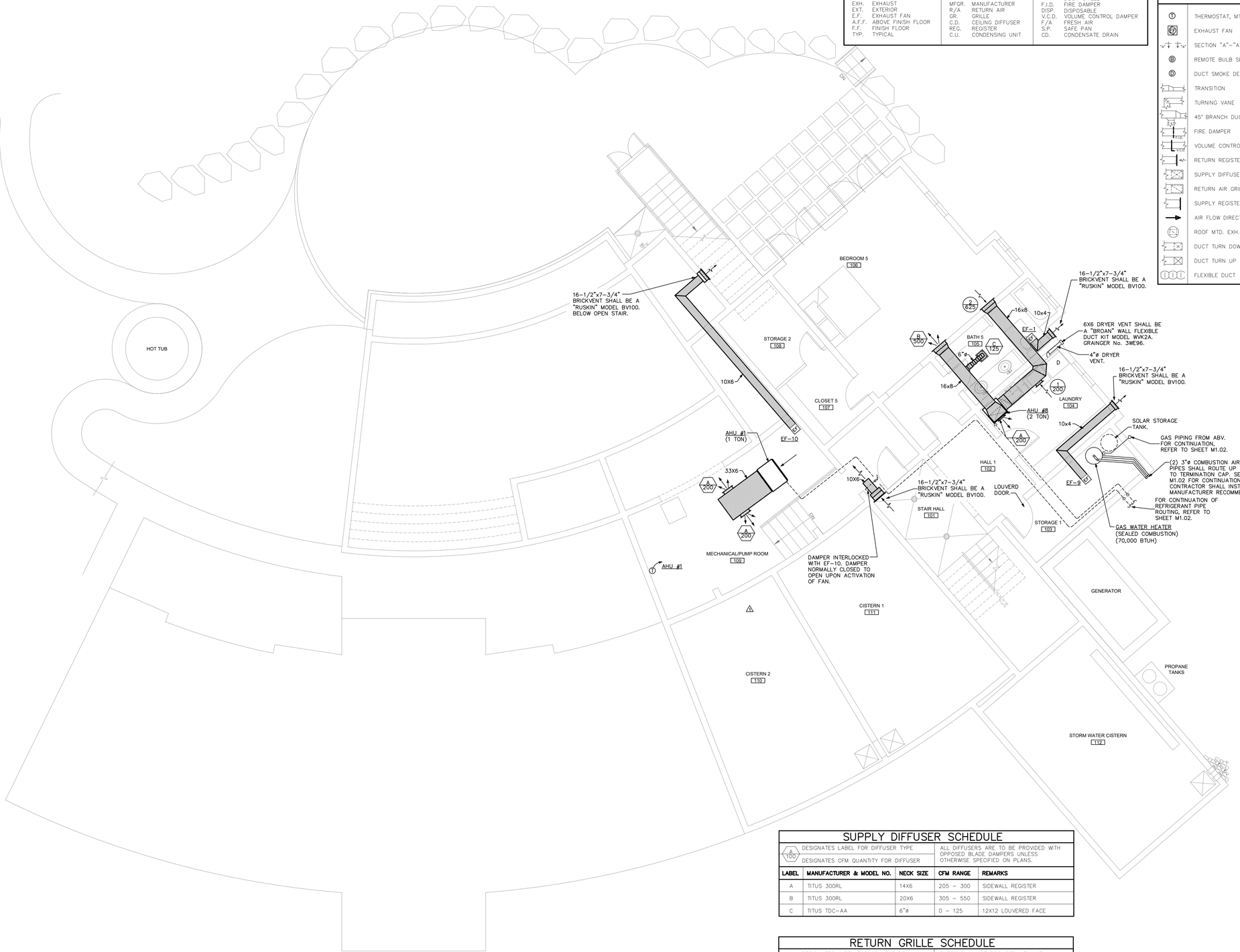
H.V.A.C. ABBREVIATION LEGEND

A/C	AIR CONDITIONER	REV.	REVISION	A.H.U.	AIR HANDLING UNIT
DN.	DOWN	N.T.S.	NOT TO SCALE	D.G.	DOOR GRILLE
EXH.	EXHAUST	MFGR.	MANUFACTURER	F.I.D.	FIRE DAMPER
EXT.	EXTERIOR	R/A	RETURN AIR	DISP.	DISPOSABLE
E.F.	EXHAUST FAN	GR.	GRILLE	V.C.D.	VOLUME CONTROL DAMPER
A.F.F.	ABOVE FINISH FLOOR	C.D.	CEILING DIFFUSER	F/A	FRESH AIR
F.F.	FINISH FLOOR	REG.	REGISTER	S.P.	SAFE PAN
TYP.	TYPICAL	C.U.	CONDENSING UNIT	CD.	CONDENSATE DRAIN

