

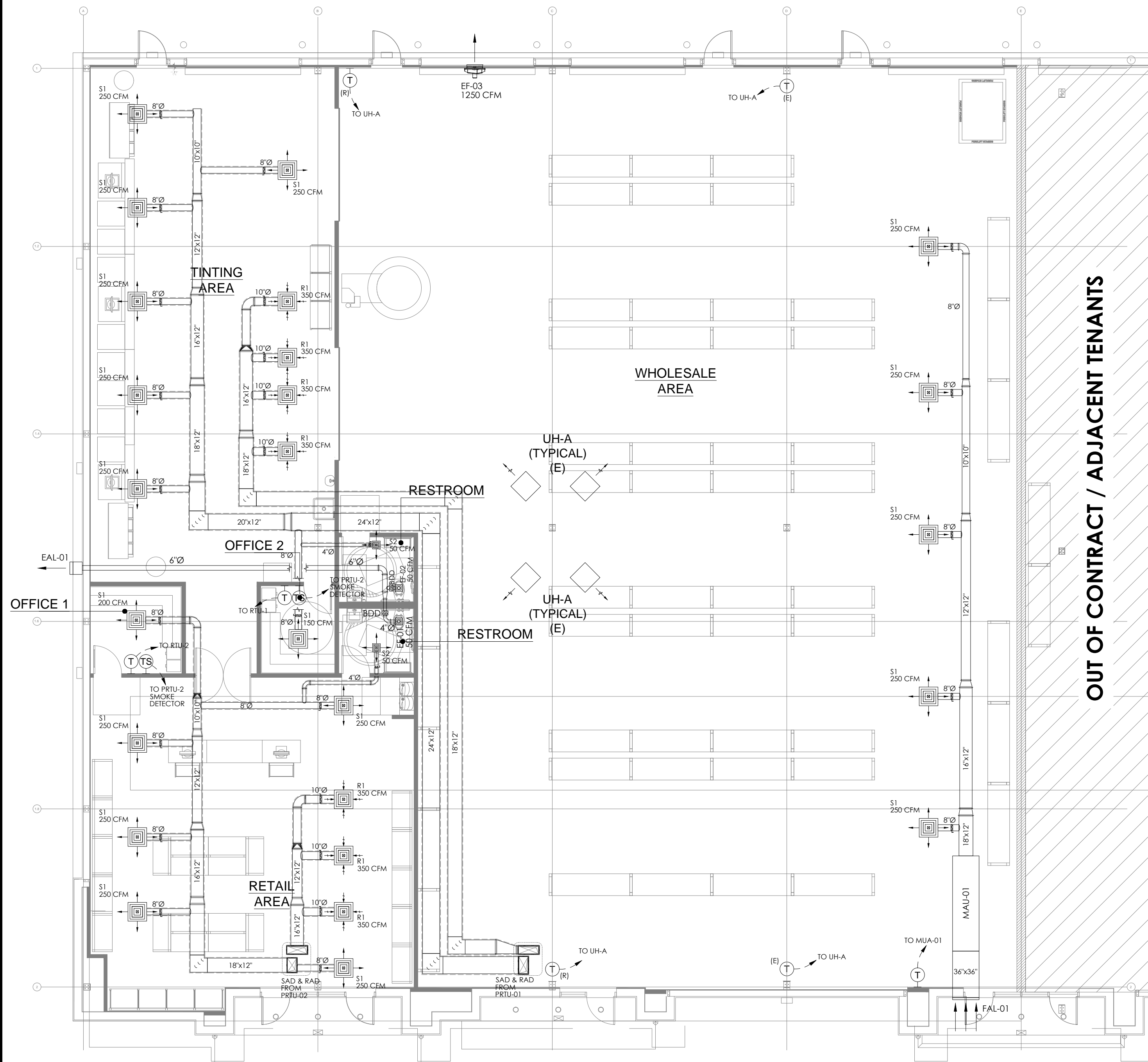
GDI ENGINEERING



Sherwin Williams Retail Store

Retail

McKinney, Texas



MECHANICAL FLOOR PLAN | SCALE 1/8"=1'-0" | 1



MECHANICAL ROOF PLAN | SCALE 1/8"=1'-0" | 2

REVISIONS		
No.	Description	Date
1	PERMIT SET	07.28.2023

THE SHERWIN-WILLIAMS COMPANY
 1600 CORPORATE CENTRAL DR.
 BUILDING A
 MCKINNEY, TEXAS 75069

1600 CORPORATE DRIVE
 MCKINNEY, TEXAS 75069

MECHANICAL FIRST FLOOR & ROOF LAYOUTS.

Drawn By: Z.H | Scale: 1/8"=1'-0"
 Date: 07.28.2023 | PROJ. NO.:

M 2.00

SHEET NO.

**SCHEDULE No. 1
PACKAGED ROOFTOP UNIT - HEAT PUMP TYPE**

TAG	PRTU-01	PRTU-02
LOCATION	ROOF	ROOF
MANUFACTURER	CARRIER OR EQUAL	CARRIER OR EQUAL
MODEL	50FCQA06G2M5-0B0A0	50FCQA05G2M5-0B0A0
COOLING STAGES / ID FAN STAGES	1 / 1	1 / 1
NOMINAL CAPACITY (TONS)	5.0	4.0
NET COOLING CAPACITY (MBH)	60.5	49.5
EER / SEER	11.8 / 14.3	11.8 / 14.3
HIGH HEATING CAPACITY (MBH)	56.5	46
HIGH HEATING COP	3.8	3.7
LOW HEATING CAPACITY (MBH)	30	23.6
LOW HEATING COP	2.3	2.28
HSPF	8.2	8.2
SELECTED SUPPLY AIR FLOW (CFM)	1750	1500
OUTDOOR AIR FLOW (CFM)	500	450
MCA	31	26
MOCP (A)	45	30
VOLTS / PH / Hz	208-230 / 3 / 60	208-230 / 3 / 60
SOUND RATING (dB)	79	79
CURB BASE DIMENSIONS (LxW)	5' 7- ³ / ₈ " x 3' 1- ⁵ / ₈ "	5' 7- ³ / ₈ " x 3' 1- ⁵ / ₈ "
WEIGHT WITH ACCESSORIES (lb)	777	680

NOTES:

1. RTU SHALL HAVE A FACTORY INSTALLED MOTORIZED ECONOMIZER WITH BAROMETRIC RELIEF DAMPER AND CO2 SENSOR IN THE RETURN DUCT TO ADJUST THE OA % AND TO ALLOW FREE COOLING.
2. RTU SHALL BE MEDIUM STATIC TYPE.
3. RTU SHALL HAVE FILTERS SEPARATE FILTERS FOR BOTH THE RETURN AIR AND OUTDOOR AIR SIDES.
4. OUTDOOR COIL SHOULD HAVE FACTORY INSTALLED LOUVERED HAIL GUARD.
5. PROVIDE REMOTE FILTER STATUS INDICATOR FOR EACH FILTER SET.
6. PROVIDE FACTORY SUPPLIED ROOF CURBS, VALIDATE THE ROOF CURB HEIGHT WITH THE OWNER PRIOR TO ORDER.
7. PROVIDE SUPPLY AIR FACTORY INSTALLED SMOKE DETECTOR.
8. PROVIDE REMOTE TEST SWITCH FOR DUCT SMOKE DETECTOR.

**SCHEDULE No. 4
AIR OUTLETS**

TAG	DESCRIPTION	MANUFACTURER	MODEL	SIZE	MOUNTING
S1	SUPPLY SQUARE DIFFUSER	TITUS OR EQUAL	TDC-AA	24" x 24"	CEILING WITH PLENUM BOX & ROUND INLET.
S2	SUPPLY SQUARE DIFFUSER	TITUS OR EQUAL	TDC-AA	8" x 8"	CEILING WITH PLENUM BOX & ROUND INLET.
R1	RETURN SQUARE DIFFUSER	TITUS OR EQUAL	TDC-AA	24" x 24"	CEILING WITH PLENUM BOX & ROUND INLET.
E1	EXHAUST GRILL - ½" BAR SPACING - 0° BLADE DEFLECTION	TITUS OR EQUAL	55FS-NT	6" x 6"	CEILING WITH ROUND INLET.
FAL-01	6" DRAINABLE BLADE FRESH AIR LOUVER	GREENHECK OR EQUAL	ESD-635-36x36	36" x 36"	WALL MOUNTED.
EAL-01	4" DRAINABLE HEAD J BLADE EXHAUST AIR LOUVER	GREENHECK OR EQUAL	EDJ-401-14x14	14" x 14"	WALL MOUNTED.

