

PROBABLE COST SUMMARY			
Project ID:	Somerset Academy Avenir		
Location:	NW		
Scope of work:	MEP		
Date:	4/28/2024		
BUILDING GSF	39571		
LEVEL 1	21000		
LEVEL 2	18571		
DIVISION NO.	BUILDING COMPONENTS	TOTAL DIV. COST	COST/SF
Div. 01	General Requirements	\$ -	\$ -
Div. 21	Fire Suppression	\$ -	\$ -
Div. 22	Plumbing	\$ -	\$ -
Div. 25	HVAC/Mechanical	\$ -	\$ -
Div. 26	Electrical	\$ -	\$ -
Projected Cost		\$ -	\$ -
Insurance	3%	\$ -	\$ -
Contingency	5%	\$ -	\$ -
Overhead and Profit	15%	\$ -	\$ -
TAX	6.85%	\$ -	\$ -
Suggested Bid		\$ -	\$ -

Item #	Ref. Sheet	Item Description	Unit	Quantity	Wastage	Quantity w/ Wastage	Unit Material Cost	Total Material Cost	Total Labor Cost	Sub Cost	Total Trade Cost		
Building Data Summary									Bid Detail				
Project ID:		Somerset Academy Avenir									\$	-	
Location:		NW								3%	\$	-	
Scope of Work:		MEP								5%	\$	-	
Date:		5/18/2024								15%	\$	-	
										8.38%	\$	-	
											\$	-	
Item #	Ref. Sheet #	Item Description	Unit	Quantity	Wastage	Quantity w/ Wastage	Unit Material Cost	Total Material Cost	Total Labor Cost	Sub Cost	Total Trade Cost		
DIVISION.01 GENERAL REQUIREMENTS													
1		Supervision and Coordination	LS	1	0%	1	\$ -	\$ -	\$ -	\$ -			
2		Submittals and Shop drawings	LS	1	0%	1	\$ -	\$ -	\$ -	\$ -			
3		Final Cleaning	LS	1	0%	1	\$ -	\$ -	\$ -	\$ -			
4		Mobilization Costs	LS	1	0%	1	\$ -	\$ -	\$ -	\$ -			
5		Temporary Control & Facilities	LS	1	0%	1	\$ -	\$ -	\$ -	\$ -			
Subtotal (General Requirements)											\$	-	
DIVISION 21- FIRE SUPPRESSION													
	FP101a to FP102b	Fire Protection											
		First Floor					\$ -						
6		Concealed Sprinkler Head As; Manufacturer: Tyco Model: RFII Quick Response Design: NFPA13	245	EA			\$ -		\$ -				
7		4" Dia. Fire Protection Line Main	441	LF			\$ -		\$ -				
8		Tamper Switch	3	EA			\$ -		\$ -				
9		Concealed Sprinkler Head As; Manufacturer: Tyco Model: TY-FRB Quick Response Corrosion Resistant Design: NFPA13	38	EA			\$ -		\$ -				
10		Flow Switch	2	EA			\$ -		\$ -				
11		Concealed Sprinkler Head As; Manufacturer: Tyco Model: DS-1 Series Quick Response Brass Plated Design: NFPA13	9	EA			\$ -		\$ -				
		Second Floor					\$ -						
12		4" Dia. Fire Protection Line Main	303	LF			\$ -		\$ -				
13		Tamper Switch	1	EA			\$ -		\$ -				
14		Roof Manifold	1	EA			\$ -		\$ -				
15		Concealed Sprinkler Head As; Manufacturer: Tyco Model: RFII Quick Response Design: NFPA13	265	EA			\$ -		\$ -				
16		Concealed Sprinkler Head As; Manufacturer: Tyco Model: TY-FRB Quick Response Corrosion Resistant Design: NFPA13	11	EA			\$ -		\$ -				
Subtotal (Fire Suppression)								\$	-	\$		-	
DIVISION 22- PLUMBING													
	P-100 To P103b P-201 To 203 P-301 To 304	Fixture											
17		12" Air Chamber	35	EA			\$ -		\$ -				
18		Water Hammer Arrestor	45	EA			\$ -		\$ -				
19		"WC" Water Closet	22	EA			\$ -		\$ -				
20		"LAV" Lavatory	11	EA			\$ -		\$ -				
21		"SH" Shower	2	EA			\$ -		\$ -				
22		"SK" Sink	18	EA			\$ -		\$ -				
23		"W/D" Washing Machine & Dryer	1	EA			\$ -		\$ -				
24		"UR" Urinal	4	EA			\$ -		\$ -				
25		"TUB" Bath Tub	2	EA			\$ -		\$ -				
26		"IWH" Instant Water Heater	6	EA			\$ -		\$ -				
27		"BD" As Required	1	EA			\$ -		\$ -				
28		"EWC" As Required	14	EA			\$ -		\$ -				
29		Wall Hydrant	9	EA			\$ -		\$ -				
30		Roof Hydrant As; Model: Watts Drainage HY-900	1	EA			\$ -		\$ -				
		Site					\$ -						
31		1/2" CW	570.69	LF			\$ -		\$ -				
32		3/4" CW	289.48	LF			\$ -		\$ -				
33		Elbow	4	EA			\$ -		\$ -				
34		Tee	1	EA			\$ -		\$ -				
35		3/4" HB W/ S.O.V	4	EA			\$ -		\$ -				
		First Floor					\$ -						
		Sanitary & Vent					\$ -						
36		3/4" "CD" Condensate Drain Line	283.82	LF			\$ -		\$ -				
37		1" "CD" Condensate Drain Line	298.23	LF			\$ -		\$ -				
38		2" "CD" Condensate Drain Line	513	LF			\$ -		\$ -				
39		"C.O" Clean Out	13	EA			\$ -		\$ -				
40		3" Grease Waste Pipe	97.84	LF			\$ -		\$ -				
41		4" Grease Waste Pipe	60.84	LF			\$ -		\$ -				
42		6" Sanitary Pipe	223.09	LF			\$ -		\$ -				
43		Lint Trap	1	EA			\$ -		\$ -				
44		3" FS	6	EA			\$ -		\$ -				
45		3" "CD" Condensate Drain Line	65.84	LF			\$ -		\$ -				
46		2" Sanitary Pipe	14.31	LF			\$ -		\$ -				
47		3" Sanitary Pipe	128.17	LF			\$ -		\$ -				
48		4" Sanitary Pipe	622.08	LF			\$ -		\$ -				
49		3" Floor Drain	6	EA			\$ -		\$ -				
50		4" Floor Drain	1	EA			\$ -		\$ -				
51		3" Vent	442	LF			\$ -		\$ -				
52		Sump Pump	1	EA			\$ -		\$ -				
53		2" Vent	9	LF			\$ -		\$ -				
54		2" I.W. Pipe	67.26	LF			\$ -		\$ -				
55		(2"x4") Reducer	1	EA			\$ -		\$ -				
		Domestic					\$ -						
56		6" RWL	315.32	LF			\$ -		\$ -				
57		4" RWL	119.84	LF			\$ -		\$ -				
58		8" RWL	144.52	LF			\$ -		\$ -				
59		1/2 HWR Pipe	131.76	LF			\$ -		\$ -				
60		Valve Box	1	EA			\$ -		\$ -				
61		1" CW	26.69	LF			\$ -		\$ -				
62		1/2" CW	11.74	LF			\$ -		\$ -				
63		1-1/2" CW	44.97	LF			\$ -		\$ -				
64		3/4 CW	28.52	LF			\$ -		\$ -				
65		3/4" HW	121.3	LF			\$ -		\$ -				

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										8.38%	\$ -
											\$ -
Item #	Ref. Sheet #	Item Description	Unit	Quantity	Wastage	Quantity w/ Wastage	Unit Material Cost	Total Material Cost	Total Labor Cost	Sub Cost	Total Trade Cost
66	P304	1/2" HW	126.4	LF			\$ -		\$ -		
67		1-1/4" CW	86.86	LF			\$ -		\$ -		
68		2" CW	278.65	LF			\$ -		\$ -		
		Connection					\$ -				
69		Wye	80	EA			\$ -		\$ -		
70		P-Trap	33	EA			\$ -		\$ -		
71		Elbow	330	EA			\$ -		\$ -		
72		Tee	138	EA			\$ -		\$ -		
73		Four Way Cross	3	EA			\$ -		\$ -		
74		2" Hub	1	EA			\$ -		\$ -		
75		100 G.P.M Scheer Grease Interceptor									
		-Model: GB-250	1	EA			\$ -		\$ -		
		Second Floor					\$ -				
		Sanitary & Vent					\$ -				
76		3/4" "CD" Condensate Drain Line	401.07	LF			\$ -		\$ -		
77		1" "CD" Condensate Drain Line	229.76	LF			\$ -		\$ -		
78		2" "CD" Condensate Drain Line	9.32	LF			\$ -		\$ -		
79		3" Vent	150	LF			\$ -		\$ -		
80		2" Vent	24	LF			\$ -		\$ -		
81		Air Admit valve	4	EA			\$ -		\$ -		
82		3" Sanitary Pipe	268.53	LF			\$ -		\$ -		
83		4" Sanitary Pipe	9.38	LF			\$ -		\$ -		
84		3" Floor Drain	7	EA			\$ -		\$ -		
		Domestic					\$ -				
85		Domestic Supply Allowance	18667.98	SF			\$ -		\$ -		
		Connection					\$ -				
86		Wye	38	EA			\$ -		\$ -		
87		P-Trap	19	EA			\$ -		\$ -		
88		Elbow	173	EA			\$ -		\$ -		
89		Tee	51	EA			\$ -		\$ -		
		Roof					\$ -				
90		6" RWL	110.76	LF			\$ -		\$ -		
91		6" RG Roof Drain	7	EA			\$ -		\$ -		
92		1-1/4" "CD" Condensate Drain Line	65.6	LF			\$ -		\$ -		
		Valves					\$ -				
93		Shut Off Valve	75	EA			\$ -		\$ -		
94		Tempering Valve	14	EA			\$ -		\$ -		
95		Water Filter	1	EA			\$ -		\$ -		
96		Back Flow Preventer	1	EA			\$ -		\$ -		
97		3/4" HB	5	EA			\$ -		\$ -		
98		Union	4	EA			\$ -		\$ -		
99		Air Gap	2	EA			\$ -		\$ -		
100		Heat Trap	4	EA			\$ -		\$ -		
101		Butyl Diaphragm	2	EA			\$ -		\$ -		
102		Liquid Smart Switch	1	EA			\$ -		\$ -		
103		Oil Smart Alarm Panel									
		-Model: OSA-05	1	EA			\$ -		\$ -		
104		Check Valve	1	EA			\$ -		\$ -		
105		Float Switch	1	EA			\$ -		\$ -		
		Subtotal (Plumbing)						\$ -	\$ -		\$ -
DIVISION 25- HVAC/MECHANICAL											
		First Floor									
106	M-101A To M-103B	4" Dia. Flexible Duct	162.92	LF							
107		6" Dia. Flexible Duct	103.88	LF	10%		\$ -		\$ -		
108		8" Dia. Flexible Duct	210.75	LF	10%		\$ -		\$ -		
109		10" Dia. Flexible Duct	36.08	LF	10%		\$ -		\$ -		
110		12" Dia. Flexible Duct	15.68	LF	10%		\$ -		\$ -		
111		(4x6) Duct	33.79	LF	10%		\$ -		\$ -		
112		(6x6) Duct	67.72	LF	10%		\$ -		\$ -		
113		(6x8) Duct	50.23	LF	10%		\$ -		\$ -		
114		(8x8) Duct	112.21	LF	10%		\$ -		\$ -		
115		(8x10) Duct	33.03	LF	10%		\$ -		\$ -		
116		(10x10) Duct	81.04	LF	10%		\$ -		\$ -		
117		(10x12) Duct	13.4	LF	10%		\$ -		\$ -		
118		(10x14) Duct	50.74	LF	10%		\$ -		\$ -		
119		(12x12) Duct	52.5	LF	10%		\$ -		\$ -		
120		(12x14) Duct	162.11	LF	10%		\$ -		\$ -		
121		(12x16) Duct	33.8	LF	10%		\$ -		\$ -		
122		(12x18) Duct	42.79	LF	10%		\$ -		\$ -		
123		(12x20) Duct	4.02	LF	10%		\$ -		\$ -		
124		(12x26) Duct	5.92	LF	10%		\$ -		\$ -		
125		(12x30) Duct	10.52	LF	10%		\$ -		\$ -		
126		(14x14) Duct	75.75	LF	10%		\$ -		\$ -		
127		(14x16) Duct	19.47	LF	10%		\$ -		\$ -		
128		(14x20) Duct	12.72	LF	10%		\$ -		\$ -		
129		(14x24) Duct	40.49	LF	10%		\$ -		\$ -		
130		(14x26) Duct	44.17	LF	10%		\$ -		\$ -		
131		(14x28) Duct	52.25	LF	10%		\$ -		\$ -		
132		(14x30) Duct	26.55	LF	10%		\$ -		\$ -		
133		(16x16) Duct	22.57	LF	10%		\$ -		\$ -		
134		(16x32) Duct	28.51	LF	10%		\$ -		\$ -		
135		(16x40) Duct	16.66	LF	10%		\$ -		\$ -		
136		"T" Programmable Thermostat	32	EA	10%		\$ -		\$ -		
137		(12x12) RR Air Grille	2	EA	10%		\$ -		\$ -		
138		(24x24) RR Air Grille	31	EA	10%		\$ -		\$ -		
139		Diffuser	48	EA	10%		\$ -		\$ -		
140		"BD" Balancing Damper (Nylon Bearing)	5	EA	10%		\$ -		\$ -		
141		"FD" Fire Damper	4	EA	10%		\$ -		\$ -		
142		Transition	15	EA	10%		\$ -		\$ -		
143		Elbow	17	EA	10%		\$ -		\$ -		
		Second Floor			10%		\$ -				
144	4" Dia. Flexible Duct	76.65	LF	10%		\$ -		\$ -			
145	6" Dia. Flexible Duct	37.62	LF	10%		\$ -		\$ -			
146	8" Dia. Flexible Duct	251.79	LF	10%		\$ -		\$ -			
147	10" Dia. Flexible Duct	32.98	LF	10%		\$ -		\$ -			
148	(6x6) Duct	29.27	LF	10%		\$ -		\$ -			
149	(6x8) Duct	7.76	LF	10%		\$ -		\$ -			
150	(8x8) Duct	71.32	LF	10%		\$ -		\$ -			

Building Data Summary									Bid Detail		
Project ID:	Somerset Academy Avenir									\$	-
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Date:	5/18/2024									15%	\$
										8.38%	\$
											\$
Item #	Ref. Sheet #	Item Description	Unit	Quantity	Wastage	Quantity w/ Wastage	Unit Material Cost	Total Material Cost	Total Labor Cost	Sub Cost	Total Trade Cost
237	E 100 To 103b E-201a To 202b	208/240V 1 Phase 1 Power Receptacle	3	EA			\$ -		\$ -		
238		Electrical Panel	12	EA			\$ -		\$ -		
239		Electrical Sub Panel	3	EA			\$ -		\$ -		
		Second Floor					\$ -				
240		20A, 120V, Quad Receptacle	23	EA			\$ -		\$ -		
241		Data Outlet	100	EA			\$ -		\$ -		
242		"SD" Smoke Detector	31	EA			\$ -		\$ -		
243		Disconnect Switch Side Handle Type	4	EA			\$ -		\$ -		
244		20A, 120V, Single Receptacle	2	EA			\$ -		\$ -		
245		Communication panel	1	EA			\$ -		\$ -		
246		20A, 120V, Duplex Receptacle	115	EA			\$ -		\$ -		
247		"S" Combination Fire Alarm Speaker/Strobe Water Proof	32	EA			\$ -		\$ -		
248		"CS" Combination Clock Speaker	22	EA			\$ -		\$ -		
249		"MS" Motion Sensor	24	EA			\$ -		\$ -		
250		Intercom Call Button & Volumn Control Switch	19	EA			\$ -		\$ -		
251		"J" Junction Box WP	30	EA			\$ -		\$ -		
252		"F" Addressable fire Alarm Pull Station	3	EA			\$ -		\$ -		
253		Security Camera By Owner Selection	14	EA			\$ -		\$ -		
254		"DC" Magnetic Door Contact	4	EA			\$ -		\$ -		
255		"L" Fire Alarm Strobe Light	5	EA			\$ -		\$ -		
256		"WAP" Internet Wireless Access Point	19	EA			\$ -		\$ -		
257		GPS	25	EA			\$ -		\$ -		
258		Light Switch	26	EA			\$ -		\$ -		
259		Two Poles Switch Rated 240V/30A	32	EA			\$ -		\$ -		
260		20A, 120V, Ground Fault Type Duplex Receptacle WP	3	EA			\$ -		\$ -		
261		"HD" Addressable Heat Detector	1	EA			\$ -		\$ -		
262		"H/D" Hand Dryer, Verify Connection	7	EA			\$ -		\$ -		
263		"EF" 120V Exhaust Fan	1	EA			\$ -		\$ -		
		Roof					\$ -				
264		Fused Disconnect Switch	17	EA			\$ -		\$ -		
265		20A, 120V, ground Fault Type Duplex Receptacle	4	EA			\$ -		\$ -		
266		Photocell Control	1	EA			\$ -		\$ -		
267		Single Switch	3	EA			\$ -		\$ -		
		Lighting					\$ -				
		First Floor					\$ -				
268		Wire Conduit	20994.56	SF			\$ -		\$ -		
269		(2'x4') Recessed Light Fixture "A" As; Manufacturer: Lithonia Model: STAK 2x4 7200LM 80CRI 40K COL MIN 10ZT MVOLT	46	EA			\$ -		\$ -		
270		(2'x4') Recessed Light Fixture W/ Battery "AE" As; Manufacturer: Lithonia Model: STAK 2x4 7200LM 80CRI 40K COL MIN 10ZT MVOLT E10WLCP	22	EA			\$ -		\$ -		
271		(2'x4') Recessed Light Fixture "B" As; Manufacturer: Lithonia Model: STAK 2x4 6000LM 80CRI 40K COL MIN 10ZT MVOLT	40	EA			\$ -		\$ -		
272		(2'x4') Recessed Light Fixture "BE" As; Manufacturer: Lithonia Model: STAK 2x4 6000LM 80CRI 40K COL MIN 10ZT MVOLT E10WLCP	40	EA			\$ -		\$ -		
273		(2x2) Grid Light Fixture W/ Battery "CE" As; Manufacturer: Lithonia Model: STAK 2x2 4000LM 80CRI 40K COL MIN 10ZT MVOLT E10WLCP/DGA22	10	EA			\$ -		\$ -		
274		(6") Down Recessed DownLight "D" As; Manufacturer: Lithonia Model: LDN6 40/20 LO6AR LSS MVOLT GZ10 TRW	28	EA			\$ -		\$ -		
275		(6") Down Recessed DownLight W/ Battery "DE" As; Manufacturer: Lithonia Model: LDN6 40/20 LO6AR LSS MVOLT GZ10 TRW EL	10	EA			\$ -		\$ -		
276		(4') Up/Down Light Fixture "E" As; Manufacturer: Lithonia Model: GRD LSL 4FT 80CRI 40K ID800LMF 20/80 MIN10ZT XXXSCT F1/48A C210	3	EA			\$ -		\$ -		
277		(36") Deco Round Light Fixture "F" As; Manufacturer: Lithonia Model: 2612-36-XX-NT-C49-WHA-CC3-40K	4	EA			\$ -		\$ -		
278		(36") Deco Round Light Fixture W/ Battery "FE" As; Manufacturer: Lithonia Model: 2612-36-XX-NT-C49-WHA-CC3-40K-BBI MOD	2	EA			\$ -		\$ -		
279		4' Strip Light Fixture "G" As; Manufacturer: Lithonia Model: ZL 1D L48 7000LM FST MVOLT 80CRI WH	10	EA			\$ -		\$ -		
280		4' Strip Light Fixture W/ Battery "GE" As; Manufacturer: Lithonia Model: ZL 1D L48 7000LM FST MVOLT 80CRI E7W WH	2	EA			\$ -		\$ -		
281		(4') Linear Light Fixture W/ Battery "HE" As; Manufacturer: Lithonia Model: BLWP4 7200L ADP GZ10 LP840 NOC E10WLCP	1	EA			\$ -		\$ -		
282		(24") Deco Round Light Fixture "I" As; Manufacturer: BrownLee Model: 2612-24-XX-NT-R34-WHA-CC3-40K	1	EA			\$ -		\$ -		
283		(24") Deco Round Light Fixture "IE" As; Manufacturer: BrownLee Model: 2612-24-XX-NT-R34-WHA-CC3-40K-BBI MOD	1	EA			\$ -		\$ -		
284		(4') Up/Down Light Fixture "K" As; Manufacturer: Lithonia Model: GRD LSL 4FT 80CRI 40K ID1300LMF 20/80 MIN10ZT XXXSCT F1/48A C210	12	EA			\$ -		\$ -		
285		(4') Up/Down Light Fixture W/ Battery "KE" As; Manufacturer: Lithonia Model: GRD LSL 4FT 80CRI 40K ID1300LMF 20/80 MIN10ZT XXXSCT F1/48A C211	3	EA			\$ -		\$ -		
286		Deco Round Light Fixture "L" As; Manufacturer: Lithonia Model: VCPG LED V4 P4 40K 80CRI T5W MVOLT PM LDS72 BDS XXXXD	2	EA			\$ -		\$ -		
287		Deco Round Light Fixture W/ Battery "LE" As; Manufacturer: Lithonia Model: VCPG LED V4 P4 40K 80CRI T5W MVOLT PM LDS72 BDS XXXXD E10WCP	4	EA			\$ -		\$ -		

