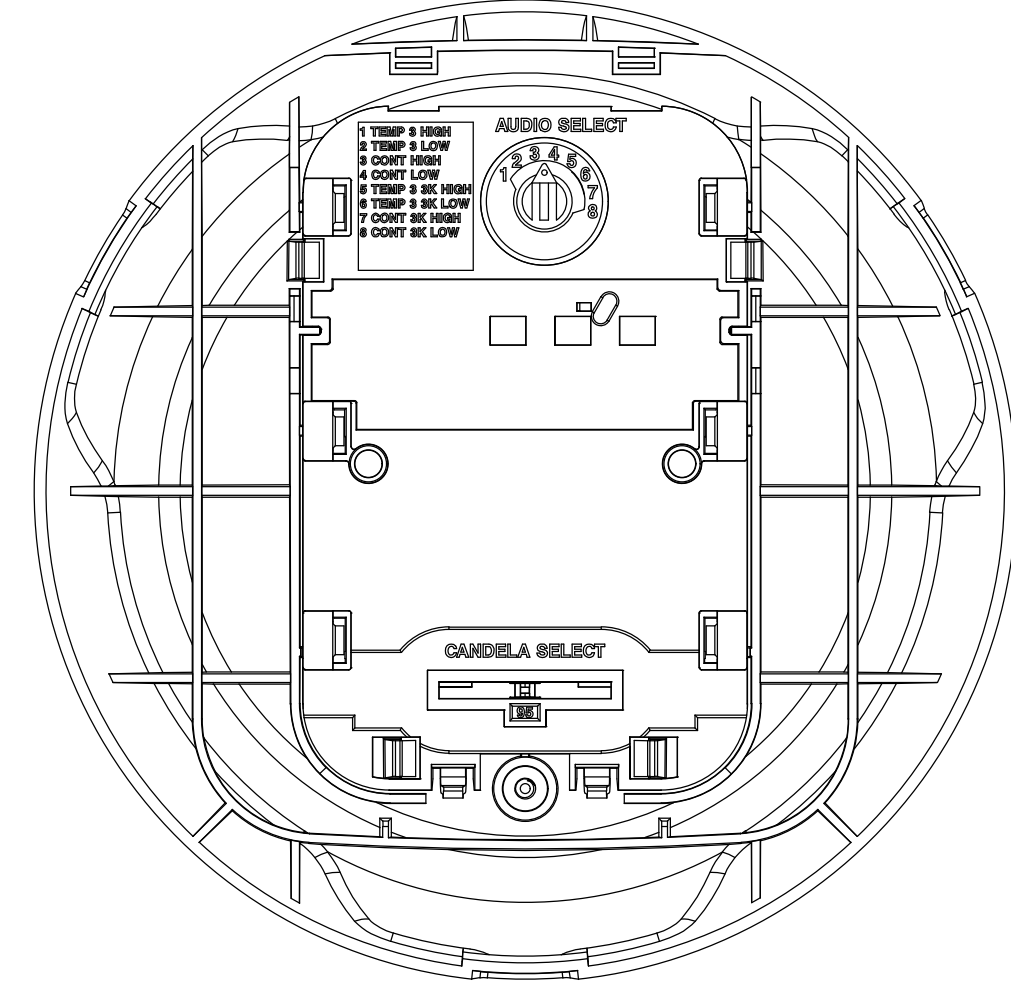
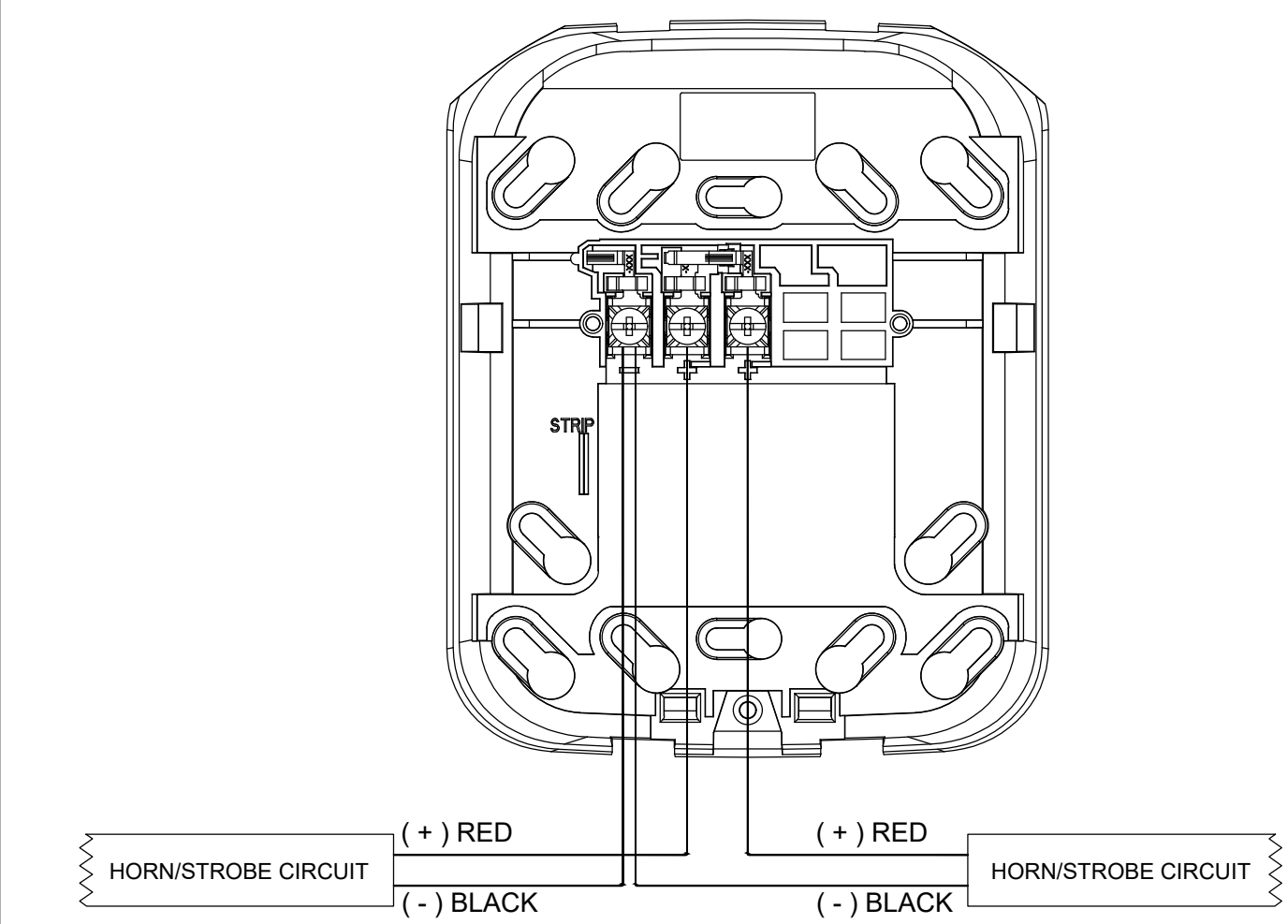
PULL STATION



