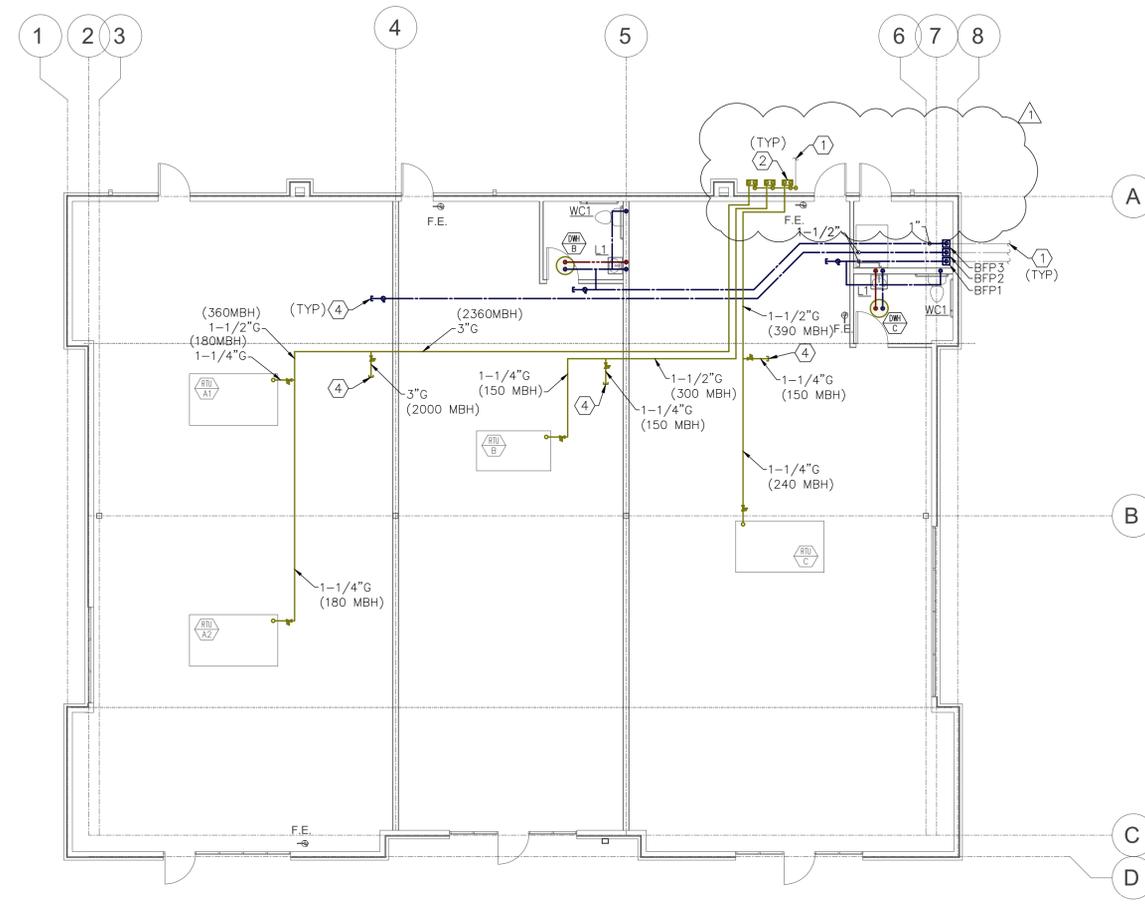
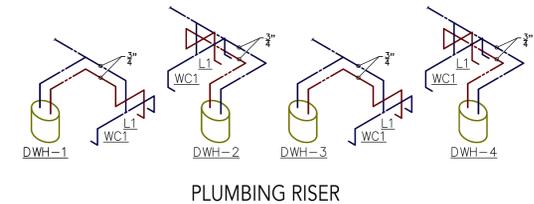
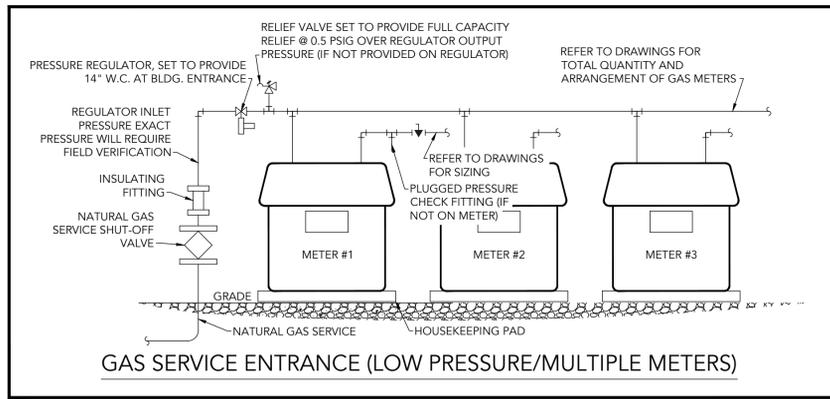


