

# How CADShop Powers Smarter Facilities Operations at United Hospital

- Allina United Hospital digital pathway.
- Lessons learned & best practices.
- Demonstrations and operations case studies.



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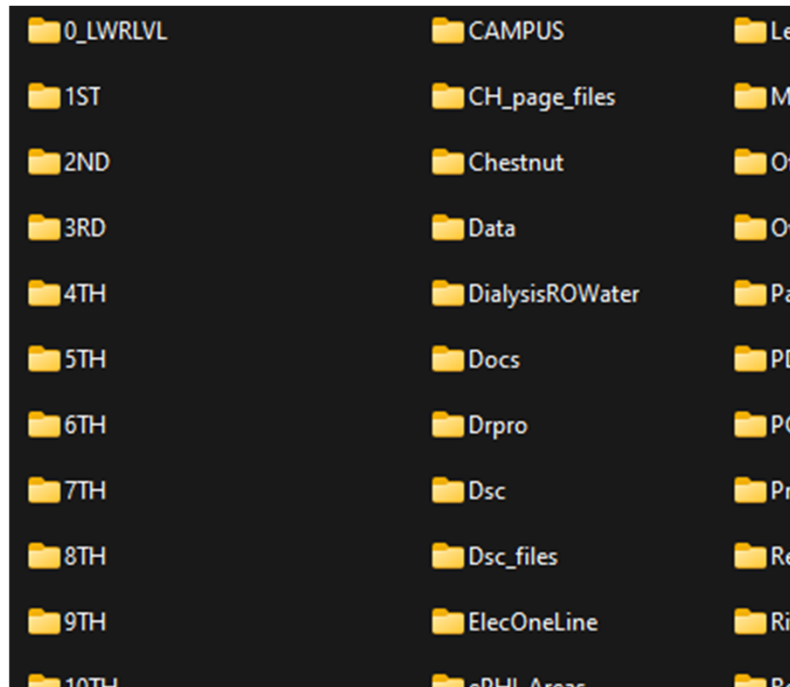


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# Digital Pathway

Searching for files in the before times...

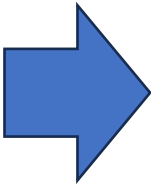
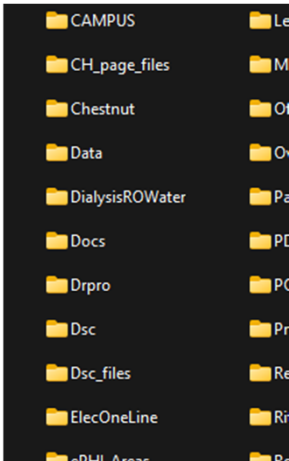




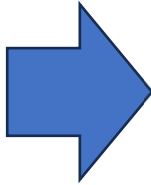
# Digital Pathway:

## Website Dashboard

- Used by fixed or mobile workstations.
- Must be actively connected to the local network.
- Not accessible to non-Allina users.



Page File Name.htm	Page Function	Page Contains These Links
<a href="#">As-built Site</a>	Area to find old as-builts and scans	All Campus Buildings. This site is organized by Campus
<a href="#">Annex.htm</a>	Semi-inactive page 1-14-19	<a href="#">Abbott</a> , <a href="#">Apple Valley Medical Center</a> , <a href="#">Allina Transportation Road</a> , <a href="#">Gold Ramp</a> , <a href="#">John Nasseff Medical Center &amp; Conf</a> , <a href="#">Unity Hospital</a> , <a href="#">340 Walnut</a> , <a href="#">380 Chestnut</a> , <a href="#">277West 7th</a> ,
<a href="#">Archibus.htm</a>	Space assignments Inactive	<a href="#">2019</a> , <a href="#">2018</a> , <a href="#">2017</a> , <a href="#">2016</a> , <a href="#">2015</a> , <a href="#">2014</a> , <a href="#">2013</a> , <a href="#">2012</a> , <a href="#">2011</a> , <a href="#">2010</a>
<a href="#">Cad_shop.htm</a>	Home Page	<a href="#">Go There!</a>
<a href="#">Campus.htm</a>	Campus Maps etc...	<a href="#">Asbestos Info</a> , <a href="#">Battery Lights</a> , <a href="#">Chimes &amp; Strobes</a> , <a href="#">Exit Ro</a> , <a href="#">Misc</a> , <a href="#">LS Life Safety Drawings</a> , <a href="#">Med-Gas</a> , <a href="#">Overlays</a> , <a href="#">Pain</a> , <a href="#">Tunnels</a> , <a href="#">WO system</a> , <a href="#">Voice-Data</a> ,
	Ritchie Medical	





## Digital Pathway:

### PDF Dashboard

- Used by fixed or mobile workstations.
- May be used offline by a mobile workstation.
- Not accessible to non-Allina users.



