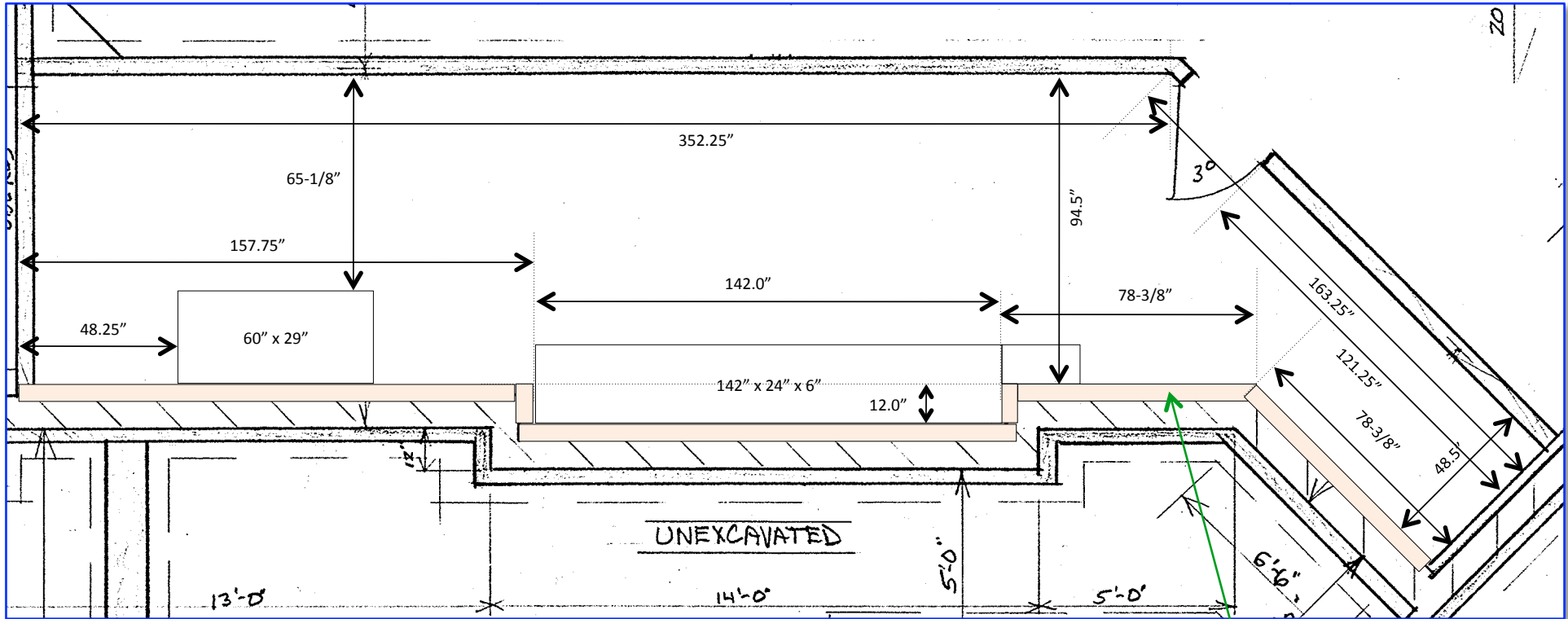


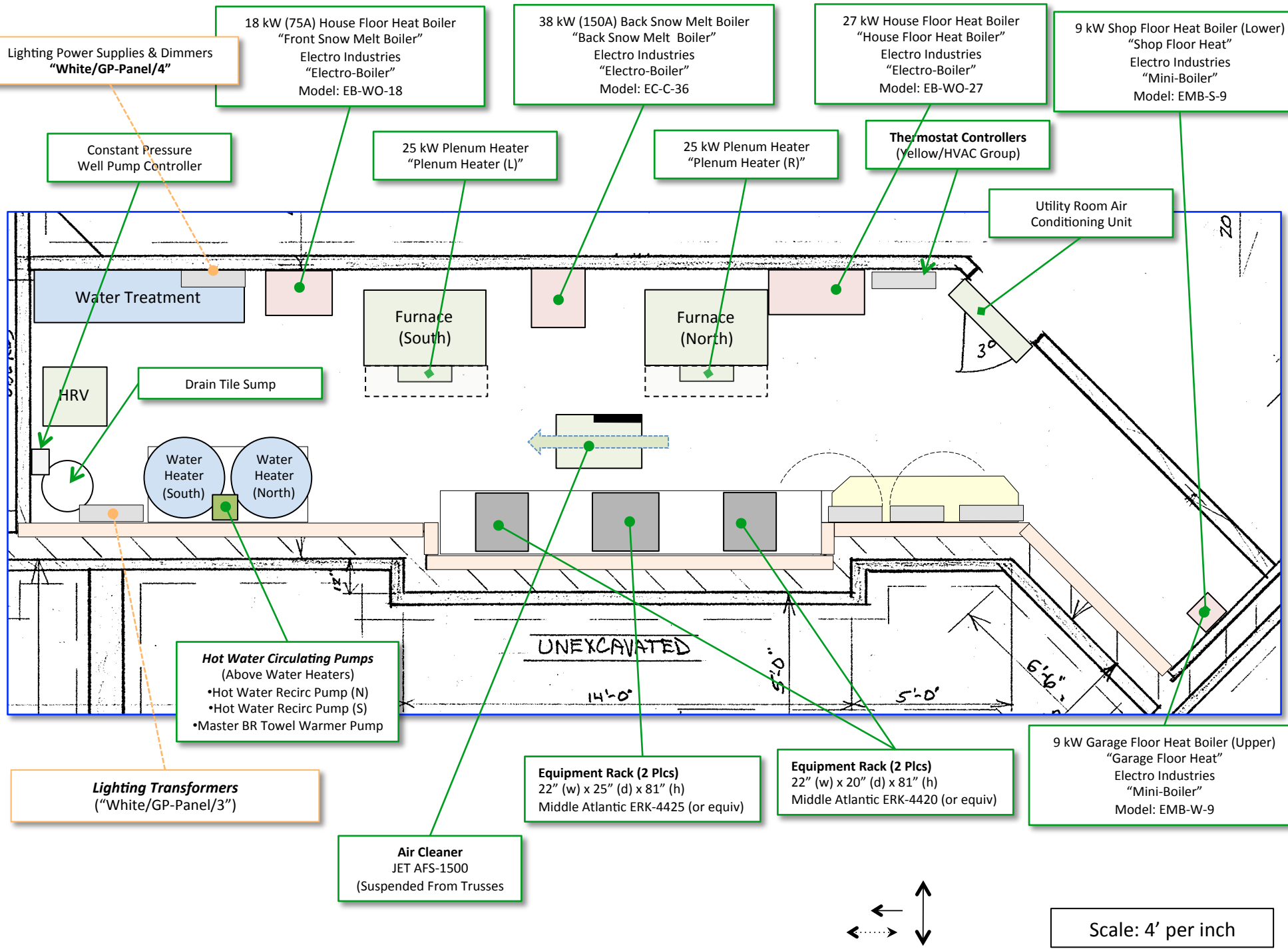


110.25" Floor-To-Truss Height



5.5" Thick Inside Wall  
2.75" Cavity Depth

Scale: 4' per inch



Lighting Power Supplies & Dimmers  
"White/GP-Panel/4"

18 kW (75A) House Floor Heat Boiler  
"Front Snow Melt Boiler"  
Electro Industries  
"Electro-Boiler"  
Model: EB-WO-18

38 kW (150A) Back Snow Melt Boiler  
"Back Snow Melt Boiler"  
Electro Industries  
"Electro-Boiler"  
Model: EC-C-36

27 kW House Floor Heat Boiler  
"House Floor Heat Boiler"  
Electro Industries  
"Electro-Boiler"  
Model: EB-WO-27

9 kW Shop Floor Heat Boiler (Lower)  
"Shop Floor Heat"  
Electro Industries  
"Mini-Boiler"  
Model: EMB-S-9

Constant Pressure  
Well Pump Controller

25 kW Plenum Heater  
"Plenum Heater (L)"

25 kW Plenum Heater  
"Plenum Heater (R)"

**Thermostat Controllers**  
(Yellow/HVAC Group)

Utility Room Air  
Conditioning Unit

Water Treatment

Furnace  
(South)

Furnace  
(North)

HRV

Drain Tile Sump

Water Heater  
(South)

Water Heater  
(North)

**Hot Water Circulating Pumps**  
(Above Water Heaters)  
•Hot Water Recirc Pump (N)  
•Hot Water Recirc Pump (S)  
•Master BR Towel Warmer Pump

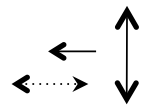
Lighting Transformers  
("White/GP-Panel/3")

**Equipment Rack (2 Plcs)**  
22" (w) x 25" (d) x 81" (h)  
Middle Atlantic ERK-4425 (or equiv)

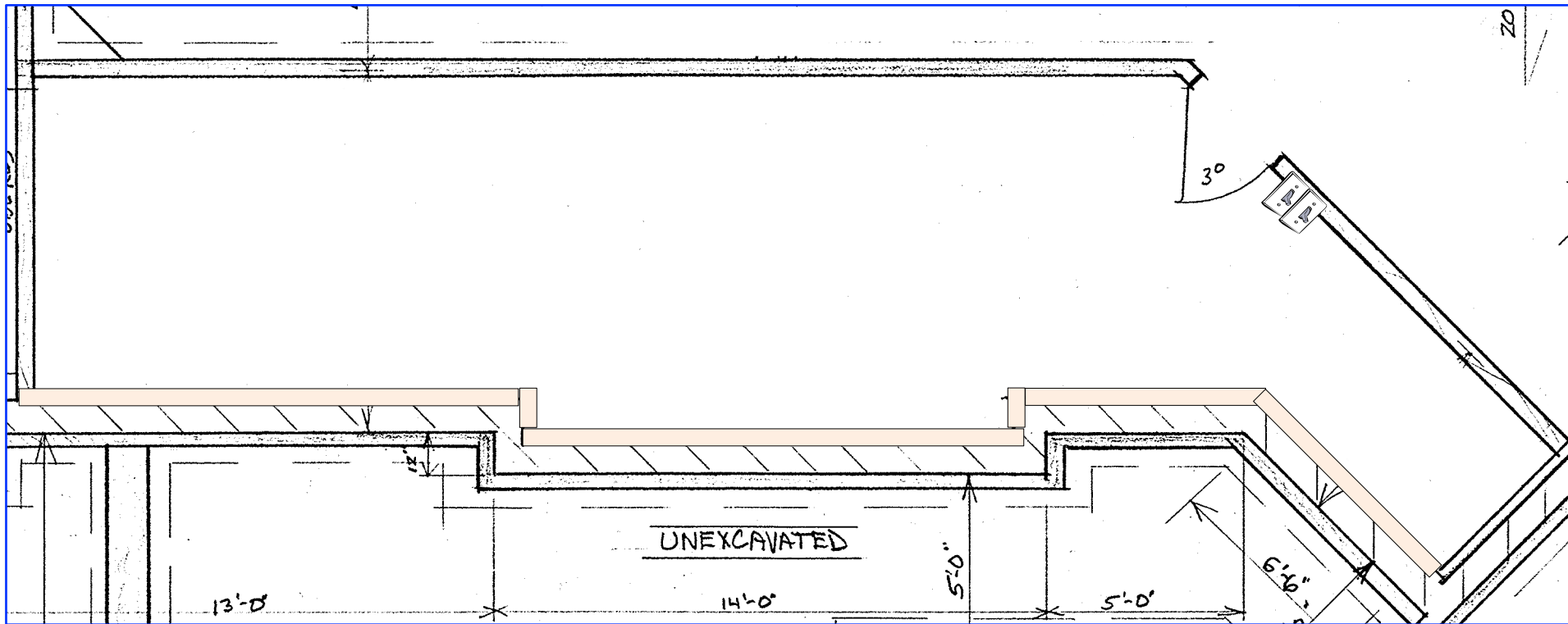
**Equipment Rack (2 Plcs)**  
22" (w) x 20" (d) x 81" (h)  
Middle Atlantic ERK-4420 (or equiv)


9 kW Garage Floor Heat Boiler (Upper)  
"Garage Floor Heat"  
Electro Industries  
"Mini-Boiler"  
Model: EMB-W-9