HVAC SYMBOLS LEGEND

- THERMOSTAT, MTD +60" AFF
- EXHAUST FAN
- SECTION "A"-"A"
- REMOTE BULB SENSOR
- DUCT SMOKE DETECTOR
- TRANSITION
- TURNING VANE
- 45° BRANCH DUCT TAKE-OFF
- FIRE DAMPER (FIRE)
- VOLUME CONTROL DAMPER (VCD)
- RETURN REGISTER
- SUPPLY DIFFUSER
- RETURN AIR GRILLE
- SUPPLY REGISTER
- AIR FLOW DIRECTION
- ROOF MTD. EXH. FAN
- DUCT TURN DOWN
- DUCT TURN UP
- FLEXIBLE DUCT



SUPPLY DIFFUSER SCHEDULE

(A/100) DESIGNATES LABEL FOR DIFFUSER TYPE
DESIGNATES CFM QUANTITY FOR DIFFUSER

ALL DIFFUSERS ARE TO BE PROVIDED WITH OPPOSED BLADE DAMPERS UNLESS OTHERWISE SPECIFIED ON PLANS.

LABEL	MANUFACTURER & MODEL NO.	NECK SIZE	CFM RANGE	REMARKS
A	TITUS 300RL	14X6	205 – 300	SIDEWALL REGISTER
B	TITUS 300RL	20X6	305 – 550	SIDEWALL REGISTER
C	TITUS TDC-AA	6"ø	0 – 125	12X12 LOUVERED FACE

RETURN GRILLE SCHEDULE

(#/100) DESIGNATES LABEL FOR GRILLE TYPE
DESIGNATES CFM QUANTITY FOR GRILLE

FILTER SHALL BE PROVIDED AT UNIT.

LABEL	MANUFACTURER & MODEL NO.	NECK SIZE	CFM RANGE	REMARKS
1	TITUS 355FL	10X6	130 – 200	SIDEWALL REGISTER
2	TITUS 355FL	30X6	205 – 650	SIDEWALL REGISTER