PLUMBING FIXTURE SCHEDULE											
MARK	FIXTURE TYPE	MINIMUM CONNECTION SIZE				MARK	FIXTURE TYPE	MINIMUM CONNECTION SIZE			
		WASTE	VENT	DCW	DHW			WASTE	VENT	DCW	DHW
WC1	WATER CLOSET (ADA)	4"	2"	1/2"	-	WCO	WALL CLEANOUT	-	-	-	-
	1. KOHLER CIMARRON MODEL K-3609 A. FLUSH TANK B. FLOOR MOUNTED C. ELONGATED BOWL D. VITREOUS CHINA E. 1.28 GALLON FLUSH F. COLOR WHITE 2. KOHLER LUSTRA TOILET SEAT A. ELONGATED B. OPEN FRONT C. SOLID PLASTIC D. HEAVY DUTY E. COLOR WHITE F. TOILET SEAT COVER 3. CONTRACTOR SHALL FURNISH AND INSTALL FIXTURE PER CURRENT ADA REQUIREMENTS		1. J.R. SMITH 4472T-U A. CAST BRONZE PLUG B. STAINLESS STEEL COVER C. VANDAL PROOF SCREW D. CLEANOUT TEE E. COUNTERSUNK PLUG								
L1	LAVATORY	1-1/2"	1-1/2"	1/2"	1/2"	FCO	FLOOR CLEANOUT	-	-	-	-
	1. AMERICAN STANDARD LUCERNE 0355.12 A. 20"x18" B. WALL HUNG C. VITREOUS CHINA D. COLOR WHITE E. OVERFLOW DRAIN F. WALL CARRIER 2. SLOAN OPTIMA EBF-650 A. BATTERY OPERATED SENSOR B. CHROME PLATED C. 0.5 GPM AERATOR D. THERMOSTATIC MIXING VALVE 3. TRUEBRO "LAV SHIELD" FURNISH & INSTALL PER ADA REQUIREMENTS COMPLETE WITH SOLID BRASS STOPS/STEMS AND CHLORAMINE-CHLORINE RESISTANT WASHERS AND BRAIDED STAINLESS STEEL CONNECTORS. CAST BRASS SOLID TOP OPEN GRID P.O. PLUG WITH 6" 17 GAUGE TAILPIECE WITH CAST BRASS LOCKNUT. HEAVY CAST BRASS ADJUSTABLE P-TRAP W/ 17 GA TUBULAR WALL BEND & BRASS SLIP NUTS (ALL BRASS MATERIALS SHALL BE CHROME PLATED)		1. J.R. SMITH 4000 SERIES A. CAST IRON CONSTRUCTION B. INTERNAL TAPER BRONZE PLUG C. CAST IRON OR NICKEL BRONZE TOP PROVIDE SPECIFIC MODEL TO MATCH ASSOCIATED FLOOR TYPE.								
WH	WALL HYDRANT	-	-	3/4"	-	GCO	GRADE CLEANOUT	-	-	-	-
	1. WOODFORD B65 A. 3/4" LOOSE KEY FREEZELESS HYDRANT B. INTEGRAL ANTI-SIPHON VACUUM BREAKER/BACKFLOW PREVENTER C. 3/4" HOSE THREAD OUTLET D. ALUMINUM BOX AND DOOR E. LOOSE KEY FOR HYDRANT OPERATION F. CONTRACTOR TO VERIFY WALL THICKNESS PRIOR TO ORDERING WALL HYDRANT.		1. J.R. SMITH 4880-U A. CAST IRON CONSTRUCTION B. SCORIATED CAST IRON COVER C. VANDAL PROOF SCREWS								
BFP3	BACKFLOW PREV.	-	-	1"	-	FD	FLOOR DRAIN	2"	-	-	-
	1. WATTS LF909 A. 1" FOR DOMESTIC WATER ENTRY B. CAST COPPER SILICON BODY C. CAST COPPER SILICON TEST COCKS D. BRONZE STRAINER E. SILICON RUBBER DISCS F. MODEL 919AG AIR GAP FITTING G. PROVIDE DRAIN PIPE FROM AIR GAP FITTING TO FLOOR DRAIN WITH 1" AIR GAP AT FLOOR DRAIN.		1. J.R. SMITH 2005-A-NB A. CAST IRON CONSTRUCTION B. TWO PIECE BODY WITH FLANGE C. NICKEL BRONZE ROUND STRAINER D. INVERTABLE NON-PUNCTURING FLASHING COLLAR PROVIDE WITH RECTORSEAL SURESEAL SS2009V WATERLESS INLINE DRAIN TRAP SEAL.								
BFP1/2	BACKFLOW PREVENTER	-	-	1-1/2"	-						
	1. WATTS LF909 A. 1-1/2" FOR DOMESTIC WATER ENTRY B. CAST COPPER SILICON BODY C. CAST COPPER SILICON TEST COCKS D. BRONZE STRAINER E. SILICON RUBBER DISCS F. MODEL 919AG AIR GAP FITTING G. PROVIDE DRAIN PIPE FROM AIR GAP FITTING TO FLOOR DRAIN WITH 1" AIR GAP AT FLOOR DRAIN.										