**Air Cleaner**  
JET AFS-1500  
(Suspended From Trusses)



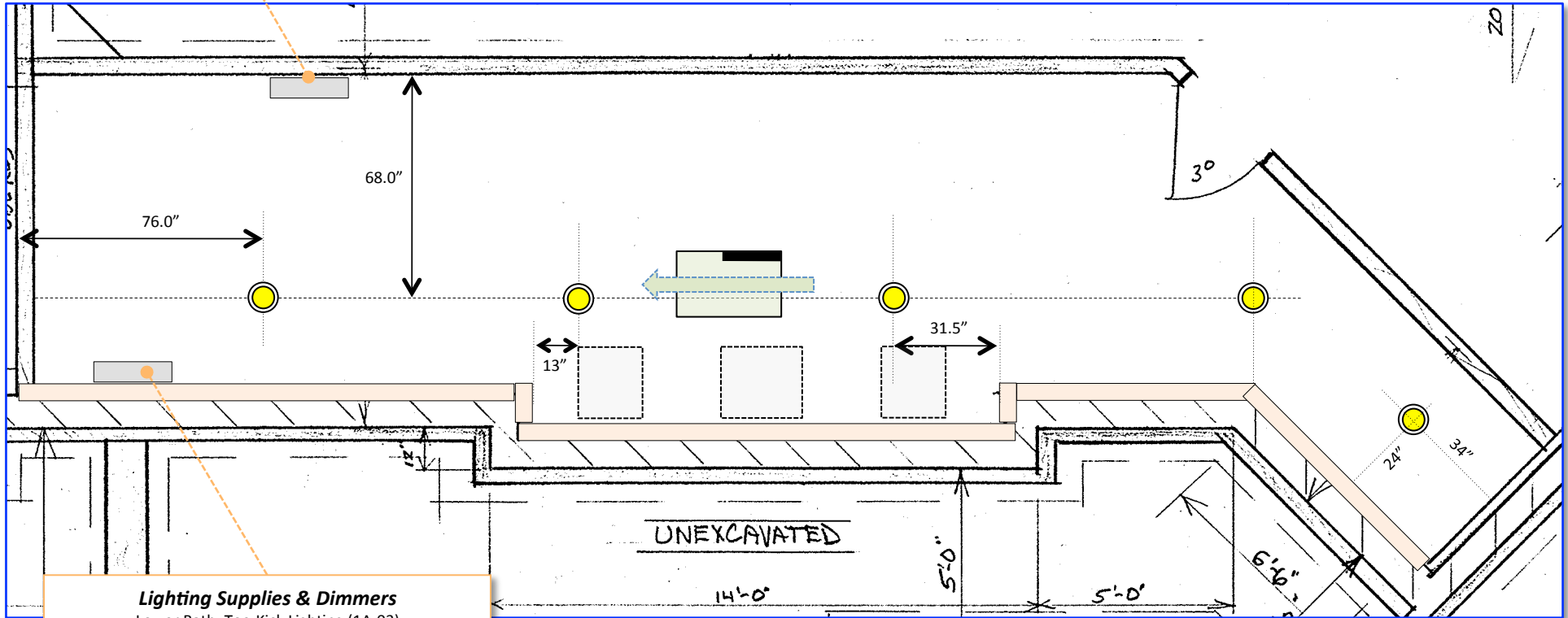
Scale: 4' per inch



 = Wall Switches

Scale: 4' per inch

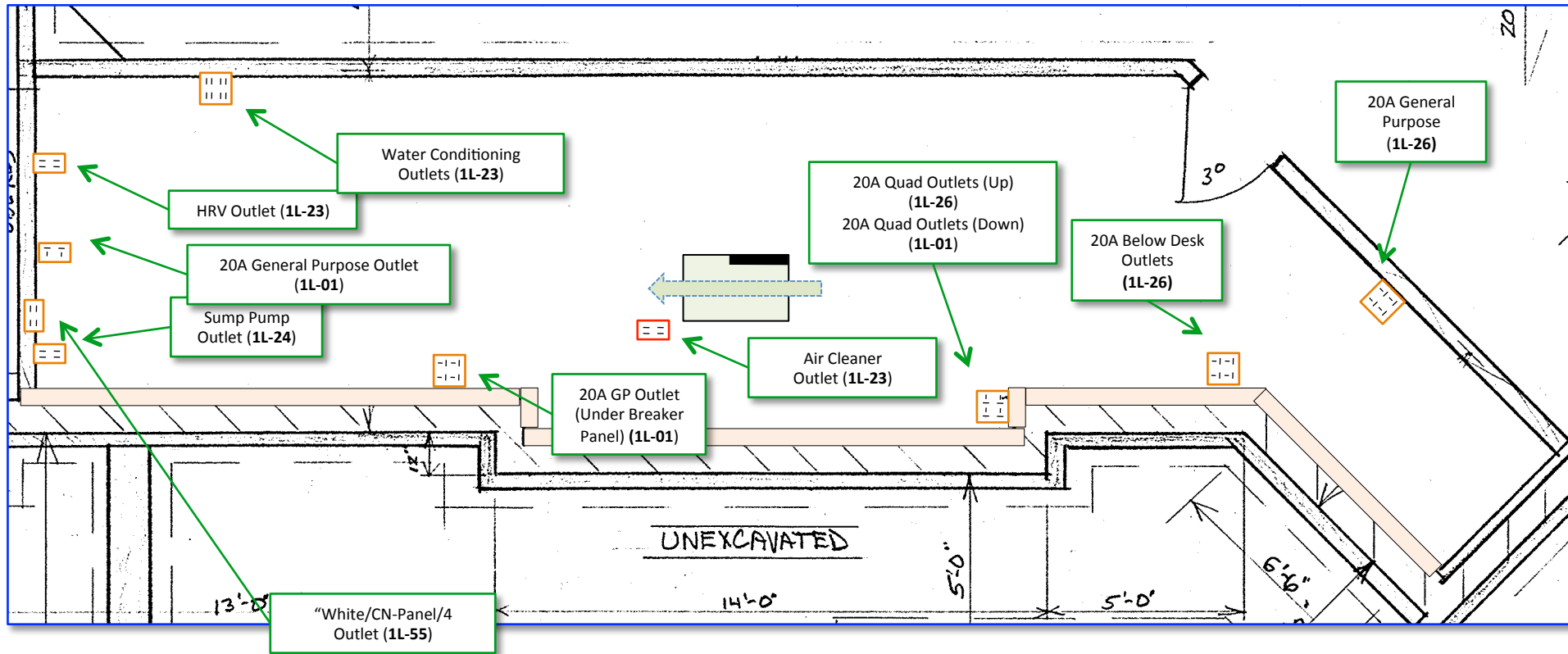
Lighting Power Supplies & Dimmers  
"White/GP-Panel/4"



- Lighting Supplies & Dimmers**
- Lower Bath: Toe-Kick Lighting (1A-03)
  - Long Hall: Cabinet Interior Lighting (1C-02)
  - Long Hall: Crown Lighting (1C-04)
  - Master Bedroom: Ceiling Wash Lighting (2A-05)
  - Study: Crown Lighting (2B-13)
  - Study Wet Bar: Counter Lighting (2B-14)
  - Study: Counter Lighting (2B-15)
  - Southeast Garden: Landscape Lighting (2L-07)
  - Patio Area: West Landscape Lighting (2M-01)
  - Hot Tub Area: Landscape Lighting (2M-17)

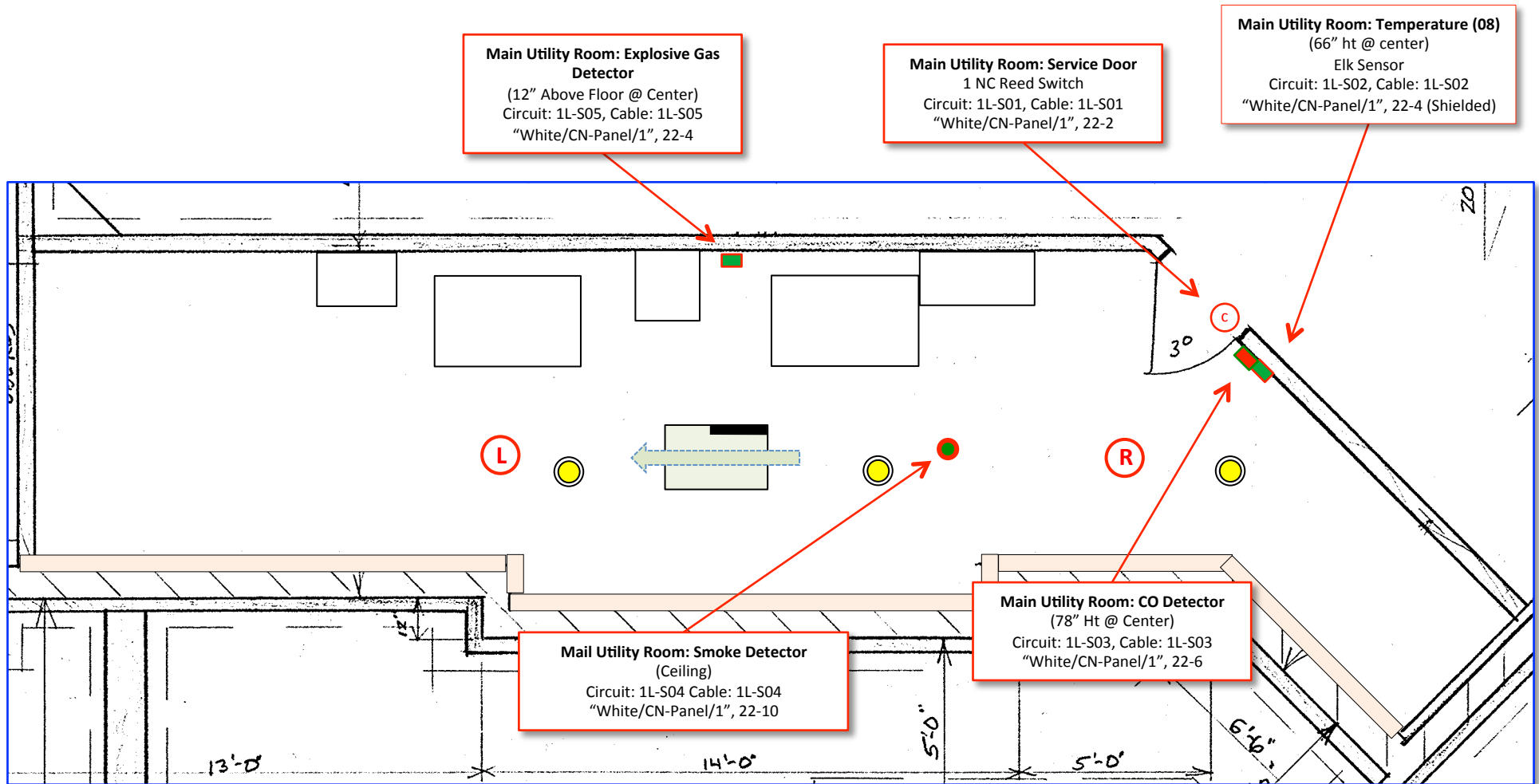
● = Bare Bulb in Socket

Scale: 4' per inch



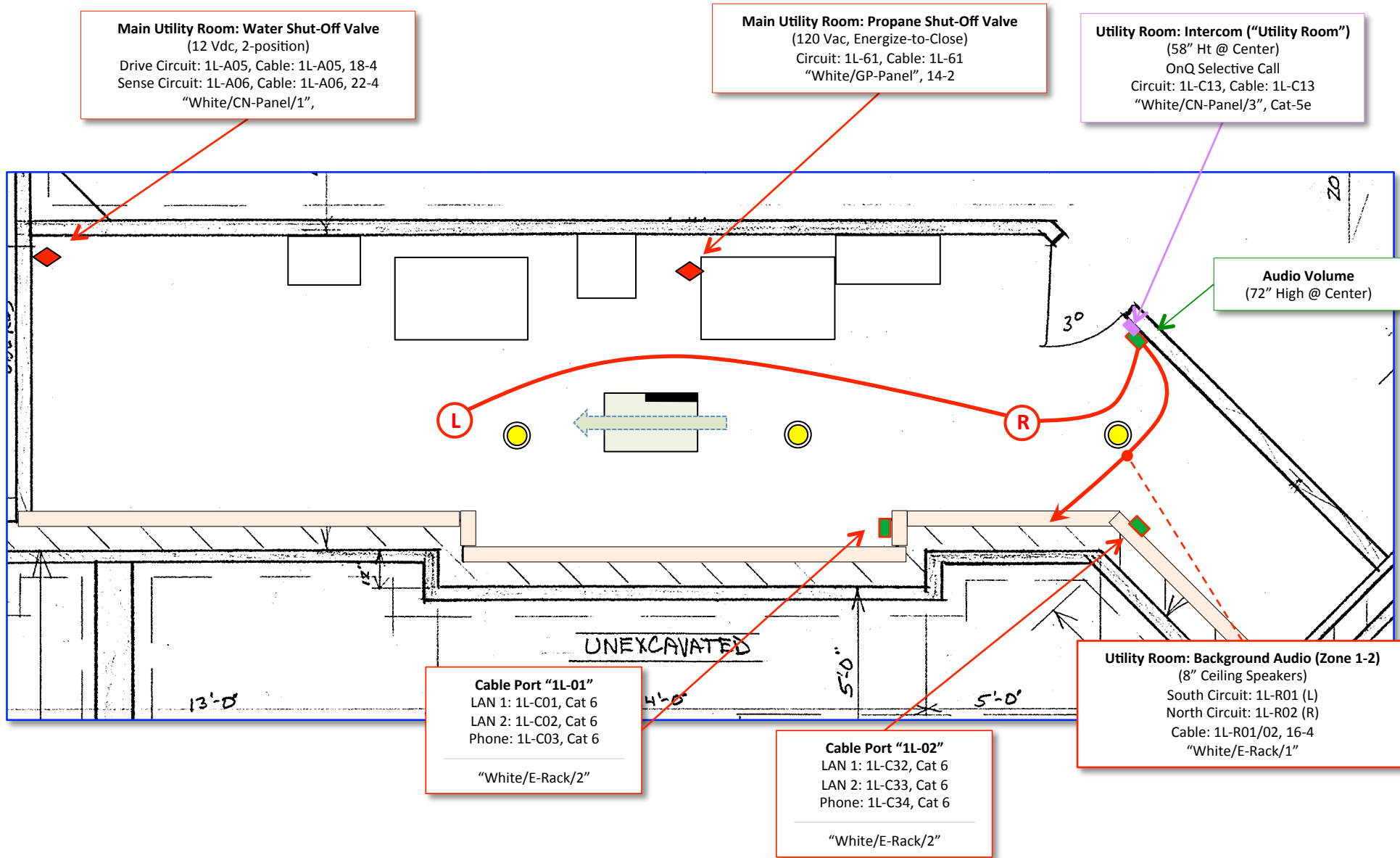
-  = 15A Quad
-  = 15A Duplex
-  = 20A Quad
-  = 20A Duplex