1 CISTERN LEVEL PLAN - MECHANICAL

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

NORTH

M1.01

SUPPLY DIFFUSER SCHEDULE

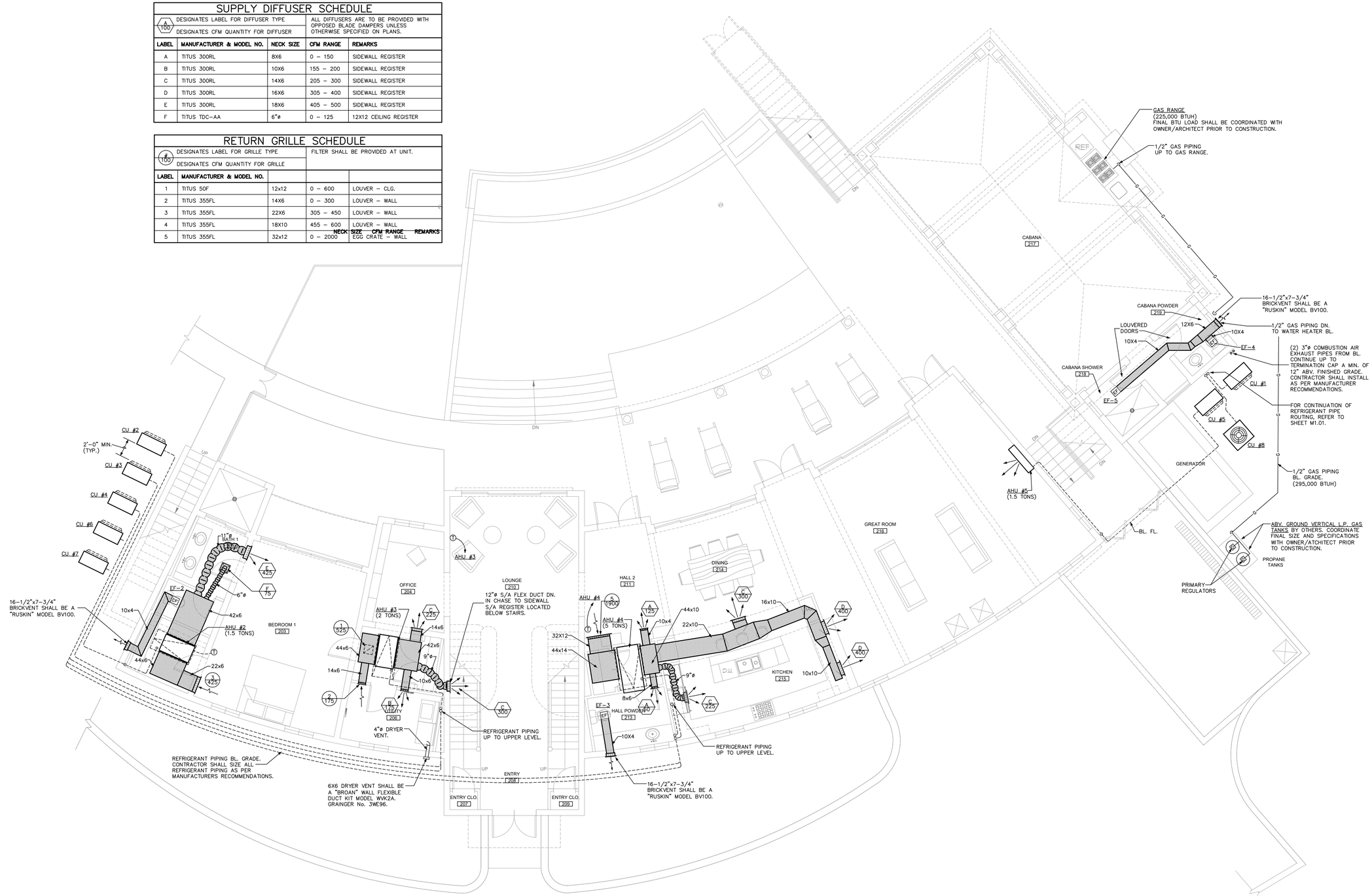
(A) / 100 — DESIGNATES LABEL FOR DIFFUSER TYPE / DESIGNATES CFM QUANTITY FOR DIFFUSER	ALL DIFFUSERS ARE TO BE PROVIDED WITH OPPOSED BLADE DAMPERS UNLESS OTHERWISE SPECIFIED ON PLANS.

LABEL	MANUFACTURER & MODEL NO.	NECK SIZE	CFM RANGE	REMARKS
A	TITUS 300RL	8X6	0 – 150	SIDEWALL REGISTER
B	TITUS 300RL	10X6	155 – 200	SIDEWALL REGISTER
C	TITUS 300RL	14X6	205 – 300	SIDEWALL REGISTER
D	TITUS 300RL	16X6	305 – 400	SIDEWALL REGISTER
E	TITUS 300RL	18X6	405 – 500	SIDEWALL REGISTER
F	TITUS TDC–AA	6"ø	0 – 125	12X12 CEILING REGISTER

RETURN GRILLE SCHEDULE

(#) / 100 — DESIGNATES LABEL FOR GRILLE TYPE / DESIGNATES CFM QUANTITY FOR GRILLE	FILTER SHALL BE PROVIDED AT UNIT.

LABEL	MANUFACTURER & MODEL NO.	NECK SIZE	CFM RANGE	REMARKS
1	TITUS 50F	12x12	0 – 600	LOUVER – CLG.
2	TITUS 355FL	14X6	0 – 300	LOUVER – WALL
3	TITUS 355FL	22X6	305 – 450	LOUVER – WALL
4	TITUS 355FL	18X10	455 – 600	LOUVER – WALL
5	TITUS 355FL	32x12	0 – 2000	EGG CRATE – WALL

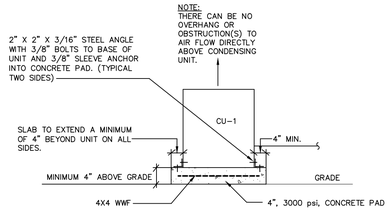


1 MAIN LEVEL PLAN - MECHANICAL

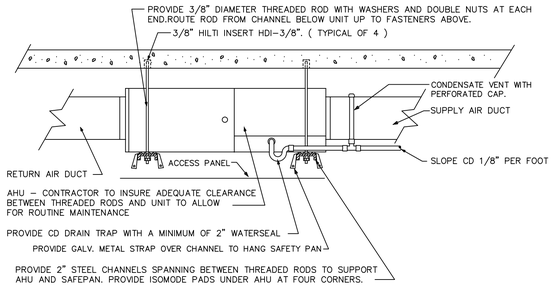
SCALE: 3/16"=1'–0"