PLUMBING FLOOR PLAN
SCALE: 1/8" = 1'-0" (36"x24" SHEET)



- PLUMBING KEYNOTES**
- REFER TO CIVIL PLANS FOR CONTINUATION.
 - NEW LOW PRESSURE GAS METER. REFER TO NATURAL GAS DETAIL FOR ADDITIONAL INFORMATION.
 - REFER TO IRRIGATION PLANS FOR CONTINUATION.
 - PROVIDE SHUT-OFF VALVE AND CAP FOR FUTURE CONNECTION.

- GENERAL PLUMBING NOTES**
- LOCATIONS, SIZES, AND QUANTITIES OF EXISTING EQUIPMENT AND PIPING ARE ESTIMATED, FIELD VERIFY EXACT LOCATIONS, SIZES, AND QUANTITIES BEFORE COMMENCING WORK. DEVIATIONS FROM CONDITIONS SHOWN ON THESE PLANS SHALL BE REPORTED TO THE ARCHITECT AND ENGINEER.
 - PLUMBING INSTALLATIONS SHALL CONFORM TO LOCAL CODES. CONSULT WITH OWNER FOR CONNECTIONS TO ANY OWNER FURNISHED EQUIPMENT.
 - PROVIDE WATER HAMMER ARRESTORS ON ALL RUNS WITH QUICK CLOSING VALVES. PROVIDE ACCESS PANELS FOR ALL VALVES AND WATER HAMMER ARRESTORS.
 - PROVIDE BALL VALVE FOR ISOLATION OF ALL DOMESTIC WATER BRANCH LINES UNLESS OTHERWISE NOTED.
 - SEE RISER DIAGRAMS FOR PIPE SIZING.

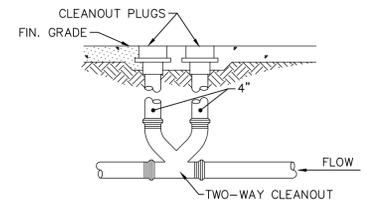
VUEngineering
www.VUEngineering.co
info@VUEngineering.co
4437 Pennsylvania Ave.
Kansas City MO 64111
MO Cert. of Authority - LC138604

NEW BUILDING FOR
SUMMIT ORCHARDS
LEES SUMMIT, MO

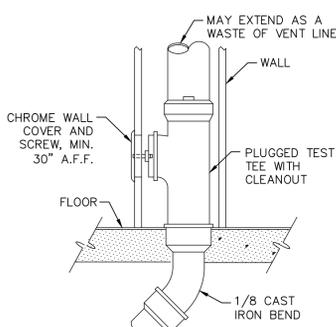


No.	Description	Date
Revision Schedule		
1	7-2-25 REVISION	
Project number	2491	
Date	05.08.2025	

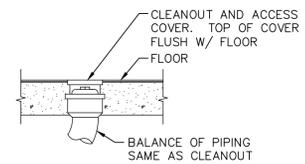
P101



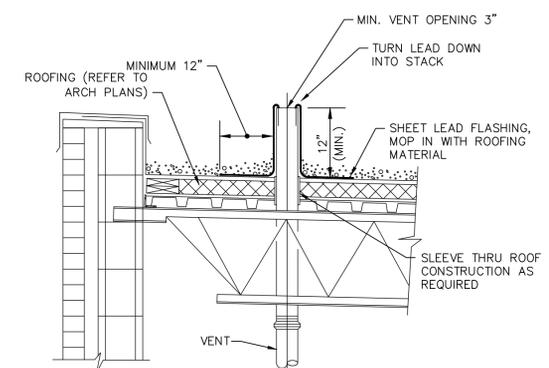
2-WAY GRADE CLEANOUT (GCO)