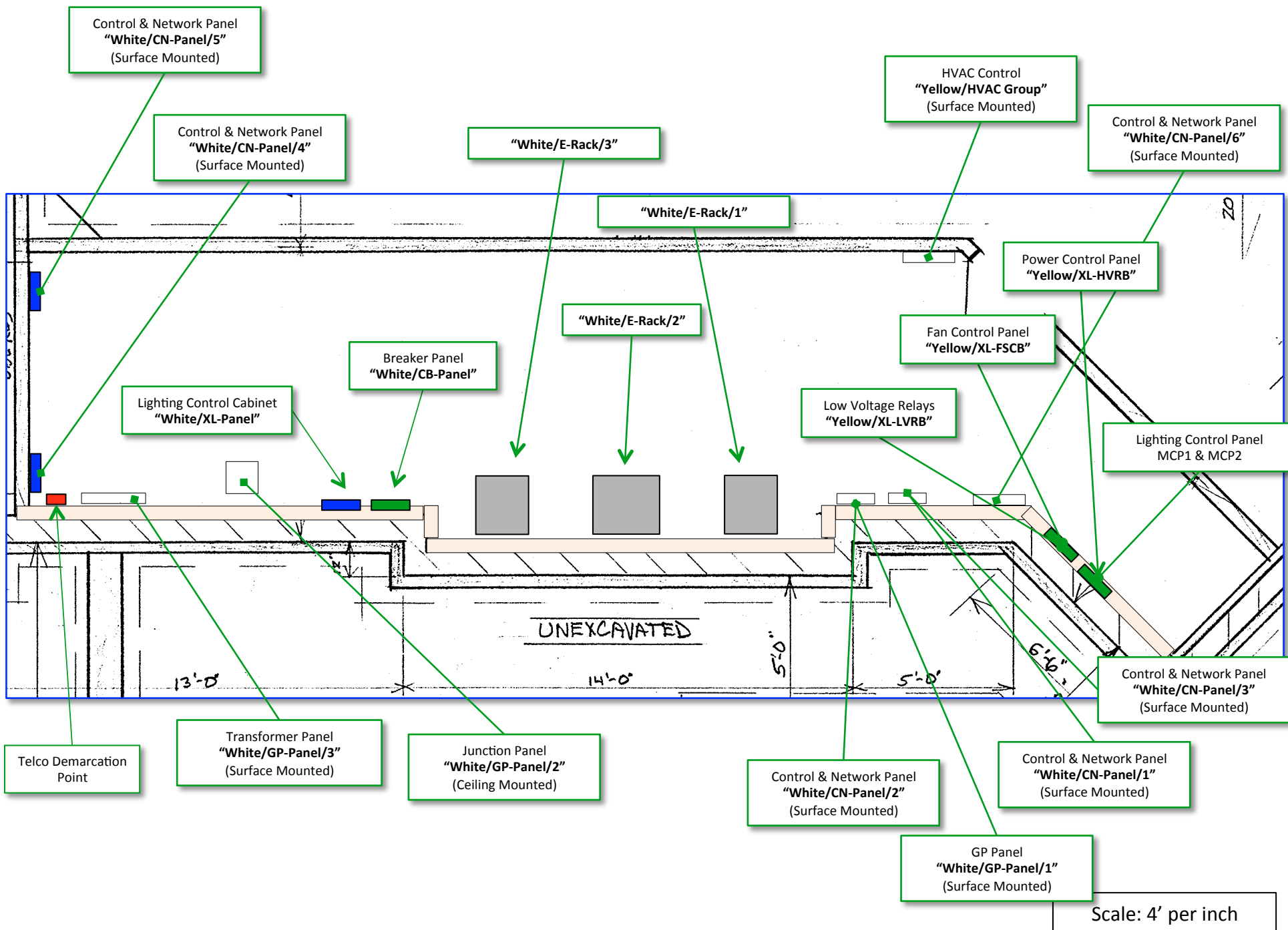
Scale: 4' per inch



⊗ = NC Door/Window Sensor  
 (Concealed Reed)

