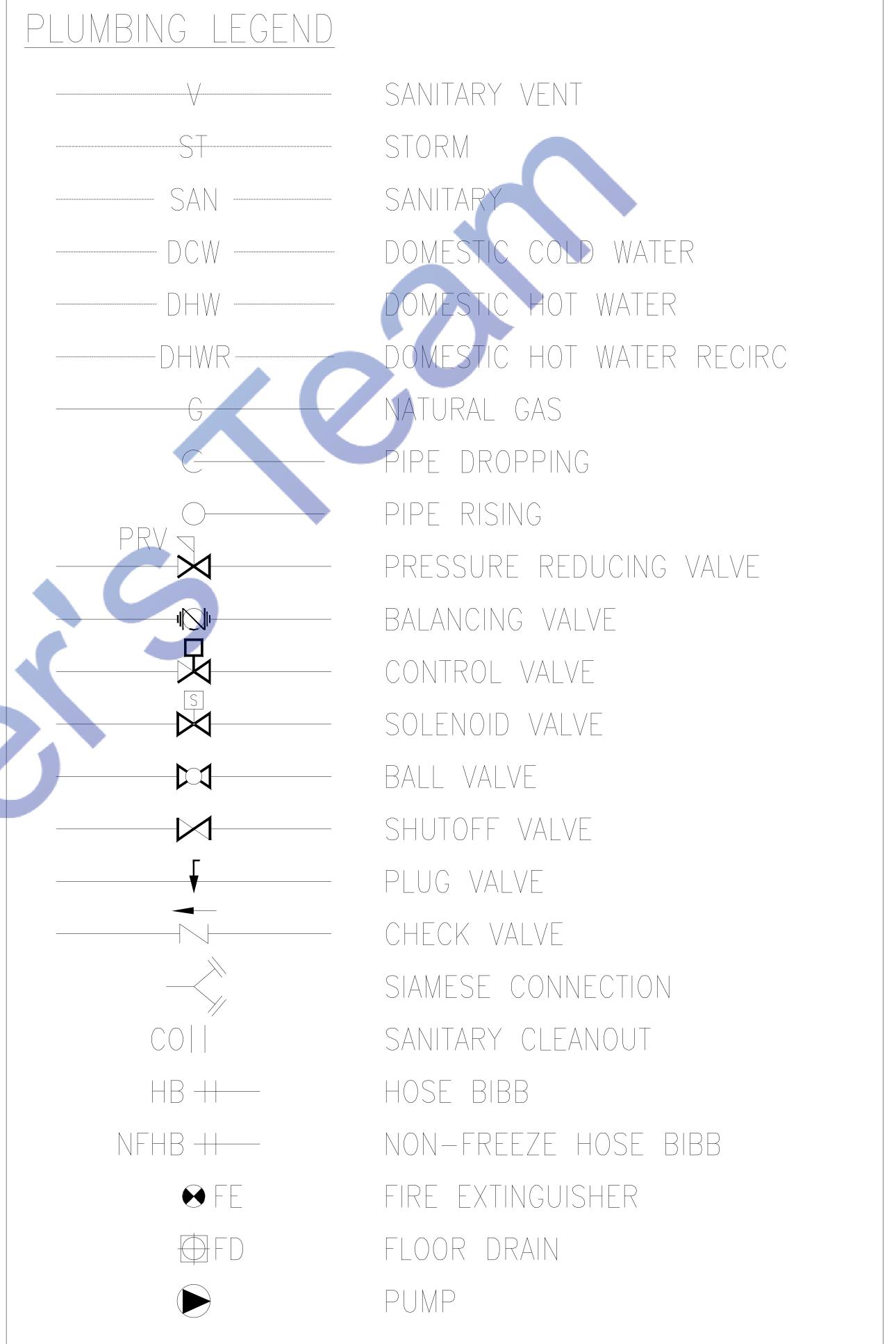
	FIXTURES	S ROUGH-	-IN SCHED	ULE	
FIXTURE TAG	FIXTURE	DOMESTIC HOT WATER	DOMESTIC COLD WATER	WASTE	VENT
WC	FLUSH TANK Water Closet		1/2"	4, ,,	2 **
LAV	LAVATORY	1/2"	1/2"	1-1/2"	1-1/4"
SH	SHOWER	1/2"	1/2"	2 *,	2 *,
BT	BATHTUB	1/2"	1/2"	2 *,	2 *,
KS	KITCHEN SINK	1/2"	1/2"	1-1/2"	1-1/4"
WB	WASHER BOX	1/2"	1/2"	2 ",	2 ",
NFHB	NON-FREEZE HOSE BIB		3/4"		
FD	FLOOR DRAIN			4,,,	1-1/2"

- * ALL FLOOR DRAINS AND TRENCH DRAINS C/W TRAP PRIMER
- * PROVIDE SHUT OFF VALVES ON DCW AND DHW SUPPLY TO FIXTURES
- * MIN WASTE PIPE SIZE BELOW SLAB TO BE 2"Ø
- * MIN WASTE PIPE SIZE BELOW SLAB TO BE 2"ø
- * ALL SAN LINES TO RUN AT 2% SLOPE

I hereby confirm that the "Plumbing Plan" has been meticulously developed in strict adherence to the most recent codes and regulations applicable in Beaumont, Alberta, Canada. The following standards have been thoroughly incorporated:

- 1. National Plumbing Code of Canada 2020 (NPC 2020): This code outlines the technical requirements for the design and installation of new plumbing systems, as well as the extension alteration, renewal, and repair of existing systems.
- 2. Alberta Plumbing Code This provincial code establishes and interprets the plumbing codes, standards, and regulations under the Safety Codes Act, ensuring compliance with Alberta's specific requirements.
- 3. City of Beaumont's Home Improvement Permits Guidelines: These municipal guidelines detail the necessary permits and procedures for plumbing work within Beaumont, including the transition to The Inspections Group Inc. as the new partner for plumbing permitting, effective November 1, 2024.
- 4. Safety Codes Council's Permit and Inspection Procedures: These procedures outline the process for obtaining permits and scheduling inspections for plumbing work in Alberta, ensuring all safety standards are met.

By integrating these comprehensive standards, the "Plumbing Plan" ensures compliance with all relevant codes and regulations, promoting safety, efficiency, and sustainability in the plumbing system design and installation.





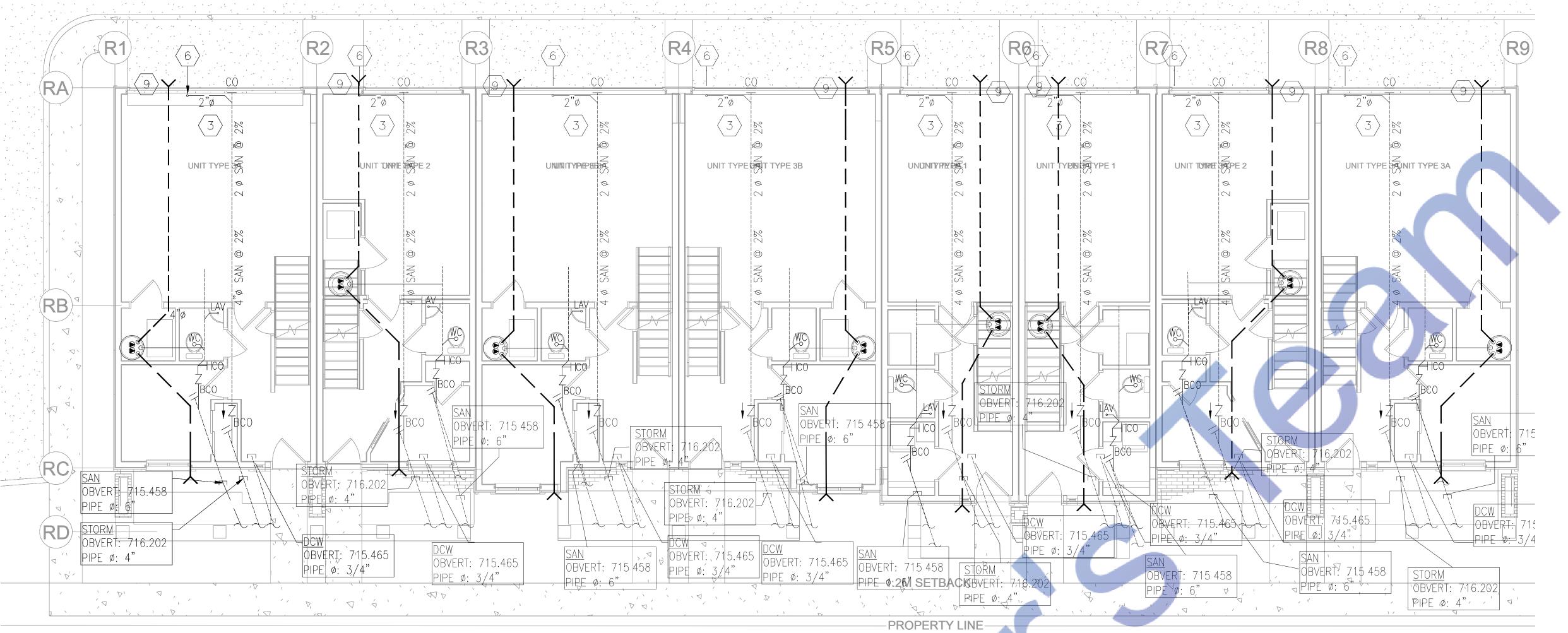
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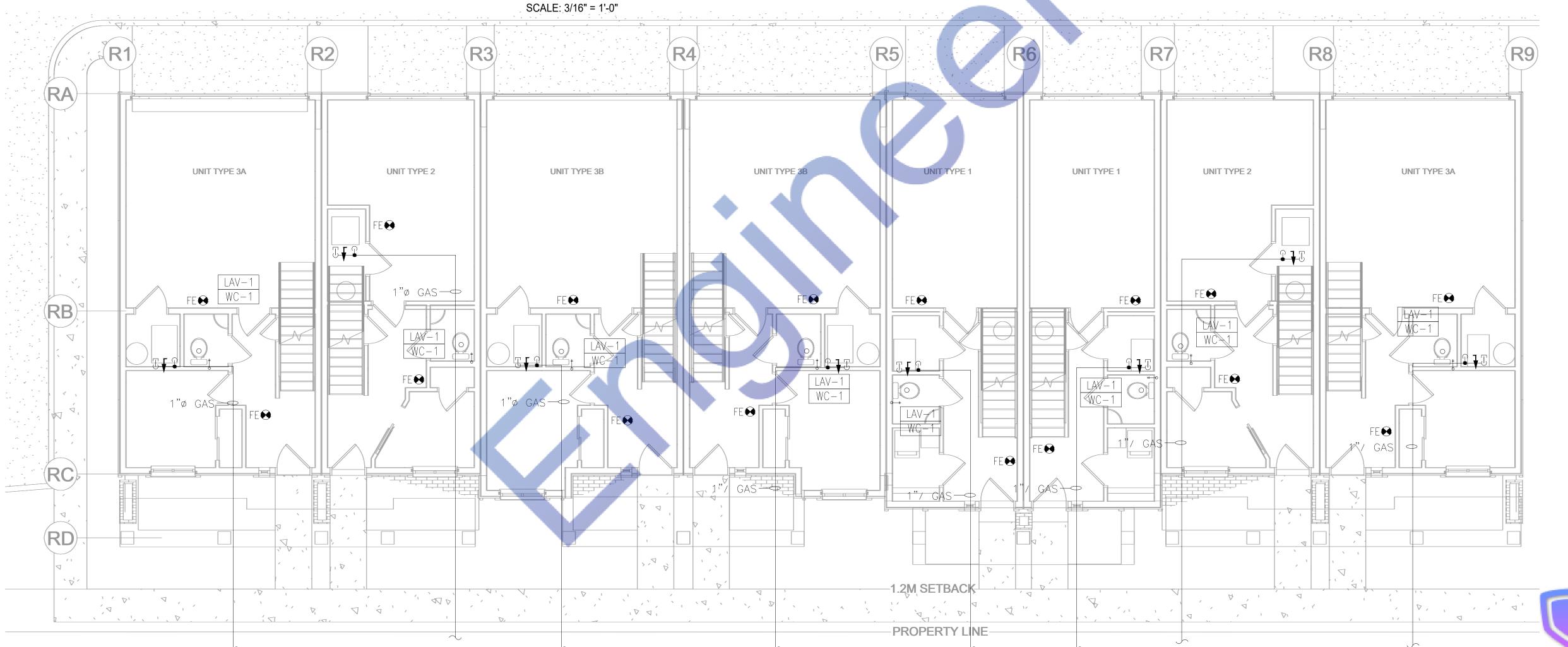
9 COLONIALE WAY DEVELOPMENT