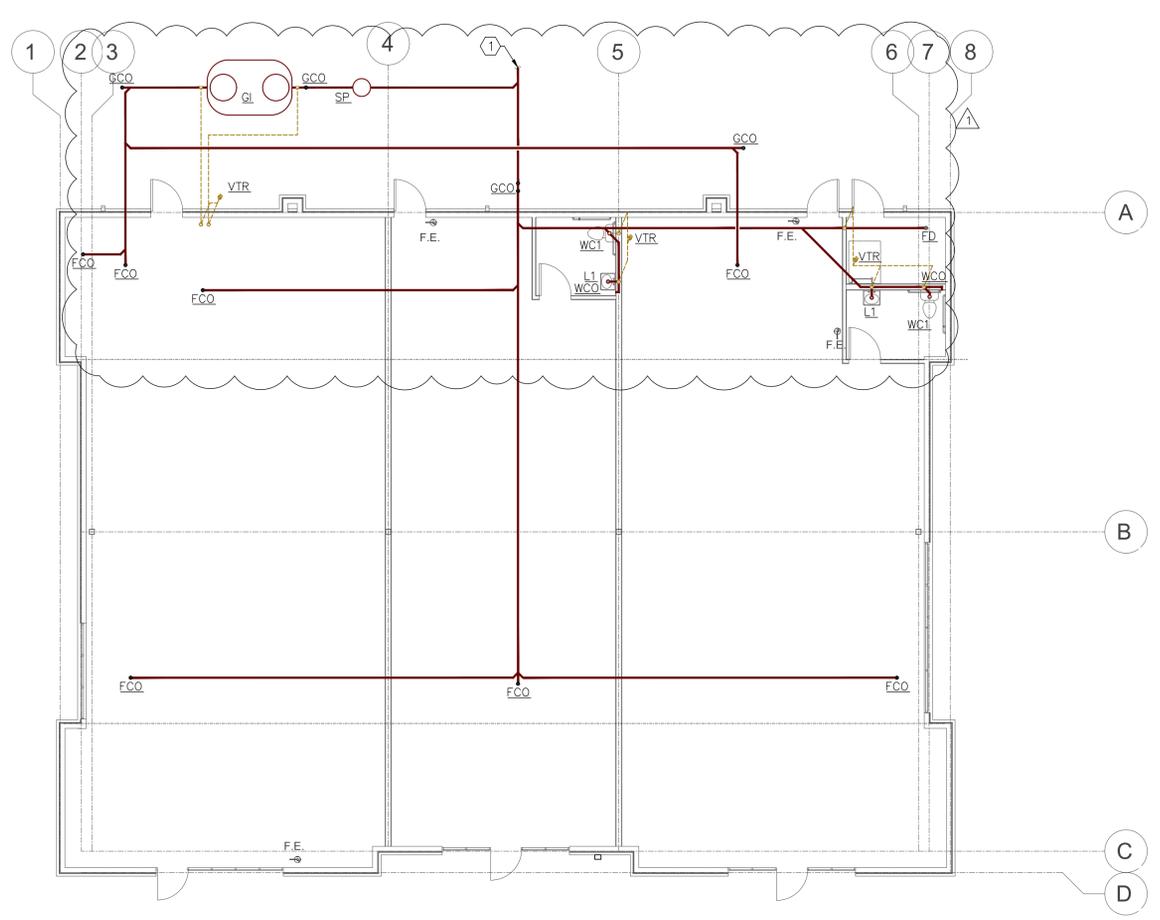
WALL CLEANOUT (WCO)