# CAD Shop - United & Children's Hospitals

## Allina Facility Information (FM Systems - United site)

Tririga Website	AKN	United - AKN	Application Portal
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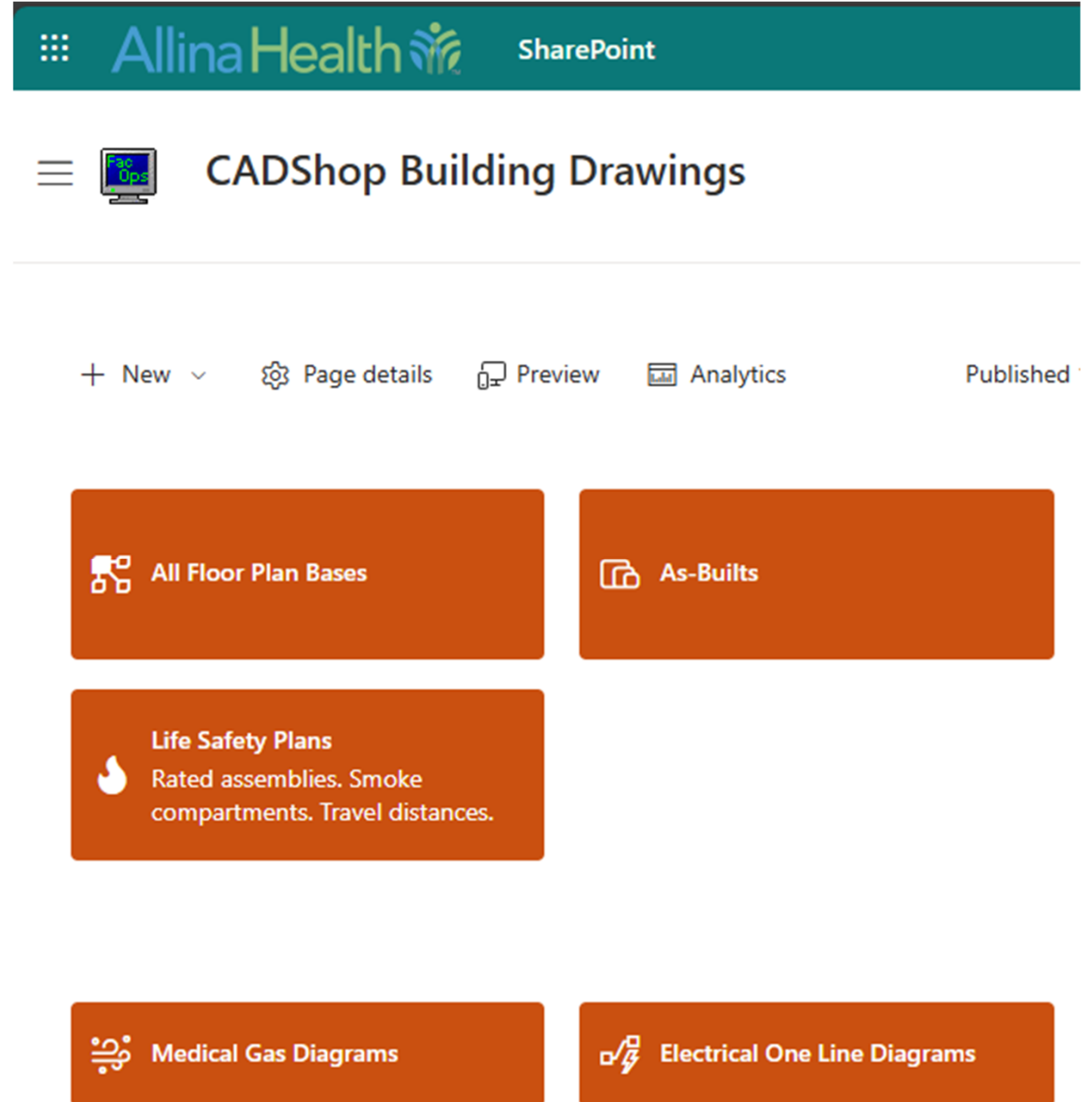
Activities & Projects	Information	Drawings	Technical Info
Concur P-Card Reports	Condo Building PO's	Floor & Roof Plans - List View	M.S.D.S - Safety Page
Lead Meeting Minutes		Floor & Roof Plans - Map View	
	Building Gross Areas & Hospital Based Clinic Breakdown	As-Built Scans & Files	Tririga
		Floor Overlays - All Buildings	
	Allina Facility Information & Cost Center / Occupancy Allocations	Life Safety + Critical Drawings. Exits, Fire/Smoke Ratings.	Training: Facilities Team
		Building - Departments Maps	2025 UI Updates
	Print / Archive Room Navigation	Campus Maps, Parking Lots, Ramps, Tunnels, & Skyways	Form: Asset Update
	Elevator Contractor List	Stair, Exterior Door, Elev Numbers	Bluebeam Training
	Vendor / Supplier Acct Numbers	Medical Gas Locations & Diagrams	
		EVS Drawings & Reports	
			0.0-Intro and Install + Setup
			1.0-Using Webtab & Favorites
			2.0-CADShop Navigation & Plan Printing
			3.0-CADShop Bluebeam Dashboard

QUICK LINKS - PM Maps		QUICK LINKS - Shop	
Battery Light - PM	Exterior & Parking Light - PM	Electricians	Engineers
Chimes & Strobes - PM Big Book	Sprinkler Flow & Tamper Zone - PM	I.S. / I.T. / Speakers / Paging	Maintenance
Chimes & Strobes - PM Monthly	Rated Door BMP Map - PM	Painters	Security / GoPack
Exit Light - PM		Sign Shop	Surge
Fire Extinguisher & Zone Valve - PM		Life Safety & Critical Drawing Sets	
Fire Pull & Eye Wash - PM			

## Digital Pathway:

### SharePoint dashboard

- Used by fixed or mobile workstations.
- Used by mobile device (phone).
- Must be connected to internet.
- May be shared with non-Allina users.



