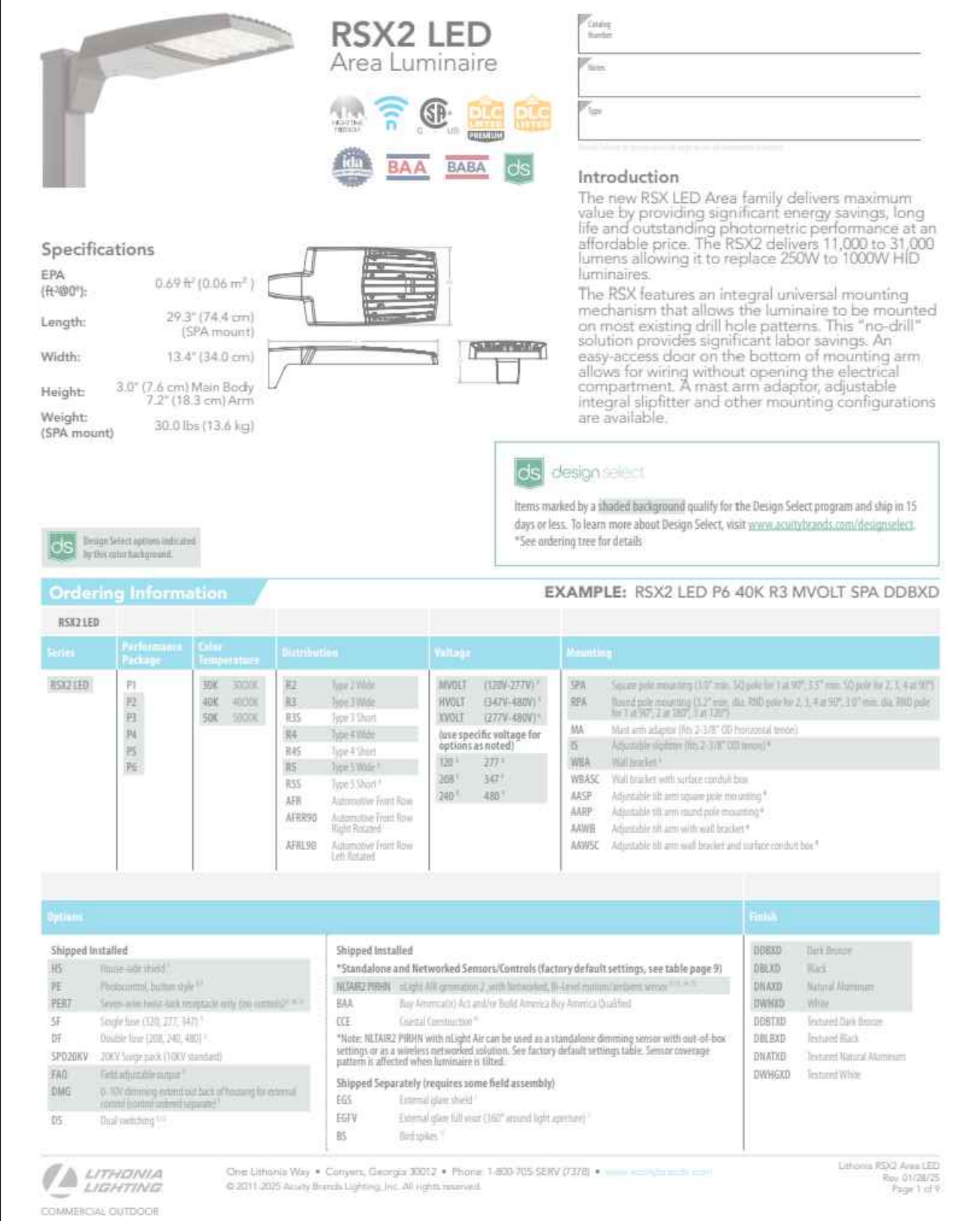
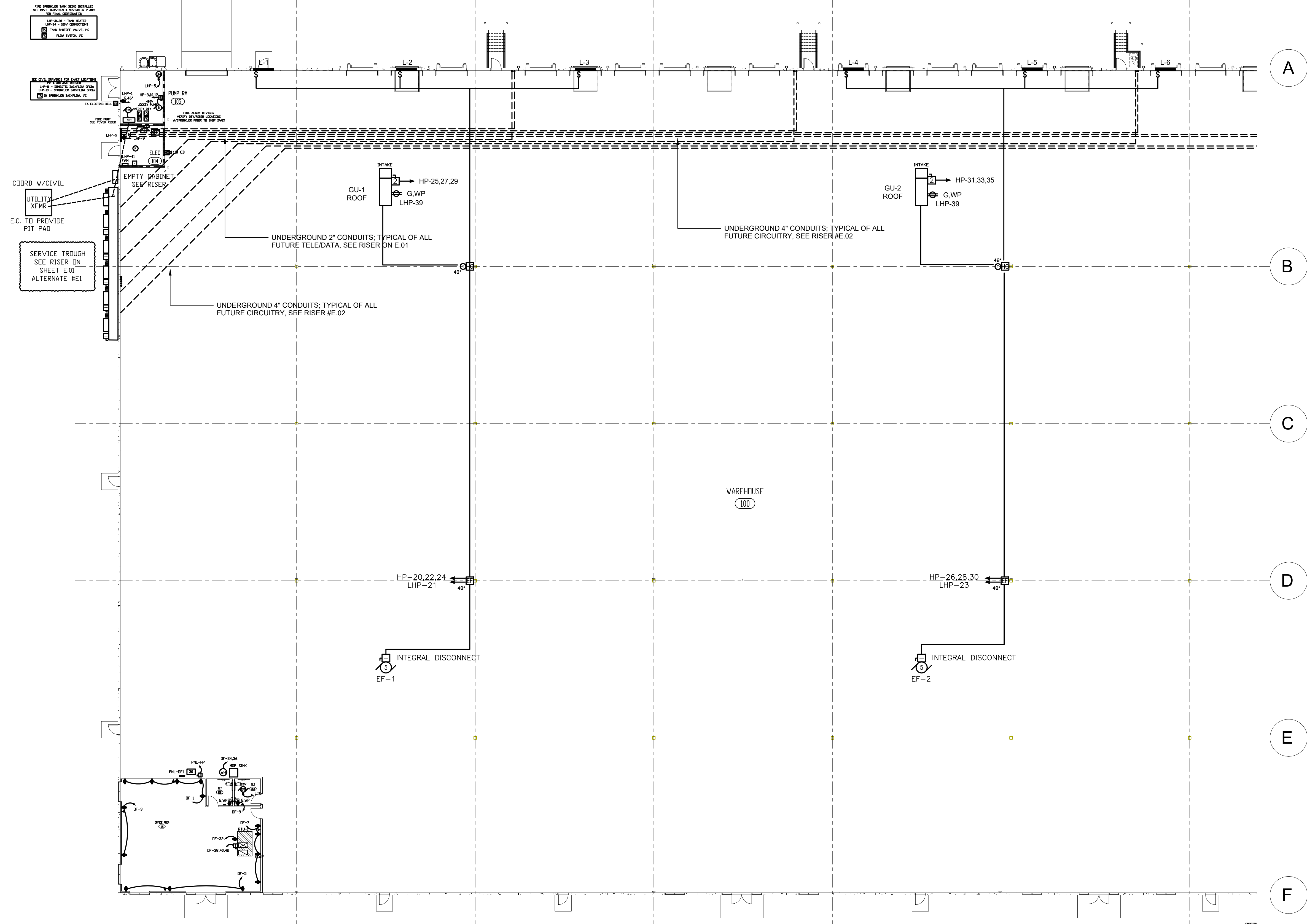
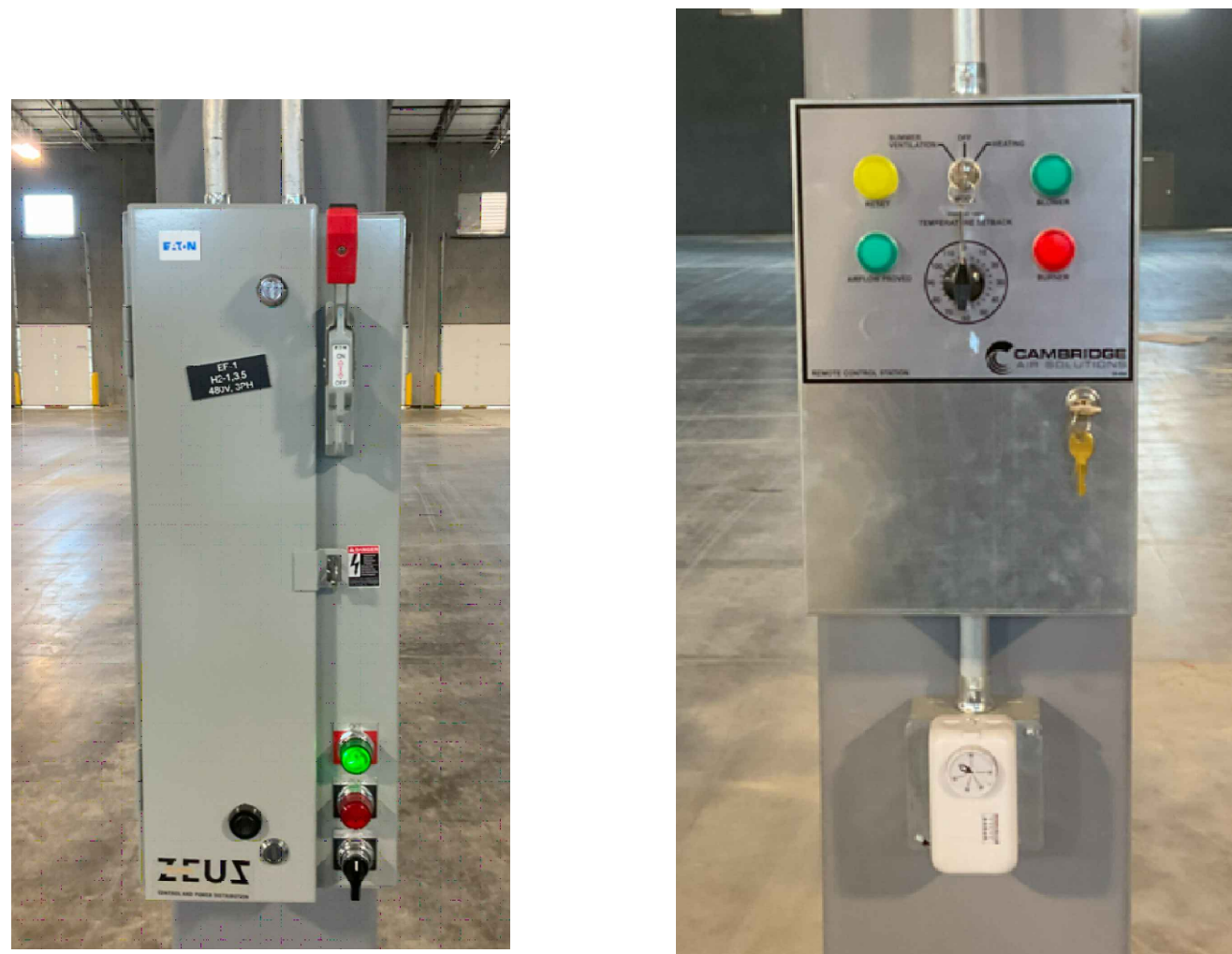




EXHAUST FAN NOTES

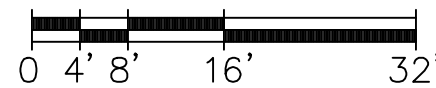
INTENT IS FOR ELECTRICAL CONTRACTOR TO INSTALL EXHAUST FAN STARTER/ENCLOSURE W/DISCONNECT (480V 3Ø) WITH AUXILIARY CONTACTS SO ICE CUBE RELAY CAN BE INSTALLED TO CONTROL (3) EXHAUST LOUVERS PER EXHAUST FAN (120V, ONE 20A CIRCUIT); INTENT FOR STARTER ENCLOSURE TO BE MOUNTED ON ADJACENT COLUMNS AS SHOWN @ 48" AFF; PROVIDE ON/OFF/AUTO SWITCH ASSEMBLY ON COLUMN TO CONTROL FROM FLOOR; AUTO SETTING TIED INTO THERMOSTAT WITH TENANT CONTROLLED SET POINT; GAS UNITS TO HAVE THERMOSTAT WIRED ON COLUMN ADJACENT TO HEATER AS SHOWN; INTENT IS TO RUN CONDUIT FOR MC TO INSTALL ANY LV WIRING AND INSTALL THERMOSTAT. ALL WIRING IN CONDUIT, M.C. TO PROVIDE THE THERMOSTAT AND GFU CONTROLLER FOR THE E.C. TO WIRE ALL LINE VOLTAGE WIRING. MC TO VERIFY INSTALLATION PRIOR TO ENERGIZING EQUIPMENT. PROVIDE ALL HARDWARE, WIRING, AND INSTALLATION AS REQUIRED FOR COMPLETE INSTALLATION. M.C. AND E.C. TO COORDINATE PRIOR TO BIDDING/INSTALLATION; TYPICAL OF ALL

- EF EXHAUST FAN CONTROLS
HC GFUs CONTROLLER



SHELL BUILDING AREA A - POWER PLAN

SCALE 1/16" = 1'-0"



PANEL-HP	MAKE: SQ D			RATING: 277/480V 3Ø 4W			MLO MAIN CIRCUIT BREAKER (FRAME)			EQUIPMENT GROUND BUS ☒ YES ☐ NO			LOAD SERVED			
	TYPE: N00D			MOUNTING: SURFACE												
LOAD SERVED	VA PER PHASE			CKT BKRR	CKT NO.	NEUTRAL A B C	CKT NO.	CKT BKRR	VA PER PHASE			LOAD SERVED				
	A	B	C						A	B	C					
LTC-WAREHOUSE 100	2120			20/1	1		2	20/1	1650			WALL PAKS				
LTC-WAREHOUSE 100		2120		20/1	3		4	20/1		1650		WALL PAKS				
LTC-WAREHOUSE 100			2120	20/1	5		6	20/1				SPARE				
LTC-WAREHOUSE 100	2120			20/1	7		8	20/1				SPARE				
LTC-WAREHOUSE 100		2120		20/1	9		10	20/1				SPARE				
LTC-WAREHOUSE 100			2120	20/1	11		12	20/1				SPARE				
		-			13		14			-						
SPARE			-	15/3	15		16	15/3				SPARE				
			-		17		18									
	1412		-		19		20		2105							
5 HP JOCKEY PUMP		1412		15/3	21		22	15/3		720		EF-1				
3/4" - 3#12 + 1#12 E.G.			1412		23		24			720		3/4" - 3#12 + 1#12 E.G.				
					25		26									
GUH-1	1412	1412		15/3	27		28	15/3		720		EF-2				
3/4" - 3#12 + 1#12 E.G.			1412		29		30			720		3/4" - 3#10 + 1#10 E.G.				
					31		32			720						
GUH-2	1412	1412		15/3	33		34	15/3		720		EF-3				
3/4" - 3#10 + 1#10 E.G.			1412		35		36			720		3/4" - 3#10 + 1#10 E.G.				
					37		38			720						
GUH-3	1412	1412		15/3	39		40	15/3				EF-4				
3/4" - 3#10 + 1#10 E.G.			1412		41		42					3/4" - 3#10 + 1#10 E.G.				
					43		44		6480							
GUH-4	1412	1412		15/3	45		46	50/3		6620		> 30 KVA - XFMR PNL-0F1				
3/4" - 3#10 + 1#10 E.G.			1412		47		48			7400		SEE RISER				
					49		50		6480							
45 KVA XFMR PNL-LHP		3750		70/3	51		52	50/3		6620		> 30 KVA - XFMR PNL-0F2				
1" - 3#6 + 1#6 E.G.			4140		53		54					SEE RISER				
REMARKS	13940	15050	15440	SUB-TOTAL "B"			225A BUS	SUB-TOTAL "A"			17225	15400	16960	MIN. 35,000 A.I.C.		
							225A LUGS	SUB-TOTAL "B"			13940	15050	15440			
							225A S/N	GRAND TOTAL			31655	30450	32400	LUGS/PHASE (1) - #3/0		
							TOP FEED	AMPS / PHASE			113	110	117	LUGS/NEUT. (1) - #3/0		