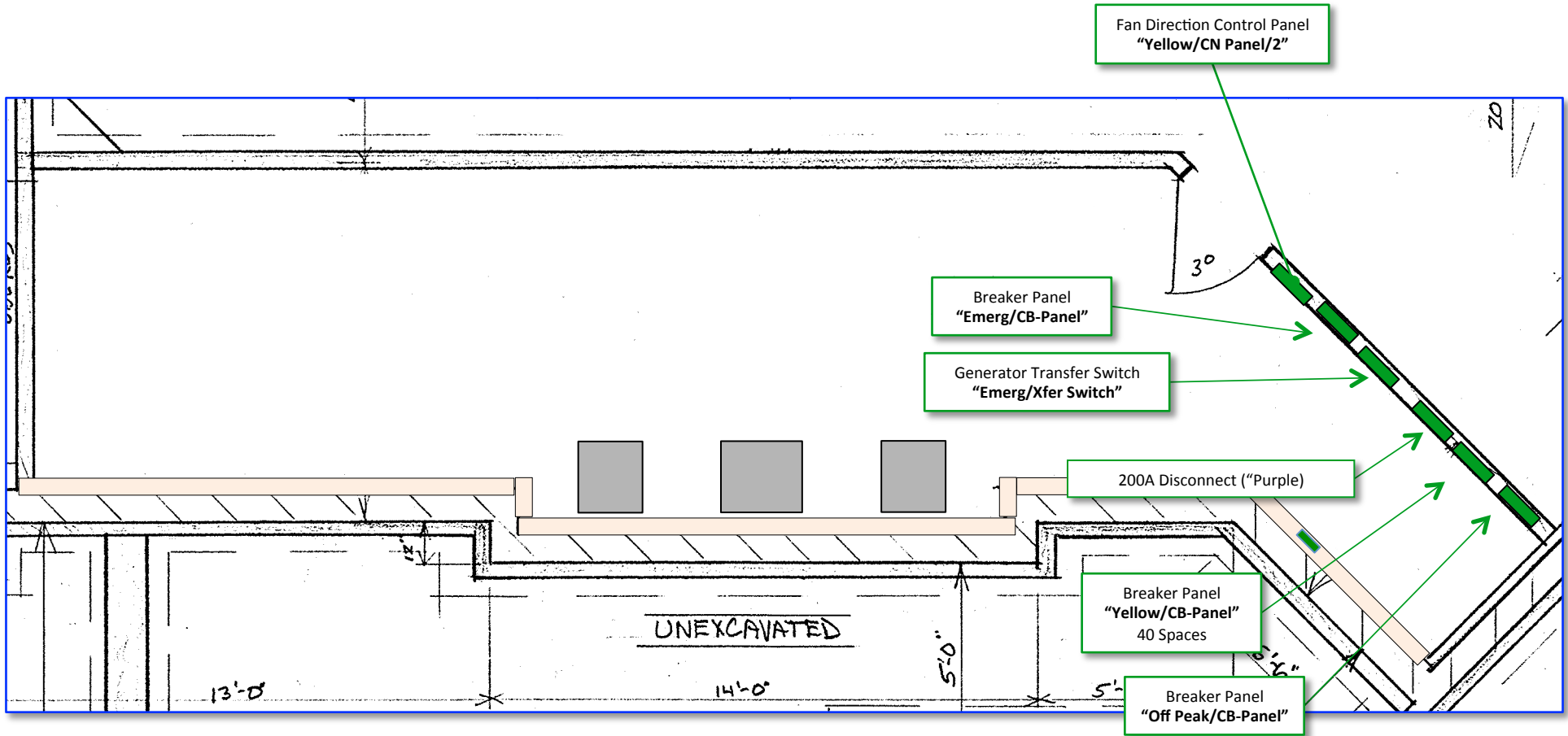
Scale: 4' per inch



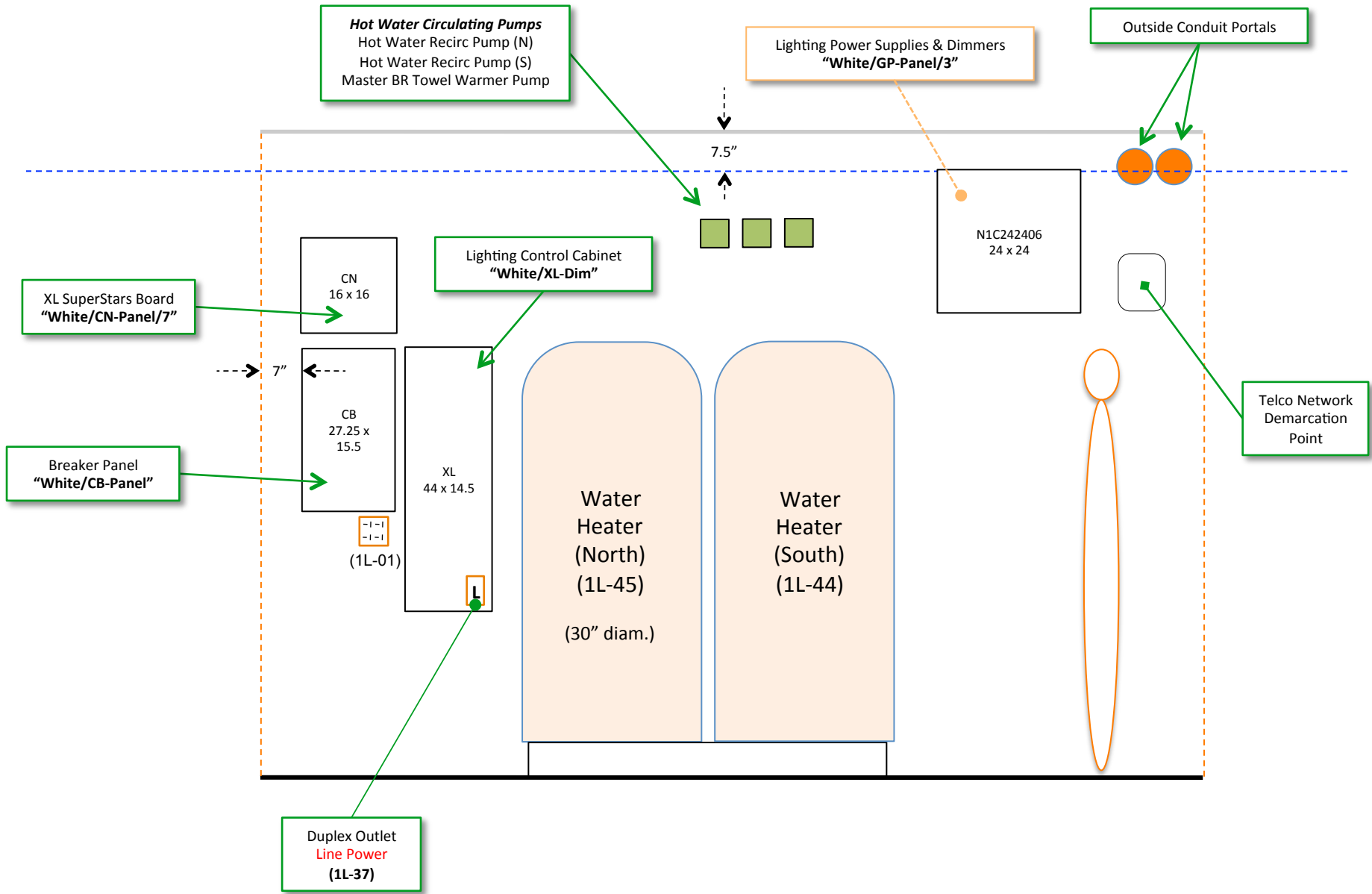


Scale: 4' per inch

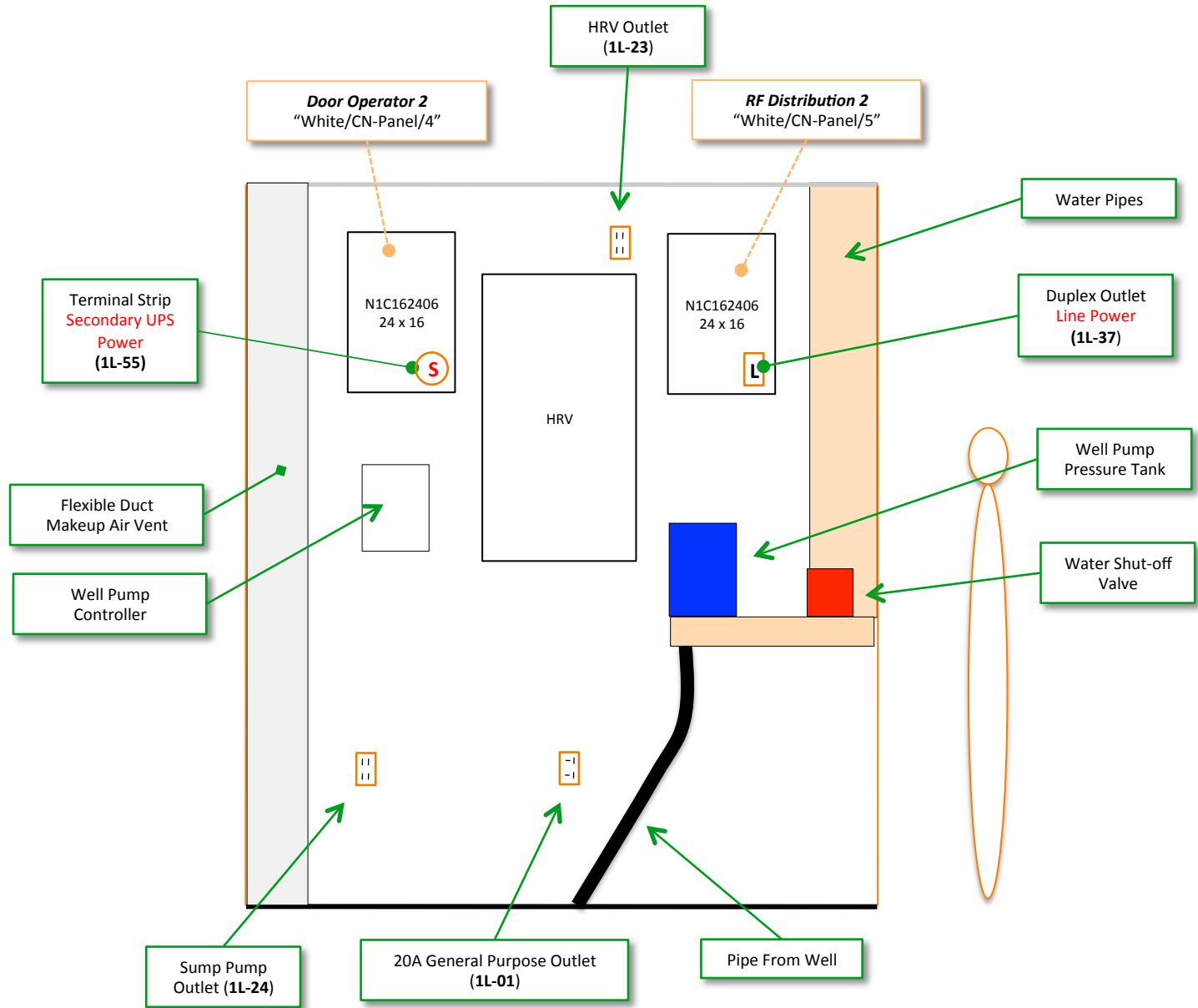




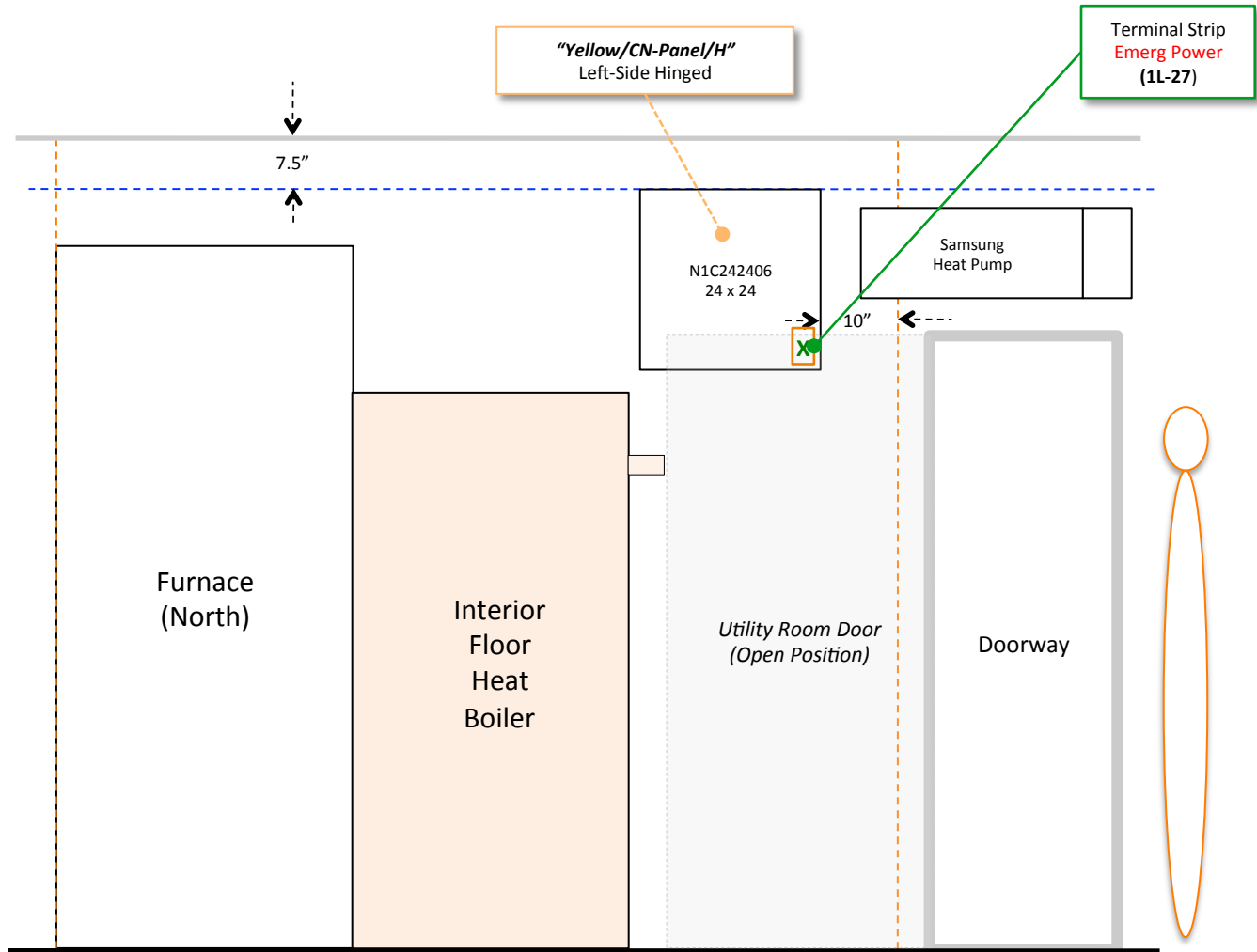
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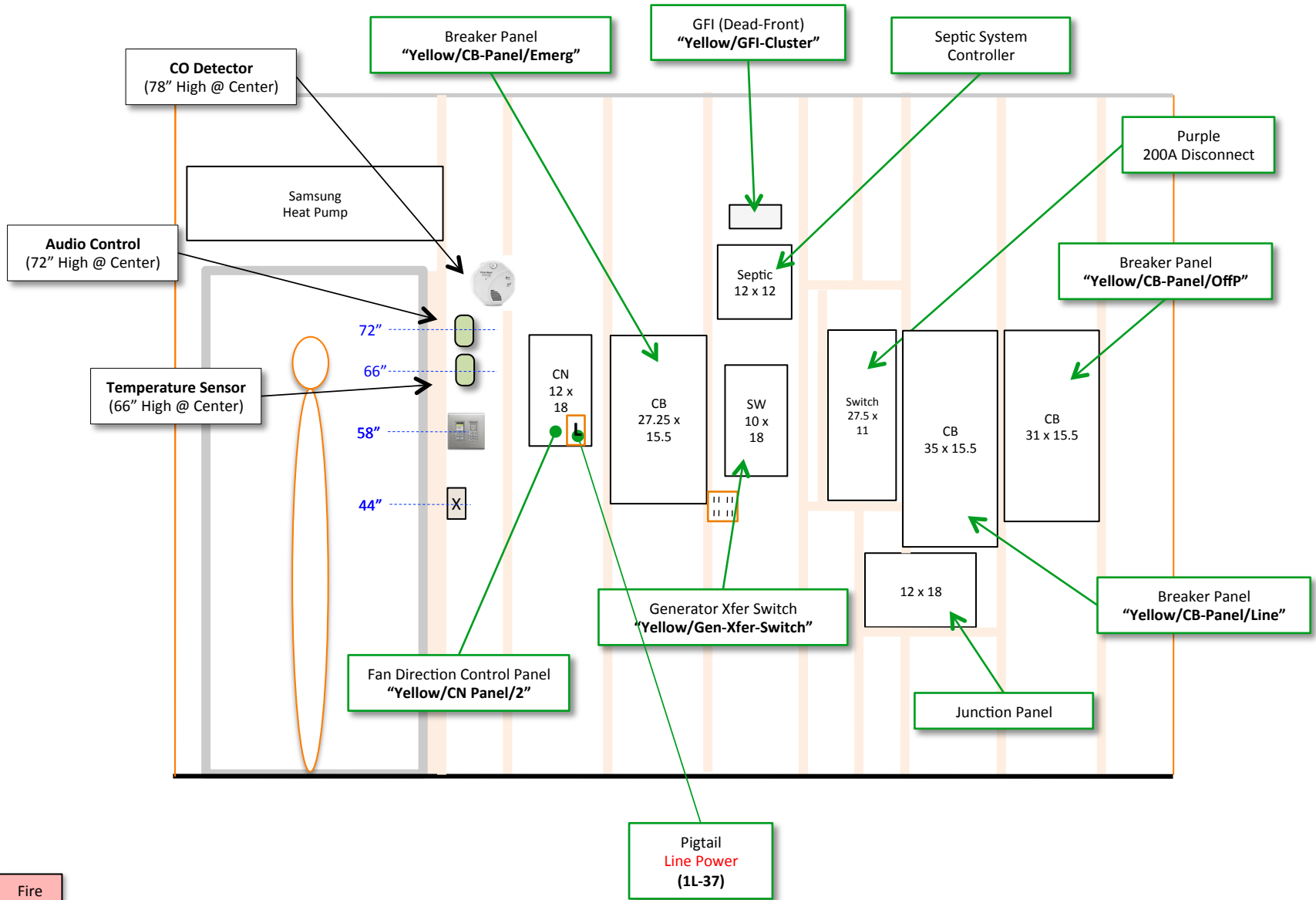