PROPOSED PLUMBING

BEAUMONT, ALBERTA



RESIDENTIAL BLDG-1 FOUNDATION PROPOSED PLUMBING LAYOUT





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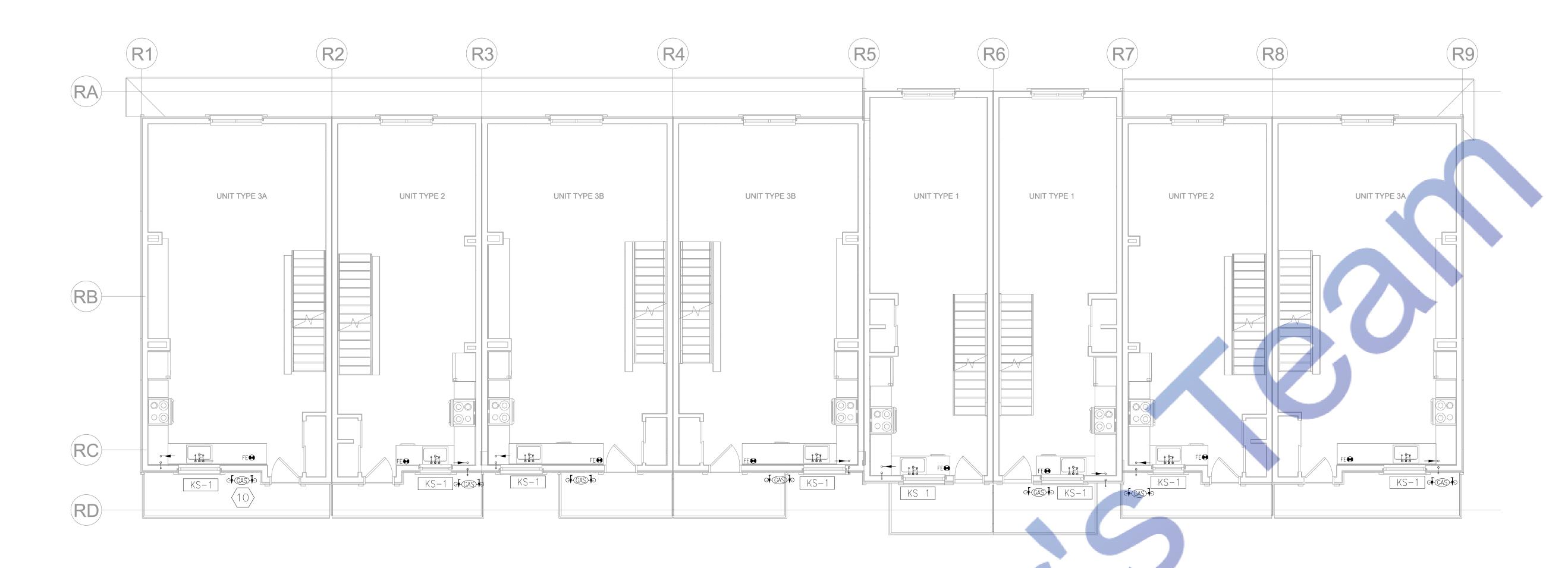
9 COLONIALE WAY DEVELOPMENT
BEAUMONT, ALBERTA

PROPOSED PLUMBING PLAN FOR LEVEL-1

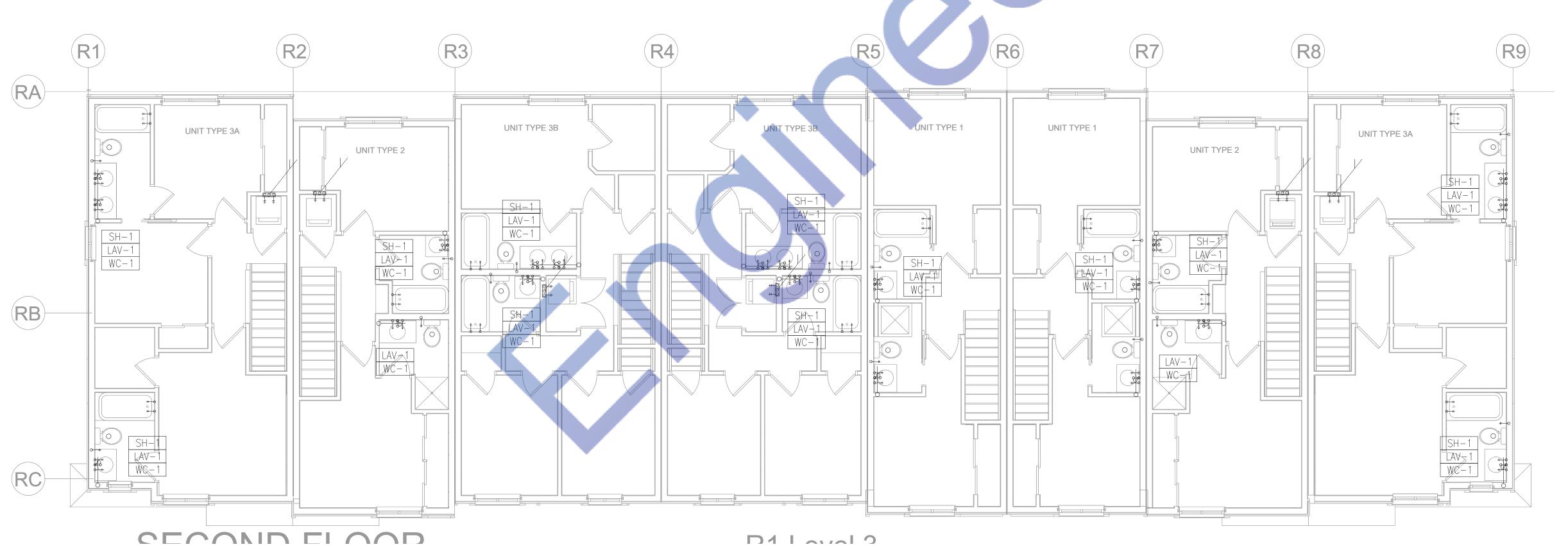
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RESIDENTIAL BLDG-1 BASEMENT PROPOSED PLUMBING LAYOUT

SCALE: 3/16" = 1'-0"



RESIDENTIAL BLDG-1 LEVEL-2 PROPOSED PLUMBING LAYOUT SCALE: 3/16" = 1'-0"



RESIDENTIAL BLDG-1 LEVEL-3 PROPOSED PLUMBING LAYOUT

SCALE: 3/16" = 1'-0"



9 COLONIALE WAY DEVELOPMENT

PROPOSED PLUMBING PLAN FOR LEVEL-2 & 3

BEAUMONT, ALBERTA



This HVAC Layout Plan has been meticulously developed in adherence to the following updated codes and regulations applicable in Beaumont, Alberta, Canada:

- 1. National Building Code 2023 Alberta Edition (NBC(AE)): This code establishes requirements for design and construction to ensure safety, health, accessibility, and sustainability in buildings.
- 2. Alberta Building Code: This code provides specific standards for building construction and renovation within Alberta, including provisions for HVAC systems.
- 3. City of Beaumont Objective Design Standards: These standards outline design expectations for developments within Beaumont, ensuring that HVAC installations align with the city's aesthetic and functional guidelines.
- 4. Safety Codes Act This act governs the administration and enforcement of safety codes in Alberta, including those related to HVAC systems, ensuring public safety and compliance.

By integrating these codes and standards, this HVAC Layout Plan aims to provide a safe, efficient, and compliant heating, ventilation, and air conditioning system for the proposed project.