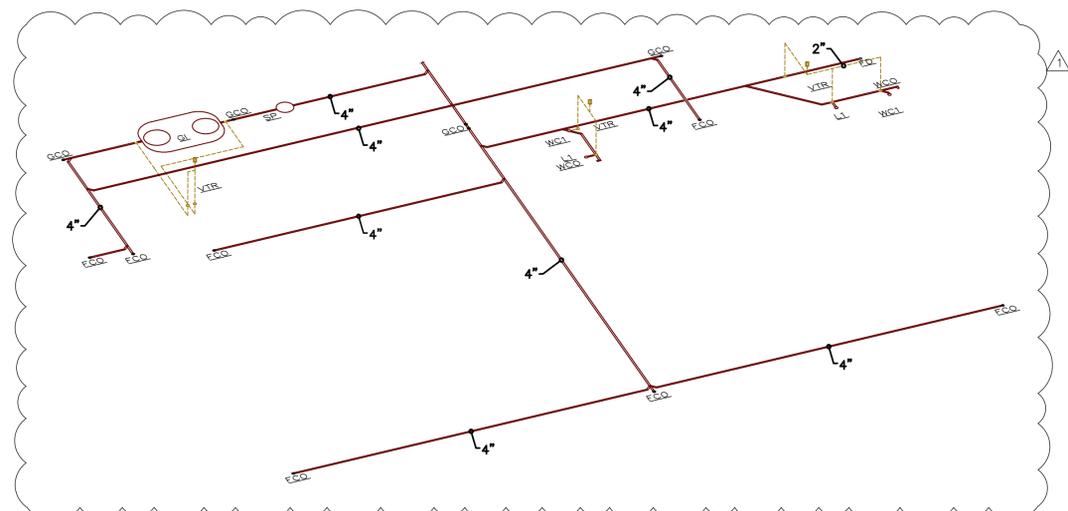
FLOOR CLEANOUT (FCO)



VENT THRU ROOF DETAIL



WASTE/VENT FLOOR PLAN
SCALE: 1/8" = 1'-0" (36"x24" SHEET)



WASTE/VENT RISER

WASTE/VENT KEYNOTES

- 1. REFER TO CIVIL PLANS FOR CONTINUATION.

GENERAL WASTE/VENT NOTES

- A. CONTRACTOR SHALL INSPECT SITE THOROUGHLY TO FAMILIARIZE THEMSELVES WITH THE AREA OF WORK. ANY DISCREPANCIES BETWEEN THESE DOCUMENTS AND ACTUAL CONDITIONS SHALL BE REPORTED TO THE ARCHITECT/ENGINEER FOR RESOLUTION PRIOR TO PRICING.
- B. ABOVE-GRADE WASTE PIPE SHALL BE RUN AT 2% GRADE. BELOW-GRADE WASTE PIPE SHALL BE RUN AT 1% GRADE UNLESS NOTED OTHERWISE OR DICTATED BY CODE.
- C. ALL CONDENSATE DRAIN PIPE SHALL BE RUN AT 1% GRADE.
- D. ROUTE ALL PIPING INTENDED FOR ABOVE CEILING LEVEL INSTALLATION AS HIGH AS POSSIBLE. COORDINATE ROUTING WITH OTHER TRADES. SLOPED PIPING ELEVATIONS TAKE PRIORITY OVER ALL OTHER SYSTEMS AND TRADES.
- E. FIELD VERIFY LOCATION AND INVERTS OF SITE UTILITIES PRIOR TO INSTALLATION.
- F. PLUMBING VENTS SHALL TERMINATE A MIN. 10' FROM ALL OUTSIDE AIR INTAKES (OR EXTENDED A MIN. 3' ABOVE INTAKE).
- G. PROVIDE DRAIN TEMPERING VALVE FOR ANY WASTE WATER ABOVE 150°F.
- H. SEE RISER DIAGRAMS FOR PIPE SIZING.



VUEngineering LLC
4437 Pennsylvania Ave.
Kansas City MO 64111
www.VUEngineering.co
info@VUEngineering.co
816.638.2823
MO Cert. of Authority - LC138664