The screenshot shows the Allina Health SharePoint interface for the CADShop Building Drawings. The top navigation bar is teal with the Allina Health logo and the text "SharePoint". Below this, a hamburger menu icon and a computer monitor icon with "Fac Ops" on the screen are followed by the title "CADShop Building Drawings". A horizontal separator line is below the title. The main content area has a top bar with links: "+ New" (with a dropdown arrow), "Page details" (with a gear icon), "Preview" (with a document icon), "Analytics" (with a bar chart icon), and "Published" (with a small upward arrow). The main area contains five orange rectangular tiles. The first tile is "All Floor Plan Bases" with a floor plan icon. The second tile is "As-Builts" with a document icon. The third tile is "Life Safety Plans" with a flame icon and the text "Rated assemblies. Smoke compartments. Travel distances." The fourth tile is "Medical Gas Diagrams" with a medical gas icon. The fifth tile is "Electrical One Line Diagrams" with an electrical diagram icon.

Allina Health SharePoint

CADShop Building Drawings

+ New Page details Preview Analytics Published

All Floor Plan Bases

As-Builts

Life Safety Plans  
Rated assemblies. Smoke compartments. Travel distances.

Medical Gas Diagrams

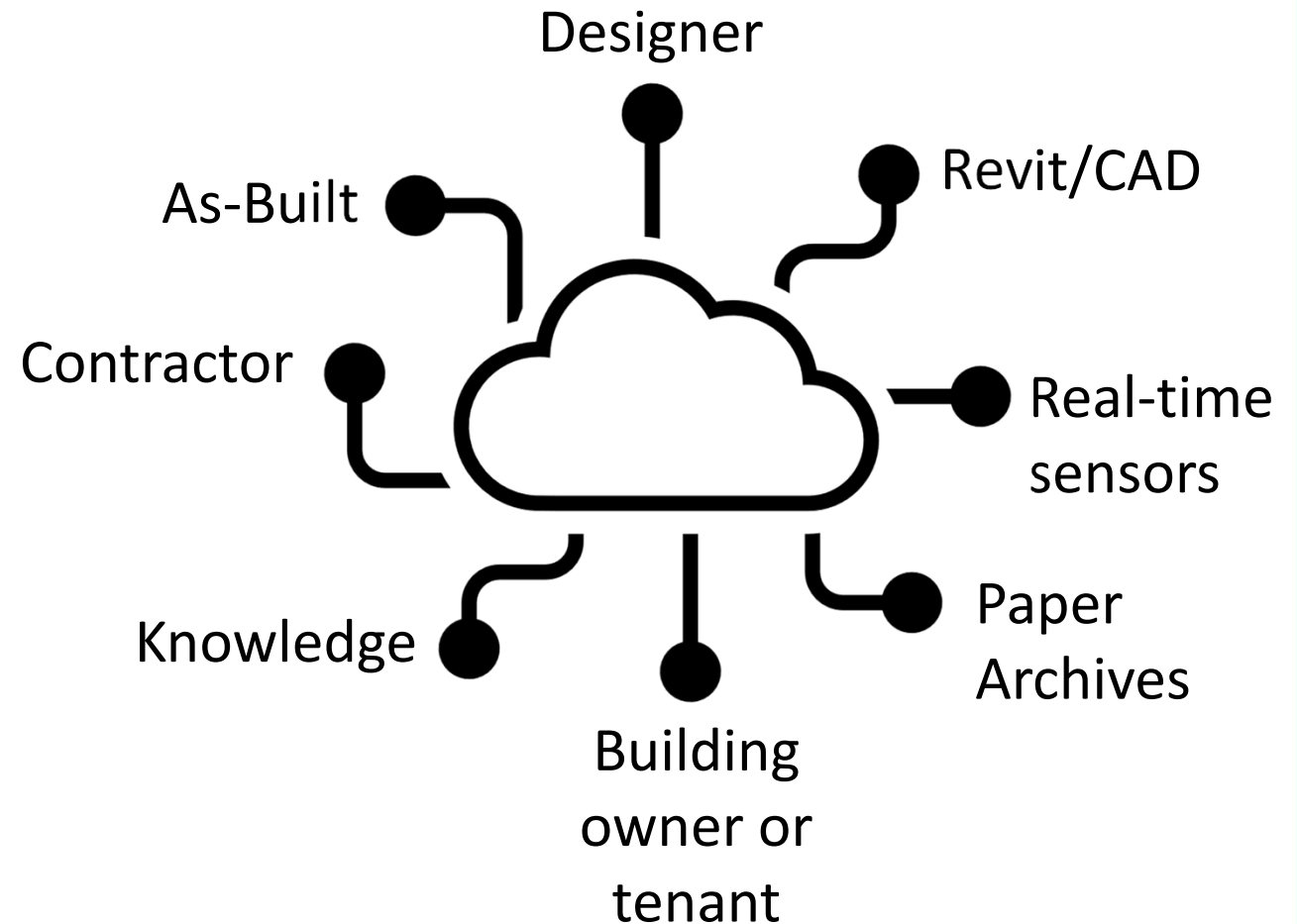
Electrical One Line Diagrams

# Digital Pathway

## Data Best practices

### Consider:

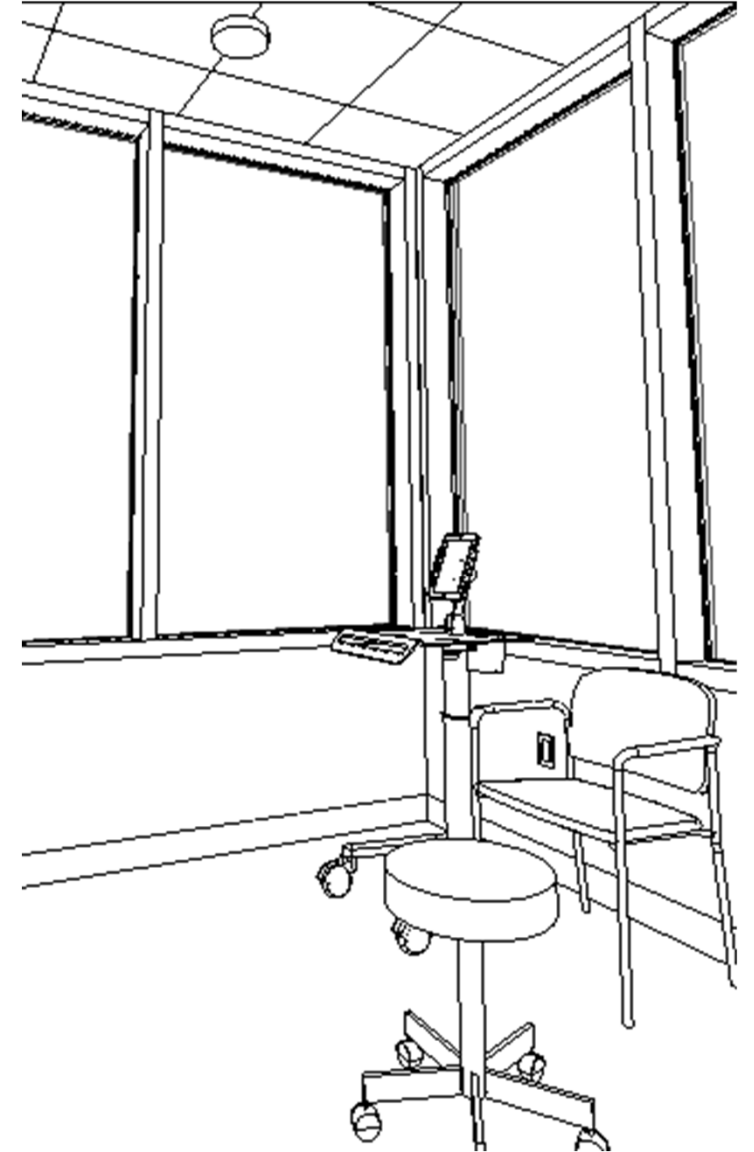
- Source of files, file types, file location & organization.
- Data collection devices/sensors already in place and automation systems already in use.
- Applications used for file viewing.
- Security and technology policies.
- Who owns & maintains data?





