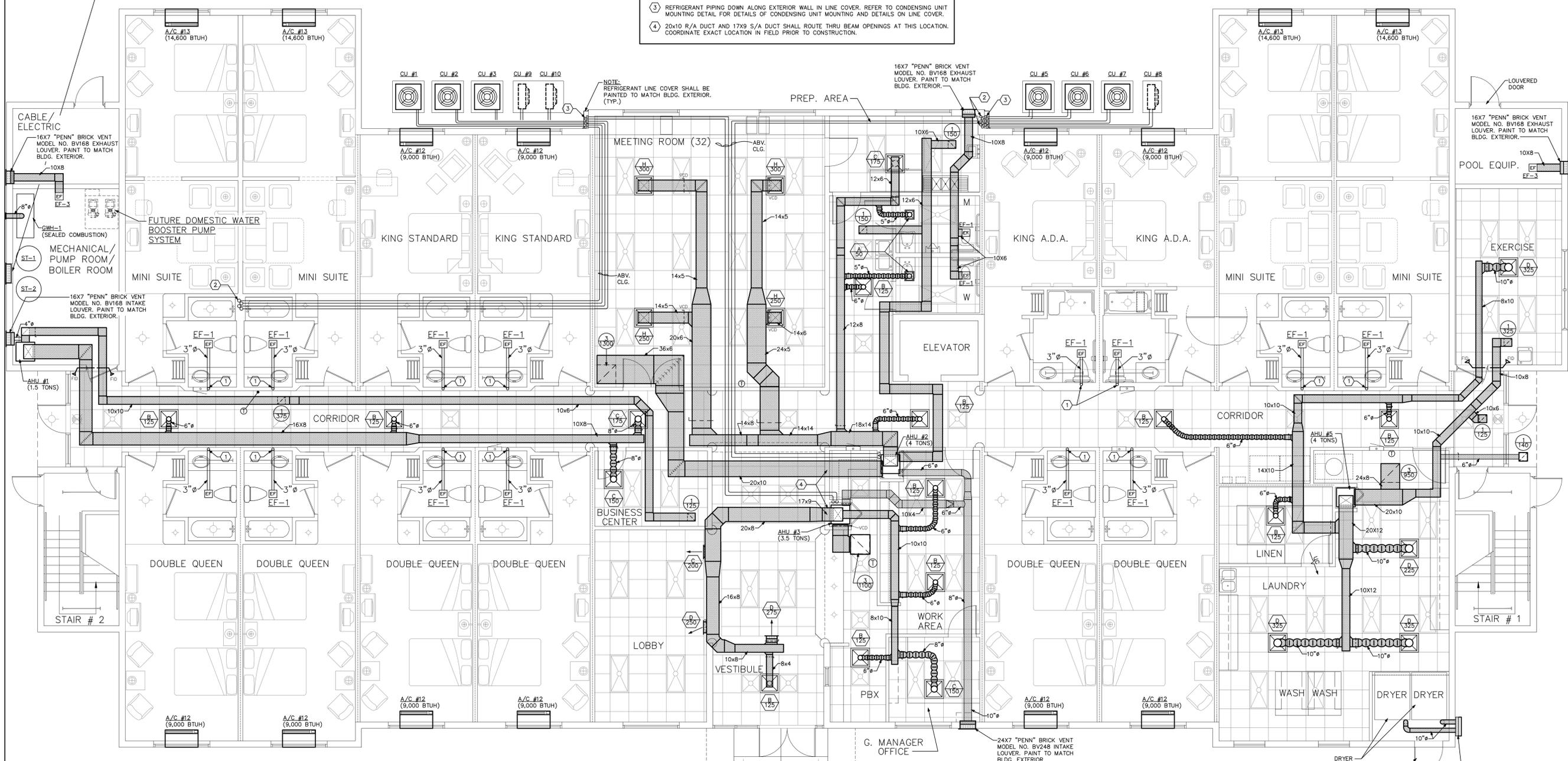


(2) 24x24 "POTTORFF" MODEL EFJ-430 STORM LOUVERS
 (1) HIGH 12" BELOW CLG. (1) LOW, 6" A.F.F. FOR MECHANICAL ROOM COMBUSTION AIR. NFPA 54 COMBUSTION AIR CALCS: TOTAL BTU OF ALL APPLIANCES IS 650,000 BTU. ACCORDING TO NFPA 54, 5.3.3(b)(1), 150 INCH PER 4,000 BTU IS REQUIRED WHICH EQUALS 162 SQ. INCHES. THE 24X24 LOUVER HAS 576 SQ. INCHES W/ A 48% FREE AREA FACTOR, OR 264.96 SQ. INCHES OF FREE AREA AVAILABLE.

- ### MECHANICAL SPECIFIC NOTES
- 3" TOILET EXHAUST UP THRU CORRIDOR WALL TO ROOF. REFER TO TYPICAL EXHAUST RISER ON SHEET M-4.
 - REFRIGERANT PIPING FROM ABOVE. OFFSET THRU WALL TO LINE COVER.
 - REFRIGERANT PIPING DOWN ALONG EXTERIOR WALL IN LINE COVER. REFER TO CONDENSING UNIT MOUNTING DETAIL FOR DETAILS OF CONDENSING UNIT MOUNTING AND DETAILS ON LINE COVER.
 - 20x10 R/A DUCT AND 17x9 S/A DUCT SHALL ROUTE THRU BEAM OPENINGS AT THIS LOCATION. COORDINATE EXACT LOCATION IN FIELD PRIOR TO CONSTRUCTION.



RETURN GRILLE SCHEDULE

DESIGNATES LABEL FOR GRILLE TYPE. FILTER SHALL BE PROVIDED AT UNIT.
 DESIGNATES CFM QUANTITY FOR GRILLE.

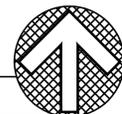
LABEL	MANUFACTURER & MODEL NO.	NECK SIZE	CFM RANGE	REMARKS
1	TITUS 355FL	10x10	0 - 400	
2	TITUS 355FL	12x12	400 - 650	
3	TITUS 355FL	24x24	700 - 2000	

SUPPLY DIFFUSER SCHEDULE

DESIGNATES LABEL FOR DIFFUSER TYPE. ALL DIFFUSERS ARE TO BE PROVIDED WITH OPPOSED BLADE DAMPERS UNLESS OTHERWISE SPECIFIED ON PLANS.
 DESIGNATES CFM QUANTITY FOR DIFFUSER.

LABEL	MANUFACTURER & MODEL NO.	NECK SIZE	CFM RANGE	REMARKS
A	TITUS TDC-AA	6"ø	0 - 125	12X12 LOUVERED FACE
B	TITUS TDC-AA	6"ø	0 - 125	24X24 LOUVERED FACE
C	TITUS TDC-AA	8"ø	130 - 200	24X24 LOUVERED FACE
D	TITUS TDC-AA	10"ø	205 - 325	24X24 LOUVERED FACE
E	TITUS 300RL	8x6	0 - 150	SIDEWALL REGISTER
F	TITUS 300RL	10x6	155 - 200	SIDEWALL REGISTER
G	TITUS 300RL	14x6	205 - 300	SIDEWALL REGISTER
H	TITUS TDC-AA	12x12	0 - 350	24X24 LOUVERED FACE

NOTE: DIFFUSER "H" SHALL BE PROVIDED WITH A BORDER TYPE 3. SQUARE OPENING OF DIFFUSER SHALL BE DIRECTLY INTO BOTTOM OF DUCT.



OUTSIDE AIR CALCULATIONS			
THE FOLLOWING IS BASED ON ASHRAE STANDARD 62 FOR OUTSIDE AIR REQUIREMENTS: OUTDOOR AIR REQUIREMENTS ARE BASED ON "CORRIDOR" CATEGORY = .05 CFM PER SQ. FT.			
UNIT LABEL	AREA SERVED (SQ. FT.)	ESTIMATED MAX. OCCUPANCY	OUTSIDE AIR REQUIRED (CFM)
AHU #1	580	580 / 1000 X = --	580 X .05 = 29
AHU #6	1,184	1,184 / 1000 X = --	1,184 X .05 = 60
AHU #7	1,184	1,184 / 1000 X = --	1,184 X .05 = 60

OUTSIDE AIR CALCULATIONS			
THE FOLLOWING IS BASED ON ASHRAE STANDARD 62 FOR OUTSIDE AIR REQUIREMENTS: OUTDOOR AIR REQUIREMENTS ARE BASED ON "ASSEMBLY" CATEGORY = 32 PEOPLE AS PER ARCHITECTURAL PLANS AND 15 CFM PER PERSON.			
UNIT LABEL	AREA SERVED (SQ. FT.)	ESTIMATED MAX. OCCUPANCY	OUTSIDE AIR REQUIRED (CFM)
AHU #2	728	- / 1000 X = --	32 X 15 = 480/2=240

THE OCCUPANCY OF THIS FACILITY DOES NOT EXCEED THREE HOURS AT ANY TIME, THEREFORE THE FACILITY QUALIFIES FOR REDUCTION OF OUTSIDE AIR IN ACCORDANCE WITH THE ASHRAE STANDARD 62 SECTION 6.1.3.4. THE AVERAGE OCCUPANCY IS LESS THAN 1/2 THE MAXIMUM CALCULATED OCCUPANCY, SO THE FRESH AIR PROVIDED WILL BE 1/2 THE CALCULATED IN ACCORDANCE WITH SECTION 6.1.3.4.