NEW BUILDING FOR

SUMMIT ORCHARDS
LEES SUMMIT, MO

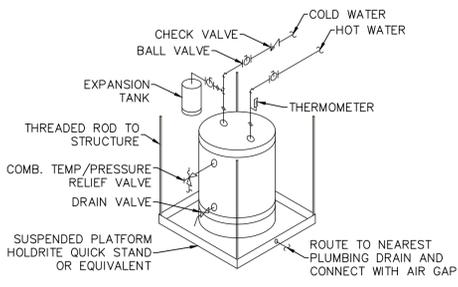


No.	Description	Date
Revision Schedule		

11-13-25 REVISION

Project number 2491
Date 05.08.2025

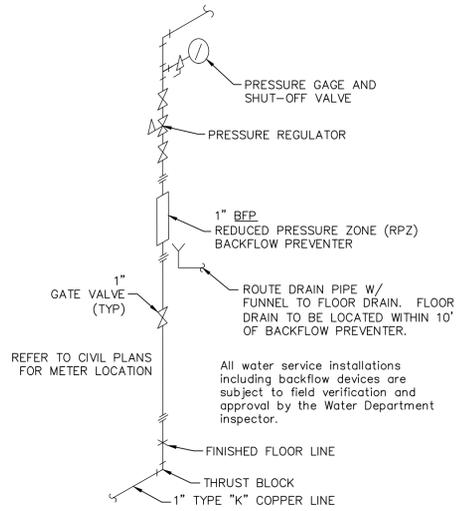
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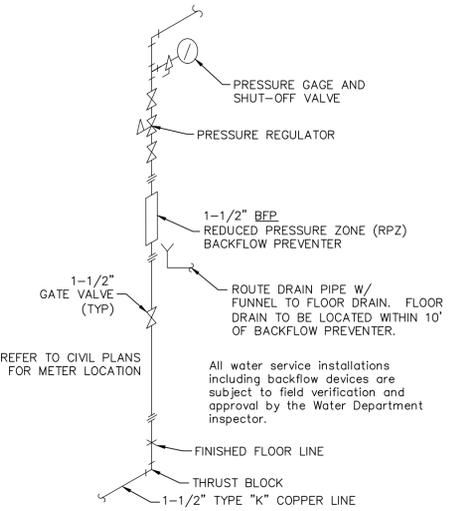
ABOVE CEILING WATER HEATER DETAIL

MARK	TOTAL CFM	OA CFM	ESP (IN)	COOLING CAP. (MBH)		HEATING CAP. (MBH)		MIN EER/SEER	ELECTRICAL DATA			WEIGHT (LBS)	MANUFACTURER & MODEL NO.	REMARKS		
				EAT (F) DB/WB	TOTAL	SENSIBLE	INPUT		OUTPUT	VOLTAGE	HP				MCA	MOCP
RTU-A1	3000	600	0.75	80/67	93.0	74.4	180	146	12.3/15.7	208/3	3.75	43	50	1440	LENNOX LGT092	1,2,3,4,5,6,7,8,10,12,14
RTU-A2	3000	600	0.75	80/67	93.0	74.4	180	146	12.3/15.7	208/3	3.75	43	50	1440	LENNOX LGT092	1,2,3,4,5,6,7,8,10,12,14
RTU-B	2000	400	0.75	80/67	60.9	48.7	150	121	12.7/17.1	208/3	1.5	28	40	1070	LENNOX LGT060	1,2,3,4,5,6,7,8,12
RTU-C	5000	1000	0.75	80/67	141.0	112.8	240	194	10.8/14.6	208/3	3.75	64	80	1440	LENNOX LGT150	1,2,3,4,5,6,7,8,10,12,14

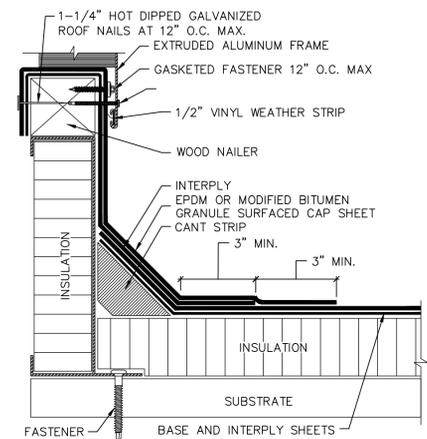
- LISTED CAPACITIES AT 1000 FT ELEVATION, AND 95°F AMBIENT TEMPERATURE.
- FURNISH WITH FACTORY INSTALLED DISCONNECT SWITCH.
- REFRIGERANT TYPE R410A.
- LISTED WEIGHT INCLUDES ROOF CURB.
- PROVIDE NEW PROGRAMMABLE THERMOSTAT.
- PROVIDE WITH HAIL GUARDS.
- PROVIDE WITH HOT GAS REHEAT HUMIDITY CONTROL.
- PROVIDE ECONOMIZER WITH DRY BULB CONTROL AND POWERED RELIEF.
- PROVIDE ECONOMIZER WITH DRY BULB CONTROL AND BAROMETRIC RELIEF.
- PROVIDE DEMAND CONTROL VENTILATION CONTROLS. LISTED MAX OA CFM IS SHALL BE UPPER SETPOINT, WHILE NOT IN ECONOMIZER, WHEN CO2 LEVELS ARE AT 800PPM OR HIGHER.
- PROVIDE WITH UV-C LAMP OR GPS PLASMA AIR PURIFIER.
- PROVIDE SMOKE DETECTORS IN SUPPLY AND RETURN DUCTWORK. DETECTOR IS TO BE PRE-WIRED TO SHUTDOWN THE FAN MOTOR UPON ACTIVATION. COORDINATE ANY REQUIRED INTERLOCKS AND INTERFACE WITH THE BUILDING FIRE ALARM SYSTEM. PROVIDE ALL REQUIRED SERVICE ACCESS TO NEW SMOKE DETECTOR PER CODE.
- CONNECT TO EXISTING ELECTRICAL CONNECTION. FIELD VERIFY THAT CIRCUIT BREAKER AND BRANCH CIRCUIT CONDUCTOR SIZE ARE SUFFICIENT FOR NEW UNIT OR UPGRADE AS REQUIRED.
- PROVIDE VARIABLE FAN SPEED THAT IS AUTOMATICALLY CONTROLLED BY HEATING/COOLING DEMAND.