Scale: 2' per inch

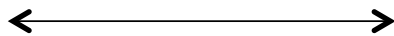


Scale: 2' per inch

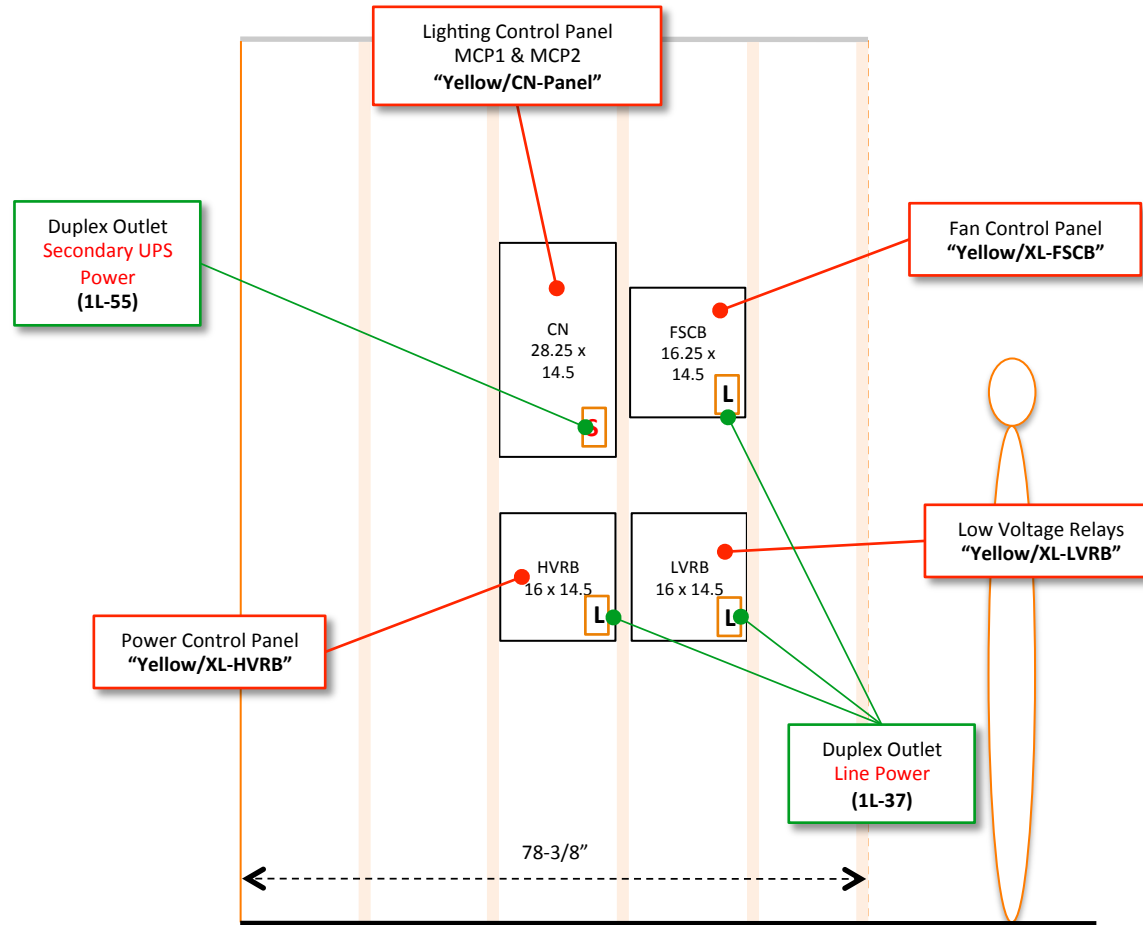





= Stud

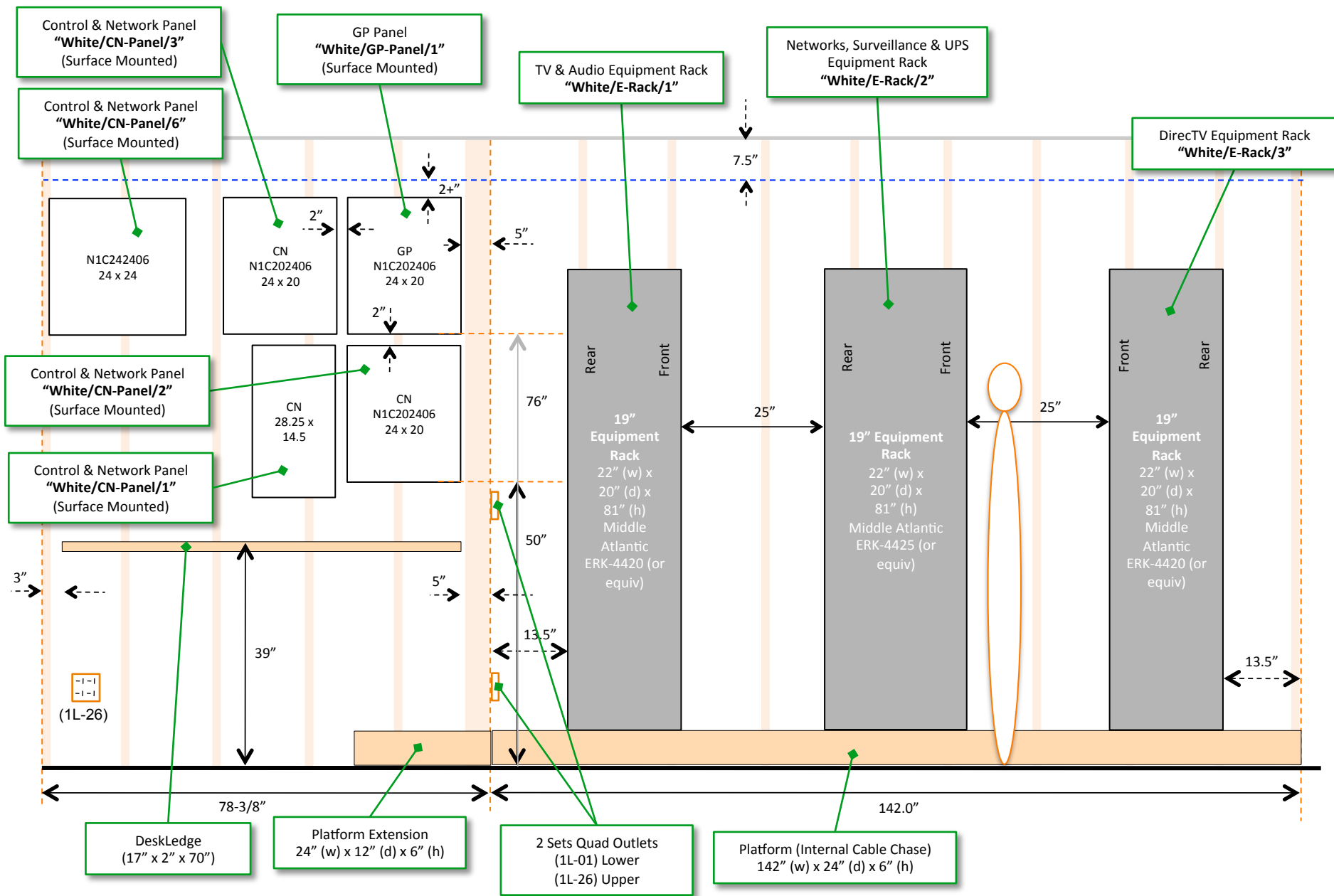


Scale: 2' per inch



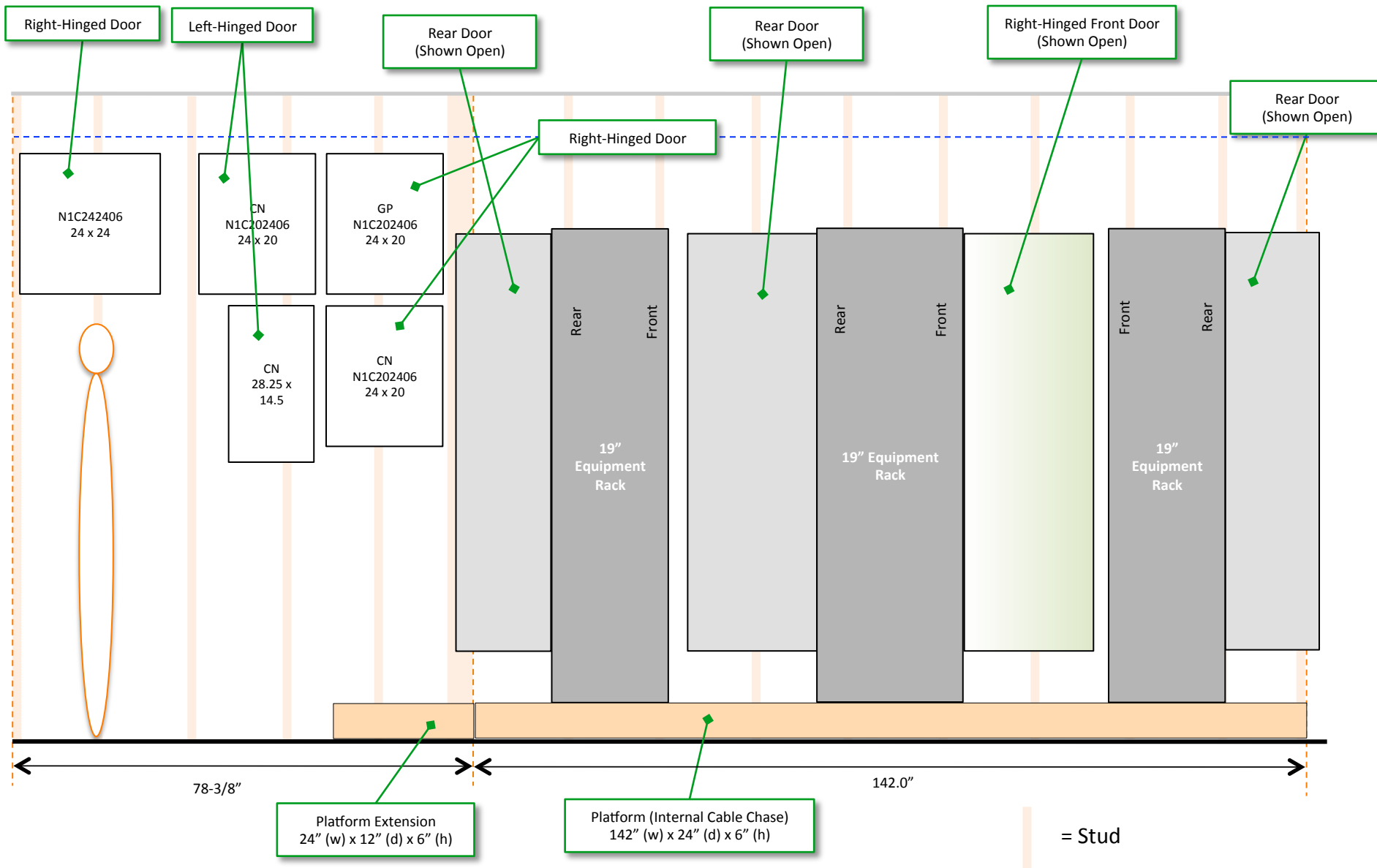
 = Stud