KEYNOTES

- ALL DUCTWORK TO BE RUN IN JOIST SPACE WHERE POSSIBLE AND IN BULKHEADS BELOW JOISTS WHERE REQUIRED. DUCTWORK TO BE RUN HIGH AS POSSIBLE TO ALLOW FOR MAXIMUM CEILING HEIGHT. (TYP.)
- 2 E/A DUCT C/W 2" THERMAL INSULATION AND B.D.D TO WALL CAP. (TYP.)
- ALL SUPPLY AIR DUCT TAKEOFFS TO BE C/W BALANCING DAMPERS. (TYP.)
- WASHROOM EXHAUST FAN TO BE DESIGNATED PRINCIPAL EXHAUST FAN. PROVIDE MANUAL SWITCH ADJACENT TO FURNACE THERMOSTAT CLEARLY MARKED "VENTILATION FAN". PRINCIPAL EXHAUST FAN TO BE INTERLOCKED WITH MANUAL WALL SWITCH, MOTORIZED DAMPER SERVING FURNACE OUTSIDE AIR INTAKE, AND FURNACE FAN.
- 6"¢ O/A DUCT FROM WALL CAP C/W BALANCING DAMPER, BIRD SCREEN, 2" THERMAL INSULATION, AND NORMALLY OPEN MOTORIZED DAMPER. O/A TO BE CONNECTED TO FURNACE R/A PLENUM. ENSURE O/A IS CONNECTED TO R/A PLENUM MIN. 10' FROM FURNACE FAN. MAINTAIN MIN. 10' CLEARANCE FROM BUILDING EXHAUST OUTLETS ON EXTERIOR. MOTORIZED DAMPER TO BE LOCATED IN MECH ROOM. MAINTAIN PROPER CLEARANCE FOR ACCESS.
- 4"Ø DRYER EXHAUST DUCTWORK C/W 1" THERMAL INSULATION FOR ENTIRE LENGTH. DRYER DUCT TO TERMINATE THROUGH GOOSENECK ON ROOF C/W BACK DRAFT DAMPER. DUCTWORK TO BE CONSTRUCTED OF SMOOTH CORROSION—RESISTANT MATERIAL AND NOT BE SECURED WITH FASTENERS PROTRUDING INTO THE DUCT.
- CEILING JOIST SPACE AND WALL STUD SPACE
 ABOVE TO BE USED FOR FURNACE RETURN AIR.
 SEE DETAIL DWG. M6.0
- 8 R/A DUCT TO RUN BETWEEN WALL STUDS. SEE DETAIL DWG. M6.0
- COMBUSTION AIR AND VENT SERVING FURNACE TO TERMINATE THROUGH ROOF. PROVIDE ULC \$636 CERTIFIED VENT AND COMBUSTION AIR. ENSURE VENT SIZING MEETS MANUFACTURER REQUIREMENTS. FITTINGS TO USE ONLY LONG RADIUS ELBOWS. VENT AND COMBUSTION AIR TO BE C/W CONDENSATE DRAIN. CONDENSATE DRAIN TO BE C/W NEUTRALIZER KIT, INDIRECTLY CONNECTED INTO FLOOR DRAIN. ENSURE TERMINATION IS AS PER MANUFACTURER REQUIREMENTS. PROVIDE VENT SPACING AS PER MANUFACTURER REQUIREMENTS. LOCATE VENT TERMINATIONS AS PER REQUIREMENTS OF CAN/CSA B149.1
- COMBUSTION AIR AND VENT UP THROUGH THIRD FLOOR IN ARCHITECTURAL SHAFT. SEE
 ARCHITECTURAL FOR DETAILS. PROVIDE MIN. 2"
 THERMAL INSULATION FOR VENT AND COMBUSTION AIR THROUGH ATTIC SPACE. TERMINATIONS TO BE THROUGH ROOF.
- 4"ø S/A DUCT DOWN TO STAIRWELL BELOW.
 PROVIDE ARCHITECTURAL SHAFT DOWN WHERE REQUIRED.





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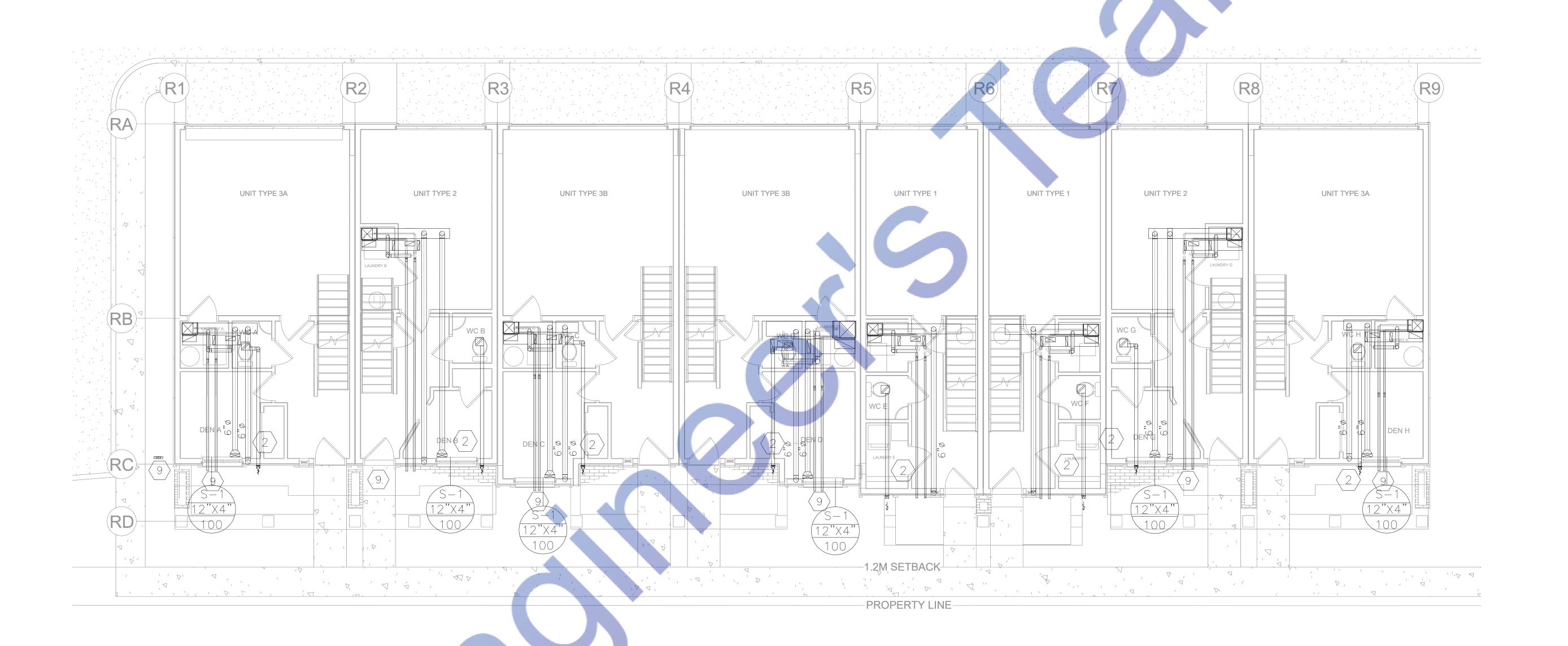
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9 COLONIALE WAY DEVELOPMENT
BEAUMONT, ALBERTA

PROPOSED HVAC PLAN





RESIDENTIAL BLDG-1 LEVEL-1 PROPOSED HVAC LAYOUT

SCALE: 3/16" = 1'-0"

me Consultant

VIRDI
ENGINEERING

Insultant

MILLBREE
ARCHITECT ART AND DESIGN
MILLBREE.CA 780.807.2294

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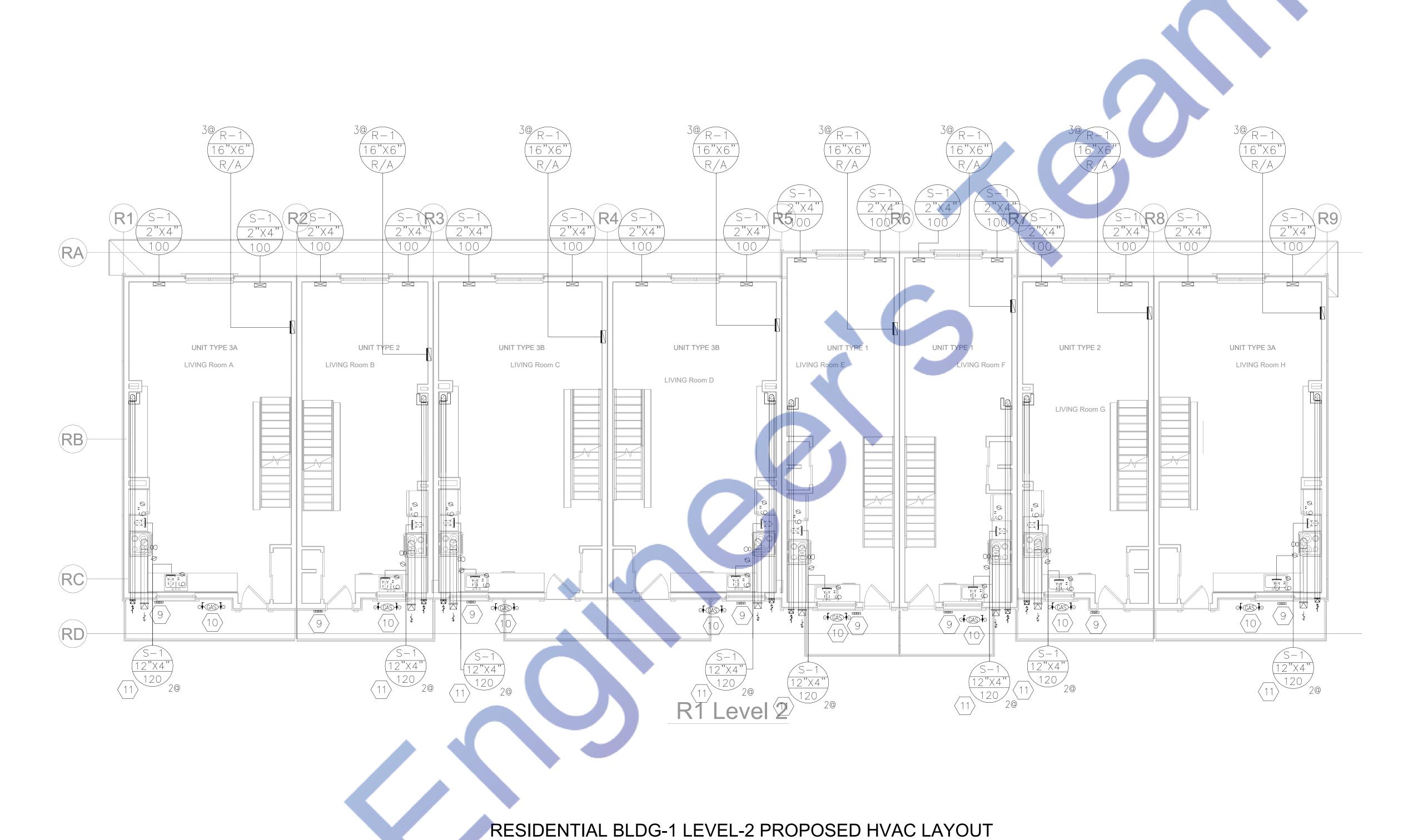
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9 COLONIALE WAY DEVELOPMENT
BEAUMONT, ALBERTA

