

CENTERIS DATA CENTER BATTERY ROOM

FAS SYSTEM ADDITION

1023 39TH AVENUE SOUTH EAST, PUYALLUP, WA 98374

RED HAWK
FIRE PROTECTION, LLC



Ever Vigilant

917 134th Ave SW, STE B-3
Everett, WA 98204
Phone: (425) 818-3313
WA CL# REDHAHP901P
WA ELP# REDHAHP803DD

NICET Stamp

NICET
CERTIFICATION

THESE FIRE ALARM DRAWINGS
HAVE BEEN REVIEWED BY:
MIKE SERESUN
FIRE PROTECTION ENGINEERING
TECHNOLOGY
FIRE ALARM SYSTEMS - LEVEL III
NICET CERTIFICATION # 101668
CERTIFICATION EXPIRES - 11/01/2024

Approvals Required

SYMBOL LEGEND		DESCRIPTION	MOUNTING REQUIREMENTS	SUPPLIER	PART NUMBER
[M]	4	INTELLIGENT MONITOR MODULE	4 SQUARE DEEP	NOTIFIER	FMM-1
[S]	2	CEILING HORN w/ STROBE. WHITE SEE DEVICE DESIGNATION FOR STROBE cad SETTING	4 SQUARE DEEP, CENTER ON CEILING TILE	SYSTEM SENSOR	PCZWLED

NOTES:
1- DEVICE SUBSCRIPT: NN=NEW RR=REMOVE & RELOCATE EX=EXISTING TO REMAIN AC=ABOVE CEILING RB=RELAY BASE WP=WATERPROOF WG=WIRE GUARD ISO=ISO BASE
2- CABLING SHOWN IS FOR CIRCUIT REFERENCE ONLY AND DOES NOT INTEND TO INDICATE THE EXACT PATHWAY.
3- DEVICES SHOWN ON DRAWINGS IN GRAY SCALE ARE EXISTING DEVICES AND MAY NOT BE INCLUDED IN THIS SYMBOL LEGEND UNLESS NOTED.
4- HORN/STROBE DECIBLE SETTING TO BE DETERMINED ON SITE, UNLESS OTHERWISE NOTED ON THE DRAWINGS, CAN BE FIELD ADJUSTED AT REQUEST OF AHJ.
5- ALL DEVICES WITH A WP SUBSCRIPT WILL REQUIRE THE USE OF AN OUTDOOR OR WP BACKBOX.

WIRE LEGEND		THHN	FPL	FPLP	WET	COLOR CODING	CIRCUIT TYPE	NOTES
C	1 PAIR 14AWG FIRE RATED CABLE	YES	972	60993B	AQ226		AUDIBLE (NAC) CIRCUIT	
D	1 PAIR 16AWG FIRE RATED CABLE	YES	971	60991B	AQ225		DATA (SLC) CIRCUIT	

NOTES:
1- DIFFERENT COLORS/STRIPE COMBINATIONS TO BE USED FOR DIFFERENT CIRCUIT TYPES. LABEL ALL CIRCUITS ACCORDINGLY
2- WIRE MANUFACTURER IS FOR REFERENCE PURPOSE ONLY. WHEN USING OTHER MANUFACTURE, ENSURE PROPER CROSS REFERENCE
3- FPLP CAN BE USED IN MOST ALL APPLICATIONS WITH THE EXCLUSION OF WET AND CIRCUIT INTEGRITY REQUIREMENTS
4- INSTALL WIRING PER NEC. USE CABLE TYPE CONSISTENT WITH NEC REQUIREMENTS, IE, PLENUM, RISER, UNDERGROUND, ETC.
5- THE "Y" FIBER OPTIC CABLE LISTED IS A BELDEN CABLE PART NUMBER AS WEST PENN NO LONGER SUPPORTS FIBER OPTIC CABLE
6- THIS CABLE MUST BE INSTALLED IN A CONTINUOUS PATH POINT-TO-POINT. ABSOLUTELY NO SPLICES ARE ALLOWED.
7- THIS IS A SPECIFIC CABLE, NO ALTERNATES ARE ALLOWED

