CENTERIS DATA CENTER L3

FAS SYSTEM MODIFICATION

1023 39TH AVENUE SOUTH EAST, PUYALLUP, WA 98374

SYMBOL LEGEND

SYMBOL	QTY	DESCRIPTION	MOUNTING REQUIREMENTS	SUPPLIER	PART NUMBER
D	10	INTELLIGENT PHOTO SMOKE DETECTOR	4 SQUARE DEEP w/ 3" ROUND RING	NOTIFIER	FSP-951 w/ B300-6
EX D	-	INTELLIGENT PHOTO SMOKE DETECTOR - EXISTING	EXISTING	BY OTHERS	FSP-951 w/ B300-6
RR RT	1	INTELLIGENT DUCT SMOKE DETECTOR w/PHOTO DETECTOR & REMOTE TEST SWITCH	SURFACE MOUNT DSD (REF. MFG INFORMATION) MOUNT RTS AT 12" BELOW CEILING ON WALL	NOTIFIER	DNR w/FSP-951R & RTS-151
	-	HVAC FAN INTERFACE / DISCONNECT			SUPPLIED BY MECHANICAL CO.

NOTES:
1- DEVICE SUBSCRIPT: NW=NEW RR=REMOVE & RELOCATE EX=EXISTING TO REMAIN AC=ABOVE CEILING RB=RELAY BASE WP=WATERPROOF WG=WIRE GUARD ISO=ISO BASE
2- CABLEING SHOWN IS FOR CIRCUIT REFERENCE ONLY AND DOES NOT INTENDED 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 REQUESST OF AHJ.
5- ALL DEVICES WITH A WP SUBSCRIPT WILL REQUIRE THE USE OF A OUTDOOR OR WP BACKBOX.

WIRE LEGEND

SYMBOL	DESCRIPTION	THHN	FPL	FPLP	WET	COLOR CODING	CIRCUIT TYPE	NOTES
D	1 PAIR 16AWG FIRE RATED CABLE	YES	971	60991B	AQ225		DATA (SLC) CIRCUIT	
J	1 PAIR 14AWG FIRE RATED CABLE	YES	972	60993B	AQ226		HVAC INTERFACE	
W	4 COND. 18AWG FIRE RATED CABLE	YES	982	60982B	AQ244		REMOTE TEST STATION CIRCUIT	

NOTES:
** DIFFERENT COLORS/STRIPE COMBINATIONS TO BE USED FOR DIFFERENT CIRCUIT TYPES. LABEL ALL CIRCUITS ACCORDINGLY
1- WIRE MANUFACTURER IS FOR REFERENCE PURPOSE ONLY. WHEN USING OTHER MANUFACTURE, ENSURE PROPER CROSS REFERENCE
2- FPLP CAN BE USED IN MOST ALL APPLICATIONS WITH THE EXCLUSION OF WET AND CIRCUIT INTEGRITY REQUIREMENTS
3- INSTALL WIRING PER NEC. USE CABLE TYPE CONSISTENT WITH NEC REQUIREMENTS, IE: PLENUM, RISER, UNDERGROUND, ETC.
4- THE "Y" FIBER OPTIC CABLE LISTED IS A BELDEN CABLE PART NUMBER AS WEST PENN NO LONGER SUPPORTS FIBER OPTIC CABLE
5- THIS CABLE MUST BE INSTALLED IN A CONTINUOUS PATH POINT-TO-POINT. ABSOLUTLEY NO SPLICES ARE ALLOWED.
6- 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 ADDRESS ARE TO BE ASSIGNED BY FA CONTRACTOR & SET BY ELECTRICIAN FIELD TECHNICIAN ONCE ON-SITE
45	ROUTE SLC CABLE FROM NEAREST ADDRESSABLE DEVICE OR FACP