NOTES:

1. COORDINATE FINISH, COLOR, BORDER AND EXACT LOCATION WITH THE OWNER PRIOR TO ORDERING.
2. PROVIDE OPPOSED BLADE DAMPER ACCESSIBLE THROUGH DIFFUSER FACE FOR GYP BD. CEILING INSTALLATIONS.
3. PROVIDE DUCT TRANSITIONS AS REQUIRED.

**SCHEDULE No. 2
FAN SCHEDULE**

TAG	EF-01 & EF-02	EF-03
LOCATION	RESTROOMS	WHOLESALE AREA
SELECTED FLOW (CFM)	55	1250
SELECTED PRESSURE DROP (IN. H2O)	0.3"	0.1"
ELECTRICAL (V / PH / HZ)	115 / 1 / 60	208 / 1 / 60
MCA	0.2 A	2.6 A
MOCP	15 A	15 A
MOTOR SPEED	900 RPM	674 RPM
FAN TYPE	DIRECT DRIVE CEILING FAN	SIDEWALL DIRECT DRIVE FAN
MANUFACTURER	GREENHECK OR EQUAL	GREENHECK OR EQUAL
MODEL	SP-B80	AER-20-03-0615-VG
WEIGHT	9 lbs	60 lbs
DIMENSIONS HxWxL	7" x 14" x 12"	26" x 26" x 17"

NOTES:

1. PROVIDE UL LISTING.
2. PROVIDE ENERGY STAR COMPLIANCE.
3. BATHROOM FANS TO RUN IN CONTINUOUS DUTY.
4. PROVIDE MOTOR WITH THERMAL OVERLOADS.
5. EQUIP EF-03 WITH WALL HOUSING.
6. INTERLOCK EF-03 WITH MAU-01.

**SCHEDULE No. 3
MAKE-UP AIR UNIT SCHEDULE**

TAG	MAU-01
LOCATION	WHOLESALE AREA
MANUFACTURER	GREENHECK OR EQUAL
MODEL	SP-B80
INSTALLATION	INDOORS CEILING MOUNTED
HEATER CAPACITY (kW)	15.5
TEMPERATURE RISE (°F)	39.2
MOTOR SIZE	1/2 HP
SELECTED FLOW (CFM)	1250
SELECTED PRESSURE DROP (IN. H2O)	0.5"
ELECTRICAL (V / PH / HZ)	208 / 3 / 60
MCA	57.2 A
MOCP	60 A
FAN SPEED	1006 RPM
SOUND RATING	54.9 dBA
WEIGHT	953 lbs
DIMENSIONS HxWxL	39" x 34" x 122"

NOTES:

1. PROVIDE UL / cUL 1995 LISTING FOR THE UNIT.
2. PROVIDE AIR FILTERS FROM THE SUCTION SIDE.
3. PROVIDE MOTOR WITH THERMAL OVERLOADS.
4. PROVIDE MOTORIZED SUCTION SIDE AIR DAMPER.
5. MOTOR EFFICIENCY SHALL BE NEMA PREMIUM.
6. UNIT TO HAVE ON BOARD CONTROLLER TO ENABLE THE UNIT INCLUDING THE DAMPER, FAN, AND HEATER.
7. INTERLOCK MAU-01 WITH EF-03.

VENTILATION LOAD CALCULATION												
IMC 2021 TABLE 403.3.1.1												
ROOM N°	ROOM NAME	IMC OCCUPANCY CLASS	AREA (ft²) Az	Ra CFM/ft²	Az x Ra CFM	Pz Pers. / 1000ft²	Pers.	Rp CFM/Pers.	Rp x Pz CFM	Vbz CALC. CFM	CORRECTED CFM AFTER Ez=0.8	SOURCE OF OA
400	OFFICE 1	OFFICE SPACES	106	0.06	6	5	1	5	5	11	14	PRTU-02
410	OFFICE 2	OFFICE SPACES	81	0.06	5	5	1	5	5	10	13	PRTU-02
100	RETAIL SALES	RETAIL - SALES	1283	0.12	154	15	19	7.5	143	297	371	PRTU-02
300	TINTING AREA	RETAIL - SALES	1547	0.12	186	15	23	7.5	173	359	449	PRTU-01
200	WHOLESALE AREA	RETAIL - SHIPPING & RECEIVING	6895	0.12	827	2	14	10	140	967	1210	MAU-01
MINIMUM VENTILATION REQUIRED (CFM)										1644	2057	

NOTES:

1. SYSTEM VENTILATION EFFICIENCY Ev IS 0.8 DUE TO THE SUPPLY AND RETURN AIR OUTLETS BEING LOCATED AT THE CEILING LEVEL. RESULTS AFTER Ev ARE INDICATED SHOWN UNDER CORRECTED CFM.
2. TOILETS REQUIRE EXHAUST AIR AT A RATE OF 50CFM PER URINAL / WC AND PLANNED FOR CONTINUOUS DUTY.

REVISIONS

No.	Description	Date
1	PERMIT SET	07.28.2023

THE SHERWIN-WILLIAMS COMPANY
1600 CORPORATE CENTRAL DR.
BUILDING A
MCKINNEY, TEXAS 75069

1600 CORPORATE DRIVE
MCKINNEY, TEXAS 75069

**MECHANICAL
SCHEDULES.**

Drawn By: Z.H Scale: NTS
Date: 07.28.2023 PROJ.NO.:

M 2.01

SHEET NO.

Project Name: 2.274 McKinney Shermans Williams
Air System Sizing Summary for PRU-01
07/20/23 06:03:29

Category	Item	Value	Unit
Air System Information	Project Name	2.274 McKinney Shermans Williams	
	Client Name	W&S	
	Project Type	PERM SET	
	Project No.	03047	
Sizing Calculation Information	Calculation Month	Jan to Dec	
	Zone CFM Sizing	Sum of space airflow rates	

Page 1 of 7

Project Name: 2.274 McKinney Shermans Williams
Zone Sizing Summary for PRU-01
07/20/23 06:03:29

Zone Name	Counting Method	Time of Day	Zone Cooling Capacity	Zone Heating Capacity	Zone Floor Area	Zone Volume
Zone 1	Sensible	Peak	1000	500	1000	1000

Page 3 of 7

Project Name: 2.274 McKinney Shermans Williams
Air System Design Load Summary for PRU-01
07/20/23 06:03:29

Category	Item	Value	Unit
COOLING DATA AT 78°F DB	Zone 1	1000	Btu/h
	Zone Total	1000	Btu/h
	Zone 1	1000	Btu/h

Page 3 of 7

Project Name: 2.274 McKinney Shermans Williams
System Psychrometrics for PRU-01
07/20/23 06:03:29

System Name	Zone	Zone Sensible Load	Zone Latent Load	Zone Total Load	Zone Airflow	Zone Airflow
Zone 1	1	1000	500	1500	2500	1000