Scale: 2' per inch

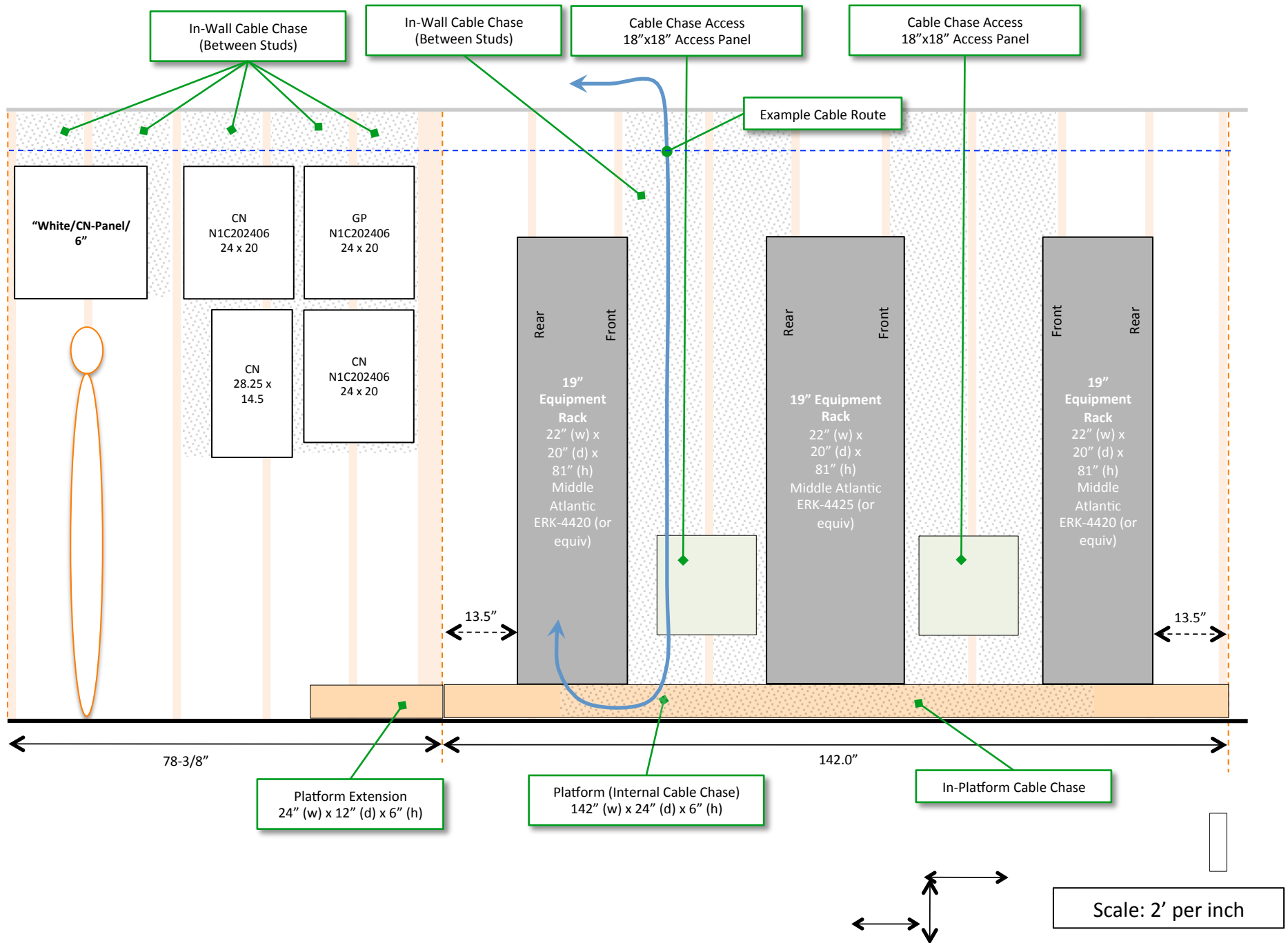


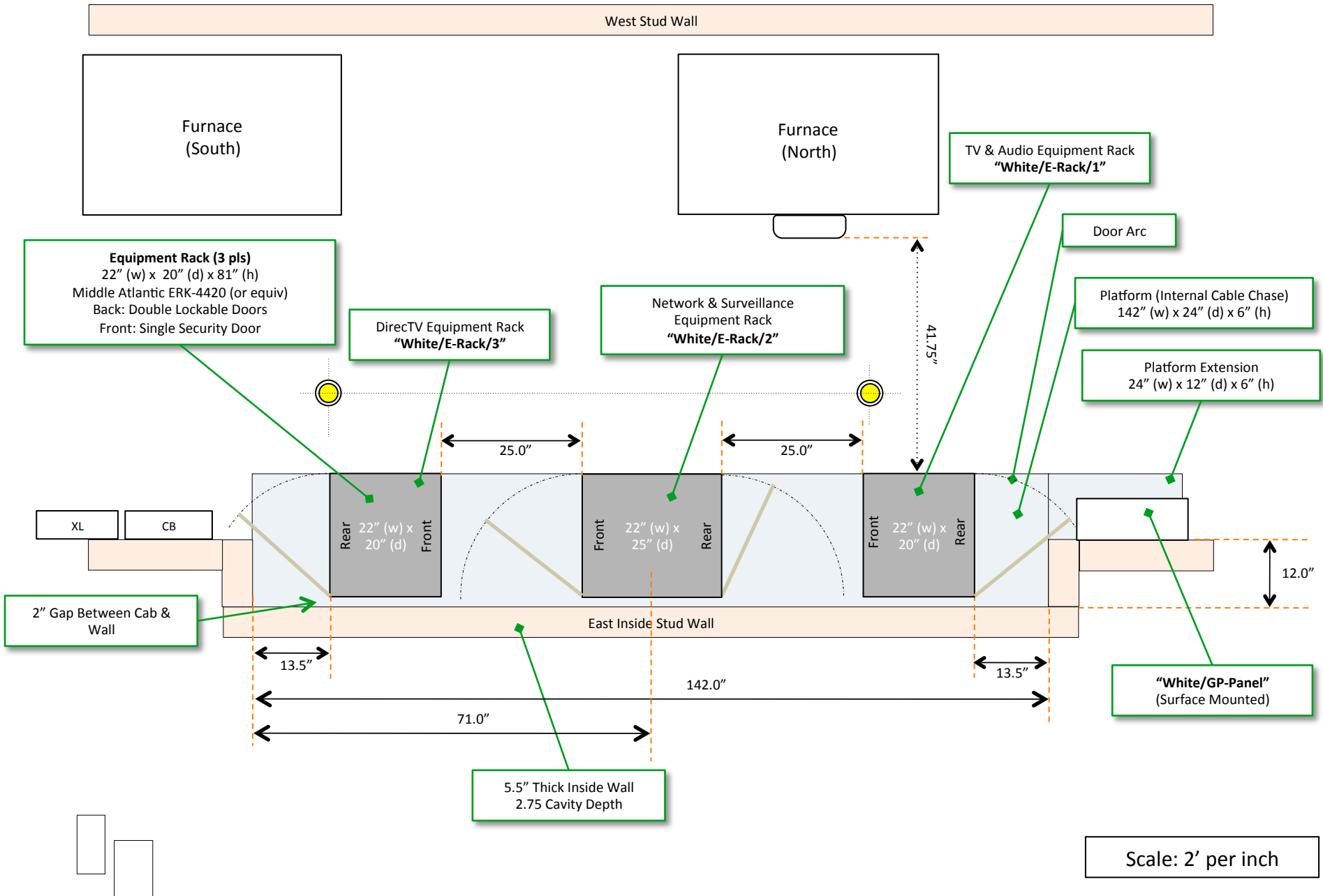
Scale: 2' per inch

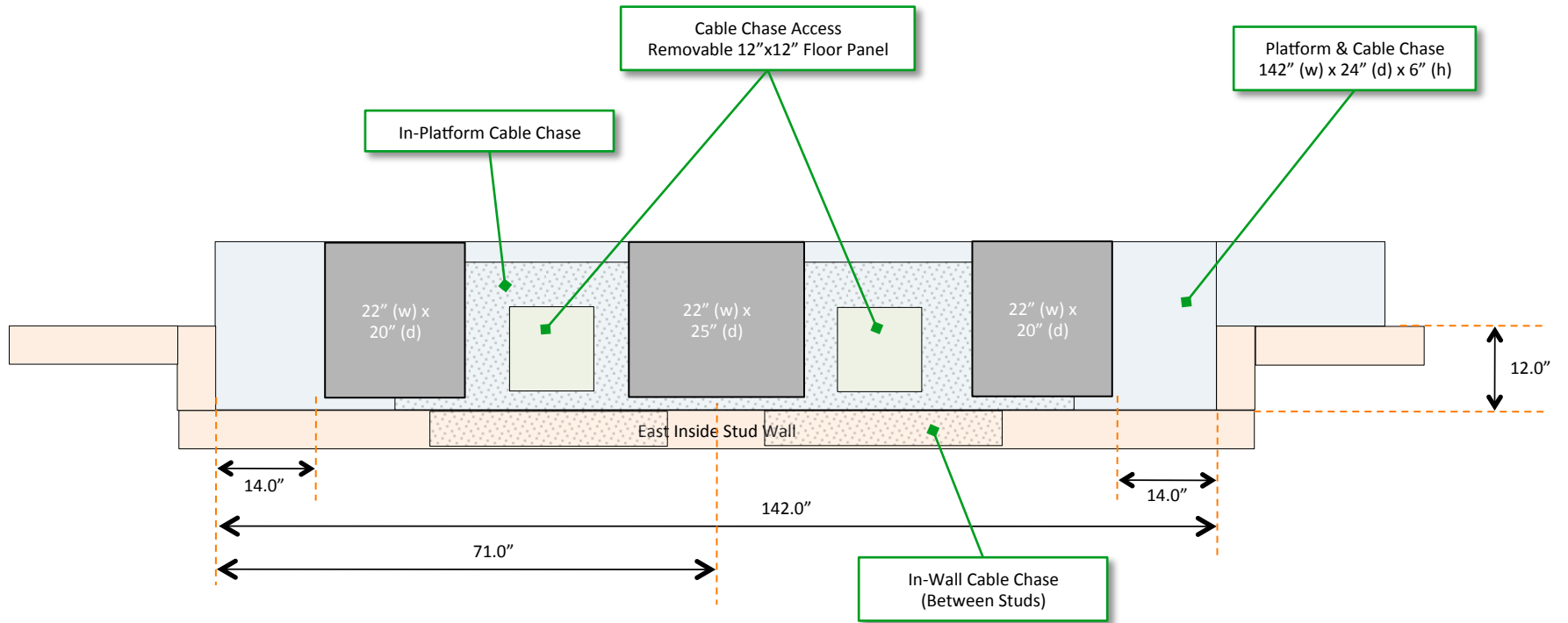
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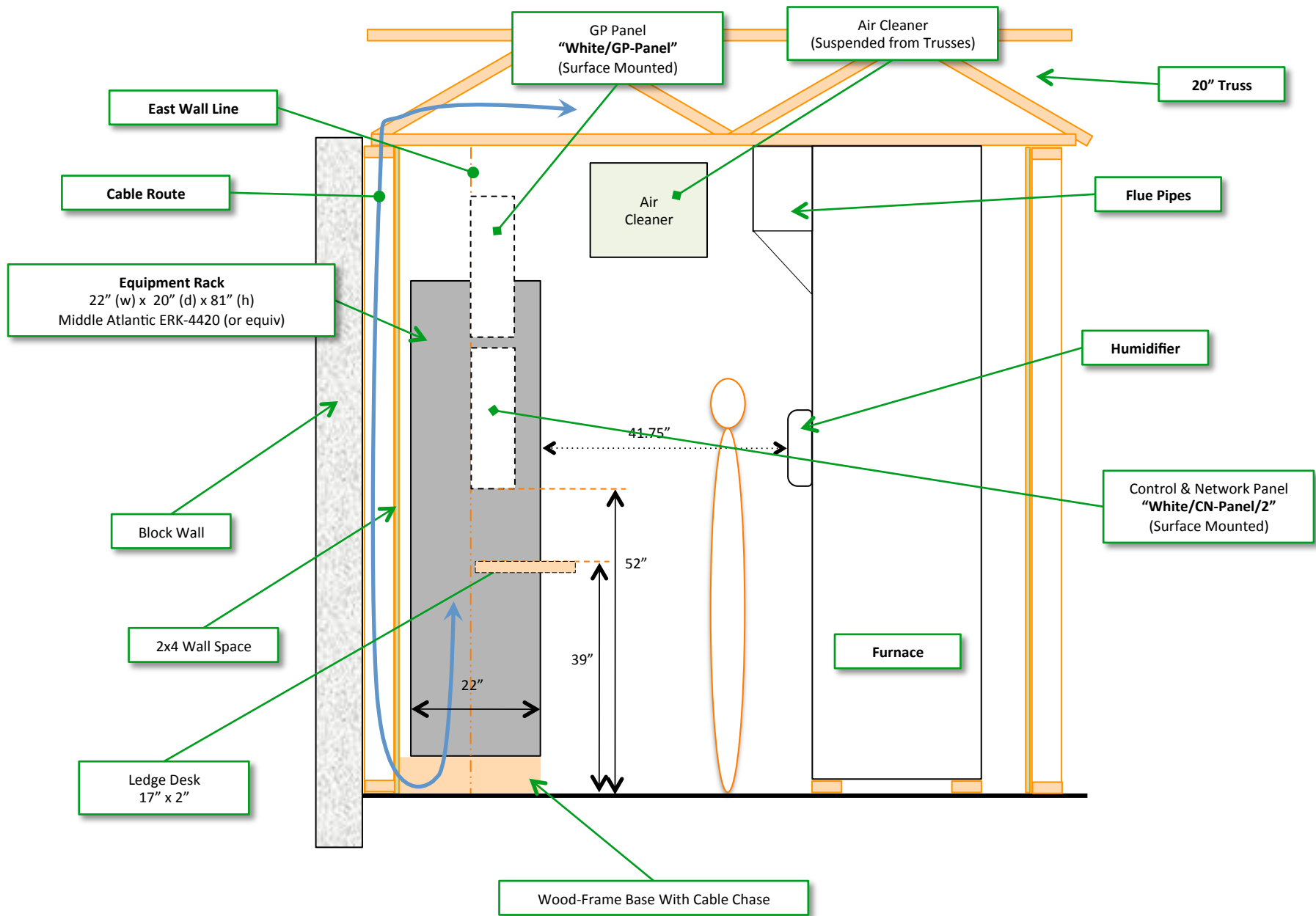