FLAGNOTES	
NOTE #	DESCRIPTION
30	INSTALLATION OR INTERFACE LOCATION TO BE DETERMINED/VERIFIED ON-SITE
36	DEVICE ADDRESSES ARE TO BE ASSIGNED BY FA CONTRACTOR & SET BY ELECTRICIAN FIELD TECHNICIAN ONCE ON-SITE
39	MODULE TO MONITOR MANUFACTURER SUPPLIED DUCT DETECTOR (SUPERVISORY)
45	ROUTE SLC CABLE FROM NEAREST ADDRESSABLE DEVICE OR FACP
46	LOOP/EXTEND NAC CIRCUIT TO ADDED DEVICE AND RETURN TO ORIGIN EXISTING NAC DEVICE

FACP Battery Load & Back-up Calculation

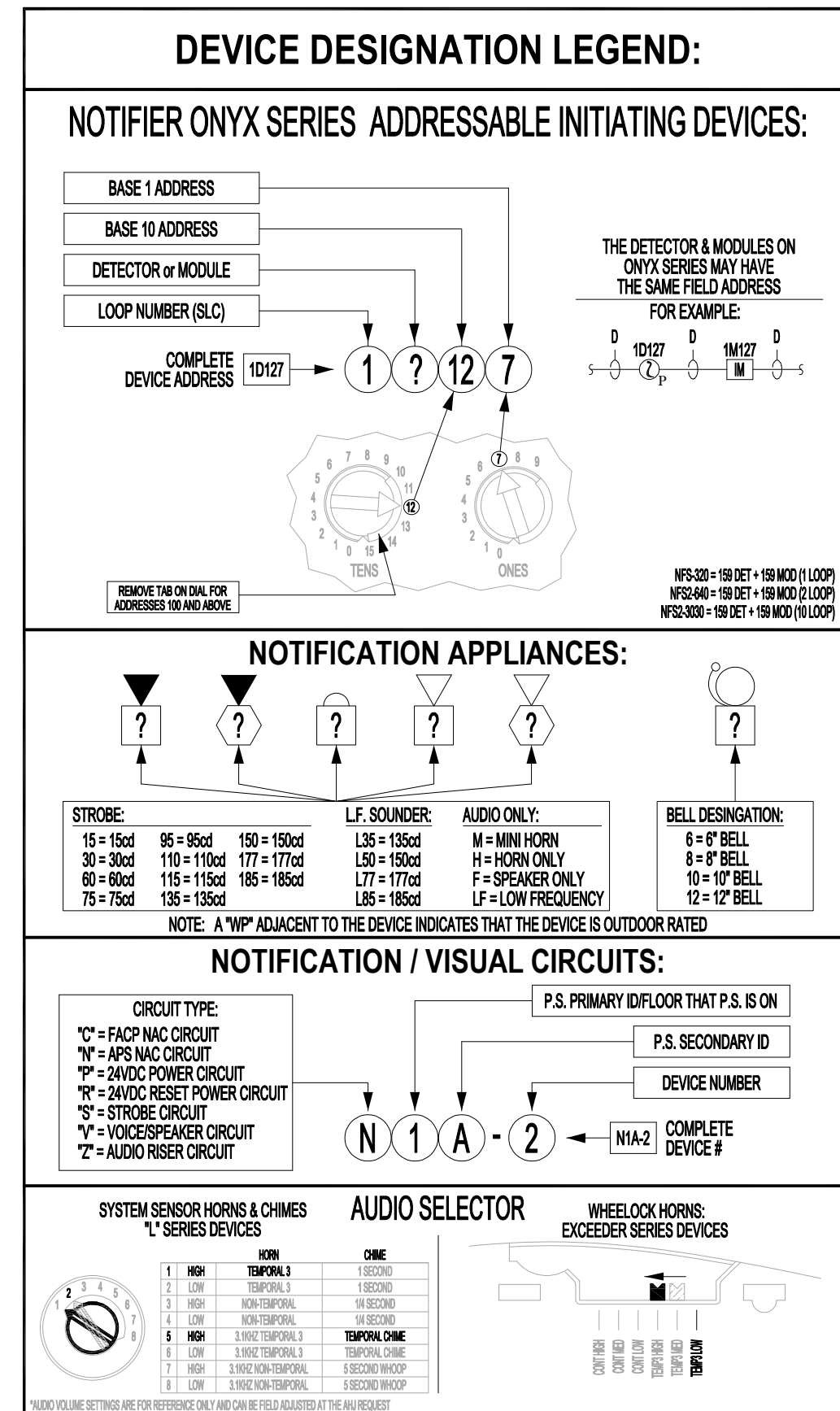
Line #	Qty	Part #	Description	Each Standby	Each Alarm	Total Standby	Total Alarm
1	1	CPJ2-3030D	Fire Alarm Control Panel: 10 SLC Loops, 3180 SLC Devices (CPU Only)	0.3400	0.3400	0.3400	0.3400
2	2	LCM-320	SLC Loop Control Module	0.1300	0.1300	0.2600	0.2600
3	2	LEM-320	SLC Loop Expander Control Module	0.1000	0.1000	0.2000	0.2000
4	257	FSP-951	Intelligent Photoelectric Smoke Detector: White	0.0002	0.0045	0.0514	1.1565
5	1	FSI-851	Intelligent Ionization Smoke Detector: White	0.0003	0.0065	0.0003	0.0065
6	3	FST-951	Intelligent Heat Detector - 155 Fixed Temp: White	0.0002	0.0045	0.0006	0.0135
7	261	IS354-E	Intelligent Detector Base: White	0.0000	0.0000	0.0000	0.0000
8	12	OSI-90	Beam Detector Imager: 80deg Field of View, 20-111ft or 39-223ft (Low & High Pileup)	0.0070	0.0840	0.0840	0.0840
9	87	DNR	Duct Detector Housing	0.0000	0.0000	0.0000	0.0000
10	87	FSP-951R	Intelligent Photoelectric Smoke Detector for DNR Duct Smoke Housing	0.0003	0.0065	0.0261	0.5655
11	44	NBC-12-X	Addressable Manual Pull Station	0.0004	0.0050	0.0165	0.2200
12	16	FMM-1	Addressable Monitor Module	0.0004	0.0050	0.0064	0.0800
13	1	FMM-101	Addressable Mini Monitor Module	0.0004	0.0004	0.0004	0.0004
14	33	FDM-1	Addressable Dual Monitor Module	0.0002	0.0064	0.0079	0.2112
15	102	FCM-1	Addressable Control Module (NAC)	0.0004	0.0065	0.0398	0.6630
16	32	FRL-1	Addressable Relay Module	0.0002	0.0065	0.0074	0.2080
17	2	XP10-M	XP Module - 10 Class A/B Inputs	0.0035	0.0050	0.0070	0.1100
Total Current Draw				1.0477	4.1186		