NORTH

M1.02

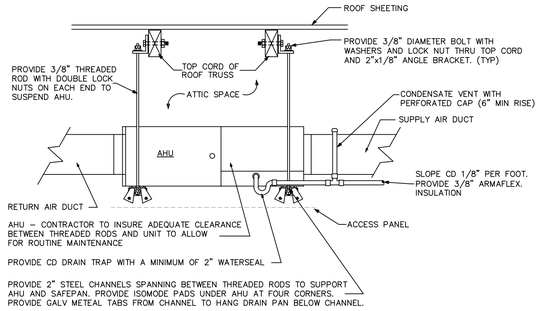


2 COND. UNIT MTG. DETAIL
NO SCALE



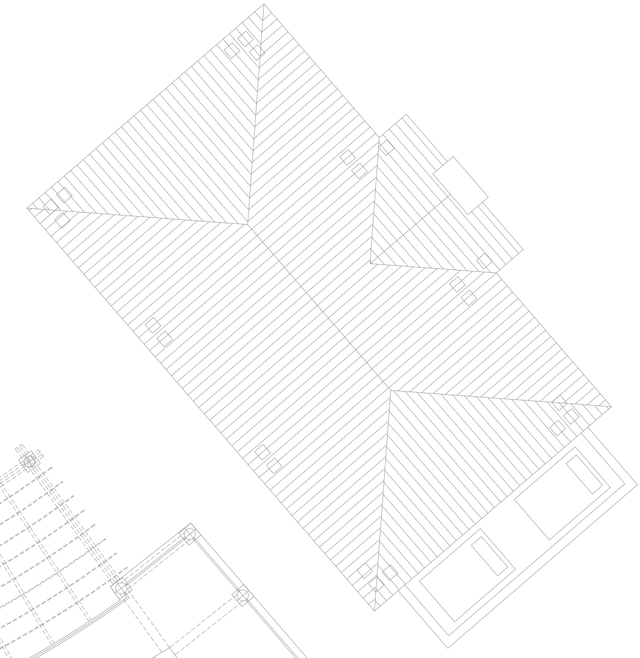
(AHU #1-4)