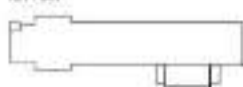
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Date:	5/18/2024									15%	\$
										8.38%	\$
											\$
											-
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288		(2') Strip Light Fixture "P" As; Manufacturer: Lithonia Model: ZL 1D L24 2500LM FST MVOLT 80CRI WH	1	EA			\$ -		\$ -		
289		OutDoor Deco Wall Pack Light Fixture W/ Battery "Q" As; Manufacturer: Lithonia Model: WDGE2 LED P2 40K 80CRI T3M MVOLT SRM XXXXD	31	EA			\$ -		\$ -		
290		"R" Light Fixture As Required	4	EA			\$ -		\$ -		
291		"RE" Light Fixture As Required	2	EA			\$ -		\$ -		
292		(4') Vanity Light Fixture "S" As; Manufacturer: BrownLee Model: 5178-48-WH-H32LED-40K	2	EA			\$ -		\$ -		
293		(2'x4') Recessed Light Fixture "U" As; Manufacturer: Lithonia Model: 2WRTL G L48 5000LM OAW AFL MVOLT GZ1 40K 80CRI FPA WH	11	EA			\$ -		\$ -		
294		(2'x4') Recessed Light Fixture W/ Battery "UE" As; Manufacturer: Lithonia Model: 2WRTL G L48 5000LM OAW AFL MVOLT GZ1 40K 80CRI FPA E10WLCP WH	7	EA			\$ -		\$ -		
295		Universal Exist Sign "X" As; Manufacturer: Lithonia Model: EXRG EL	27	EA			\$ -		\$ -		
296		(2') Enclosed & Gasketed "PIT" As; Manufacturer: Lithonia Model: FEM LED L24 6000LM LPACL WD MVOLT GZ10 40K 80CR	1	EA			\$ -		\$ -		
297		"OS" Ceiling Occupancy Sensor	27	EA			\$ -		\$ -		
298		"VS" Vacancy Sensor	17	EA			\$ -		\$ -		
		Second Floor					\$ -				
299		Wiring Conduit	18571.5	SF			\$ -		\$ -		
300		(2') Enclosed & Gasketed "N" As; Manufacturer: Lithonia Model: FEM LED L48 8000LM IMAFD MDMVOLT GZ10 40K 80CRI	2	EA			\$ -		\$ -		
301		(2') Enclosed & Gasketed W/ Battery "NE" As; Manufacturer: Lithonia Model: FEM LED L48 8000LM IMAFD MDMVOLT GZ10 40K 80CRI E10WMCP	4	EA			\$ -		\$ -		
302		Deco Wall Sconce "V" As; Manufacturer: Lithonia Model: WDGE2 LED P1 40K 80CRI VW MVOLT SRM XXXXD	2	EA			\$ -		\$ -		
303		(2'x4') Recessed Light Fixture "A" As; Manufacturer: Lithonia Model: STAK 2x4 7200LM 80CRI 40K COL MIN 10ZT MVOLT	86	EA			\$ -		\$ -		
304		(2'x4') Recessed Light Fixture W/ Battery "AE" As; Manufacturer: Lithonia Model: STAK 2x4 7200LM 80CRI 40K COL MIN 10ZT MVOLT E10WLCP	34	EA			\$ -		\$ -		
305		(2'x4') Recessed Light Fixture "B" As; Manufacturer: Lithonia Model: STAK 2x4 6000LM 80CRI 40K COL MIN 10ZT MVOLT	23	EA			\$ -		\$ -		
306		(2'x4') Recessed Light Fixture "BE" As; Manufacturer: Lithonia Model: STAK 2x4 6000LM 80CRI 40K COL MIN 10ZT MVOLT E10WLCP	15	EA			\$ -		\$ -		
307		(2x2) Grid Light Fixture W/ Battery "CE" As; Manufacturer: Lithonia Model: STAK 2x2 4000LM 80CRI 40K COL MIN 10ZT MVOLT E10WLCP/DGA22	5	EA			\$ -		\$ -		
308		(6") Down Recessed DownLight "D" As; Manufacturer: Lithonia Model: LDN6 40/20 LO6AR LSS MVOLT GZ10 TRW	29	EA			\$ -		\$ -		
309		(6") Down Recessed DownLight W/ Battery "DE" As; Manufacturer: Lithonia Model: LDN6 40/20 LO6AR LSS MVOLT GZ10 TRW EL	2	EA			\$ -		\$ -		
310		(36") Deco Round Light Fixture "F" As; Manufacturer: Lithonia Model: 2612-36-XX-NT-C49-WHA-CC3-40K	3	EA			\$ -		\$ -		
311		4' Strip Light Fixture "G" As; Manufacturer: Lithonia Model: ZL 1D L48 7000LM FST MVOLT 80CRI WH	7	EA			\$ -		\$ -		
312		4' Strip Light Fixture W/ Battery "GE" As; Manufacturer: Lithonia Model: ZL 1D L48 7000LM FST MVOLT 80CRI E7W WH	3	EA			\$ -		\$ -		
313		(4') Linear Light Fixture "H" As; Manufacturer: Lithonia Model: BLWP4 7200L ADP GZ10 LP840 NOC	1	EA			\$ -		\$ -		
314		(4') Linear Light Fixture W/ Battery "HE" As; Manufacturer: Lithonia Model: BLWP4 7200L ADP GZ10 LP840 NOC E10WLCP	2	EA			\$ -		\$ -		
315		(4') Up/Down Light Fixture "K" As; Manufacturer: Lithonia Model: GRD LSL 4FT 80CRI 40K ID1300LMF 20/80 MIN10ZT XXXSCT F1/4BA C210	9	EA			\$ -		\$ -		
316		(4') Up/Down Light Fixture W/ Battery "KE" As; Manufacturer: Lithonia Model: GRD LSL 4FT 80CRI 40K ID1300LMF 20/80 MIN10ZT XXXSCT F1/4BA C211	5	EA			\$ -		\$ -		
317		Square OutDoor Wattted Switch @ 60W "O" As; Manufacturer: Alphasite Model: CNP-60A-7A-XX	1	EA			\$ -		\$ -		
318		Square OutDoor Wattted Switch @ 60W W/ Battery "OE" As; Manufacturer: Alphasite Model: CNP-60A-7A-XX-EM1400	2	EA			\$ -		\$ -		
319		(4') Vanity Light Fixture "S" As; Manufacturer: BrownLee Model: 5178-48-WH-H32LED-40K	2	EA			\$ -		\$ -		
320		Universal Exist Sign "X" As; Manufacturer: Lithonia Model: EXRG EL	18	EA			\$ -		\$ -		
321		"OS" Ceiling Occupancy Sensor	17	EA			\$ -		\$ -		
322		"VS" Vacancy Sensor	22	EA			\$ -		\$ -		
		Subtotal (Electrical)						\$ -	\$ -		\$



NO	DATE	REVISION	BY

DESIGNED BY	APPROVED BY
HS/11/14	TS
DATE	SCALE
05/15/2024	AS SHOWN

KEY PLAN



1/8" = 1' (SEE 21-10-00804)
SEAL SIGNATURE



ANTONIO F. NARANJO
PE - 25064

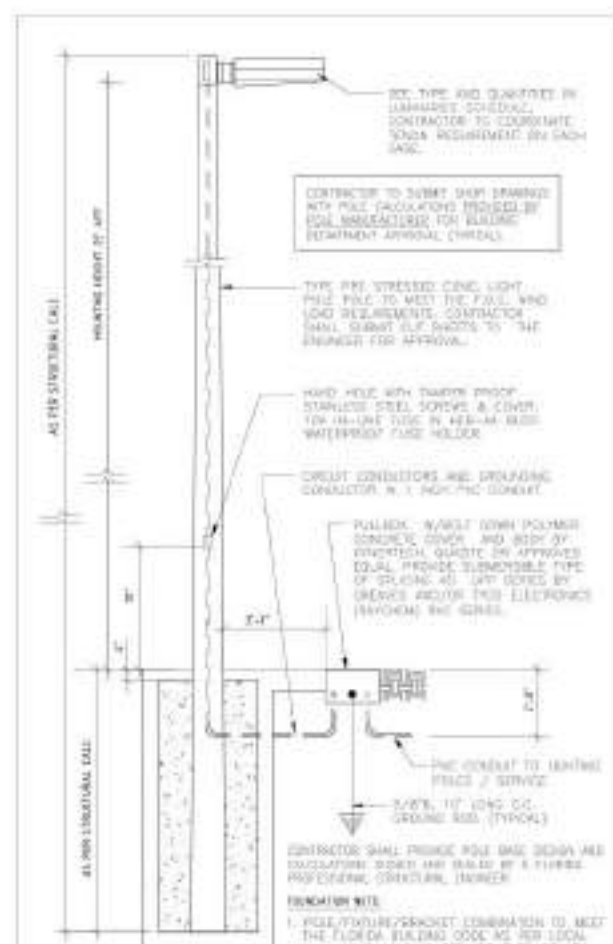
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SHEET TITLE

**ELECTRICAL
SITE PLAN**

SHEET NUMBER

E100



Antonio F. Naranjo

ELECTRICAL SITE PLAN

1" = 30'

Symbol	Qty	Label	Arrangement	EQ	Description	File Name	Area	Area Value	Unit
13	13	A	Single	0.890	RECESSED: LUMINAIRE 140-0-50K-56	ELAR04-140-0-50K-56	8	399.800	sq ft
2	2	B	Single	0.890	RECESSED: LUMINAIRE 140-0-50K-56	ELAR04-140-0-50K-56	8.5	347.175	sq ft
3	3	C	Single	0.890	RECESSED: LUMINAIRE 130-0-50K-73	ELAR04-130-0-50K-73	8.2	344.813	sq ft
4	4	D	Single	0.890	RECESSED: LUMINAIRE 140-0-50K-56	ELAR04-140-0-50K-56	8.2	331.888	sq ft
4	4	E	Twin	0.890	RECESSED: LUMINAIRE 400-0-50K-56	ELAR04-400-0-50K-56	9	479.258	sq ft

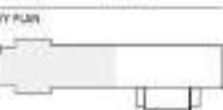
257,165.9 SQ FT

- Security Camera By Owner Selection
- Junction Box WP
- Combination Fire Alarm Speaker/Strobe Water Proof
- 1" Conduit
- 20A, 120V, Ground Fault Type Duplex Receptacle ...
- Two Poles Switch Rated 240V/30A
- Fire Alarm Monitor Module
- "TS" As Required
- Pedestal Type Dual Vehicle Charger
- Wall Light Fixture
- 2" Conduit
- New FPL Transformer
- Luminaire "A" Single (13)
- Luminaire "B" Single (2)
- Luminaire "E" Twin (4) HILUMZ: HLA08-400-U-50K...
- Luminaire "C" Single (3)
- Luminaire "D" Single (4)
- Wiring Conduit



NO	DATE	REVISION	BY

DRAWN BY: H5/11/14
DATE: 05/15/2014
KEY PLAN:
APPROVED BY: TN
SCALE: AS SHOWN



1/8" = 1'-0" (1/8" = 1'-0")
1/8" = 1'-0" (1/8" = 1'-0")



Antonio F. Naranjo

ANTONIO NARANJO
PE - 25064

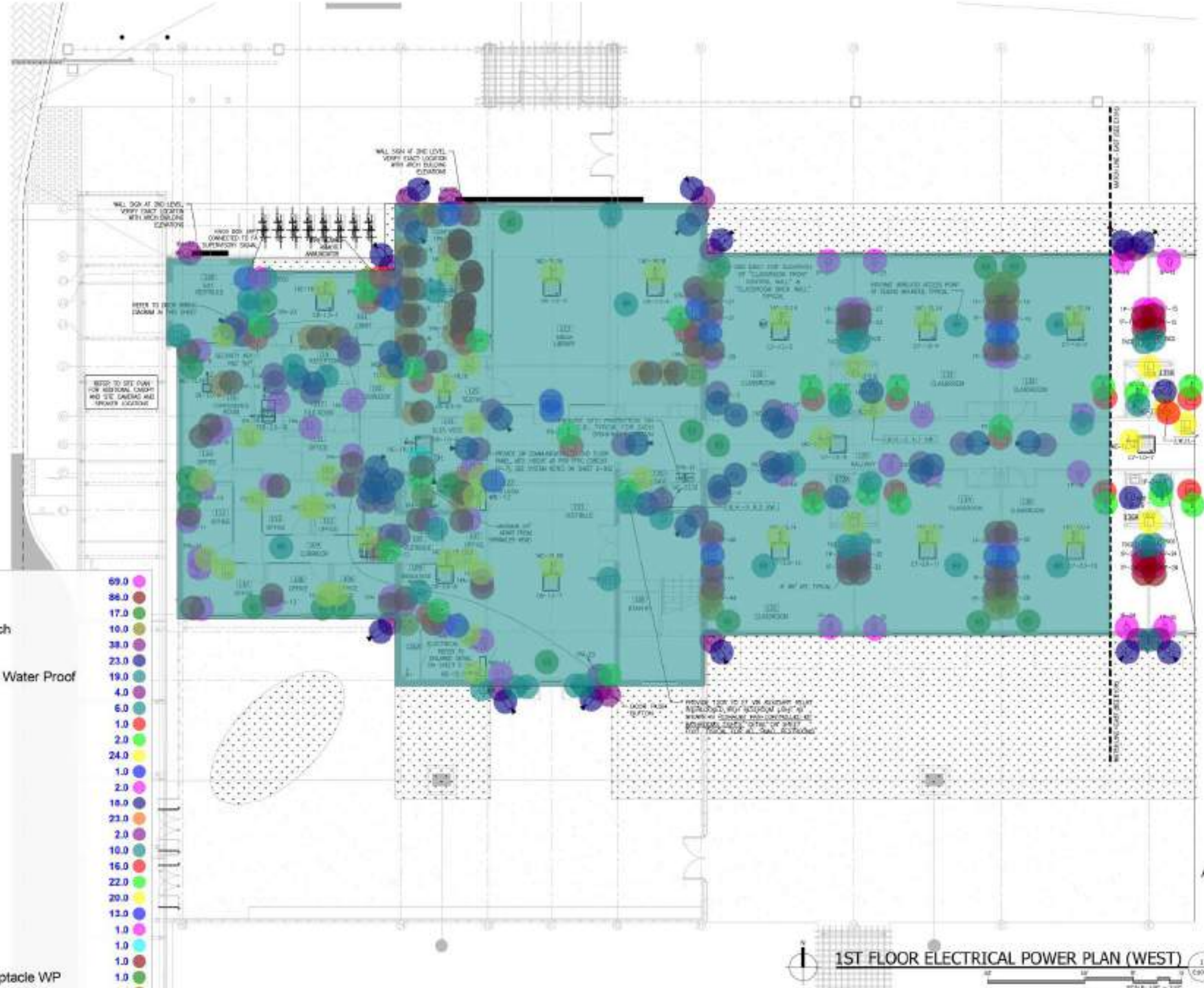
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SHEET TITLE:

1ST FL ELECTRICAL
POWER PLAN
(WEST)

SHEET NUMBER:

E101a



1ST FLOOR ELECTRICAL POWER PLAN (WEST)
SCALE: 1/8" = 1'-0"

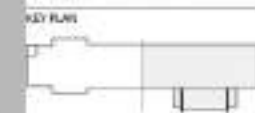
- 20A, 120V, Duplex Receptacle
- Data Outlet
- "MS" Motion Sensor
- Intercom Call Button & Volume Control Switch
- "J" Junction Box WP
- Security Camera By Owner Selection
- "S" Combination Fire Alarm Speaker/Strobe Water Proof
- Door Push Button
- "DC" Magnetic Door Contact
- Security Key Pad "KP"
- "CA" Card Reader Access Station
- "L" Fire Alarm Strobe Light
- Knox Box (WP)
- "F" Addressable fire Alarm Pull Station
- "SD" Smoke Detector
- 20A, 120V, Quad Receptacle
- "MD" Motion Detector
- "WAP" Internet Wireless Access Point
- GPS
- Light Switch
- Two Poles Switch Rated 240V/30A
- "CS" Combination Clock Speaker
- 20A, 120V, Single Receptacle
- "MM" Fire Alarm Monitor Module
- "TS"
- 20A, 120V, Ground Fault Type Duplex Receptacle WP
- "HD" Addressable Heat Detector
- "H/D" Hand Dryer, Verify Connection
- Disconnect Switch Side Handle Type
- "EF" 120V Exhaust Fan
- Fire Alarm Remote Annunciator
- Wire Conduit

69.0
34.0
17.0
10.0
38.0
23.0
19.0
4.0
6.0
1.0
2.0
24.0
1.0
2.0
18.0
21.0
2.0
10.0
16.0
22.0
20.0
13.0
1.0
1.0
1.0
1.0
5.0
1.0
5.0
2.0
10,412.2 SQ FT



NO.	DATE	REVISION	BY

DESIGNED BY	APPROVED BY
ML/VP/IE	TH
DATE	SCALE
03/15/2021	AS SHOWN



1st FL, PVE - 11.75' NAID

SEA/ANTONIO F. NARANJO



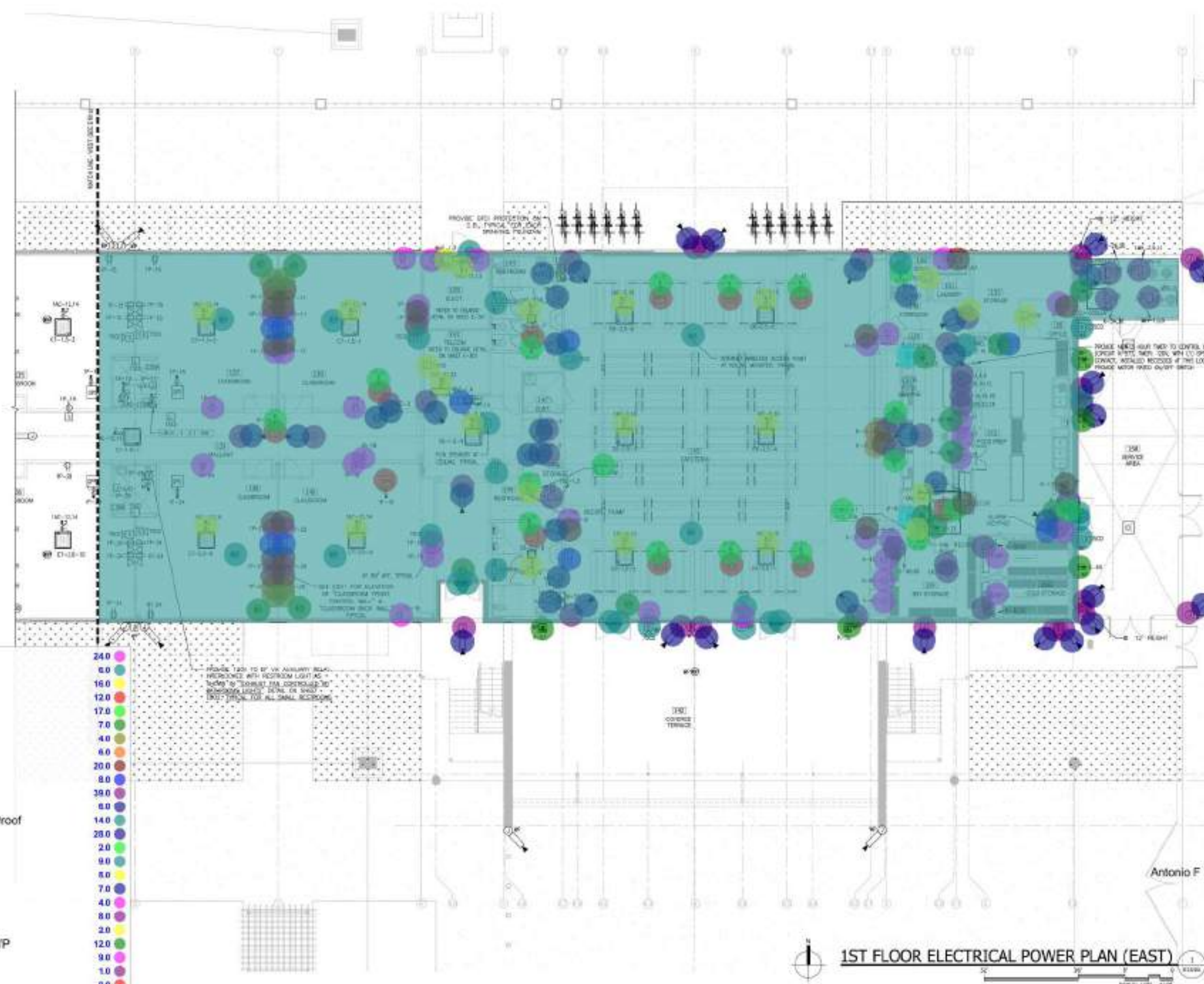
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SHEET TITLE:

**1ST FL ELECTRICAL
POWER PLAN
(EAST)**

SHEET NUMBER:

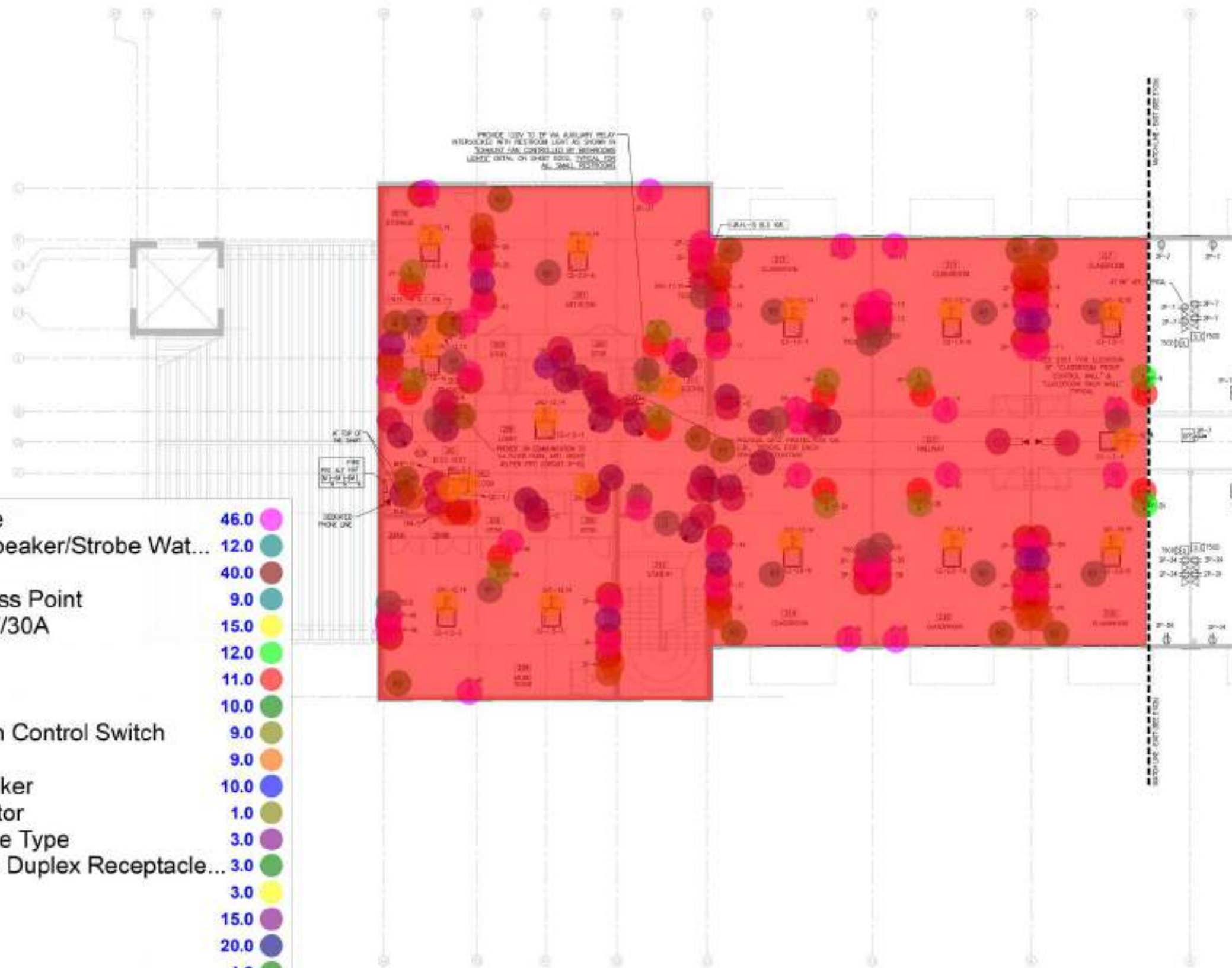
E101b



1ST FLOOR ELECTRICAL POWER PLAN (EAST)

- 20A, 120V, Duplex Receptacle
- "WAP" Internet Wireless Access Point
- Two Poles Switch Rated 240V/30A
- GPS
- Light Switch
- "MS" Motion Sensor
- Intercom Call Button & Volume Control Switch
- 20A, 120V, Quad Receptacle
- Data Outlet
- "CS" Combination Clock Speaker
- "J" Junction Box WP
- "SD" Smoke Detector
- "S" Combination Fire Alarm Speaker/Strobe Water Proof
- Security Camera By Owner Selection
- "EWH" Electric Water Heater
- "DC" Magnetic Door Contact
- "L" Fire Alarm Strobe Light
- "HD" Hand Dryer, Verify Connection
- "F" Addressable fire Alarm Pull Station
- Disconnect Switch Side Handle Type
- Hot Water Recirculating Pump
- 20A, 120V, Ground Fault Type Duplex Receptacle WP
- 20A, 120V, Single Receptacle
- "MD" Motion Detector
- Fire Alarm Remote Annunciator
- Alarm Keypad
- "EVAP"
- "EF" 120V Exhaust Fan
- 208/240V Three Phase Receptacle
- 208/240V 1 Phase 1 Power Receptacle
- Wire Conduit

240	6.0
160	16.0
120	17.0
7.0	7.0
4.0	4.0
6.0	6.0
20.0	8.0
39.0	6.0
14.0	28.0
2.0	2.0
9.0	9.0
1.0	1.0
0.0	0.0
1.0	1.0
2.0	2.0
1.0	1.0
2.0	2.0
3.0	3.0
10,582.4	5.0



- 20A, 120V, Duplex Receptacle 46.0
- "S" Combination Fire Alarm Speaker/Strobe Wat... 12.0
- Data Outlet 40.0
- "WAP" Internet Wireless Access Point 9.0
- Two Poles Switch Rated 240V/30A 15.0
- Light Switch 12.0
- GPS 11.0
- "MS" Motion Sensor 10.0
- Intercom Call Button & Volume Control Switch 9.0
- 20A, 120V, Quad Receptacle 9.0
- "CS" Combination Clock Speaker 10.0
- "HD" Addressable Heat Detector 1.0
- Disconnect Switch Side Handle Type 3.0
- 20A, 120V, Ground Fault Type Duplex Receptacle... 3.0
- "L" Fire Alarm Strobe Light 3.0
- "J" Junction Box WP 15.0
- "SD" Smoke Detector 20.0
- Communication panel 1.0
- Security Camera By Owner Selection 4.0
- "EF" 120V Exhaust Fan 1.0
- 20A, 120V, Single Receptacle 1.0
- "H/D" Hand Dryer, Verify Connection 1.0
- "F" Addressable fire Alarm Pull Station 1.0
- Wiring Conduit 8,142.7 SQ FT

NO	DATE	REVISION	BY

DRAWN BY: HGT/11/11
DATE: 02/15/2011
KEY PLAN:



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

ANTONIO F. NARANJO
PE - 25064

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SHEET TITLE:

2ND FL ELECTRICAL POWER PLAN (WEST)

SHEET NUMBER:

E102a



REV	DATE	REVISION	BY

DRAWN BY: APPROVED BY:
R0111/E TN
DATE: 12/5/2021 SCALE: AS SHOWN
REVISION:



1" = 10' PER 1" = 10' NORTH
SOUTH



Antonio F Naranjo

ANTONIO F. NARANJO
PE - 12584

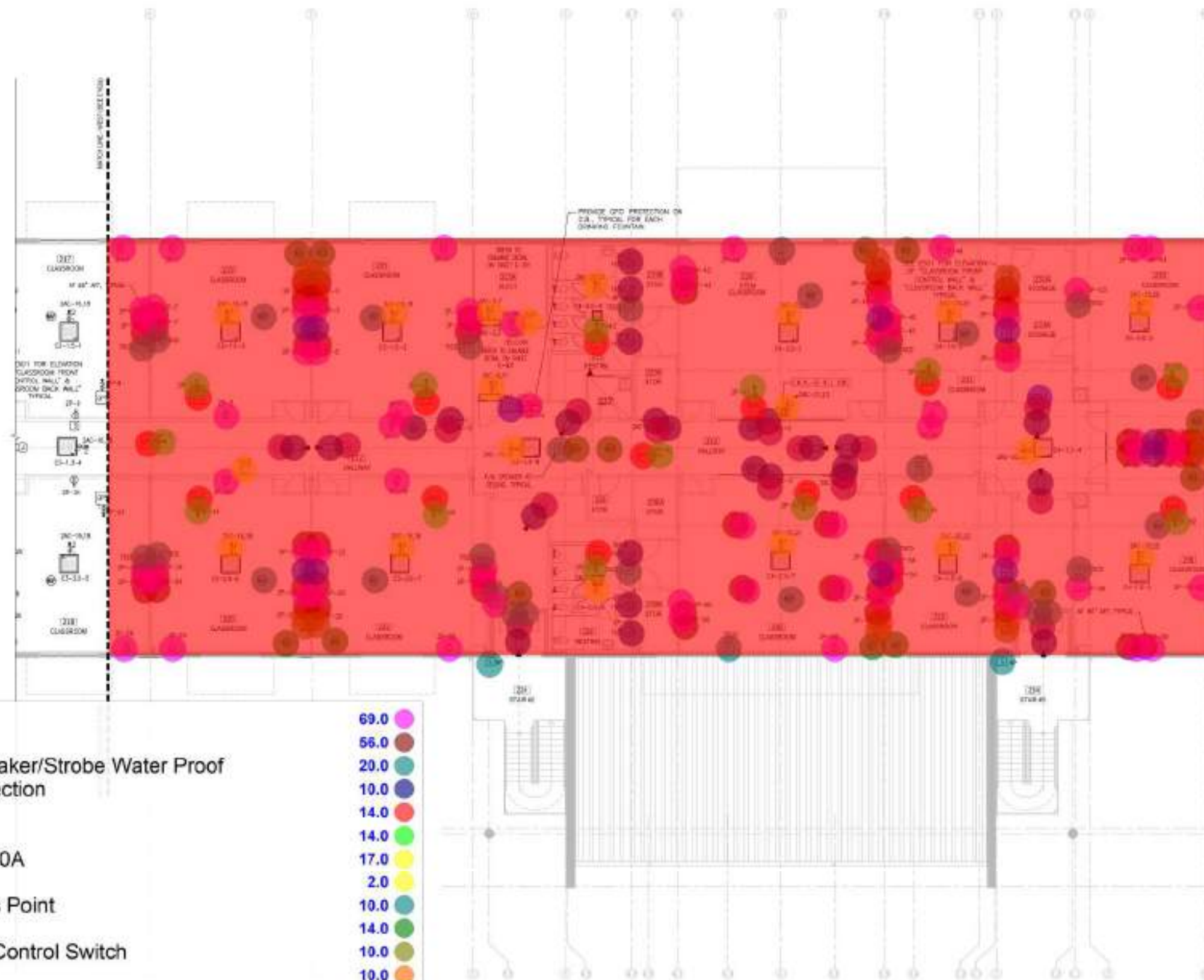
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SHEET TITLE:

2ND FL ELECTRICAL
POWER PLAN
(EAST)

SHEET NUMBER:

E102b



- 20A, 120V, Duplex Receptacle
 - Data Outlet
 - "S" Combination Fire Alarm Speaker/Strobe Water Proof
 - Security Camera By Owner Selection
 - GPS
 - Light Switch
 - Two Poles Switch Rated 240V/30A
 - "L" Fire Alarm Strobe Light
 - "WAP" Internet Wireless Access Point
 - "MS" Motion Sensor
 - Intercom Call Button & Volume Control Switch
 - 20A, 120V, Quad Receptacle
 - "CS" Combination Clock Speaker
 - "DC" Magnetic Door Contact
 - "F" Addressable fire Alarm Pull Station
 - "J" Junction Box WP
 - "SD" Smoke Detector
 - "H/D" Hand Dryer, Verify Connection
 - 20A, 120V, Single Receptacle
 - Wiring Conduit
- | | |
|----------------|---|
| 69.0 | ● |
| 56.0 | ● |
| 20.0 | ● |
| 10.0 | ● |
| 14.0 | ● |
| 14.0 | ● |
| 17.0 | ● |
| 2.0 | ● |
| 10.0 | ● |
| 14.0 | ● |
| 10.0 | ● |
| 10.0 | ● |
| 12.0 | ● |
| 4.0 | ● |
| 2.0 | ● |
| 15.0 | ● |
| 10.0 | ● |
| 6.0 | ● |
| 1.0 | ● |
| 10,428.8 SQ FT | ■ |

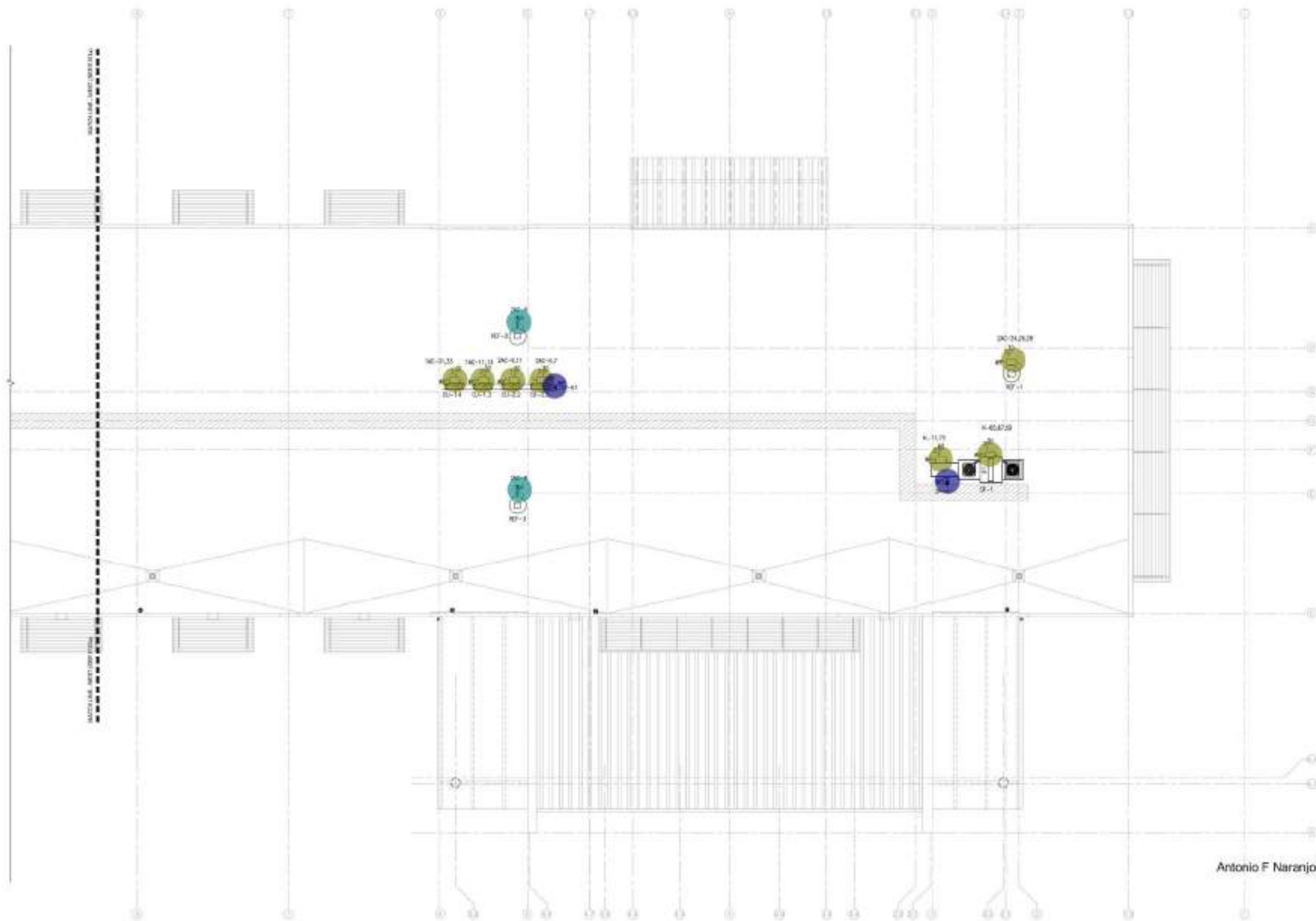


MEP MECHANICAL ELECTRICAL PLUMBING
ANTONIO NARANJO PE 12584
MEP ENGINEERING INC.
1858 N.W. 27 ST. SUITE 100 MIAMI FL 33172
TEL: 305-471-0199



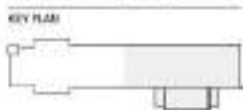
- 10.0
2.0
1.0
1.0





No.	DATE	REVISION	BY

DRAWN BY: M/TF/E
DATE: 02/15/2024
KEY PLAN



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



Antonio F. Naranjo

ANTONIO NARANJO
PE - 33864

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SHEET TITLE:

**ELECTRICAL
ROOF PLAN
(EAST)**

SHEET NUMBER:

E103b



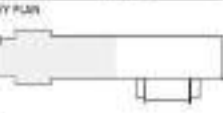
MEP MECHANICAL ELECTRICAL PLUMBING
MEP ENGINEERING INC.
10800 N.W. 27th St. Suite 101 Miami, FL 33172

- Fused Disconnect Switch 7.0
- 20A, 120V, ground Fault Type Duplex Recept... 2.0
- Single Switch 2.0



NO	DATE	REVISION	BY

DRAWN BY: HGT/TVJ
DATE: 05/15/2024
KEY PLAN:
APPROVED BY: TN
SCALE: AS SHOWN



1/8" = 1'-0" (1/8" = 1'-0")



Antonio F. Naranjo

ANTONIO NARANJO
PE - 250119

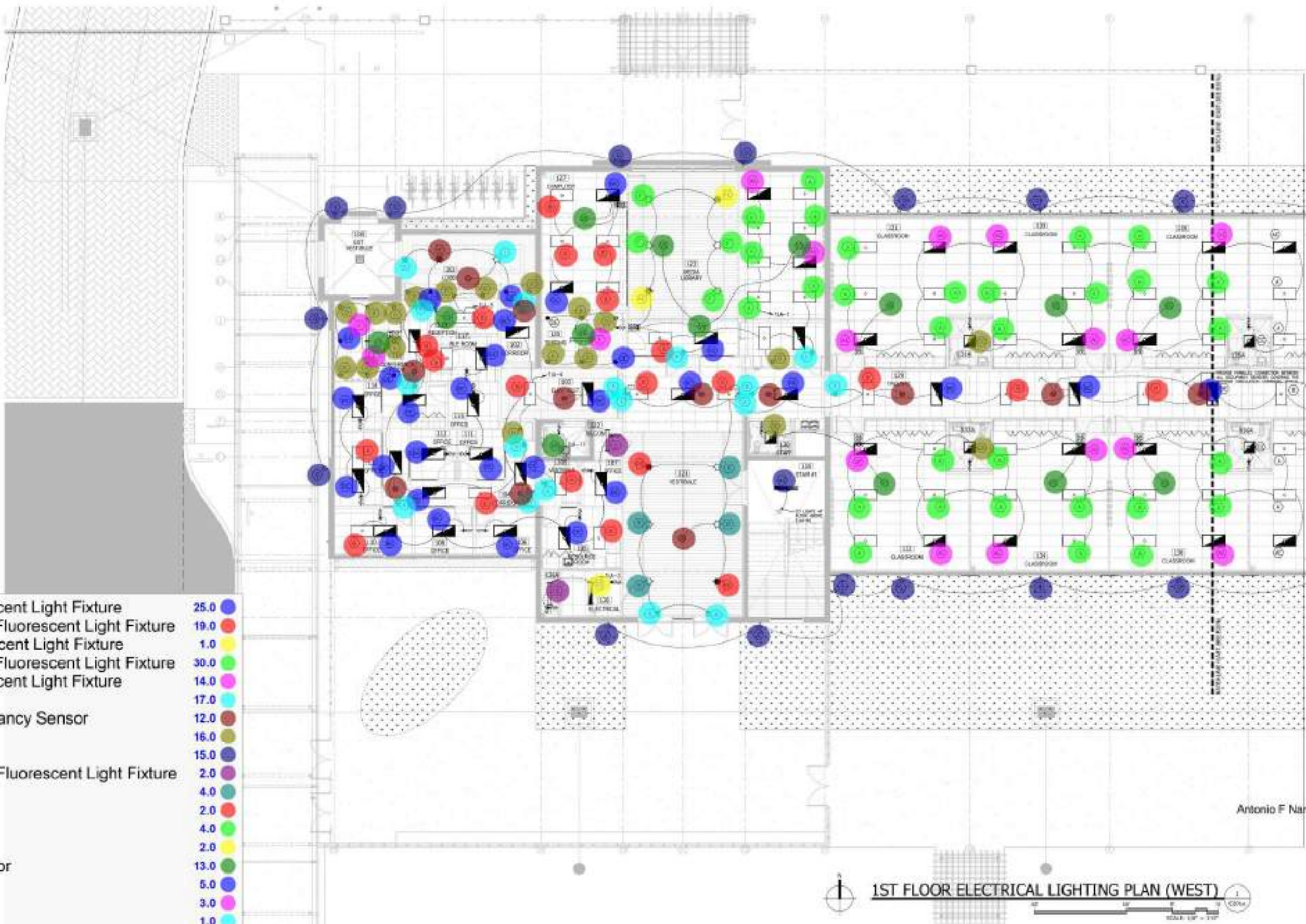
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SHEET TITLE:

1ST FL ELECTRICAL LIGHTING PLAN (WEST)

SHEET NUMBER:

E201a



- "BE" (2'x4') Fluorescent Light Fixture 25.0
- "B" (2'x4') Flanged Fluorescent Light Fixture 19.0
- "GE" (1'x4') Fluorescent Light Fixture 1.0
- "A" (2'x4') Flanged Fluorescent Light Fixture 30.0
- "AE" (2'x4') Fluorescent Light Fixture 14.0
- "X" 17.0
- "OS" Ceiling Occupancy Sensor 12.0
- "D" 16.0
- "Q" 15.0
- "G" (1'x4') Flanged Fluorescent Light Fixture 2.0
- "R" 4.0
- "RE" 2.0
- "F" 4.0
- "FE" 2.0
- "VS" Vacancy Sensor 13.0
- "DE" 5.0
- "E" 3.0
- "I" 1.0
- "IE" 1.0
- "PIT" 1.0
- "CE" 3.0
- "HE" 1.0

1ST FLOOR ELECTRICAL LIGHTING PLAN (WEST)

[illegible]

DESIGNED BY	APPROVED BY
HGL/YP/EE	TH
DATE	SCALE:
00/05/2020	N1: 5000'S

KEY PLANS



100% PPE + 21.75% BMD



Antonio F. Naranjo

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DATA TITLE:

1ST FL ELECTRICAL
LIGHTING PLAN
(EAST)

SABOT TO PEARL

E201b



1ST FLOOR ELECTRICAL LIGHTING PLAN (EAST)



SCALE: 1/4" = 1'-0"

[illegible]

MECHANICAL PROPERTIES

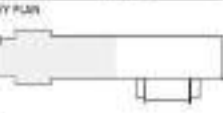
ELECTRICAL PLUMBING
TERING INC.