BATTERY LOAD CALC FOR FACP: FACP Max P.S. Rating: 5,000 Total Amps Required: 4,119 % Used: 82%

Hours Standby	24	Total Standby Current	1.0477	Total Amp Hours Required (AH)	25.1
Minutes Alarm	5	Total Alarm Current	4.1186	Total Amp Minutes Required (AM)	0.3

Backup Generator?	Unknown	Minimum Battery Size Needed (AH)	25.5
Voice Evacuation?	No	Spare Battery Capacity Required	6.4
Military?	No	Actual Battery Size Required (AH)	31.9

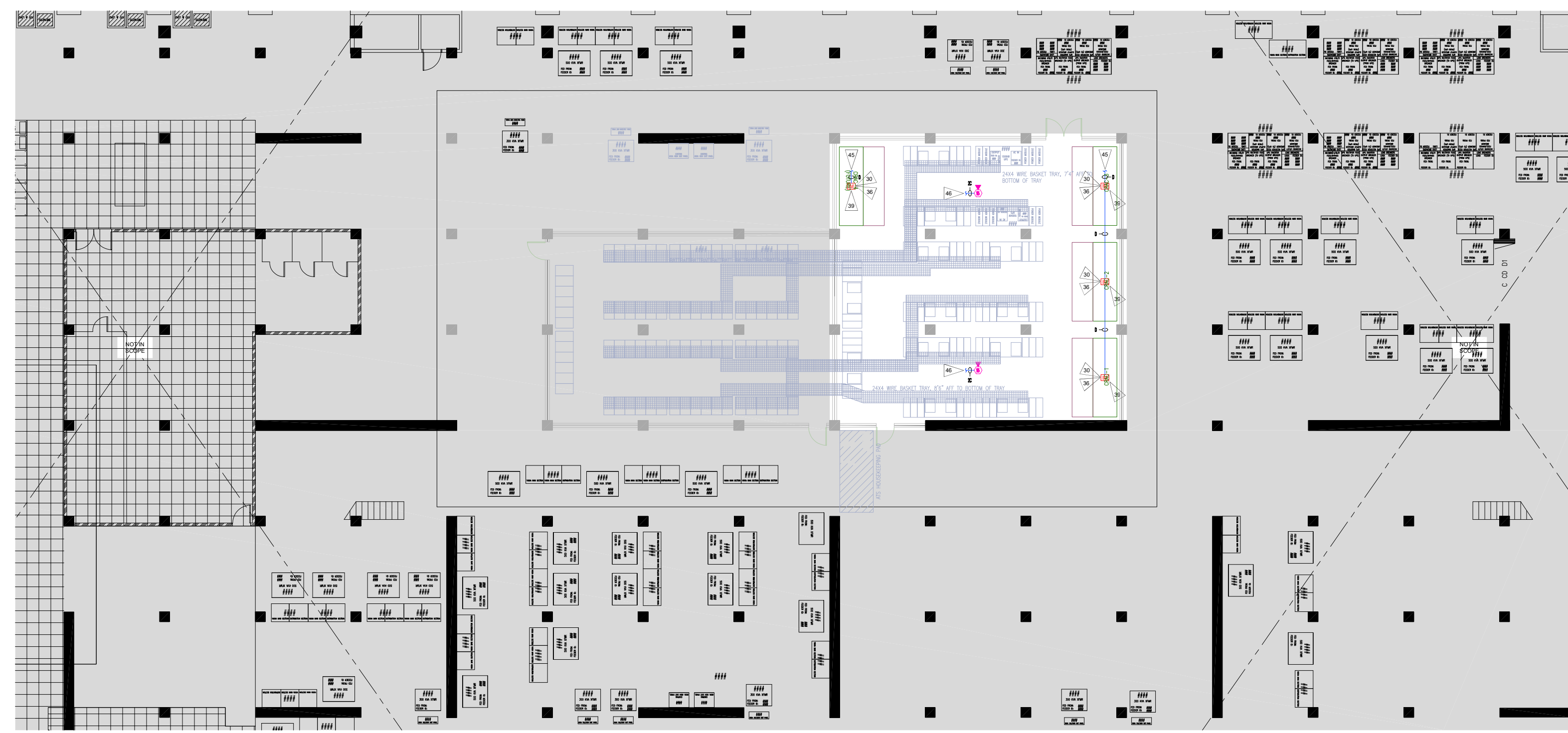
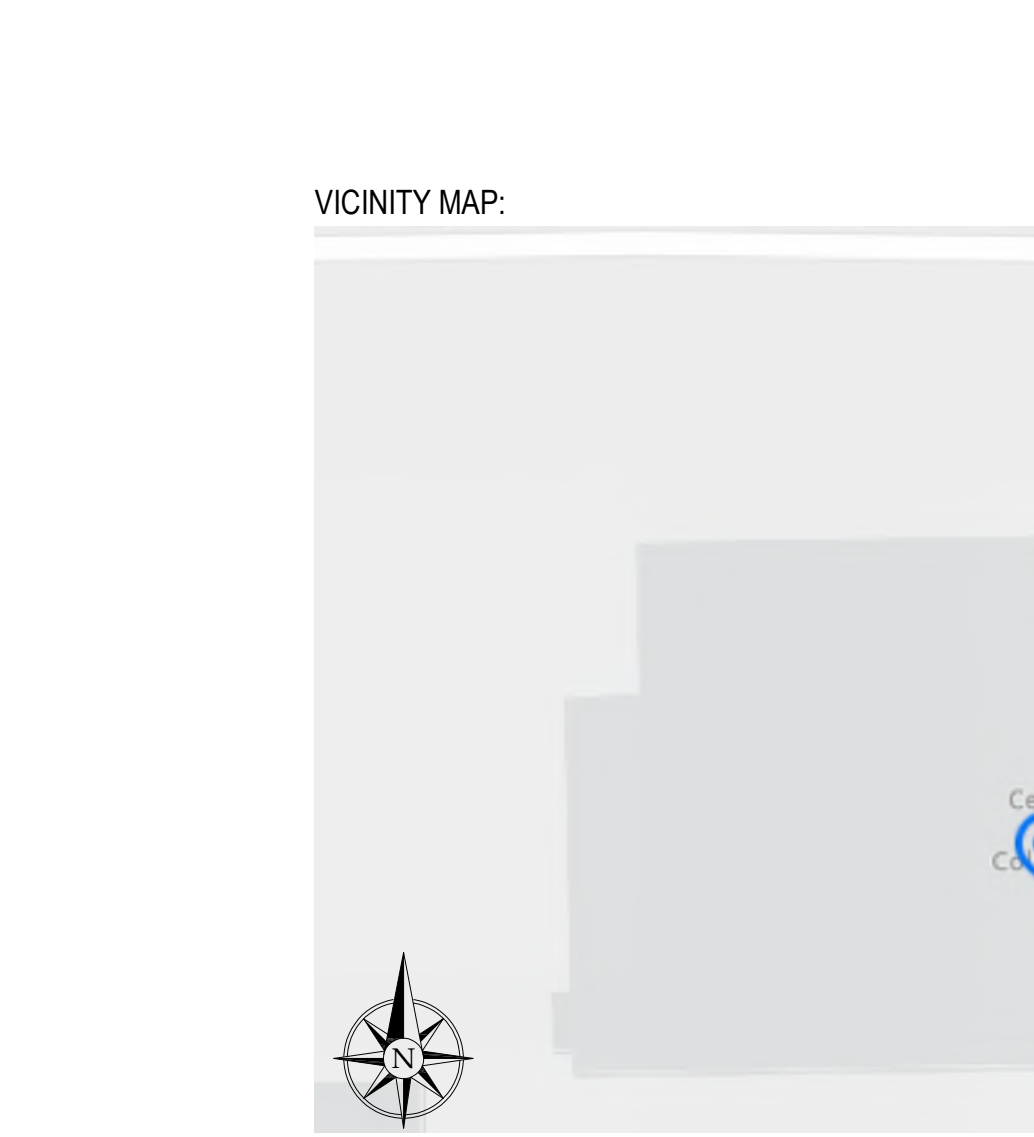
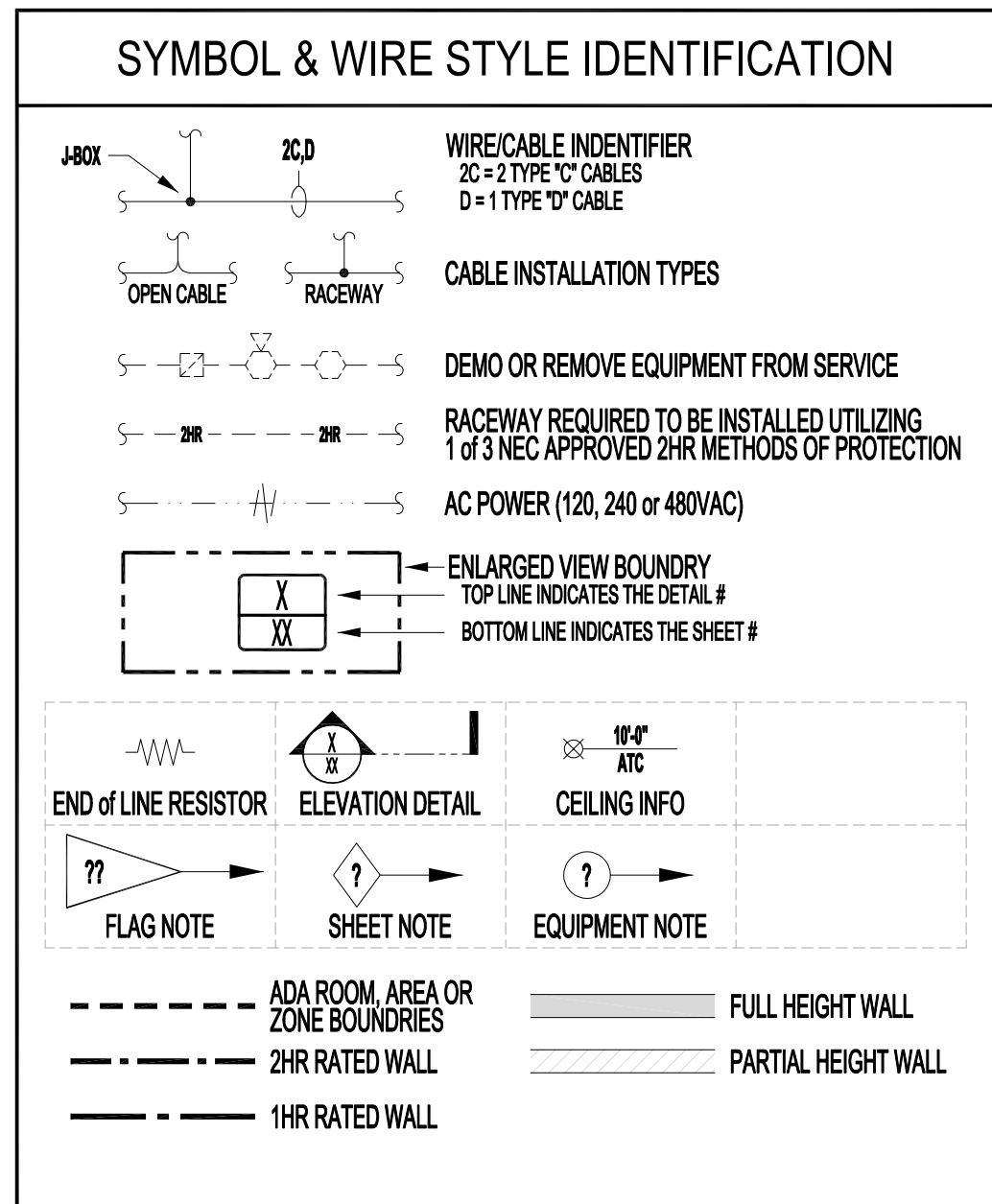
MAXIMUM CHARGER CAPACITY IS: 200 AH Total AH Rated Batteries Supplied: 35.0