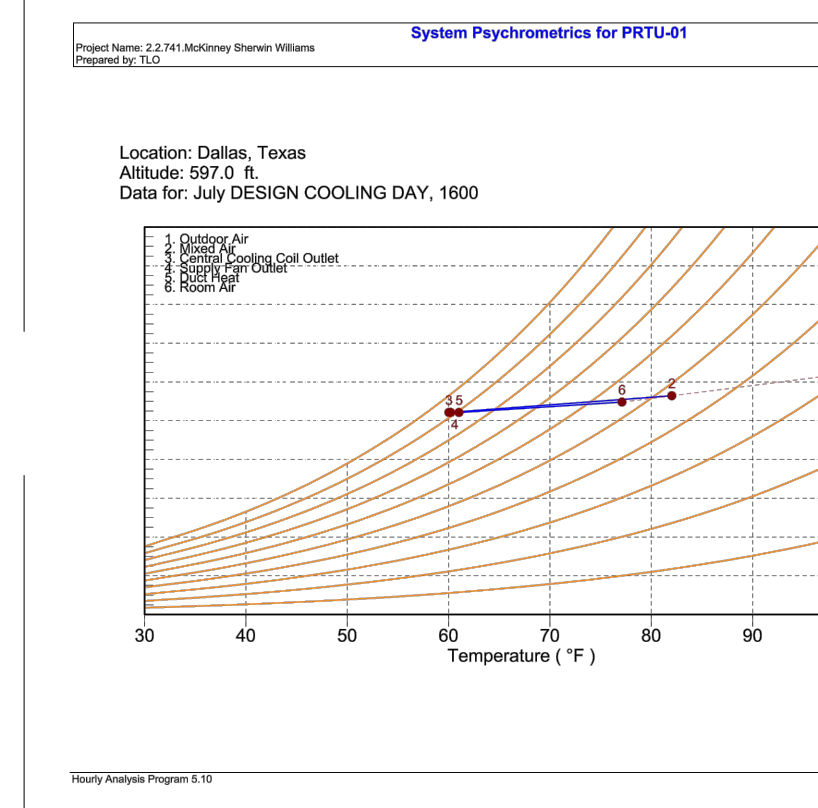
Page 4 of 7

Project Name: 2.274 McKinney Shermans Williams
System Psychrometrics for PRU-01
07/20/23 06:03:29

WINTER DESIGN HEATING

System Name	Zone	Zone Sensible Heating	Zone Latent Heating	Zone Total Heating	Zone Airflow	Zone Airflow
Zone 1	1	500	0	500	1000	1000

Page 5 of 7



Project Name: 2.274 McKinney Shermans Williams
Air System Sizing Summary for PRU-02
07/20/23 06:03:29

Category	Item	Value	Unit
Air System Information	Project Name	2.274 McKinney Shermans Williams	
	Client Name	W&S	
	Project Type	PERM SET	
	Project No.	03047	

Page 1 of 7

Project Name: 2.274 McKinney Shermans Williams
Zone Sizing Summary for PRU-02
07/20/23 06:03:29

Zone Name	Counting Method	Time of Day	Zone Cooling Capacity	Zone Heating Capacity	Zone Floor Area	Zone Volume
Zone 1	Sensible	Peak	1000	500	1000	1000

Page 3 of 7

Project Name: 2.274 McKinney Shermans Williams
Air System Design Load Summary for PRU-02
07/20/23 06:03:29

Category	Item	Value	Unit
COOLING DATA AT 78°F DB	Zone 1	1000	Btu/h
	Zone Total	1000	Btu/h
	Zone 1	1000	Btu/h

Page 3 of 7

Project Name: 2.274 McKinney Shermans Williams
System Psychrometrics for PRU-02
07/20/23 06:03:29

JULY DESIGN COOLING DAY, 1600

System Name	Zone	Zone Sensible Load	Zone Latent Load	Zone Total Load	Zone Airflow	Zone Airflow
Zone 1	1	1000	500	1500	2500	1000

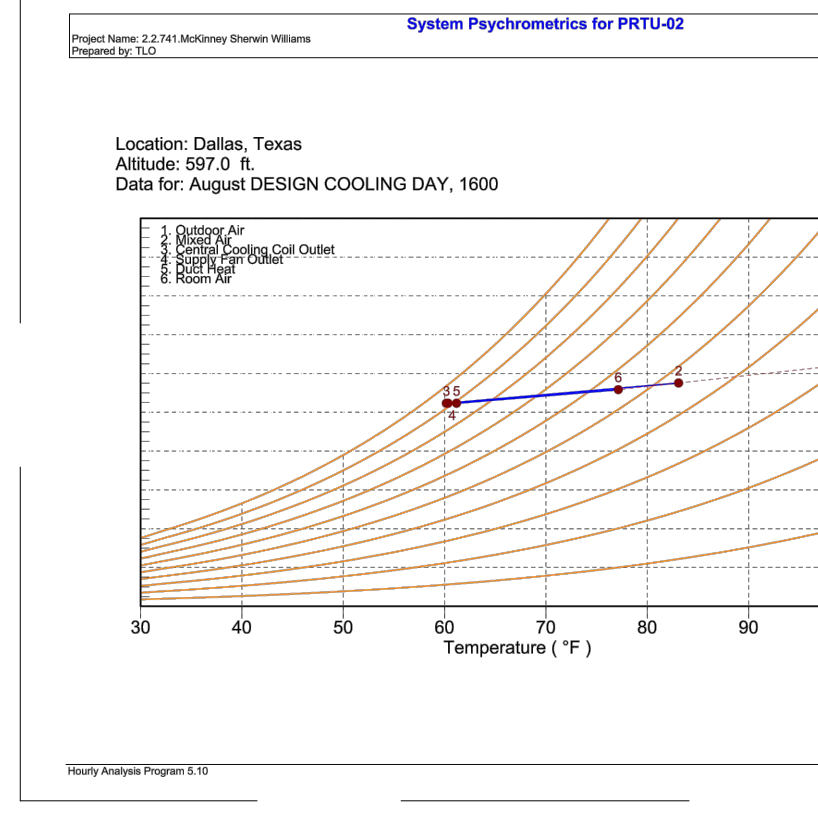
Page 4 of 7

Project Name: 2.274 McKinney Shermans Williams
System Psychrometrics for PRU-02
07/20/23 06:03:29

WINTER DESIGN HEATING

System Name	Zone	Zone Sensible Heating	Zone Latent Heating	Zone Total Heating	Zone Airflow	Zone Airflow
Zone 1	1	500	0	500	1000	1000

Page 5 of 7



REVISIONS

No.	Description	Date
1	PERMIT SET	07.28.2023

THE SHERWIN-WILLIAMS COMPANY
1600 CORPORATE CENTRAL DR.
BUILDING A
MCKINNEY, TEXAS 75069


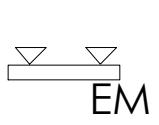
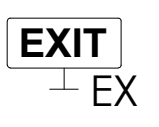
1600 CORPORATE DRIVE
MCKINNEY, TEXAS 75069

HEAT LOAD
CALCULATION.

Drawn By: Z.H Scale: NTS
Date: 07.28.2023 PROJ.NO.:

M 4.00
SHEET NO.