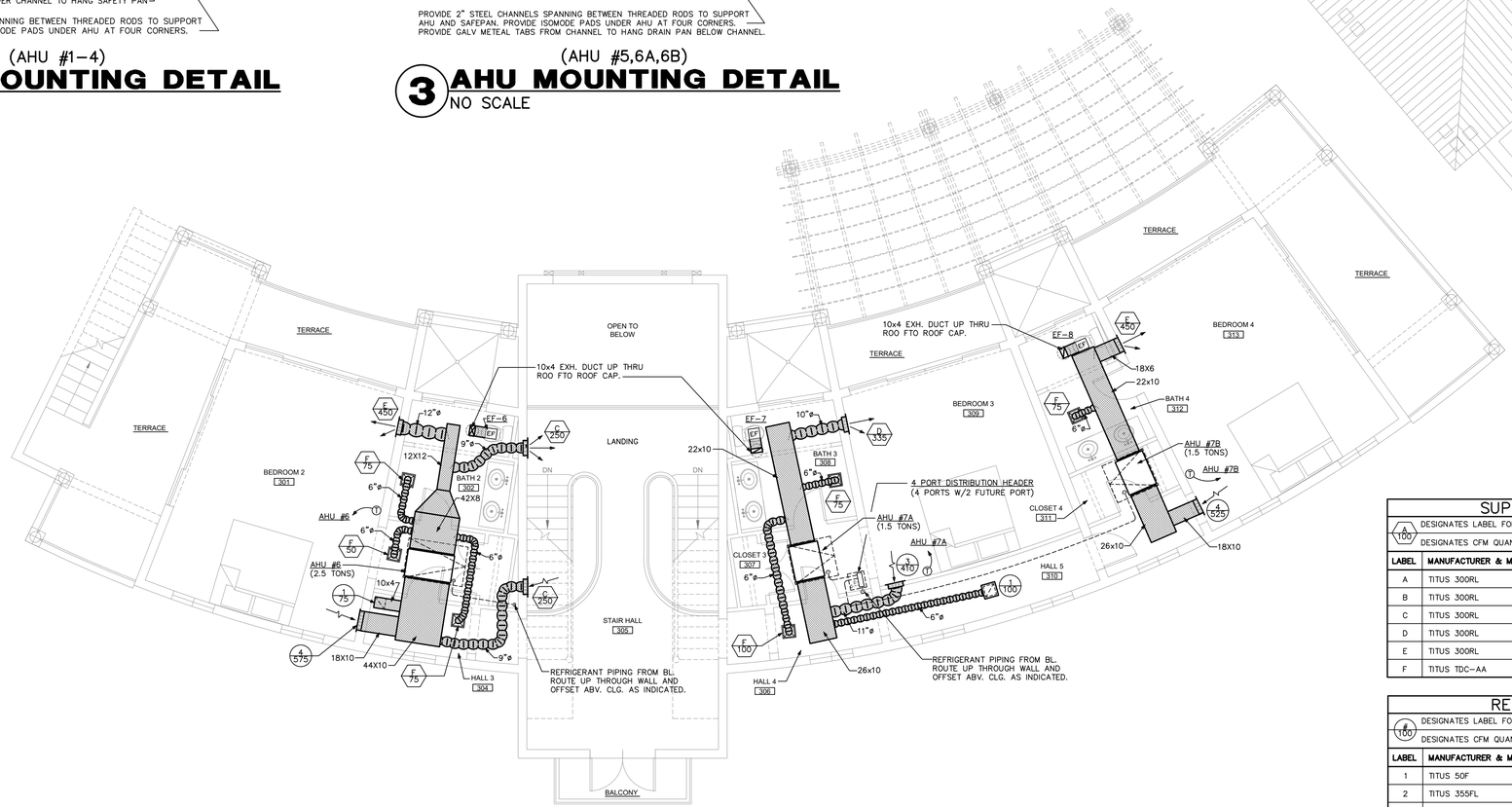
4 AHU MOUNTING DETAIL
NO SCALE



(AHU #5,6A,6B)

3 AHU MOUNTING DETAIL
NO SCALE





1 UPPER LEVEL PLAN - MECHANICAL
SCALE: 3/16"=1'-0"

NORTH

SUPPLY DIFFUSER SCHEDULE

(A/100) DESIGNATES LABEL FOR DIFFUSER TYPE
DESIGNATES CFM QUANTITY FOR DIFFUSER

ALL DIFFUSERS ARE TO BE PROVIDED WITH OPPOSED BLADE DAMPERS UNLESS OTHERWISE SPECIFIED ON PLANS.

LABEL	MANUFACTURER & MODEL NO.	NECK SIZE	CFM RANGE	REMARKS
A	TITUS 300RL	8X6	0 - 150	SIDEWALL REGISTER
B	TITUS 300RL	10X6	155 - 200	SIDEWALL REGISTER
C	TITUS 300RL	14X6	205 - 300	SIDEWALL REGISTER
D	TITUS 300RL	16X6	305 - 400	SIDEWALL REGISTER
E	TITUS 300RL	18X6	405 - 500	SIDEWALL REGISTER
F	TITUS TDC-AA	6"ø	0 - 125	12X12 CEILING REGISTER

RETURN GRILLE SCHEDULE

(#/100) DESIGNATES LABEL FOR GRILLE TYPE
DESIGNATES CFM QUANTITY FOR GRILLE

FILTER SHALL BE PROVIDED AT UNIT.

LABEL	MANUFACTURER & MODEL NO.	NECK SIZE	CFM RANGE	REMARKS
1	TITUS 50F	12x12	0 - 600	LOUVER - CLG.
2	TITUS 355FL	14X6	0 - 300	LOUVER - WALL
3	TITUS 355FL	22X6	305 - 450	LOUVER - WALL
4	TITUS 355FL	18X10	455 - 600	LOUVER - WALL
5	TITUS 355FL	32x12	0 - 2000	EGG CRATE - WALL

SPLIT SYSTEM AIR CONDITIONING SCHEDULE (MITSUBISHI SYSTEMS)

SPLIT SYSTEM SCHEDULE (OUTDOOR UNITS)