SMOKE DETECTOR

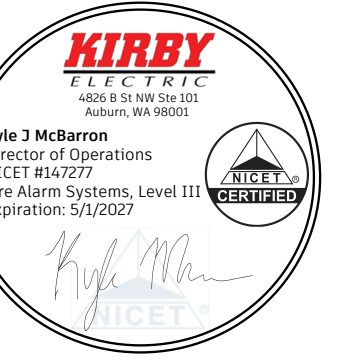


HORN/STROBE



BACKPLATE

DEVICE



BRADLEY HEIGHTS  
BUILDING E  
27TH AVE SE AND 5TH ST SE, PUYALLUP, WA 98374

REVISIONS:  
A (2026-05-14)  
INITIAL SET

SHEET NUMBER: EF0.03

SHEET TITLE:  
DEVICE DETAILS

PLOT DATE: 05-14-26

DESIGNED BY: D.S.K.

JOB NUMBER: 25-058



## BRADLEY HEIGHTS BUILDING E

27TH AVE SE AND 5TH ST SE, PUYALLUP, WA 98374

REVISIONS:  
 (2026-05-14)  
 INITIAL SET

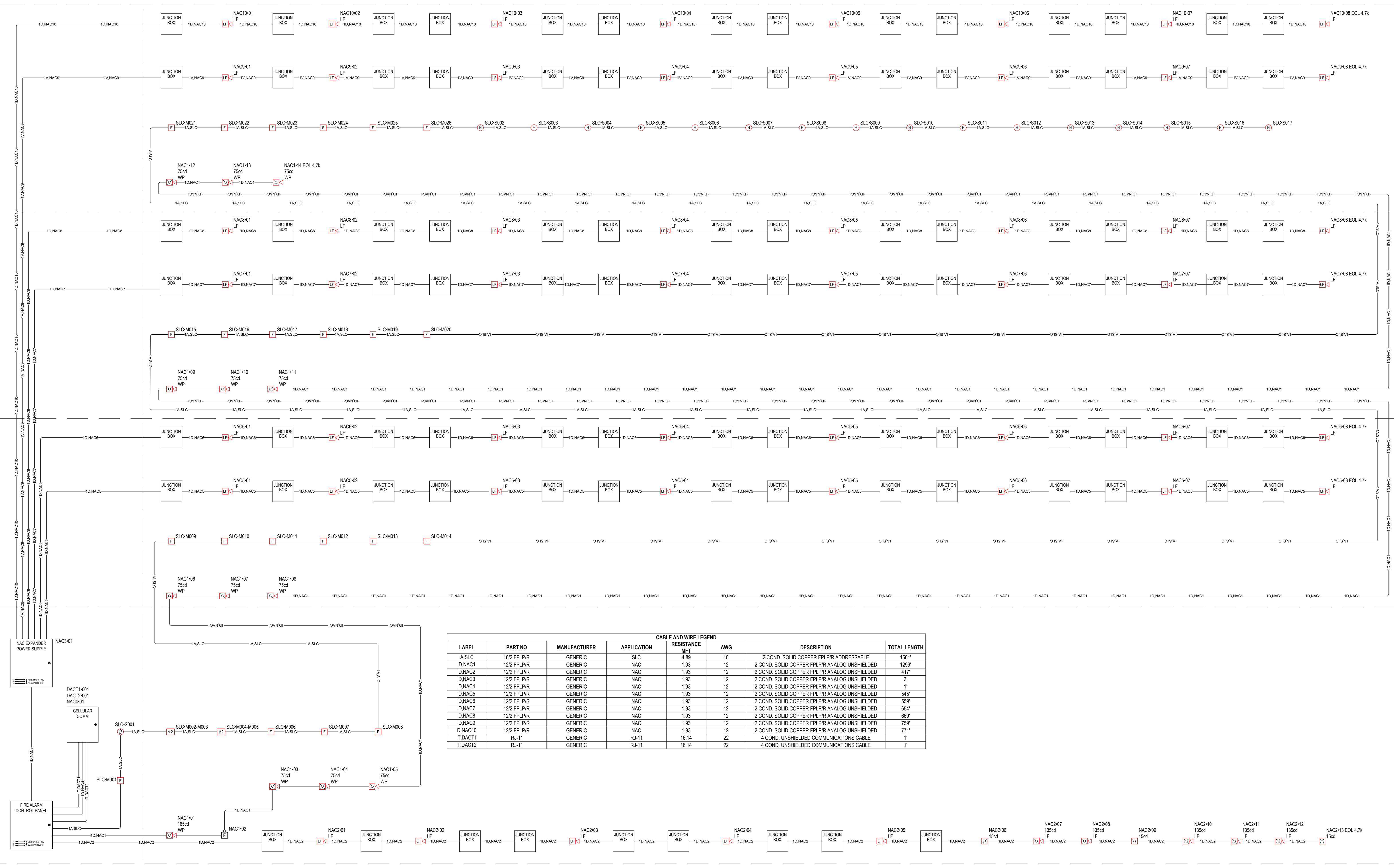
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SHEET TITLE:  
 ONE-LINE RISER DIAGRAM