2014-2015



NO	DATE	REVISION	BY

DRAWN BY: HST/TVJ
APPROVED BY: TN
DATE: 02/15/2024
SCALE: AS SHOWN



1/8" = 1'-0" (1/8" = 1'-0")
SEALED SIGNATURE



Antonio F. Naranjo

ANTONIO NARANJO
PE - 250119

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SHEET TITLE:

**2ND FL ELECTRICAL
LIGHTING PLAN
(WEST)**

SHEET NUMBER:

E202a



- "A" (2'x4') Flanged Fluorescent Light Fixture 34.0
- "AE" (2'x4') Fluorescent Light Fixture 14.0
- "B" (2'x4') Flanged Fluorescent Light Fixture 9.0
- "G" 5.0
- "GE" 1.0
- "D" 17.0
- "X" 6.0
- "BE" (2'x4') Fluorescent Light Fixture 6.0
- "KE" 5.0
- "K" 9.0
- "CE" 1.0
- "VS" Vacancy Sensor 10.0
- "OS" Ceiling Occupancy Sensor 5.0
- "HE" 2.0
- "H" 1.0

2ND FLOOR ELECTRICAL LIGHTING PLAN (WEST)
SCALE: 1/8" = 1'-0"



NO.	DATE	REVISION	BY

DRAWN BY: APPROVED BY:
RGT/PL/E TM
DATE: 03/15/2024 NO. 1:
AS SHOWN

REVISION:



1/4" = 1'-0" (1/8" = 1'-0")
SCALE: 1/8" = 1'-0"



Antonio F. Naranjo

ANTONIO NARANJO
PE - 25864

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SHEET TITLE:

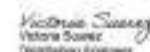
2ND FL ELECTRICAL
LIGHTING PLAN
(EAST)

SHEET NUMBER:

E202b



"B" (2'x4') Flanged Fluorescent Light Fixture	14.0
"BE" (2'x4') Fluorescent Light Fixture	9.0
"AE" (2'x4') Fluorescent Light Fixture	20.0
"A" (2'x4') Flanged Fluorescent Light Fixture	52.0
"X"	12.0
"GE"	2.0
"D"	12.0
"CE"	4.0
"F"	3.0
"S"	2.0
"DE"	2.0
"G"	2.0
"OS" Ceiling Occupancy Sensor	12.0
"VS" Vacancy Sensor	12.0
"N"	2.0
"NE"	4.0
"OE"	2.0
"O"	1.0





MEP MECHANICAL, ELECTRICAL, PLUMBING ANTONIO NARANJO PE 1966
ELECTRICAL PLUMBING (305) 636-3219 TEL (305) 273-0446
MEP ENGINEERING INC 1090 N.W. 27 ST. SUITE 101 MIAMI FL 33135

11. ALL WIRING AND SYSTEMS FOR THIS PROJECT SHALL BE TURNED OVER, INSTALLED BY AND UNDER THE RESPONSIBILITY OF AC CONTRACTOR (AND SUBS/TRADE).
12. AFTER HAD AND DURING CENTRALIZED CONTROLLED, ALL BE PROVIDED BY OWNER.
13. AFTER HAD AND DURING CENTRALIZED CONTROLLED, ALL BE PROVIDED BY OWNER.
14. ALL WIRING REQUIRED TO BE INTERLOCKED WITH OTHER SHALL BE PROVIDED BY AC CONTRACTOR AND THESE PARTS SHALL BE TEST TO AFTER HAD TO TEST.
15. THIS PROJECT HAS OPERATING STATUS, COORDINATE, AND TEST AND PROTECT PROTECT WITH DURING TEAM FROM TO INSTALLATION.
16. AC CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE AND PROVIDE POWER REQUIREMENTS AND REQUIREMENTS TO CENTRALIZED CONTROLLER, AFTER HAD AND/OR ANY OTHER HUMAN/MADE DEVICE REQUIRED POWER IN ORDER TO ACCOMPLISH INTENT OF DESIGN AND TO MEET CONTRACT REQUIREMENTS.

NETWORK

RS-485
OR
RS-422

NETWORK SC CONTROLLER

RS-485
OR
RS-422

RTU CONTROLLER
(TYPICAL)

VAV SYSTEMS

EXHAUST FANS

BMS UNIT CONTROLLER

REMARKS:

BUILDING CONTROLLER SHALL BE VENDOR-SPECIFIC AND ALLOW OWNER CHANGE SETPOINTS, SCHEDULES, AND NOISE/ALARM.
PROVIDE 1% VAV SYSTEMS LOCATED AS PER PLANS.
100% VAV SYSTEM AND 100% VAV SYSTEMS SHALL BE PROVIDED WITH NETWORK COMMUNICATION CAPABLE BY UNIT MANUFACTURER.

BASED ON DESIGN: BAKK.

NOTE:

THE DESCRIPTION OF THE CONTROL SYSTEM IS FOR GENERAL INTENT AND PERFORMANCE. CONTRACTOR TO SUBMIT SCHEDULE AND OPERATIONAL MANUAL.

HUMAN DRIVER: INTRODUCES
ONE'S SHARE OF RUN-UP TIME, ITS ASSOCIATED
RISKY BEHAVIOR.

The vehicles for the full-timers don't shut off when the O.A. RTU serving the pods for the full-timers is off, as is an associated issue, night watches, etc.

UNIT SHALL BE CONTROLLED BY ITS OWN CONTROLS AND SAFETY RELAY TO BE TIED TO DASHIN CENTRAL CONTROLLER AND TO FOLLOW OCCUPIED / UNOCCUPIED SCHEDULES AT ITCHHMANAGER.

TYPICAL UNIT

EXHAUST

ROOF CURB

ROOF SLAB

STATIC PRESSURE SENSOR (FOR MONITORING ONLY)

SUPPLY AIR

RETURN AIR

TYPICAL ERV

OPEN/CLOSE MD EXHAUST AIR FAN

OPEN/CLOSE MD

DA ON °C

DA OFF °C

DA

BUILDING VENTILATION SYSTEM CONTROL

1. **DOOR DA SYSTEMS** will be any designated scheduled network box (NOTE: THAT ALL DOOR DA SYSTEMS (WITH OR WITHOUT ENERGY RECOVERY) NEED TO OPERATE AT CONSTANT CRV VALUES FOR DISAMFULTS (DAIRY AND/OR COMPOST) WHILE IN OPERATION).

a. Occupied mode (system(s)) will be ON;

i. **MONDAY THROUGH FRIDAY:** systems will bring outside air temperature down to 50-54 DB (DRY BALL) degrees F and hot gas exhaust will be reheating air to 60 DB degrees F (unit discharge temperature) from 8 am through 9 pm.

ii. Unoccupied mode (system(s)) will be OFF; (NOTE: IN THE EVENT THAT SCHOOL HAS AN EVENT (BAND, BLOW INFLATED THINGS, SCHOOLS SHALL BE ABLE TO TURN ON YOUR DA SYSTEMS))

i. **MONDAY THROUGH FRIDAY** from 9:01 pm through 5:59 am at least day.

ii. **SATURDAY AND SUNDAY:** These systems will be OFF.

2. **Refrigeration RTU systems serving gym, cafeteria, etc. (if any) (BELOW SETTINGS ARE NOT TO BE USED FOR DOOR DA SYSTEMS)**

a. Occupied mode (system(s)) will be ON;

i. **MONDAY THROUGH FRIDAY:** systems will bring air temperature down to 50-54 DB (degrees F (unit discharge temperature)) to maintain space temperature at 75 degrees F, and 50% RH. System's modulating hot gas reheat will reheat air as needed in order to keep 73 degrees F airpoint and maintain 50% RH from 8 am through 9 pm. (SYSTEMS WITH WOOD FLOORS MUST BE ON 24/7 365 DAYS) (SYSTEMS WITH VINYL FLOORS THAT FOLLOW Monday through Friday occupied schedule started immediately above).

ii. Unoccupied mode (if THIS UNOCCUPIED MODE DOES NOT APPLY TO COMB WITH WOOD FLOORS)

i. **MONDAY THROUGH FRIDAY** from 9:00 pm through 5:59 am: These systems that maintain space temperature at 75 degrees and 50% RH

ii. **SATURDAY AND SUNDAY:** These systems shall maintain space temperature of 75 degrees and 50% RH

3. **RTU systems**

a. **INDOOR AIR UNITS:** RECYCLERS (TO BE IMPLEMENTED AT ALL SCHOOLS)

i. **INDOOR AIR UNITS** SHALL BE RESTRICTED SO THAT THEY CANNOT BE TURNED OFF FROM WALL THERMOSTAT.

ii. **INDOOR AIR UNITS** SHALL BE PROGRAMMED WITH A HIGHEST-LOWEST LAMBING TEMPERATURE RANGD SO THAT SENSORS AND STAFF CAN FLUCTUATE SPACE TEMPERATURES WITHIN SPACE HIGHEST-LOWEST TEMPERATURE SHALL BE 72 DEGREES AND LOWEST LAMBING TEMPERATURE SHALL BE 68 DEGREES.

b. **Unoccupied mode (system(s)) will be ON;**

i. **MONDAY THROUGH FRIDAY:** Systems will be set to maintain 72 degrees F from 6:00 am through 6:00 pm

ii. Unoccupied mode (system(s)) will remain ON;

i. **SUNDAY THROUGH FRIDAY:** Systems will be set to maintain 75 degrees F from 6:00 pm through 5:59 am ON FULLY WINDY DAY

ii. **INDOOR AND SUNDAY:** Systems will be set to maintain 75 degrees F from Saturday 6:00 AM through Monday morning at 5:59 am.

4. **Refrigeration AC units serving data centers, classroom heating, control and electrical rooms.**

a. These AC units will be set to maintain 72 degrees F AT ALL TIMES.

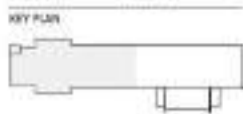
Notes that above schedules will be generated through BPTTE (but centralized through Manager) so that these can be accessible to any fine via mobile app by personnel with Bptte access.

Note that above schedule will be provided through RPTC (not centralized House Manager) so that there can be oversight of any fine vs. mobile rep by personnel with Rptick access.



NO	DATE	REVISION	BY

DRAWN BY: HST/VE
DATE: 02/15/2024
KEY PLAN:
APPROVED BY: TN
SCALE: AS SHOWN



1/8" = 1'-0" (1/8" = 1'-0")
SEALED SIGNATURE



Antonio F. Naranjo

ANTONIO F. NARANJO
PE - 25064

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SHEET TITLE:

1ST FL MECHANICAL
PLAN
(WEST)

SHEET NUMBER:

M101a

(10x14) Duct	50.7 FT
(12x18) Duct	42.8 FT
(12x16) Duct	16.1 FT
(12x14) Duct	141.7 FT
(10x10)	63.6 FT
8" Dia. Flexible Duct	157.3 FT
10" Dia. Flexible Duct	5.8 FT
(12x12) Duct	23.1 FT
6" Dia. Flexible Duct	23.5 FT
(6x6) Duct	29.8 FT
(8x8) Duct	19.1 FT
(6x8) Duct	36.8 FT
4" Dia. Flexible Duct	95.0 FT
(8x10) Duct	19.9 FT
(16x32) Duct	28.5 FT
(14x30) Duct	26.6 FT
(14x28) Duct	30.7 FT
(12x20) Duct	4.0 FT
(4x6) Duct	14.6 FT
(24x24) RR Air Grille	23.0
(12x12) RR Air Grille	2.0
"T" Programmable Ther...	19.0
Diffuser	25.0
"BD" Balancing Damper (...)	4.0
"FD" Fire Damper	2.0
(16x40) Duct	16.7 FT
(12x30) Duct	10.5 FT
Transition	15.0
Elbow	17.0



1ST FLOOR MECHANICAL PLAN (WEST)

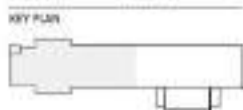


- 1 1/4" Dia. Flexible Duct
- 1 1/4" (14x28) Duct
- 1 1/4" (14x26) Duct
- 1 1/4" (14x24) Duct
- 1 1/4" (14x14) Duct
- 1 1/4" (12x12) Duct
- 1 1/4" (8x8) Duct
- 1 1/4" (10x10)
- 1 1/4" 8" Dia. Flexible Duct
- 1 1/4" 6" Dia. Flexible Duct
- 1 1/4" (4x6) Duct
- 1 1/4" (12x14) Duct
- 1 1/4" 10" Dia. Flexible Duct
- 1 1/4" (12x26) Duct
- 1 1/4" (10x12)
- 1 1/4" (6x6) Duct
- 1 1/4" 12" Dia. Flexible Duct
- 1 1/4" (6x8) Duct
- 1 1/4" (14x20) Duct
- 1 1/4" (8x10) Duct
- 1 1/4" (12x16) Duct
- 1 1/4" (14x16) Duct
- 1 1/4" (16x16) Duct
- "T" Programmable Thermostat
- "FD" Fire Damper
- "BD" Balancing Damper (Nylon Bearing)
- (8x8) RR Air Grille
- (24x24) RR Air Grille
- Diffuser
- "EV/AP" W/I Cooler
- "VRV" Volume Air Cooled Condensing Unit
- Freezer Compressor



NO	DATE	REVISION	BY

DESIGNED BY H5/11/14	APPROVED BY TW
DRAWN BY 05/15/2014	SCALE AS SHOWN



1/8" = 1'-0" (1/8" = 1'-0")
SEAL SIGNATURE



Antonio F. Naranjo

ANTONIO F. NARANJO
PE - 12589

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SHEET TITLE

2ND FL MECHANICAL
PLAN
(WEST)

SHEET NUMBER
M102a

- | | | |
|-------------------------------|---------|--|
| 4" Dia. Flexible Duct | 53.1 FT | |
| 6" Dia. Flexible Duct | 14.1 FT | |
| 8" Dia. Flexible Duct | 86.4 FT | |
| 10" Dia. Flexible Duct | 8.6 FT | |
| (8x8) Duct | 16.7 FT | |
| (8x10) Duct | 8.2 FT | |
| (6x6) Duct | 29.3 FT | |
| (14x16) Duct | 31.8 FT | |
| (14x18) Duct | 92.5 FT | |
| (14x20) Duct | 15.7 FT | |
| (16x30) Duct | 27.5 FT | |
| (16x38) Duct | 4.4 FT | |
| (12x12) Duct | 32.8 FT | |
| (14x22) Duct | 18.6 FT | |
| (10x10) | 8.7 FT | |
| (16x40) Duct | 6.2 FT | |
| (12x16) Duct | 10.3 FT | |
| (12x14) Duct | 3.4 FT | |
| (12x20) Duct | 4.3 FT | |
| • Diffuser | 14.0 | |
| • (24x24) RR Air Grille | 12.0 | |
| • (12x12) RR Air Grille | 0.0 | |
| • "T" Programmable Thermostat | 14.0 | |
| • (12x18) Duct | 7.3 FT | |
| • (12x22) Duct | 4.4 FT | |
| • (8x8) RR Air Grille | 4.0 | |
| • Transition | 20.0 | |
| • Elbow | 13.0 | |



2ND FLOOR MECHANICAL PLAN (WEST)



REV	DATE	REVISION	BY

DRAWN BY: APPROVED BY:
R0111/E TM
DATE: 12/5/2021 SCALE: AS SHOWN

REVISION:
1. 12/5/2021

1. 12/5/2021

1. 12/5/2021

1. 12/5/2021

1. 12/5/2021

1. 12/5/2021

1. 12/5/2021

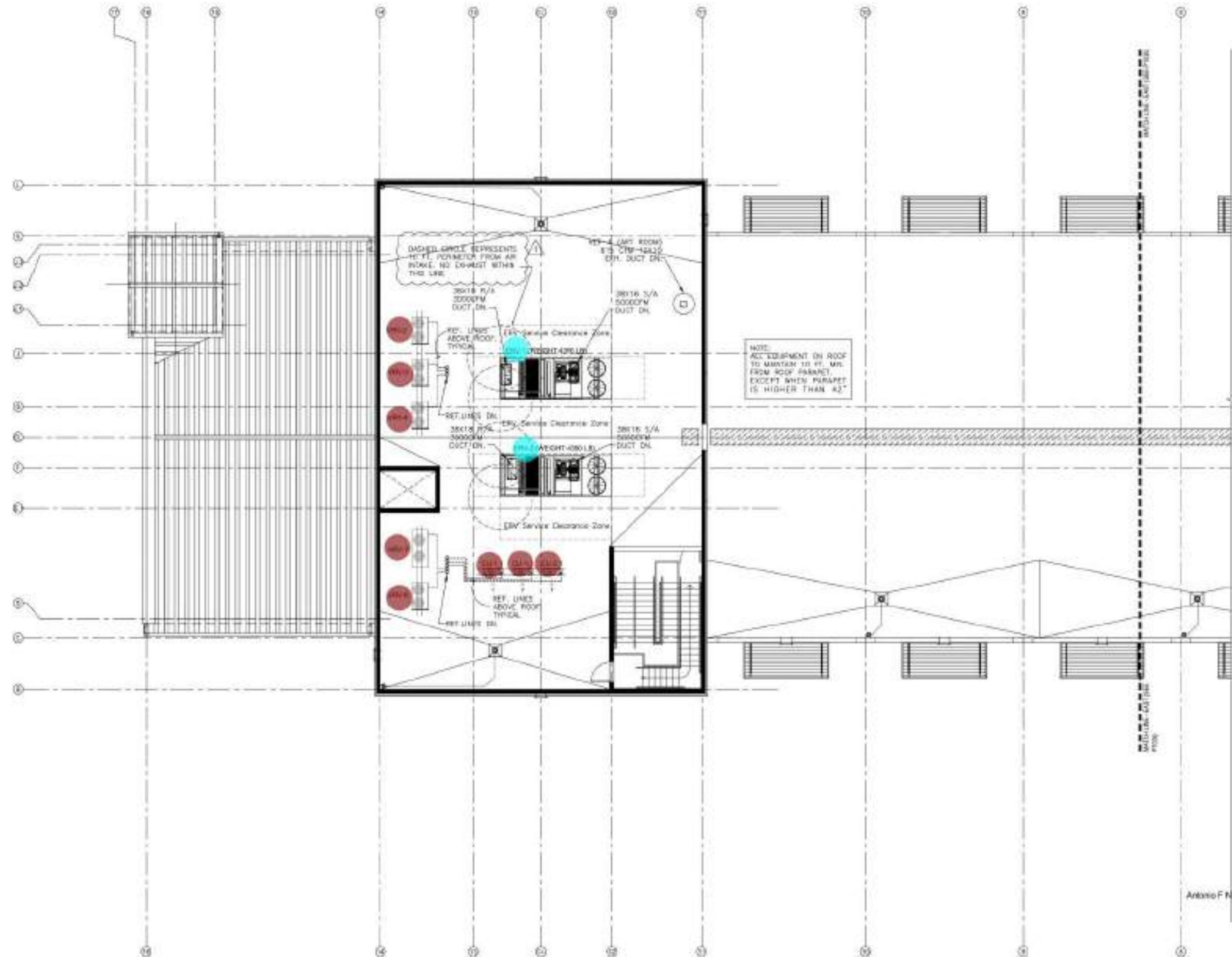
1. 12/5/2021

1. 12/5/2021



- (14x16) Duct 75.6 FT
- (14x14) Duct 82.6 FT
- (12x14) Duct 52.2 FT
- (10x12) 23.9 FT
- (10x10) 51.1 FT
- (8x8) Duct 54.7 FT
- 8" Dia. Flexible Duct 165.4 FT
- 4" Dia. Flexible Duct 23.6 FT
- (12x12) Duct 43.2 FT
- (8x10) Duct 11.9 FT
- 10" Dia. Flexible Duct 24.4 FT
- (24x24) RR Air Grille 14.0
- 6" Dia. Flexible Duct 23.5 FT
- "T" Programmable Thermostat 16.0
- (12x16) Duct 6.9 FT
- (6x8) Duct 7.8 FT
- Diffuser 19.0
- (8x8) RR Air Grille 4.0
- Transition 16.0
- Elbow 21.0

2ND FLOOR MECHANICAL PLAN (EAST)
SCALE: 1/8" = 1'-0"



No.	DATE	REVISION	BY
1	4/22/24	private provider TN	

DRAWN BY: HGT/TV/JE
DATE: 03/15/2024
KEY PLAN:
APPROVED BY: TN
SCALE: AS SHOWN



10' R. FRIE +21.70' MVD
SEALED SIGNATURE



ANTONIO NAVARRO
PE - 25064

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SHEET TITLE:

MECHANICAL
ROOF PLAN
(WEST)

SHEET NUMBER:

M103a

- "ERV" Energy Recovery Ventilation 2.0
- Condensing Unit "CU" 3.0
- "VRV" Volume Air Cooled Condensing Unit 5.0