Tag Reference	Model Number	Nominal Cooling Capacity (BTU/h)	Cooling Efficiency EER or SEER	Voltage / Phase	Electrical-Per Module 208V/1 phase		Notes / Options
					MCA 208V/230V	MFS	
CU #1	PUY-A12NHA4-BS	12,000.00	13.8 SEER	208/230V /	13	15	1, 2, 3, 4, 5
CU #2	PUY-A18NHA4-BS	18,000.00	14.3 SEER	208/230V /	13	20	1, 2, 3, 4, 5
CU #3	PUY-A24NHA4-BS	24,000.00	16 SEER	208/230V /	18	30	1, 2, 3, 4, 5
CU #4	PUMY-P60NKMU-BS	60,000.00	12.5 EER	208-230V / 1-phase	35	40	1, 2, 3, 4, 5
CU #5	PUY-A18NHA4-BS	18,000.00	15.3 SEER	208/230V /	13	20	1, 2, 3, 4, 5
CU #6	PUY-A30NHA4-BS	30,000.00	15.5 SEER	208/230V /	25	40	1, 2, 3, 4, 5
CU #7	PUMY-P36NHMUR4-BS	36,000.00	14.3 SEER	208-230V / 1-phase	26	40	1, 2, 3, 4, 5

Notes & Options:
1 Nominal cooling capacities are based on indoor coil EAT of 80/67°F (DB/WB), outdoor of 95°F (DB)
2 Nominal heating capacities are based on indoor coil EAT of 70°F (DB), outdoor of 43°F (WB)
3 Efficiency values for EER, IEER, COP are based on AHRI 1230 test method for mixture of ducted & non-ducted indoor units.
4 For systems with multiple modules, refrigerant pipe dimensions indicate total system combined piping downstream of module twinning.
5 Added field charge listed is in addition to factory charge, this must be updated based upon final as-built piping layout.

Split System Schedule (Indoor Units)

Tag Reference	Room Name	Model	Type	Remote Sensor	Nominal Cooling Capacity (BTU/h)	Fan Airflow (CFM)	Voltage / Phase	Electrical MCA/MFS	Notes / Options
AHU #1	Mech/Pump Rm.	PEA-A12AA4	Ceiling concealed type (ducted)	Yes	12,000.00	400	208V/1-phase	Powered by Outdoor	1, 2, 3, 4, 5, 6
AHU #2	Bedroom 1	PEA-A18AA4	Ceiling concealed type (ducted)	Yes	18,000.00	500	208V/1-phase	Powered by Outdoor	1, 2, 3, 4, 5, 6
AHU #3	Lounge/Office/Utility	PEAD-A24AA4	Ceiling concealed type (ducted)	Yes	24,000.00	700	208V/1-phase	Powered by Outdoor	1, 2, 3, 4, 5, 6
AHU #4	Hall/Dining/Great Rm.	PEFY-P54NMAU-E3	Ceiling concealed type (ducted)	Yes	54,000.00	1,500	208V/1-phase	MFS/15	1, 2, 3, 4, 5, 6
AHU #5	Great Rm.	PKA-A18HA4	Wall mounted type	Yes	18,000.00	500	208V/1-phase	Powered by Outdoor	1, 2, 3, 4, 5, 6
AHU #6	Bedroom 2	PEAD-A30AA4	Ceiling concealed type (ducted)	Yes	30,000.00	900	208V/1-phase	Powered by Outdoor	1, 2, 3, 4, 5, 6
AHU #7A	Bedroom 3	PEFY-P18NMAU-E	Ceiling concealed type (ducted)	Yes	18,000.00	600	208V/1-phase	MFS/15	1, 2, 3, 4, 5, 6
AHU #7B	Bedroom 4	PEFY-P18NMAU-E	Ceiling concealed type (ducted)	Yes	18,000.00	600	208V/1-phase	MFS/15	1, 2, 3, 4, 5, 6

Notes & Options:
1 Nominal cooling capacities are based on indoor coil EAT of 80/67°F (DB/WB), outdoor of 95°F (DB)
2 Nominal heating capacities are based on indoor coil EAT of 70°F (DB), outdoor of 43°F (WB)
3 See outdoor unit schedule for outdoor ambient conditions, connected capacity, and other factors associated with
4 See schematic piping/control diagram for indication of required indoor unit remote controllers, system controllers, and
5 Full demand corrected capacity includes de-rate associated with indoor vs. outdoor connected capacity indicated on outdoor unit schedule for associated system. Partial corrected capacity assumes sufficient diversity exists such that the connected capacity de-rate does not apply. It is the designer's responsibility to ensure "Diamond System Builder" is set in the appropriate output capacity setting (full demand/partial demand) prior to generating this schedule.
6 It is recommended to always base heating corrected capacity on full demand.