INSTALLATION & GENERAL WIRING NOTES:

GENERAL NOTES:
1. INSTALLATION SHALL BE ACCOMPLISHED IN STRICT COMPLIANCE WITH NFPA, LOCAL AND STATE AHJ'S, NEC AND CONTRACT DRAWINGS
2. WIRE ROUTING IS DIAGRAMMATIC IN NATURE ONLY AND NOT INTENDED FOR ACTUAL CONDUIT ROUTING
2.1. WIRING SHOWN GOING "THRU" A DEVICE DOES NOT NEED TO TERMINATE AT THAT DEVICE IF DEVICE IS NOT ON THAT CIRCUIT
2.1.1. MEANING VOICE, STROBE/NAC CIRCUITS DO NOT NEED TO PASS THRU SLC DEVICES & SLC CIRCUITS DO NOT NEED TO PASS THRU NOTIFICATION DEVICES; POWER CIRCUITS ONLY NEED TO GO FROM POWERED DEVICE TO POWERED DEVICE
3. ALL CONDUIT SIZING AND ROUTING BY ELECTRICAL CONTRACTOR PER NEC AND AHJ. VERIFY ALL LOCATIONS OF DEVICES WITH ELECTRICAL/ARCHITECTURAL PLANS. SCALE AND PLACE ALL DEVICES PER ELECTRICAL/ARCHITECTURAL PLANS. ALL CIRCUITS WILL BE PROPERLY TAGGED AND TESTED FOR OPENS, SHORTS, GROUNDS AND PROPER "END-OF-LINE" RESISTANCE. EACH CIRCUIT'S METER READING MUST BE DOCUMENTED AND PRESENTED TO RED HAWK FIRE PROTECTION FIELD TECHNICIAN UPON ARRIVAL ON-SITE FOR STARTUP & CHECKOUT
4. AS-BUILTS:
6.1. A SET OF INSTALLATION AS-BUILT DRAWINGS SHOWING ACTUAL CONDUIT AND CONDUIT ROUTES SHALL BE KEPT BY PROJECT FOREMAN FOR USE BY RED HAWK FIRE PROTECTION TECHNICIAN
6.2. AS-BUILTS SHALL BE KEPT ORDERLY AND BE CLEARLY MARKED WITH DIFFERENT COLOR PENS FOR EACH CIRCUIT AND/OR CIRCUIT TYPE. AS-BUILTS MUST INDICATE CHANGES TO THE FINAL DEVICE INSTALLED LOCATIONS IF NOT INSTALLED AT LOCATION SHOWN ON DESIGN DOCUMENTS
6.3. AS-BUILT REVISIONS NOT PROVIDING THIS INFORMATION WILL BE RETURNED TO THE INSTALLATION CONTRACTOR FOR CORRECTION. RED HAWK FIRE PROTECTION IS NOT RESPONSIBLE FOR THESE DELAYS
7. AGREEMENT AND CONFIRMATION OF ALL MILESTONE EVENTS WILL BE MADE WITH RED HAWK FIRE PROTECTION PROJECT MANAGER
8. ALL RED HAWK FIRE PROTECTION FIELD SERVICES MUST BE SCHEDULED WITH RED HAWK FIRE PROTECTION PROJECT MANAGER WITH A MINIMUM OF 14 WORKING DAYS ADVANCE NOTICE
9. DO NOT INSTALL LINE VOLTAGE IN SAME CONDUIT AS POWER LIMITED CABLES.