DRAWN BY HOUTFELD	APPROVED BY TSC
DATE 2/15/2024	SCALE AS SHOWN
KEY PLAN	

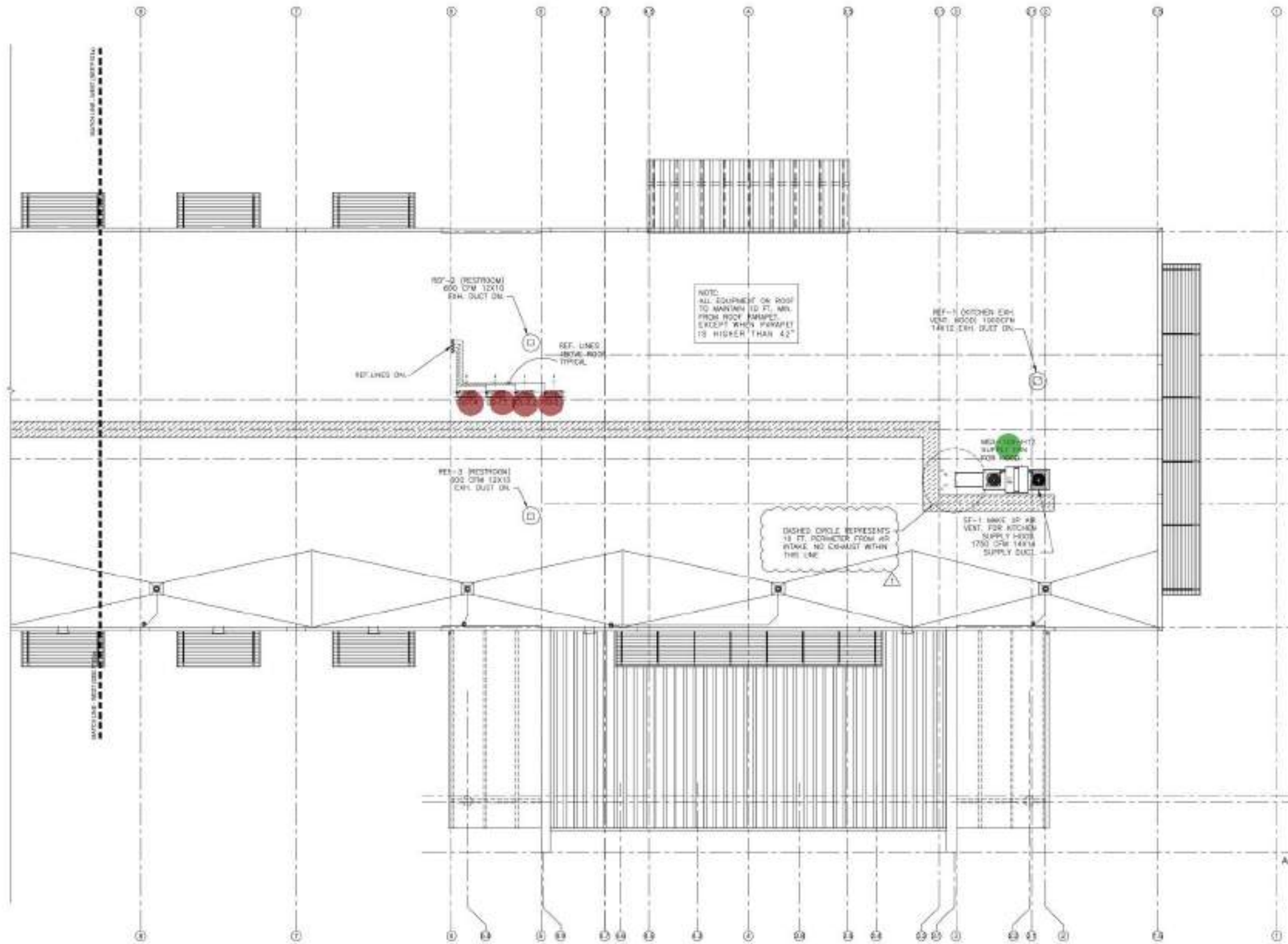
ANTONIO PERAZO
PE - 33864

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SHEET TITLE

MECHANICAL
ROOF PLAN
(EAST)

SHEET NUMBER
M103b

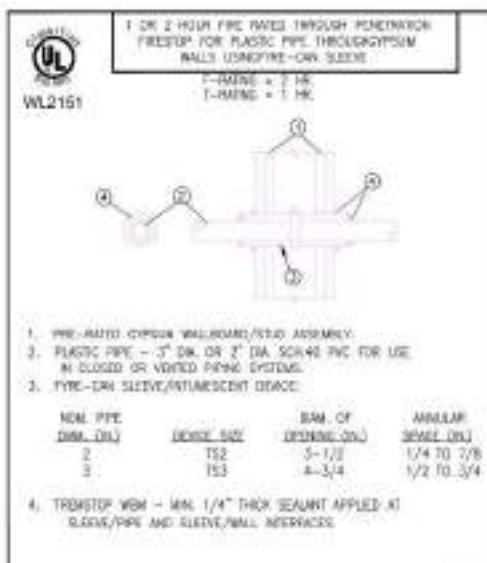
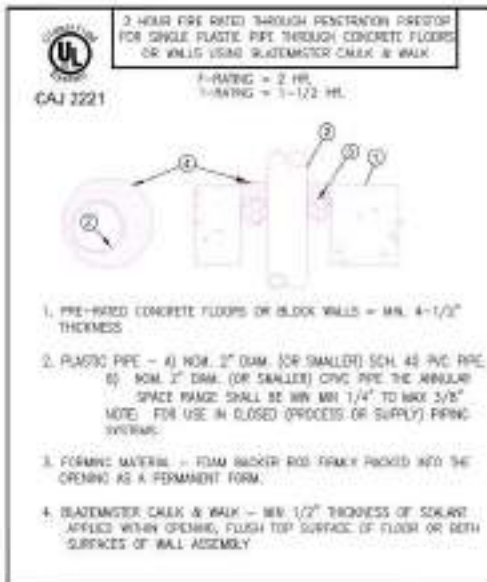


MECHANICAL ROOF PLAN (EAST)

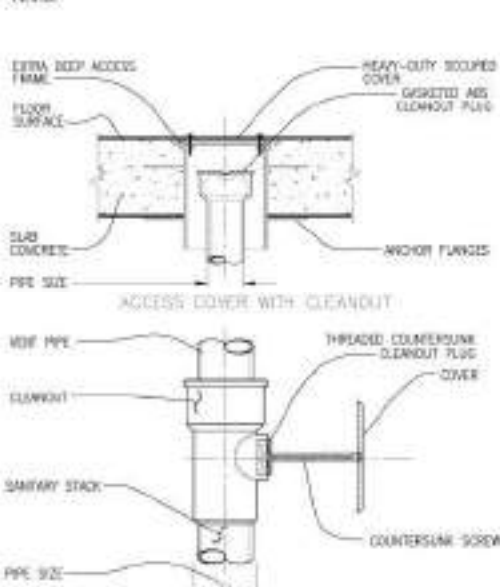
MEP MECHANICAL REFERENCE: ELECTRICAL ENGINEER ANTONIO NARANJO PE3564
ELECTRICAL PLUMBING [ARCHITECTURE] TEL: 305.471.4168
MEP ENGINEERS INC. 10500 N.W. 27 ST. SUITE 80 MIAMI FL 33150

SHEET NUMBER
M103b

- Condensing Unit "CU" 4.0
- MSX-109-H12 Kitchen Supply Hood 1.0



PENETRATION DETAIL



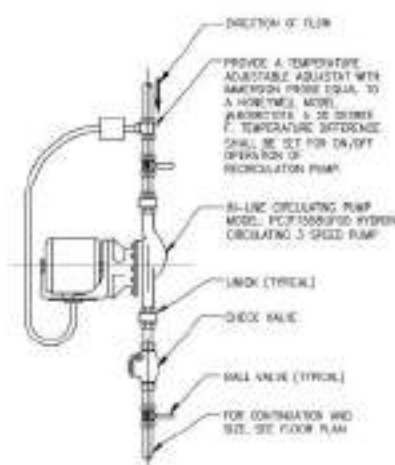
• "SH" Shower
• "TUB" Bath Tub
• "BD" As Required

2.0
2.0
1.0

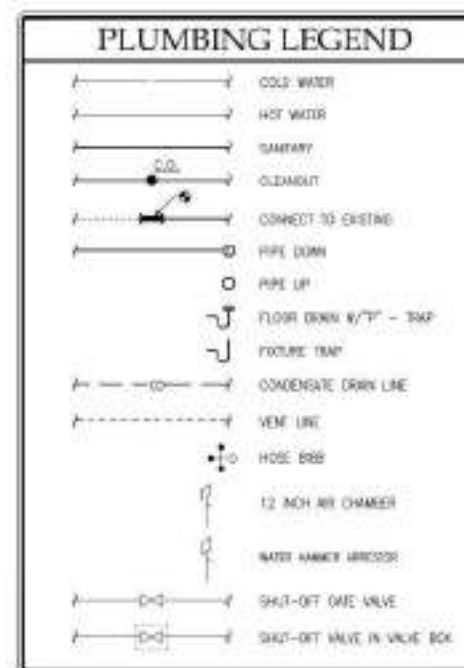
MARK	TRAP SIZE	FIXTURE UNITS	HOT WATER	COLD WATER	MAX FLOW RATE
WC	3"	8	-	1/2"	1.28 GALS. PER FLUSHING CYCLE
LAV	1 1/2"	1	1/2"	1/2"	PRV. LAV=0.5 @ 80 PSI PUB. LAV=0.25 @ 80 PSI
SH	2"	1	1/2"	1/2"	1.5 GALS. @ 80 PSI
SK	1 1/2"	2	1/2"	1/2"	1.0 GALS. @ 80 PSI
WM	2"	2	1/2"	1/2"	WATER FACTOR OF 8 OR LOWER
UR	2"	4	-	1"	WATERLESS OR 0.5 GALS. PER FLUSHING CYCLE
DW	1" SW	N/A	1/2"	-	0.0 GALS. PER GYCLE OR LESS
HB	-	-	-	1/3" W/VALVE & VAC. BREAKER	-
TUB	2" U.G. 1 1/2" A.G.	1	1/2"	1/2"	+
BD	2" U.G. 1 1/2" A.G.	1	1/2"	1/2"	±

ANTI-SCALD VALVE.
ALL SHOWERS & BATH/SHOWER COMBINATIONS SHALL BE PROTECTED WITH A CONTROL VALVE OF THE PRESSURE BALANCE, THERMOSTATIC MIXING OR COMBINATION TYPE SET. HANDLE POSITION STOPS PER MANUFACTURER'S INSTRUCTIONS AT TIME OF INSTALLATION TO A MAXIMUM MIXED WATER OUTLET TEMPERATURE OF 120° F.

SHUTOFF VALVES.
SHUTOFF VALVES, WITH UNIONS SHALL BE PROVIDED FOR SERVICE TO EACH PLUMBING FIXTURE, FOOD SERVICE EQUIPMENT ITEM OR OTHER EQUIPMENT ITEM, TO FACILITATE ISOLATION FOR REPAIR OR REPLACEMENT. VALVES SHALL BE EQUAL TO JENKINS #902-T BALL VALVE, CHROME-FINISHED BRASS, TEFLOON SEATS AND PACKING, 400 L.B. W.D.L., SOLIDER DIE.



HOT WATER CIRCULATING PUMP DETAIL



PLUMBING NOTES:

- THE WORK INCLUDES MODIFICATION TO THE EXISTING PLUMBING SYSTEM AND PROVIDING NEW MATERIALS, FITTINGS AND ACCESSORIES NECESSARY FOR A COMPLETE FUNCTIONING PLUMBING SYSTEM. ALL WORK SHALL BE IN ACCORDANCE WITH THE FLORIDA BUILDING CODE 2020 (5TH EDITION) AND/OR ORDINANCES AND IS SUBJECT TO INSPECTION.
- HOOR-UP CHARGES, PERMITS AND ALL OTHER EXPENSES RELATED TO A COMPLETE AND FUNCTIONING PLUMBING SYSTEM ARE INCLUDED AS A PART OF THIS SECTION.
- THE INTENT OF THE DRAWINGS IS TO INDICATE THE GENERAL EXTENT OF WORK REQUIRED FOR THE PROJECT. THE DRAWINGS FOR PLUMBING WORK ARE DIAGRAMMATIC, SHOWING THE GENERAL LOCATION, TYPE, FIXTURES AND EQUIPMENT REQUIRED. THE DRAWINGS SHALL NOT BE USED FOR EXACT MEASUREMENTS. REFER TO MANUFACTURER'S STANDARD COLOR-IN DRAWINGS FOR PLUMBING FIXTURE INSTALLATION REQUIREMENTS. COMPLY WITH ALL APPLICABLE ADA INSTALLATION REQUIREMENTS.
- COORDINATE WITH THE WORK OF OTHER SECTIONS. EQUIPMENT FURNISHED BY OTHERS, AND WITH THE CONSTRAINTS OF THE EXISTING CONDITIONS OF THE PROJECT SITE.
- PIPING SYSTEMS - GENERAL: ALL PIPING SHALL BE RUN PARALLEL TO BUILDING LINES AND SUPPORTED AND ANCHORED AS REQUIRED TO FACILITATE EXPANSION AND CONTRACTION. ALL PIPING SHALL BE CONCEALED EXCEPT IN UNFINISHED SPACES. METAL AS REQUIRED TO MEET ALL CONSTRUCTION CONDITIONS AND TO ALLOW FOR INSTALLATION OF OTHER WORK SUCH AS SLEETS AND ELECTRICAL CONDUIT. AT ALL CONNECTIONS BETWEEN FERROUS PIPING AND NONFERROUS PIPING, PROVIDE AN SOLDERING DIALECTIC UNION. ALL HANGERS SHALL BE COMPATIBLE WITH PIPING MATERIAL TO PREVENT CORROSION.
- PROVIDE ALL FITTINGS, ACCESSORIES, ORIFICES, AND WORKMAN NECESSARY TO FACILITATE THE PLUMBING SYSTEM'S FUNCTIONING AS INDICATED BY THE DESIGN AND THE EQUIPMENT INDICATED.
- SEWER AND WASTE PIPING: PROVIDE ALL DRAINS AND SEWERS WITH CONNECTION TO THE DRAINAGE SYSTEMS ON-SITE. SANITARY DRAINAGE PIPING SHALL BE PVC TYPE DWV, PLASTIC PIPE AND FITTINGS WITH SOLVENT CEMENT JOINTS. ALL DRAINAGE PIPING SHALL BE UNIFORMLY PITCHED, 1/8" PER FOOT UNLESS OTHERWISE REQUIRED BY EXISTING CONDITIONS OR INDICATED ON THE DRAWINGS. NO PVC DWV PIPING ALLOWED WITHIN CEILING VOIDS USED FOR NON-SUCTED RETURN AIR PLenums.
- VENTS: PROVIDE A COMPLETE SYSTEM OF PVC TYPE DWV, PLASTIC PIPE AND FITTINGS WITH SOLVENT CEMENTED JOINTS. THE VENT SYSTEM SHALL BE CARRIED THROUGH THE ROOF WITH APPROPRIATE FLASHING. NO PVC DWV PIPING ALLOWED WITHIN CEILING VOIDS USED FOR NON-SUCTED RETURN AIR PLenums.
- STORM WATER PIPING: PIPING MATERIAL FOR STORM WATER SYSTEM SHALL BE SAME AS SPECIFIED FOR SEWER AND WASTE PIPING ABOVE.
- CONDENSATE DRAIN PIPING: TYPE PVC TYPE DWV TUBING AND FITTINGS FOR 1-1/4" AND LARGER SIZES.
- CLEANOUTS: PROVIDE CLEANOUTS AT THE END OF EACH HORIZONTAL RUN AT 50' INTERVALS AND EVERY CHANGE OF DIRECTION. ALSO PROVIDE IT AT THE BASE OF ALL VERTICAL WORK AND DRAIN PIPES. CLEANOUTS SHALL BE OF THE SAME SIZE AS THE PIPES THEY SERVE, CONFORMING TO CODE REQUIREMENTS. PROVIDE SATISFA WALL OR FLOOR CLEANOUTS WITH ACCESSORIES TO OBSCURE FROM VIEW.
- WATER DISTRIBUTION PRING: LAYOUT WATER PIPING SO THAT THE ENTIRE SYSTEM CAN BE DRAINED. HOT AND COLD WATER PIPING SHALL BE 1/2" MIN. TYPE L COPPER TUBING WITH WROUGHT COPPER FITTINGS AND SWEAT CONNECTIONS. PROVIDE WATER HAMMER ARRESTOR AT EACH FIXTURE DROP. INSTALL CHROME PLATED BRASS ESCUTCHEON PLATES AT ALL PENETRATIONS THROUGH FINISHED SURFACES (INCLUDING CABINET INTERIORS). USE 316-AUTOMY SOLDER, 95/5 FOR ALL SWEAT FITTINGS OF COPPER PIPING.
- SHUTOFF VALVES, WITH UNIONS SHALL BE PROVIDED FOR SERVICE TO EACH PLUMBING FIXTURE, FOOD SERVICE EQUIPMENT ITEM OR OTHER EQUIPMENT ITEM, TO FACILITATE ISOLATION FOR REPAIR OR REPLACEMENT. VALVES SHALL BE EQUAL TO JENKINS #902-T BALL VALVE, CHROME-FINISHED BRASS, TEFLOON SEATS AND PACKING, 400 L.B. W.D.L., SOLIDER DIE.
- ACCESS PANELS SHALL BE PROVIDED WHERE CONCEALED CONTROL DEVICES, VALVES, ETC. ARE CONCEALED WITHIN WALLS, WHERE ACCESS FOR ADJUSTMENT AND MAINTENANCE IS POSSIBLE THROUGH LAY-IN SUPPORTED CEILING. ACCESS PANELS ARE NOT REQUIRED.
- SUPPLIES AND TRAPS: PROVIDE WATER SEALED TRAPS AND/OR SUPPLIES INSTALLED AS CLOSE AS POSSIBLE TO ALL PLUMBING FIXTURES, DRAINS, HANGING A WASTE CONNECTION, OR REPAIRS. WHEN SERVICE EXPOSED TRAPS AND SUPPLIES IN EXPOSED AREAS (INCLUDING CABINET INTERIORS) SHALL BE CHROMIUM PLATED BRASS, WITH CHROME PLATED ESCUTCHEON PLATES.
- INSTALLATION: THOROUGHLY CLEAN ITEMS BEFORE INSTALLATION. CAP PIPE OPENINGS TO ENCLOSE DIRT UNTIL FIXTURES ARE INSTALLED AND FINAL CONNECTIONS HAVE BEEN MADE. PROCEED AS HANDY AS CONSTRUCTION WILL PERMIT. SET FIXTURES LEVEL AND IN PROPER ALIGNMENT. INSTALL SUPPLIES IN PROPER ALIGNMENT WITH FIXTURES. INSTALL SLEEVE SEALANT BETWEEN FIXTURES AND ADJACENT MATERIAL, FOR SANITARY JOINT, AND DIRT ESCUTCHEON.
- REPAIR EXISTING PLUMBING SYSTEM COMPONENTS DAMAGED BY CONSTRUCTION OPERATIONS AND RESTORE TO ORIGINAL CONDITIONS.
- TEST WATER SYSTEM UNDER 150 PSIG HYDROSTATIC PRESSURE, FOR FOUR (4) HOURS MINIMUM, WHEN TESTING INDICATED MATERIALS OR WORKMANSHIP IS DEFICIENT. REPLACE OR REPAIR AS REQUIRED, AND REPEAT TEST UNTIL STANDARDS ARE ACHIEVED.
- DISINFECT AND SANITIZE WATER DISTRIBUTION SYSTEMS PER APPROVED METHODS AND PROCEDURES.
- PROVIDE PLUMBING FIXTURES BY AMERICAN TO STANDARD OR APPROVED EQUAL. PROVIDE ALL TRIM AND ACCESSORIES.
- PROVIDE ANTI SCALD VALVES FOR ALL TUBS AND SHOWER HEADS.
- PVC PIPING MUST BE PROVIDED WITH FIRE RETARDANT WRAP (3M FLEXIM WRAP SA+) OR APPROVED EQUAL WHEN LOCATED IN AIR PLenums.
- EXPOSED TRAP AND WATER LINES UNDER LANS, AND SINKS SHALL BE WRAPPED WITH ADA COMPLIANT PROTECTION COVER.
- PROVIDE TEMPERING VALVES AT WATER SUPPLY FOR JANITORIES, AND AS SHOWN ELSEWHERE. WATER SIZES LOWVW THERMOSTATIC MIXING VALVES TO MAXIMIZE AND LIMIT MIXED HOT WATER TO A DESIRED, SELECTABLE TEMPERATURE. CAN BE SET BETWEEN 90 DEGREES F AND 120 DEGREES F. FLOW RATES 0.5 GPM TO 12 GPM, 150 PSI MAX PRESSURE. LEAD FREE CONSTRUCTION TO COMPLY WITH LEAD FREE INSTALLATION REQUIREMENTS.
- FPE 612.1 Temperature-sensitized mixing valves. Temperature-sensitized mixing valves, which are installed to reduce water temperatures to defined limits, shall comply with ASSE 1017. Such valves shall be installed at the hot water source. Tempered water shall be delivered through an approved water-temperature limiting device that conforms to ASSE 1076 or CSA B125.5.
- Water heater energy rating: meet Energy Compliance Form. Refer to Florida Energy Compliance Form.

Inspection certificates for testing of all reduced pressure backflow preventers and double check fire line backflow preventers shall be submitted prior to final plumbing inspection.