PANEL-LHP	MAKE: SQ D			RATING: 120/208V 3Ø 4W			150A MAIN CIRCUIT BREAKER (FRAME)			EQUIPMENT GROUND BUS ☒ YES ☐ NO			LOAD SERVED			
	TYPE: NQDD			MOUNTING: SURFACE												
	LOAD SERVED			LOAD SERVED			LOAD SERVED			LOAD SERVED			LOAD SERVED			
	A	B	C	CKT BKRR	CT NO.	NEUTRAL A B C	CKT NO.	CKT BKRR	A	B	C		A	B	C	
REC-PUMP RM	720			20/1	1		2	20/1				SPARE				
SPARE				20/1	3		4	20/1				SPARE				
UNIT HEATER (1.5 KW)			1500	20/1	5		6	20/1				SPARE				
REC- TO EXT				20/1	7		8	20/1				SPARE				
REC- TC 103		720		20/1	9		10	20/1				SPARE				
REC-BACKFLOW DOMESTIC			720	20/1	11		12	20/1				SPARE				
REC-SPRINKLER BACKFLOW	480			20/1	13		14	20/1				SPARE				
LTC-ELEC/SPRINKLER RM		150		20/1	15		16	20/1				SPARE				
SPARE				20/1	17		18	20/1				SPARE				
SPARE				20/1	19		20	20/1				SPARE				
AIR INTAKE LOUVER		1440		20/1	21		22	20/1				SPARE				
AIR INTAKE LOUVER			1440	20/1	23		24	20/1				SPARE				
AIR INTAKE LOUVER	1440			20/1	25		26	20/2				SPARE				
AIR INTAKE LOUVER		1440		20/1	27		28	20/1				SPARE				
SPARE				20/1	29		30	20/1				SPARE				
SPARE				20/1	31		32	20/1				SPARE				
SPARE				20/1	33		34	20/1			720	SPRINKLER TANK REC				
SPARE				20/1	35		36	20/2			2300	SPRINKLER TANK HEATER				
SPARE				20/1	37		38				2300	3/4" 2"0 + 1"0 E.G.				
SPARE				20/1	39		40	30/2				SPARE				
SPARE				20/1	41		42					SPARE				
FIRE ALARM			480	LD	20/1	41	42					SPARE				
REMARKS	2640	3750	4140	SUB-TOTAL "B"			200A BUS	SUB-TOTAL "A"			0	0	0	MIN. 18,000 A.I.C.		
"LD" - DENOTES RED CIRCUIT BREAKER LOCKING DEVICE				200A LUGS				SUB-TOTAL "B"			2640	3750	4140	SYM. AMPERS		
FEED THRU LUGS				200A S/N				GRAND TOTAL			2640	3750	4140	LUGS/PHASE (1) - #1/0		
-				BOTL FEED				AMPS / PHASE			22	31	35	LUGS/NEUT. (1) - #1/0		

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Harnett 95 Industrial Center
SPEC BUILDING 1
US 301 S.
Dunn, North Carolina

SUBMITTALS:
DATE DESCRIPTION
6-5-25 RFI's

REVISIONS:
NO DATE DESCRIPTION

SHEET TITLE:
ELECTRICAL -
SHELL BUILDING A
POWER PLAN;
PANEL
SCHEDULES;
NOTES & DETAILS

DATE: 2025-08-06
DRAWN: CBL CHECKED: CBL
JOB NUMBER: 25-009
SHEET:

E1.1

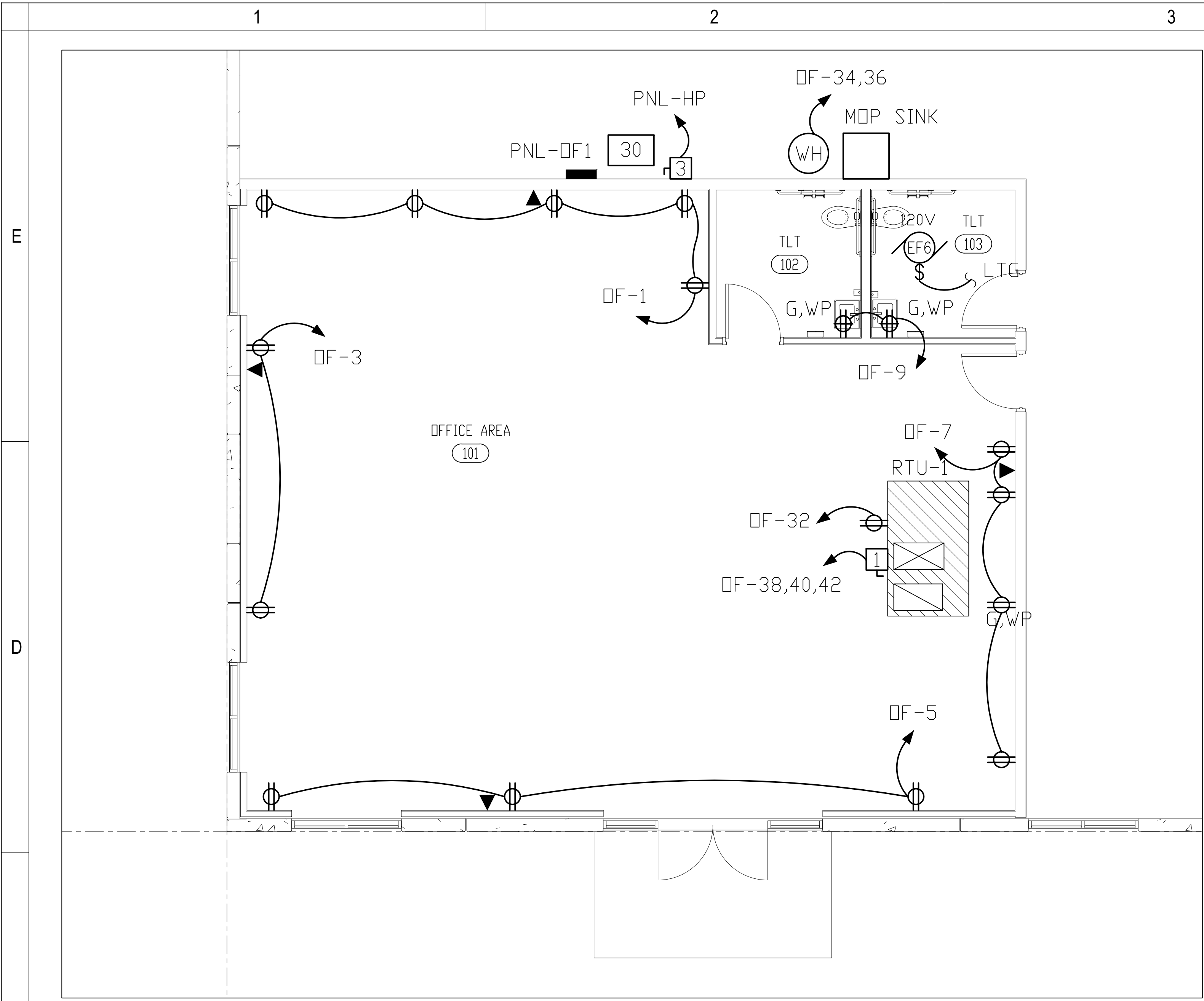
1. CONDUIT RACEWAYS SHOWN ARE DIAGRAMATIC.
CONTRACTOR IS RESPONSIBLE FOR PROVIDING
CONDUITS WITH SUFFICIENT SIZE TO ACCOMMODATE
FUNCTION AS SHOWN/INDICATED ON PLANS.
2. CONTRACTOR TO PROVIDE SEPARATE NEUTRALS. ALL
NEUTRALS TO BE INSTALLED SEPARATELY.
3. ALL EXITS AND EMERGENCY LIGHTING UNITS SHALL BE
CONNECTED TO UNSWITCHED LIGHTING LEG IN THE SAME
CIRCUIT WHICH FURNISHES POWER TO THE EXIT.
4. ALL STAND ALONE WALL BOX DIMMERS TO BE LUTRON
NOVA SERIES MATCHED TO LOAD TYPE AND CAPACITY.
CONTROLLING. E.C. TO VERIFY CAPABILITY OF DIMMER
TO HANDLE LOADS. DIMMERS TO BE 120V LINE VOLTAGE
AND SOME MAY REQUIRE 0-10V; E.C. TO VERIFY WITH
LIGHTING SUPPLIER/CUT SHEETS PRIOR TO PLACING
ORDER.
5. ALL CABLEING ABOVE LAY-IN CEILING TO BE PLENUM
RATED. ALL CABLEING TO BE IN CONDUIT (3/4" MINIMUM).
ALL 120V HOMERUNS OVER 75 FEET IN LENGTH TO HAVE
A GROUND (ONE SIZE ABOVE CABLE SIZE).
6. SEE ARCHITECTURAL SHEETS FOR RATED WALL ASSEMBLIES;
E.C. TO PROVIDE PROPER UL APPROVED METHODS FOR
CABLE FIRE RATINGS.
7. E.C. TO PROVIDE ALL HARDWARE REQUIRED FOR
SUPPORT/INSTALLATION OF LUMINAIRES.



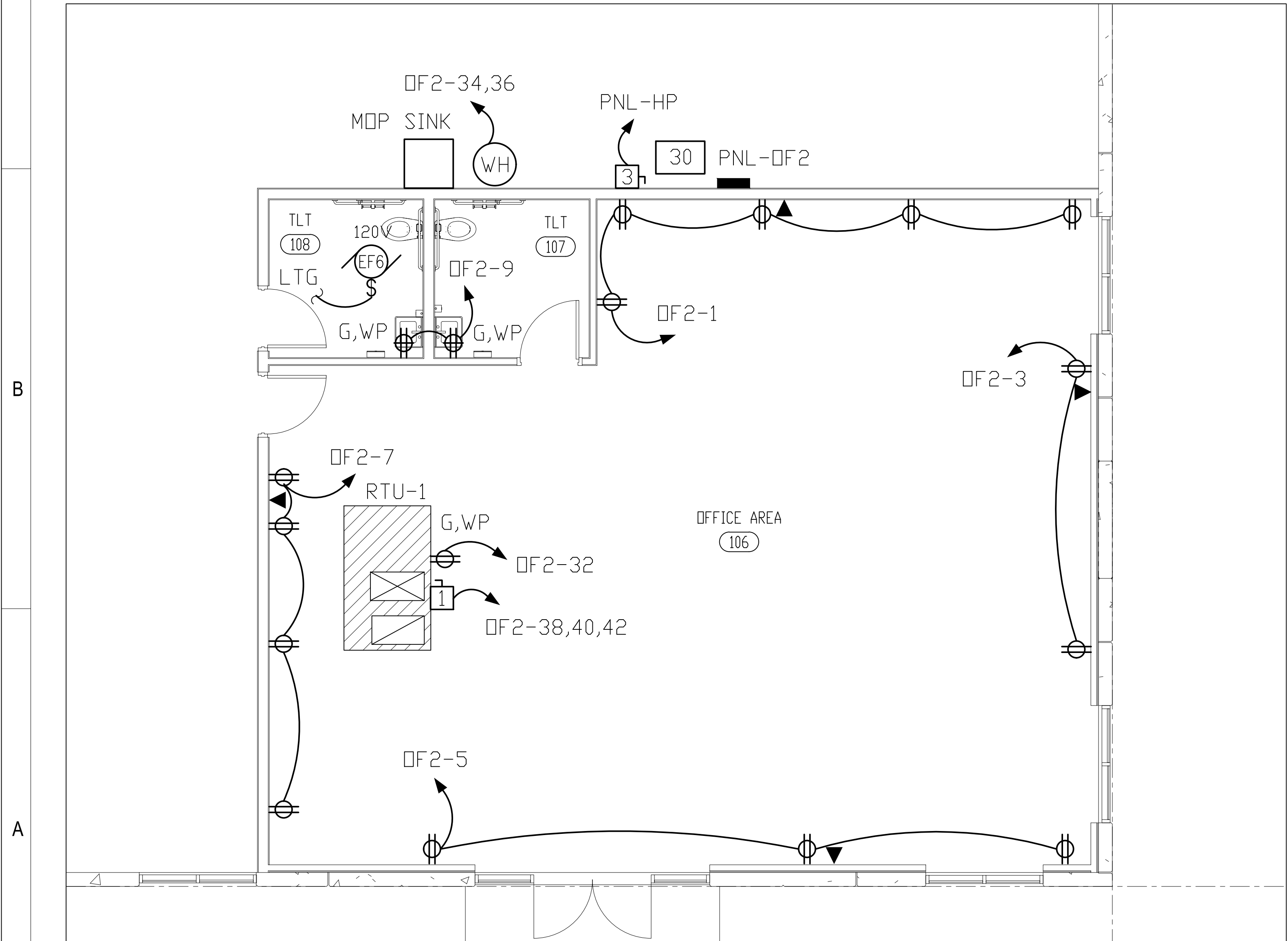
PANEL-OF-1/2	MAKE: <u>SO D</u> TYPE: <u>N00D</u>			RATING: <u>120/208V 3ø 4W</u> MOUNTING: <u>SURFACE</u>			125A MAIN CIRCUIT BREAKER (FRAME _____) EQUIPMENT GROUND BUS ☒ YES ☐ NO									
	LOAD SERVED			VA PER PHASE			CKT BRKR	CKT NO	NEUTRAL A B C	CKT NO	CKT BRKR	VA PER PHASE			LOAD SERVED	
	A	B	C	A	B	C						A	B	C		
REC-OFFICE AREA	720						20/1	1		2	20/1	720			LTG-OFFICE AREA, TLT, EP	
REC-OFFICE AREA		720					20/1	3		4	20/1				SPARE	
REC-OFFICE AREA			1500				20/1	5		6	20/1				SPARE	
REC-OFFICE AREA	720						20/1	7		8	20/1				SPARE	
SPARE							20/1	9		10	20/1				SPARE	
SPARE							20/1	11		12	20/1				SPARE	
SPARE							20/1	13		14	20/1				SPARE	
SPARE							20/1	15		16	20/1				SPARE	
SPARE							20/1	17		18	20/1				SPARE	
SPARE							20/1	19		20	20/1				SPARE	
SPARE							20/1	21		22	20/1				SPARE	
SPARE							20/1	23		24	20/1				SPARE	
SPARE							20/1	25		26	20/2				SPARE	
SPARE							20/1	27		28	20/1				SPARE	
SPARE							20/1	29		30	20/1				SPARE	
SPARE							20/1	31		32	20/1	720			REC-RTU	
SPARE							20/1	33		34	30/2	2300			WATER HEATER	
SPARE							20/1	35		36			2300		3/4" - 2ø10 + 1ø10 E.G.	
SPARE							20/1	37		38		3600				
SPARE							20/1	39		40	50/3		3600		øRTU-1 (GAS)	
SPARE							20/1	41		42			3600		3/4" - 3ø8 + 1ø10 E.G.	
REMARKS	1440	720	1500	SUB-TOTAL "B"			125A BUS	SUB-TOTAL "A"			5040	5900	5900	MIN. 18,000 A.I.C.		
							125A LUGS	SUB-TOTAL "B"			1440	720	1500	SYM. AMPERES		
							125A S/N	GRAND TOTAL			6480	6620	7400	LUGS/PHASE (1) - #1		
							BOIL FEED	AMPS / PHASE			54	55	62	(1) - #2		

TYPICAL OF (2) PANELS - ONE FOR OFFICE #1 AND ONE FOR OFFICE #2
VERIFY MCA/MOCP ON HVAC/PLUMBING PRIOR TO GEAR ORDER
-

E1.2



ENLARGED OFFICE #1 - POWER & TELE/DATA
SCALE 1/4" = 1'-0"



ENLARGED OFFICE #2 - POWER & TELE/DATA
SCALE 1/4" = 1'-0"

GENERAL NOTES

- CONDUIT RACEWAYS SHOWN ARE DIAGRAMMATIC. CONTRACTOR IS RESPONSIBLE FOR PROVIDING APPROPRIATE WIRE COUNTS WITHIN RACEWAYS TO MAKE SYSTEM FUNCTION AS SHOWN/INDICATED ON PLANS.
- CONTRACTOR TO PROVIDE SEPARATE NEUTRALS. ALL WIRING INSTALLED PER NEC 2020.
- ALL EXITS AND EMERGENCY LIGHTING UNITS SHALL BE CONNECTED TO UNSWITCHED LIGHTING LEG IN THE SAME LOCATION WHICH FIXTURE IS LOCATED.
- ALL STAND ALONE WALL BOX DIMMERS TO BE LUTRON NOVA SERIES MATCHED TO LOAD TYPE AND CAPACITY CONTROLLING. E.C. TO VERIFY CAPABILITY OF DIMMER WITH LUMINAIRES; SOME FIXTURES MAY BE LINE VOLTAGE AND SOME MAY REQUIRE 0-10V; E.C. TO VERIFY WITH LIGHTING SUPPLIER/CUT SHEETS PRIOR TO PLACING ORDER.
- ALL CABLING ABOVE LAY-IN CEILING TO BE PLENUM RATED. ALL CABLING TO BE IN CONDUIT (3/4" MINIMUM).
- ALL 120V HOMERUNS OVER 75 FEET IN LENGTH TO HAVE UPSIZED (ONE SIZE LARGER) WIRE FOR VOLTAGE DROP.
- SEE ARCHITECTURAL SHEETS FOR RATED WALL ASSEMBLIES; E.C. TO PROVIDE PROPER UL APPROVED METHODS FOR MAINTAINING FIRE RATINGS.
- E.C. TO PROVIDE ALL HARDWARE REQUIRED FOR SUPPORT/INSTALLATION OF LUMINAIRES.