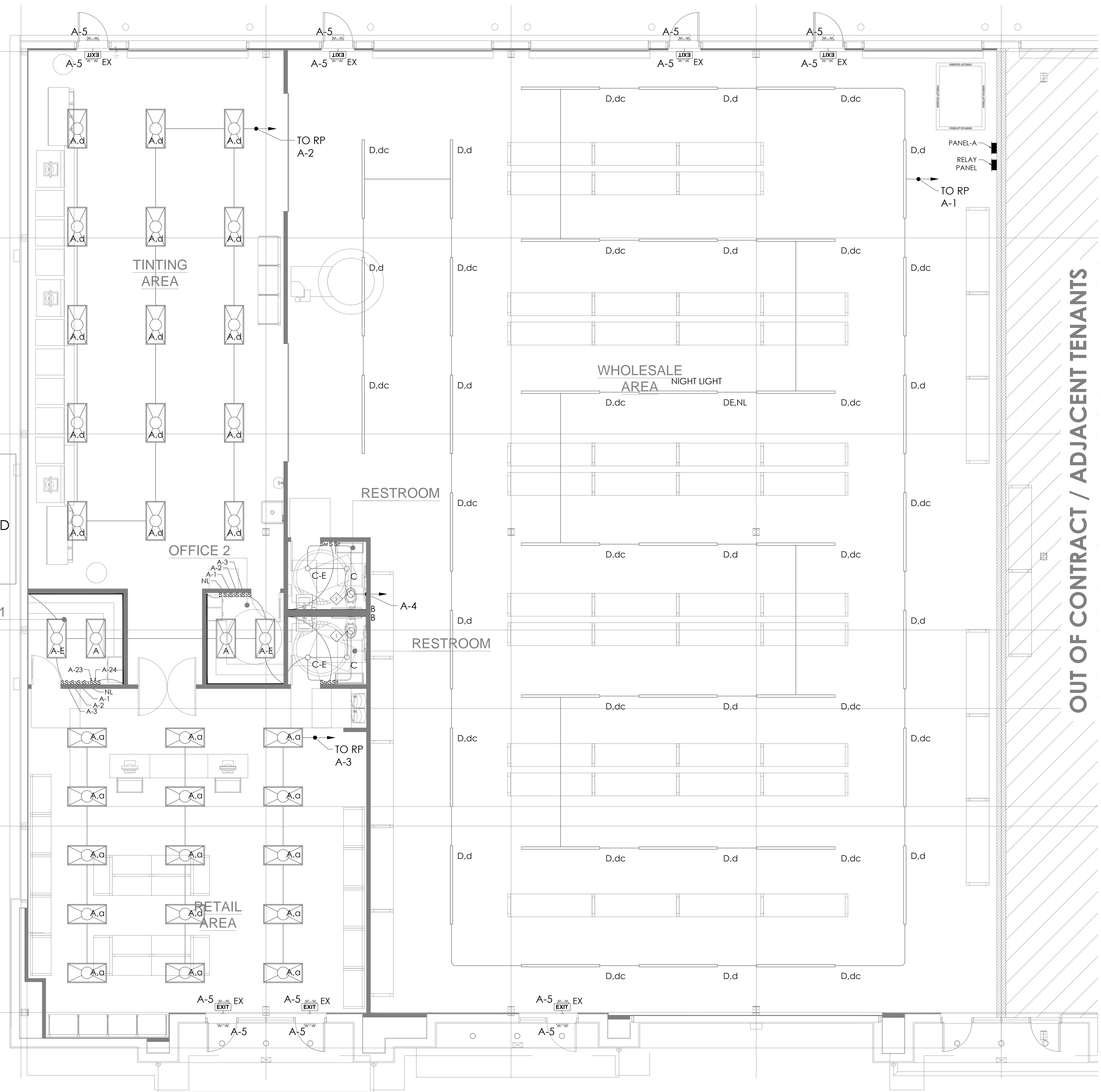
ELECTRICAL LEGEND

-  JUNCTION BOX FOR EXHAUST FANS
- D** DIMMER
- S_M** OCCUPANCY SENSOR
- S** ONE WAY LIGHTING SWITCH
- S₃** TWO WAYS LIGHTING SWITCH
-  EM EMERGENCY LIGHTING WALL MOUNTED WITH INTERNAL BACK UP BATTERY WITH MINIMUM 90 MINS AUTONOMY
-  EX EXIT SIGN WALL MOUNTED WITH INTERNAL BACK UP BATTERY WITH MINIMUM 90 MINS AUTONOMY
- X,E X DENOTES FOR LIGHT TYPE
E DENOTES FOR EMERGENCY LIGHT

SHEET NOTES:

- 1. PROVIDE HEAVY DUTY JUNCTION BOX, FLUSH IN CEILING (OR WALL) FOR EXHAUST FANS THAT TURNS ON WHEN THE TIMER SWITCH OF THIS FAN IS TURNED ON

Numt.	Type	Make	Model	Wattage	Unit	Description	Quantity	Total (W)	Subtotal (W)
A	Lighting 4-ft x 2-ft C	TBD	TBD	33	W	Lighting 4-ft x 2-ft Cool White LED Panel Light 33 watt	34.00	1,122.00	
B	Undercounter Light	TBD	TBD	20	W	48" LED STRIP SOURCE FROM WESCO	2.00	40.00	
C	CAN LIGHT FIXTURE	TBD	TBD	15	W	CEILING MOUNTED CAN LIGHT 6"	4.00	60.00	
D	LED STRIP	TBD	TBD	30	W	96" LED STRIP SOURCE FROM WESCO	38.00	1,140.00	
U	UNDERCOUNTER LIGHT	TBD	TBD	30	W	TECHLIGHTING UNILUME UNDERCOUNTER SLMLINE 27DDK MODEL- 700UCF	2.00	60.00	
EM	Emergency with Battery	Lithonia	EU2C M6	0.56	W	Wall mounted emergency light. Dual LED heads with test switch indicator. 120-277V/60Hz. 0.56W	7.00	3.92	
EX	Exit Sign with Outdoor EM Light	Lithonia	LHQM LED R M6	7	W	LED Exit/Unit Combo. Red letters, White. Equipped test switch and status indicator. 120/277V, 60Hz. 4.3W	7.00	49.00	
								2,474.92	



REVISIONS		
No.	Description	Date
1	PERMIT SET	05.18.2023

BIRDIE BEAN
 1600 CORPORATE CENTRAL DR.
 SUITE 111
 MCKINNEY, TEXAS 75069

1600 CORPORATE DRIVE
 MCKINNEY, TEXAS 75069

LIGHTING LAYOUT

Drawn By: A.B Scale: 3/16" = 1'-0"
 Date: 05.18.2023 PROJ. NO.:

E2.01

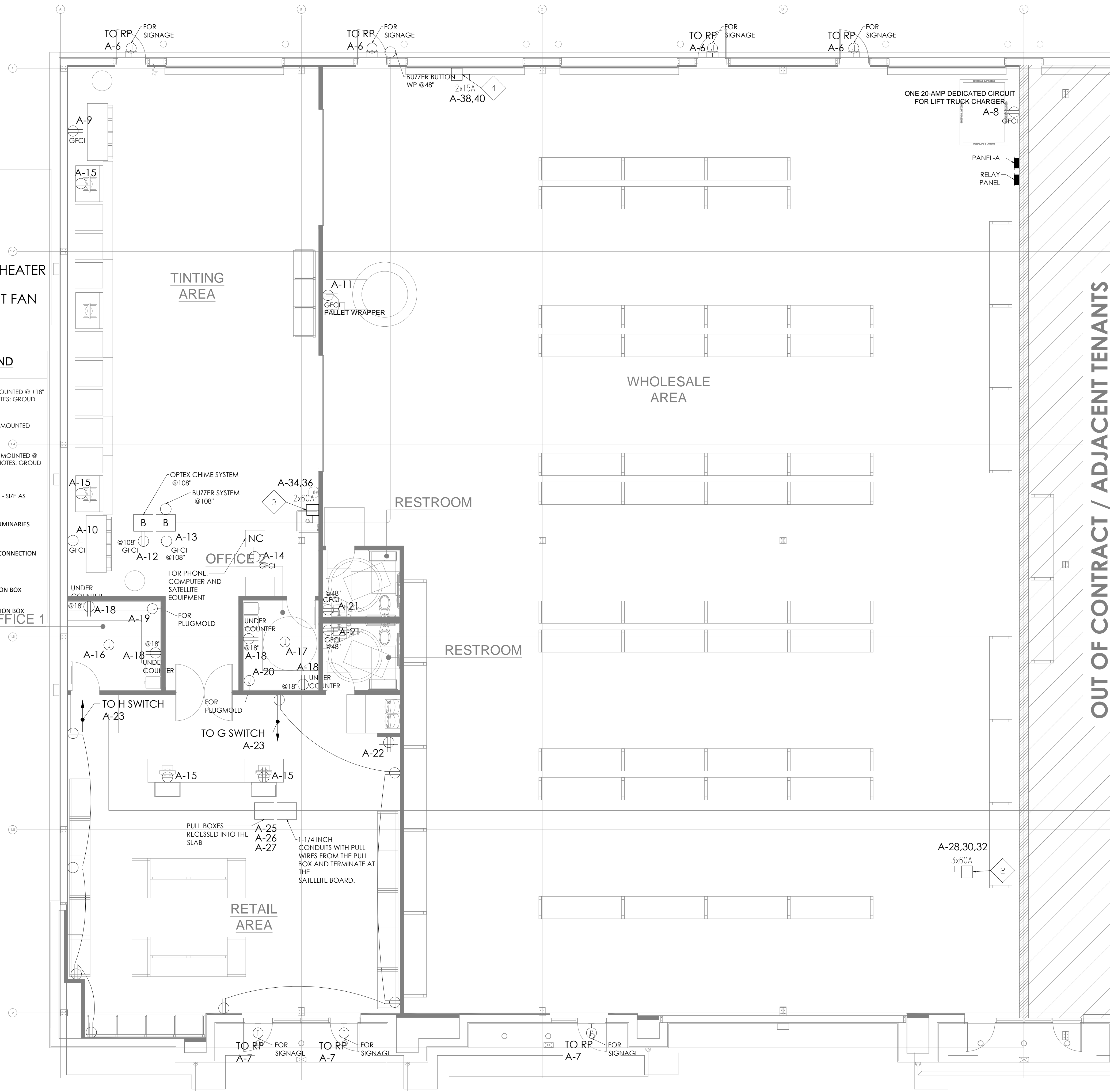
SHEET NO.