MEP MECHANICAL ELECTRICAL PLUMBING
MEP ENGINEERING INC. 1050 N.W. 27 ST. SUITE 101 MIAMI FL 33132

No.	DATE	REVISION	BY
1	4/22/24	private provider TN	
2			
3			
4			
5			
6			
7			
8			
9			
10			

4/9/24 SLA

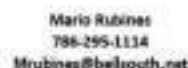
DRAWN BY: PL/TPJ/E
APPROVED BY: TN
DATE: 03/15/2024
SCALE: AS SHOWN
QTY: 100

1/2\"/>

ANTONIO NAKANO
PE - 30464
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CIVICA 2024

PLUMBING LEGEND, NOTES AND DETAILS

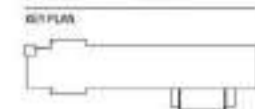
SHEET NUMBER: P001





No.	DATE	REVISION	BY

DRAWN BY	APPROVED BY
RG/VV/E	TS
DWG	SCALE
02/15/2022	AS SHOWN



1st FLOOR: +3.17' NAVD
SEA/DATE/TIME



Antonio F. Naranjo
Antonio Naranjo
PE - 38864
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SHEET TITLE:

**PLUMBING
SITE PLAN**

SHEET NUMBER

P100

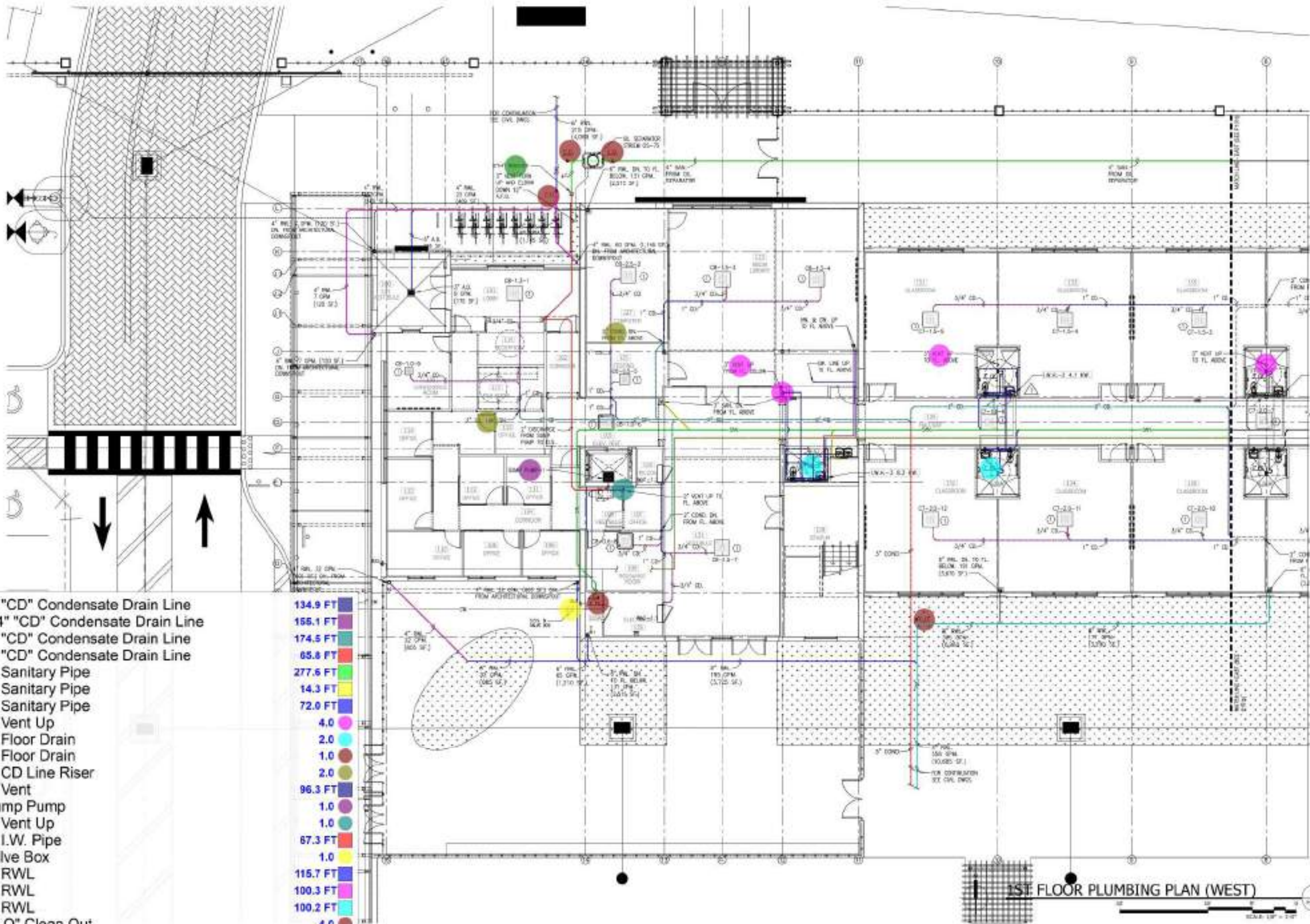


PLUMBING SITE PLAN

1" = 30'

- 3/4" CW
- 1/2" CW
- 3/4" HB W/ S.O.V
- Elbow
- Tee

- 289.5 FT
- 570.7 FT
- 4.0
- 4.0
- 1.0



- 1" "CD" Condensate Drain Line
- 3/4" "CD" Condensate Drain Line
- 2" "CD" Condensate Drain Line
- 3" "CD" Condensate Drain Line
- 4" Sanitary Pipe
- 2" Sanitary Pipe
- 3" Sanitary Pipe
- 3" Vent Up
- 3" Floor Drain
- 4" Floor Drain
- 2" CD Line Riser
- 3" Vent
- Sump Pump
- 2" Vent Up
- 2" I.W. Pipe
- Valve Box
- 6" RWL
- 4" RWL
- 8" RWL
- "C.O" Clean Out
- (2"x4") Reducer
- 2" CW
- 1-1/4" CW
- 1/2" HW

- 134.9 FT
- 155.1 FT
- 174.5 FT
- 65.8 FT
- 277.6 FT
- 14.3 FT
- 72.0 FT
- 4.0
- 2.0
- 1.0
- 2.0
- 96.3 FT
- 1.0
- 1.0
- 67.3 FT
- 1.0
- 115.7 FT
- 100.3 FT
- 100.2 FT
- 4.0
- 1.0
- 128.4 FT
- 49.7 FT
- 44.0 FT



NO.	DATE	REVISION	BY
1	4/22/24	private provider TN	

4/9/24	SJA		
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NO.	DATE	REVISION	BY
1	4/22/24	private provider TN	

4/3/24 SJA

DESIGNED BY: APPROVED BY:

DATE: SCALE:

KEY PLAN:

1st FL, R/W = 21.75' WIDE

SEALED SIGNATURE

ANTONIO F. NABANDI

ANTONIO NABANDI
PE - 15664

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SHEET TITLE:

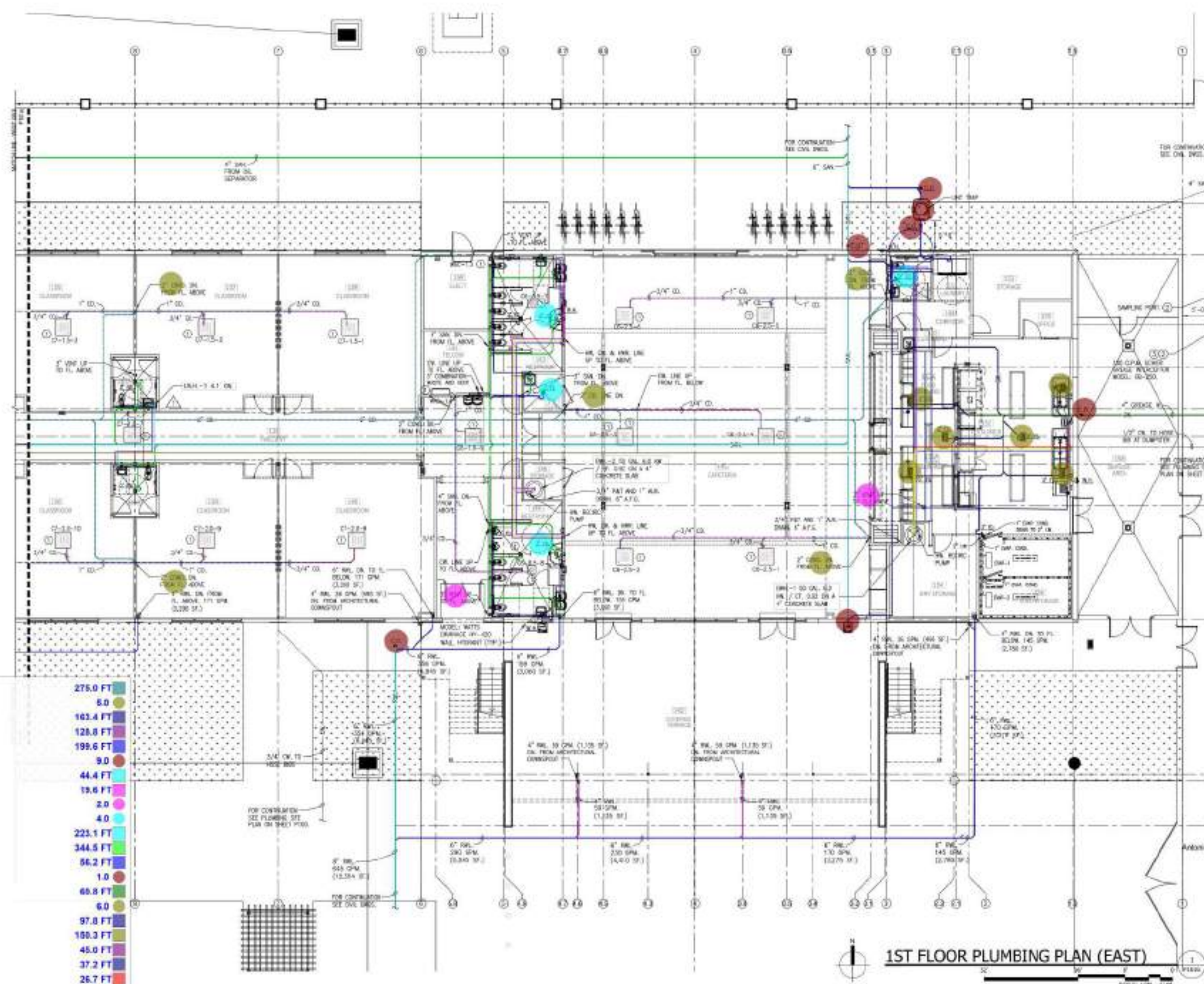
1ST FLOOR PLUMBING PLAN (EAST)

SHEET NUMBER:

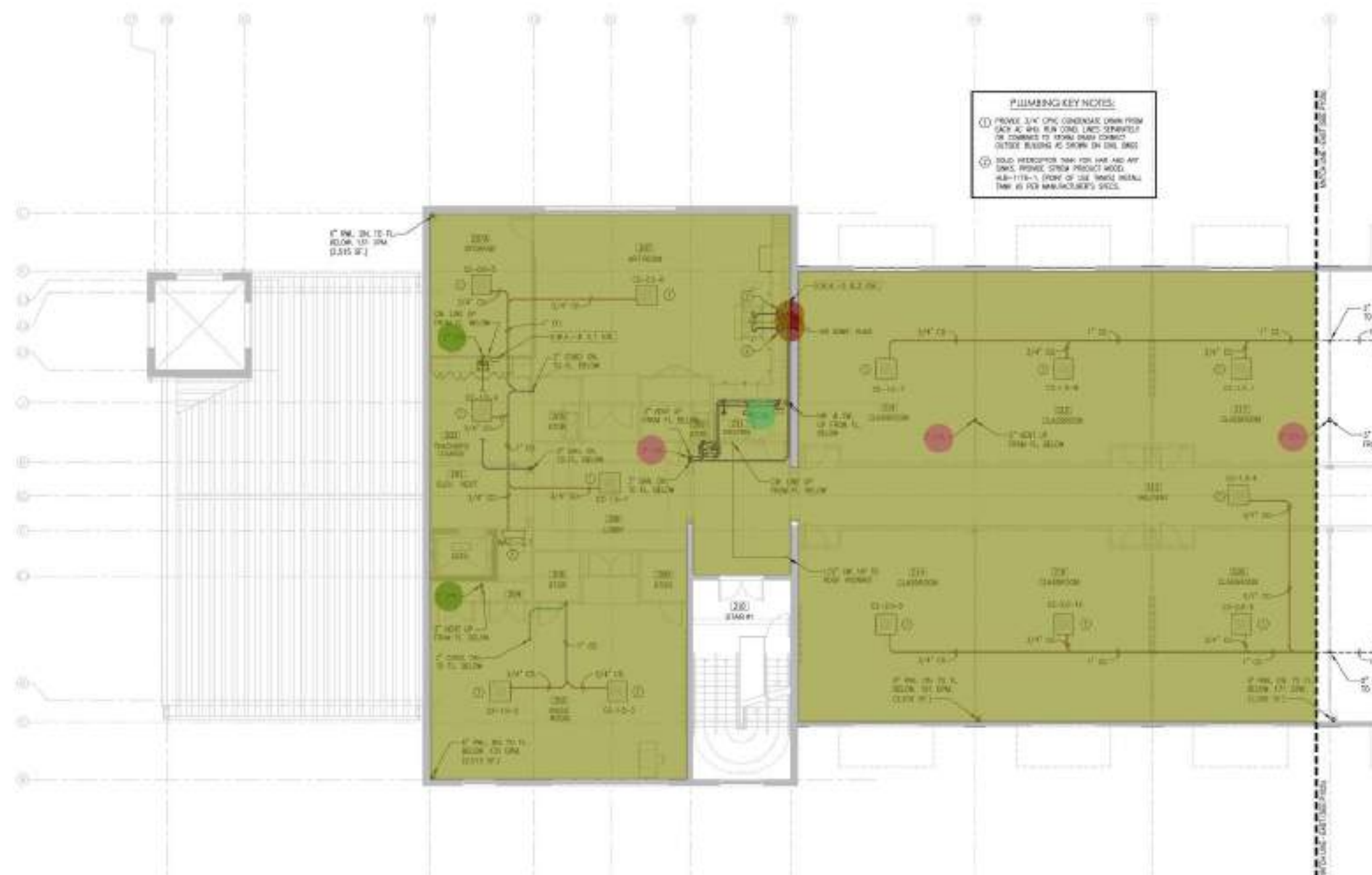
P101b

- 2" "CD" Condensate Drain Line
- 2" CD Line Riser
- 1" "CD" Condensate Drain Line
- 3/4" "CD" Condensate Drain Line
- 6" RWL
- "C.O" Clean Out
- 8" RWL
- 4" RWL
- 3" Vent Up
- 3" Floor Drain
- 6" Sanitary Pipe
- 4" Sanitary Pipe
- 3" Sanitary Pipe
- Lint Trap
- 4" Grease Waste Pipe
- 3" FS
- 3" Grease Waste Pipe
- 2" CW
- 1-1/2" CW
- 1-1/4" CW
- 1" CW
- 1/2" HW
- 3/4" HW
- 1/2" HWR Pipe
- 3/4" CW
- 1/2" CW
- 3" Vent

- 275.0 FT
- 163.4 FT
- 128.8 FT
- 199.6 FT
- 9.0
- 44.4 FT
- 19.6 FT
- 2.0
- 4.0
- 223.1 FT
- 344.5 FT
- 56.2 FT
- 68.8 FT
- 6.0
- 97.8 FT
- 100.3 FT
- 45.0 FT
- 37.2 FT
- 26.7 FT
- 82.4 FT
- 121.3 FT
- 131.8 FT
- 28.6 FT
- 11.7 FT
- 291.6 FT



1ST FLOOR PLUMBING PLAN (EAST)



PLUMBING KEY NOTES:

① PROVIDE 3/4" CPVC CONDENSATE DRAIN FROM EACH AC UNIT. RUN COND. LINES SEPARATELY OR JOINTED TO STORM DRAIN CONNECT OUTSIDE BUILDING AS SHOWN ON DRL AND

② SOLID VENTROPOR SHALL FOR VENT AND AIR DRAINS. PROVIDE STORM PROTECT HOOD. ALB-1118-1, (POINT OF USE, WASTE DRAIN, TANK) AS PER MANUFACTURER'S SPEC.

- 2" "CD" Condensate Drain Line
- 1" "CD" Condensate Drain Line
- 3/4" "CD" Condensate Drain Line
- 2" Vent Riser
- 3" Vent Up
- 3" Vent
- Air Admit valve
- 3" Sanitary Pipe
- 3" Floor Drain
- Domestic Supply Allowance

9.3 FT

106.0 FT

145.3 FT

2.0

3.0

19.8 FT

2.0

87.1 FT

1.0

7,817.1 SQ FT

No.	DATE	REVISION	BY

DRAWN BY: HCV/PA/E
DATE: 02/16/2022
SCALE: AS SHOWN
SHEET PLAN



1st FLOOR: +3.17' NAVD
SEALED SIGNATURE



Antonio F. Naranjo

ANTONIO F. NARANJO
PE - 33884
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SHEET TITLE:

2ND FLOOR
PLUMBING PLAN
(WEST)

SHEET NUMBER

P102a



2ND FLOOR PLUMBING PLAN (WEST)

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



NO.	DATE	REVISION	BY

Drawn by: MD/TF/E
Approved by: TS

DATE: 02/15/2024
SCALE: AS SHOWN

KEY PLAN



SEALED: 02/15/2024
SEA, SIGNATURE



Antonio F. Naranjo

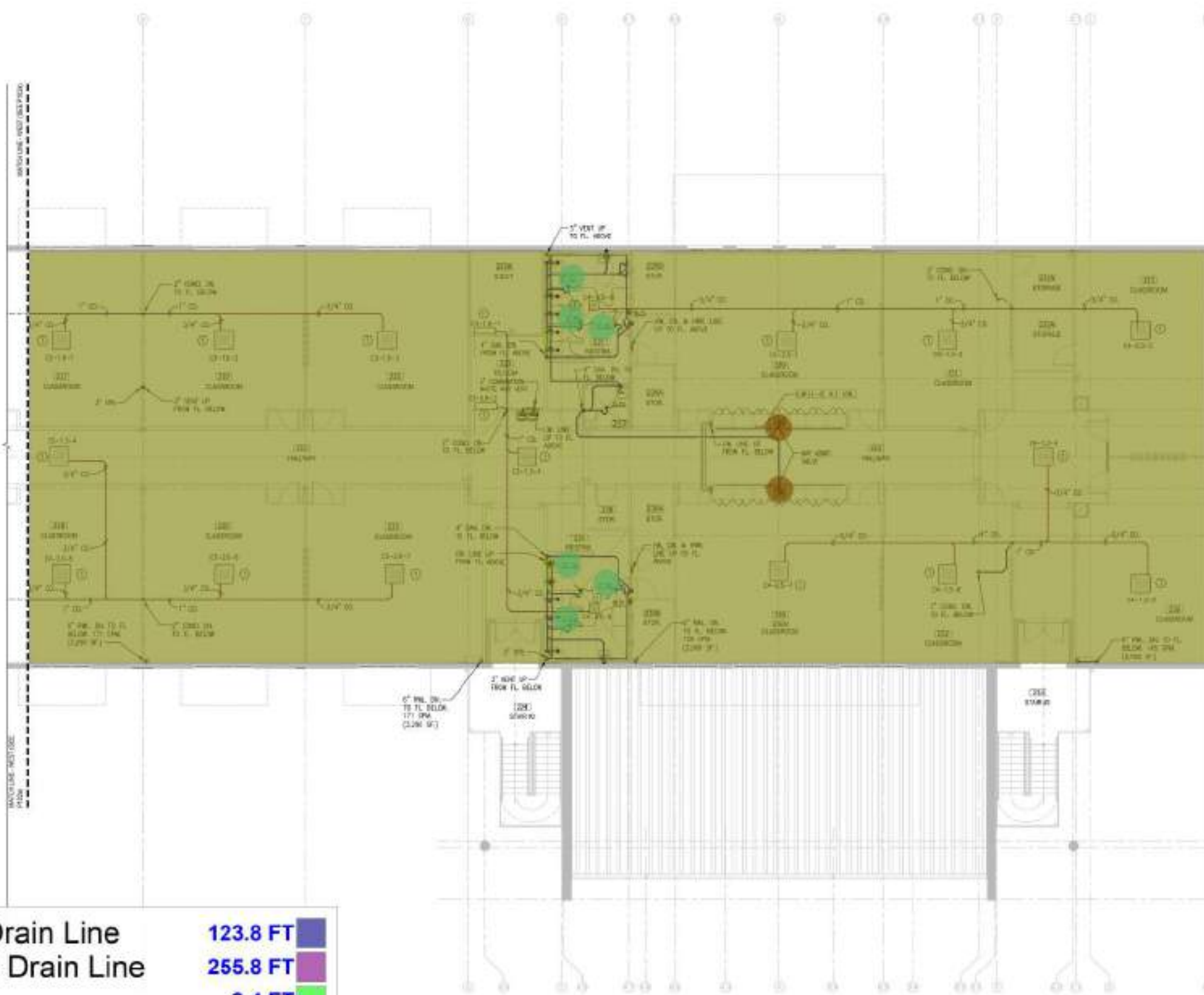
Antonio F. Naranjo
PE - 15664

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SHEET TITLE

2ND FLOOR PLUMBING PLAN (EAST)

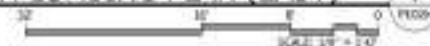
SHEET NUMBER
P102b



1" "CD" Condensate Drain Line	123.8 FT
3/4" "CD" Condensate Drain Line	255.8 FT
4" Sanitary Pipe	9.4 FT
3" Sanitary Pipe	181.4 FT
3" Floor Drain	6.0
3" Vent	93.7 FT
Air Admit valve	2.0
Domestic Supply Allowance	10,850.9 SQ FT



2ND FLOOR PLUMBING PLAN (EAST)



[illegible]