FACP Battery Load & Back-up Calculation — FACP

Control Panel: **FACP**
Location: **ON-SITE**
FACP Type: **AMPS-24 (Panel PS)**

Line #	Qty:	Part #:	Description:	Each Standby	Each Alarm	Total Standby	Total Alarm
1	1	CPU2-3030D	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	267	FSP-951	Intelligent Photoelectric Smoke Detector: White	0.0002	0.0045	0.0534	1.2015
5	1	FSI-851	Intelligent Ionization Smoke Detector: White	0.0003	0.0065	0.0003	0.0065
6	3	FST-951	Intelligent Heat Detector - 135° Fixed Temp: White	0.0002	0.0045	0.0006	0.0135
7	271	B300-6	Intelligent Detector Base: White	0.0000	0.0000	0.0000	0.0000
8	10	OSI-90	Beam Detector Imager: 80deg Field of View, 20-111ft or 39-223ft (Low & High Sens)	0.0070	0.0070	0.0700	0.0700
9	88	DNR	Duct Detector Housing	0.0000	0.0000	0.0000	0.0000
10	88	FSP-951R	Intelligent Photoelectric Smoke Detector for DNR Duct Smoke Housing	0.0003	0.0065	0.0264	0.5720
11	44	NBG-12LX	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	33	FRM-1	Addressable Relay Module	0.0002	0.0065	0.0076	0.2145
17	2	XP10-M	XP Module - 10 Class A/B Inputs	0.0035	0.0550	0.0070	0.1100
					Total Current Draw:	**1.0363**	**4.1626**

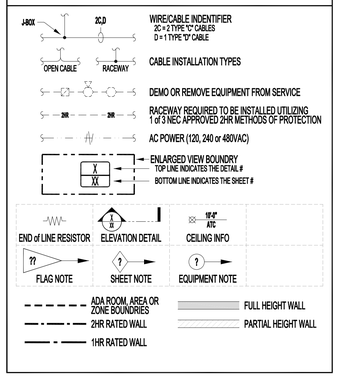
BATTERY LOAD CALC for FACP:

FACP Max P.S. Rating:	5.000	Total Amps Required:	4.163	% Used:	**83%**

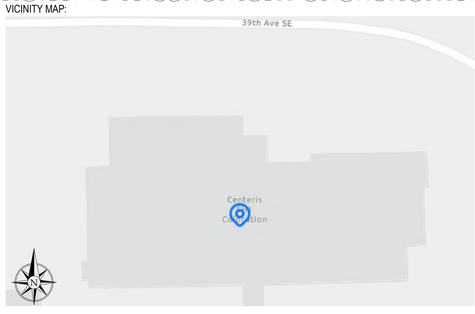
Hours Standby	24	Total Standby Current:	1.0363	Total Amp Hours Required (AH):	24.9
Minutes Alarm	5	Total Alarm Current:	4.1626	Total Amp Minutes Required (AH):	0.3
Backup Generator?	Unknown			Minimun Battery Size Needed (AH):	25.2
Voice Evacuucation?	No	Spare Circuit Capacity:	20%	Spare Battery Capacity Required:	6.3
Military?	No	Spare Battery Load Factor:	25%	Actual Battery Size Required (AH):	31.5

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

SYMBOL & WIRE STYLE IDENTIFICATION



VICINITY MAP:



SCOPE OF WORK & DESIGN BASIS

LEVEL 3:
FIRE ALARM SYSTEM MODIFICATION. 2 BEAM DETECTOR SET-UPS TO BE REMOVED BECAUSE NEW HVAC UNITS BLOCK SENSORS. SPOT SMOKE DETECTORS TO BE ADDED IN THESE AREAS TO TO ENSURE COMPLETE COVERAGE. DETECTION ADDED FOR NEW AIR HANDLER. EXISTING SEQUENCE OF OPERATIONS TO REMAIN IN PLACE AND UNCHANGED. AREAS OF WORK SHOWN IN THESE DRAWINGS ARE ONLY AREAS WITHIN RED HAWK'S SCOPE. DEVICE LOCATIONS SHOWN ON DRAWINGS ARE GENERAL AND MAY NOT BE THE EXACT INSTALL LOCATION IN REGARDS TO THE UNIT. LOCATIONS WILL BE VERIFIED ON-SITE.