## Digital Pathway: Building Digital Twin

- Build
- Implement
- Leverage data



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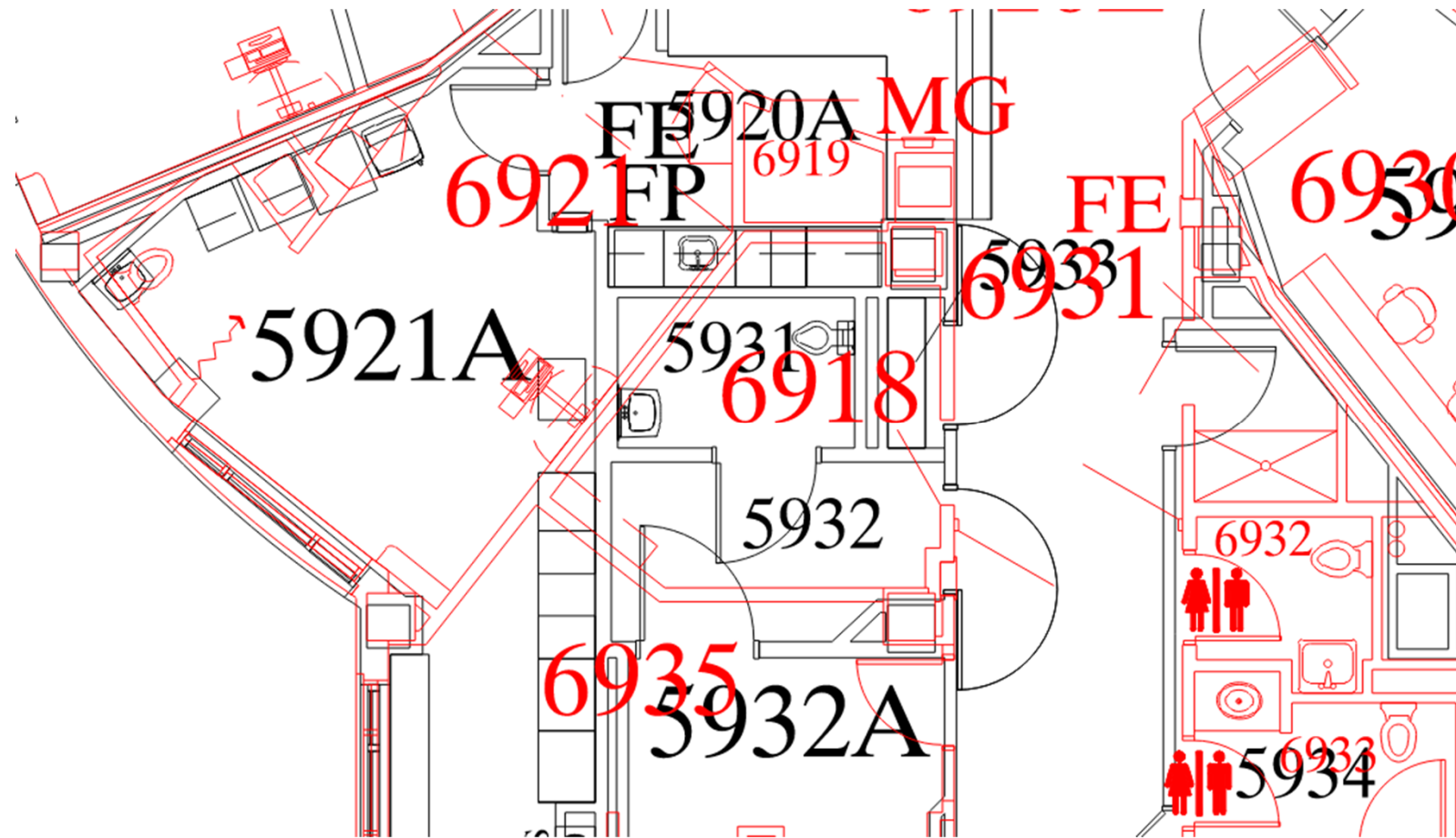


# Demonstrations & use cases

- Floor to floor overlay maps
- Specialty operations maps & dashboards
- HVAC Zone map and duct layouts
- Kitchen equipment map with O&M
- Electrical One Line diagram linked to panel schedules
- Life Safety maps navigation
- Contractors discovering zones served by equipment
- SOP creation