OUTSIDE AIR CALCULATIONS			
THE FOLLOWING IS BASED ON ASHRAE STANDARD 62 FOR OUTSIDE AIR REQUIREMENTS: OUTDOOR AIR REQUIREMENTS ARE BASED ON "HOTEL LOBBY" CATEGORY = 30 PEOPLE PER 1,000 SQ. FT. & 15 CFM PER PERSON.			
UNIT LABEL	AREA SERVED (SQ. FT.)	ESTIMATED MAX. OCCUPANCY	OUTSIDE AIR REQUIRED (CFM)
AHU #3	254	254 / 1000 X 30 = 8	8 X 15 = 120

THE FOLLOWING IS BASED ON ASHRAE STANDARD 62 FOR OUTSIDE AIR REQUIREMENTS: OUTDOOR AIR REQUIREMENTS ARE BASED ON "OFFICE" CATEGORY = 7 PEOPLE PER 1,000 SQ. FT. & 20 CFM PER PERSON.

UNIT LABEL	AREA SERVED (SQ. FT.)	ESTIMATED MAX. OCCUPANCY	OUTSIDE AIR REQUIRED (CFM)
AHU #3	488	488 / 1000 X 7 = 4	4 X 20 = 80

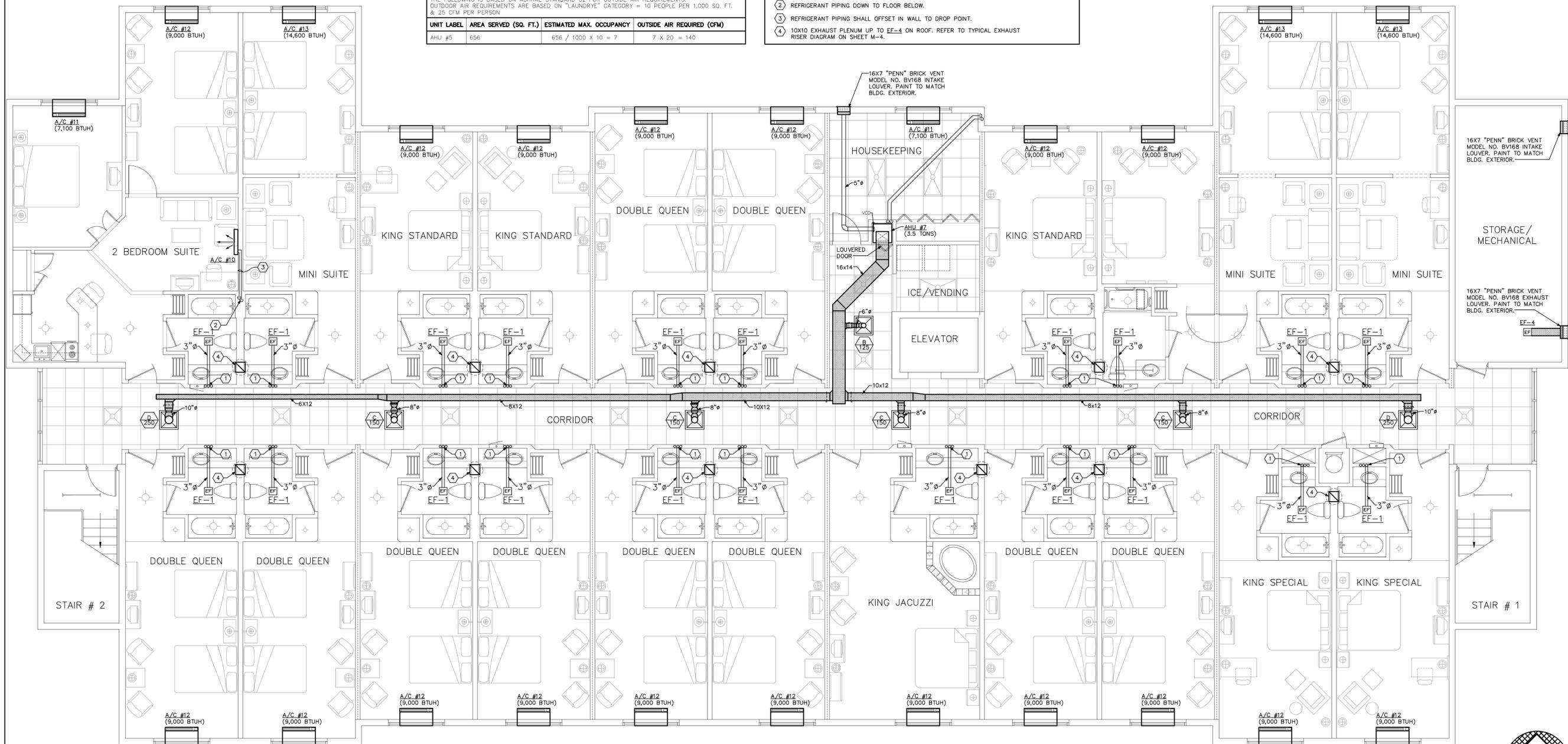
TOTAL OUTSIDE AIR CFM FOR AHU #3 = 200

OUTSIDE AIR CALCULATIONS			
THE FOLLOWING IS BASED ON ASHRAE STANDARD 62 FOR OUTSIDE AIR REQUIREMENTS: OUTDOOR AIR REQUIREMENTS ARE BASED ON "HOTEL BEDROOMS" CATEGORY = 50 CFM PER ROOM.			
UNIT LABEL	AREA SERVED (SQ. FT.)	ESTIMATED MAX. OCCUPANCY	OUTSIDE AIR REQUIRED (CFM)
AHU #4	-	- / 1000 X = --	2 X 30 = 60
AHU #11	-	- / 1000 X = --	1 X 30 = 30
AHU #12	-	- / 1000 X = --	1 X 30 = 30
AHU #13	-	- / 1000 X = --	2 X 30 = 60

OUTSIDE AIR CALCULATIONS			
THE FOLLOWING IS BASED ON ASHRAE STANDARD 62 FOR OUTSIDE AIR REQUIREMENTS: OUTDOOR AIR REQUIREMENTS ARE BASED ON "LAUNDRY" CATEGORY = 10 PEOPLE PER 1,000 SQ. FT. & 25 CFM PER PERSON.			
UNIT LABEL	AREA SERVED (SQ. FT.)	ESTIMATED MAX. OCCUPANCY	OUTSIDE AIR REQUIRED (CFM)
AHU #5	656	656 / 1000 X 10 = 7	7 X 20 = 140

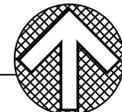
SUPPLY DIFFUSER SCHEDULE				
DESIGNATES LABEL FOR DIFFUSER TYPE		ALL DIFFUSERS ARE TO BE PROVIDED WITH OPPOSED BLADE DAMPERS UNLESS OTHERWISE SPECIFIED ON PLANS.		
DESIGNATES CFM QUANTITY FOR DIFFUSER				
LABEL	MANUFACTURER & MODEL NO.	NECK SIZE	CFM RANGE	REMARKS
A	TITUS TDC-AA	6"φ	0 - 125	12X12 LOUVERED FACE
B	TITUS TDC-AA	6"φ	0 - 125	24X24 LOUVERED FACE
C	TITUS TDC-AA	8"φ	130 - 200	24X24 LOUVERED FACE
D	TITUS TDC-AA	10"φ	205 - 325	24X24 LOUVERED FACE

- MECHANICAL SPECIFIC NOTES**
- 3" TOILET EXHAUST UP THRU CORRIDOR WALL TO ROOF. REFER TO TYPICAL EXHAUST RISER ON SHEET M-4.
 - REFRIGERANT PIPING DOWN TO FLOOR BELOW.
 - REFRIGERANT PIPING SHALL OFFSET IN WALL TO DROP POINT.
 - 10X10 EXHAUST PLENUM UP TO EF-4 ON ROOF. REFER TO TYPICAL EXHAUST RISER DIAGRAM ON SHEET M-4.