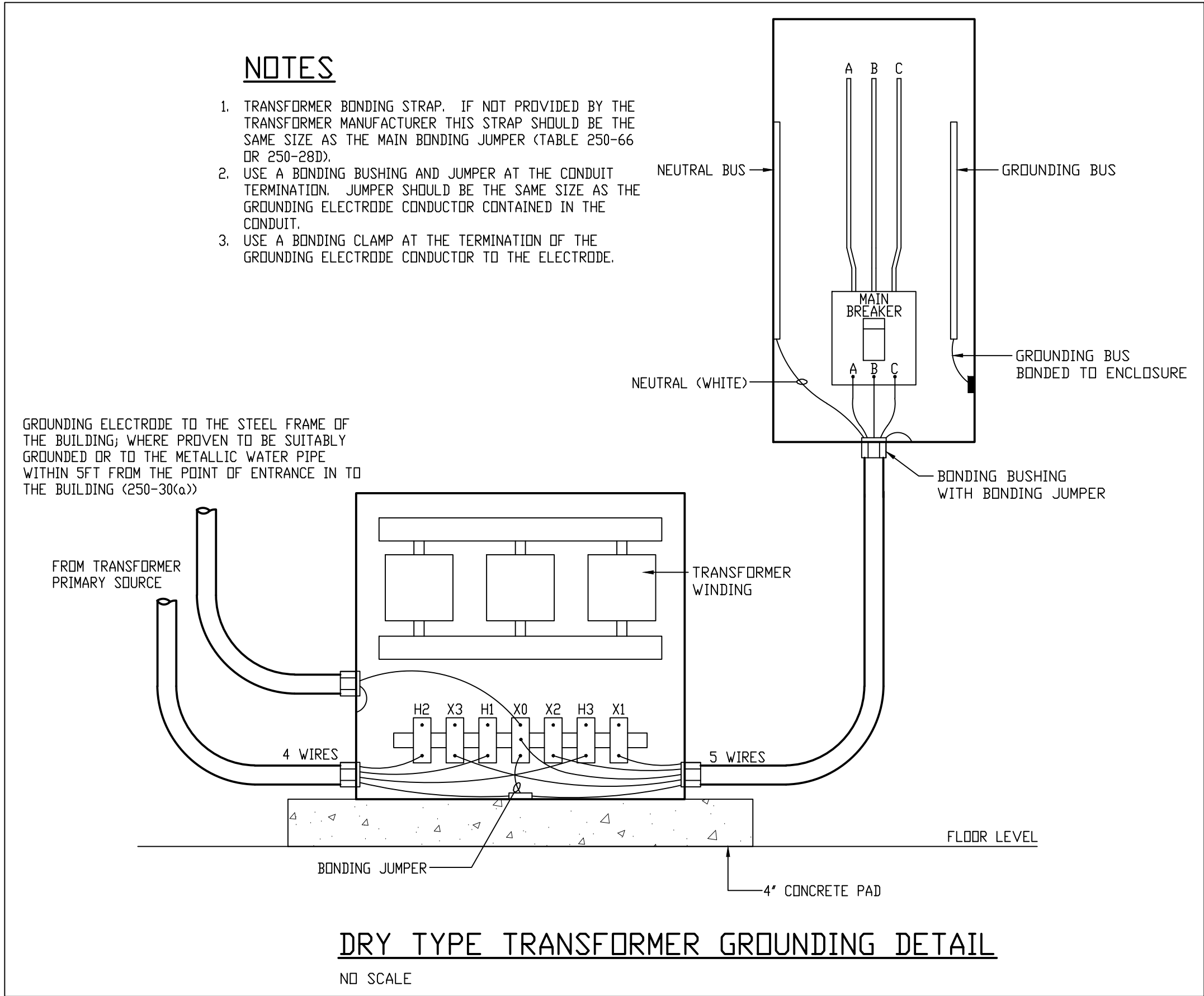
SEE CIVIL DRAWINGS FOR EXACT LOCATIONS
1" & #10 AWG MINIMUM
LHP-11 - DOMESTIC BACKFLOW GFCIs
LHP-13 - SPRINKLER BACKFLOW GFCIs
TS IN SPRINKLER BACKFLOW, 1" C

COORD W/CIVIL

UTILITY
XFMR

E.C. TO PROVIDE
PIT PAD

ENLARGED PARTIAL ELECTRICAL ROOM
SCALE 1/4" = 1'-0"



SAFETY SWITCH SCHEDULE							
* FUSE SIZE ACCORDING TO MANUFACTURER'S RECOMMENDATIONS							
* FUSE SIZE AS NOTED ON PLANS.							
NF NON-FUSED							
MARK	POLE	AMPS	VOLTS	NEMA	FUSE	GROUND BAR	COMMENTS
1	3	60	240	3R	*	YES	HEAVY DUTY
2	3	30	600	3R	*	YES	HEAVY DUTY
3	3	100	600	1	*	YES	HEAVY DUTY
4	3	60	600	1	*	YES	HEAVY DUTY
5	-	-	-	-	-	-	-

TRANSFORMER SCHEDULE						
MARK	KVA	PHASE	WIRE	VOLTAGE		MOUNTING
				PRI.	SEC.	
1	45	3	4	480	120/208	FLOOR
2	30	3	4	480	120/208	FLOOR
3	-	-	-	-	-	-
4	-	-	-	-	-	-
5	-	-	-	-	-	-

* NEMA TP-1, 150° RISE, AL WINDINGS

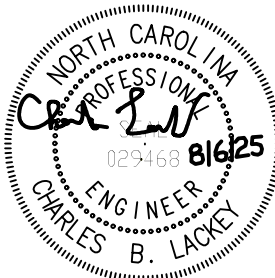


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SUBMITTALS:

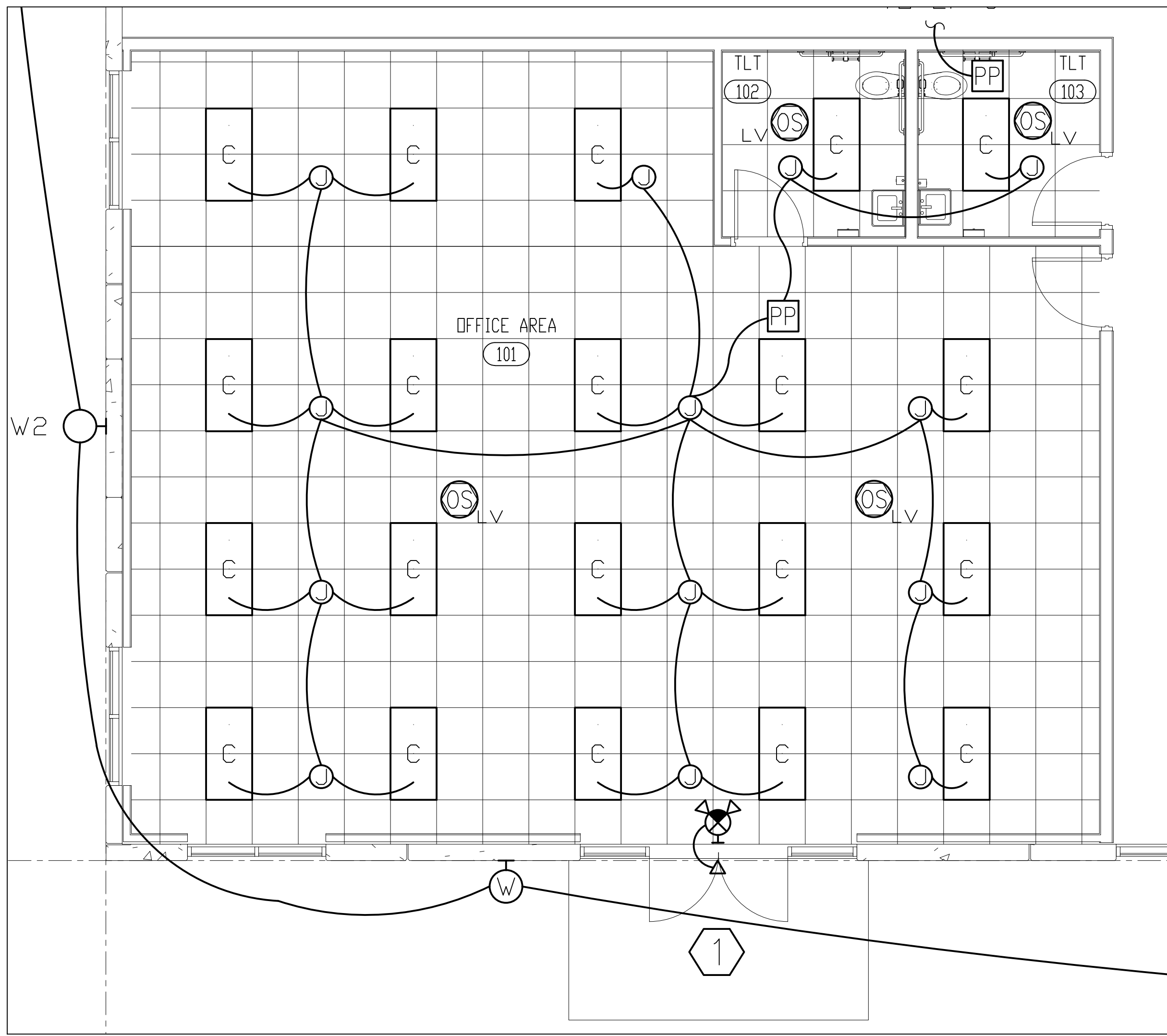
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REVISIONS:

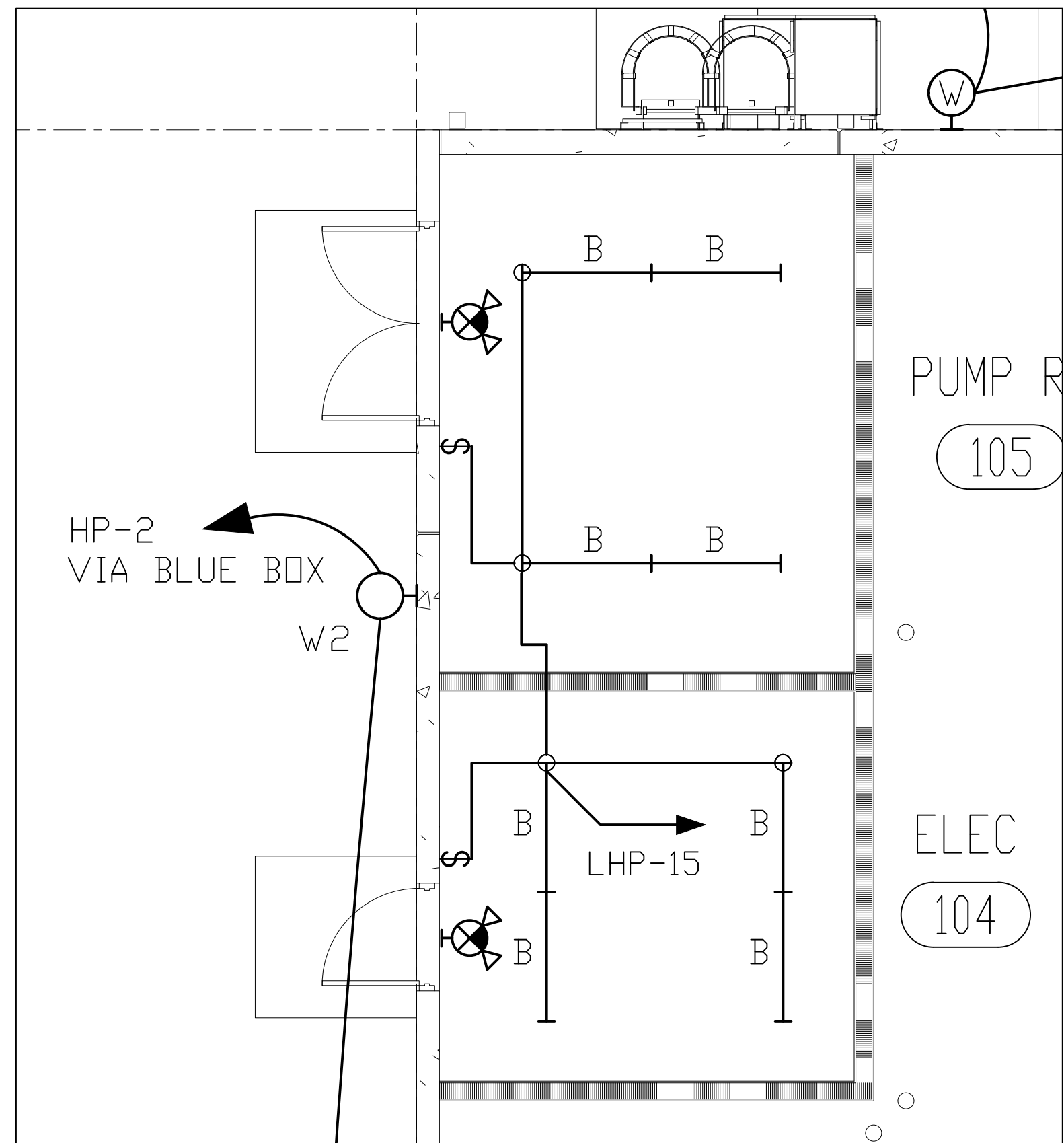
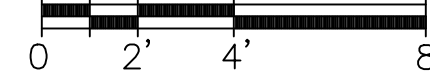
NO	DATE	DESCRIPTION

SHEET TITLE:
ELECTRICAL-
ENLARGED POWER
PLAN; NOTES &
DETAILS

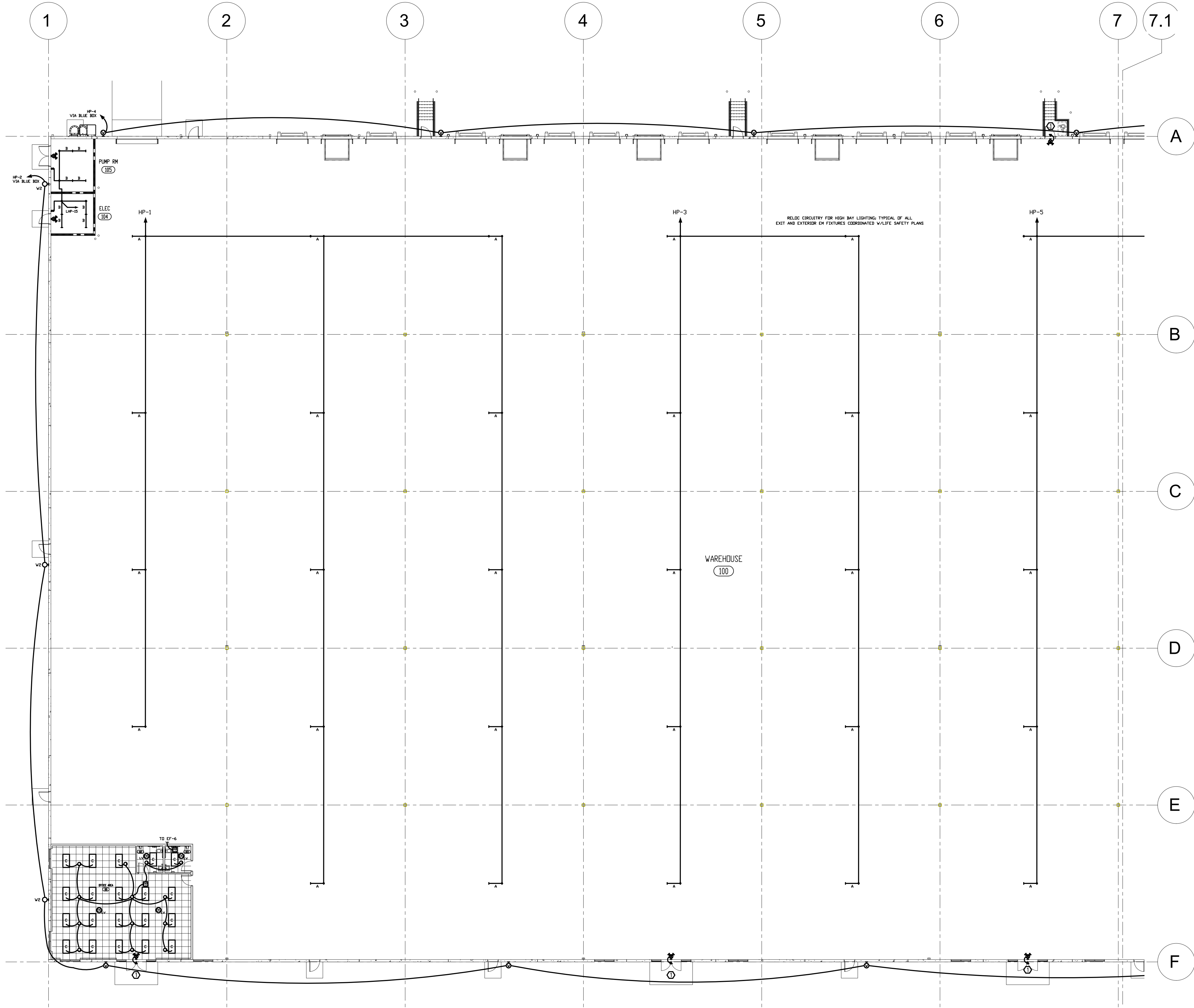
DATE: 2025-08-06
DRAWN: CBL CHECKED: CBL
JOB NUMBER: 25-009
SHEET:



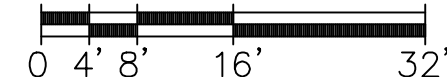
ENLARGED OFFICE #1 - LIGHTING
SCALE 1/4" = 1'-0"



ENLARGED PARTIAL ELECTRICAL ROOM
SCALE 1/4" = 1'-0"



SHELL BUILDING - AREA A - LIGHTING PLAN
SCALE 1/16" = 1'-0"



KEYED LIGHTING PLAN NOTES:

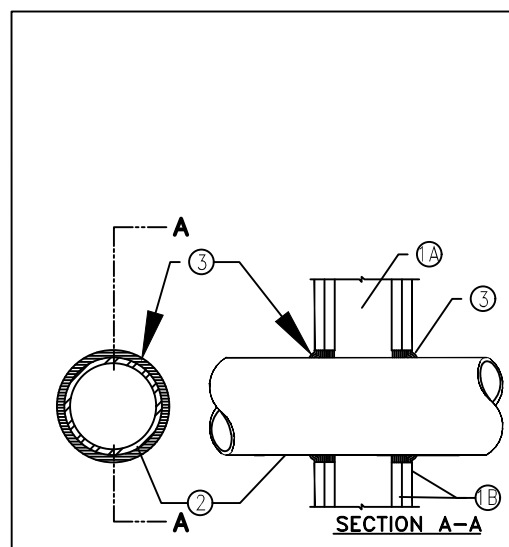
- EXTERIOR EMERGENCY EGRESS LIGHT (LITHONIA AFFINITY SERIES) CONNECTED TO EXIT/EMERGENCY COMBO UNIT; CONNECT TO UNSTITCHED LIGHTING LEG; LED
- EXTERIOR LIGHTING CIRCUITRY ROUTED THRU BLUE BOX LCP WITH BUILT IN ASTRONOMICAL CLOCK

GENERAL NOTES

- CONDUIT RACEWAYS SHOWN ARE DIAGRAMMATIC. CONTRACTOR IS RESPONSIBLE FOR PROVIDING APPROPRIATE WIRE COUNTS WITHIN RACEWAYS TO MAKE SYSTEM FUNCTION AS SHOWN/INDICATED ON PLANS.
- CONTRACTOR TO PROVIDE SEPARATE NEUTRALS. ALL WIRING INSTALLED PER NEC 2020.
- ALL EXITS AND EMERGENCY LIGHTING UNITS SHALL BE CONNECTED TO UNSTITCHED LIGHTING LEG IN THE SAME LOCATION WHICH FIXTURE IS LOCATED.
- ALL STAND ALONE WALL BOX DIMMERS TO BE LUTRON NOVA SERIES MATCHED TO LOAD TYPE AND CAPACITY CONTROLLING. E.G. TO VERIFY CAPABILITY OF DIMMER WITH LUMINAIRES; SOME FIXTURES MAY BE LINE VOLTAGE AND SOME MAY REQUIRE 0-10V; E.G. TO VERIFY WITH LIGHTING SUPPLIER/CUT SHEETS PRIOR TO PLACING ORDER.
- ALL CABLING ABOVE LAY-IN CEILING TO BE PLENUM RATED. ALL CABLING TO BE IN CONDUIT (3/4" MINIMUM).
- ALL 120V HOMERUNS OVER 75 FEET IN LENGTH TO HAVE UPSIZED (ONE SIZE LARGER) WIRE FOR VOLTAGE DROP.
- SEE ARCHITECTURAL SHEETS FOR RATED WALL ASSEMBLIES; E.C. TO PROVIDE PROPER UL APPROVED METHODS FOR MAINTAINING FIRE RATINGS.
- E.C. TO PROVIDE ALL HARDWARE REQUIRED FOR SUPPORT/INSTALLATION OF LUMINAIRES.

SENSOR DEVICE SCHEDULE

- WS WALL MOUNTED LINE VOLTAGE DUAL TECHNOLOGY OCCUPANCY SENSOR EQUAL TO SENSOR SWITCH WSX-PDT
- SD WALL MOUNTED LINE VOLTAGE DUAL TECHNOLOGY OCCUPANCY SENSOR WITH 0-10V DIMMING. EQUAL TO SENSOR SWITCH WSX-PDT-D
- SD WALL MOUNTED LINE VOLTAGE 0-10V DIMMER EQUAL TO SENSOR SWITCH SPDRD
- OS CEILING MOUNTED LINE VOLTAGE OCCUPANCY SENSOR WITH INTEGRA RELAY. EQUAL TO SENSOR SWITCH CMR-PDT-10
- OS CEILING MOUNTED LOW VOLTAGE OCCUPANCY SENSOR WITH 20A POWER PACK. ALL OCCUPANCY SENSORS TO BE DUAL TECHNOLOGY



SYSTEM NO. W-L-1001
SEPTEMBER 07, 2004
(FORMERLY SYSTEM NO. 147)

F Ratings: 1, 2, 3 and 4 hr (See Items 2 and 3)
T Ratings: 0, 1, 2, 3, and 4 hr (See Item 3)
L Rating: At Ambient less than 1 CFM/sq ft
L Rating: At 400 F less than 1 CFM/sq ft

Filename: \\X6EZ-W-L-1001
Copyright: September 7, 2004
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- Wall Assembly: The 1, 2, 3 or 4 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
 - Studs-Wall framing may consist of either wood studs (max 2 hr fire rated assemblies) or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC with nom 2 by 4 in. lumber end plates and cross braces. Steel studs to be min 3-5/8 in. wide by 1-3/8 in. deep channels spaced max 24 in. OC.
 - Gypsum Board-Nom 1/2 or 5/8 in. thick, 4 ft. wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 13-1/2 in.
- Through-Penetrant: One metallic pipe, conduit or tubing installed either concentrically or eccentrically within firestop system. The annular space between pipe, conduit or tubing and periphery of opening shall be min of 0 in. (point contact to max 2 in. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits, or tubing may be used:
 - Steel Pipe-Nom 24 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.
 - Iron Pipe-Nom 24 in. diam (or smaller) service weight (or heavier) cast iron soil pipe, nom 12 in. diam (or smaller) or Class 50 (or heavier) ductile iron pressure pipe.
 - Conduit-Nom 6 in. diam (or smaller) steel conduit or nom 4 in. diam (or smaller) steel electrical metallic tubing.
 - Copper Tubing - Nom 6 in. diam (or smaller) Type L (or heavier) copper pipe.
 - Copper Pipe-Nom 6 in. diam (or smaller) Regular (or heavier) copper pipe.
- Through Penetrating Product-Flexible Metal Piping The following types of steel flexible metal gas piping may be used:
 - Nom 2 in. diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may not be removed on both sides of floor or wall assembly.
 - OMEGA FLEX INC - 2, Nom 1 in. diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may not be removed on both sides of floor or wall assembly.
- File, Void or Caulk Material-Caulk or Sealant - Min 5/8, 1-1/4, 1-7/8 and 2-1/2 in. thickness of caulk for 1,2,3 and 4 hr rated assemblies, respectively, applied within annulus, flush with both surfaces of wall. Min 1/4 in. diam bead of caulk applied to gypsum board/penetrant interface at point contact location on both sides of wall. The hourly F Rating of the firestop system is dependent upon the hourly fire rating of the wall assembly in which it is installed, as shown in the following table. The hourly F Rating of the firestop system is dependent upon the type or size of the pipe or conduit and the hourly fire rating of the wall assembly in which it is installed, as tabulated below:

Max Pipe or Conduit Diam, in.	F Rating, hr	F Rating, hr
1	1 or 2	0 1/2, 1 or 2
1	3 or 4	3 or 4
4	1 or 2	0
6	3 or 4	0
12	1 or 2	0



SUBMITTALS:

DATE DESCRIPTION

REVISIONS:

NO DATE DESCRIPTION

SHEET TITLE: ELECTRICAL - LIGHTING PLAN; AREA A - UL DETAIL; NOTES & DETAILS

DATE: 2025-08-06

DRAWN: CBL CHECKED: CBL

JOB NUMBER: 25-009

SHEET:

GENERAL NOTES

- CONDUIT RACEWAYS SHOWN ARE DIAGRAMMATIC. CONTRACTOR IS RESPONSIBLE FOR PROVIDING APPROPRIATE WIRE COUNTS WITHIN RACEWAYS TO MAKE SYSTEM FUNCTION AS SHOWN/INDICATED ON PLANS.
- CONTRACTOR TO PROVIDE SEPARATE NEUTRALS. ALL WIRING INSTALLED PER NEC 2020.
- ALL EXITS AND EMERGENCY LIGHTING UNITS SHALL BE CONNECTED TO UNSWITCHED LIGHTING LEG IN THE SAME LOCATION WHICH FIXTURE IS LOCATED.
- ALL STAND ALONE WALL BOX DIMMERS TO BE LUTRON NOVA SERIES MATCHED TO LOAD TYPE AND CAPACITY CONTROLLING. E.C. TO VERIFY CAPABILITY OF DIMMER WITH LUMINAIRES; SOME FIXTURES MAY BE LINE VOLTAGE AND SOME MAY REQUIRE 0-10V; E.C. TO VERIFY WITH LIGHTING SUPPLIER/CUT SHEETS PRIOR TO PLACING ORDER.
- ALL CABLING ABOVE LAY-IN CEILING TO BE PLENUM RATED. ALL CABLING TO BE IN CONDUIT (3/4" MINIMUM).
- ALL 120V HOMERUNS OVER 75 FEET IN LENGTH TO HAVE UPSIZED (ONE SIZE LARGER) WIRE FOR VOLTAGE DROP.
- SEE ARCHITECTURAL SHEETS FOR RATED WALL ASSEMBLIES; E.C. TO PROVIDE PROPER UL APPROVED METHODS FOR MAINTAINING FIRE RATINGS.
- E.C. TO PROVIDE ALL HARDWARE REQUIRED FOR SUPPORT/INSTALLATION OF LUMINAIRES.

ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT

METHOD OF COMPLIANCE

ENERGY CODE: ☒ PREScriptive ☐ PERFORMANCE
ASHRAE 90.1: ☒ PREScriptive ☐ PERFORMANCE

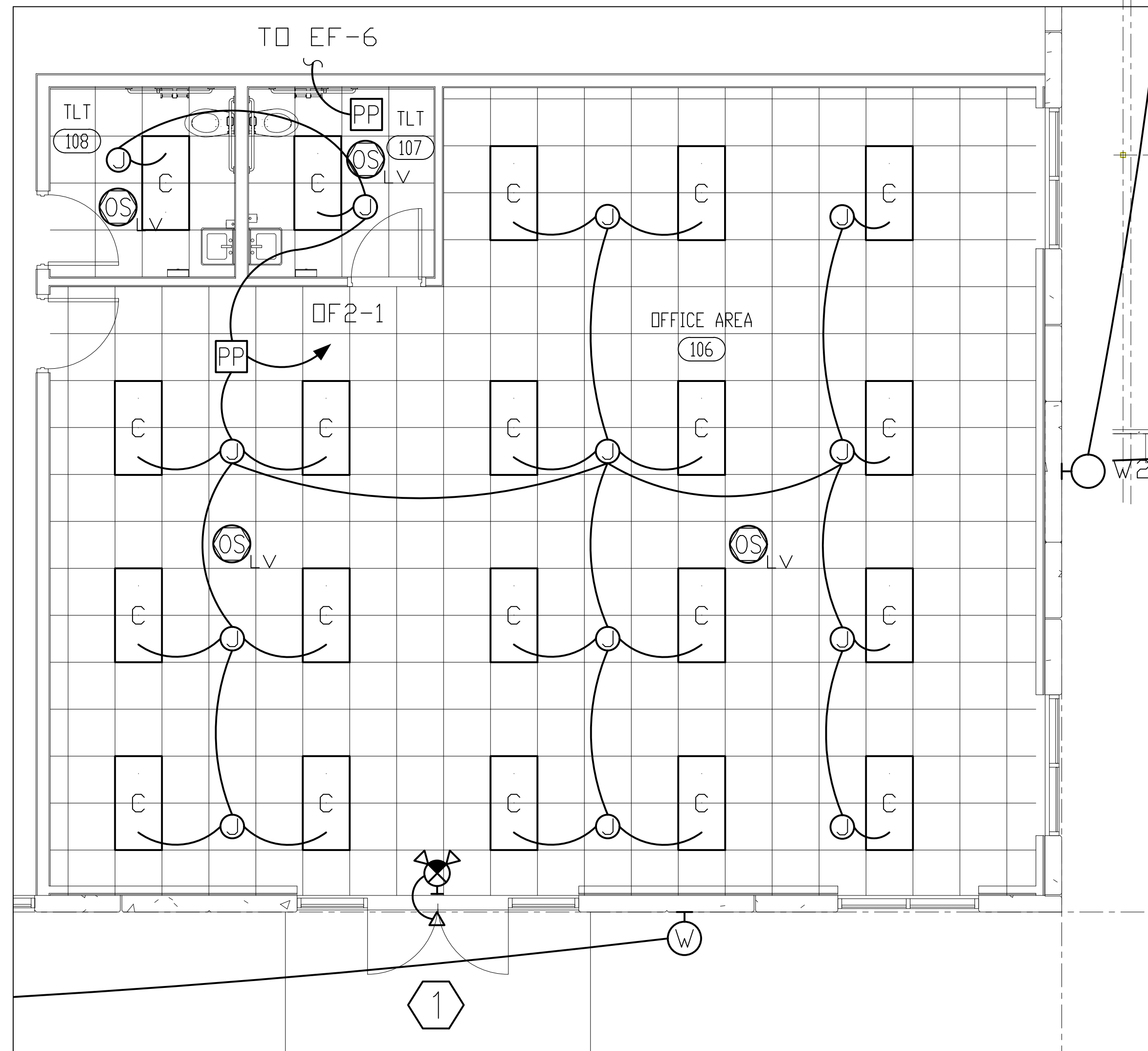
LIGHTING SCHEDULE

LAMP TYPE REQUIRED IN FIXTURE = SEE LUMINAIRE SCHEDULE ON SHEET E.03
NUMBER OF LAMPS IN FIXTURE = SEE LUMINAIRE SCHEDULE ON SHEET E.03
BALLAST TYPE USED IN THE FIXTURE = SEE LUMINAIRE SCHEDULE ON SHEET E.03
NUMBER OF BALLASTS IN FIXTURE = SEE LUMINAIRE SCHEDULE ON SHEET E.03
TOTAL WATTAGE PER FIXTURE = SEE LUMINAIRE SCHEDULE ON SHEET E.03
TOTAL INTERIOR WATTAGE SPECIFIED VS ALLOWED (WHOLE BUILDING OR SPACE BY SPACE) = 113,482 Watts vs. 115,500 Watts
TOTAL EXTERIOR WATTAGE SPECIFIED VS ALLOWED = 3,120 vs 4,560 ALLOWED
Warehouse Lights are LED

Exterior Lighting	N/A
Minimum Required Exterior Efficacy (45 Lumen/Watt)	
Specified Exterior Lamps	Specified Efficacy
LED	90 Lumens/Watt