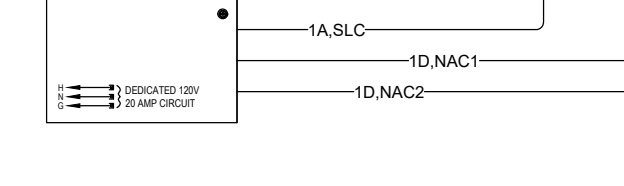
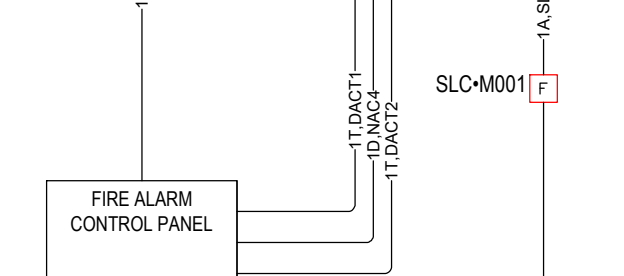
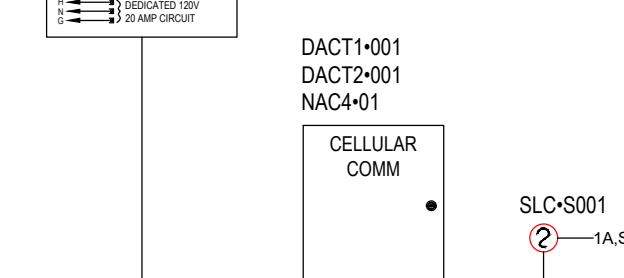
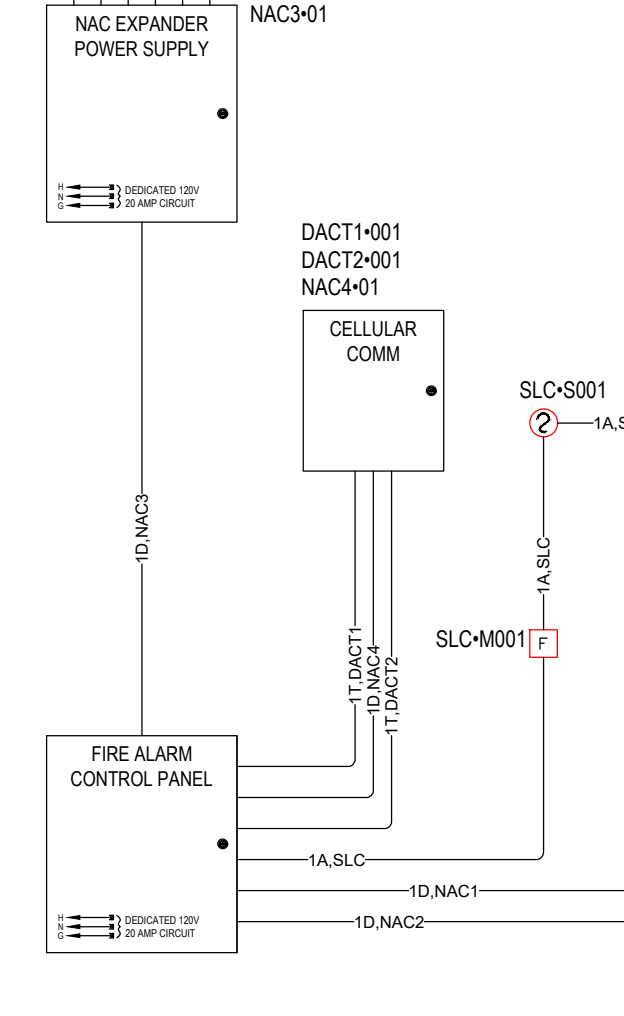
PLOT DATE: 05-14-26

DESIGNED BY: D.S.K.

JOB NUMBER: 25-058



CABLE AND WIRE LEGEND							
LABEL	PART NO	MANUFACTURER	APPLICATION	RESISTANCE MF1	AWG	DESCRIPTION	TOTAL LENGTH
A.SLC	16/2 FPLPR	GENERIC	SLC	4.89	16	2 COND. SOLID COPPER FPLPR ADDRESSABLE	1561'
D.NAC1	12/2 FPLPR	GENERIC	NAC	1.93	12	2 COND. SOLID COPPER FPLPR ANALOG UNSHIELDED	1299'
D.NAC2	12/2 FPLPR	GENERIC	NAC	1.93	12	2 COND. SOLID COPPER FPLPR ANALOG UNSHIELDED	417'
D.NAC3	12/2 FPLPR	GENERIC	NAC	1.93	12	2 COND. SOLID COPPER FPLPR ANALOG UNSHIELDED	3'
D.NAC4	12/2 FPLPR	GENERIC	NAC	1.93	12	2 COND. SOLID COPPER FPLPR ANALOG UNSHIELDED	1'
D.NAC5	12/2 FPLPR	GENERIC	NAC	1.93	12	2 COND. SOLID COPPER FPLPR ANALOG UNSHIELDED	545'
D.NAC6	12/2 FPLPR	GENERIC	NAC	1.93	12	2 COND. SOLID COPPER FPLPR ANALOG UNSHIELDED	559'
D.NAC7	12/2 FPLPR	GENERIC	NAC	1.93	12	2 COND. SOLID COPPER FPLPR ANALOG UNSHIELDED	654'
D.NAC8	12/2 FPLPR	GENERIC	NAC	1.93	12	2 COND. SOLID COPPER FPLPR ANALOG UNSHIELDED	669'
D.NAC9	12/2 FPLPR	GENERIC	NAC	1.93	12	2 COND. SOLID COPPER FPLPR ANALOG UNSHIELDED	759'
D.NAC10	12/2 FPLPR	GENERIC	NAC	1.93	12	2 COND. SOLID COPPER FPLPR ANALOG UNSHIELDED	771'
T.DACT1	RJ-11	GENERIC	RJ-11	16.14	22	4 COND. UNSHIELDED COMMUNICATIONS CABLE	1'
T.DACT2	RJ-11	GENERIC	RJ-11	16.14	22	4 COND. UNSHIELDED COMMUNICATIONS CABLE	1'