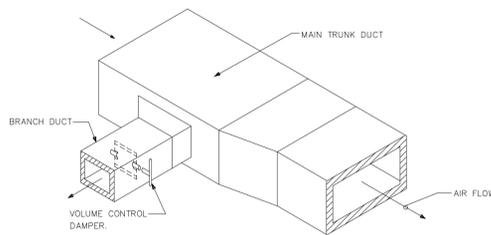
THIRD FLOOR PLAN - MECHANICAL

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

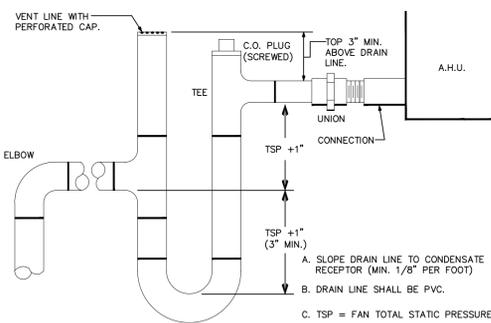


GENERAL MECHANICAL NOTES

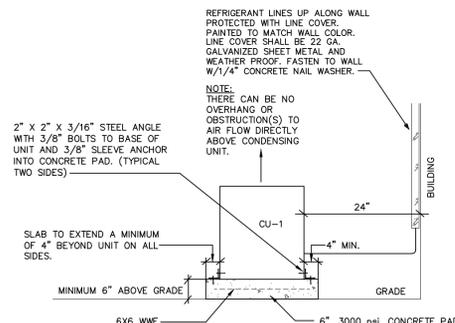
1. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY FOR THE INSTALLATION OF A COMPLETE SYSTEM IN ACCORDANCE WITH THESE DRAWINGS, THE APPLICABLE BUILDING CODE AND ALL OTHER APPLICABLE STATE, COUNTY AND LOCAL ORDINANCES AND THE LATEST EDITION OF THE FOLLOWING PUBLICATIONS: SMACNA, ASHRAE, NFPA 90A, 90B, 91 & ANSI B-9.1 MECHANICAL REFRIGERATION. ALL DUCTWORK SHALL BE FABRICATED, INSTALLED AND SUPPORTED AS PER SMACNA STANDARDS.
2. THE CONTRACTOR SHALL PAY ALL COSTS OF PERMIT, INSPECTIONS AND ALL OTHER COSTS INCIDENTAL TO THE COMPLETION AND TESTING OF THIS WORK.
3. THE CONTRACTOR SHALL VISIT THE SITE AND COORDINATE WORK WITH OTHER TRADES TO INSURE AN ORDERLY PROGRESS OF THIS WORK.
4. THE CONTRACTOR SHALL SUPPLY THE ARCHITECT WITH "AS-BUILT" DRAWINGS UPON COMPLETION OF THIS PROJECT.
5. CONTRACTOR SHALL SUBMIT, FOR APPROVAL FIVE (5) COPIES OF MANUFACTURER'S DRAWINGS FOR EACH PIECE OF EQUIPMENT AND CONTROLS INCLUDED IN CONTRACT.
6. ALL MATERIAL SHALL BE NEW OF GOOD QUALITY. ALL WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER BY SKILLED WORKMAN.
7. ALL AIR CONDITIONING DUCT WORK SHALL BE OF 1-1/2" STANDARD DUTY FOL REINFORCED FIBERGLASS WITH MANUFACTURER'S LOGO PRINTED ON VAPOR BARRIER ALL FLEX TO BE R-6.
8. ALL EXHAUST DUCTS AND OUTSIDE AIR DUCTS SHALL BE GALVANIZED SHEET METAL WITH SEALED SEAMS AND JOINTS.
9. DUCT SIZES SHOWN ARE INSIDE DIMENSIONS.
10. ALL AIR DEVICES (DIFFUSERS, REGISTERS AND GRILLES) SHALL BE ALL ALUMINUM CONSTRUCTION WITH EXPOSED SURFACE OFF WHITE ENAMEL FINISH OR AS SPECIFIED BY ARCHITECT. DEVICES SHALL BE TITUS, METALAIR, AIRGUIDE, PROVIDE OPPOSED BLADE DAMPERS AT ALL DIFFUSERS AND REGISTERS.
11. THERMOSTAT SHALL BE COMBINATION COOLING/HEATING, WITH SYSTEM "COOL-AUTO-HEAT-OFF" AND FAN "ON-AUTO" SELECTOR SWITCHES. PROVIDE PROGRAMMABLE TYPE, HONEYWELL OR EQUAL.
12. REFRIGERANT LINES SHALL BE COPPER, TYPE "L" HARD DRAIN WITH WROUGHT COPPER SOLDER-JOINT TYPE FITTINGS, USE 95/5 SOLDER. REFRIGERANT LINES SHALL SIZED AS PER MANUFACTURER RECOMMENDATIONS.
13. ARMAFLEX 3/4" INSULATION SHALL BE USED FOR SUCTION LINES, FILTER/DRYER AND SIGHT GLASS SHALL BE PROVIDED AT LIQUID LINES.
14. ALL BRANCH TAKE-OFFS TO BE PROVIDED W/MANUAL VOLUME DAMPERS. ALL ELBOWS AND TEE'S MUST BE FURNISHED W/TURNING VANES. PROVIDE 45° BRANCH TAKE-OFF AS PER BRANCH DUCT TAKE-OFF DETAIL.
15. PROVIDE NEW FILTERS FOR ALL AIR CONDITIONING EQUIPMENT BEFORE STARTING THEM. REPLACE THEM PRIOR TO FINAL ACCEPTANCE BY OWNER.
16. PROVIDE SMOKE DETECTORS WITH ACCESS DOORS IN ALL SUPPLY AIR DUCTS FOR FANS AND AHU'S SERVING A COMMON PLENUM OF 2000 CFM OR ABOVE. ALL SMOKE DETECTORS SHALL BE BY ONE MANUFACTURER, COORDINATE VOLTAGE ETC. WITH ELECTRICAL CONTRACTOR AND FIRE ALARM SYSTEM BEFORE ORDERING. UPON DETECTION, SMOKE DETECTORS SHUT DOWN ASSOCIATED AIR MOVING EQUIPMENT AND ALL AIR MOVING EQUIPMENT SERVING THAT COMMON PLENUM.
17. PROVIDE TYPE "B" FIRE DAMPERS IN ALL DUCTS OR OPENINGS PENETRATING FIRE RATED WALLS, MECHANICAL AND ELECTRICAL EQUIPMENT ROOMS, TENANT SEPARATION, PARTITIONS, FLOOR OR ROOF SLABS AND AT O/A INTAKES. PROVIDE RADIATION RADIATION DAMPERS IN RATED CEILING FOR ALL CEILING OPENINGS, CEILING FANS, DIFFUSERS OR GRILLES RATED FOR USE IN THE CEILING ASSEMBLY.
18. HVAC CONTRACTOR SHALL PROVIDE AN INDEPENDENT TEST AND BALANCE REPORT FOR ALL MECHANICAL EQUIPMENT, AIR DEVICES, DAMPERS, AHU'S AND FANS. THE T & B SHALL BE IN ACCORDANCE WITH THE AIR BALANCE COUNCIL STANDARDS, AND SHALL INCLUDE AIR QUANTITIES FOR ALL SUPPLY GRILLES, RETURN GRILLES, AND EXHAUST GRILLES, AND THE LEAVING AND ENTERING AIR TEMPERATURE (T) FROM SUPPLY GRILLES AND EXHAUSTORS.
19. THERMOSTAT LOCATION SHALL BE APPROVED BY OWNER AND ENGINEERS BEFORE INSTALLATION.
20. ALL INSULATION WILL HAVE FIRE/SMOKE RATING LESS THAN 25/50.
21. MECHANICAL PLANS IN GENERAL, ARE DIAGRAMMATIC IN NATURE, AND ARE TO BE READ IN CONJUNCTION WITH ARCH. PLUMBING, ELECTRICAL AND STRUCTURAL PLANS AND SHALL BE CONSIDERED AS ONE SET OF DOCUMENTS. DUCT AND PIPING OFFSETS, BENDS AND TRANSITIONS WILL BE REQUIRED TO PROVIDE AND INSTALL A COMPLETE FUNCTIONAL SYSTEM AND SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
22. NO COMBUSTIBLE MATERIALS ARE ALLOWED IN RETURN AIR PLENUMS OR ABOVE CEILING USED AS RETURN AIR PLENUM. IF SPACE WITH RETURN AIR PLENUM HAS ANY DECK TO DECK PARTITIONS, AIR TRANSFER DUCTS MUST BE INSTALLED.
23. REFER TO PLUMBING PLANS FOR ALL CONDENSATE PIPING.
24. IF PROJECT IS A REMODEL OF AN EXISTING BUILDING, THE CONTRACTOR SHALL VISIT JOB SITE PRIOR TO CONSTRUCTION AND COORDINATE ALL EXISTING FIELD CONDITIONS. ARCHITECT AND/OR ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES.
25. CONTRACTOR SHALL INSTALL ALL OUTDOOR EQUIPMENT TO WITHSTAND A SUSTAINED 120 MPH WIND WITH A GUST FACTOR OF 30%. PROVIDE A LISTED PRE-ENGINEERED ASSEMBLY, OR THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CERTIFICATION OF ROOF MOUNTING.
26. PROVIDE ALL NECESSARY CONTACTORS, RELAYS, ETC., FOR A COMPLETE OPERATING A/C UNIT.
27. THROUGHOUT THE COURSE OF THE WORK, MINOR CHANGES AND ADJUSTMENTS TO THE PLANS AND SPECIFICATIONS MAY BE REQUESTED BY THE OWNER. THE CONTRACTOR SHALL MAKE SUCH ADJUSTMENTS WITHOUT ADDITIONAL COST TO THE OWNER, WHERE SUCH ADJUSTMENTS ARE NECESSARY FOR THE PROPER INSTALLATION AND OPERATION OF THE SYSTEMS, AND WITHIN THE INTENT OF THE CONTRACT DOCUMENTS.
28. IT IS THE INTENT OF THE PLANS AND SPECIFICATIONS TO FORM A GUIDE FOR A COMPLETE INSTALLATION. EVERYTHING NECESSARY FOR THE COMPLETION AND SUCCESSFUL OPERATION OF THE WORK, WHETHER OR NOT HEREIN DEFINITELY SPECIFIED OR INDICATED ON THE DRAWINGS SHALL BE FURNISHED AND INSTALLED AS WELL AND AS FAIRFULLY AS IF SO SPECIFIED OR INDICATED WITHOUT ADDITIONAL COST TO THE TENANT. THE MECHANICAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND LENGTHS PRIOR TO INSTALLATION.
29. NOTWITHSTANDING ANY OTHER PROVISIONS OF THE CONTRACT DOCUMENTS, THE CONTRACTOR BEARS ULTIMATE RESPONSIBILITY FOR COMPLIANCE OF THE INSTALLATION WITH THE REQUIREMENTS OF THE LANDLORD AND OF THE LOCAL AUTHORITY HAVING JURISDICTION.
30. IF ANY ERRORS, DISCREPANCIES OR OMISSIONS APPEAR IN THE DRAWINGS, SPECIFICATIONS OR OTHER CONTRACT DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING OF SUCH ERROR OR OMISSION. IN THE EVENT OF THE CONTRACTOR FAILING TO GIVE SUCH NOTICE BEFORE CONSTRUCTION AND/OR FABRICATION OF THE WORK, HE WILL BE HELD RESPONSIBLE FOR THE RESULTS OF ANY SUCH ERRORS, DISCREPANCIES OR OMISSIONS AND THE COST OF RECTIFYING SAME.