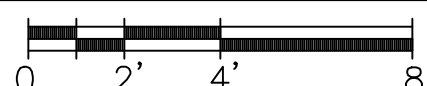
ADDITIONAL PRESCRIPTIVE COMPLIANCE

- ☐ C406.2 MORE EFFICIENT HVAC EQUIPMENT PERFORMANCE
- ☒ C406.3 REDUCED LIGHTING POWER DENSITY
- ☐ C406.4 ENHANCED DIGITAL LIGHTING CONTROLS
- ☐ C406.5 ON-SITE RENEWABLE ENERGY
- ☐ C406.6 DEDICATED OUTDOOR AIR SYSTEM
- ☐ C406.7 REDUCED ENERGY USE IN SERVICE WATER HEATER



ENLARGED OFFICE #2 - LIGHTING

SCALE 1/4" = 1'-0"

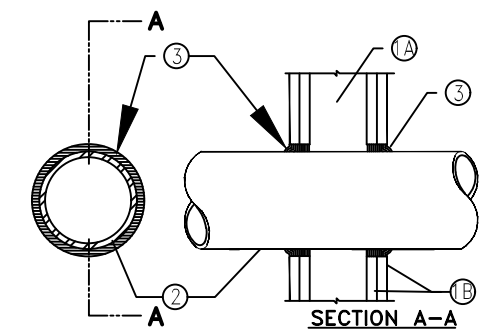
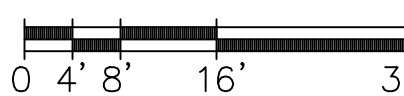


KEYED LIGHTING PLAN NOTES:

- EXTERIOR EMERGENCY EGRESS LIGHT (LITHONIA AFFINITY SERIES) CONNECTED TO EXIT/EMERGENCY COMBO UNIT; CONNECT TO UNSWITCHED LIGHTING LEG; LED
- EXTERIOR LIGHTING CIRCUITRY ROUTED THRU BLUE BOX LCP WITH BUILT IN ASTRONOMICAL CLOCK

SHELL BUILDING - AREA B - LIGHTING PLAN

SCALE 1/16" = 1'-0"



SYSTEM NO. W-L-1001
SEPTEMBER 07, 2004
(FORMERLY SYSTEM NO. 147)

F Ratings: 1, 2, 3 and 4 hr (See Items 2 and 3)
T Ratings: 0, 1, 2, 3, and 4 Hr (See Item 3)
L Rating At Ambient less than 1 CFM/sq ft
L Rating At 400 F less than 1 CFM/sq ft

Filename: \\XHEZ-W-L-1001
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- Wall Assembly-The 1, 2, 3 or 4 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
 - Studs-Wall framing may consist of either wood studs (max 2 hr fire rated assemblies) or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC with nom 2 by 4 in. lumber end plates and cross braces. Steel studs to be min 3-5/8 in. wide by 1-3/8 in. deep channels spaced max 24 in. OC.
 - Gypsum Board-Nom 1/2 or 5/8 in. thick, 4 ft. wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max dim of opening is 13-1/2 in.
 - Through-Penetrant- One metallic pipe, conduit or tubing installed either concentrically or eccentrically within freestop system. The annular space between pipe, conduit or tubing and periphery of opening shall be min of 0 in.(point contact to max 2 in. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits, or tubing may be used:
 - Steel Pipe-Nom 24 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.
 - Iron Pipe-Nom 24 in. diam (or smaller) service weight (or heavier) cast iron soil pipe, nom 12 in diam (or smaller) or Class 50 (or heavier) ductile iron pressure pipe.
 - Conduit-Nom 6 in. diam (or smaller) steel conduit or nom 4 in diam (or smaller) steel electrical metallic tubing.
 - Copper Tubing - Nom 6 in. diam (or smaller) Type L (or heavier) copper pipe.
 - Copper Pipe-Nom 6 in. diam (or smaller) Regular (or heavier) copper pipe.
 - Through Penetrating Product-Flexible Metal Piping The following types of steel flexible metal gas piping may be used:
 - Nom 2 in. diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may not be removed on both sides of floor or wall assembly.
 - OMEGA FLEX INC - 2. Nom 1 in. diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may not be removed on both sides of floor or wall assembly.
- Fill, Void or Cavity Material-Caulk or Sealant - Min 5/8, 1-1/4, 1-7/8 and 2-1/2 in. thickness of caulk for 1,2,3 and 4 hr rated assemblies, respectively, applied within annulus, flush with both surfaces of wall. Min 1/4 in. diam bead of caulk applied to gypsum board/penetrant interface at point contact location on both sides of wall. The hourly F Rating of the freestop system is dependent upon the hourly fire rating of the wall assembly in which it is installed, as shown in the following table. The hourly F Rating of the freestop system is dependent upon the type or size of the pipe or conduit and the hourly fire rating of the wall assembly in which it is installed, as tabulated below:

Max Pipe or Conduit Diam, in	Rating, Hr	Rating, Hr
1	1 or 2	0 1/2, 1 or 2
1	3 or 4	3 or 4
4	1 or 2	0
6	3 or 4	0
12	1 or 2	0

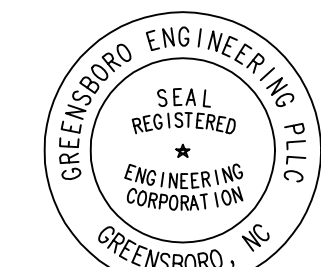
+When copper pipe is used, F Rating is 0 hr.
3M COMPANY - CP-25 WB + or BE-5000W
*Rating in the UL Classification Marking



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Harnett 95 Industrial Center

SPEC BUILDING 1

US 301 S.
Dunn, North Carolina

SUBMITTALS:

DATE DESCRIPTION

REVISIONS:

NO DATE DESCRIPTION

SHEET TITLE:
ELECTRICAL -
LIGHTING PLAN -
AREA B;
UL DETAIL;
NOTES & DETAILS

DATE: 2025-08-06

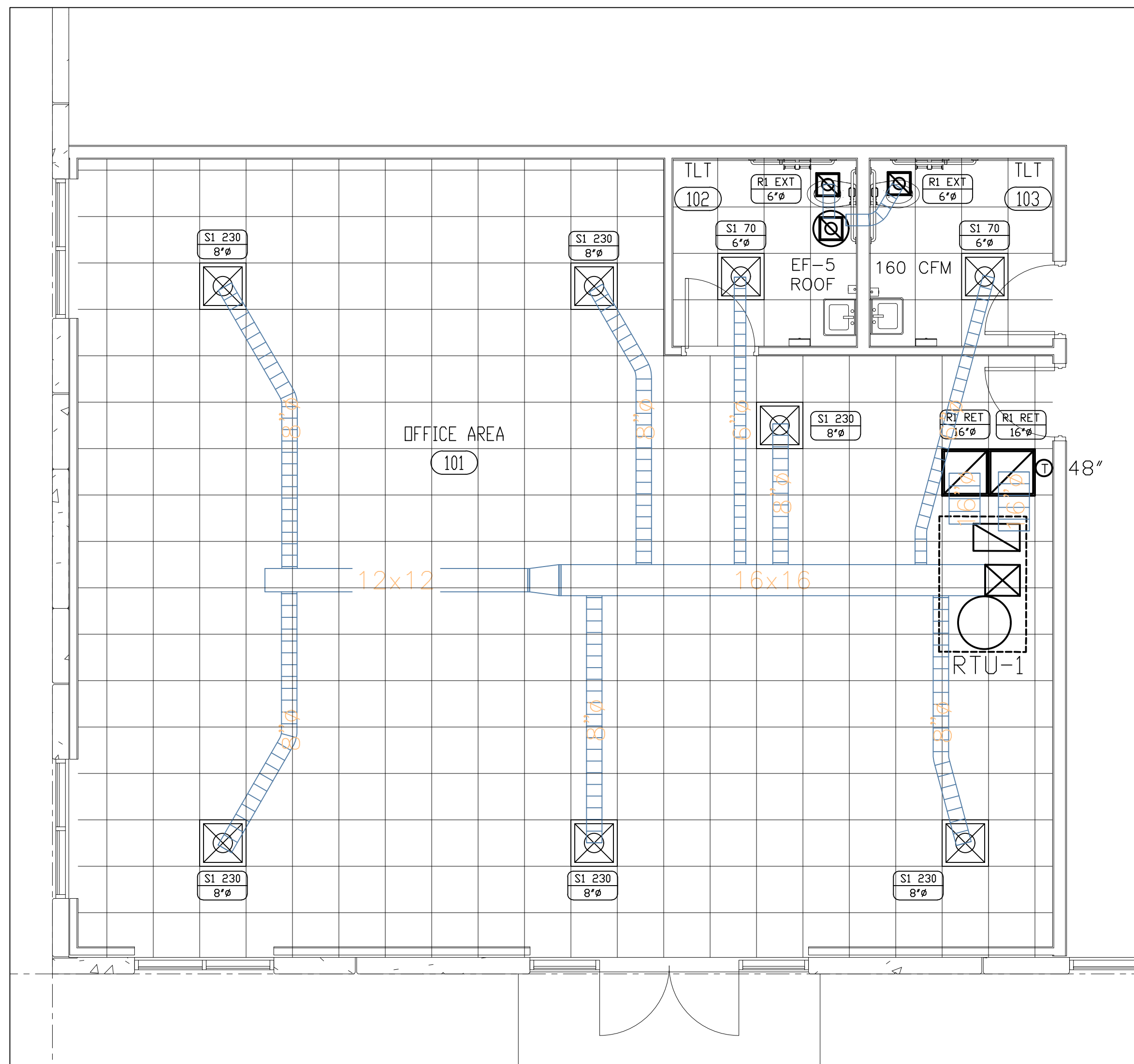
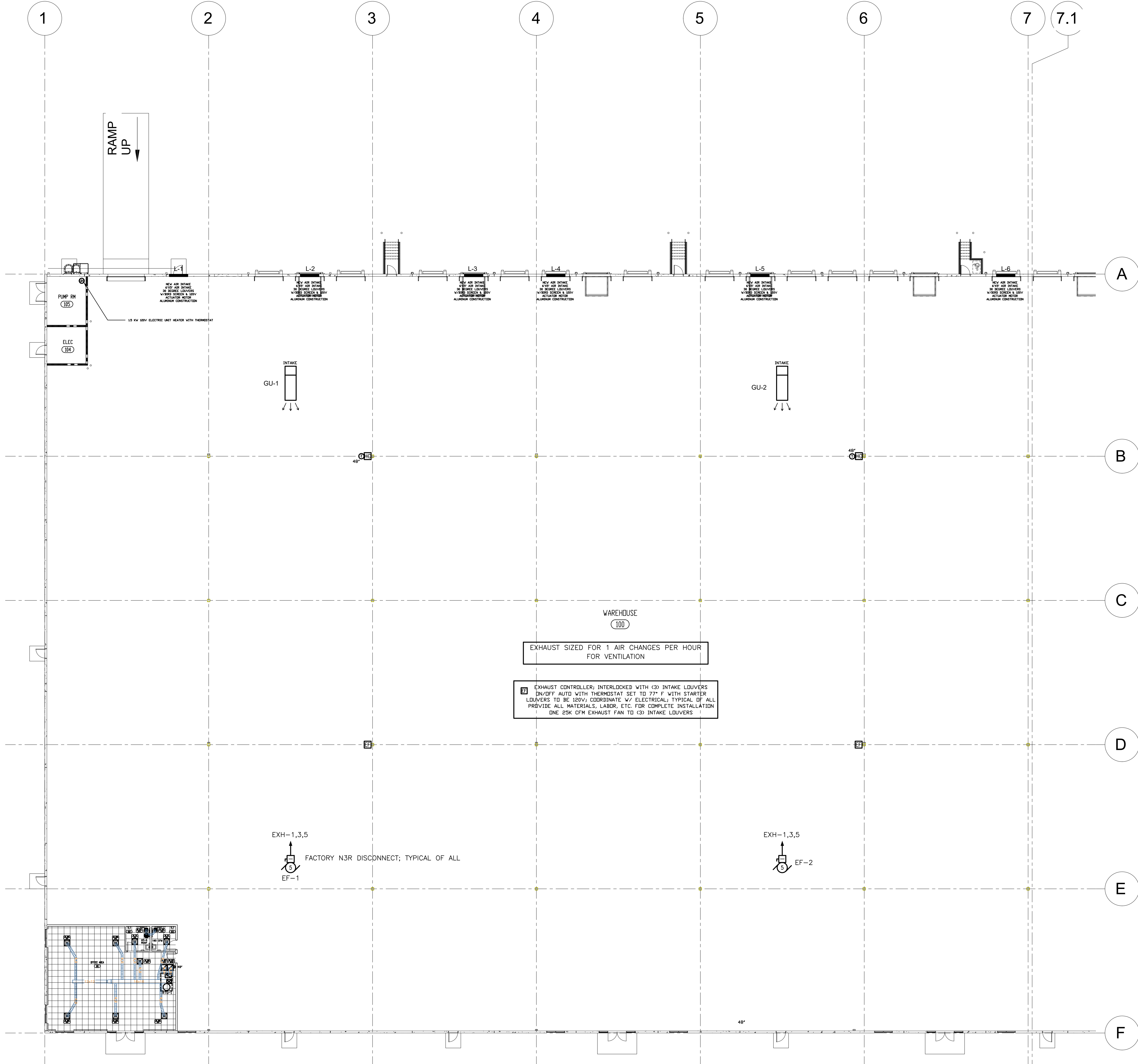
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JOB NUMBER: 25-009

SHEET:

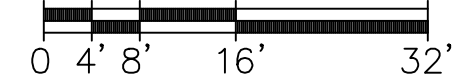
E2.2

1. ALL PIPING PENETRATIONS THRU SMOKE AND FIRE WALLS SHALL BE SEALED WITH APPROPRIATE UL RATED/LISTED SEALANT.
2. ALL OUTSIDE AIR INTAKES SHALL BE LOCATED 10' MIN. FROM ANY EVENT/EXHAUST TERMINAL.
3. BRANCH DUCT CONNECTION TO DIFFUSER OR REGISTERS MAY HAVE 7'-0" LONG MAX. FLEX DUCT CONNECTOR.
4. ROUTE DUCTWORK AND PIPING TO AVOID OTHER TRIGGERS AND OTHER EQUIPMENT. COORDINATE LOCATIONS WITH ALL DRAWINGS. FIELD VERIFY ON SITE BEFORE STARTING ESTIMATE/TAKEOFF. BEFORE STARTING, INVESTIGATE ANY EXISTING TRADE AND IN FIELD BEFORE STARTING ANY WORK. LABELING SHOWN ON PLAN IS THE INTENT AND CONTRACTOR IS ADVISED TO ADJUST AS REQUIRED TO FACILITATE REPAIRS, REPAIRS, INSTALLATIONS, AND FITTINGS, DUCT, MTL'S, ETC. AS REQUIRED DURING INVESTIGATION. PROVIDE DETAILED SHOP DRAWINGS CORRELATING WITH ESTIMATE AND SHOP DRAWINGS BEFORE ANY WORK IS INSTALLED.
5. BALANCE ALL FAN AND AIR DISTRIBUTION SYSTEM TO CFMS INDICATED ON PLANS. PROVIDE NEW SHEAVES AS REQ'D & FURNISH BALANCE REPORT TO ENGINEER. T&B BY INDEPENDENT TESTING CONTRACTOR.
6. INSULATE ALL SUPPLY DUCTWORK WITH 2" FIBERGLASS WITH FSK JACKET, SEALED.
7. ALL CUTTING AND PATCHING REQUIRED TO INSTALL ESTIMATE AND MECHANICAL SHALL BE THE MC. FINAL FINISHES BY GC, COORDINATE.
8. PROVIDE "COMFORT" BALANCE AS REQUIRED BY OCCUPANTS AFTER THE BUILDING IS IN USE FOR ONE SEASON.
9. PROVIDE TURNING VANES IN ALL DUCTWORK OVER 60 DEGREES; INSULATE ALL DUCTWORK PER ENERGY CODE.