SPLIT SYSTEM AIR CONDITIONING SCHEDULE CONTINUED (VERTICAL UNIT)

CONDENSING UNIT

CU LABEL(S)	MANUFACTURER & MODEL NO.	TOTAL CAPACITY	SENSIBLE CAPACITY	COMP. RLA	FAN FLA	VOLTAGE	MOCP	EER/SEER
CU #8	CARRIER 24ACB324A003	23,000	17,810	13.5	.75	208V/1ø	25A	13.0

AIR HANDLING UNIT

AHU LABEL(S)	MANUFACTURER & MODEL NO.	TOTAL CFM	O/A CFM	E.S.P.	BLOWER SPEED	FAN HP	HEATER KW	VOLTAGE	NOTES
AHU #8	CARRRIER FX4CNF001005	800	SEE SCH.	.30"	HIGH	1/4 HP	–	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
MOCP – 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 PROVIDE WITH 24 VOLT CONTROL.
6) PROVIDE BUILT-IN DISCONNECT/CIRCUIT BREAKER IN AIR HANDLING UNIT.

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 – 8	CABINET FAN – REFER TO PLANS	PENN ZEPHYR Z6	90	.125"	CEILING MOUNTED	50 WATTS	OPEN DRIP PROOF	1055	115V/1ø	1
EF-9,10	CABINET FAN – REFER TO PLANS	PENN ZEPHYR Z7	190	.125"	CEILING MOUNTED	68 WATTS	OPEN DRIP PROOF	1640	115V/1ø	1

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

CITY MULTI
SYSTEM SCHEMATIC DWG.

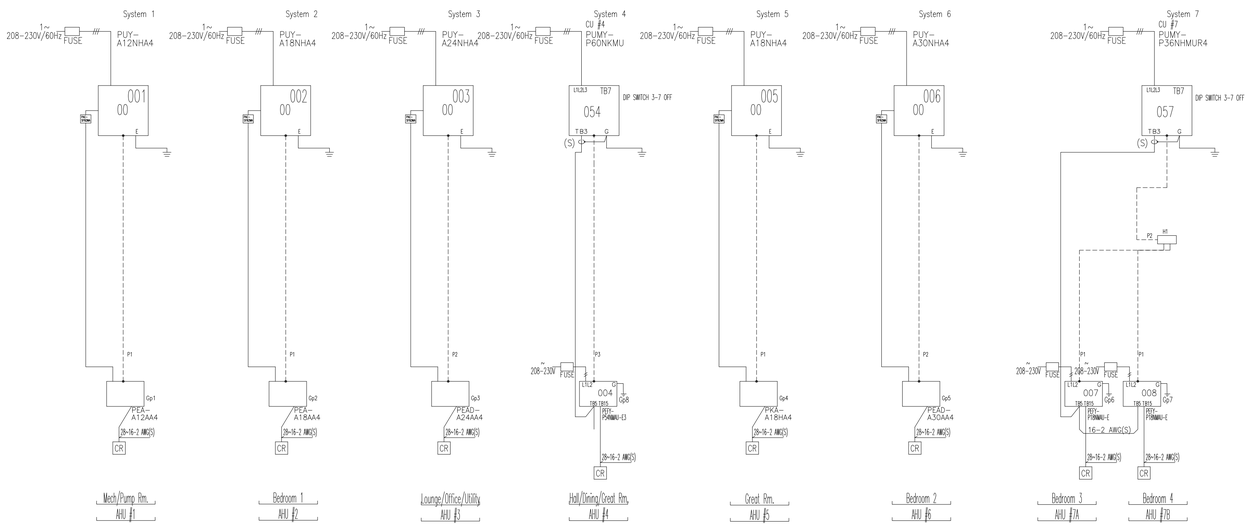
Additional refrigerant charge is needed depending on the size and length of extended piping. Please refer the amount of pre-charge and the formula of calculation which is mentioned on the data book.
1.25mm²(16 AWG) : 1.25mm²(16 AWG) or more. 0.75mm²(20 AWG) : between 0.5mm²(24 AWG) and 0.75mm²(20 AWG).