SHEET NOTES:

- 1— PROVIDE NEMA 3R DISCONNECT SWITCH FOR PRU
- 2— PROVIDE JUNCTION BOX FOR MUA
- 3— PROVIDE NEMA 3R DISCONNECT SWITCH FOR WATER HEATER
- 4— PROVIDE NEMA 3R DISCONNECT SWITCH FOR EXHAUST FAN

ELECTRICAL LEGEND

- DUPLEX RECEPTACLE - WALL MOUNTED @ +18" AFF UNLESS NOTED. GFCI DENOTES: GROUND FAULT PROTECTION
- DUPLEX RECEPTACLE - FLOOR MOUNTED. IG DENOTES: IG TYPE
- QUADRIplex RECEPTACLE - WALL MOUNTED @ +18" AFF UNLESS NOTED. GFCI DENOTES: GROUND FAULT PROTECTION
- NON-FUSED DISCONNECT SWITCH - SIZE AS INDICATED
- DAYLIGHT SENSOR TO CONTROL LUMINARIES IN DAYLIGHT ZONE
- FLOOR DATA OUTLET WITH CAT5 CONNECTION
- WALL MOUNTED ELECTRIC JUNCTION BOX
- FLOOR MOUNTED ELECTRIC JUNCTION BOX



REVISIONS		
No.	Description	Date
1	PERMIT SET	05.18.2023

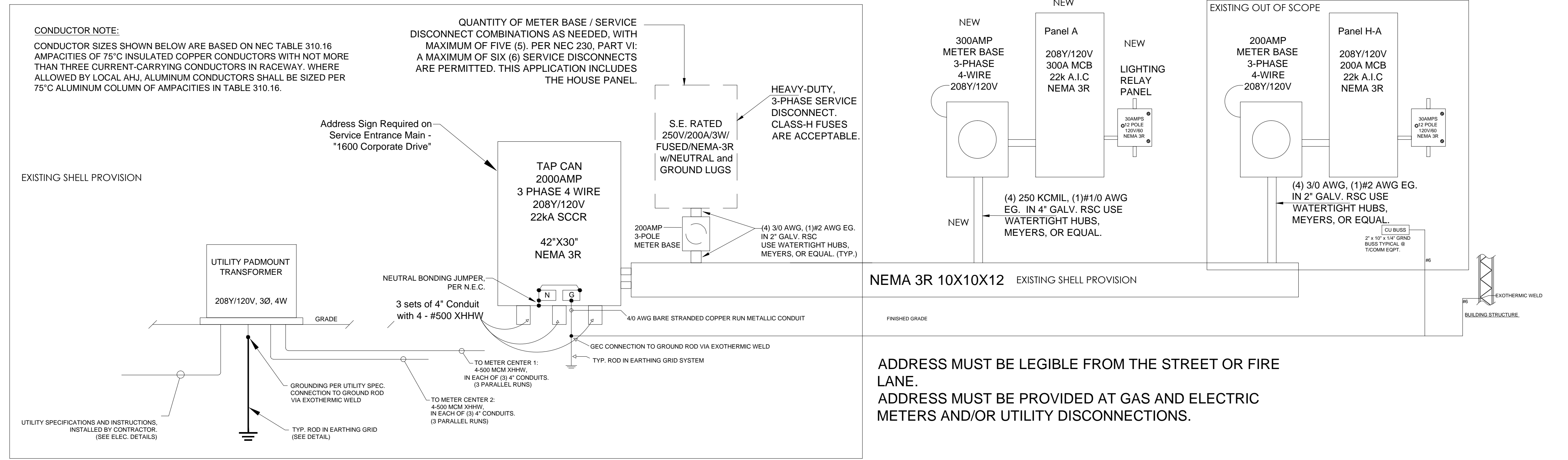
BIRDIE BEAN
 1600 CORPORATE CENTRAL DR.
 SUITE 111
 MCKINNEY, TEXAS 75069

1600 CORPORATE DRIVE
 MCKINNEY, TEXAS 75069

POWER LAYOUT

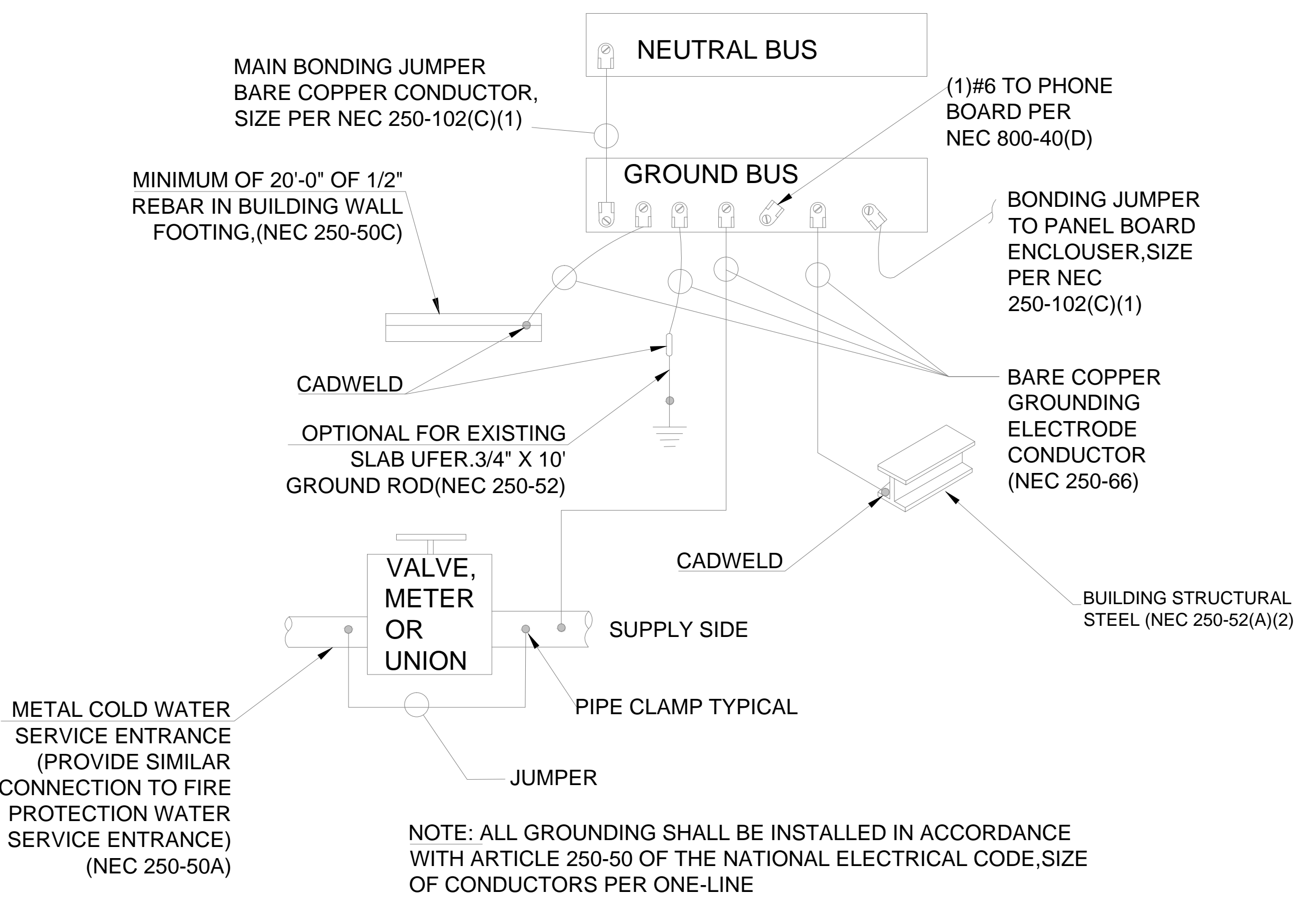
Drawn By: A.B Scale: 3/16" = 1'-0"
 Date: 05.18.2023 PROJ. NO.:

E3.01
 SHEET NO.



1 SINGLE LINE DIAGRAM
SCALE NTS

ADDRESS MUST BE LEGIBLE FROM THE STREET OR FIRE LANE.
ADDRESS MUST BE PROVIDED AT GAS AND ELECTRIC METERS AND/OR UTILITY DISCONNECTIONS.