DRUG BY	APPROVED BY
W. C. C. C.	3.6

DAYS	SOURCE
------	--------

Year	Value
1990	1.0
1991	1.0
1992	1.0
1993	1.0
1994	1.0
1995	1.0
1996	1.0
1997	1.0
1998	1.0
1999	1.0
2000	1.0
2001	1.0
2002	1.0
2003	1.0
2004	1.0
2005	1.0
2006	1.0
2007	1.0
2008	1.0
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2010	1.0
2011	1.0
2012	1.0
2013	1.0
2014	1.0
2015	1.0
2016	1.0
2017	1.0
2018	1.0
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2020	1.0
2021	1.0
2022	1.0
2023	1.0
2024	1.0
2025	1.0
2026	1.0
2027	1.0
2028	1.0
2029	1.0
2030	1.0
2031	1.0
2032	1.0
2033	1.0
2034	1.0
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2036	1.0
2037	1.0
2038	1.0
2039	1.0
2040	1.0
2041	1.0
2042	1.0
2043	1.0
2044	1.0
2045	1.0
2046	1.0
2047	1.0
2048	1.0
2049	1.0
2050	1.0
2051	1.0
2052	1.0
2053	1.0
2054	1.0
2055	1.0
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2062	1.0
2063	1.0
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2065	1.0
2066	1.0
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2069	1.0
2070	1.0
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2072	1.0
2073	1.0
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2075	1.0
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2077	1.0
2078	1.0
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2080	1.0
2081	1.0
2082	1.0
2083	1.0
2084	1.0
2085	1.0
2086	1.0
2087	1.0
2088	1.0
2089	1.0
2090	1.0
2091	1.0
2092	1.0
2093	1.0
2094	1.0
2095	1.0
2096	1.0
2097	1.0
2098	1.0
2099	1.0
2100	1.0

Q11 PLAN



SEAL/SIGNATURE



ANTONIO NARVON
PR - 75464

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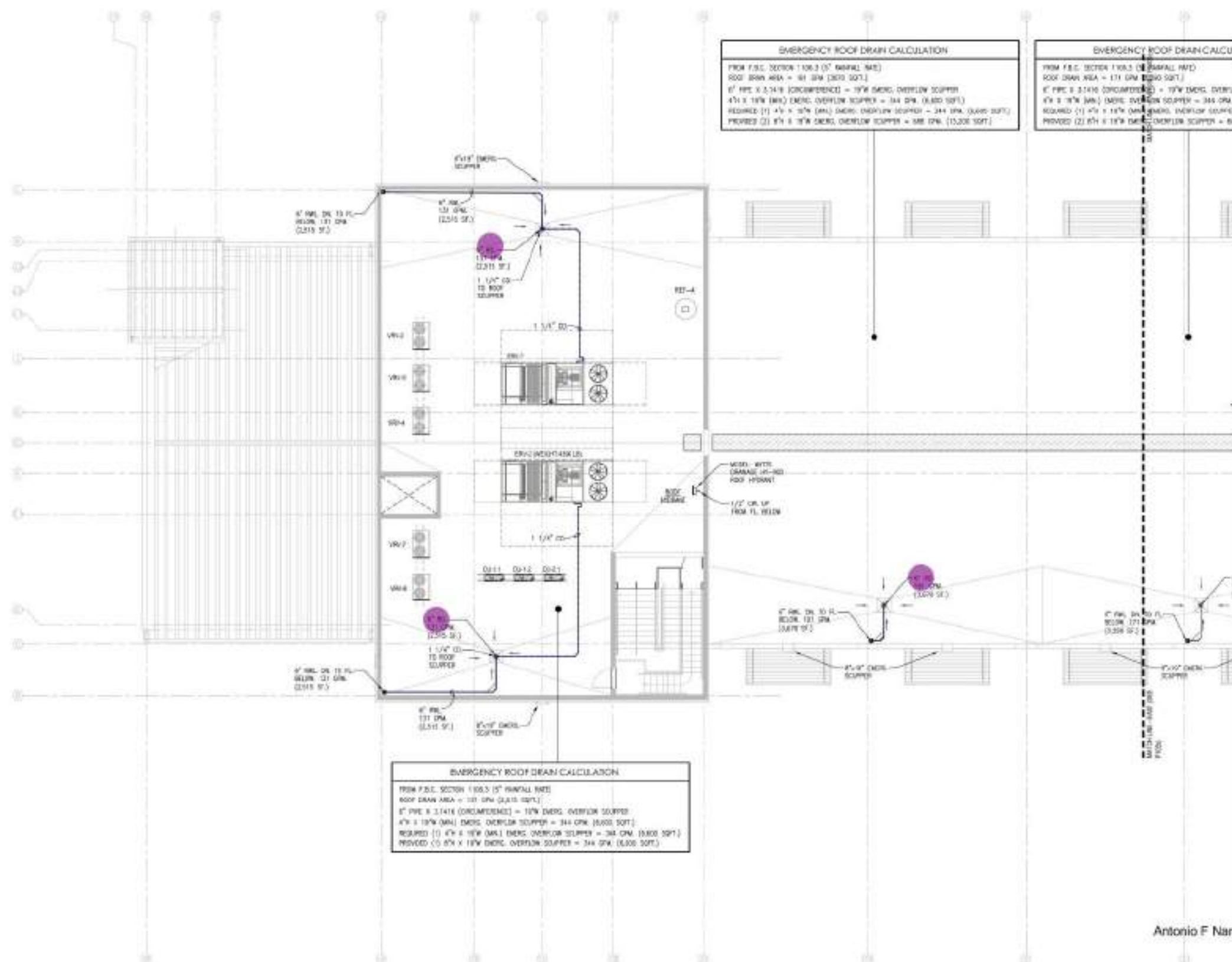
SHORT TITLE:

PLUMBING

PLUMBING
ROOF PLAN
(WEST)

SHEET NUMBER

P103a



Antonio F. Naranjo



PLUMBING ROOF PLAN (WEST)



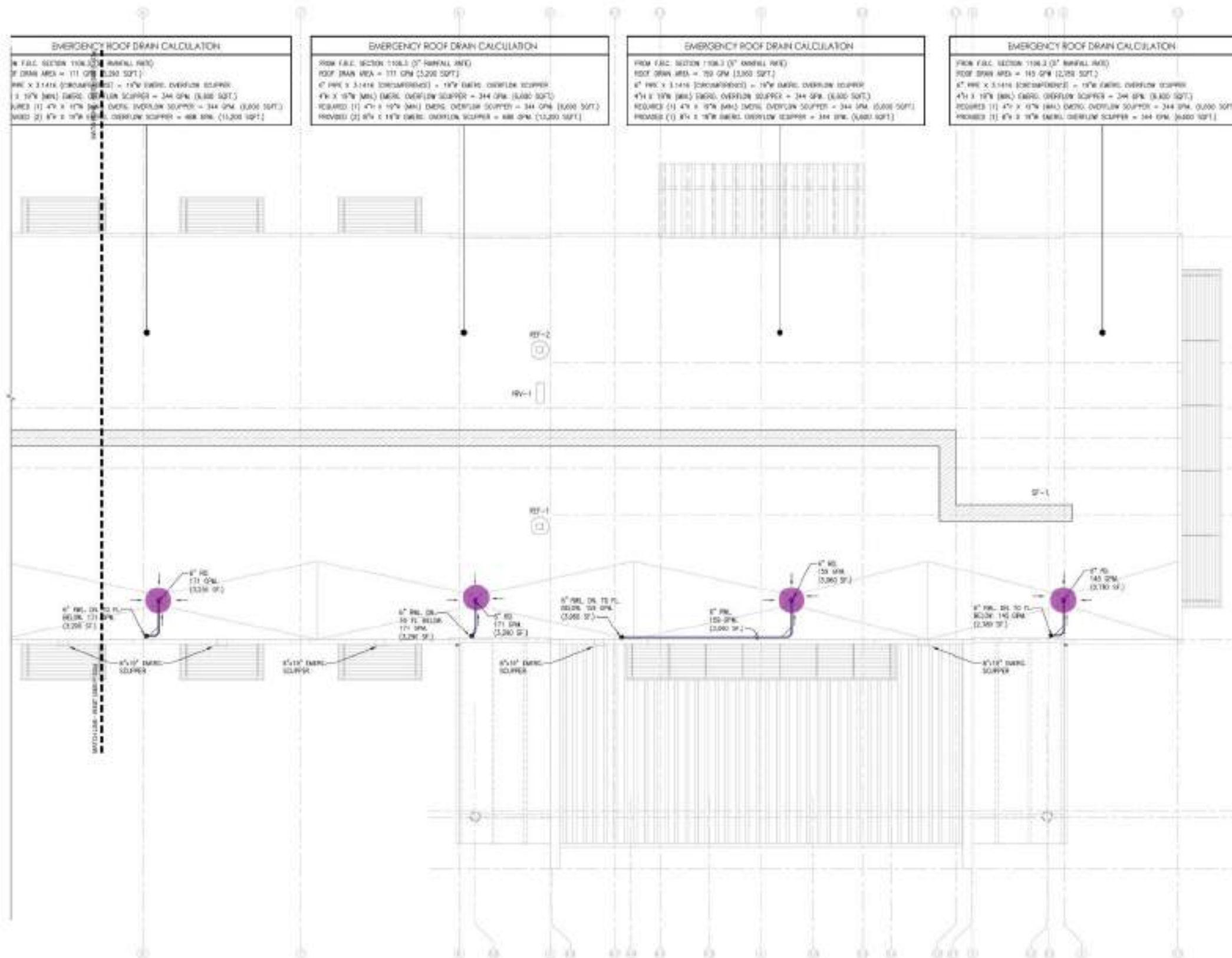
MEP MECHANICAL MECHANICAL ELECTRICAL PLUMBING ANTONIO SARRANO PE 3846
ELECTRICAL PLUMBING (317) 606-0315 TEL: 305-475-0908
MEP ENGINEERING INC. 1050 N.W. 27 ST. SUITE 100 MIAMI FL 33111

SHEET NUMBER

P103a

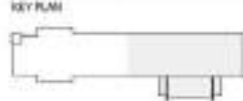
-  1-1/4" "CD" Condensate Drain Line
-  6" RWL
-  6" RG Roof Drain

65.6 FT
59.1 FT
3.0



No.	DATE	REVISION	BY

DESIGNED BY: HSY/PP/E
APPROVED BY: TN
DATE: 02/16/2021
SCALE: AS SHOWN



ME RL: +21.25 (MAD)
SEALED SIGNATURE



Antonio F. Naranjo

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SHEET NUMBER

PLUMBING ROOF PLAN (EAST)

P103b

PLUMBING ROOF PLAN (EAST)
SCALE: 1/8" = 1'-0"

MEP MECHANICAL, ELECTRICAL, PLUMBING
MEP ENGINEERING INC.
ANTONIO NARANJO PESSAGIA
TEL: (305) 471-4146
10900 N.W. 27 ST. SUITE 101 MIAMI FL 33127

6" RWL
6" RG Roof Drain
51.7 FT
4.0



- 21.0 ●
15.0 ●
12.0 ●
67.0 ●
1.0 ●



NO.	DATE	REVISION	BY

REV 0 4/3/24 SUA

DESIGNED BY	APPROVED BY
HS/TPV/JC	TS
DATE	SCALE
05/15/2024	AS SHOWN
KEY PLAN	



1/8" = 1'-0" (1/8" = 1'-0")
1/8" = 1'-0" (1/8" = 1'-0")

SEAL SIGNATURE



ANTONIO F. NAVARRO
PE - 12588

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SHEET TITLE

SANITARY ISOMETRICS

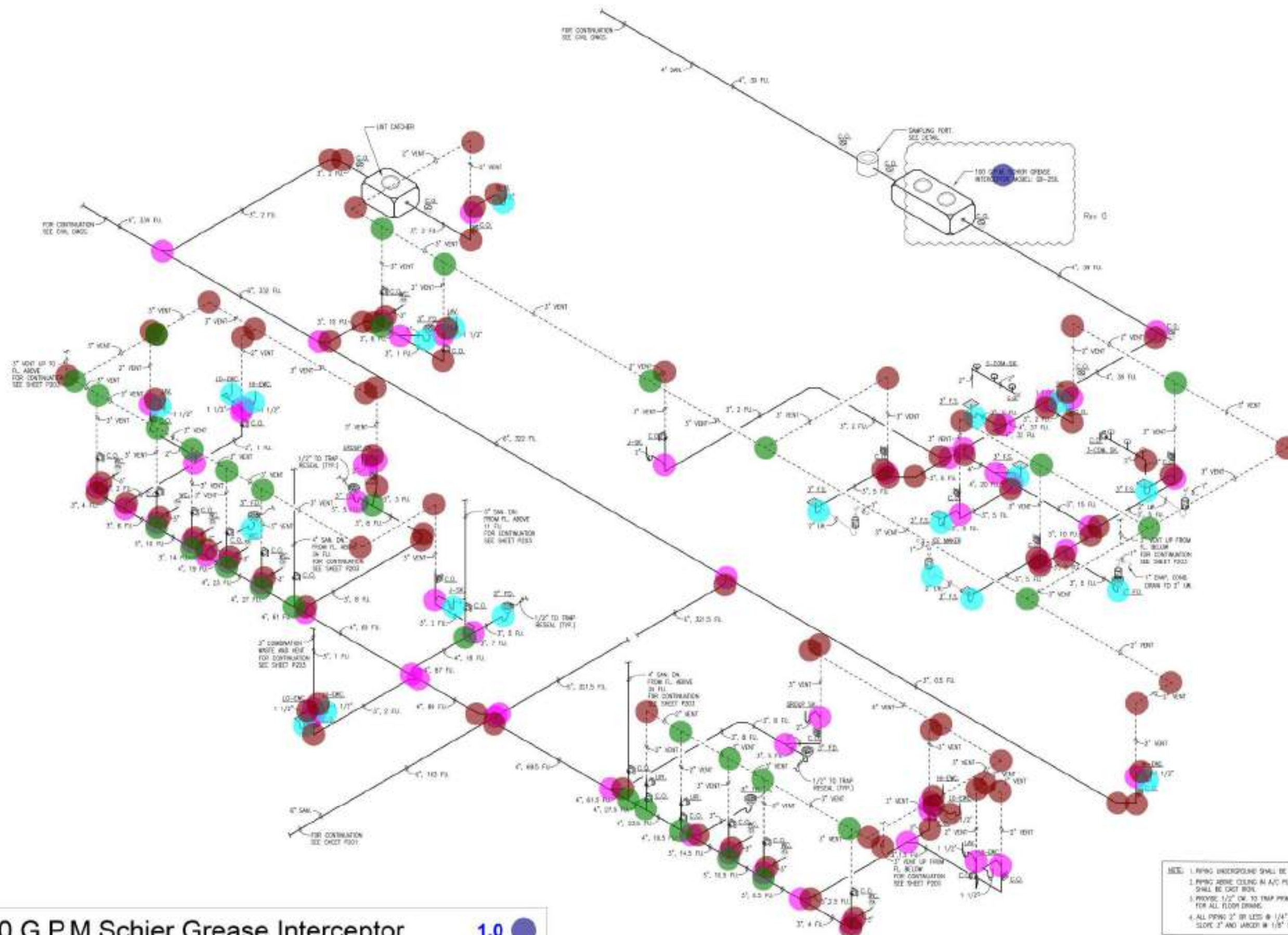
SHEET NUMBER

P202

- NOTES:
1. PIPING UNDERGROUND SHALL BE PVC.
 2. PIPING ABOVE GROUND IN A/C PLUMBING SHALL BE CAST IRON.
 3. PROVIDE 1/2" CW TO TRAP PRIMER FOR ALL FLOOR DRAIN.
 4. ALL PIPING 2" OR LESS @ 1/4" SLOPE 2" AND LARGER @ 1/8" SLOPE.

1ST FLOOR SANITARY ISOMETRICS

NTS



[illegible]

DRAWN BY	APPROVED BY
NEC/9/J	TL

DATE	SCHULE
22.05.2006	AN: 14.05.2006

61 PLAN



Let $\mathcal{H}$ be the Hilbert space

SEAL SIGNATURE



ANTONIO SARRIÓ
PR - 30604

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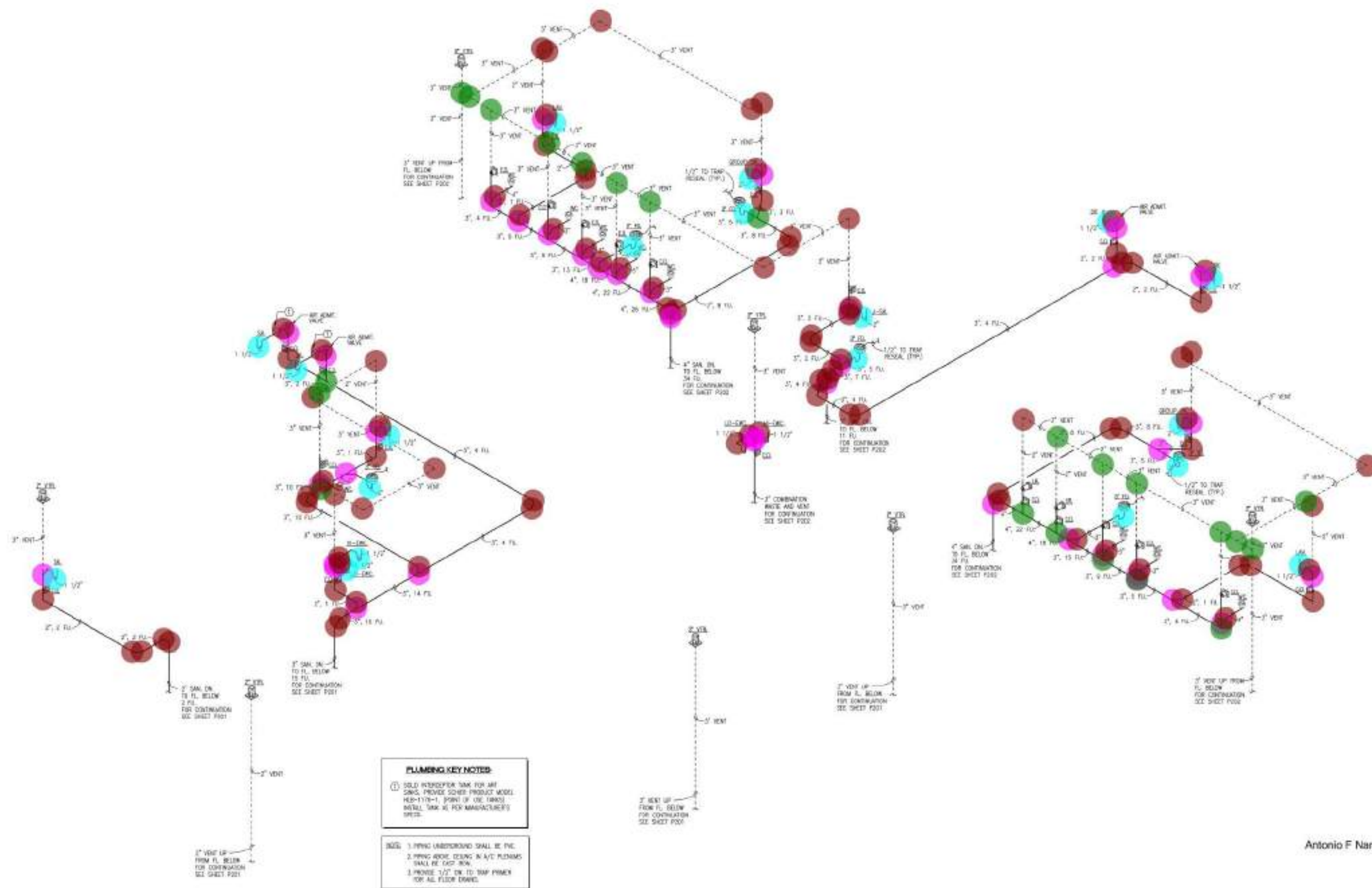
and is to be returned on receipt.
Landed 2002

SANITARY

ISOMETRICS

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P203



2ND FLOOR

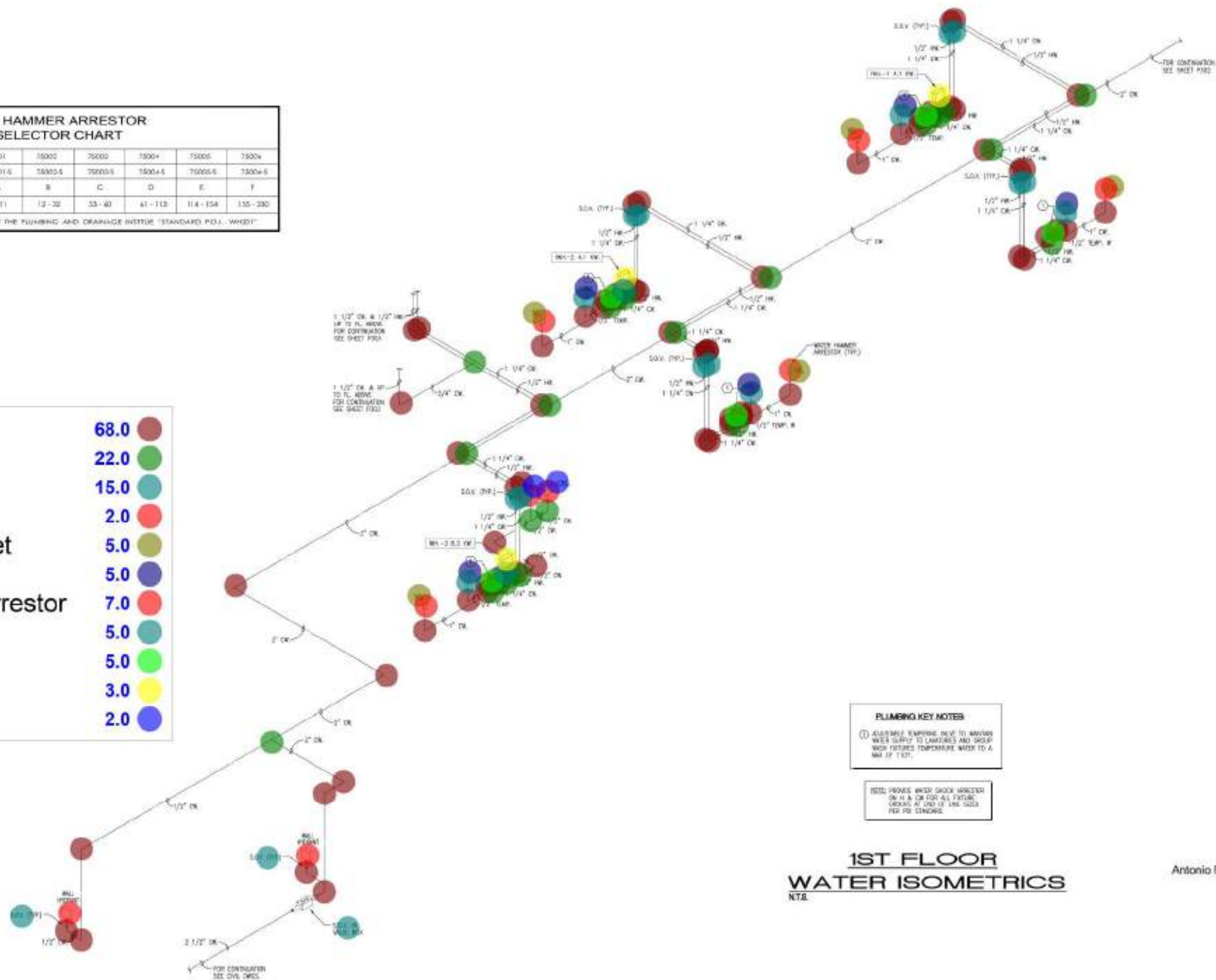
- Elbow
- Wye
- P-Trap
- Tee

92.0 ●
38.0 ●
19.0 ●
23.0 ●

WATER HAMMER ARRESTOR SELECTOR CHART						
ABSORPTION TYPE NO.	75001	75002	75003	75004	75005	75006
	75001-S	75002-S	75003-S	75004-S	75005-S	75006-S
P.D.I. SYMBOLS*	A	B	C	D	E	F
PICTURE - UNITS - RATING	1 - 11	12 - 32	33 - 40	41 - 113	114 - 154	155 - 230

* CLASSIFICATION ESTABLISHED BY THE PLUMBING AND DRAINAGE INSTITUTE (STANDARD P.D.I. - WHD01)

• Elbow	68.0	●
• Tee	22.0	●
• Shut Off Valve	15.0	●
• Wall Hydrant	2.0	●
• "WC" Water Closet	5.0	●
• "LAV" Lavatory	5.0	●
• Water Hammer Arrestor	7.0	●
• 12" Air Chamber	5.0	●
• Tempering Valve	5.0	●
• IWH	3.0	●
• EWC	2.0	●



PLUMBING KEY NOTES

① ALTERNATE TEMPERING ONLY TO MAINLINE WHEN SUPPLY TO LAMINATES AND GROUP WASH FIXTURES TEMPERATURE WATER TO A MAX OF 100°.