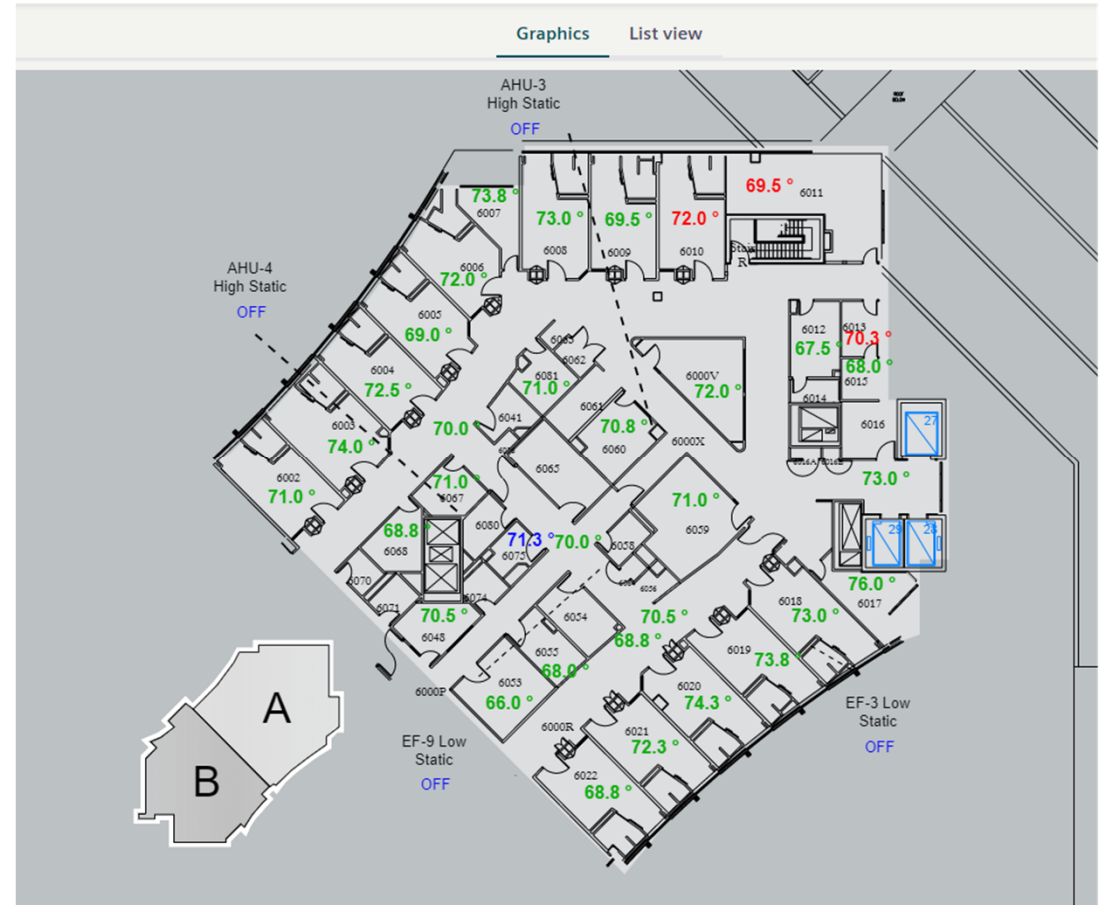


# Floor to floor overlay maps



# Desigo Building Automation System

- Real-time temperature readouts
- HVAC status



# Desigo Overall Floor Plan





United Hospital\_2nd Floor\_Area D

Graphics List view

Allina Health

United Hospital

Floor 2 Area D

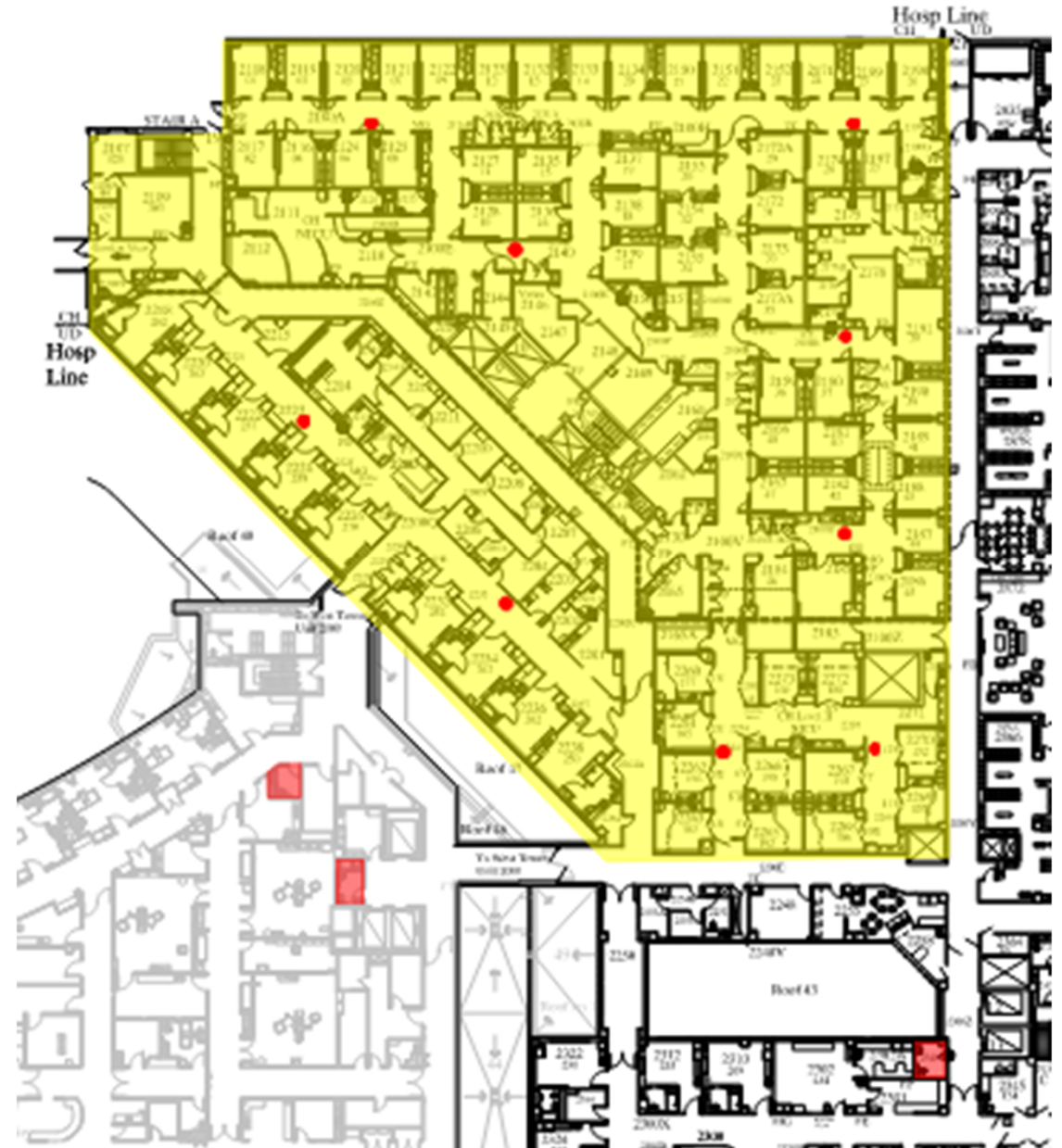
AREA A AREA B AREA C AREA D AREA E Overview