3 GROUNDING DETAIL
SCALE NTS

Location: -		CONNECTED LOAD			DEMAND TOTAL	
LOAD SUMMARY	CL	DF	A	B	C	
L Lighting	5.59	1.25	3.14	0.76	1.70	6.99
R Convenience Recept	15.38		7.50	3.72	4.16	12.69
H Heating (Space)	12.00	1.25		6.00	6.00	15.00
C Cooling		1.00				
A HVAC	41.74	1.00	14.02	14.02	13.70	41.74
P Process		1.00				
O Other Continuous		1.25				
K Kitchen		1.00				
N Noncontinuous	7.20	1.00	1.80	3.60	1.80	7.20
M Motor		1.00				
Total	81.91		26.45	28.10	27.36	83.62

Total Demand Load (KVA)	83.62
Total Demand Current (A)	232.10
Min. Feeder Ampacity (A)	290.13

PANEL A	
PANELBOARD DESIGNATION	
SYSTEM VOLTAGE	208/120V, 3Ø, 4W
BUS SIZE	300
SYSTEM TYPE	NORMAL
FEEDER PROT	300A-3P CRB Bus Plug
CONDUCTOR SIZE	250-kcmil - #1/0G CU
CONDUCTOR/PHASE	1
MAINS	300A MCB
SCCR	FULLY RATED
MCB RATING	80%
GROUND FAULT	NO
FEEDER LENGTH (FT)	75
FEEDER V. DROP (%)	0.967
FAULT CURRENT	
KAIC RATING	22
ENCLOSURE	TYPE 1

DESCRIPTION	WIRE	GRD	CB	KVA	A	B	C	KVA	CB	WIRE	GRD	DESCRIPTION
1 LIGHTING OPEN SPACE	L 2x 14 AWG - #14G	-#14G	15A-1P	1.14	1.64			0.50	15A-1P	2x 14 AWG - #14G	-#14G	LIGHTING OPEN SPACE
3 LIGHTING OPEN SPACE	L 2x 14 AWG - #14G	-#14G	15A-1P	0.50	0.76			0.26	15A-1P	2x 14 AWG - #14G	-#14G	LIGHTING OFFICES - RESTROOMS
5 EMERGENCY LIGHTING	L 2x 14 AWG - #14G	-#14G	15A-1P	0.20			1.70	1.50	20A-1P	2x 12 AWG - #12G	-#12G	SIGNAGE
7 SIGNAGE	L 2x 12 AWG - #12G	-#12G	20A-1P	1.50	3.30			1.80	20A-1P	2x 12 AWG - #12G	-#12G	LIFT TRUCK CHARGER
9 SHAKER TABLE	N 2x 12 AWG - #12G	-#12G	20A-1P	1.80	3.60			1.80	20A-1P	2x 12 AWG - #12G	-#12G	SHAKER TABLE
11 PALLET WRAPPER	N 2x 12 AWG - #12G	-#12G	20A-1P	1.80			2.80	1.00	20A-1P	2x 12 AWG - #12G	-#12G	OPTEX CHIME SYSTEM
13 BUZZER SYSTEM	R 2x 12 AWG - #12G	-#12G	20A-1P	1.00	2.50			1.50	20A-1P	2x 12 AWG - #12G	-#12G	RECEPTACLE FOR PHONE-COMPUTER-SATELLITE
15 RECEPTACLES COMPUTERS	R 2x 12 AWG - #12G	-#12G	20A-1P	1.00	2.00			1.00	20A-1P	2x 12 AWG - #12G	-#12G	CEILING MOUNTED JUNCTION BOX @ OFFICE
17 CEILING MOUNTED JUNCTION BOX @ OFFICE	R 2x 12 AWG - #12G	-#12G	20A-1P	1.00			1.72	0.72	20A-1P	2x 12 AWG - #12G	-#12G	RECEPTACLES OFFICES
19 PLUGMOLD	R 2x 12 AWG - #12G	-#12G	20A-1P	1.50	3.00			1.50	20A-1P	2x 12 AWG - #12G	-#12G	PLUGMOLD
21 RECEPTACLES GFCI RESTROOMS	R 2x 12 AWG - #12G	-#12G	20A-1P	0.36	0.72			0.36	20A-1P	2x 12 AWG - #12G	-#12G	QUADRO RECEPTACLE
23 RECEPTACLES SALES AREA	R 2x 12 AWG - #12G	-#12G	20A-1P	0.72			1.44	0.72	20A-1P	2x 12 AWG - #12G	-#12G	RECEPTACLES SALES AREA
25 PULL BOX SALES AREA	R 2x 12 AWG - #12G	-#12G	20A-1P	1.00	2.00			1.00	20A-1P	2x 12 AWG - #12G	-#12G	PULL BOX SALES AREA
27 PULL BOX SALES AREA	R 2x 12 AWG - #12G	-#12G	20A-1P	1.00			7.86	6.86				
29	A			3.72			10.58	6.86	60A-3P	4x 12 AWG - #12G	-#12G	MUA-01
31	A	4x 6 AWG - #10G	45A-3P	3.72	10.58			6.86				A 32
33	A			3.72			9.72	6.00				H 34
35	A			3.12			9.12	6.00	20A-2P	2x 12 AWG - #12G	-#12G	EWB-01
37	A	4x 10 AWG - #10G	35A-1P	3.12	3.43			0.31				A 38
39	A			3.12			3.43	0.31	15A-2P	2x 14 AWG - #14G	-#14G	EF-03
41												SPACE
				Total Connected Load	26.45	28.10	27.36					

REVISIONS		
No.	Description	Date
1	PERMIT SET	05.18.2023

BIRDIE BEAN
1600 CORPORATE CENTRAL DR.
SUITE 111
MCKINNEY, TEXAS 75069

1600 CORPORATE DRIVE
MCKINNEY, TEXAS 75069

**SINGLE LINE DIAGRAM
& PANEL BOARD
SCHEDULE**

Drawn By: A.B Scale: NTS
Date: 05.18.2023 PROJ. NO.:

E4.00

SHEET NO.

- DRAINAGE KEYED NOTES:**
- 1 → WASTE DROP AND 2" VENT RISE.
 - 2 → 4" FLOOR CLEAN-OUT.
 - 3 → 3" VENT STACK TO ABOVE - TERMINATE TO OUTDOORS AS PER IPC.
 - 4 → 3" FLOOR DRAIN WITH TRAP PRIMER.
 - 5 → HUB DRAIN WITH 1" TRAPPED CONNECTION.
 - 6 → 2" WALL CLEAN OUT.
 - 7 → 1" TRAPPED INDIRECT WASTE CONNECTION FOR DRINKING FOUNTAIN.
 - 8 → CONNECTION POINT OF NEW SEWER WITH EXISTING SEWER LINE.

**FROM 2021 IPC - TABLE 709.1:
DRAINAGE FIXTURE UNIT VALUES (DFU)**

FIXTURE	D.F.U	QTY.	TOTAL D.F.U
WATER CLOSET	3.0	2	6.0
LAVATORY	1.0	2	2.0
FLOOR DRAIN	2.0	2	4.0
DRINKING FOUNTAIN	0.5	1	0.5
INDIRECT WASTE RECEPTOR < 1GPM	2.0	2	4.0
TOTAL DFU =			14.5

AS PER 2021 IPC - TABLE 710.1(1):
- MAIN SEWER PIPE: 4"Ø

- WATER SUPPLY KEYED NOTES:**
- 1 → PROVIDE FULL PORT ISOLATION VALVE, PRIVATE WATER METER & BACKFLOW PREVENTER.
 - 2 → DCW DROP IN WALL TO FLUSH LAV VALVE TERMINAL.
 - 3 → DCW & DHW DROP IN WALL TO LAVATORY WITH THERMOSTATIC MIXING VALVE.
 - 4 → DCW & DHW DROP IN WALL TO EMERGENCY SHOWER WITH TEMPERATURE ACTUATED MIXING VALVE COMPLYING WITH ASSE 1071.
 - 5 → DCW DROP IN WALL WITH VACUUM BREAKER & BACKFLOW PREVENTER FOR DRINKING FOUNTAIN.
 - 6 → PROVIDE 4.5 GALLONS EXPANSION TANK - WAITS PLT-12 OR EQUAL.