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 27TH AVE SE AND 5TH ST SE, PUYALLUP, WA 98374

REVISIONS:  
 (2026-05-14)  
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SHEET NUMBER: EF2.01

SHEET TITLE: FIRE ALARM PANEL CALCULATIONS

PLOT DATE: 05-14-26

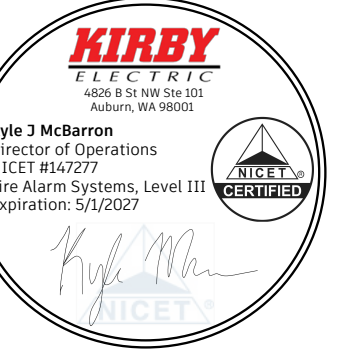
DESIGNED BY: D.S.K.

JOB NUMBER: 25-058

PANEL LOAD SUMMARY								STANDBY CURRENT (AMPS)		ALARM CURRENT (AMPS)					
PANEL COMPONENT SUMMARY		QTY	PART NO	DESCRIPTION				CURRENT DRAW (A)	TOTAL (A)	CURRENT DRAW (A)	TOTAL				
		1	6808 Main Board	Main Board				1 x 0.19	= 0.19	1 x 0.25	= 0.25				
CIRCUIT SUMMARY		CIRCUIT													
				DACT1				1 x 0	= 0	1 x 0	= 0				
				DACT2				1 x 0	= 0	1 x 0	= 0				
				NAC1				1 x 0	= 0	1 x 1.2875	= 1.2875				
				NAC2				1 x 0	= 0	1 x 2.364	= 2.364				
				NAC3				1 x 0.014	= 0.014	1 x 0.014	= 0.014				
				NAC4				1 x 0.06	= 0.06	1 x 0.2	= 0.2				
				SLC				1 x 0.0126	= 0.0126	1 x 0.0857	= 0.0857				
				TOTAL STANDBY CURRENT				0.2766		TOTAL ALARM CURRENT	4.2012				
CIRCUIT DETAILS AND CALCULATIONS								STANDBY CURRENT		ALARM CURRENT		POINT-TO-POINT VOLTAGE DROP CALCULATION SUMMARY			
SOURCE	CIRCUIT	AWG	SYMBOL	QTY	PART NO	DEVICE SETTING	CIRCUIT LENGTH	CIRCUIT RESISTANCE (Ω/ft)	CURRENT DRAW (A)	TOTAL (A)	CURRENT DRAW (A)	TOTAL (A)	STARTING CALCULATION VOLTAGE	END OF LINE VOLTAGE	VOLTAGE DROP
6808 Main Board	NAC1	12		12	P2GRKLED	75cd	1299'	0.00193	12 x 0	= 0	12 x 0.087	= 1.044	20.4v	17.27v	3.13v
				1	P2GRKLED	185cd			1 x 0	= 0	1 x 0.19	= -0.19			
				1	SSM24-10				1 x 0	= 0	1 x 0.0535	= -0.0535			
	NAC2	12		5	HW-LF		417'	0.00193	5 x 0	= 0	5 x 0.166	= -0.83	20.4v	17.89v	2.51v
				5	P2WH-LF	135cd			5 x 0	= 0	5 x 0.296	= 1.48			
				3	SWLED	15cd			3 x 0	= 0	3 x 0.018	= 0.054			
	NAC3	12		1	HPF-PS10		3'	0.00193	1 x 0.014	= 0.014	1 x 0.014	= 0.014	20.4v	20.4v	0v
	NAC4	12		1	HW-AV-LTE-M		1'	0.00193	1 x 0.06	= 0.06	1 x 0.2	= 0.2	20.4v	20.4v	0v
	SLC	16		2	SK-MONITOR-2		1561'	0.00489	2 x 0.00075	= 0.0015	2 x 0.00075	= 0.0015			
				22	SK-PULL-DA				22 x 0.00035	= 0.0077	22 x 0.00035	= 0.0077			
			16	SS-HEAT WB300-6		16 x 0.0002			= 0.0032	16 x 0.0045	= 0.072				
			1	SS-PHOTO WB300-6		1 x 0.0002			= 0.0002	1 x 0.0045	= 0.0045				
SECONDARY POWER SOURCE REQUIREMENTS												PROVIDE (2) 12V 12AH BATTERIES @ 24VDC			
								REQUIRED STANDBY TIME = 24 HOURS							
								REQUIRED ALARM TIME = 5 MINUTES							
								SECONDARY STANDBY LOAD				= 6.64 AH			
								SECONDARY ALARM LOAD				= 0.35 AH			
								STANDBY AND ALARM LOAD SUBTOTAL				6.99 AH			
								DERATING FACTOR				x 1.25			
								SECONDARY LOAD REQUIREMENTS (AMP HOURS)				8.74 AH			