2 BRANCH DUCT DETAIL
NO SCALE



1 COND. P-TRAP DETAIL
NO SCALE



3 MOUNTING DETAIL
NO SCALE

ROOM MINI-SPLIT HEAT PUMP SCHEDULE									
SYS. LABEL	MANUFACTURER	MODEL NO.	TOTAL CAPACITY	FAN SPEED	AMPERAGE RATING	MAXIMUM FUSE	VOLTAGE	EER/SEER	NOTES
A/C #8,9,10	SANYO	09KH11	9,000 BTUH	3-SPEED	8.2	15	120V/1Ø	10.0	

GENERAL NOTES:
1.) POWER SUPPLY IS TO OUTDOOR UNIT, INTERCONNECTING WIRING FROM OUTDOOR UNIT TO INDOOR UNIT. REFER TO ELECTRICAL PLANS FOR CONTROL.

ROOM AIR CONDITIONING SCHEDULE										
SYS. LABEL	MANUFACTURER	MODEL NO.	HEATER KW	TOTAL CAPACITY	FAN SPEED	AMPERAGE RATING FLA	MAXIMUM FUSE	VOLTAGE	EER	NOTES
A/C #11	GENERAL ELECTRIC	ZONELINE AZ25E07D	2.0 K.W.	7,100	TWO SPEED	2.8	20A	208V/1Ø	11.8	1.2
A/C #12	GENERAL ELECTRIC	ZONELINE AZ25E09D	3.0 K.W.	9,000	TWO SPEED	3.6	20A	208V/1Ø	11.5	1.2
A/C #13	GENERAL ELECTRIC	ZONELINE AZ25E12D	3.0 K.W.	11,700	TWO SPEED	7.0	20A	208V/1Ø	9.6	1.2

GENERAL NOTES:
1.) UNIT SHALL BE FLUSH MOUNTED TO EXTERIOR WALL AND SHALL BE PROVIDED WITH AN ALUMINUM ARCHITECTURAL GRILLE G.E. MODEL RA6G1.
2.) UNIT SHALL BE PROVIDED WITH A WALL CASE G.E. MODEL RAB71.

FAN SCHEDULE										
LABEL	TYPE OF UNIT - AREA SERVED	MANUFACTURER & MODEL NO.	CFM	SP	MOUNTING ARRANGEMENT	MOTOR H.P.	ENCLOSURE TYPE	RPM	VOLTAGE	NOTES
EF-1	CABINET FAN - REFER TO PLANS	PENN ZEPHYR Z6	90	.125"	CEILING MOUNTED	50 WATTS	OPEN DRIP PROOF	1055	115V/1Ø	1
EF-2	CABINET FAN - REFER TO PLANS	PENN ZEPHYR Z7	190	.125"	CEILING MOUNTED	68 WATTS	OPEN DRIP PROOF	1640	115V/1Ø	1
EF-3	CABINET FAN - REFER TO PLANS	PENN ZEPHYR Z81	300	.125"	CEILING MOUNTED	124 WATTS	OPEN DRIP PROOF	1115	115V/1Ø	1
EF-4	PROPELLER FAN - REFER TO PLANS	PENN DOMEX MODEL AMBR	250	.250"	ROOF MOUNTED	1/33 HP	OPEN DRIP PROOF	1550	115V/1Ø	1

NOTES: 1.) REFER TO ELECTRICAL PLANS FOR CONTROL.

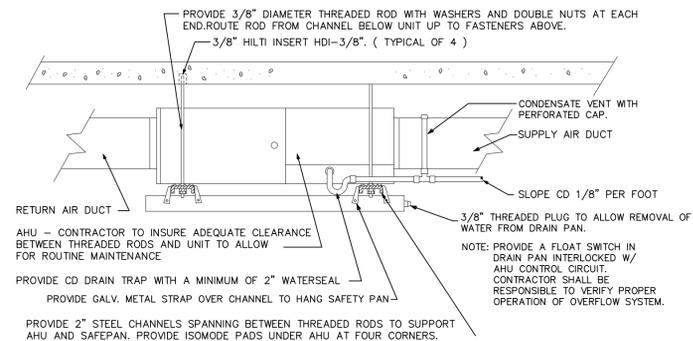
SPLIT SYSTEM AIR CONDITIONING SCHEDULE																	
CONDENSING UNIT						AIR HANDLING UNIT											
CU LABEL(S)	MANUFACTURER & MODEL NO.	TOTAL CAPACITY	SENSIBLE CAPACITY	COMP. RLA	FAN FLA	VOLTAGE	MOCP	EER/SEER	AHU LABEL(S)	MANUFACTURER & MODEL NO.	TOTAL CFM	Q/A CFM	E.S.P. BLOWER SPEED	FAN HP	HEATER KW	VOLTAGE	NOTES
CU #1	CARRIER 38CQ-018-501	17,200	12,000	9.0	0.8	208V/1Ø	20A	10.0	AHU-1	CARRRIER FB4AN018	600	SEE SCH.	.30"	HIGH	1/4 HP	3.0	208V/1Ø 1 THRU 6
CU #2	CARRIER 38CQ-048-501	46,000	32,700	13.5	1.4	208V/3Ø	25A	10.0	AHU-2	CARRRIER FB4AN048	1,600	SEE SCH.	.30"	MED.	3/4 HP	5.0	208V/1Ø 1 THRU 6
CU #3	CARRIER 38CQ-042-501	40,000	29,100	13.6	1.4	208V/3Ø	25A	10.0	AHU-3	CARRRIER FB4AN042	1,400	SEE SCH.	.30"	HIGH	1/2 HP	5.0	208V/1Ø 1 THRU 6
OMITTED	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CU #5	CARRIER 38CQ-048-501	46,000	32,700	13.5	1.4	208V/3Ø	25A	10.0	AHU-5	CARRRIER FB4AN048	1,600	SEE SCH.	.30"	MED.	3/4 HP	5.0	208V/1Ø 1 THRU 6
CU #6	CARRIER 38CQ-042-501	40,000	29,100	13.6	1.4	208V/3Ø	25A	10.0	AHU-6	CARRRIER FB4AN042	1,400	SEE SCH.	.30"	HIGH	1/2 HP	5.0	208V/1Ø 1 THRU 6
CU #7	CARRIER 38CQ-042-501	40,000	29,100	13.6	1.4	208V/3Ø	25A	10.0	AHU-7	CARRRIER FB4AN042	1,400	SEE SCH.	.30"	HIGH	1/2 HP	5.0	208V/1Ø 1 THRU 6

GENERAL NOTES:
* ALL RATINGS ARE AT ARI ENTERING CONDITIONS UNLESS OTHERWISE NOTED.
* PROVIDE VIBRATION ISOLATION FOR UNITS.
* EXTERNAL STATIC PRESSURE DOES NOT INCLUDE COIL OR FILTER PRESSURE DROP.
* CONTRACTOR MAY SUBSTITUTE MANUFACTURER FOR APPROVED EQUAL. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY THAT ANY CLEARANCE REQUIREMENTS ARE MET FOR ANY SUBSTITUTIONS.