City of Puyallup Fire REVIEWED FOR COMPLIANCE
DDrake
08/08/2025
9:29:01 AM

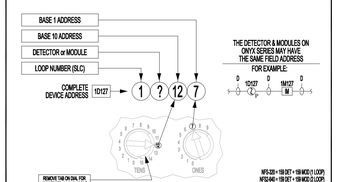
THE APPROVED CONSTRUCTION PLANS AND ALL ENGINEERING MUST BE POSTED ON THE JOB AT ALL INSPECTIONS IN A VISIBLE AND READILY ACCESSIBLE LOCATION.

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.

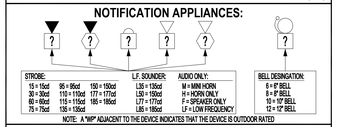
City of Puyallup Development & Permitting Services ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic

DEVICE DESIGNATION LEGEND:

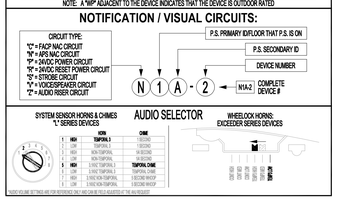
NOTIFIER ONYX SERIES ADDRESSABLE INITIATING DEVICES:



NOTIFICATION APPLIANCES:



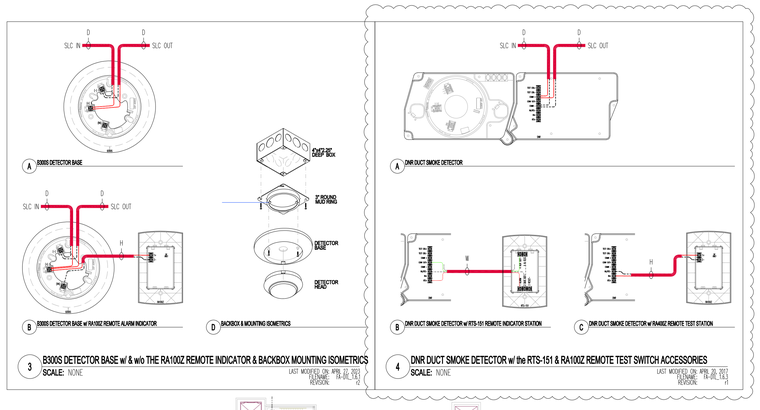
NOTIFICATION / VISUAL CIRCUITS:



INSTALLATION & GENERAL WIRING NOTES:

GENERAL NOTES:
1. INSTALLATION SHALL BE ACCOMPLISHED IN STRICT COMPLIANCE WITH NFPA, LOCAL AND STATE AHJs, 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.
4. VERIFY ALL LOCATIONS OF DEVICES WITH ELECTRICAL/ARCHITECTURAL PLANS. SCALE AND PLACE ALL DEVICES PER ELECTRICAL/ARCHITECTURAL PLANS.
5. ALL CIRCUITS WILL BE PROPERLY TAGGED AND TESTED FOR OPENS, SHORTS, GROUNDS AND PROPER "END-OF-LINE" RESISTANCE. EACH CIRCUITS METER READING MUST BE DOCUMENTED AND PRESENTED TO RED HAWK FIRE PROTECTION FIELD TECHNICIAN UPON ARRIVAL ONSITE FOR STARTUP & CHECKOUT.
6. AS-BUILTS:
6.1. A SET OF INSTALLATION AS-BUILT DRAWINGS SHOWING ACTUAL CONDUIT AND CONDUCTOR 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 REDLINES 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 72-17.7.1.12.3 REQUIRES THAT SMOKE DETECTORS SHALL NOT BE INSTALLED UNTIL AFTER FINAL CONSTRUCTION CLEAN-UP.
2.1. 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.
3. WALL MOUNTED NOTIFICATION DEVICES BACKBOX BETWEEN A MINIMUM OF 80" AFF TO A MAXIMUM OF 96" AFF.
3.1. DEVICES THAT ARE UNABLE TO BE MOUNTED WITHIN THAT RANGE MUST BE VERIFIED BY RED HAWK FIRE PROTECTION PRIOR TO INSTALLATION.
3.2. SEE FLOOR PLANS FOR CANDELA RATING OF EACH DEVICE INSTALLED.
4. 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).
5. FIELD VERIFY ALL SPRINKLER MONITORING DEVICES WITH FIRE PROTECTION CONTRACTOR
6. FIELD VERIFY ALL HVAC, FAN CONTROL, FIRE/SMOKE DAMPERS AND DUCT DETECTORS LOCATIONS WITH MECHANICAL CONTRACTOR
7. FACP SHALL NOT BE ENERGIZED WITHOUT THE PRESENCE OF RED HAWK FIRE PROTECTION TECHNICIANS.
8. NO TAPPING OF SIGNALING OR INITIATING ZONE CIRCUITS ARE ALLOWED. T-TAPPING OF STYLE 4 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.
8.1. 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 GROUNDS) SHALL BE INSULATED AND COMPLETELY FREE FROM CONDUIT OR EARTH GROUNDS. SHIELDS WILL BE TIES TO GROUND ONLY AT THE FACP BY THE RED HAWK FIRE PROTECTION FIELD TECHNICIAN.
9. THE SYSTEM SHALL BE MONITORED BY A U.L. LISTED MONITORING STATION BEFORE AHJ TEST.
10. AS-BUILTS ARE REQUIRED AT TIME OF AHJ ACCEPTANCE. RED HAWK FIRE PROTECTION REQUIRED ELECTRICAL RED LINES WITHIN 2 WEEKS PRIOR TO AHJ TESTS.
10.1. EACH CIRCUIT (SLC, NAC OR POWER) MUST BE CLEARLY IDENTIFIED WITH A DISTINCT COLOR
10.2. 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.



3 B300S DETECTOR BASE w/ & w/o THE RA100Z REMOTE INDICATOR & BACKBOX MOUNTING ISOMETRICS
SCALE: NONE
LAST MODIFIED ON APRIL 22, 2021 FILENAME: FA-DIE_1.IL3 REVISION: A2

4 DNR DUCT SMOKE DETECTOR w/ the RTS-151 & RA100Z REMOTE TEST SWITCH ACCESSORIES
SCALE: NONE
LAST MODIFIED ON APRIL 22, 2021 FILENAME: FA-DIE_1.IL3 REVISION: A1

PROJECT CONTACT INFORMATION:

CUSTOMER:
NAME: BURKE ELECTRIC
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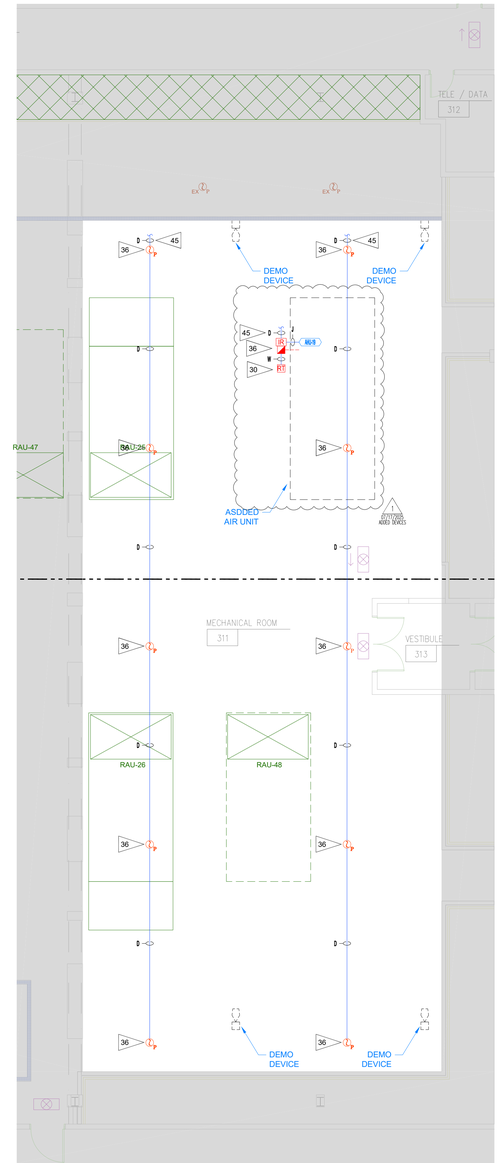
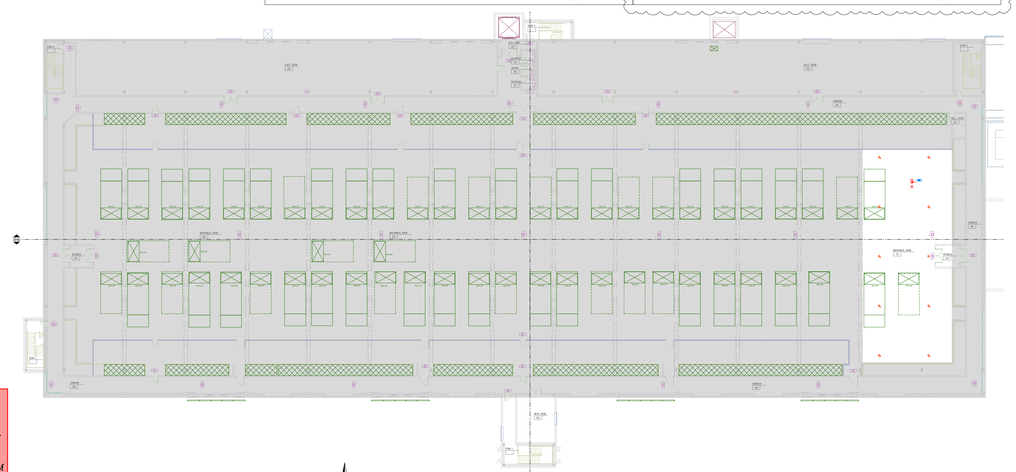
TUKWILA, WA 98178
CONTACT: PETE KELLY
PHONE: 425-241-7676
FAX:
EMAIL: pkelly@burkeelectric.com

FIRE ALARM / LIFE SAFETY PROVIDER:
NAME: RED HAWK FIRE PROTECTION
ADDRESS: 917 134TH ST SW SUITE B-3
EVERETT, WA 98204
PHONE: 425-818-3313
FAX:
SALESMAN: JEREMY MUNSON JeremyM@redhawkfp.com EXT:
PM: JAMES PAN JamesP@redhawkfp.com EXT:
DESIGNER: SEAN FODOR SeanF@redhawkfp.com EXT:



1 LEVEL 3 FLOOR PLAN - FAS LAYOUT
SCALE: 1/8" = 1'-0"



2 LEVEL 3 FLOOR PLAN - OVERALL
SCALE: NOT TO SCALE

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

RED HAWK FIRE PROTECTION, LLC
Ever Vigilant
917 134TH ST. SW, STE B-3
EVERETT, WA 98204
PHONE: (425) 818-3313
WA CL# REDHAHF901QP
WA EL# REDHAHF803QD

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 - **11/01/2027**

Approvals Required

Revisions

ISSUE	DATE	BY	DESCRIPTION
1	05/01/2025	SDF	PERMIT SUBMITTAL SET
1	07/17/2025	SDF	CO TO ADD AHU-19

Contract With
BURKE ELECTRIC
12605 44TH PL S
TUKWILA, WA 98178

Contract Name
CENTERIS DATA CENTER L3
1023 39TH AVENUE SOUTH EAST
PUYALLUP, WA 98374

FAS SYSTEM MODIFICATION

Sheet Title
PROJECT INFO, FAS LAYOUT, CALCS & DETAILS

Key Plan

Date: 05/01/2025
Job Number: 390070
Designer: SEAN D. FODOR
Building Permit: -

Sheet Number
FA-0.00
SHEET 1 OF 1