SLC POINTS LIST		
POINT #	DEVICE TYPE	DESCRIPTION
97.S001	SMOKE DETECTOR	SPRINKLER RISER ROOM - FACP & PS10
97.S002	HEAT DETECTOR	ATTIC - SOUTHEAST
97.S003	HEAT DETECTOR	ATTIC - SOUTH
97.S004	HEAT DETECTOR	ATTIC - SOUTH
97.S005	HEAT DETECTOR	ATTIC - SOUTH
97.S006	HEAT DETECTOR	ATTIC - SOUTHWEST
97.S007	HEAT DETECTOR	ATTIC - SOUTHWEST
97.S008	HEAT DETECTOR	ATTIC - SOUTHWEST
97.S009	HEAT DETECTOR	ATTIC - SOUTHWEST
97.S010	HEAT DETECTOR	ATTIC - NORTHWEST
97.S011	HEAT DETECTOR	ATTIC - NORTHWEST
97.S012	HEAT DETECTOR	ATTIC - NORTHWEST
97.S013	HEAT DETECTOR	ATTIC - NORTH
97.S014	HEAT DETECTOR	ATTIC - NORTH
97.S015	HEAT DETECTOR	ATTIC - NORTH
97.S016	HEAT DETECTOR	ATTIC - NORTHEAST
97.S017	HEAT DETECTOR	ATTIC - SOUTHEAST
MODULES		
POINT #	DEVICE TYPE	DESCRIPTION
97.M001	MANUAL PULL STATION	SPRINKLER RISER ROOM
97.M002	DUAL INPUT MODULE	SPRINKLER RISER ROOM - RISER PROVISION SPARE
97.M003	DUAL INPUT MODULE	SPRINKLER RISER ROOM - RISER PROVISION SPARE
97.M004	DUAL INPUT MODULE	SPRINKLER RISER ROOM - RISER PROVISION SPARE
97.M005	DUAL INPUT MODULE	SPRINKLER RISER ROOM - RISER PROVISION SPARE
97.M006	MANUAL PULL STATION	BASEMENT - STAIR 2 - NORTHEAST
97.M007	MANUAL PULL STATION	BASEMENT - STAIR 2 - NORTH
97.M008	MANUAL PULL STATION	BASEMENT - STAIR 2 - NORTHWEST
97.M009	MANUAL PULL STATION	LEVEL 1 - STAIR 2 - NORTHWEST
97.M010	MANUAL PULL STATION	LEVEL 1 - STAIR 1 - SOUTHWEST
97.M011	MANUAL PULL STATION	LEVEL 1 - STAIR 1 - SOUTH
97.M012	MANUAL PULL STATION	LEVEL 1 - STAIR 2 - NORTH
97.M013	MANUAL PULL STATION	LEVEL 1 - STAIR 2 - NORTHEAST
97.M014	MANUAL PULL STATION	LEVEL 1 - STAIR 1 - SOUTHEAST
97.M015	MANUAL PULL STATION	LEVEL 2 - STAIR 2 - NORTHEAST
97.M016	MANUAL PULL STATION	LEVEL 2 - STAIR 1 - SOUTHEAST
97.M017	MANUAL PULL STATION	LEVEL 2 - STAIR 1 - SOUTH
97.M018	MANUAL PULL STATION	LEVEL 2 - STAIR 2 - NORTH
97.M019	MANUAL PULL STATION	LEVEL 2 - STAIR 2 - NORTHWEST
97.M020	MANUAL PULL STATION	LEVEL 2 - STAIR 1 - NORTHEAST
97.M021	MANUAL PULL STATION	LEVEL 3 - STAIR 2 - NORTHWEST
97.M022	MANUAL PULL STATION	LEVEL 3 - STAIR 1 - SOUTHWEST
97.M023	MANUAL PULL STATION	LEVEL 3 - STAIR 1 - SOUTH
97.M024	MANUAL PULL STATION	LEVEL 3 - STAIR 2 - NORTH
97.M025	MANUAL PULL STATION	LEVEL 3 - STAIR 2 - NORTHEAST
97.M026	MANUAL PULL STATION	LEVEL 3 - STAIR 1 - SOUTHEAST