WATER SERVICE ENTRANCE DETAIL (1" ENTRANCE)



WATER SERVICE ENTRANCE DETAIL (1-1/2" ENTRANCE)



ROOFTOP UNIT CURB DETAIL

EXHAUST FAN SCHEDULE									
MARK	TYPE	MAKE & MODEL	CFM	E.S.P. (IN. WC.)	MAX SONES	DRIVE	ELEC. CHAR. VOLTAGE	HP	REMARKS
EF-B/C	CEILING	GREENHECK SP-A110	75	0.3	8	DIRECT	120/1	17.6 W	1,2,3,4,5

- LISTED CAPACITIES AT SEA LEVEL.
- PROVIDE WITH FACTORY MOUNTED DISCONNECT SWITCH.
- FAN SHALL BE INTERLOCKED WITH LIGHT SWITCH.
- PROVIDE WITH GRAVITY BACKDRAFT DAMPER.
- PROVIDE WITH 7"Ø ROOF CAP, GREENHECK RCC-7 OR EQUIVALENT, WITH CURB AND INSECT SCREEN.

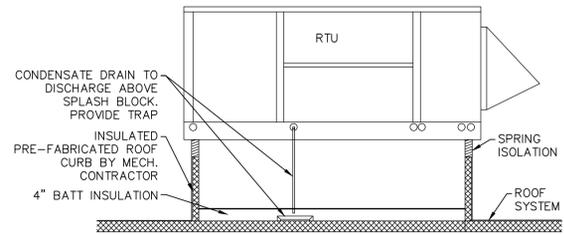
WATER HEATER (ELECTRIC)							
MARK	MAKE & MODEL	HTG. INPUT (KW)	RECOVERY @90°F (GPH)	TEMP. RISE (F)	STORAGE (GAL)	ELECTRICAL	REMARKS
DWH-B	AO SMITH - EJC6	3	8	90	6	240V	1,2,3,4,5
DWH-C	AO SMITH - EJC6	3	8	90	6	240V	1,2,3,4,5

- PROVIDE DISCONNECT SWITCH.
- PROVIDE WITH HEAT TRAP FITTINGS ON COLD AND HOT WATER PIPING CONNECTIONS.
- FURNISH WITH AMTROL MODEL ST-12 THERMAL EXPANSION TANK, ET-1.
- PROVIDE T&P VALVE.
- SET WATER HEATER OUTLET TEMPERATURE AT 110°F.

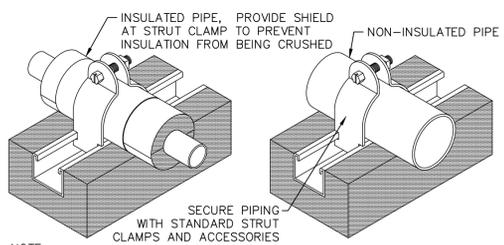
ELECTRIC UNIT HEATER SCHEDULE									
MARK	MOUNTING	MFR.	MODEL	CFM	CAPACITY (KW)	ELECTRICAL VOLTAGE	AMPS	REMARKS	
UH-1	UNIT HEATER	MARKEL	F1F5103N	400	3.3	208/1	15.9	1,2,3	

- FURNISH WITH INTEGRAL THERMOSTAT.
- FURNISH WITH FACTORY MOUNTED DISCONNECT SWITCH.
- FURNISH WITH WALL/CEILING BRACKET.

Ventilation Spreadsheet (2018 IMC Table 403.3)									
Zone	Room	Use/Classification	Area	People	CFM/Person	CFM/SF	Ventilation Effectiveness	OA	
Tenant A	Tenant Space	Dining Rooms	1072	36	7.5	0.18	80%	463	
	Tenant Space	Kitchen	700	6	7.5	0.12	80%	129	
								Outdoor Air Required	592
								Outdoor Air Provided	2200
Tenant B	Tenant Space	Retail Sales	1249	19	7.5	0.12	80%	290	
									Outdoor Air Required
								Outdoor Air Provided	440
Tenant C	Tenant Space	Retail Sales	1793	27	7.5	0.12	80%	417	
									Outdoor Air Required
								Outdoor Air Provided	440



ROOFTOP UNIT DETAIL



NOTE:
INSTALL PIPE PIER SUPPORT EVERY 15' AND AT EVERY CHANGE IN DIRECTION. DO NOT SECURE TO ROOF. THE SUPPORT SHALL REST FREELY ON THE ROOF. SIZE EACH SUPPORT PER MANUFACTURER'S RECOMMENDATIONS.