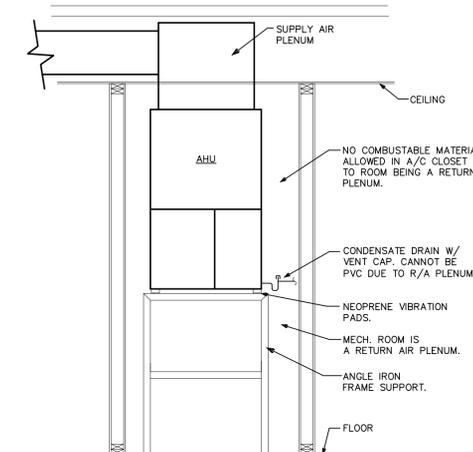
ABBREVIATION LEGEND:
O/A - OUTSIDE AIR
HP - HORSE POWER
RLA - RUNNING LOAD AMPS
FLA - FULL LOAD AMPS

MCOCP - MAX. OVERCURRENT PROTECTION (DUAL ELEMENT TYPE FUSE)
E.S.P. - EXTERNAL STATIC PRESSURE
EER - ENERGY EFFICIENCY RATIO
SEER - SEASONAL ENERGY EFF. RATIO

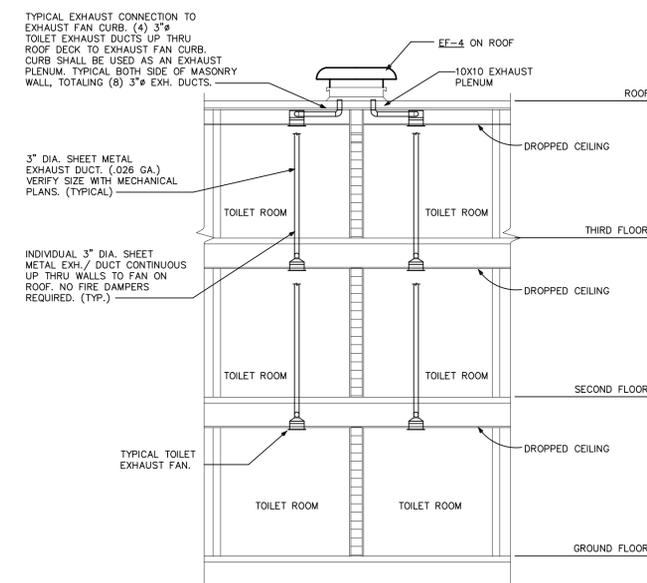
SPECIFIC NOTES:
1) SIZE AND RUN REFRIGERANT PIPING AS PER MANUFACTURERS PUBLISHED RECOMMENDATIONS.
2) INSULATE REFRIGERANT SUCTION LINE WITH 3/4" ARMAFLEX OR APPROVED EQUAL.
3) INSTALL CHEMICAL DRYER AND STRAINER IN REFRIGERANT LIQUID LINE.
4) PROVIDE 5 YEAR WARRANTY ON COMPRESSOR AND 1 YEAR WARRANTY ON ALL PARTS AND LABOR.
5) HEATER SHALL BE PROVIDED WITH 24 VOLT CONTROL.
6) PROVIDE BUILT-IN DISCONNECT/CIRCUIT BREAKER IN AIR HANDLING UNIT.



4 AHU MOUNTING DETAIL
NO SCALE



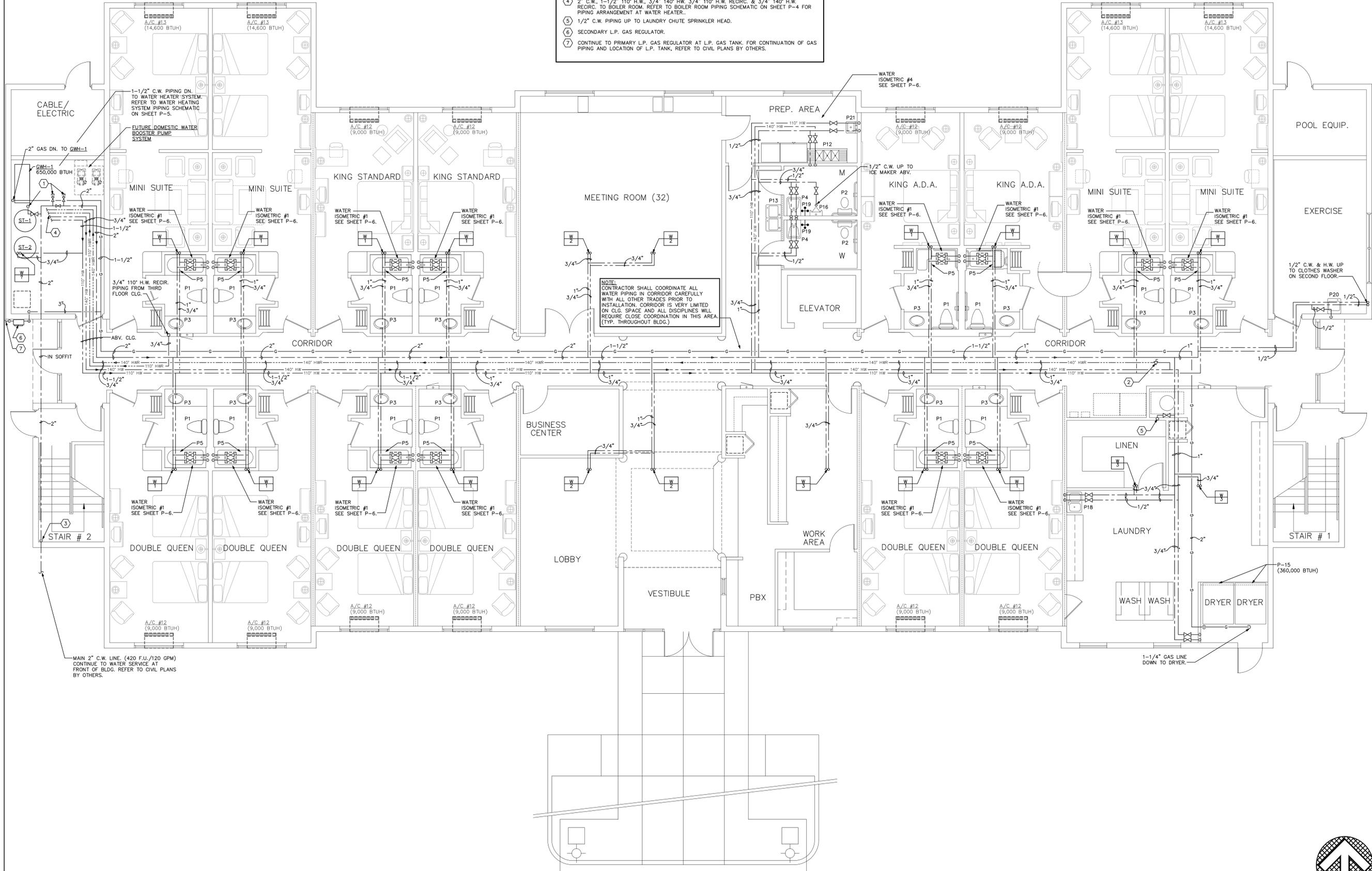
5 AHU MOUNTING DETAIL
NO SCALE



6 TYPICAL TOILET EXHAUST RISER
NO SCALE

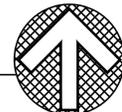
PLUMBING SPECIFIC NOTES

- 1 2" C.W. VALVED AND CAPPED FOR CONNECTION TO FUTURE DOMESTIC WATER BOOSTER PUMP.
- 2 140° HOT WATER RECIRCULATING PIPE BALANCING VALVE.
- 3 2" MAIN C.W. LINE UP IN STAIR WELL. RUN ALONG STAIR WELL WALL TIGHT TO UNDERSIDE OF SECOND FLOOR SLAB AS INDICATED.
- 4 2" C.W. 1-1/2" 110° H.W. 3/4" 140° H.W. 3/4" 110° H.W. RECIRC. & 3/4" 140° H.W. RECIRC. TO BOILER ROOM. REFER TO BOILER ROOM PIPING SCHEMATIC ON SHEET P-4 FOR PIPING ARRANGEMENT AT WATER HEATER.
- 5 1/2" C.W. PIPING UP TO LAUNDRY CHUTE SPRINKLER HEAD.
- 6 SECONDARY L.P. GAS REGULATOR.
- 7 CONTINUE TO PRIMARY L.P. GAS REGULATOR AT L.P. GAS TANK. FOR CONTINUATION OF GAS PIPING AND LOCATION OF L.P. TANK, REFER TO CIVIL PLANS BY OTHERS.