PANEL LOAD SUMMARY								STANDBY CURRENT (AMPS)		ALARM CURRENT (AMPS)					
PANEL COMPONENT SUMMARY		QTY	PART NO	DESCRIPTION				CURRENT DRAW (A)	TOTAL (A)	CURRENT DRAW (A)	TOTAL				
		1	HPF-PS10 MAIN BOARD	Fire Alarm Power Supply Main Board				1 x 0.156	= 0.156	1 x 0.185	= 0.185				
CIRCUIT SUMMARY		CIRCUIT													
				NAC10				1 x 0	= 0	1 x 1.328	= 1.328				
				NAC5				1 x 0	= 0	1 x 1.328	= 1.328				
				NAC6				1 x 0	= 0	1 x 1.328	= 1.328				
				NAC7				1 x 0	= 0	1 x 1.328	= 1.328				
				NAC8				1 x 0	= 0	1 x 1.328	= 1.328				
				NAC9				1 x 0	= 0	1 x 1.328	= 1.328				
				TOTAL STANDBY CURRENT				0.156		TOTAL ALARM CURRENT	8.153				
CIRCUIT DETAILS AND CALCULATIONS								STANDBY CURRENT		ALARM CURRENT		POINT-TO-POINT VOLTAGE DROP CALCULATION SUMMARY			
SOURCE	CIRCUIT	AWG	SYMBOL	QTY	PART NO	DEVICE SETTING	CIRCUIT LENGTH	CIRCUIT RESISTANCE (Ω/ft)	CURRENT DRAW (A)	TOTAL (A)	CURRENT DRAW (A)	TOTAL (A)	STARTING CALCULATION VOLTAGE	END OF LINE VOLTAGE	VOLTAGE DROP
HPF-PS10 MAIN BOARD	NAC10	12		8	HW-LF		771'	0.00193	8 x 0	= 0	8 x 0.166	= 1.328	20.4v	17.46v	2.94v
	NAC5	12		8	HW-LF		545'	0.00193	8 x 0	= 0	8 x 0.166	= 1.328	20.4v	18.64v	1.76v
	NAC6	12		8	HW-LF		559'	0.00193	8 x 0	= 0	8 x 0.166	= 1.328	20.4v	18.56v	1.84v
	NAC7	12		8	HW-LF		654'	0.00193	8 x 0	= 0	8 x 0.166	= 1.328	20.4v	18.08v	2.32v
	NAC8	12		8	HW-LF		669'	0.00193	8 x 0	= 0	8 x 0.166	= 1.328	20.4v	18v	2.4v
	NAC9	12		8	HW-LF		759'	0.00193	8 x 0	= 0	8 x 0.166	= 1.328	20.4v	17.53v	2.87v
SECONDARY POWER SOURCE REQUIREMENTS												PROVIDE (2) 12V 7AH BATTERIES @ 24VDC			
								REQUIRED STANDBY TIME = 24 HOURS							
								REQUIRED ALARM TIME = 5 MINUTES							
								SECONDARY STANDBY LOAD				= 3.74 AH			
								SECONDARY ALARM LOAD				= 0.68 AH			
								STANDBY AND ALARM LOAD SUBTOTAL				4.42 AH			
								DERATING FACTOR				x 1.25			
								SECONDARY LOAD REQUIREMENTS (AMP HOURS)				5.53 AH			