ROOF PIPE SUPPORT DETAIL

GI	GREASE INTERCEPTOR	SP-1	SAMPLING PORT
1.	ZURN GMC-1500 A. FIBERGLASS CONSTRUCTION B. MOUNTED BELOW GRADE. C. PROVIDE COVER EXTENSIONS AS REQUIRED D. 4" INLET/OUTLET E. FLOW CONTROL FITTING F. 1500 LB CAPACITY G. PROVIDE ALL ACCESSORIES REQUIRED FOR EXTERIOR, RECESSED IN GRADE INSTALLATION.	1.	SCHIER MODEL SV10 A. OPTIONAL BASE HEIGHTS B. POLYETHYLENE COVER PLATE C. 4" INLET/OUTLET D. PROVIDE RISER AS REQUIRED

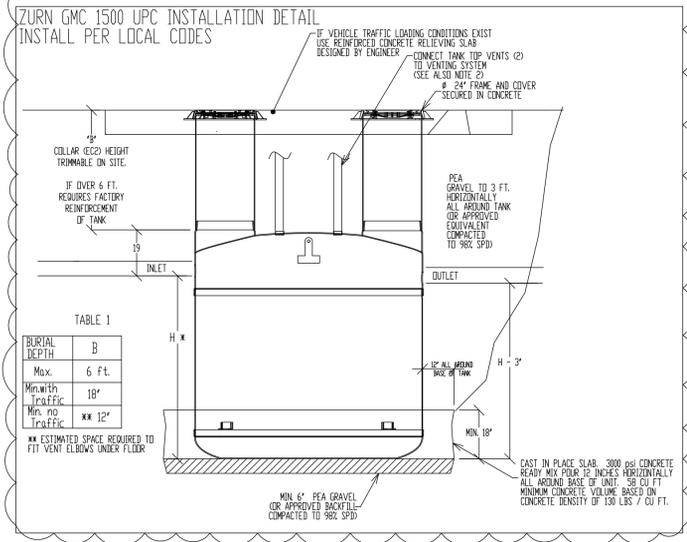
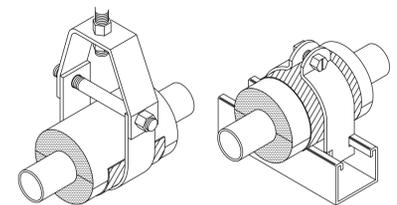


TABLE 1	
BURIAL DEPTH	B
Max.	6 ft.
Min. width Traffic	18"
Min. depth Traffic	12"

IF OVER 6 FT. REQUIRES FACTORY REINFORCEMENT OF TANK
IF VEHICLE TRAFFIC LOADING CONDITIONS EXIST USE REINFORCED CONCRETE RELIEVING SLAB DESIGNED BY ENGINEER
CONNECT TANK TOP VENTS (2) TO VENTING SYSTEM (SEE ALSO NOTE 2)
24" FRAME AND COVER SECURED IN CONCRETE
PEA GRAVEL TO 3 FT. HORIZONTALLY ALL AROUND TANK OR APPROVED EQUIVALENT COMPACTED TO 98% SPD
MIN 6" PEA GRAVEL OR APPROVED BACKFILL COMPACTED TO 98% SPD
CAST IN PLACE SLAB - 3000 PSI CONCRETE READY MIX POUR 12 INCHES HORIZONTALLY ALL AROUND BASE OF UNIT - 36 CU FT MINIMUM CONCRETE VOLUME BASED ON CONCRETE DENSITY OF 150 LBS / CU FT.



PROVIDE AND INSTALL B-LINE OR APPROVED EQUAL, HYDROXIDE CALCIUM SILICATE INSULATION WITH PRE-GALVANIZED STEEL JACKET AT HANGER, STRUT MOUNTED CLAMP, AND PIPE SUPPORT LOCATIONS.

PIPE SUPPORT INSULATION DETAILS

NEW BUILDING FOR
SUMMIT ORCHARDS
LEES SUMMIT, MO



No.	Description	Date
Revision Schedule		

- 7-2-25 REVISION
- 11-13-25 REVISION

Project number 2491
Date 05.08.2025

MP200