PROPOSED HVAC PLAN FOR LEVEL-1

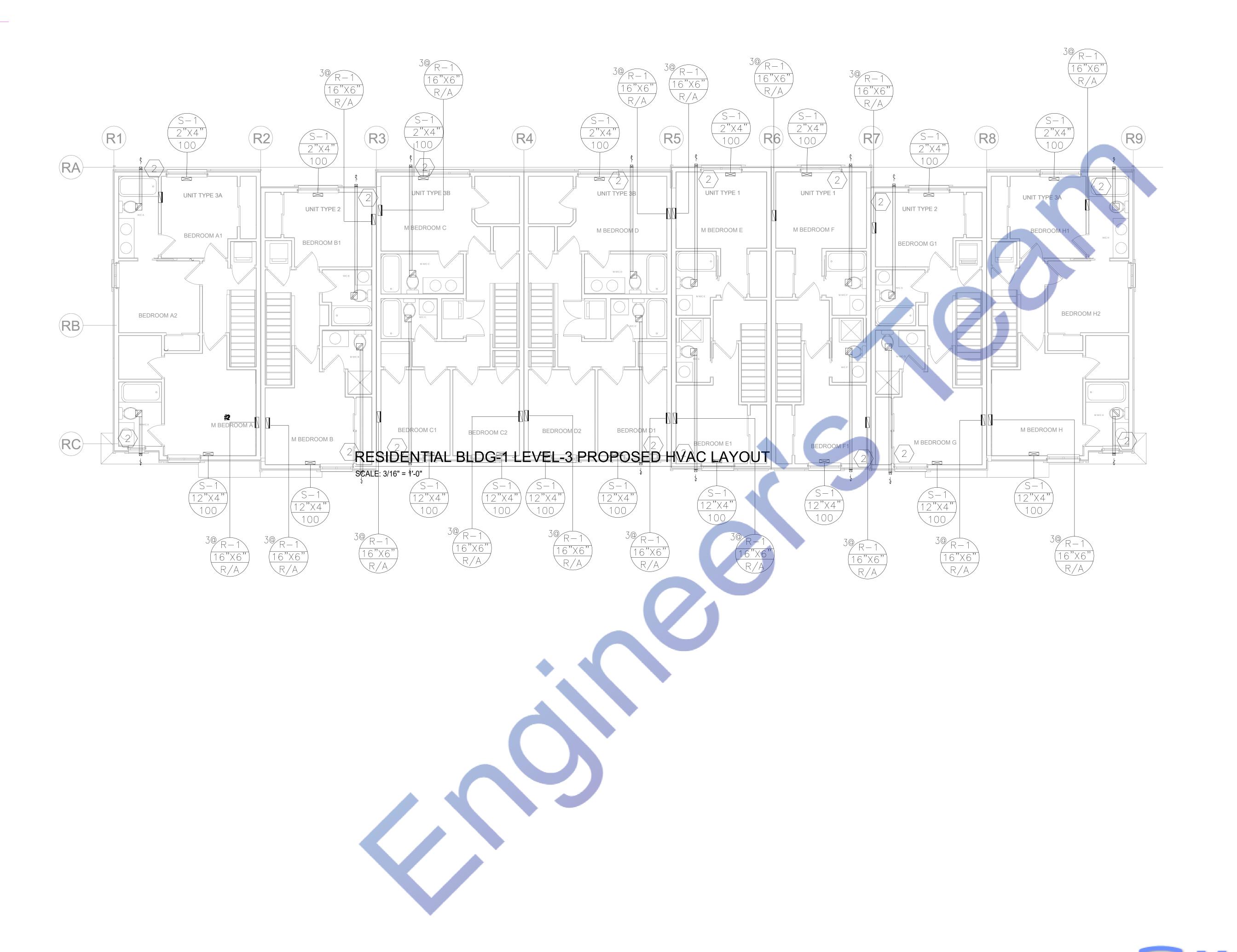


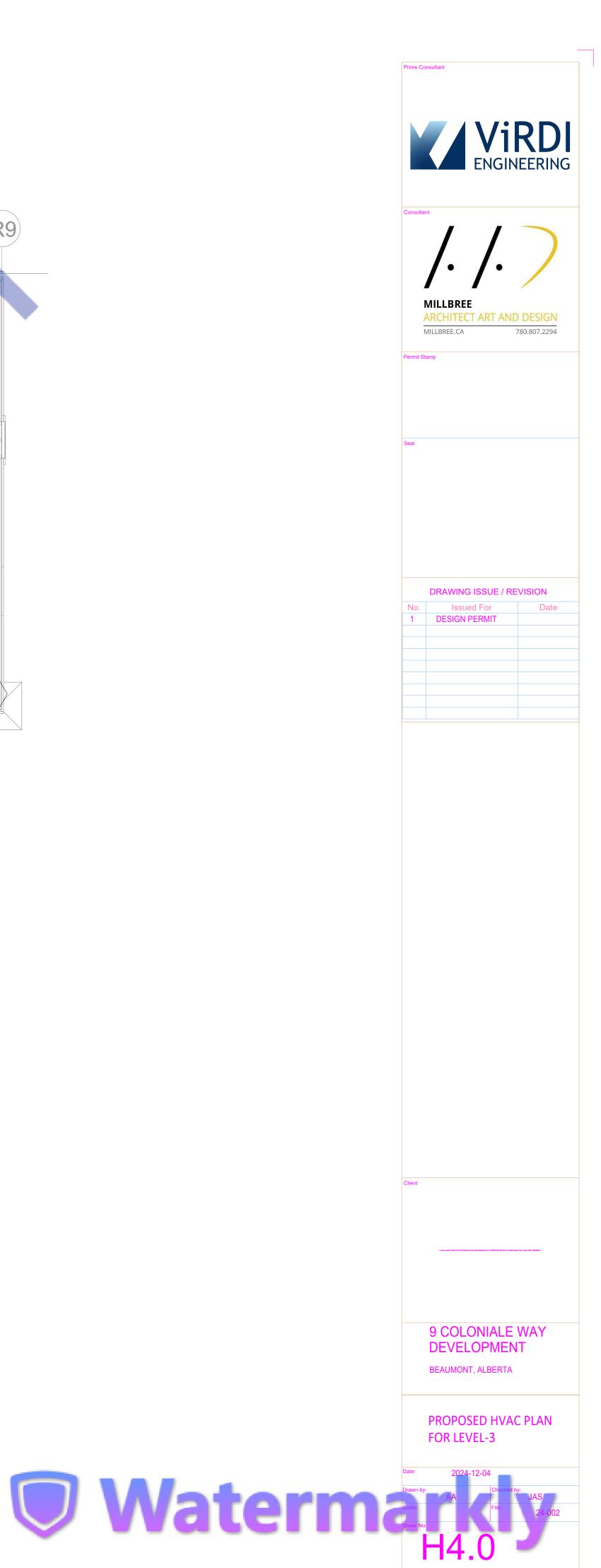


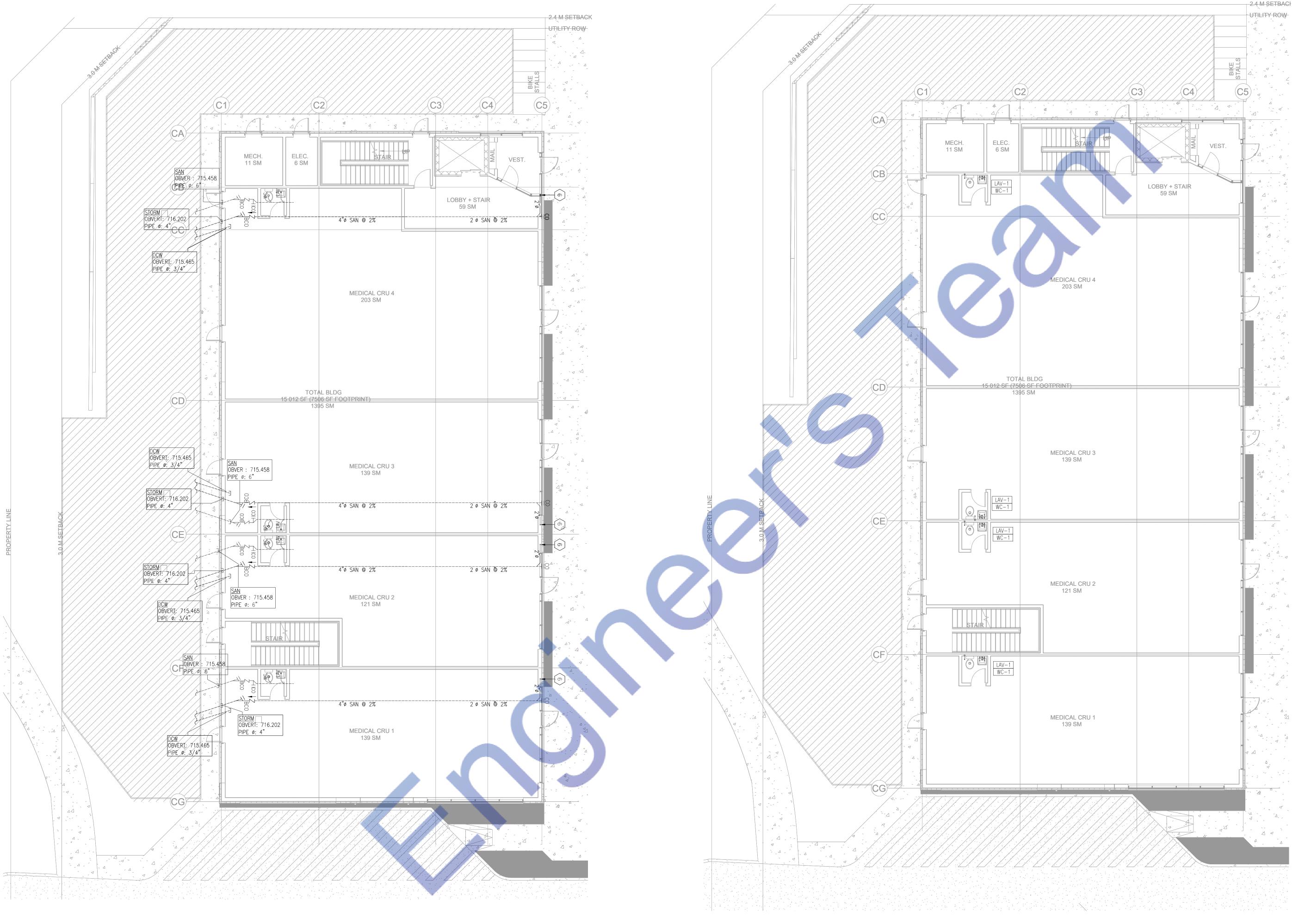
SCALE: 3/16" = 1'-0"