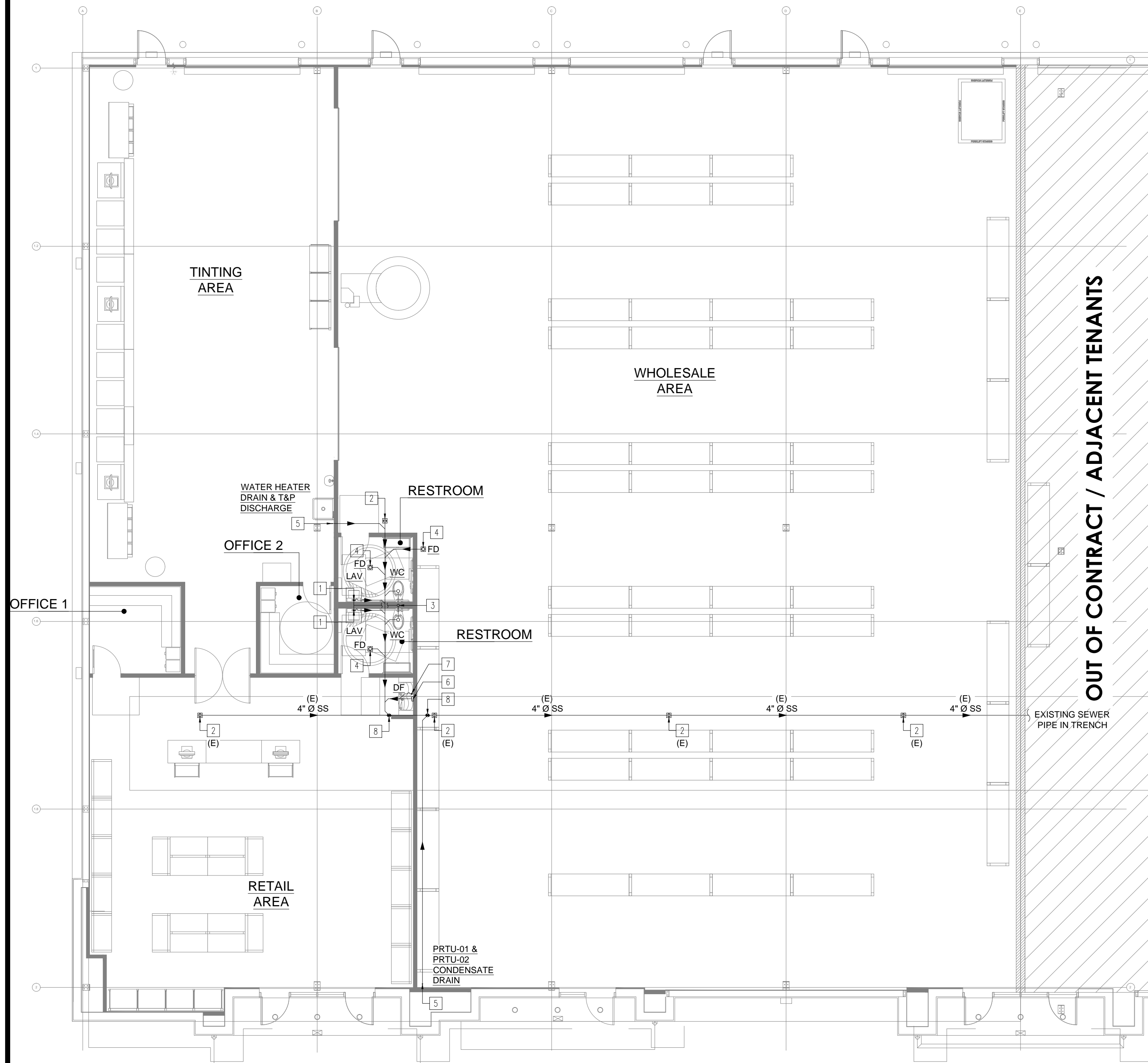
**FROM 2021 IPC - TABLE E 103.3 (2):
WATER SUPPLY FIXTURE UNITS LOADS:**

FIXTURE	OCCUPANCY	W.S.F.U	QTY.	TOTAL W.S.F.U
DRINKING FOUNTAIN	OFFICES	0.25	1	0.25
LAVATORY	PUBLIC	2.0	2	4.0
WC - FLUSHOMETER VALVE	PUBLIC	10.0	2	20.0
SHOWER HEAD	PUBLIC	4.0	1	4.0
				TOTAL = 28.25 WFU
EQUIVALENT FLOW (IPC TABLE E103.3(3))= 40 GPM				
Ø2" MAIN CW PIPE WILL OPERATE AT < 5 FT/s				

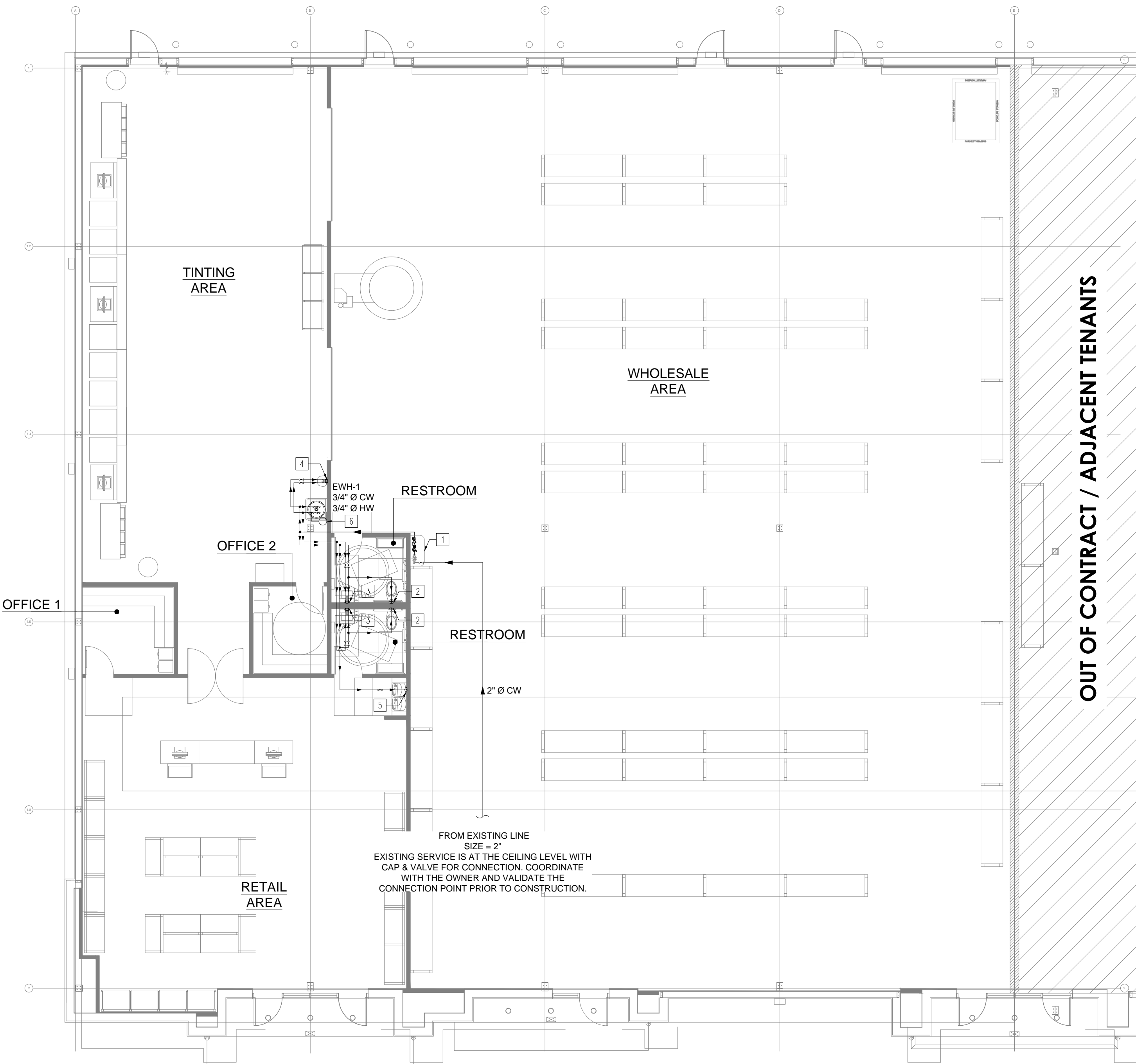
**SCHEDULE No. 1
ELECTRIC WATER HEATER**