ENLARGED OFFICE #1 - HVAC PLAN
SCALE 1/4" = 1'-0"

SHELL BUILDING AREA A - HVAC PLAN
SCALE 1/16" = 1'-0"



INTENT IS FOR ELECTRICAL CONTRACTOR TO INSTALL EXHAUST FAN STARTER/ENCLOSURE W/DISCONNECT (480V 3P) WITH AUXILIARY CONTACTS SO ICE CHUTE RELAY CAN BE INSTALLED TO CONTROL (3) EXHAUST LOUVERS PER EXHAUST FAN (120V, ONE 20A CIRCUIT); INTENT FOR STARTER ENCLOSURE TO BE MOUNTED ON ADJACENT COLUMNS AS SHOWN @ 48" AFF; PROVIDE ON/OFF/AUTO SWITCH ASSEMBLY ON COLUMN TO CONTROL FAN FLOOR; AUTO SETTING TIED INTO THERMOSTAT WITH TENANT CONTROLLED SET POINT; GAS UNITS TO HAVE THERMOSTAT WIRED ON COLUMN ADJACENT TO HEATER AS PROVIDED; INTENT IS TO RUN CONDUIT FOR MC TO INSTALL ANY LV WIRING AND INSTALL THERMOSTAT. ALL WIRING IN CONDUIT; M.C. TO PROVIDE THE THERMOSTAT AND GFCU CONTROLLER FOR THE E.C. TO WIRE ALL LINE VOLTAGE WIRING. MC TO VERIFY INSTALLATION PRIOR TO ENERGIZING EQUIPMENT. PROVIDE ALL HARDWARE, WIRING, AND INSTALLATION AS REQUIRED FOR COMPLETE INSTALLATION. M.C. AND E.C. TO COORDINATE PRIOR TO BIDDING/INSTALLATION; TYPICAL OF ALL

F A N S C H E D U L E												
TAG	SERVICE	TYPE	CFM	ESP (IN. H ₂ O)	RPM	WATTS	HP	MAX SOUND SONES	VOLTAGE	MANUFACTURER	MODEL	REMARKS
EF1-4	EXHAUST	ROOF MOUNTED	25,000	.25	-	-	5	25	480/3	GREENHECK	GREENHECK RBUM0	1-6
EF-5	EXHAUST	ROOF MOUNTED	160	.5	720	80	1/8	1.5	120/1	GREENHECK	GREENHECK G-060	1-3.8
EF-6	EXHAUST	ROOF MOUNTED	160	.5	720	80	1/8	1.5	120/1	GREENHECK	GREENHECK G-060	1-3.8

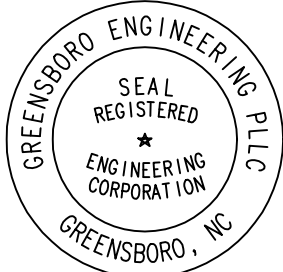
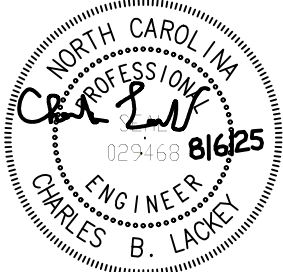
1. PROVIDE UNIT WITH FLAT ROOF CURB, BACKRAFT DAMPER, INSECT BIRDScreen, WEATHER HOOF
2. PROVIDE INTEGRAL W/ DISCONNECT
3. PROVIDE ECM MOTOR, MOTOR STARTER
4. SEE EXHAUST FAN NOTE. COORDINATE WITH C.E. ON INSTALLATION OF MOTOR STARTER/ENCLOSURE; ON/OFF SWITCH LOCATED BELOW STARTER ENCLOSURE; M.C. TO COORDINATE LOCATION IN FIELD PRIOR TO INSTALLATION.
5. PROVIDE FAN CONTROLLER IN EACH BAY, CENTRAL CONTROLLER TO BE LOCATED IN MAIN ELECTRICAL ROOM, ON/OFF SWITCH IN EACH BAY FOR EACH FAN/INTAKE LOUVER (INTERLOCKED WITH FAN) 3 LOUVERS PER FAN
6. INTAKE LOUVERS TO BE EQUAL TO GREENHECK AEG-801 - MILK FINISH, 120V ACTUATOR (4 AMPS OR LESS)
7. CALL OUT 1/4" DAMPER AND INSECT SCREEN - CAULK FINISH, 120V ACTUATOR (4 AMPS OR LESS) AS HIGH AS POSSIBLE, 120V THERMOSTAT, SECURITY BARS FOR INTAKE LOUVER (DOWN LOW)
8. TIE INTO OCCUPANCY SENSOR



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Dunn, North Carolina

SUBMITTALS:	
DATE	DESCRIPTION

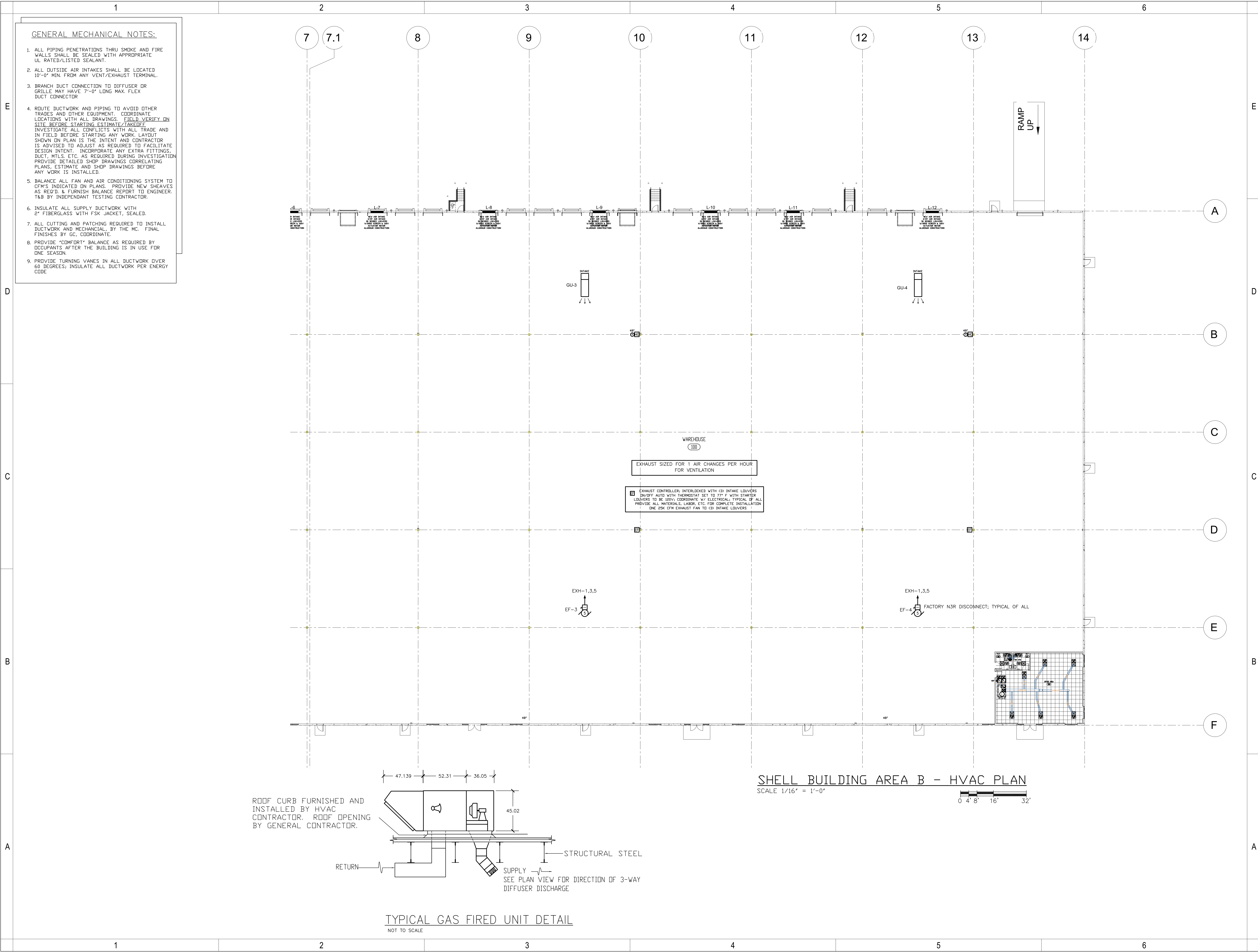
REVISIONS:

NO	DATE	DESCRIPTION
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SHEET TITLE:
MECHANICAL -
CELL AREA A -
VAC;
NOTES & DETAILS

DATE: 2025-08-06	
DRAWN: CBL	CHECKED: CBL
DOB NUMBER:	25-009
SHEET:	

M1.1



- GENERAL MECHANICAL NOTES:
1. ALL PIPING PENETRATIONS THRU SMOKE AND FIRE WALLS SHALL BE SEALED WITH APPROPRIATE UL RATED/LISTED SEALANT.
 2. ALL OUTSIDE AIR INTAKES SHALL BE LOCATED 10'-0" MIN. FROM ANY VENT/EXHAUST TERMINAL.
 3. BRANCH DUCT CONNECTION TO DIFFUSER OR GRILLE MAY HAVE 7'-0" LONG MAX. FLEX DUCT CONNECTOR
 4. ROUTE DUCTWORK AND PIPING TO AVOID OTHER TRADES AND OTHER EQUIPMENT. COORDINATE LOCATIONS WITH ALL DRAWINGS. FIELD VERIFY ON SITE BEFORE STARTING ESTIMATE/TAKEOFF. INVESTIGATE ALL CONFLICTS WITH ALL TRADE AND IN FIELD BEFORE STARTING ANY WORK. LAYOUT SHOWN ON PLAN IS THE INTENT AND CONTRACTOR IS ADVISED TO ADJUST AS REQUIRED TO FACILITATE DESIGN INTENT. INCORPORATE ANY EXTRA FITTINGS, DUCT, MTL'S, ETC. AS REQUIRED DURING INVESTIGATION. PROVIDE DETAILED SHOP DRAWINGS CORRELATING PLANS, ESTIMATE AND SHOP DRAWINGS BEFORE ANY WORK IS INSTALLED.
 5. BALANCE ALL FAN AND AIR CONDITIONING SYSTEM TO CFM'S INDICATED ON PLANS. PROVIDE NEW SHEAVES AS REQ'D. & FURNISH BALANCE REPORT TO ENGINEER. T&B BY INDEPENDANT TESTING CONTRACTOR.
 6. INSULATE ALL SUPPLY DUCTWORK WITH 2" FIBERGLASS WITH FSK JACKET, SEALED.
 7. ALL CUTTING AND PATCHING REQUIRED TO INSTALL DUCTWORK AND MECHANICAL, BY THE MC. FINAL FINISHES BY GC, COORDINATE.
 8. PROVIDE "COMFORT" BALANCE AS REQUIRED BY OCCUPANTS AFTER THE BUILDING IS IN USE FOR ONE SEASON.
 9. PROVIDE TURNING VANES IN ALL DUCTWORK OVER 60 DEGREES; INSULATE ALL DUCTWORK PER ENERGY CODE

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DATE	DESCRIPTION

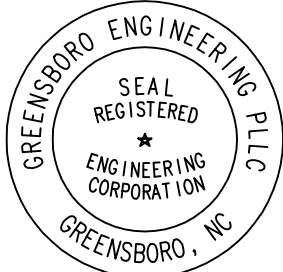
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MECHANICAL -
SHELL AREA B -
HVAC;
NOTES & DETAILS

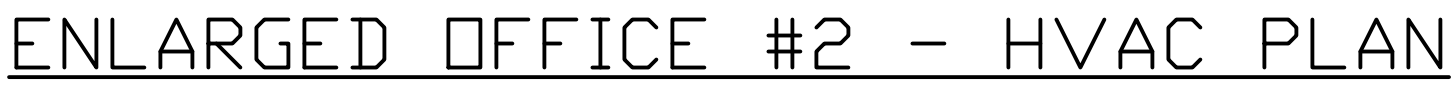
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JOB NUMBER: 25-009
SHEET:

M1.2

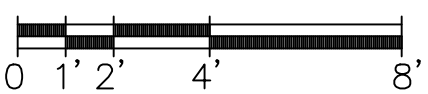


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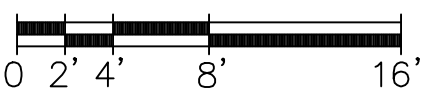
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DRAWN: CBL | CHECKED: CBL
JOB NUMBER: 25-009
SHEET:



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



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



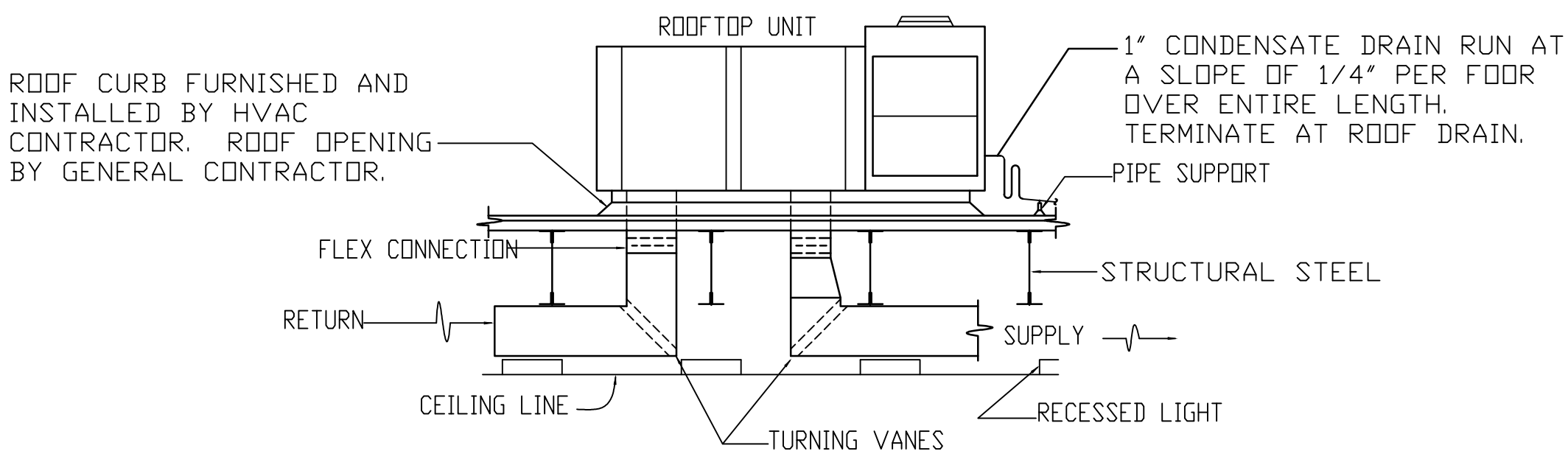
GENERAL MECHANICAL NOTES:

1. ALL PIPING PENETRATIONS THRU SMOKE AND FIRE WALLS SHALL BE SEALED WITH APPROPRIATE UL RATED/LISTED SEALANT.
2. ALL OUTSIDE AIR INTAKES SHALL BE LOCATED 10' MIN. FROM ANY EXHAUST TERMINAL.
3. BRANCH DUCT CONNECTION TO DIFFUSER OR GRILLE MAY HAVE 7'-0" LONG MAX. FLEX DUCT CONNECTOR.
4. ROUTE DUCTWORK AND PIPING TO AVOID OTHER TRADES AND OTHER EQUIPMENT. COORDINATE LOCATIONS WITH ALL DRAWINGS. FIELD VERIFY ON SITE BEFORE STARTING ESTIMATE/TAKEOFF. ALL CONTRACTOR COORDINATION SHALL BE DONE IN FIELD BEFORE STARTING ANY WORK. LAYOUT SHOWN ON PLAN IS THE INTENT AND CONTRACTOR IS ADVISED TO ADJUST AS REQUIRED TO FACILITATE BEST FIELD INSTALLATION. ALL EXTRA FITTINGS, DUCT, MTL'S, ETC. AS REQUIRED DURING INVESTIGATION PROVIDED. DETAILED SHOP DRAWINGS CORRELATING TO FIELD ESTIMATE AND SHOP DRAWINGS BEFORE ANY WORK IS INSTALLED.
5. BALANCE ALL FAN AND AIR CONDITIONING SYSTEM TO CFM'S INDICATED ON PLANS. PROVIDE NEW SHEAVES AS REQ'D & FURNISH BALANCE REPORT TO ENGINEER.
6. INSULATE ALL INDOOR SUPPLY DUCTWORK WITH 2" BLANKET WITH INSULATED FSK VAPOR BARRIER.
7. ALL CUTTING AND PATCHING REQUIRED TO INSTALL DUCTWORK AND MECHANICAL, BY THE MC. FINAL COORDINATION BY GC, CONTRACTOR.
8. MC. TO PROVIDE COMFORT BALANCING AFTER 30 DAYS OF USE BY CLIENT

RETURN RUNOUT SCHEDULE	
AIRFLOW RANGE, CFM	ROUND DUCT AND FLEX SIZE
8"	0-180
10"	181-280
12"	281-400
14"	401-580
16"	581-725
18"	726-928