FIRE ALARM SPECIFIC NOTES:
1. SMOKE DETECTORS SHALL NOT BE INSTALLED WITHIN 36" OF ANY AIR DIFFUSER
2. 2019 NFPA 72-7.7.1.12.3 REQUIRES THAT SMOKE DETECTORS SHALL NOT BE INSTALLED UNTIL AFTER FINAL CONSTRUCTION CLEAN-UP
3. ANY SMOKE DETECTORS THAT HAVE BEEN INSTALLED PRIOR TO CLEAN-UP MUST BE CLEANED OR REPLACED AND WILL BE INVOICED ON A T/M BASIS
4. WALL MOUNTED NOTIFICATION DEVICES BACKBOX BETWEEN A MINIMUM OF 80" AFF TO A MAXIMUM OF 96" AFF
5. DEVICES THAT ARE UNABLE TO BE MOUNTED WITHIN THAT RANGE MUST BE VERIFIED BY RED HAWK FIRE PROTECTION PRIOR TO INSTALLATION
6. SEE FLOOR PLANS FOR CANDLE RATING OF EACH DEVICE INSTALLED
7. ALL MANUAL PULL STATIONS ARE TO BE MOUNTED AT A HEIGHT NO GREATER THAN 48" TO TOP AND NO LOWER THAN 36" TO BOTTOM (PER ADA REQUIREMENTS)
8. FIELD VERIFY ALL SPRINKLER MONITORING DEVICES WITH FIRE PROTECTION CONTRACTOR
9. FIELD VERIFY ALL HVAC, FAN CONTROL, FIRE/SMOKE DAMPERS AND DUCT DETECTORS LOCATIONS WITH MECHANICAL CONTRACTOR
10. FACP SHALL NOT BE ENERGIZED WITHOUT THE PRESENCE OF RED HAWK FIRE PROTECTION TECHNICIANS
11. NO TAPPING OF SIGNALING OR INITIATING ZONE CIRCUITS ARE ALLOWED. T-TAPPING OF STYLE # ADDRESSABLE CIRCUITS IS ALLOWED PROVIDING A SPLICE IS PROFESSIONALLY INSTALLED, POLARITY IS OBSERVED AND SHIELDS ARE CONTINUOUS AND FREE OF GROUNDS. SHIELDS MUST BE TERMINATED AT FACP ONLY. CABLE SHIELDS SHALL BE SPLICED TOGETHER AT EVERY JUNCTION BETWEEN THE FACP AND THE LAST DEVICE ON EACH CABLE RUN. SHIELDS AND OTHER FIRE ALARM CONDUCTORS (EXCEPT POWER GROUND) SHALL BE INSULATED AND COMPLETELY FREE FROM CONDUIT OR EARTH GROUNDS. SHIELDS WILL BE TIED TO GROUND ONLY AT THE FACP BY THE RED HAWK FIRE PROTECTION FIELD TECHNICIAN
12. THE SYSTEM SHALL BE MONITORED BY A U.L. LISTED MONITORING STATION BEFORE AHJ TEST
13. AS-BUILTS ARE REQUIRED AT TIME OF AHJ ACCEPTANCE. RED HAWK FIRE PROTECTION REQUIRED ELECTRICAL RED LINES WITHIN 2 WEEKS PRIOR TO AHJ TESTS
14. EACH CIRCUIT (SLC, NAC OR POWER) MUST BE CLEARLY IDENTIFIED WITH A DISTINCT COLOR
15. EACH NAC CIRCUIT MUST BE CLEARLY MARKED AS TO WHICH DEVICES ARE ON EACH CIRCUIT AND IN THE ORDER THE DEVICES ARE WIRED TO COMPLETE THE CIRCUIT