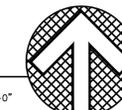
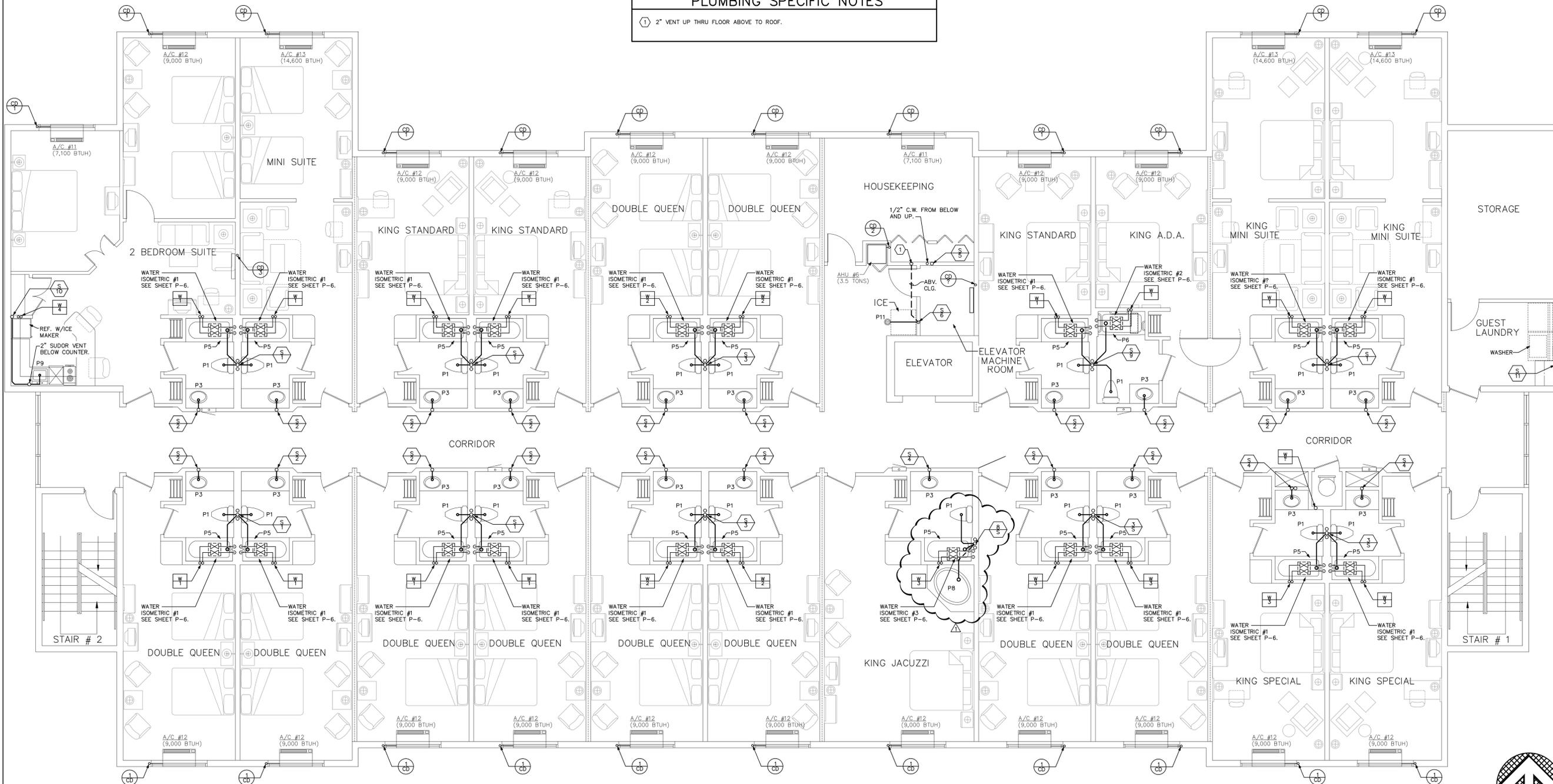
GROUND FLOOR PLAN – PLUMBING (WATER PIPING)

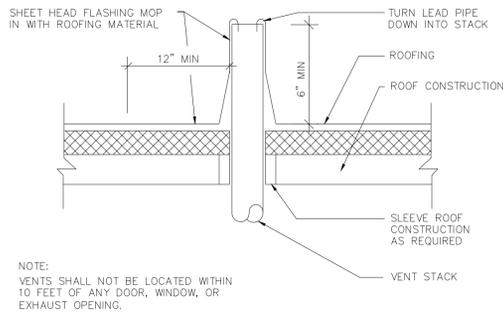
SCALE : 3/16" = 1'-0"



PLUMBING SPECIFIC NOTES

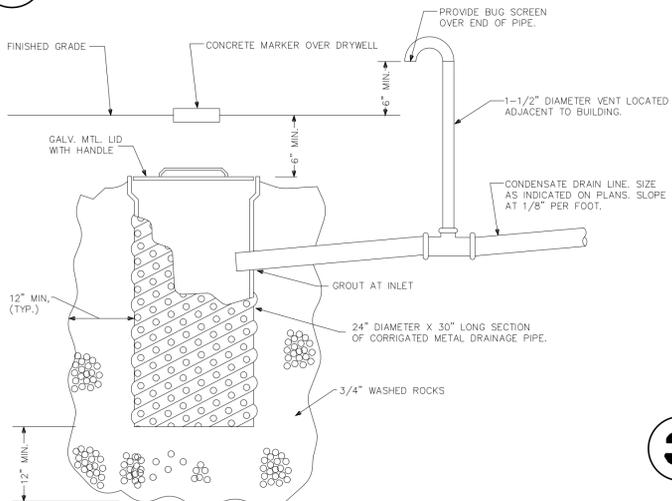
① 2" VENT UP THRU FLOOR ABOVE TO ROOF.





1 VENT THRU ROOF DETAIL

NO SCALE

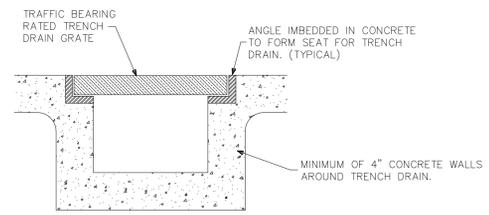


2 DRYWELL DETAIL

NO SCALE

PLUMBING ABBREVIATION LEGEND			
DN.	DOWN	C.C.	CENTER TO CENTER
EXT.	EXTERIOR	N.T.S.	NOT TO SCALE
F.D.	FLOOR DRAIN	MFR.	MANUFACTURER
F.F.	FINISH FLOOR	S.O.V.	SHUT OFF VALVE
A.F.F.	ABOVE FINISH FLOOR	W.C.	WATER CLOSET
V.T.R.	VENT THRU ROOF	LAV.	LABORATORY
TYP.	TYPICAL	SK.	SINK
R.D.	ROOF DRAIN	D.W.	DISH WASHER
REV.	REVISION	E.D.F.	ELECTRIC DRINKING FOUNTAIN
O.C.	ON CENTER	UR.	URINAL
F.U.	FIXTURE UNITS	H.B.	HOSE BIBBS
N.S.	NOT TO SCALE	C.O.	CLEANOUT
E.W.H.	ELECTRIC WATER HEATER	JAN.SK.	JANITOR SINK
P & T	PRESSURE & TEMPERATURE	RWL.	RAIN WATER LEADER

PLUMBING SYMBOLS LEGEND	
	FLOOR DRAIN
	HOSE BIBB
	CLEANOUT
	RELIEF VALVE
	AIR CHAMBER
	UNION
	SOIL OR WASTE LINE
	SANITARY VENT LINE
	DOMESTIC COLD WATER
	DOMESTIC HOT WATER
	DOMESTIC WATER RECIRCULATION
	PRESSURE & TEMP. RELIEF LINE
	CONDENSATE DRAIN LINE
	RAIN WATER LEADER
	GAS LINE
	SAFEWASTE LINE
	FIRE PROTECTION
	SHUT OFF VALVE
	SAFEPAN LINE
	FIRE SPRINKLER HEAD
	PIPE TURN UP
	PIPE TURN DOWN
	P-TRAP