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> PROPOSED HVAC PLAN FOR LEVEL- 2





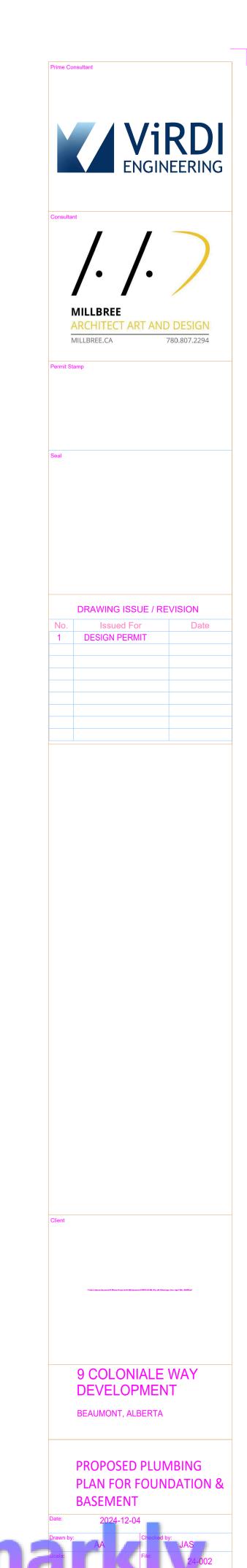


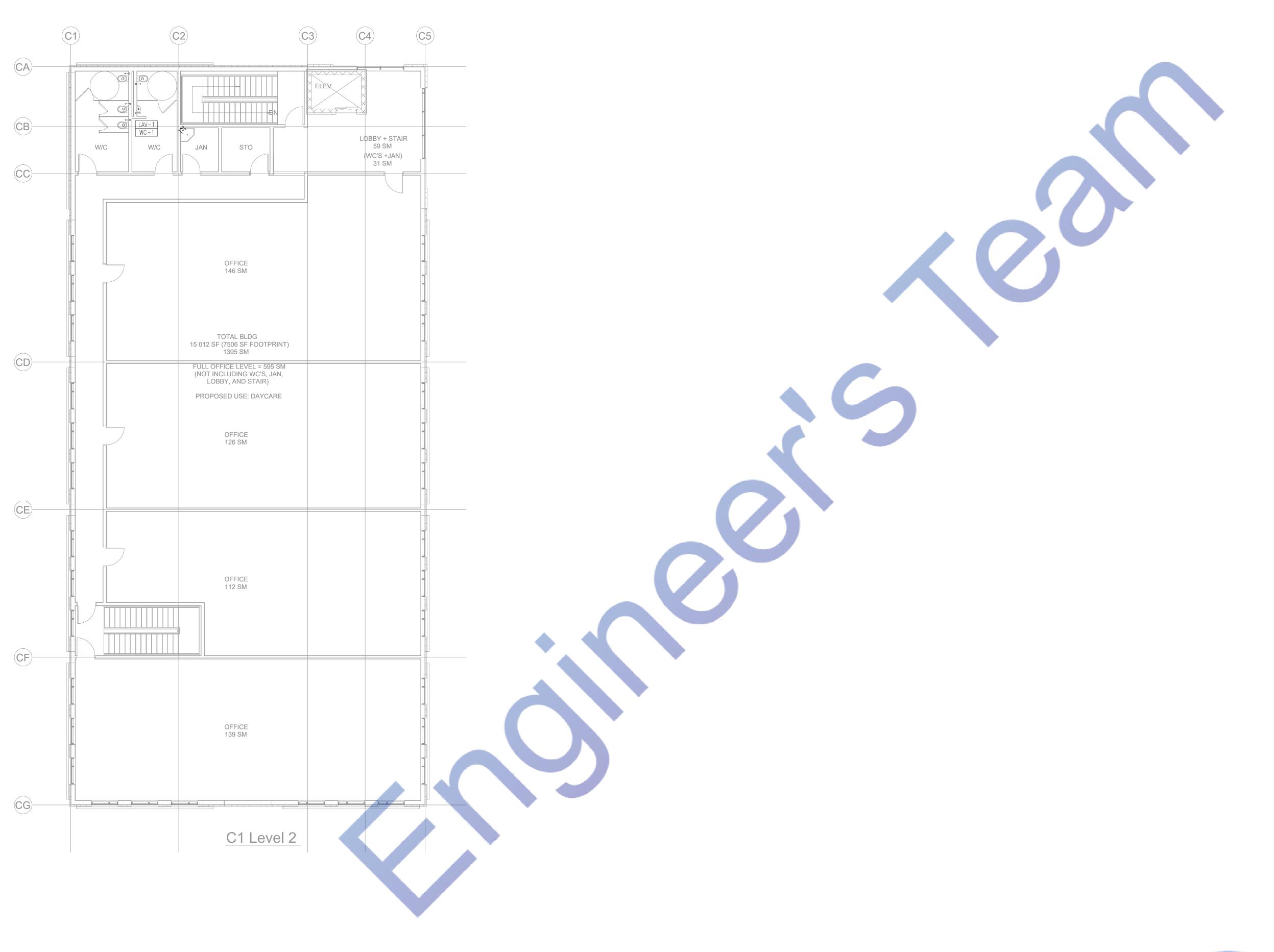
ELLARI PLACE CRU BLDG FOUNDATION PROPOSED PLUMBING PLAN

SCALE: 3/16" = 1'-0"

ELLARI PLACE CRU BLDG LEVEL-1 (BASEMENT) PROPOSED PLUMBING PLAN

SCALE: 3/16" = 1'-0"





ELLARI PLACE CRU BLDG LEVEL-2 PROPOSED PLUMBING PLAN

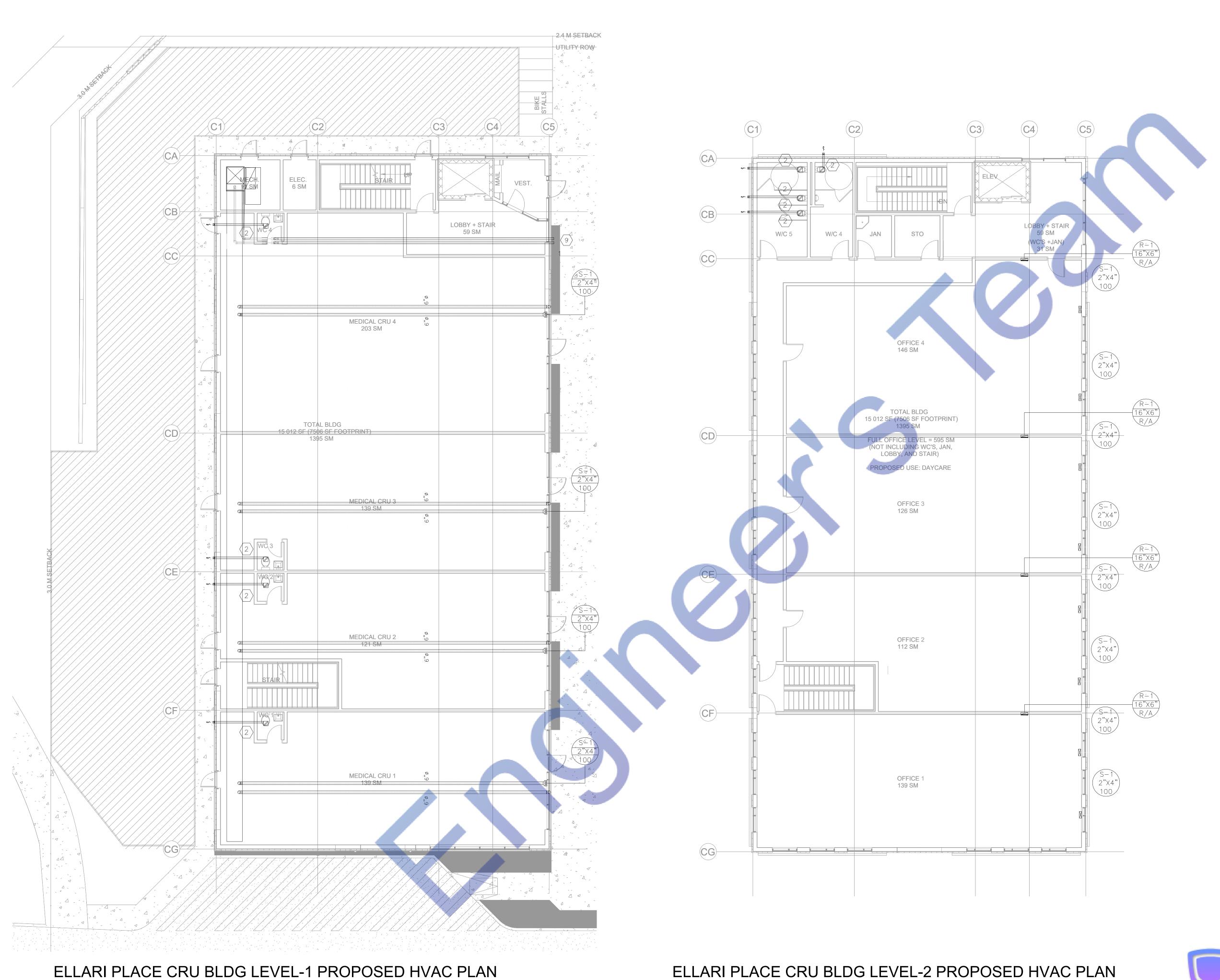
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Drawn by: AA Checked by: JAS