1 LEVEL 1 BATTERY ROOM FLOOR PLAN
SCALE: NOT TO SCALE

City of Puyallup Fire REVIEWED FOR COMPLIANCE

DDrake
08/21/2024
2:08:51 PM

THE APPROVED CONSTRUCTION PLANS AND ALL ENGINEERING MUST BE POSTED ON THE JOB AT ALL INSPECTIONS IN A VISIBLE AND READILY ACCESSIBLE LOCATION.

Approval of submitted plans is not an approval of omissions or oversight by this office or noncompliance with any applicable regulations of local government. The contractor is responsible for making sure that the building complies with all applicable building codes and regulations of the local government.

City of Puyallup Development & Permitting Services ISSUED PERMIT

Building Planning
Engineering Public Works
Fire Traffic

SCALE: 1/4" = 1'-0"
8 6 4 2 0
16

Revisions

ISSUE	DATE	BY	DESCRIPTION
1	08/19/2024	SDF	PERMIT SUBMITTAL SET

Contract With

BURKE ELECTRIC

12605 44TH PL S
TUKWILA, WA 98178

Contract Name

CENTERIS DATA CENTER BATTERY ROOM

1023 39TH AVENUE SOUTH EAST
PUYALLUP, WA 98374

FAS SYSTEM ADDITION

Sheet Title

PROJECT INFO, DETAILS, CALCS & FAS LAYOUT

Key Plan

Date: 08/19/2024
Job Number: 390036
Designer: SEAN D. FOODOR
Building Permit:

Sheet Number

FA-0.00 SHEET 1 OF 1