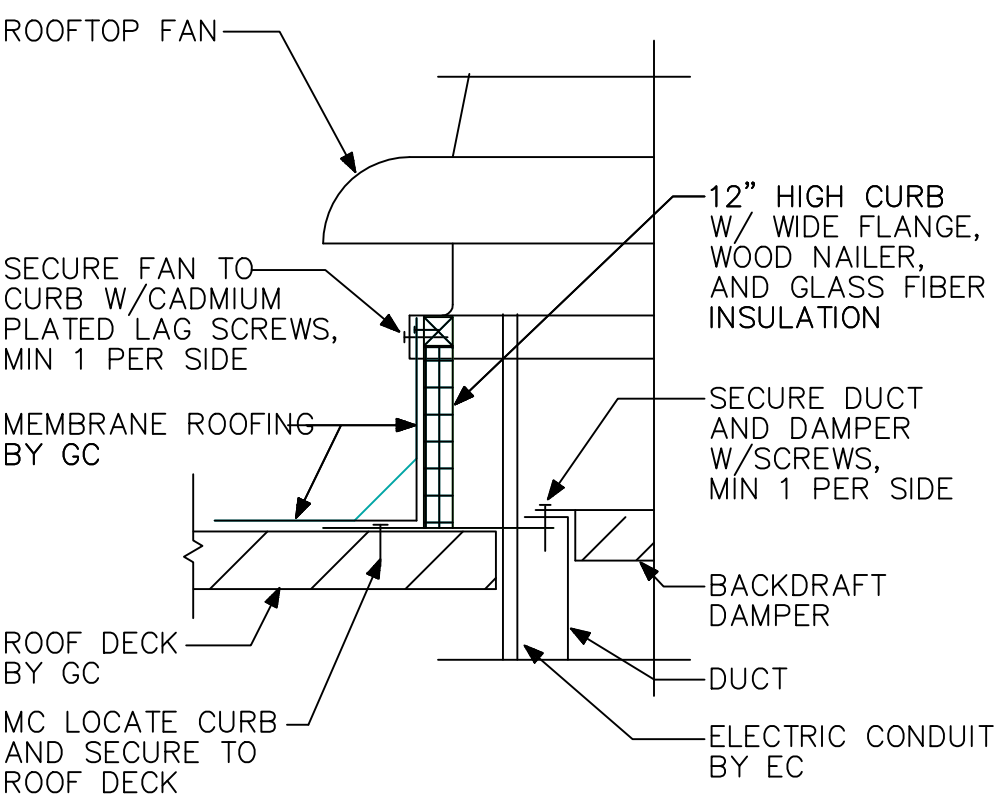
OUTDOOR AIR CALCULATION PER OFFICE								
SPACE TYPE	AREA	PERSONS/ 1000SF	PEOPLE	CFM/PERSON REQUIRED	PEOPLE RATE-CFM	CFM/SF	AREA RATE-CFM	TOTAL OA CFM REQUIRED
RTU-1,2								
OFFICE	1335	5	7	5	35	.06	80	115
BATHROOM	150	-	-	-	-	-	-	EXHAUSTED
TOTAL REQUIRED								115

CALCULATIONS BASED ON NC MECHANICAL CODE 2018 - TABLE 403.3.1.1



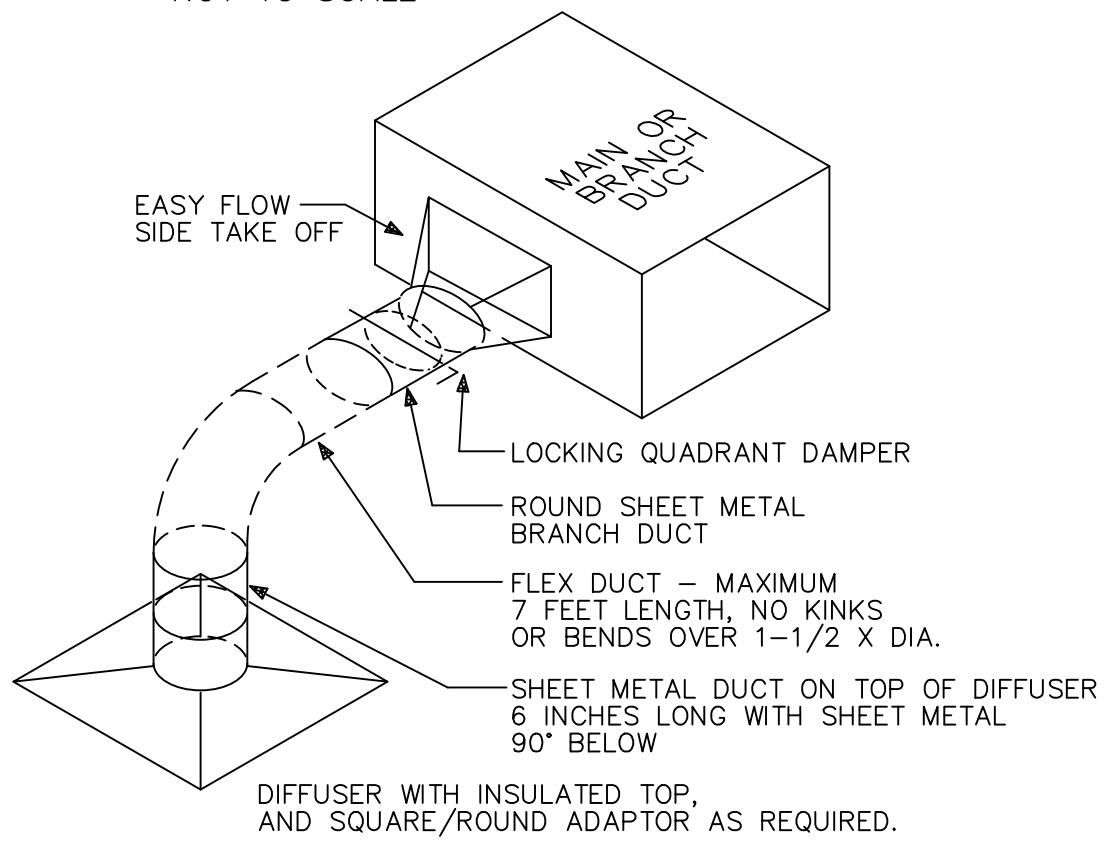
TYPICAL ROOFTOP UNIT DETAIL

NOT TO SCALE



FAN CURB DETAIL

NOT TO SCALE



TYPICAL DIFFUSER DETAIL

NOT TO SCALE

AIR TERMINAL SCHEDULE								
DEVICE	SYMBOL		MFG.	MODEL	DESCRIPTION	DAMPER	COLOR	REMARKS
CEILING DIFFUSER		→ NECK SIZE → A-AIR FLOW	NAILOR	RNS	SQUARE, LOUVERED FACE, STEEL CONSTRUCTION, ROUND NECK ADAPTOR 24x24 T-BAR MTD., INSULATED TOP	NO	WHITE	1,2,3
CEILING DIFFUSER W/FILTER		→ NECK SIZE → A-AIR FLOW	NAILOR	RNS	SQUARE, LOUVERED FACE, STEEL CONSTRUCTION, ROUND NECK ADAPTOR 12x12 T-BAR MTD., INSULATED TOP	NO	WHITE	1,2,3
RETURN AIR REGISTER		→ NECK SIZE → B-AIR FLOW	NAILOR	4360	PERFORATED FACE RETURN REGISTER; CONSTRUCTION, ROUND NECK ADAPTOR 24x24 T-BAR MTD.	NO	WHITE	1,3,4

AIR DISTRIBUTION REMARKS/ACCESSORIES:

1. PROVIDE PLASTER FRAMES FOR DIFFUSERS MOUNTED IN HARD SURFACES
2. ARROWS INDICATE DIFFUSERS OTHER THAN 4-WAY BLOW. PROVIDE DIFFUSERS WITH INDICATED BLOW DIRECTIONS.
3. WHERE PLANS INDICATE, FURNISH 12x12 FACE SIZE DIFFUSER.
4. PROVIDE SOUND TRAP ELBOW FOR ALL PLENUM RETURN DIFFUSERS

F A N S C H E D U L E												
TAG	SERVICE	TYPE	CFM	ESP (IN. H ₂ O)	RPM	WATTS	HP	MAX SOUND SONES	VOLTAGE	MANUFACTURER	MODEL	REMARKS
EF5, EF6	EXHAUST	ROOF TOP	160	.25	950	80	-	5	120/1	GREENHECK	G-060	1,2,3

1. PROVIDE STARTER OR CONTACTOR, INTEGRAL WP DISCONNECT FROM FACTORY; PROVIDE ROOF CURB
2. PROVIDE ROOF CURB; FAN TO HAVE W/BACKDRAFT DAMPER & INSECT SCREEN.
3. PROVIDE DUCT & CONNECTORS FOR DUCT.

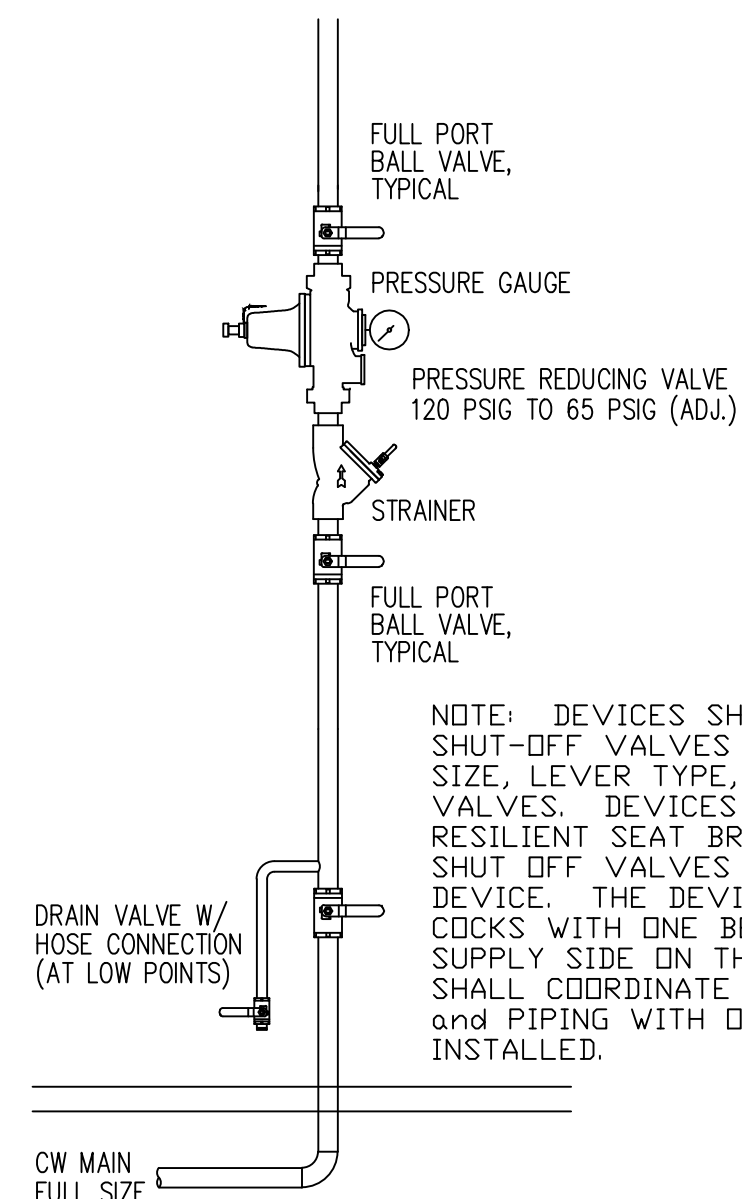
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REMARKS/ACCESSORIES (RTU):

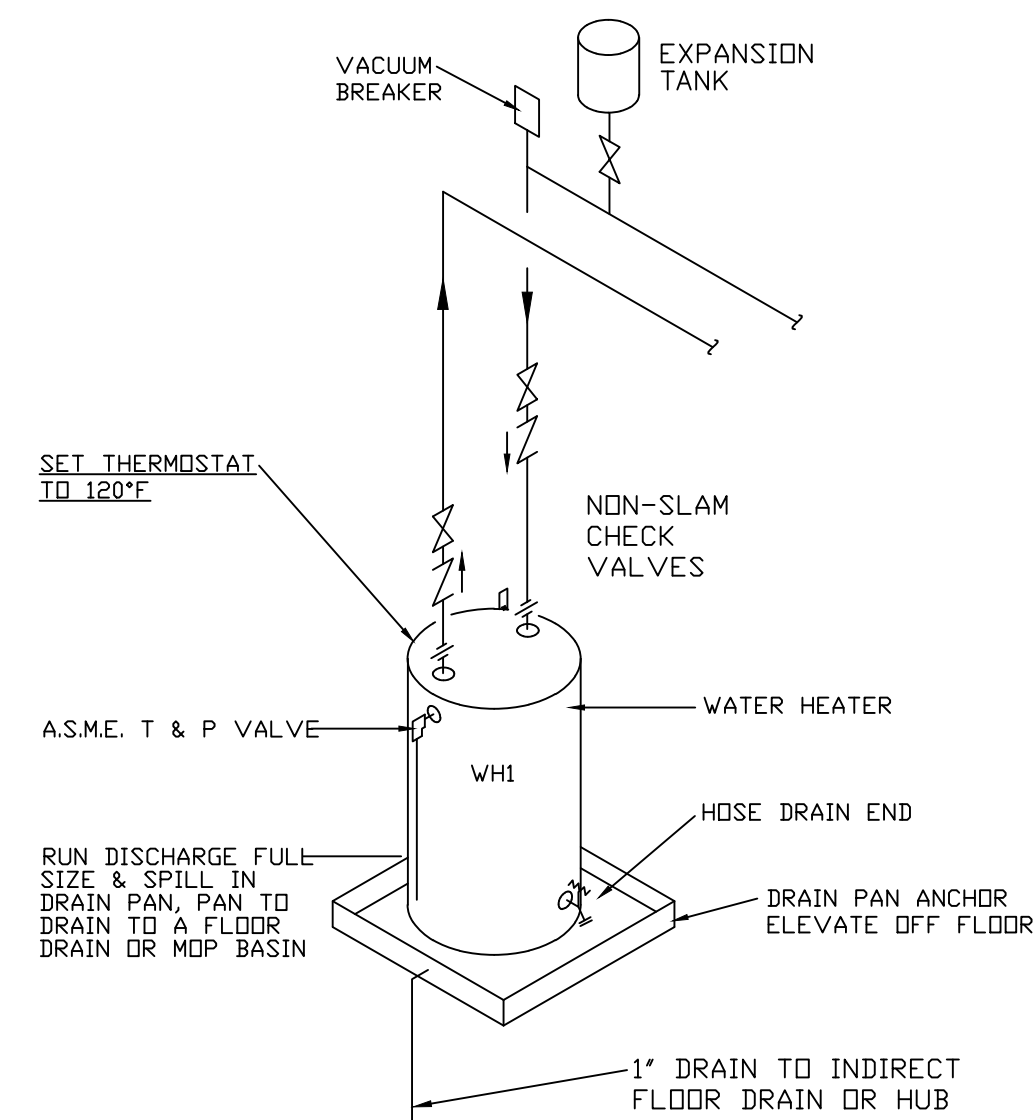
1. PROVIDE HOT GAS REHEAT WITH CO2 SENSOR IN PROGRAMMABLE THERMOSTAT - AS ADD ALTERNATE PRICE
2. PROVIDE CONDENSATE CUT OFF SWITCH TO STOP UNIT COOLING OPERATION ON ALARM
3. VERIFY MCA AND MDP FROM SUBMITTALS, COORDINATE WITH EC.
4. PROVIDE 30" 2" PLEATED FILTERS.
5. PROGRAMMABLE THERMOSTAT; PROVIDE UNIT CURB TO COORDINATE WITH ROOF

	COLD WATER PIPING
	HOT WATER PIPING
	HOT WATER RETURN PIPING
	WASTE PIPING
	ELEV. SUMP FORCE MAIN
	VENT PIPING
	EXISTING COLD WATER PIPING
	EXISTING HOT WATER PIPING
	EXISTING HOT WATER RETURN PIPING
	EXISTING WASTE PIPING
	VENT PIPING
	COMBINATION WASTE/VENT LINE (OVERSIZED)
	GAS PIPING
	AIR PIPING
	FLOW DIRECTION
	CAST IRON PIPE
	DUCTILE IRON PIPE
	FIXTURE SYMBOL— SEE SCHEDULE & SPECS.
	KEY NOTE DESIGNATION
	VENT THRU ROOF
	FLOOR CLEANDUT
	WALL CLEANDUT
	CLEANDUT DN GRADE
	ABOVE FINISH GRADE
	ABOVE FINISH FLOOR
	BACKFLOW PREVENTOR
	PRESSURE REDUCING ZONE VALVE
	PRESSURE REDUCING ZONE BACK FLOW PREVENTOR
	DOUBLE CHECK VALVE
	BALL/GATE VALVE
	GLOBE VALVE
	CHECK VALVE
	WALL HYDRANT / HOSE BIBB
	UNION
	TRAP PRIMER

1. P.C. TO COORDINATE WITH ANY TENANT UPFIT PLANS THAT COME OUT LATER THAN THIS BIDDING SUBMITTAL. INTENT IS TO ROUGH IN SANITARY LINES/WATER FOR FUTURE TENANT UPFITS; COORDINATE WITH ANY CONVEYING SYSTEMS NEW OR EXISTING. LINE INTO SPACE AS SHOWN; INSTALL 1/2" BACK-FLOW PREVENTER PER CIVIL PLANS; PROVIDE ALL PIPING, CONNECTIONS, ISOLATION VALVES FOR COMPLETE INSTALLATION.
2. SANITARY WASTE LINES INSTALLED WITH ENOUGH INVERT FOR FUTURE SANITARY PIPING UP TO 50' AWAY FROM LAST CLEANOUT PER RUNOUT.
3. AS REQUIRED; FIRE CAULK EXISTING LINES PENETRATING DEMONSTRATION WALL. MATCH HOUR RATING PER ARCHITECTURAL PLANS.