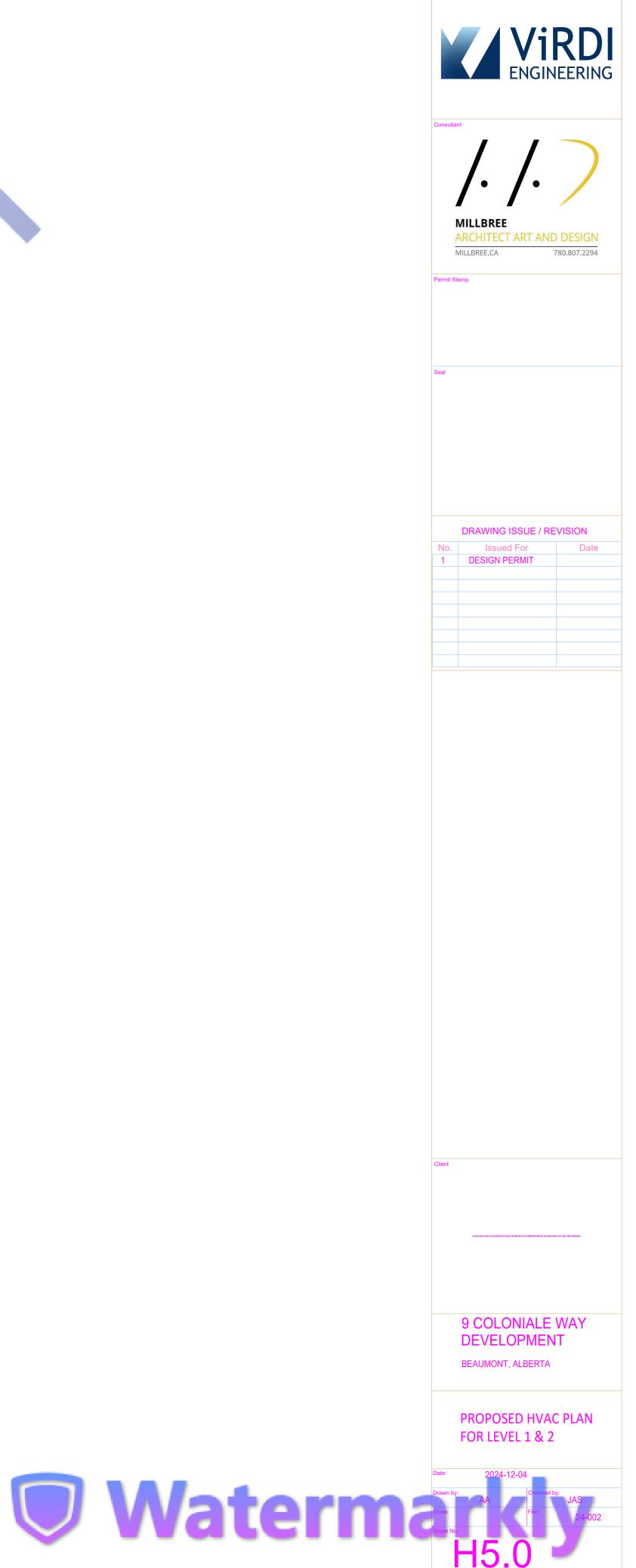
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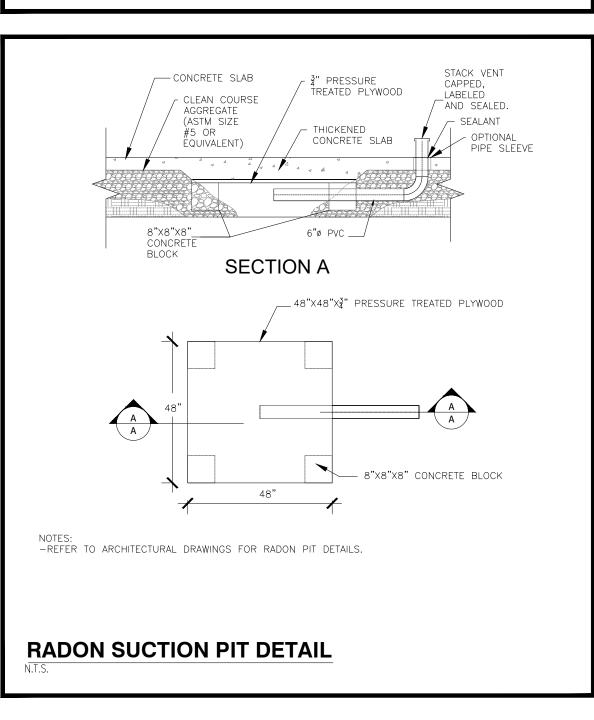
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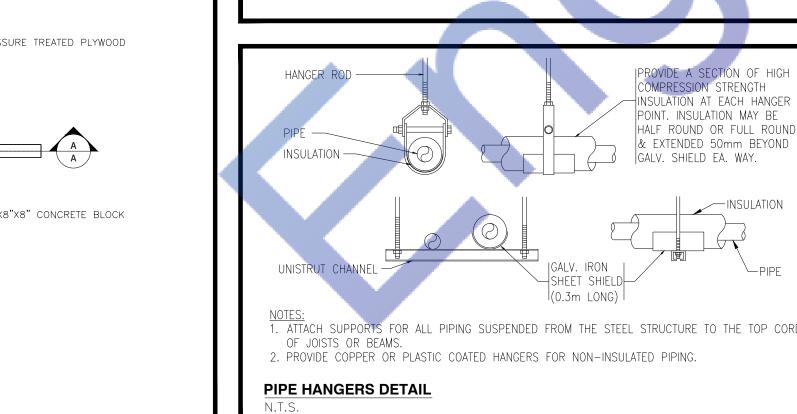


SCALE: 3/16" = 1'-0"

ELLARI PLACE CRU BLDG LEVEL-2 PROPOSED HVAC PLAN SCALE: 3/16" = 1'-0"







AIR FLOW 15° OR LESS

DAMPER

VENT LINE

WALL -

FULL RADIUS ELBOW

TAKE-OFF

<u>CONTRACTION</u>

TURNING VANES

90° ELBOW TAKE-OFF

<u>use only in areas</u>

WHERE SPACE IS LIMITED

DAMPER

/ FIXTURE

MOINU —

CLEAN OUT INSTALLED AT BASE OF

- ALL SINK & LAVATORY DRAINS AND

/ OR VENT LINES WHEN EXPOSED.

ESCUTCHEON PLATE SCREWED TO

PROVIDE A CHROME PLATED

Mr TRAP

<u>EXPANSION</u>

SHORT RADIUS

<u>FULL RADIUS</u>

TRANSFORMATION

NO THROAT RADIUS

SUPPLY OR RETURN WYE

1−1/4"ø DCW

(RECTANGULAR DUCT)

RETURN AIR BRANCH

TYPICAL DUCTWORK DETAILS

T-1

UNION —

P.R.V.

|DWH-1|

TO DRAIN TYPICAL

└ 6" MIN.

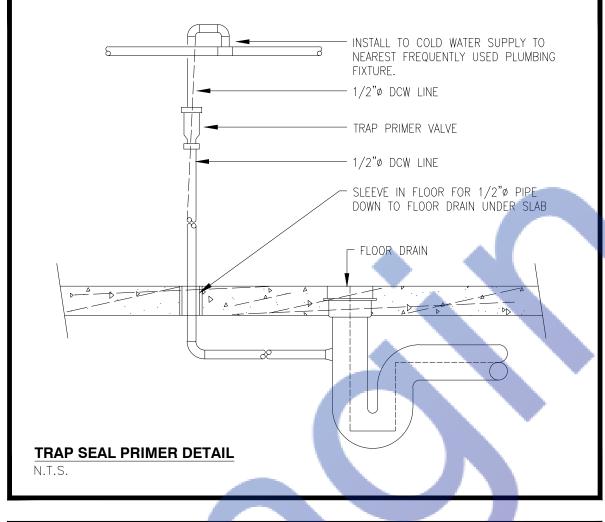
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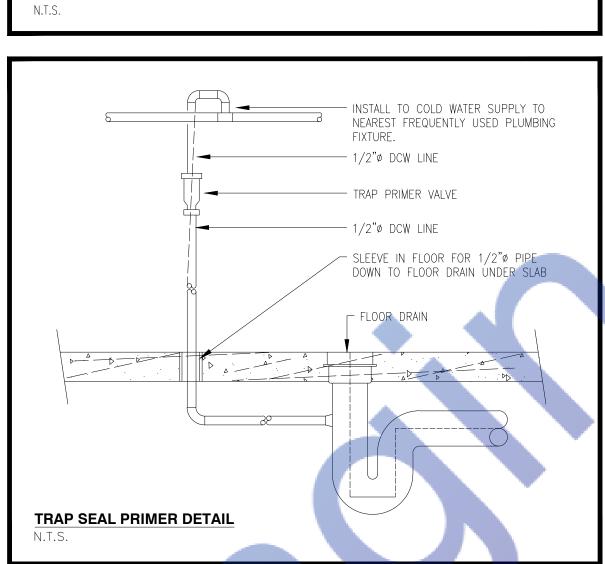
EXPANSION

THERMOMETER

TANK.

DOMESTIC WATER HEATER PIPING DETAIL

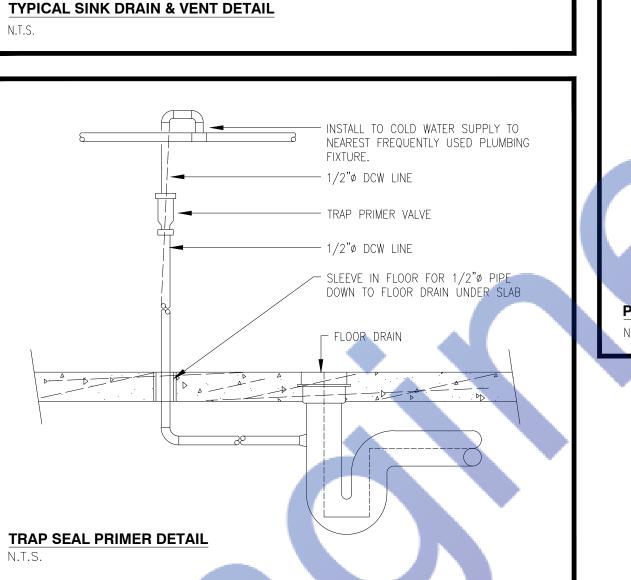


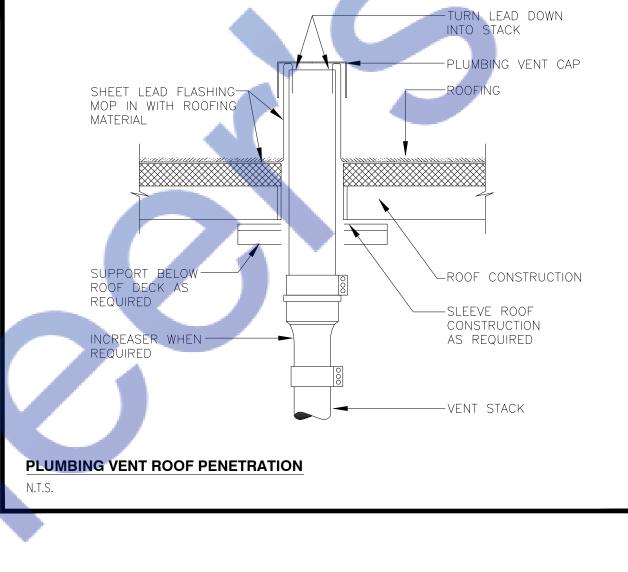


SLAB

-MINIMUM 2" DRAIN LINE AND/OR

VENT UNDER FLOOR SLAB.