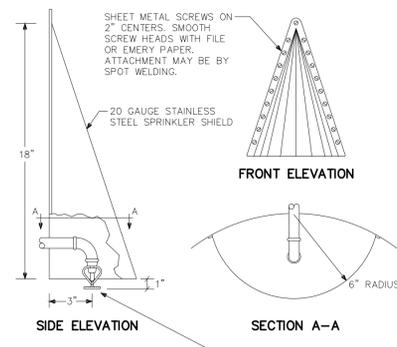


4 TRENCH DRAIN DETAIL

NO SCALE

3 LAUNDRY CHUTE SPRINKLER DETAIL

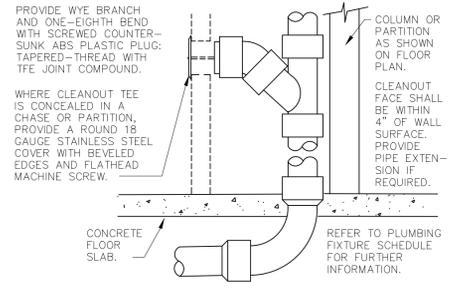
NO SCALE



GWH-1 (SEALED COMBUSTION GAS WATER HEATER) & ST-1/ST-2 (STORAGE TANKS) SCHEDULE

WATER HEATER SHALL BE A LOCHINVAR MODEL CFN0651PM COPPER-FIN II GAS FIRED COMMERCIAL WATER HEATER. 650,000 BTU INPUT TO PRODUCE 670 GALLONS PER HOUR OF HOT WATER AT 100° RISE. WATER HEATER SHALL INCLUDE A FLOW SWITCH, MANUAL RESET HIGH LIMIT AND A B&G MODEL 60-B14S RATED FOR 90 GPM @ 15' TDH TO CIRCULATE BETWEEN HEATER AND TANK. PROVIDE (2) TWO LOCHINVAR MODEL RJA200, 200 GALLON CAPACITY LOCK TEMP JACKETS AND INSULATED GLASSLINED STORAGE TANK. 5 YEAR LIMITED WARRANTY ON STORAGE AGAINST TANK FAILURE. WATER HEATER SHALL MEET OR EXCEED ALL APPLICABLE SECTIONS OF ASHRAE SECTIONS 90-80A AND NAECA REQUIREMENTS FOR ENERGY CONSERVATION.

* NOTE: PROVIDE OPTIONAL POWERED VENT CAP FOR HORIZONTAL DIRECT AIR VENTING.



5 WALL CLEANOUT DETAIL

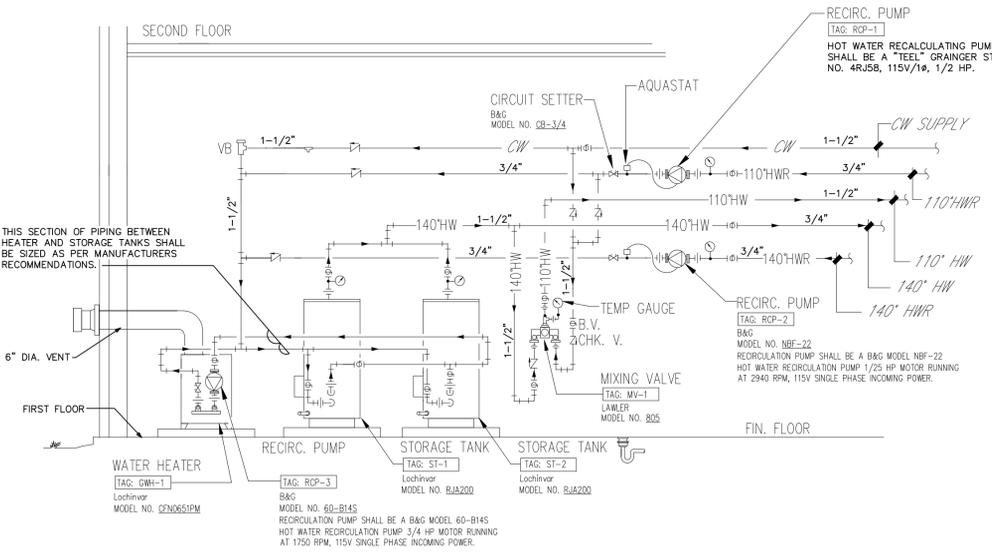
NO SCALE

GENERAL PLUMBING NOTES

- Drawings are diagrammatic and shall not be scaled. Refer to architectural plans and elevations for exact location of all plumbing fixtures, equipment, etc. Plumbing contractor shall furnish and install all items required for a complete and acceptable working installation.
- All work and materials shall comply with the latest edition of the National, State, and all local codes and Ordinances having jurisdiction.
- The plumbing contractor shall visit the site and thoroughly familiarize himself with all existing conditions. All execution and backfill as required for this phase of construction shall be a part of this contract.
- All material shall be new.
- All work shall be performed by a licensed plumbing contractor in a first class workmanlike manner. The completed system shall be fully operative and accepted by engineer/architect.
- All required insurance shall be provided for protection against public liability or property damage for the duration of the work.
- The plumbing contractor shall secure and pay all permit fees, inspections, and tests.
- All work shall be coordinated with other trades to avoid interference with the progress of construction.
- The plumbing contractor shall guarantee all materials and workmanship free from defects for a period of not less than (1) one year from date of acceptance. Correction of any defects shall be completed without additional charge and shall include replacement or repair of any other phase of the installation which may have been damaged thereby.
- Verify location, size and inverts of all existing utilities prior to start of construction. Advise architect/engineer of any discrepancies.
- All fixtures shall be provided with readily accessible stops.
- Water piping shall be type "L" copper for up to and including 2" and shall be type "K" for 2 1/2" and larger.
- Soil, wastes and vent piping shall be PVC #40 DMV. Waste and vent piping above slab shall be PVC, if approved by local authorities having jurisdiction, otherwise cast iron. PVC shall not be installed in A/C return air plenum or penetrate fire rated walls or floors.
- Air conditioning condensate drain piping shall be PVC #40 or copper drain waste and bent pipe and fittings. Insulate all condensate piping except exterior piping. Install all condensate piping for air conditioning units as required per local codes.
- Furnish and install approved air chambers at each plumbing fixture and PDI approved shock arresters on main lines and risers.
- Provide chrome plated combination covered plate and cleanout plug for all wall cleanouts, Josam 58690.
- Insulate lines as follows:
 - Hot water supply and return: 1" thick fibreglass.
 - Condensate piping: 1/2" thick armatex preformed.