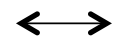


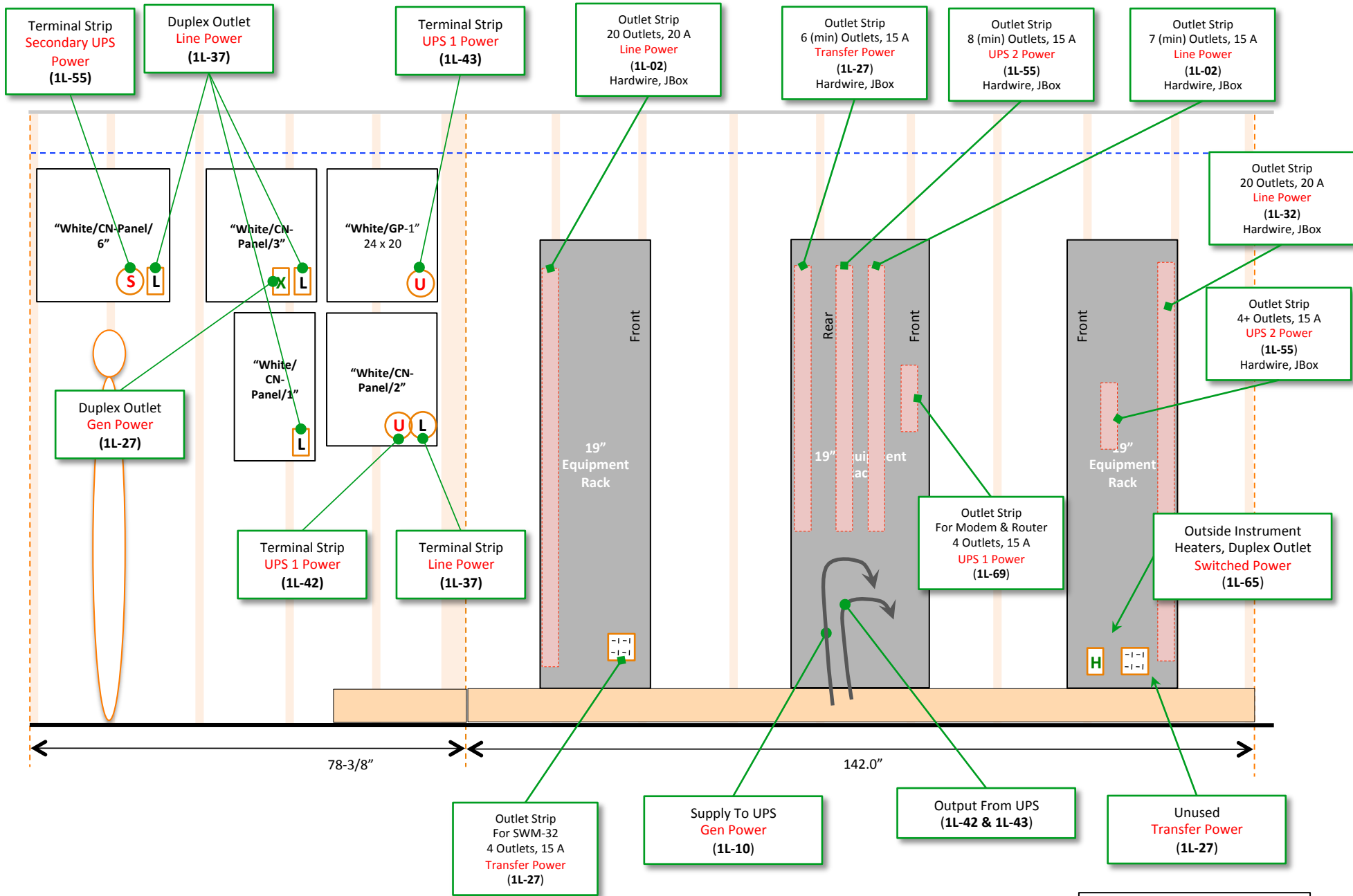


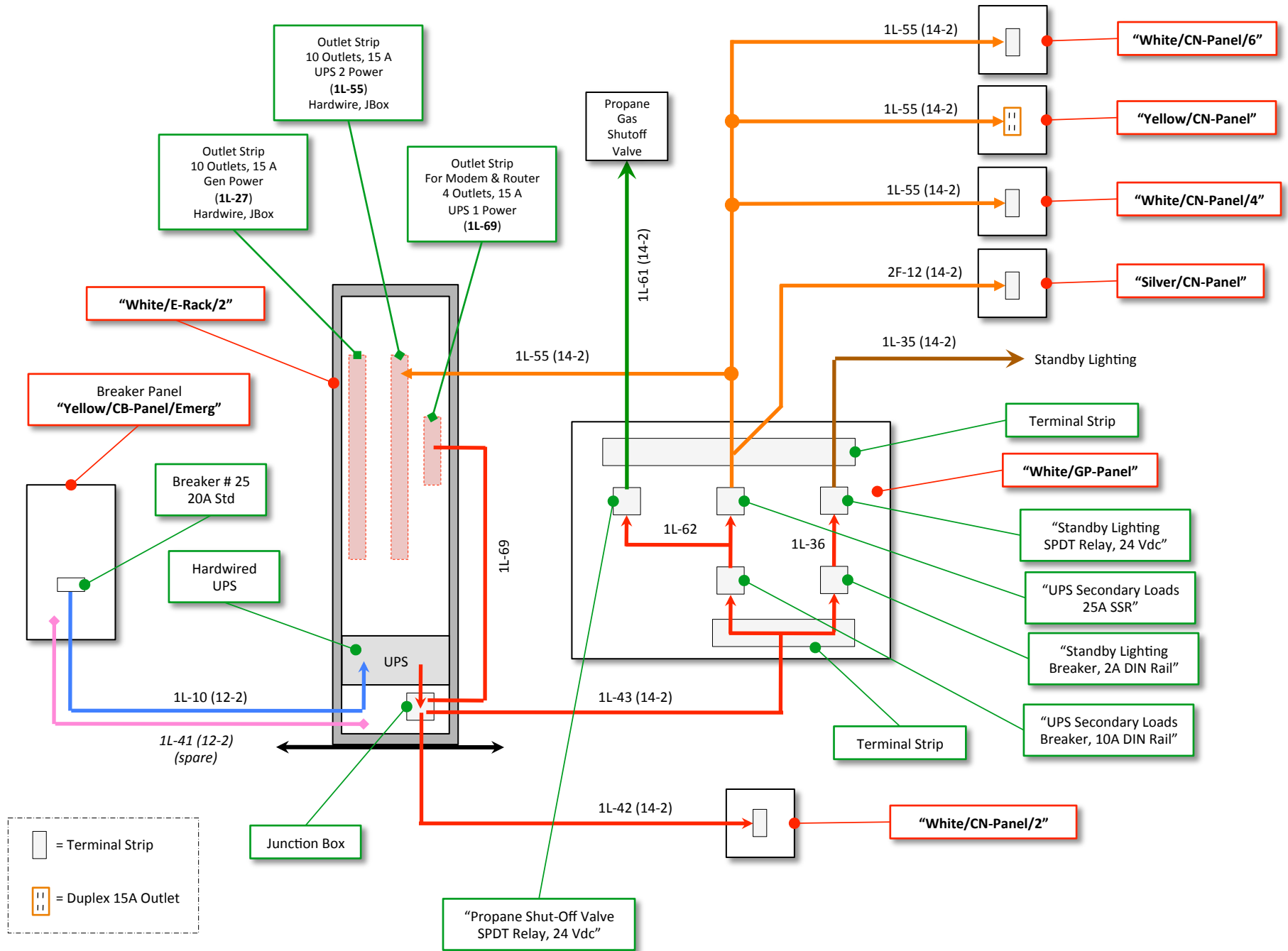
Scale: 2' per inch

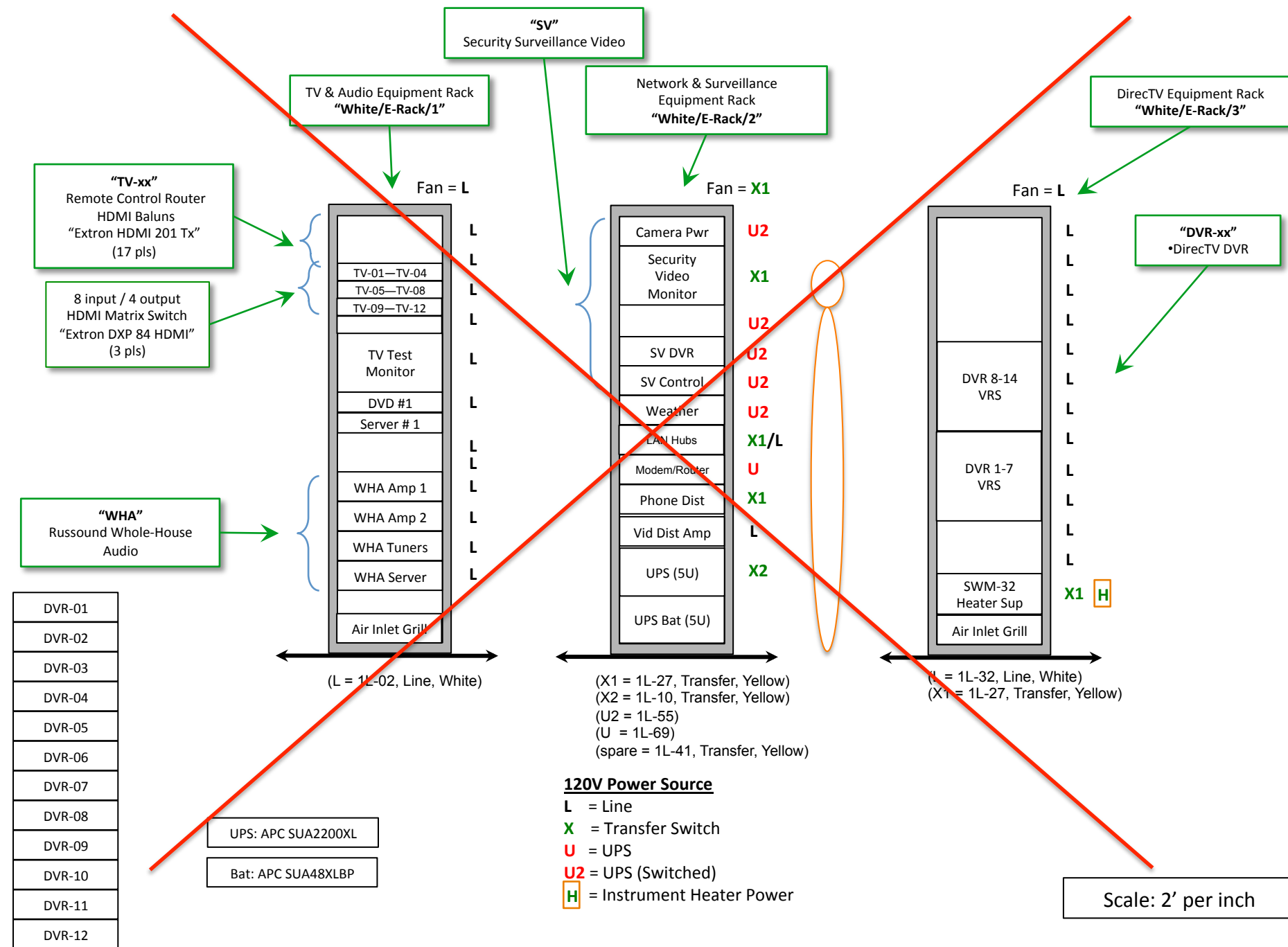


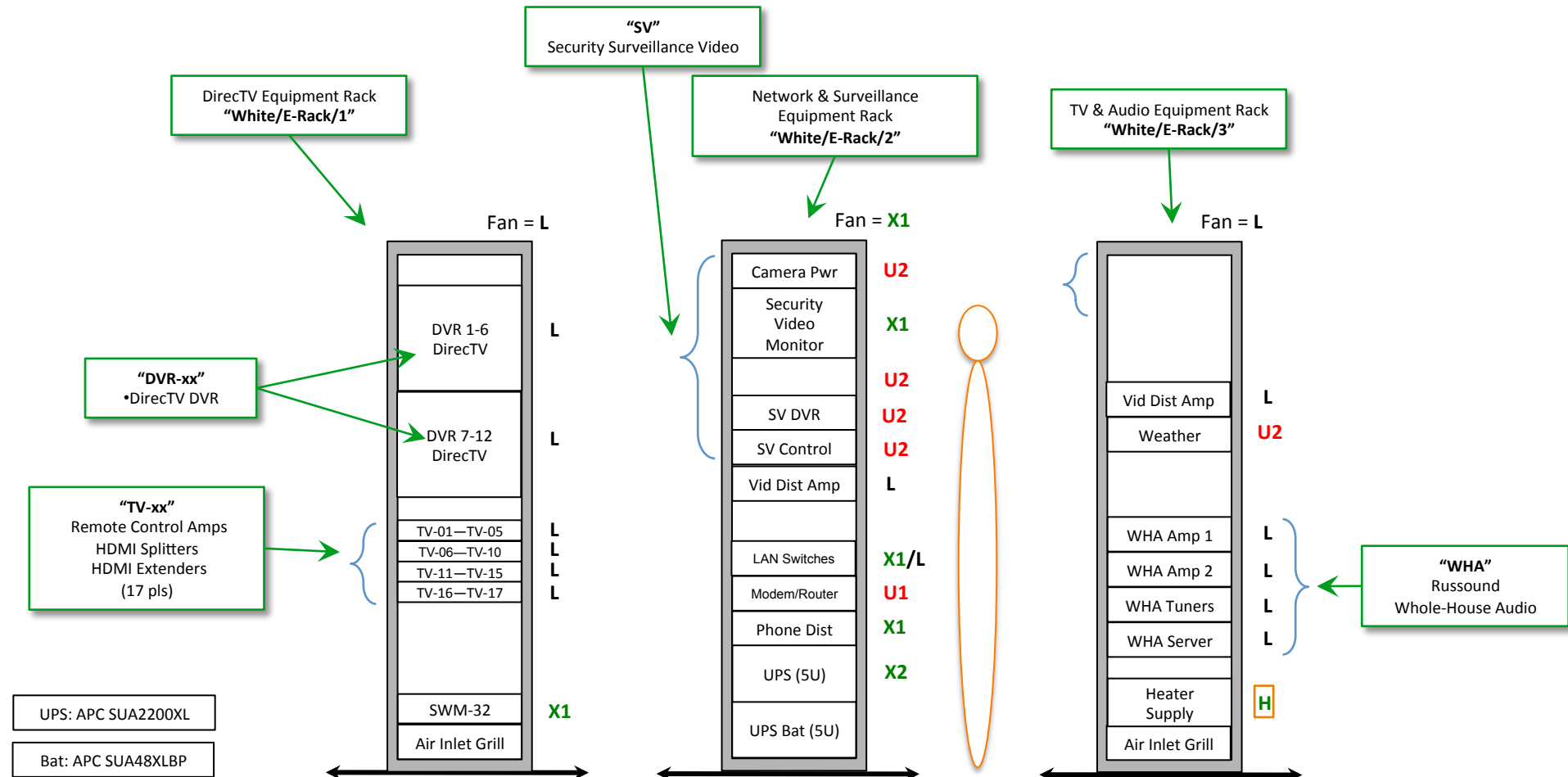
Scale: 2' per inch











(L = 1L-02, Line, White)  
 (X1 = 1L-27, Transfer, Yellow)

(L = 1L-02, Line, White)  
 (X1 = 1L-27, Transfer, Yellow)  
 (X2 = 1L-10, Transfer, Yellow)  
 (U2 = 1L-55)  
 (U1 = 1L-69)  
 (spare = 1L-41, Transfer, Yellow)

(L = 1L-32, Line, White)  
 (X1 = 1L-27, Transfer, Yellow)  
 (H = 1L-65, Switched, Yellow)  
 (U2 = 1L-55)

- 120V Power Source**
- L = Line
  - X = Transfer Switch
  - U = UPS
  - U2 = UPS (Switched)
  - H = Instrument Heater Power

Scale: 2' per inch



E-Rack/1	E-Rack/2	E-Rack/3
DirecTV 32-Channel SWIM (X)	LAN Head-End (X)	(3x) Whole-House Audio Amps (L)
(3x) DirecTV 1:4 Splitter	Modem/Router (X)	(2x) WHA FM Tuners (L)
(1x) DirecTV 5-Tuner DVRs (L)	Phone Head-End (X)	(2x) WHA FM Sirius/XM (L)
(8x) DirecTV2-Tuner DVRs (L)	Weather Processor (Us)	
(17x) TV Selectors & Drivers (L)	Video Surv DVR/Switcher (Us)	WHA Audio Server (L)
(?x) 2-way HDMI Splitters (L)	Video Surv Power Supplies (Us)	Outdoor Instrument Heater Power Supplies (H)
(?x) 3-way HDMI Splitters (L)	Video Surv Monitor (X)	
	Video Surv Controls (Us)	
TV Test Monitor (L)	UPS (X)	
	UPS 2 Battery (na)	

L = Line-Powered  
 Us = UPS-Powered (Secondary – Subject to Conditions)  
 X = Transfer-Switch Powered  
 H = Instrument Heater Power (From “White/GP-Panel”)

CN-Panel/1	CN-Panel/2	CN-Panel/3	CN-Panel/4	CN-Panel/5	CN-Panel/6	HVAC Group
Security Head-End (EP)	Fan Direction Control (L)	RF Distribution (TV Ant) (X)	Study Pocket Door Control (U)	RF Distribution 2 (MW/SW Ant) (X)	Weather Signal Conditioning (EP)	HVAC Controllers Transformer (X)
Automation I/O (EP)	Hot Water Recirc Control (L)	RF Distribution (FM Ant) (X)		RF Distribution 2 (VHF Ant) (X)	Intercom Head-End (L)	7x RCS TR60 CPUs
PLC Interface (L)	Emerg Power Control (EP)	RF Distribution (Sat Radio Ant) (X)			Wall Safe Transformer (L)	
Down Spout Alarm	Energy Management Control (L)					
	Essential Power Supply (U)					

L = Line-Powered  
 U = UPS-Powered  
 X = Transfer-Switch Powered  
 EP = Essential Power (From UPS Power)  
 H = Instrument Heater Power (From "White/GP-Panel")

## Primary UPS Loads

Load	Supply Circuit	Location	Watts	Circuit Breaker	CB Location	Supply Circuit
Security	1L-42	White/CN-Panel/2	100W (max)			
Emergency Power Control	1L-42	White/CN-Panel/2	25W (max)			None

125 W Total
-------------

## Secondary UPS Loads

Load	Supply Circuit	Location	Watts	Circuit Breaker	CB Location	Supply Circuit
Standby Lighting	1L-35/1L-36	White/GP-Panel	200	2A, 120V, DIN Rail	White/GP-Panel	1L-43
Weather Data Acquisition	1L-42	White/CN-Panel/2	20W (max)			
Weather Processor	1L-43	E-Rack/2	100	None		None
VS DVR	1L-43	E-Rack/2	85	None		None
Camera Power Supplies	1L-43	E-Rack/2	350	None		None
Video Surv. Switcher	1L-43	E-Rack/2	incl	None		None
VS Controls	1L-43	E-Rack/2	incl	None		None
MCP 1 & 2	1L-43	Yellow/CN-Panel	50	None		

800 W Total
-------------

## APC Part Numbers

Item	APC Part	Street Price	Quant
UPS	SUA2200XL	\$1,150	1
External Battery	SUA48XLBP	\$609	1
Power I/O Kit	SUA031	\$170	1
Relay I/O Module	AP9610	\$220	1
4-Post Rack Mount Rails	SU032A	\$70	2 sets

Woodside Rm
Master BR
Master Bath
BR 2
BR 3
BR 4
BR 5
Great Rm
Screen Porch
Kitchen
Study
Lounge
Fitness
Shop
Boathouse

Item	Application	Location	Priority	OFA	Tuners
1	Great Room/Study	E-Rack/3	1	Yes	2
2	Master BR/Master Bath	E-Rack/3	1	Yes	5
3	Shop/Fitness	E-Rack/3	1	No	2
4	Lounge/Kitchen	E-Rack/3	1	No	2
5	Standby	E-Rack/3	1	No	2
6	BR 2	E-Rack/3	2	No	2
7	BR 3	E-Rack/3	2	No	2
8	BR 4	E-Rack/3	2	No	2
9	BR 5	E-Rack/3	2	No	2
10	Upper	Upper	1	Yes	2
11	Theater	Theater	1	No	2

**HR34 = 3.25"**  
**AM21 = 1.25"**  
**HR24 = 2.25"**  
**HR34 + AM21 = 4.5"**  
**HR24 + AM21 = 3.5"**  
**Spacer = 0.25"**  
**Avail Width = 17.44"**

Item	Application	Source	Priority	OFA	Tuners
1	Lakeside Rm				
2	Woodside Rm				
3	Master BR				
4	Master Bath				
5	BR 2				
6	BR 3				
7	BR 4				
8	BR 5				
9	Great Rm				
10	Screen Porch				
11	Kitchen				
12	Study				
13	Lounge				
14	Fitness				
15	Shop				
16	Theater				
17	Boathouse				

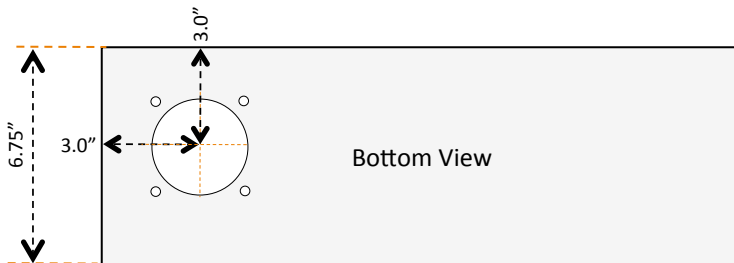
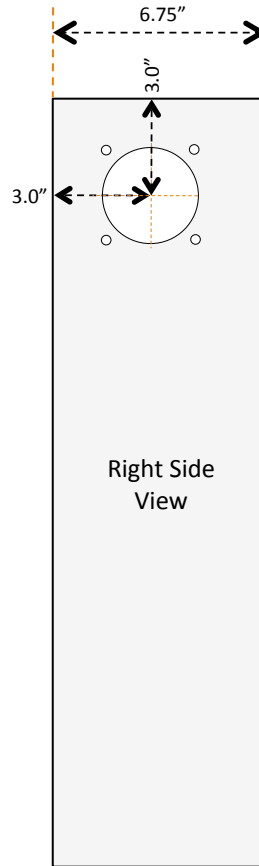
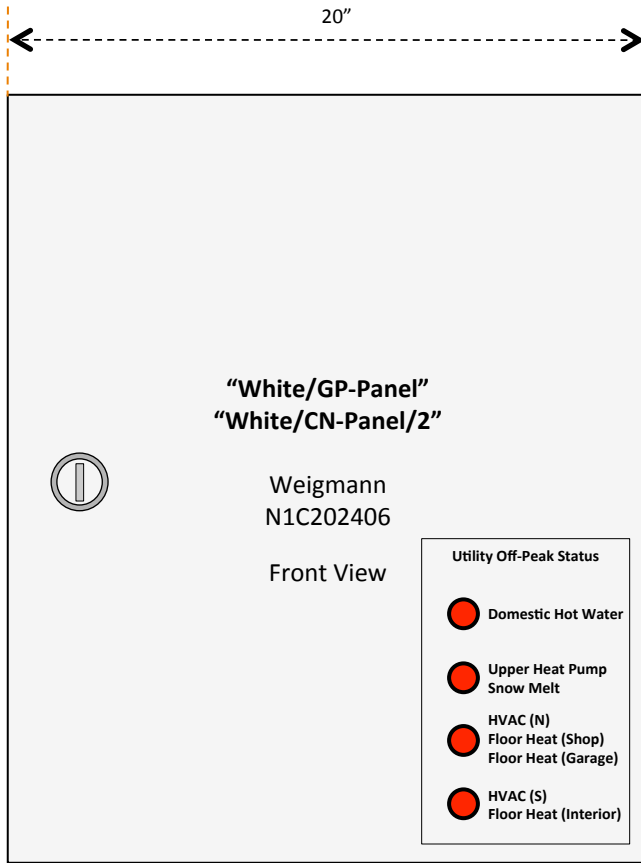
## Middle Atlantic Part Numbers