DUCT TAKE-OFF

TO DIFFUSERS

BALANCING DAMPER

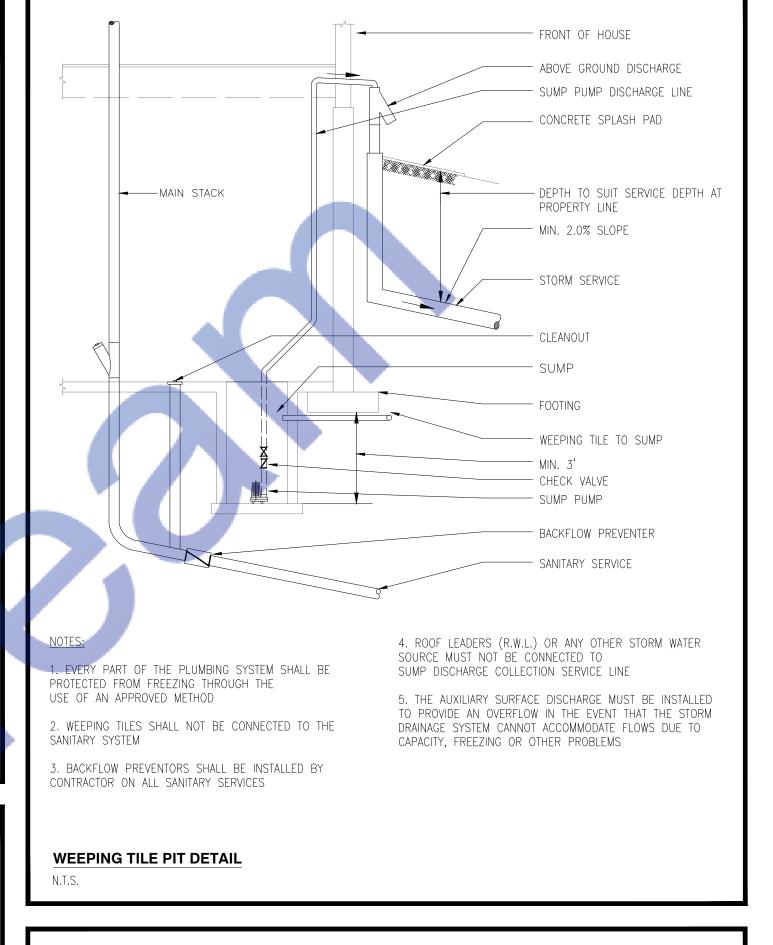
- ROUND DUCT_TAKE-OFF

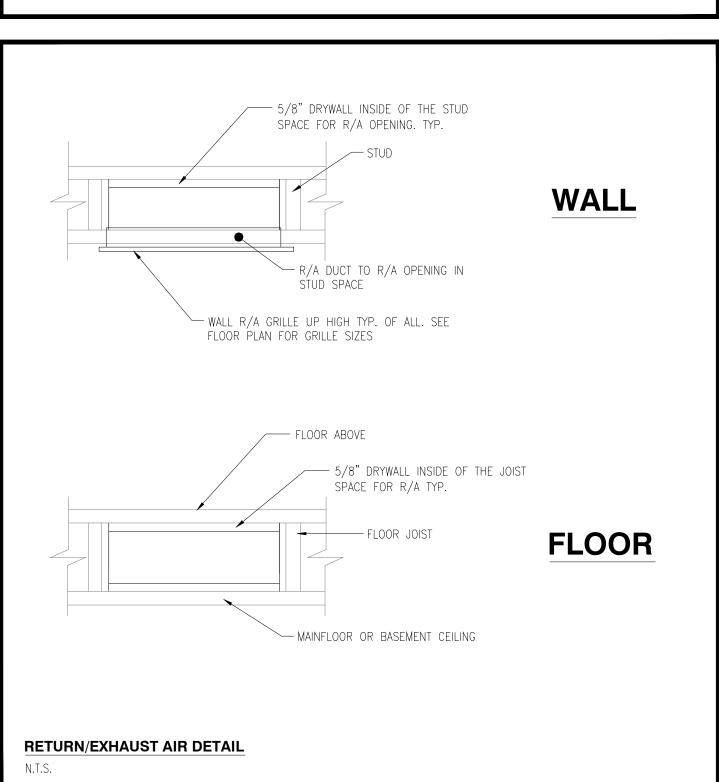
MAIN LOW VELOCITY DUCT -

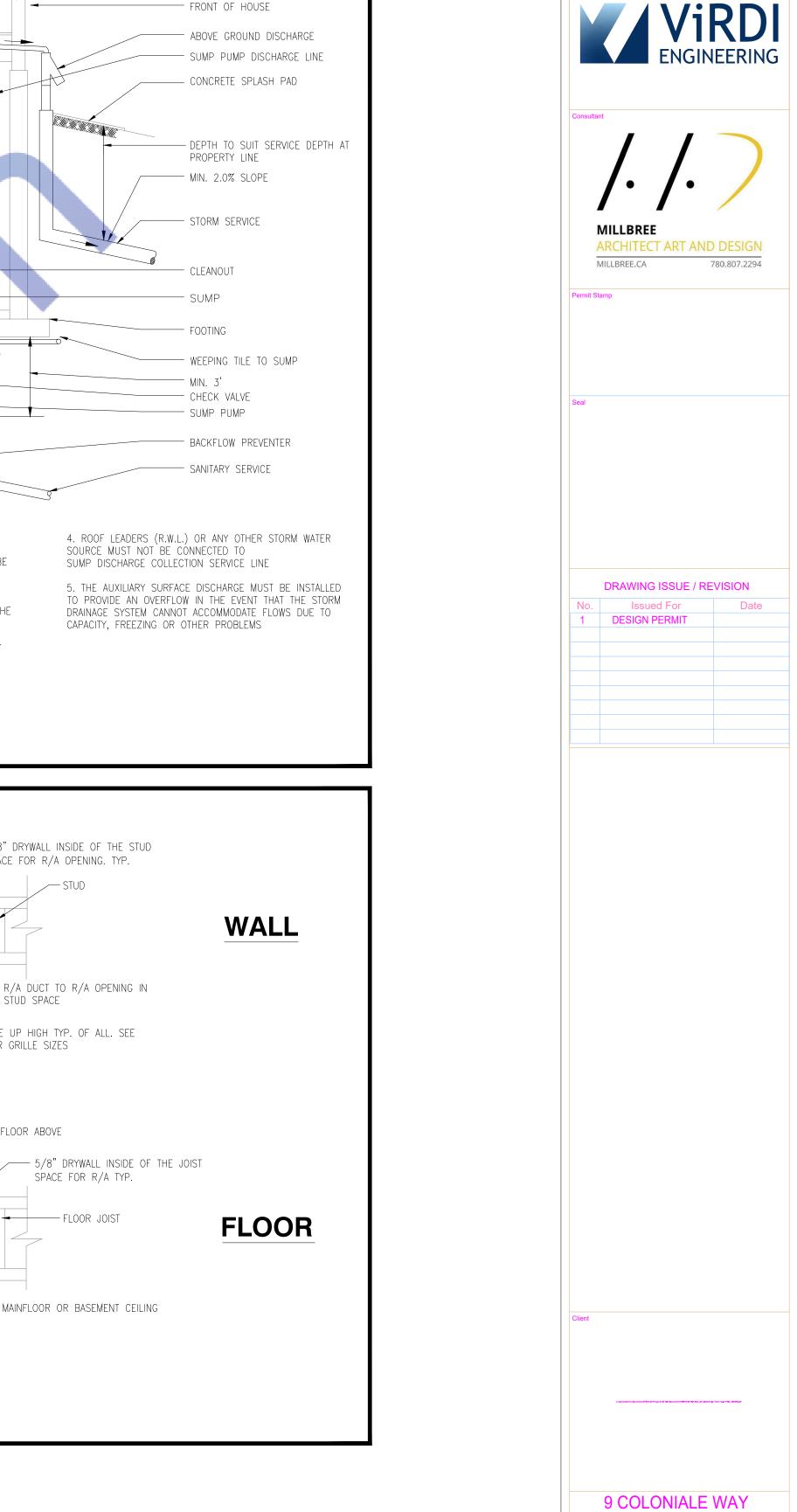
RECTANGULAR DUCT TAKE-OFF DETAIL

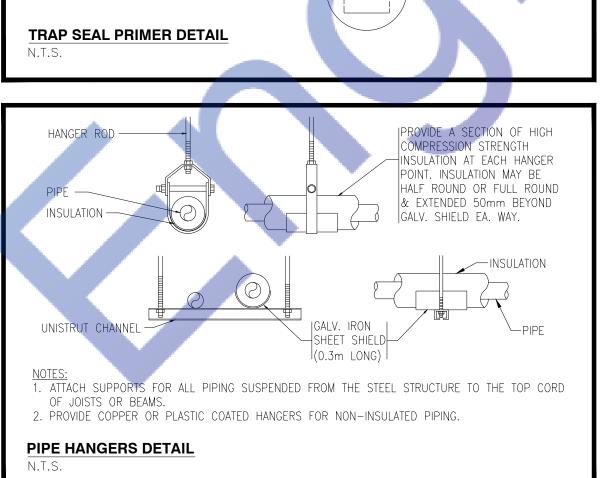
RECTANGULAR TO ROUND DUCT TAKE-OFF DETAIL

MAIN LOW VELOCITY DUCT -











DEVELOPMENT

BEAUMONT, ALBERTA

MECHANICAL EQUIPMENTS SCHEDULE NOTES:

REFER TO MANUFACTURER'S RECOMMENDATIONS FOR MECHANICAL EQUIPMENTS INSTALLATION DETAILS.

CONFIRM ELECTRICAL REQUIREMENTS WITH ELECTRICAL ENGINEER PRIOR TO ORDER ANY MECHANICAL EQUIPMENT. SUBMIT SHOP DRAWINGS TO MECHANICAL ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ORDER ANY MECHANICAL EQUIPMENT.