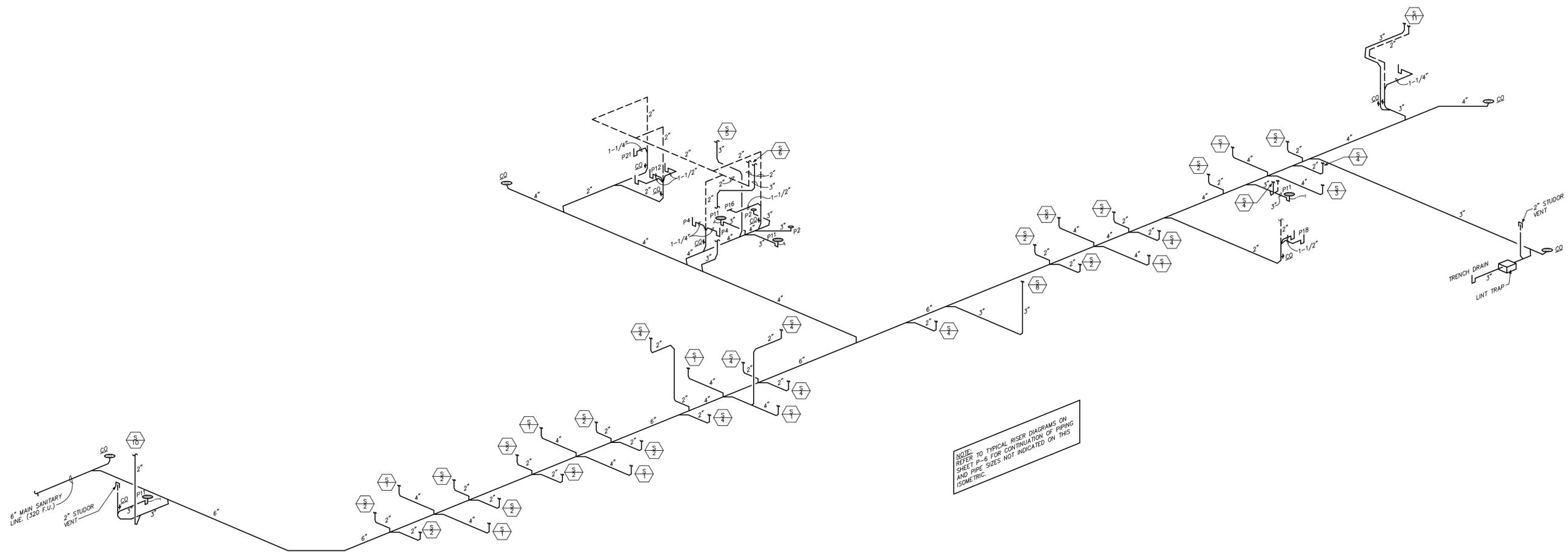
6 WATER HEATING SYSTEM PIPING SCHEMATIC

NO SCALE



PLUMBING FIXTURE SCHEDULE

- P-1 (WATER CLOSET)**
SHALL BE AN AMERICAN STANDARD MODEL NEW CADET II AQUAMETER 2174.139 ELONGATED 1.6 GPF. VITREOUS CHINA, SIPHON ACTION BOWL, CLOSE-COUPLED TANK, SPEED CONNECT TANK/BOWL COUPLING SYSTEM TOILET AND AN OLSONITE # 95 OPEN FRONT SEAT LESS COVER. PROVIDE WC WITH AN AMERICAN STANDARD FLUSH-MATE.
- P-2 (HANDICAPPED WATER CLOSET)**
SHALL BE AN AMERICAN STANDARD MODEL CADET II 2216.143 ELONGATED 1.6 GPF. VITREOUS CHINA, SIPHON ACTION BOWL, CLOSE-COUPLED TANK, SPEED CONNECT TANK/BOWL COUPLING SYSTEM TOILET AND AN OLSONITE # 95 OPEN FRONT SEAT LESS COVER. PROVIDE HC WC WITH AN AMERICAN STANDARD FLUSH-MATE.
- P-3 (COUNTER TOP LAVATORY)**
SHALL BE AN AMERICAN STANDARD MODEL RONDALYN 0491.019 VITREOUS CHINA SELF-RIMMING STYLE CLASSIC ROUND SHAPE. HERITAGE FAUCET 5401.152H TO INCLUDE AN OMNI PRESSURE COMPENSATING 0.5 GPM FLOW RESTRICTOR.
- P-4 (HANDICAPPED WALL HUNG LAVATORY)**
SHALL BE AN AMERICAN STANDARD MODEL LUCERNE 0256.028 ENAMELED CAST IRON ACID RESISTING LAVATORY WITH SOAP DEPRESSION. PROVIDE A 5401.172H HERITAGE CENTERSET FAUCET WITH 4" WRIST BLADE HANDLES TO INCLUDE AN OMNI PRESSURE COMPENSATING 0.5 GPM FLOW RESTRICTOR. AQUASEAL VALVES AND CHROME FINISH. GRID DRAIN. OFFSET PERFORATED WHEELCHAIR LAVATORY DRAIN ASSEMBLY WITH 1-1/2" TAILPIECE. MCGUIRE #155WC.
- P-5 (TUB/SHOWER)**
SHOWER MIXING VALVE (HOT AND COLD WATER)
SHALL BE A SPEAKMAN SENTINEL MARK II REGENCY MODEL #SM-1400-AF-SS ANTI-SCALD BALANCED PRESSURE SHOWER VALVE WITH AN INLINE OMNI PRESSURE COMPENSATING 2.5 GPM FLOW RESTRICTOR.
(COORDINATE FINAL TUB/SHOWER STALL SPECIFICATIONS WITH OWNER)
- P-6 (HANDICAPPED TUB/SHOWER)**
SHOWER SHALL INCLUDE AN SPEAKMAN MODEL VS-1970-SS-3 SENTINEL MARK II REGENCY CONCEALED ANTI-SCALD BALANCED PRESSURE SHOWER VALVE AND HAND HELD SPRAY COMBINATION WITH 69" WHITE VINYL REINFORCED HOSE. ALSO INCLUDED IN THIS PACKAGE IS A COSMOPOLITAN SHOWER HEAD MODEL #S-2270-AF WITH WATER CONSERVING COMPENSATING AUTOFLOW DEVICE SET TO 2.5 GPM. (COORDINATE FINAL TUB/SHOWER STALL SPECIFICATIONS WITH OWNER)
- P-7 (HANDICAPPED SHOWER)**
SHOWER STALL BY OWNER.
SHOWER SHALL INCLUDE AN SPEAKMAN MODEL VS-1970-SS-3 SENTINEL MARK II REGENCY CONCEALED ANTI-SCALD BALANCED PRESSURE SHOWER VALVE AND HAND HELD SPRAY COMBINATION WITH 69" WHITE VINYL REINFORCED HOSE. ALSO INCLUDED IN THIS PACKAGE IS A COSMOPOLITAN SHOWER HEAD MODEL #S-2270-AF WITH WATER CONSERVING COMPENSATING AUTOFLOW DEVICE SET TO 2.5 CFM.
- P-8 (JACUZZI)**
COORDINATE FINAL SPECIFICATIONS WITH OWNER.
- P-9 (SINGLE BOWL STAINLESS STEEL SINK)**
SHALL BE AN ELKAY LUSTERTONE MODEL DLH-2222-10-C SINGLE BOWL STAINLESS STEEL SELF-RIMMING SINK WITH LK2432 HI-ARC FAUCET TO INCLUDE AN OMNI PRESSURE COMPENSATING 2.0 GPM FLOW RESTRICTOR.
- P-10 (CLOTHES WASHER)**
COORDINATE FINAL SPECIFICATIONS WITH OWNER.
- P-11 (FLOOR DRAIN WITH TRAP PRIMER)**
SHALL BE A JOSAM 30003-A-50 SERIES COATED CAST IRON FLOOR DRAIN. TWO PIECE BODY WITH DOUBLE DRAINAGE FLANGE, WE-LOC INVERTIBLE NON-PUNCTURING FLASHING COLLAR, WEEPHOLES, BOTTOM OUTLET, INSIDE CAULK CONNECTION AND ADJUSTABLE SATIN NIKALOY ROUND SUPERLO STRAINER.
- P-12 (3 COMPARTMENT S.S. SINK)**
COORDINATE FINAL SPECIFICATIONS WITH OWNER.
- P-13 (HANDICAPPED ELECTRIC WATER COOLER - COMBINATION H/L/O)**
SHALL BE AN OASIS MODEL PLF8WMSL, 8.0 GPH, 4.8 FLA AT 120 VOLT WITH A 1/5 HP COMPRESSOR.
- P-14 (LARGE CLOTHES WASHING MACHINE)**
COORDINATE FINAL SPECIFICATIONS WITH OWNER.
- P-15 (LARGE CLOTHES DRYER)**
COORDINATE FINAL SPECIFICATIONS WITH OWNER.
- P-16 (URINAL)**
WALL MOUNTED BLOWOUT, VITREOUS CHINA WATER SAVER WITH WALL HANGERS 1-1/4" TOP SPUD AND PRIVACY SHIELDS. AMERICAN STANDARD #6531.019 LYNEROOK FLUSH VALVE. EXPOSED CHROME PLATED METAL OSCILLATING HANDLE ESCUTCHEON, SEAT BUMPER, INTEGRAL SCREWDRIVER STOP AND VACUUM BREAKER. SLOAN ROYAL 180-YB.
- P-17 (DOUBLE COMPARTMENT LAUNDRY SINK)**
BY OWNER.
- P-18 (DOUBLE COMPARTMENT STAINLESS STEEL SINK)**
SHALL BE AN ELKAY LUSTERTONE MODEL LH-3322-C SELF RIMMING DOUBLE COMPARTMENT STAINLESS STEEL SINK WITH LK2433 HI-ARC FAUCET TO INCLUDE AN OMNI PRESSURE COMPENSATING 2.0 GPM FLOW RESTRICTOR.
- P-19 (EXTERIOR HOSE BIBB W/HANDWHEEL)**
SHALL BE A "MIDCO" SERIES 63.5, GRANGER STOCK NO. 5E407, 3/4" SOLID BRONZE HOSE BIBB WITH ALUMINUM HANDWHEEL.
- P-20 (HANDICAPPED ELECTRIC WATER COOLER)**
SHALL BE AN OASIS MODEL PLF8WME, 8.0 GPH, 4.8 FLA AT 120 VOLT WITH A 1/5 HP COMPRESSOR.
- P-21 (HAND SINK)**
COORDINATE FINAL SPECIFICATIONS WITH OWNER.
- NOTES:**
- ALL PLUMBING FIXTURES SHALL BE AS SPECIFIED OR APPROVED EQUAL.
 - PROVIDE ANGLE STOPS ON ALL WATER SERVICE LINES TO FIXTURES FOR INDIVIDUAL SHUT-OFF.
 - ALL HANDICAP PLUMBING FIXTURES SHALL BE INSTALLED AS PER LATEST A.D.A. REQUIREMENTS.
 - ALL FIXTURES EXCLUDING STAINLESS STEEL SINK SHALL BE A BONE COLOR. COORDINATE WITH OWNER PRIOR TO ORDERING FIXTURES.
 - ALL PLUMBING FIXTURES SHALL BE WHITE.



NOTE: TO TYPICAL RISER DIAGRAMS ON SHEET P-6 FOR CONTINUATION OF PIPING AND PIPE SIZES NOT INDICATED ON THIS ISOMETRIC.

1 **OVERALL BUILDING BELOW FLOOR SANITARY ISOMETRIC**
NO SCALE