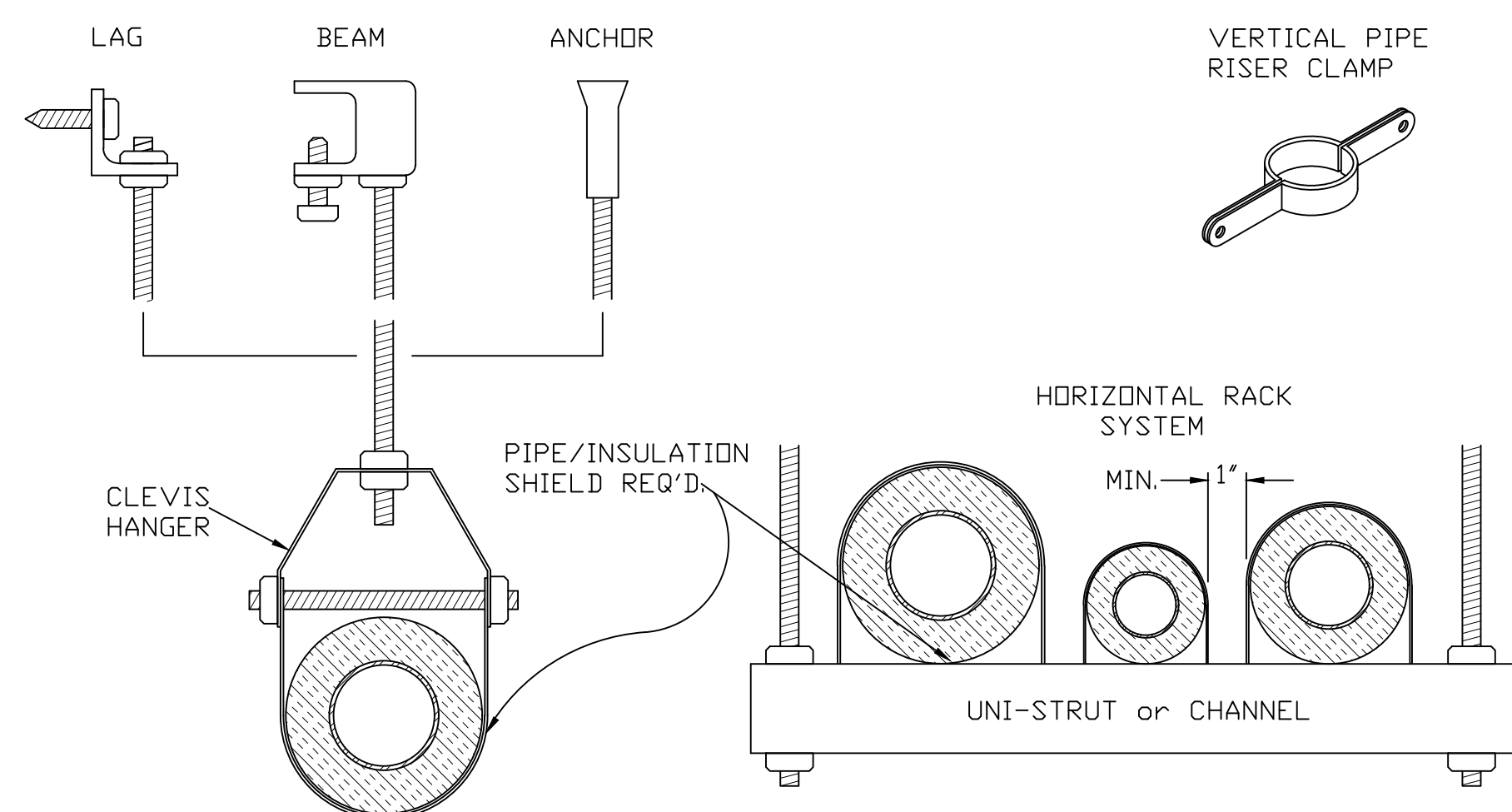


TYP. WATER SERVICE DETAIL
NOT TO SCALE

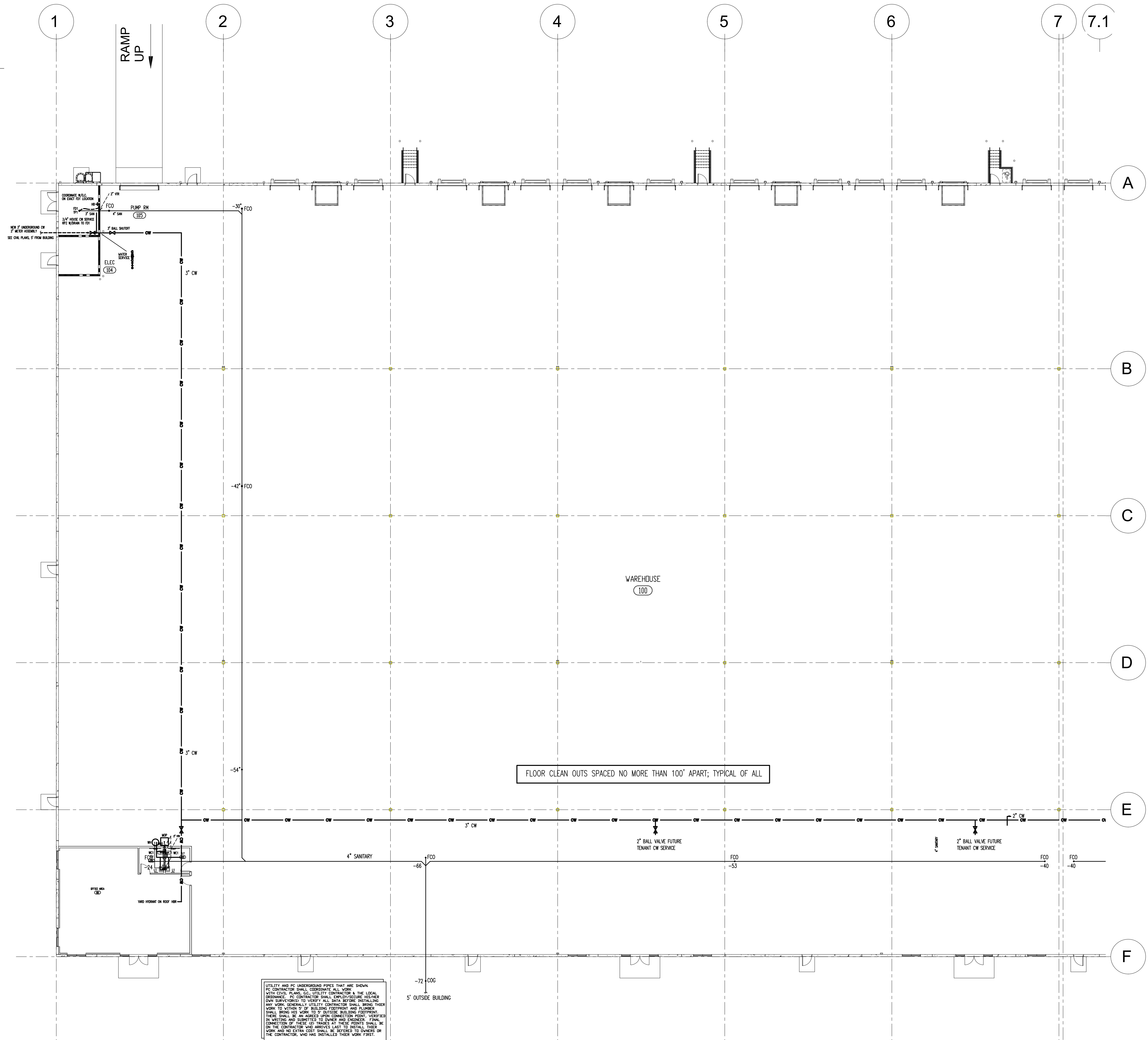


NOTE: COORDINATE EXACT LOCATION OF HEATER WITH ROOM EQUIPMENT AND OWNER. COORD. ELECTRICAL REQUIREMENTS WITH E.C. AND G.C. BEFORE ORDERING/INSTALLING.

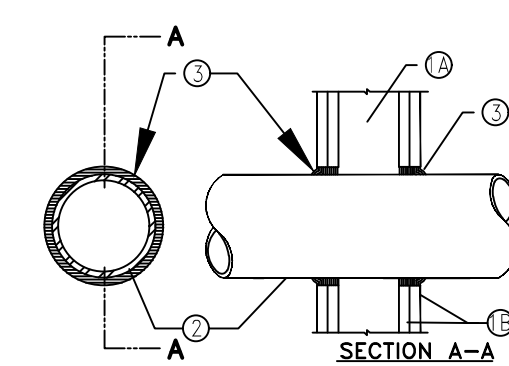
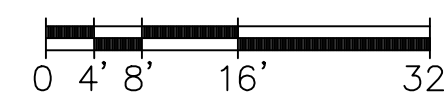
NOT TO SCALE



TYP. HANGER/SUPPORT/ANCHOR DETAIL
NOT TO SCALE



SCALE 1/16" = 1'-0"



SYSTEM NO. W-L-1001
(FORMERLY SYSTEM NO. 147)

W-L-1001 FIRESTOP
NOT TO SCALE

1. Wall Assembly—The 2, 3 or 4 fire-rated gypsum wallboard/steel wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
- A. Studs—Wall framing may consist of either wood studs 12 in. deep (or smaller) assembled on steel channel studs. Wood studs to consist of nominal 2 by 4 in. lumber spaced 16 in. OC with nominal 2 by 4 in. lumber panels and cross braced. Studs shall be min 3/8 in. thick with square or tapered edges. deep channels spaced 16 in. OC.
- B. Gypsum Board—Nom 1/2 or 5/8 in. thick, 4 ft. wide, side with square or tapered edges. The gypsum board type, thickness, number of layers and joint treatment shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Maximum joint of opening is 13 1/2 in.
2. Pipe or Conduit—Nom 12 in. diam (or smaller) Schedule 10 (or heavier) steel pipe, nom 12 in. diam (or smaller), nominal weight (or heavier) than specified in Table 12 in diam (or smaller) Class 50 or steel electric line pressure pipe, nom 6 in. diam (or smaller) steel pipe, nom 4 in. diam (or smaller) steel electrical metal tubing, nom 6 in. diam (or smaller) Type L or (or heavier) copper tubing or nom 1 in. diam (or smaller) flexible steel pipe. When copper pipe is used, max 1/2" Rating of freestrip system (Item 1) is 2. Steel pipe or conduit may be used in the freestrip system only on the sides or end walls constructed using steel channel studs. A max of one pipe or conduit is permitted in the freestrip system. Pipe or conduit to be installed in the center of the freestrip system.
3. Fill, Void or Cavity Material—Caulk-Caulk fill material installed to completely fill annular space between pipe or conduit and gypsum wallboard and with a min 1/4 in. diam bead of caulk applied to perimeter of pipe or conduit. It is specified that the fire rating of the freestrip system shall be the same as the fire rating of the wall assembly. The hourly F Rating of the freestrip system is dependent upon the hourly fire rating of the wall assembly in which it is installed, as shown in the following table. The hourly F Rating of the freestrip system is the same as the fire rating of the wall assembly and the hourly fire rating of the freestrip system or the wall assembly or it is installed, as tabulated below:
- | Max Pipe or Conduit Diam, in. | Max Pipe or Conduit Space, in. | Rating, Hr. | Rating, Hr. |
|-------------------------------|--------------------------------|-------------|-------------|
| 1 | 0 to 3/16 | 1 or 2 | 0 or 2 |
| 1 | 1/4 to 1/2 | 1 or 2 | 3 or 4 |
| 4 | 0 to 1-1/2 | 1 or 2 | 0 |
| 4 | 1/4 to 1/2 | 1 or 2 | 3 or 4 |
| 12 | 3/8 to 1-3/4 | 1 or 2 | 0 |
- When copper pipe is used, 2 Rating is 0 h.
- Minneapolis Mining & Mfg. Co., Inc. 27981
Bearing the UL Classified Mark

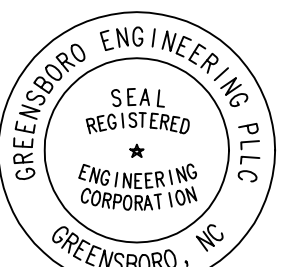


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SPEC BUILDING 1
US 301 S.
Dunn, North Carolina

SUBMITTALS:	
DATE	DESCRIPTION

PROVISIONS:

HEET TITLE:
LUMBING -
NITARY AND CW
AREA A; NOTES
DETAILS

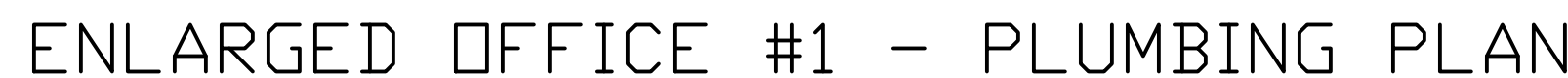
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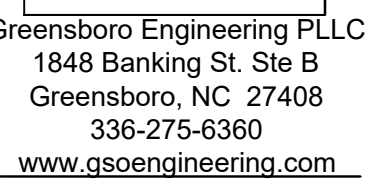
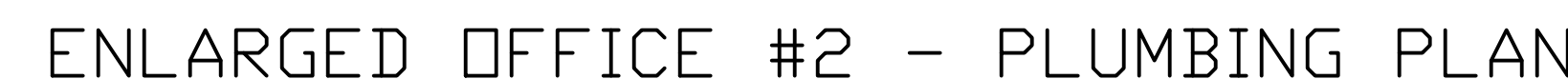
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P1.1



SLOPE OF HORIZONTAL DRAINAGE PIPE	
SIZE (inches)	MINIMUM SLOPE (inches per foot)
2 1/2 OR LESS	1/4"
3 TO 6	1/8"
8 OR LARGER	1/16"

MATERIAL SCHEDULE	
PIPING	DESCRIPTION
DOMESTIC WATER PIPE	ABOVEGROUND: PIPE: TYPE L HARD DRAWN TEMPER, CONFORMING TO ASTM B88 FITTINGS: WROUGHT COPPER SOLDER JOINT SEAMLESS, CONFORMING TO ASTM B75 AND ASME B16.5 SOLDER: 95-5 (95% TIN AND 5% ANTIMONY) CONFORMING TO ASTM B302, ALLOY GRADES S85 OR SILVER SOLDER CONFORMING TO AMS 4773C, NO LEAD OR CORED SOLDER.
WASTE AND VENT PIPE	UNDERGROUND: PIPE: RIGID SCH-40 PVC CONFORMING TO ASTM D1785 AND ASTM D6665. FITTINGS: SCH-40 DWV FITTINGS CONFORMING TO ASTM D6665. * UNDERGROUND PIPE SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION RECOMMENDATIONS. ABOVEGROUND: SERVICE CLASS HUBLESS CAST IRON PIPE AND FITTINGS CONFORMING TO CISPI 301 W/ HEAVY DUTY S.S. COUPLINGS CONFORMING TO ASTM C1540
STORMWATER PIPE	UNDERGROUND: PIPE: RIGID SCH-40 PVC CONFORMING TO ASTM D1785 AND ASTM D6665. FITTINGS: SCH-40 DWV FITTINGS CONFORMING TO ASTM D6665. * UNDERGROUND PIPE SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION RECOMMENDATIONS. ABOVEGROUND: SERVICE CLASS HUBLESS CAST IRON PIPE AND FITTINGS CONFORMING TO CISPI 301 W/ HEAVY DUTY S.S. COUPLINGS CONFORMING TO ASTM C1540 ALL ROOF DRAIN BODIES AND HORIZONTAL RAINWATER PIPE SHALL BE INSULATED.
CONDENSATE PIPE	ABOVEGROUND: TYPE L HARD COPPER ALL CONDENSATE PIPE SHALL BE INSULATED.



P1_3