**BRADLEY HEIGHTS  
 BUILDING E**

27TH AVE SE AND 5TH ST SE, PUYALLUP, WA 98374

REVISIONS:  
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 INITIAL SET

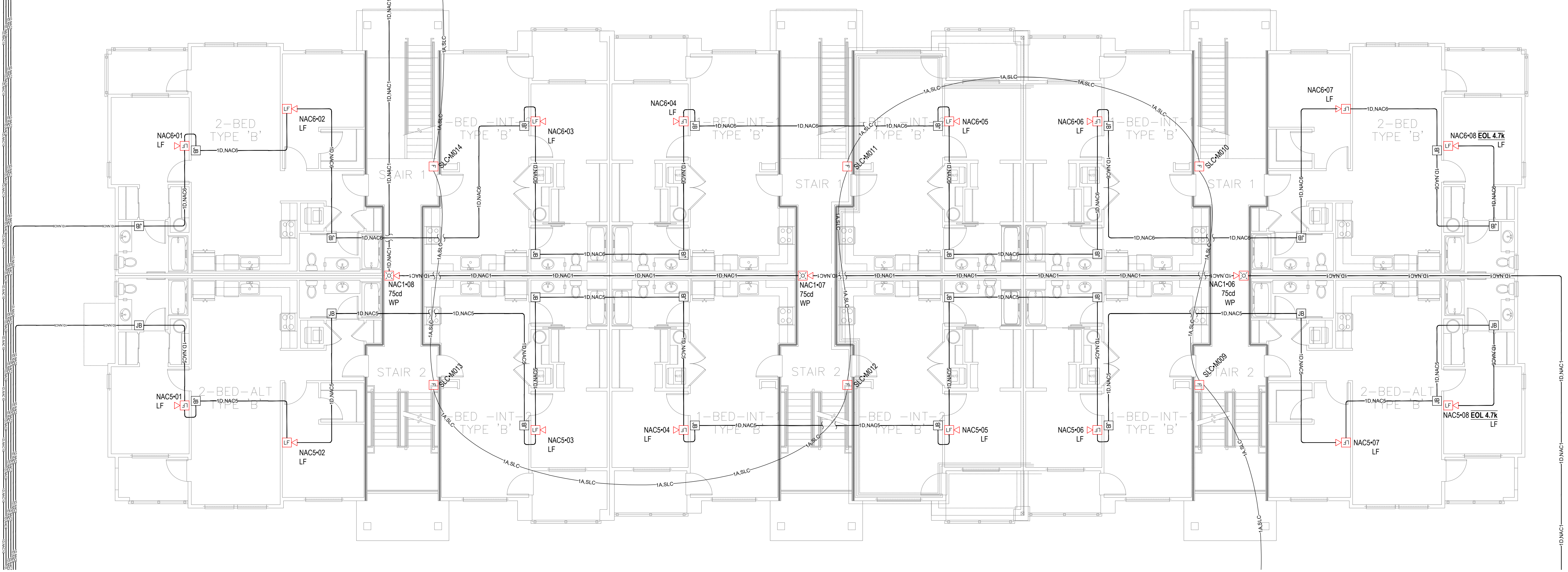
SHEET NUMBER: EF3.01

SHEET TITLE:  
 BASEMENT &  
 LEVEL 1 FIRE  
 ALARM PLAN

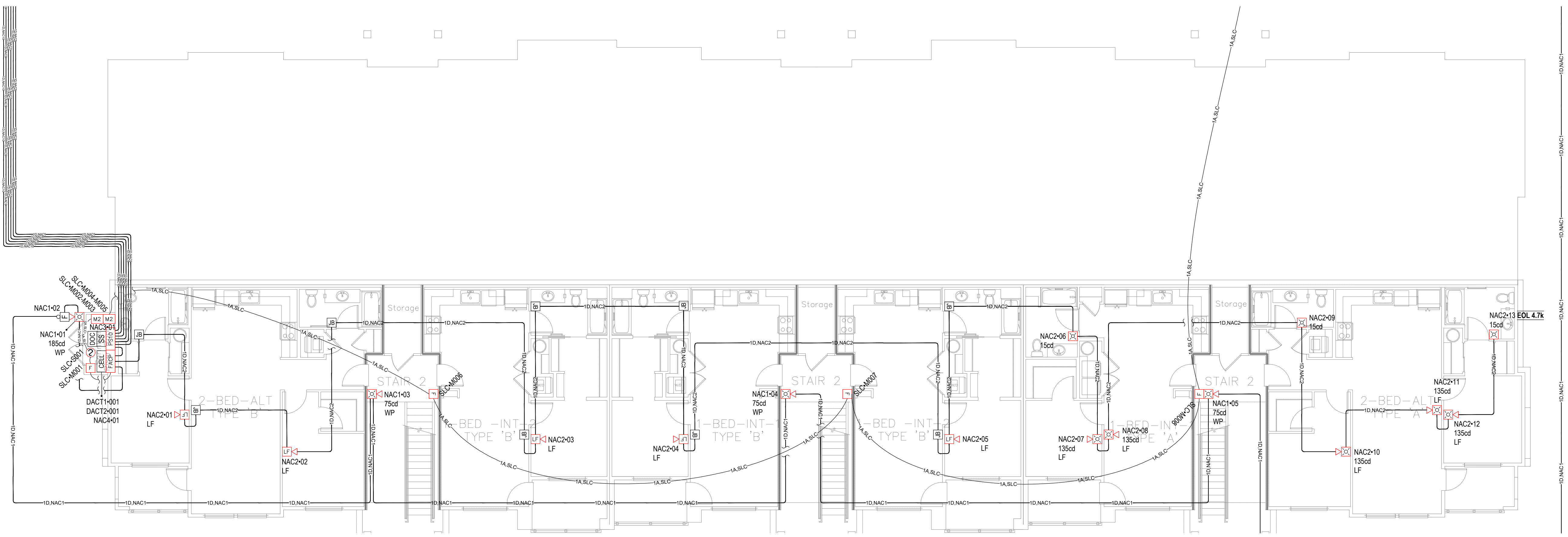
PLOT DATE: 05-14-26

DESIGNED BY: D.S.K.