Open to Entrance Below

SIEMENS

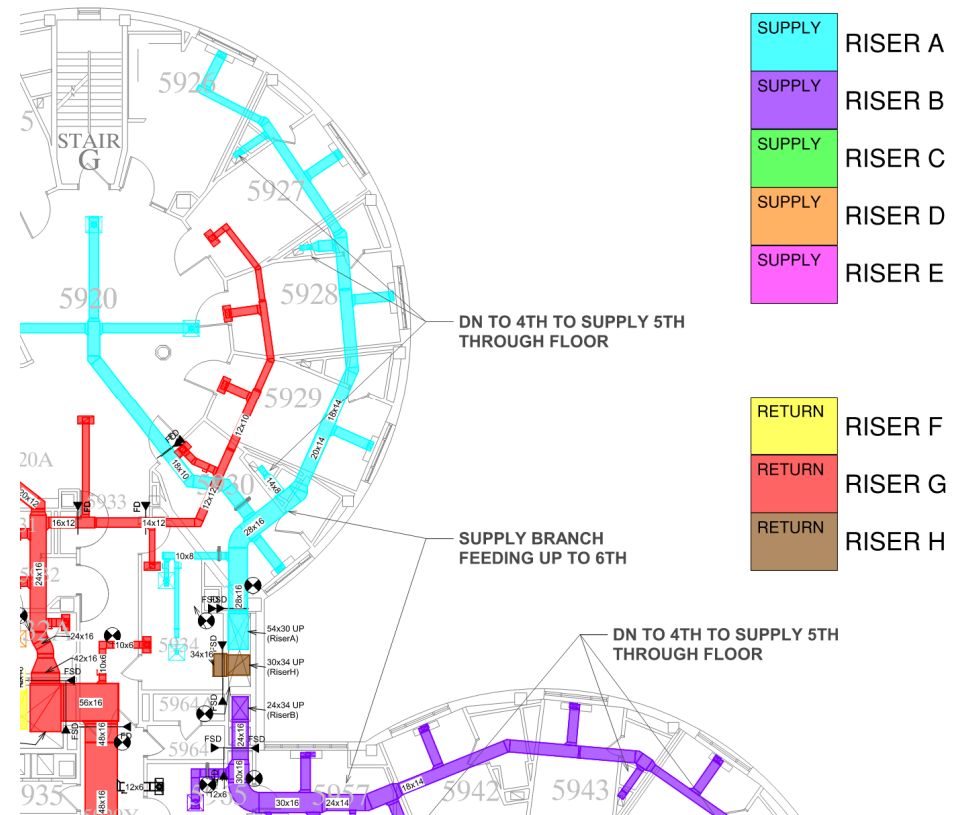
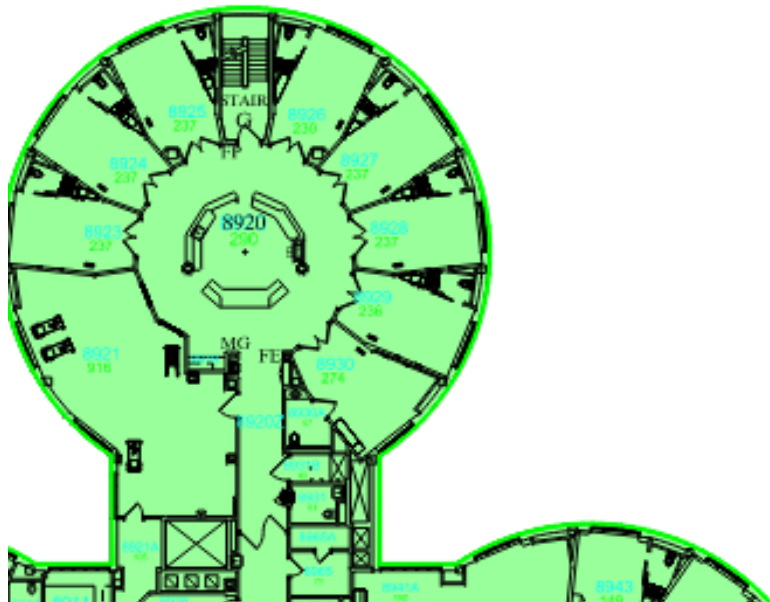
# Shutdown Planning