Item	E-Rack/1	E-Rack/2	E-Rack/3
Cabinet	ERK-4420	ERK-4425	ERK-4420
Rear Door	Included	Included	Included
Front Door	none	PFD-44	none
Fan Top	ERK-4QFT-FC	ERK-4QFT-FC	ERK-4QFT-FC
Outlet Strip	PDT-2X1020	PDT-2X1020	PDT-2X1020

## Security and Automation Modules

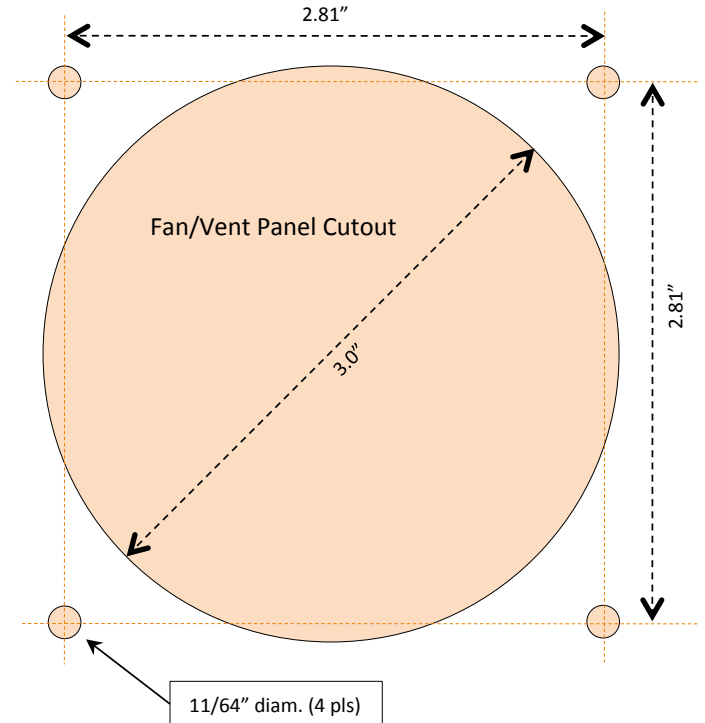
Item	Quant	ma (Normal)	ma (Alarm)	ma (Total Standby)	ma (W/C total in Alarm)
M1G Module	1	1000	1000	1000	1000
Smoke Detector	22	1	25	22	550
CO Detector	12	8	75	96	900
Motion Detector	14	15	18	210	250
Heat Detector	6	5	25	30	150
WaterBug	7	5	25	35	175
Refrigeration Alarm	3	5	25	15	75
Gas	6	120	120	720	720
				2130	3800





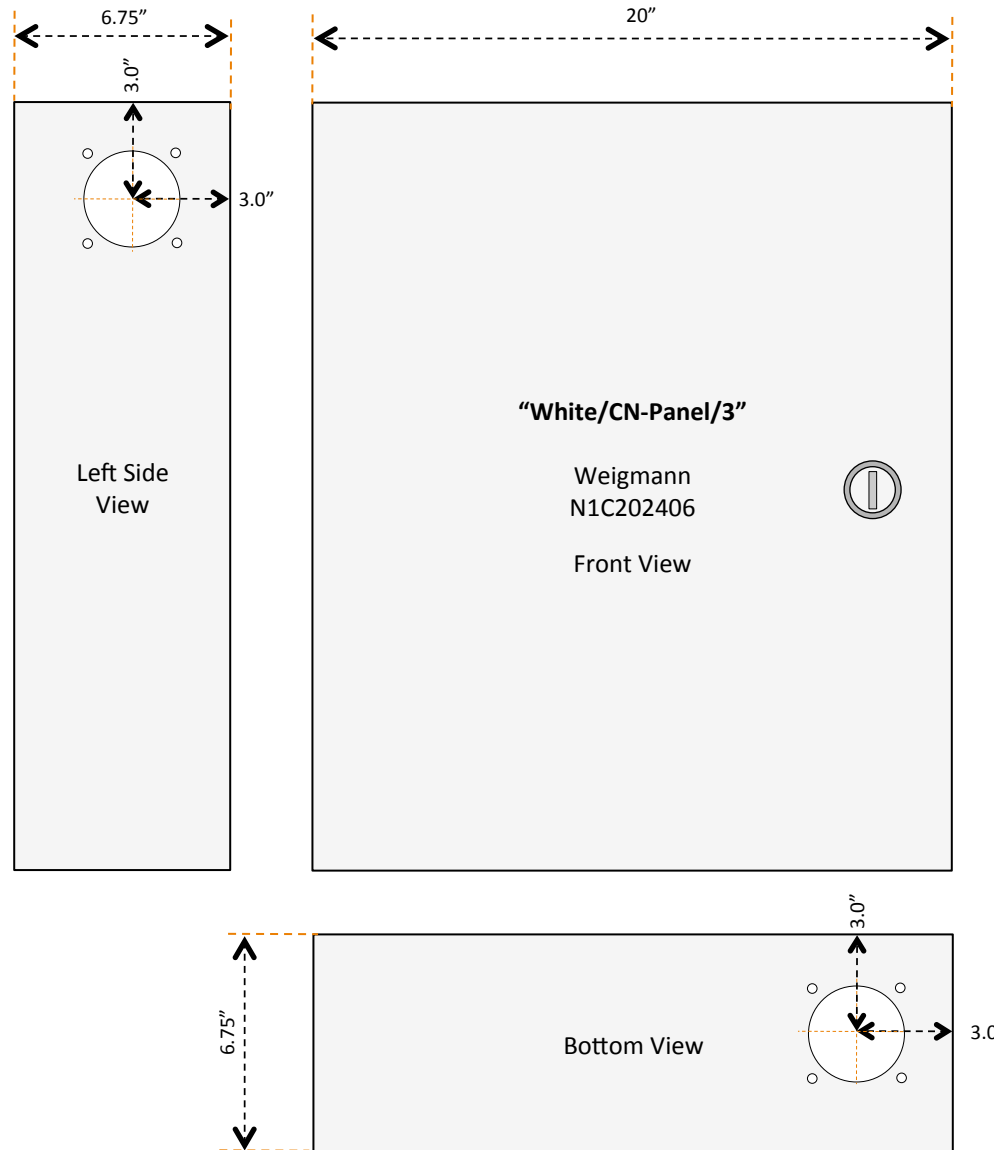
Scale: 6" ⇔ 1"

Fan Cutout Detail

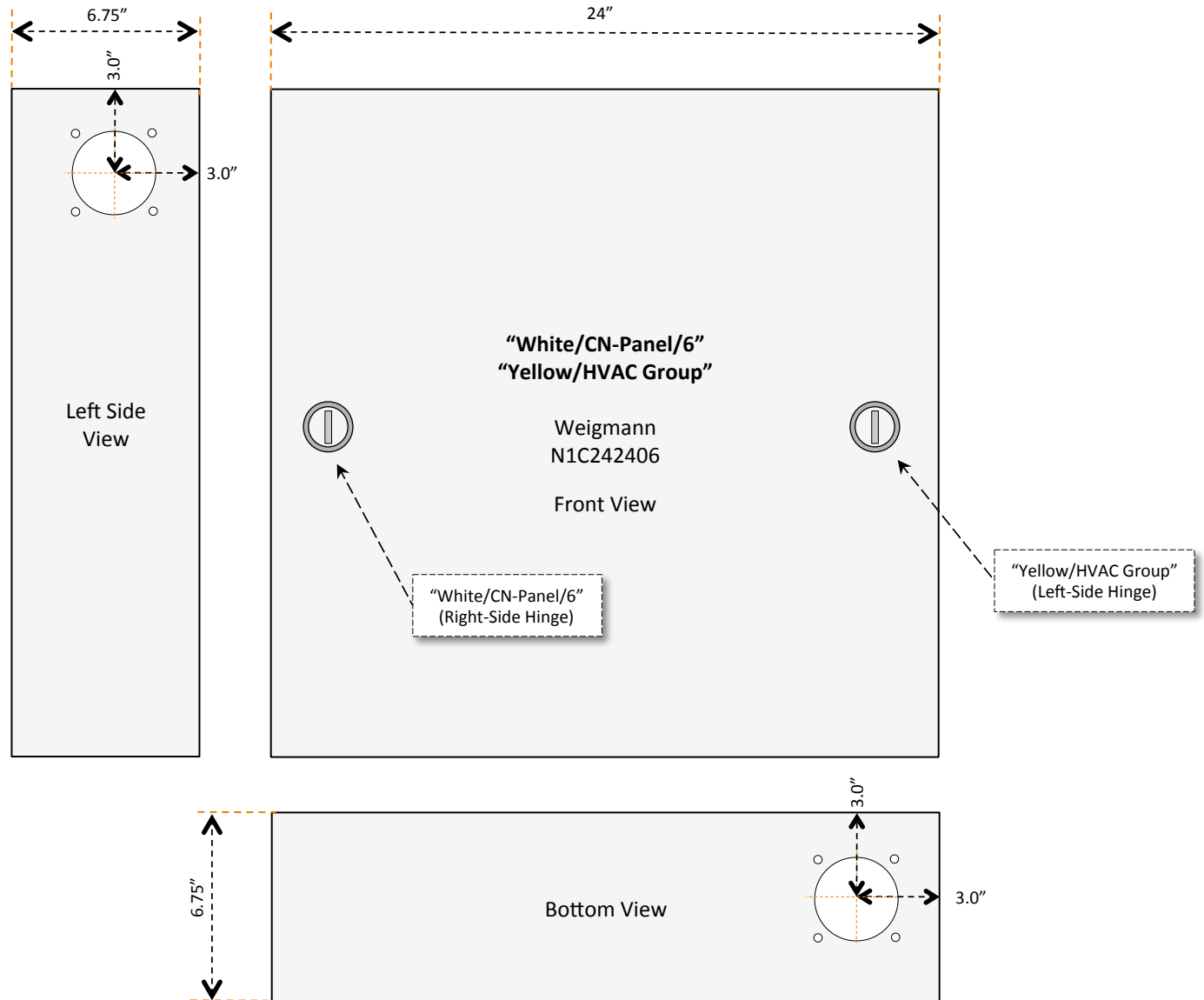


**Fan:** 80 x 80 x 25 mm  
24 Vdc, 55 CFM, Magnetic Bearing  
Sunon PMD2408PTV2-A or Equiv.

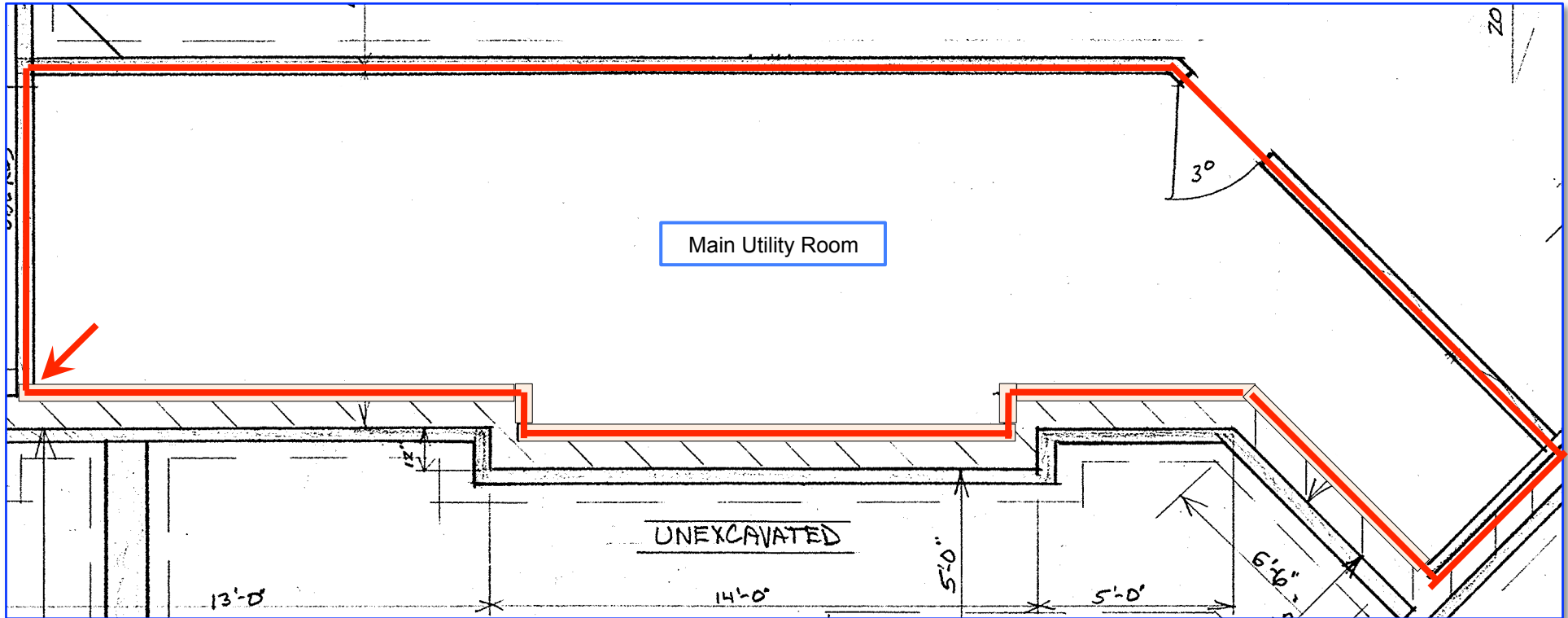
Scale: 1" ⇔ 1"





Scale: 6" ⇔ 1"



Scale: 6" ⇔ 1"



 = Region Boundary

 = Region Anchor Point (Corner)

Scale: 4' per inch