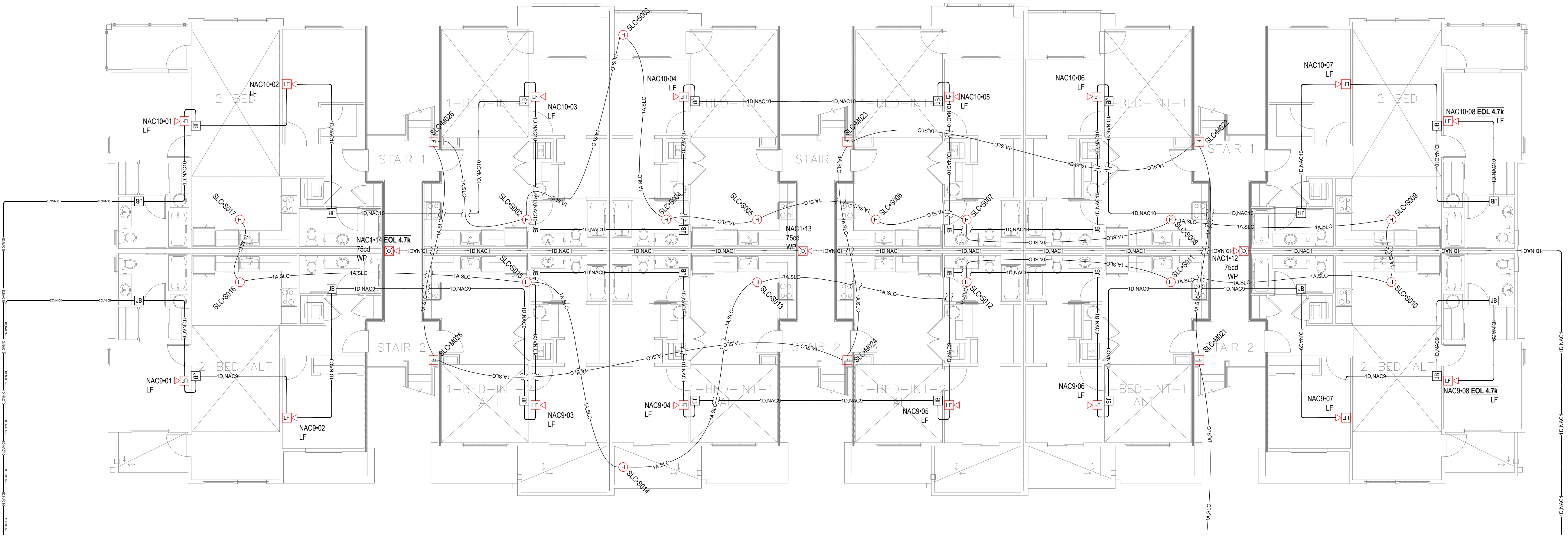
JOB NUMBER: 25-058



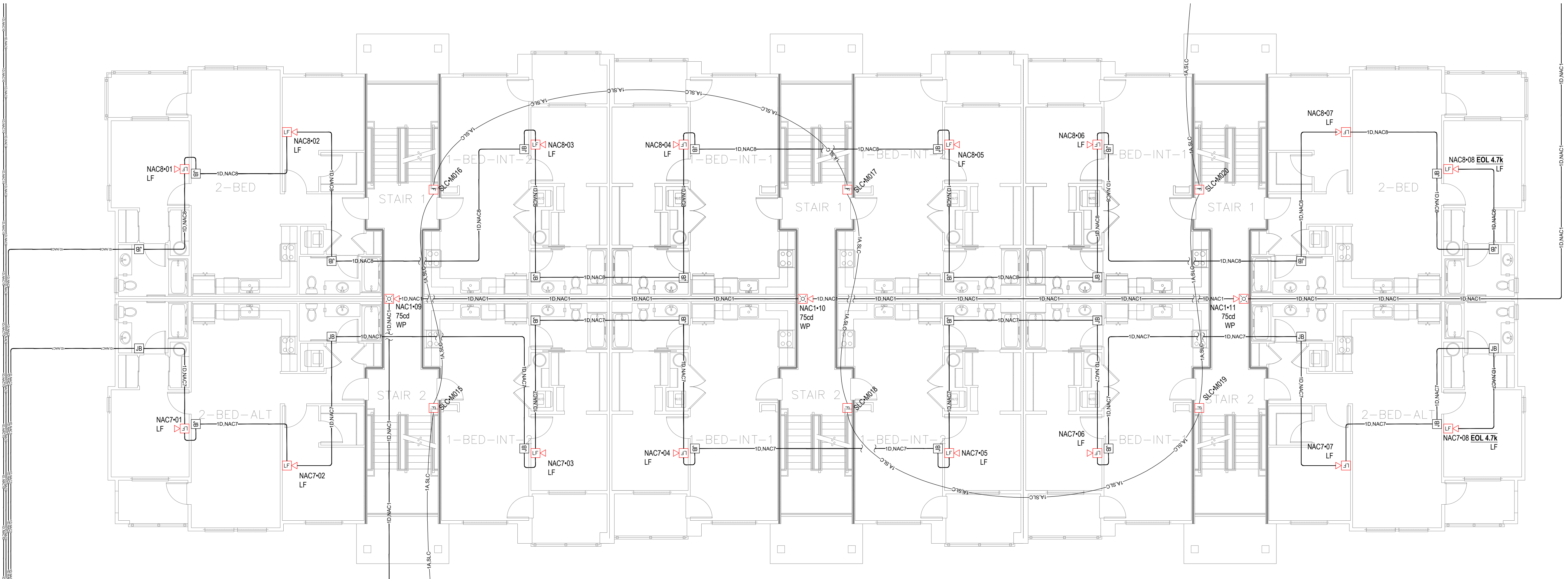
1 LEVEL 1 FIRE ALARM PLAN  
 SCALE: 1/8" = 1'-0"



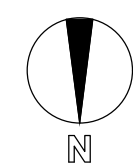
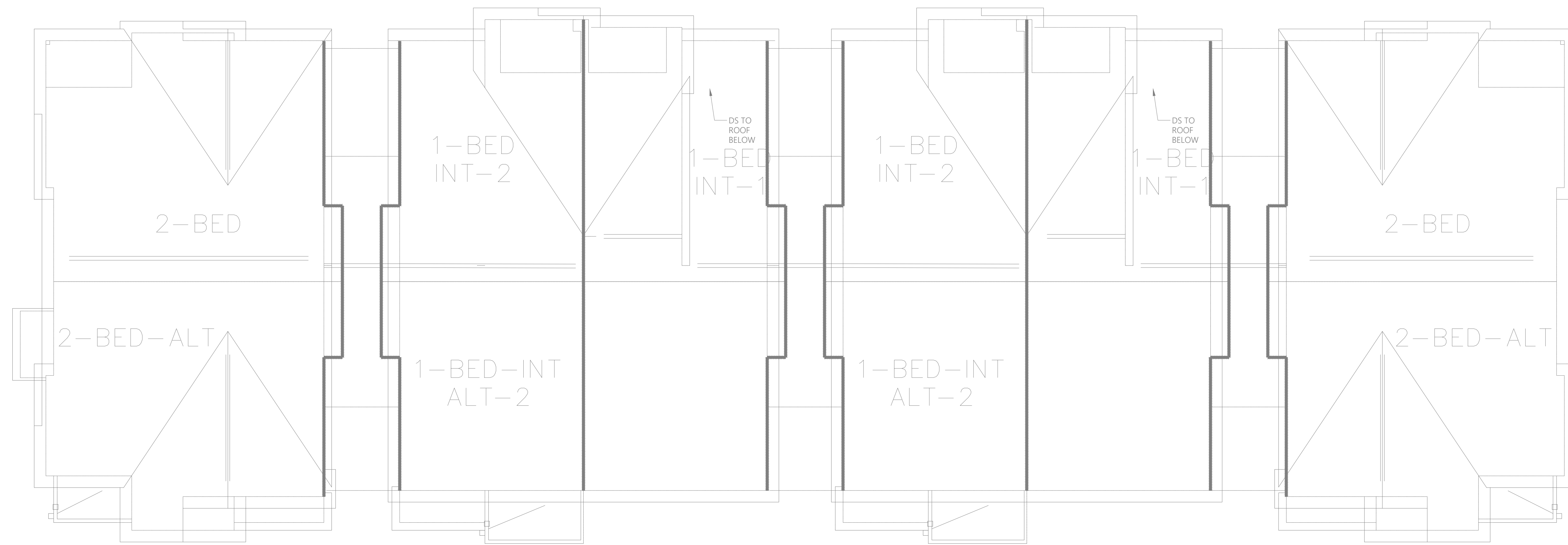
1 BASEMENT FIRE ALARM PLAN  
 SCALE: 1/8" = 1'-0"



1 LEVEL 3 FIRE ALARM PLAN  
 SCALE: 1/8" = 1'-0"



1 LEVEL 2 FIRE ALARM PLAN  
 SCALE: 1/8" = 1'-0"



1

ROOF FIRE ALARM PLAN

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



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 27TH AVE SE AND 5TH ST SE, PUYALLUP, WA 98374

REVISIONS:  
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 INITIAL SET

SHEET NUMBER: EF3.03

SHEET TITLE:  
 ROOF FIRE  
 ALARM PLAN

PLOT DATE: 05-14-26

DESIGNED BY: D.S.K.

JOB NUMBER: 25-058