- Impacts of plumbing work
- Graphic communications



# HVAC Zone map and color-coded duct layouts

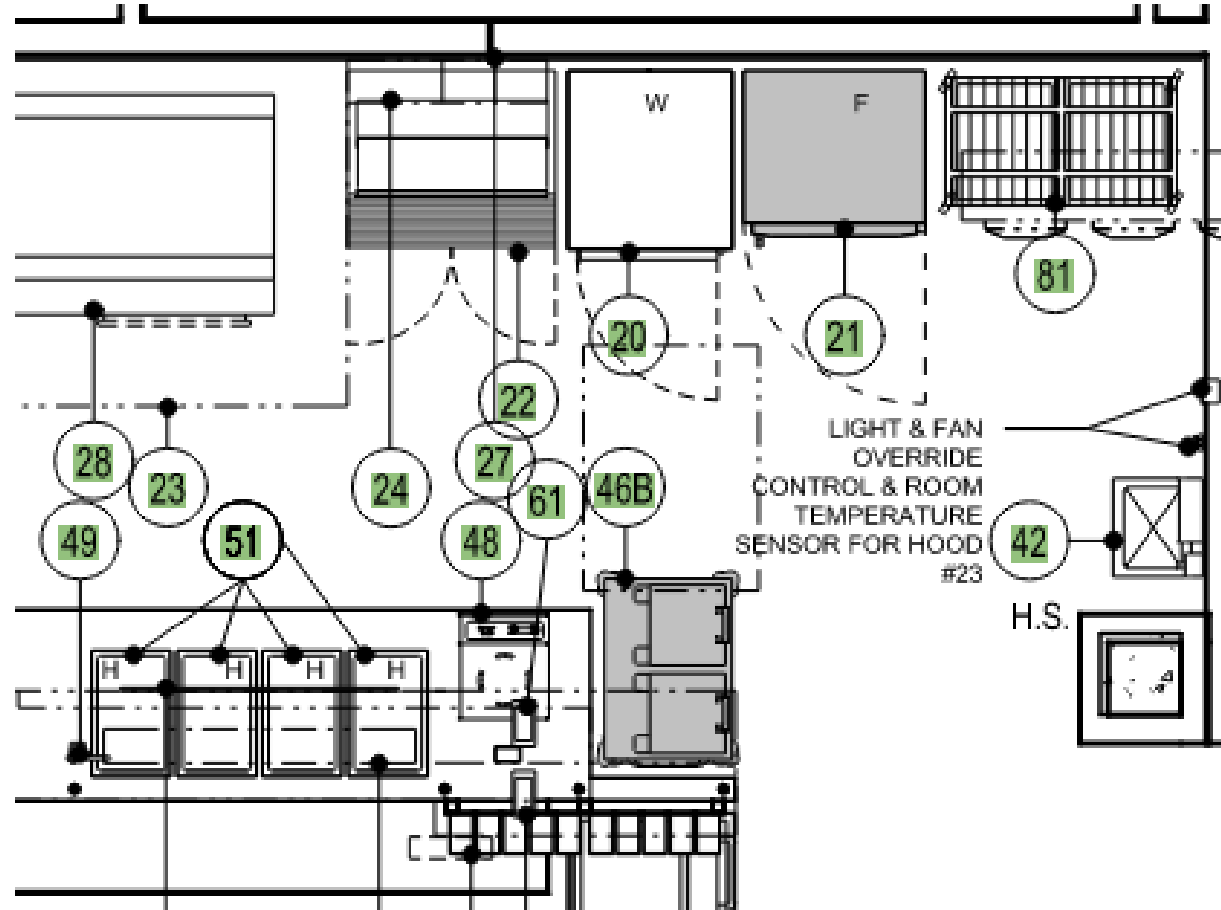
AHU S-11  
on 10th floor off  
roof #3. Return  
fan R-11 on 9th  
floor room 9902.



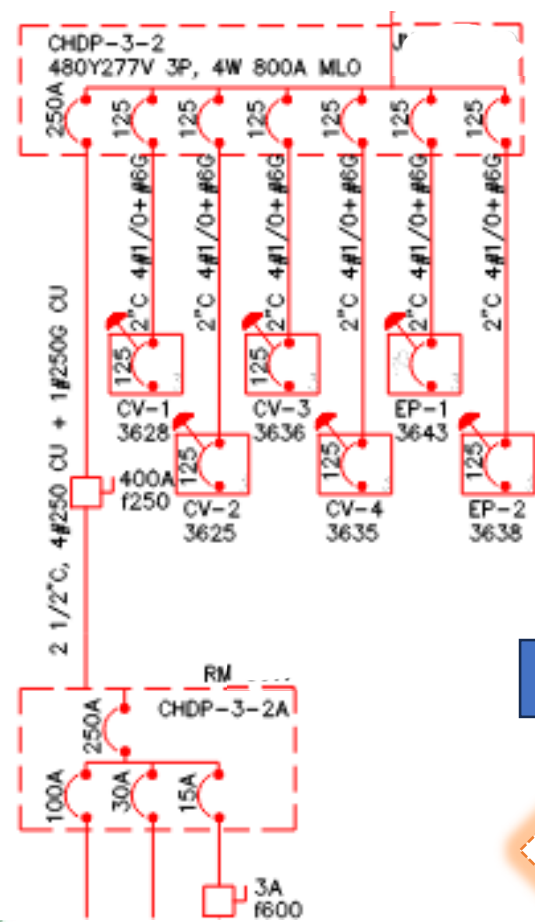
Future development: Interactive roof-top plan. Select HVAC equipment and get a dialog on rooms served.



# Interactive as-built map and O&M



# Interactive Electrical Schematic



CHDP-3-2A			
Fed From: CHDP-3-2 IN ROOM			
Voltage: 277V/480V			
Key:		# Existing Circuit Unverified / date	
CKT	Key	Date	Branch Circuit Description
1		3.10.17	SIEMENNS EQUIPMENT CABI
3		3.10.17	SIEMENNS EQUIPMENT CABI
5		3.10.17	SIEMENNS EQUIPMENT CABI
7		3.10.17	RECEPTACLE FOLEY OR TABLE
9		3.10.17	RECEPTACLE FOLEY OR TABLE
11		5.3.24	SPACE
13		5.3.24	SPACE
15		5.3.24	SPACE
17		5.3.24	SPACE

UPDATED 7.22.25



# Life Safety Drawing Navigation