FURNACE SCHEDULE

				AIR		NATURAL G	AS HEATING		COOLI	NG	ELEC	TRICAL		
TAG	MAKE	MODEL	S/A (CFM)	O/A (CFM)	ESP	INPUT (MBH)	OUTPUT (MBH)	EFFICIENCY (AFUE)	NOM. COOLING (TON)	TYPE	MOCP	V/PH/HZ	WEIGHT (Ibs.)	REMARKS
FU-1	LENNOX	ML196UH090XE36C	1200	180	0.5	88	85.6	96	3.0	R-410a	15	120/1/60	142	PROVIDE ULC S636 CERTIFIED, 3"Ø VENT AND COMBUSTION AIR. INDIRECTLY CONNECT CONDENSATE DRAINS TO FLOOR DRAIN C/W NEUTRALIZER KIT. PROVIDE 7-DAY PROGRAMMABLE HEAT/COOL THERMOSTAT.

FAN SCHEDULE

TAO	MAKE	MODEL	AIR CAP.	EXT. S.P.	FAN	COME	l V	10TORS	DELWD/C
TAG	MAKE	MODEL	(CFM)	W.C.	RPM	SONE	HP	V/ø/Hz	REMARKS
EF-1	GREENHECK	SP-LP0810W	50	0.5	714	2.0	FRAC.	115/1/60	RECESSED CEILING MOUNTED EXHAUST FA C/W BDD. INTERLOCK WITH LIGHTS. PROVIDE 4" DUCT TO EXTERIOR C/W BACK DRAFT DAMPER AND 2" THERMAL INSULATION FOR 10' FROM EXTERIOR.
EF-2	GREENHECK	SP-LP0810W	50	0.5	714	2.0	FRAC.		PRINCIPLE EXHAUST FAN. PROVIDE MANUAL SWITCH ADJACENT TO FURNACE THERMOSTAT CLEARLY MARKED "VENTILATION FAN". PRINCIPAL EXHAUST FAN TO BE INTERLOCKED WITH MANUAL WALL SWITCH, MOTORIZED DAMPER SERVING FURNACE OUTSIDE AIR INTAKE, AND FURNACE FAN. INTERLOCK WITH WASHROOM LIGHTS. PROVIDE 4" DUCT TO EXTERIOR C/W BACK DRAFT DAMPER AND 2" THERMAL INSULATION FOR 10' FROM EXTERIOR.
KEF-1	BROAN	BXT130SSC	250	0.1	-	7.0	FRAC.	120/1/60	30" UNDER CABINET MOUNTED KITCHEN EXHAUST FAN. TO BE FACTORY FINISHED STAINLESS STEEL. RANGE HOOD SELECTION TO BE APPROVED BY ARCHITECT PRIOR TO PURCHASE. TYP.

NOTE: EACH EXHAUST FAN IS TO BE COMPLETE WITH BACKDRAFT DAMPER (B.D.D.) UNLESS OTHERWISE NOTED

ELECTRIC DOMESTIC WATER HEATER SCHEDULE

TAG	MAKE	MODEL	STORAGE CAPACITY (GAL)	FIRST HOUR RATING (GAL)	ELECTRIC HEATER CAPACITY [kW]	V/ø/Hz	REMARKS
DWH-	1 BRADFORD WHITE	RE280T6	76	75	4.5	240/1/60	

TANK SCHEDULE

7 11 (11) 0 0 1 1							
TAC	MAKE	MODEL	TANK VOLUME	ACCEPTANCE VOLUME	SIZ	ZE	MARKS
TAG		MIODEL	US GAL	US GAL	DIAMETER	HEIGHT	
T-1	AMTROL	ST-12C	6.4	3.2	12"	14"	DOMESTIC HOT WATER EXPANSION TANK.

PUMP SCHEDULE

TAG	MAKE	MODEL	CAPACITY (GPM)	HEAD (ft.)	HOUSING	IMP.	SHAFT	SEAL	HP	MOTOR RPM	S REMARKS V/PH/HZ
SP-1	MYERS	ME40A-11	20	25	CAST IRON	-	-	-	FRAC.	1650	WEEPING TILE SUMP PUMP C/W FLOATS, HIGH LEVEL ALARM, AND SIMPLEX CONTROLLER. PROVIDE FIBER GLASS PIT, 115/1/60 24" Ø X 60" DEPTH C/W ANTI FLOTATION COLLAR AND STEEL SEALED LID. SEE ARCH. DWGS. FOR WEEPING TILE LAYOUT

DIFFUSERS, GRILLES & REGISTERS SCHEDULE

	,			
TAG	MANUFACTURER	MODEL	DESCRIPTION	REMARKS
S-1	E.H. PRICE	=	RESIDENTIAL SUPPLY GRILLE	1,2
R-1	F H PRICE	_	RESIDENTIAL RETURN GRILLE	1.2

NOTES: 1. DIFFUSER TO FINISH COLOURS. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS.

- 2. DIFFUSER/GRILLE SIZE SHOWN ON DRAWINGS. <u>GENERAL NOTES:</u>
 - PROVIDE BALANCING DAMPERS AT ALL TAKE-OFF FITTINGS.
- PROVIDE 90° ELBOW OR 12" MIN OF PIPE AT EACH DIFFUSER OR GRILLE CONNECTION.
 ALL RETURN AND EXHAUST GRILLES SHALL BE COMPLETE WITH HINGED ACCESS FOR CLEANING.
- PROVIDE DRYWALL FRAMES FOR ALL DIFFUSERS AND GRILLES MOUNTED IN DRYWALL CEILING SYSTEMS.

PLUMBING FIXTURE SPECIFICATIONS

Plumbing Fixtures: (To be APPROVED by owner and Architect)

OWNER SUPPLIED.

OWNER SUPPLIED.

| WB-1 WASHER BOX

OATEY ELIMINATOR® DRAIN WASHING MACHINE OUTLET BOXES SHALL BE USED IN COMMERCIAL OR RESIDENTIAL APPLICATIONS WHICH REQUIRE SUPPLY VALVES AND WASTE DRAIN RECESSED INTO THE WALL AND AN ADDITIONAL DRAIN PORT IS NEEDED. ALLOWS SINGLE CONNECTION TO DRAIN WASHING MACHINE HOSE AND AC CONDENSATE, WATER SOFTENER DISCHARGE AND/OR HUMIDIFIER LINES. TOP MOUNT ELIMINATOR BOX ALLOWS FOR DRAIN CONNECTION ON THE RIGHT AND SUPPLY LINES FROM THE TOP LEFT. BOTTOM MOUNT ELIMINATOR BOX ALLOWS FOR DRAIN CONNECTION ON THE RIGHT AND SUPPLY LINES FROM THE BOTTOM LEFT. AVAILABLE WATER HAMMER ARRESTOR OPTION PROVIDES WATER PRESSURE SHOCK ARRESTORS REQUIRED FOR INSTALLATION ON SUPPLY LINES TO QUICK CLOSING VALVES. SINGLE DRAIN WITH TWO PORTS DESIGNED TO ACCOMMODATE ADDITIONAL DRAIN LINES. SNAP-IN CLAMP STABILIZES ADDITIONAL LINES

WATTS MODEL: FD-100-C-A CAST IRON BODY WITH FLASHING COLLAR AND 5" DIAMETER HEAVY DUTY ADJUSTABLE STRAINER HEAD, REVERSIBLE FLASHING CLAPM WITH SEEPAGE OPENING, 4" DRAIN CONNECTION AND 1/2" TRAP PRIMER CONNECTION.

CO FLOOR CLEANOUT

WATTS MODEL CO-200-R EPOXY COATED CAST IRON CLEANOUT WITH 5-1/8" (130)ROUND ADJUSTABLE NICKEL BRONZE (STANDARD) TOP AND NO HUB CONNECTION

PROVIDE WATER HAMMER ARRESTORS ON HOT AND COLD WATER SUPPLIES TO ALL QUICK VALVES, SOLENOIDS AND PLUMBING FIXTURES, LOCATE IN AN UPRIGHT POSITION BETWEEN THE LAST FIXTURE ON ALL LINES. MIFAB SERIES HAMMERGUARD ARRESTORS OR P.P.P INC. SERIES SC WITH BRASS PISTON IN A TYPE K COPPER CASING.

ALL BRASS WITH INTEGRAL VACUUM BREAKER, NPS 1/2 SOLDER ENDS, NPS 1/2 DRIP LINE CONNECTION, INSTALL FOR ALL FLOOR DRAINS. INSTALL FOR ALL FLOOR DRAINS. INSTALL COLD WATER SUPPLY TO NEAREST FREQUENTLY USED PLUMBING FIXTURE, IN CONCEALED SPACE TO APPROVAL OF ENGINEER. INSTALL SOFT COPPER TUBING TO FLOOR DRAIN. ACCEPTABLE MATERIAL: P.P.P INC., MIFAB

- INSTALL EACH FIXTURE WITH ITS OWN TRAP, EASILY REMOVABLE FOR SERVICING AND CLEANING. AT COMPLETION THOROUGHLY CLEAN PLUMBING FIXTURES AND EQUIPMENT.
- PROVIDE CHROME PLATED RIGID OR FLEXIBLE SUPPLIES TO FIXTURES WITH SCREWDRIVER STOPS, REDUCERS AND ESCUTCHEONS.
- INSTALL WALL MOUNTED LAVATORIES, URINALS AND WATER CLOSETS WITH APPROVED WALL CARRIERS, MODEL TO SUIT INSTALLATION. 4. MOUNT FIXTURES THE FOLLOWING HEIGHTS ABOVE FINISHED FLOOR:

WATER CLOSET: STANDARD 380 mm TO TOP OF BOWL RIM. HANDICAPPED 450 mm TO TOP OF SEAT.

STANDARD 550 mm TO TOP OF BOWL RIM. HANDICAPPED 480 mm TO TOP OF BOWL RIM. STANDARD 780 mm TO TOP OF BASIN RIM.

6 INSTALL HOSE AND FAUCETS AND HOSE CONNECTIONS WITH VACUUM BREAKERS.

HANDICAPPED 800 mm TO TOP OF BASIN RIM. 5 SOLIDLY ATTACH FLOOR MOUNTED WATER CLOSETS TO FLOOR WITH LAG SCREWS. LEAD FLASHING SHALL NOT HOLD CLOSET IN PLACE.

ARCHITECT ART AND DESIGN

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9 COLONIALE WAY DEVELOPMENT BEAUMONT, ALBERTA

DETAILS