NOTE: PROVIDE WATER SHOCK ARRESTOR ON H & OR FOR ALL FIXTURE GROUPS AT END OF LINE SIZED PER P.D. STANDARD.

1ST FLOOR WATER ISOMETRICS

NT8

CIVICA

8323 NW 12th St. Suite 106
Doral, FL 33126
Tel: 305.583.9859
Fax: 305.583.9859
www.civica.com
info@civica.com

PROJECT:
**SOMERSET ACADEMY
AVENIR**



AVENIR DR,
PALM BEACH GARDENS
FL 33412

Parcel No: 53414128010010011
SP/LN 21-10-000564

APPLICANT:
SCHOOL DEVELOPMENT
AVENIR LLC
8457 SUNSET DRIVE
MIAMI, FL 33143

ISSUED FOR:
PERMIT SUBMITTAL
CIVICA PROJECT No :
200119

CONSULTANTS:

No.	DATE	REVISION	BY

DESIGN BY: HSY/PP/E
APPROVED BY: TM
DATE: 02/16/2021
SCALE: AS SHOWN



MEPL FILE: +21.25 (MMD)
SEALED SIGNATURE



Antonio F Naranjo

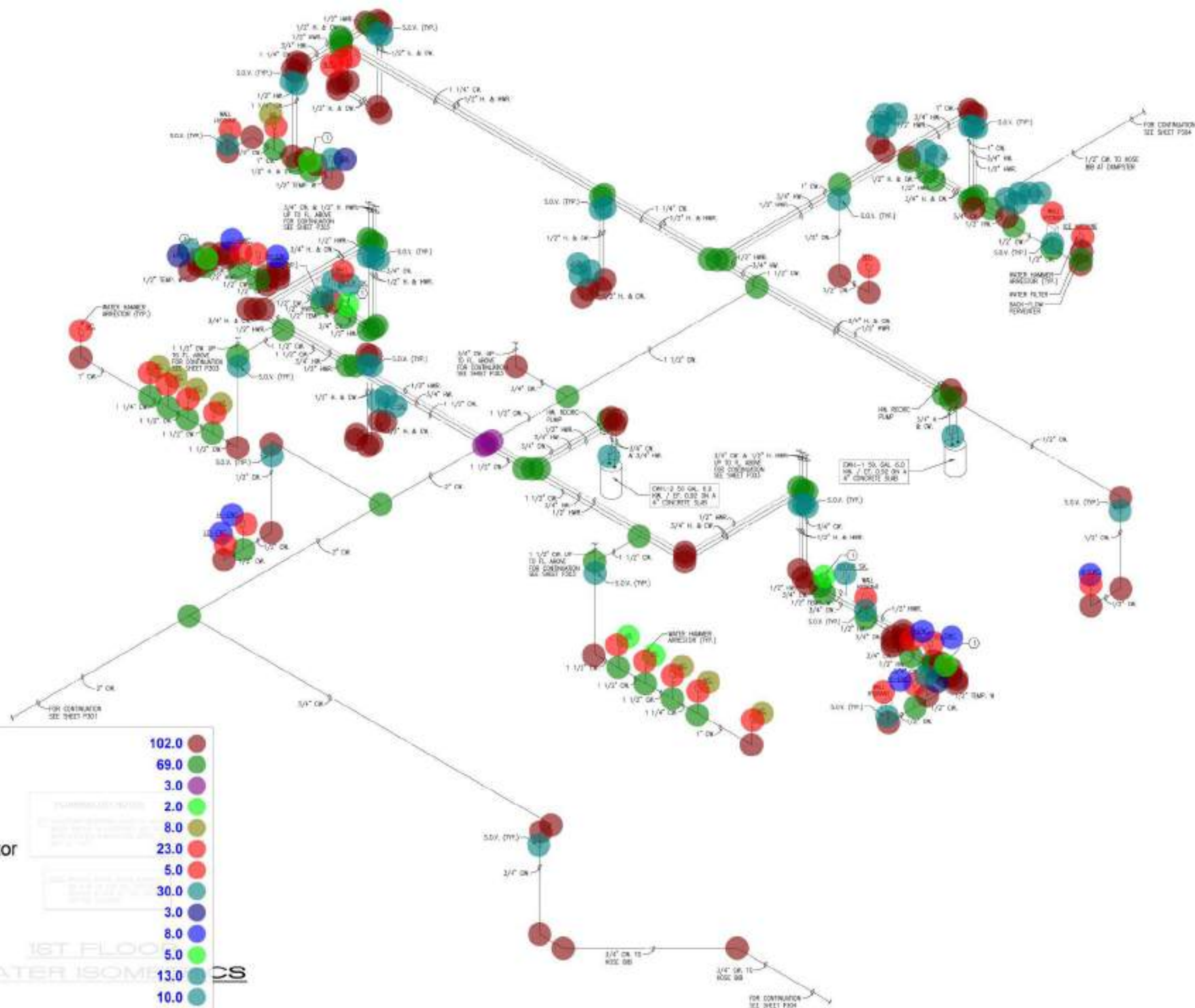
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SHEET TITLE

**WATER
ISOMETRICS**

SHEET NUMBER

P301



• Elbow	102.0
• Tee	69.0
• Four Way Cross	3.0
• "UR" Urinal	2.0
• "WC" Water Closet	8.0
• Water Hammer Arrestor	23.0
• Wall Hydrant	5.0
• Shut Off Valve	30.0
• "LAV" Lavatory	3.0
• EWC	8.0
• Tempering Valve	5.0
• 12" Air Chamber	13.0
• "SK" Sink	10.0
• Water Filter	1.0
• Back Flow Preventer	1.0
• "W/D" Washing Machine & Dryer	1.0

No.	DATE	REVISION	BY

DESIGNED BY	APPROVED BY
ME/PP/E	TM
DATE	SCALE
02/14/2021	AS SHOWN

KEY PLAN

SEALED
SEALED
SEALED



Antonio F. Naranjo

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SHEET TITLE

WATER ISOMETRICS



No.	DATE	REVISION	BY

DRAWN BY HGU/PP/E	APPROVED BY TN
DATE 02/16/2021	SCALE AS SHOWN



MEPL FILE: 21-25-0000
SEALED SIGNATURE



Antonio F. Naranjo

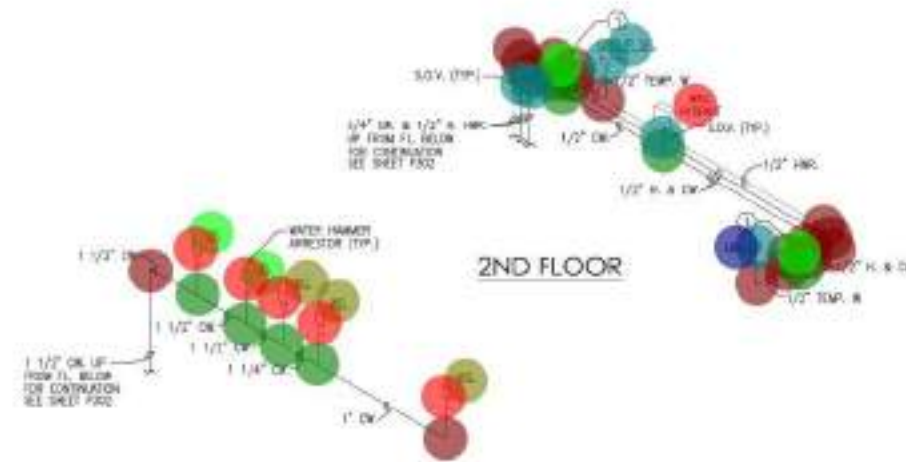
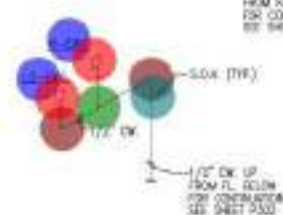
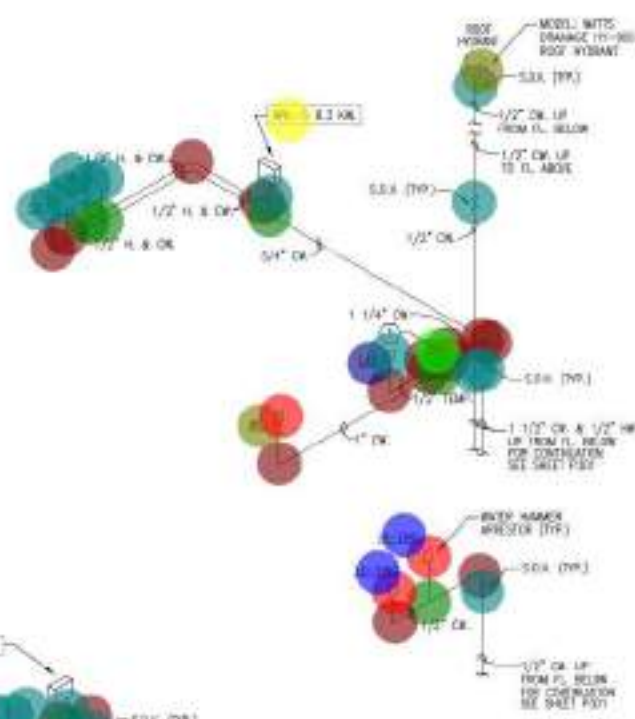
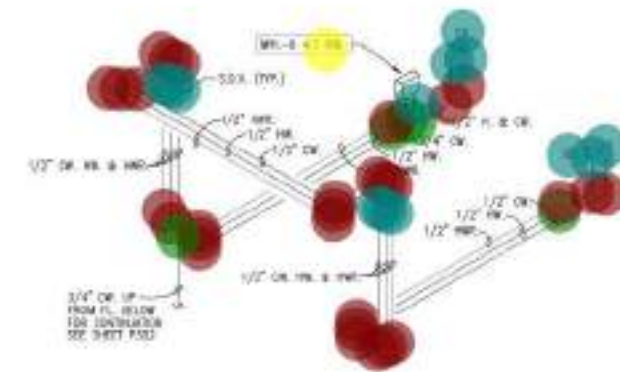
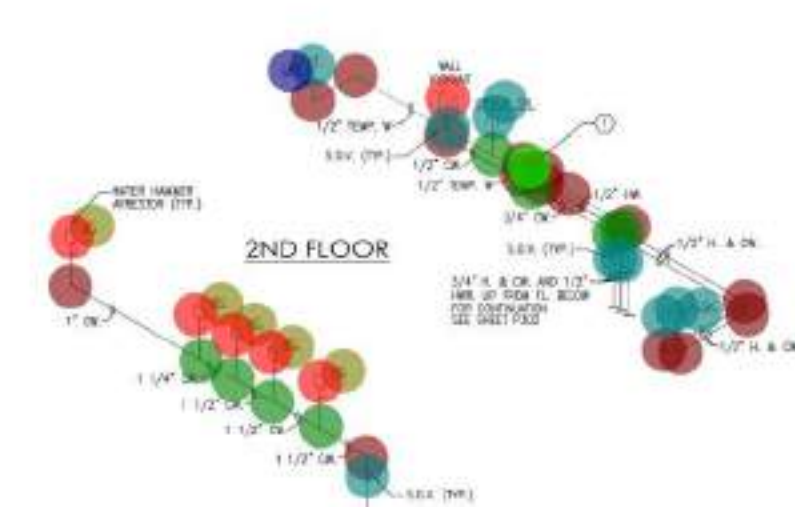
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SHEET TITLE

WATER
ISOMETRICS

SHEET NUMBER

P303



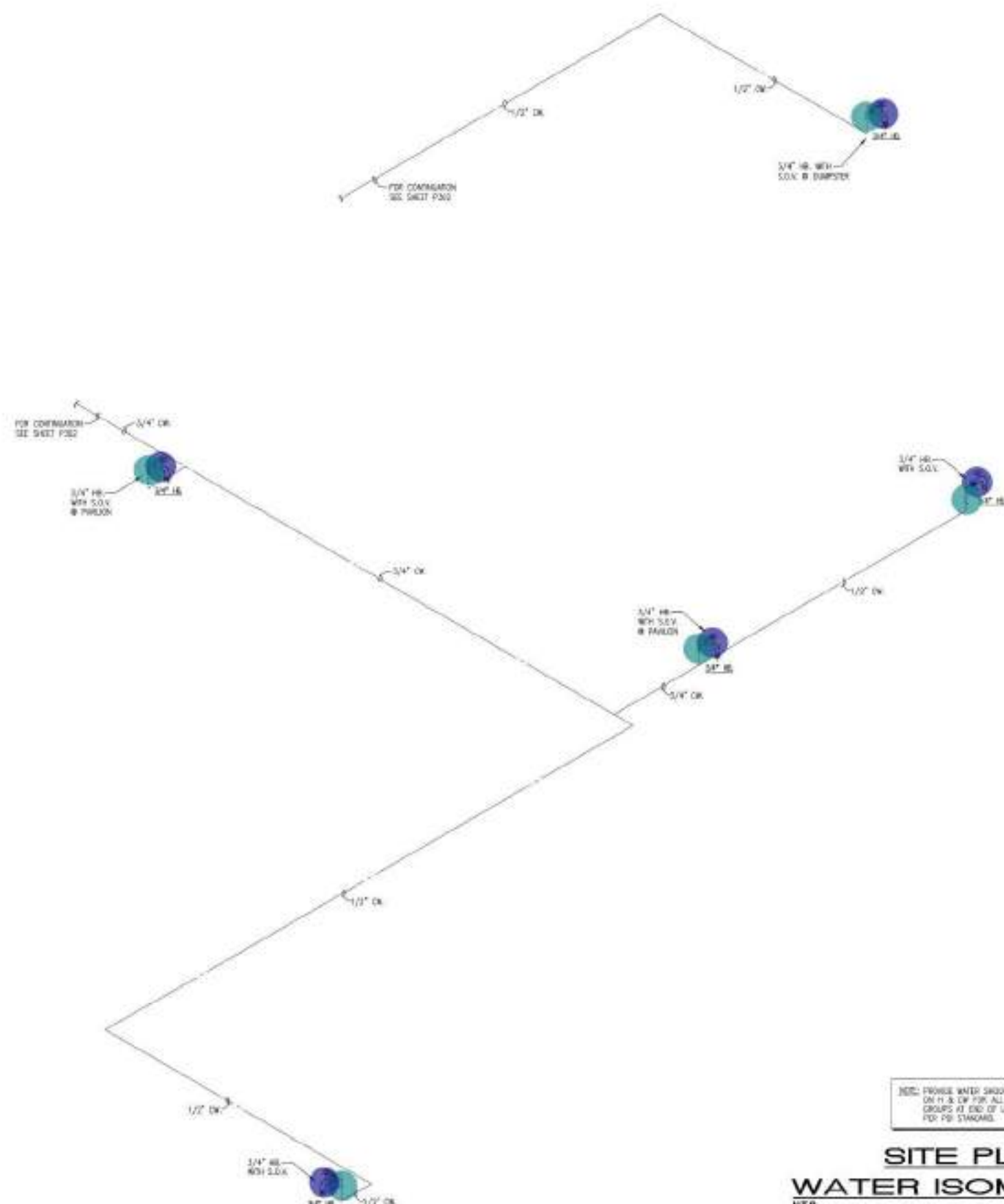
PLUMBING KEY NOTES
1. HOUSEHOLD TEMPERING VALVE TO MINIMIZE WATER SUPPLY TO LAVATORIES AND GROUP WHICH PROVIDED SCREWDRIVER TIGHT TO A MAX OF 112 PSI.

NOTE: PROVIDE WATER SHOCK ARRESTOR ON H & OR FOR ALL FUTURE GROUPS AT END OF LINE SIZED FOR PS. CHANGES.

2ND FLOOR WATER ISOMETRICS

NTS

• Elbow	81.0
• Tee	28.0
• IWH	3.0
• "SK" Sink	8.0
• 12" Air Chamber	17.0
• Shut Off Valve	23.0
• Water Hammer Arrestor	15.0
• EWC	4.0
• "WC" Water Closet	9.0
• "LAV" Lavatory	3.0
• Tempering Valve	4.0
• Wall Hydrant	2.0
• Roof Hydrant As;	1.0
• "UR" Urinal	2.0

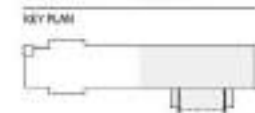


NOTE: PROVIDE WATER SHOCK ARRESTOR
ON H & CP FOR ALL FIXTURE
GROUPS AT END OF LINE SIZES
FOR PER STANDARD

SITE PLAN WATER ISOMETRICS NTS

No.	DATE	REVISION	BY

DRAWN BY: HSY/PP/E
DATE: 02/16/2021
SCALE: AS SHOWN



MEPL FILE: +21.25 (MAD)
SEALED SIGNATURE



Antonio F Naranjo

Antonio F Naranjo
ME - 12886
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SHEET TITLE

WATER
ISOMETRICS

SHEET NUMBER

P304

•

•

•

•

•

3/4" HB

Shut Off Valve

5.0

5.0



FP101a

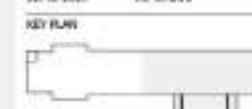
123.0 ●
16.0 ●
3.0 ●
2.0 ●
268.4 FT ■

MEP MECHANICAL ELECTRICAL PLUMBING ANTONIO NARANJO PEREZ
MEP ENGINEERING INC. 9090 N.W. 27 ST. SUITE 100 MIAMI FL, 33132



No.	DATE	REVISION	BY

DESIGN BY: APPROVED BY:
HGT/YY/E TH
DATE: SCALE:
02/15/2021 AS SHOWN



1st FL FPE +21.75' NAIG
SEA/STAMP/STAMP



Antonio F Naranjo

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SHEET TITLE

1ST FL FIRE PROTECTION PLAN (EAST)

SHEET NUMBER

FP101b



- Concealed Pendent Sprinkler Head 122.0
- Concealed Pendent Sprinkler Head 22.0
- Concealed Pendent Sprinkler Head 9.0
- 4" Dia. Fire Protection Line Main 163.9 FT

1ST FLOOR FIRE PROTECTION PLAN (EAST)
SCALE: 1/8" = 1'-0"



NO.	DATE	REVISION	BY

DRAWN BY: MD/VP/E	APPROVED BY: TM
DATE: 07/15/2021	SCALE: AS SHOWN



1st FL FRIE + 21.75' NAID
SCALE/SIGNATURE



Antonio F Naranjo

ANTONIO F. NARANJO
PE - 25604

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SHEET TITLE

2ND FL FIRE
PROTECTION PLAN
(EAST)

SHEET NUMBER

FP102b



2ND FLOOR FIRE PROTECTION PLAN (EAST)

Concealed Pendent Sprinkler Head
 Concealed Pendent Sprinkler Head
 4" Dia. Fire Protection Line Main

11.0
130.0
151.9 FT