TAG	EW-H-01
LOCATION	TINTING AREA
SERVES	SEE LAYOUT
MANUFACTURER	A.O SMITH
MODEL	DRE-S2-12
TYPE	ELECTRIC - TANK
HEATER INPUT POWER (kW)	12.3
ELECTRICAL DATA	208V / 1Ø / 60 Hz
NUMBER OF ELEMENTS	3
NOMINAL TANK CAPACITY (GAL)	30
FIRST HOUR RATING (GPH)	90
HEATER RECOVERY @ 100°F RISE (GPH)	50
APPROXIMATE SHIPPING WEIGHT (LBS)	260
HEIGHT x DIAMETER	55.25" x 21.75"

- NOTES:**
- 1. HEATER SHALL HAVE CSA CERTIFIED AND ASME RATED T&P RELIEF VALVE.
 - 2. HEATER SHALL HAVE TWO ANODE RODS FOR PROTECTION.
 - 3. HEATER SHALL MEET OR EXCEED THE THERMAL EFFICIENCY AND/OR STANDBY LOSS REQUIREMENTS OF THE US DOE AND CURRENT EDITION OF ASHRAE/IESNA 90.1.
 - 4. HEATER SHALL HAVE FACTORY SUPPLIED INSULATION BLANKET.
 - 5. PROVIDE EXPANSION TANK AS PER KEYED NOTES.
 - 6. PROVIDE BASE PAN AS PER INSTALLATION DETAILS.
 - 7. TANK SHOULD BE INTERNALLY GLASS LINED.
 - 8. PROVIDE UL LISTED FIELD PHASE CONVERSION KIT FOR POWER SUPPLY.



DRAINAGE FLOOR PLAN SCALE 1/8"=1'-0" **1**



WATER SUPPLY FLOOR PLAN SCALE 1/8"=1'-0" **2**

REVISIONS

No.	Description	Date
1	PERMIT SET	07.28.2023

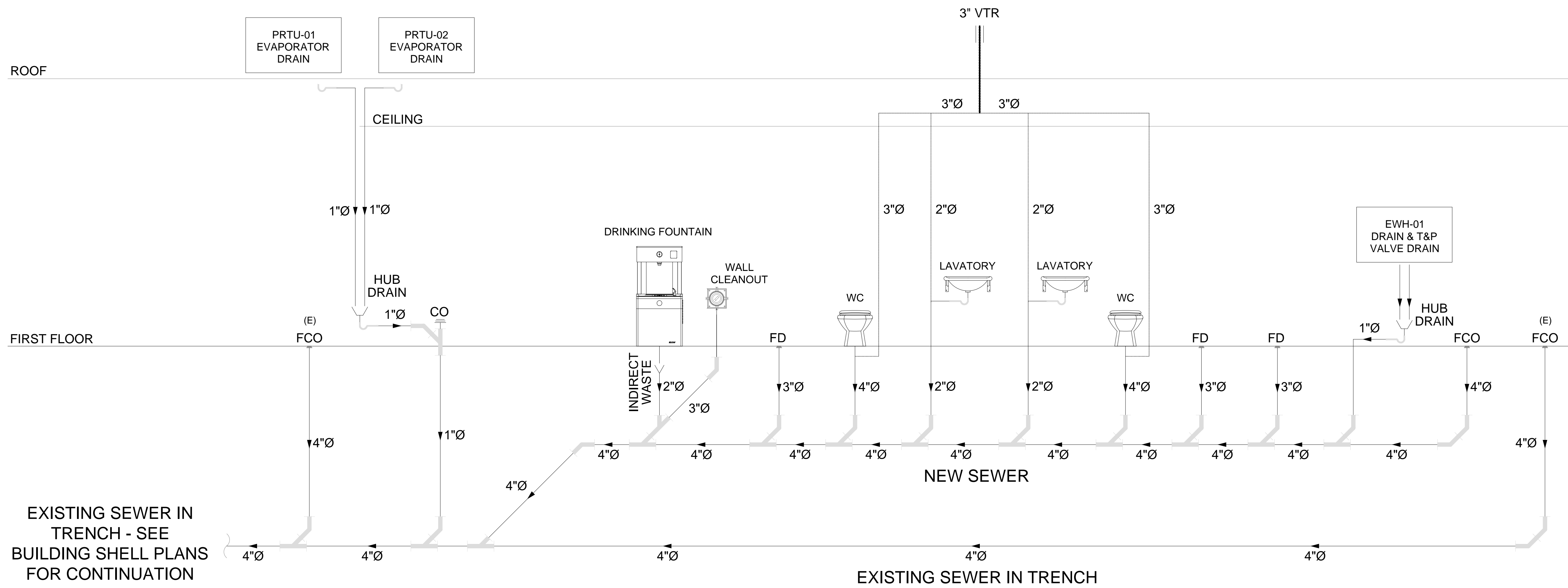
THE SHERWIN-WILLIAMS COMPANY
1600 CORPORATE CENTRAL DR.
BUILDING A
MCKINNEY, TEXAS 75069

1600 CORPORATE DRIVE
MCKINNEY, TEXAS 75069

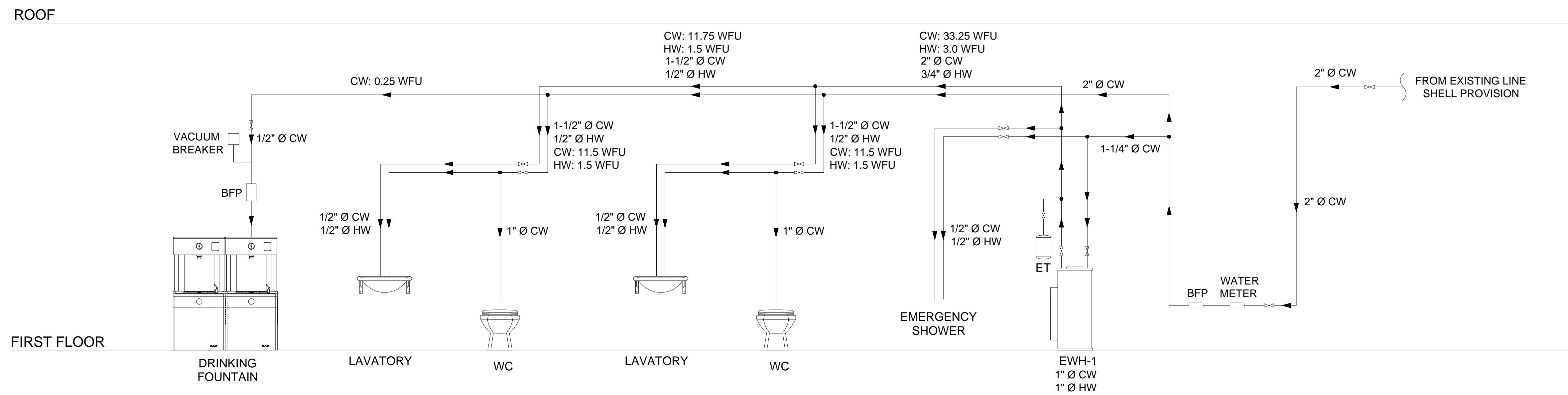
**DRAINAGE & WATER
SUPPLY LAYOUTS**

Drawn By: Z.H Scale: 1/8"=1'-0"
Date: 07.28.2023 PROJ. NO.:

P2.00
SHEET NO.



DRAINAGE RISER DIAGRAM - NTS



WATER SUPPLY RISER DIAGRAM - NTS

REVISIONS

No.	Description	Date
1	PERMIT SET	07.28.2023

THE SHERWIN-WILLIAMS COMPANY
 1600 CORPORATE CENTRAL DR.
 BUILDING A
 MCKINNEY, TEXAS 75069

1600 CORPORATE DRIVE
 MCKINNEY, TEXAS 75069

PLUMBING RISER DIAGRAMS

Drawn By: Z.H Scale: NTS
 Date: 07.28.2023 PROJ. NO.:

P3.00
 SHEET NO.