Lau Residence

DIAGRAM SYMBOL LEGEND	
DISPLAY	DESCRIPTION
-///-	POWER WIRE
———	CONTROL WIRE
———	REF. PIPE

CONT.No | PAGE

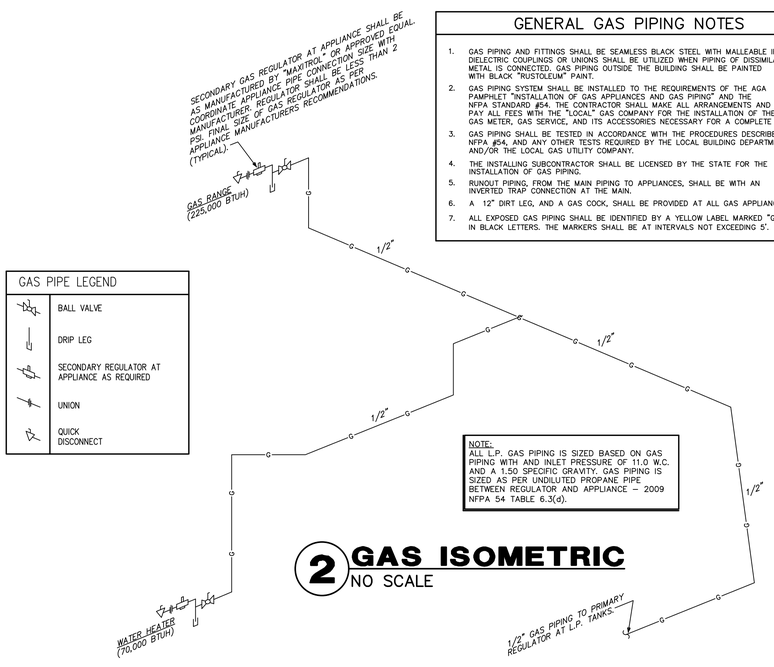
PIPING LIST		
SYMBOL	BRANCH PIPE MODEL NAME	
H1	CMY-Y64-G-E	
SYMBOL	LIQUID PIPE/GAS PIPE SIZE	
P1	1/4	1/2
P2	3/8	5/8
P3	3/8	3/4



1 MITSUBISHI CITY MULTI SYSTEM SCHEMATIC
NO SCALE

GENERAL GAS PIPING NOTES

1. GAS PIPING AND FITTINGS SHALL BE SEAMLESS BLACK STEEL WITH MALLEABLE IRON FITTINGS. DIELECTRIC COUPLINGS OR UNIONS SHALL BE UTILIZED WHEN PIPING OF DISSIMILAR METAL IS CONNECTED. GAS PIPING OUTSIDE THE BUILDING SHALL BE PAINTED WITH BLACK "RUSTOLEUM" PAINT.
2. GAS PIPING SYSTEM SHALL BE INSTALLED TO THE REQUIREMENTS OF THE AGA PAMPHLET "INSTALLATION OF GAS APPLIANCES AND GAS PIPING" AND THE NFPA STANDARD #54. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS AND PAY ALL FEES WITH THE "LOCAL" GAS COMPANY FOR THE INSTALLATION OF THE GAS METER, GAS SERVICE, AND ITS ACCESSORIES NECESSARY FOR A COMPLETE SYSTEM.
3. GAS PIPING SHALL BE TESTED IN ACCORDANCE WITH THE PROCEDURES DESCRIBED IN NFPA #54, AND ANY OTHER TESTS REQUIRED BY THE LOCAL BUILDING DEPARTMENT AND/OR THE LOCAL GAS UTILITY COMPANY.
4. THE INSTALLING SUBCONTRACTOR SHALL BE LICENSED BY THE STATE FOR THE INSTALLATION OF GAS PIPING.
5. RUNOUT PIPING, FROM THE MAIN PIPING TO APPLIANCES, SHALL BE WITH AN INVERTED TRAP CONNECTION AT THE MAIN.
6. A 12" DIRT LEG, AND A GAS COCK, SHALL BE PROVIDED AT ALL GAS APPLIANCES.
7. ALL EXPOSED GAS PIPING SHALL BE IDENTIFIED BY A YELLOW LABEL MARKED "GAS" IN BLACK LETTERS. THE MARKERS SHALL BE AT INTERVALS NOT EXCEEDING 5'.



GAS PIPE LEGEND	
	BALL VALVE
	DRIP LEG
	SECONDARY REGULATOR AT APPLIANCE AS REQUIRED
	UNION
	QUICK DISCONNECT

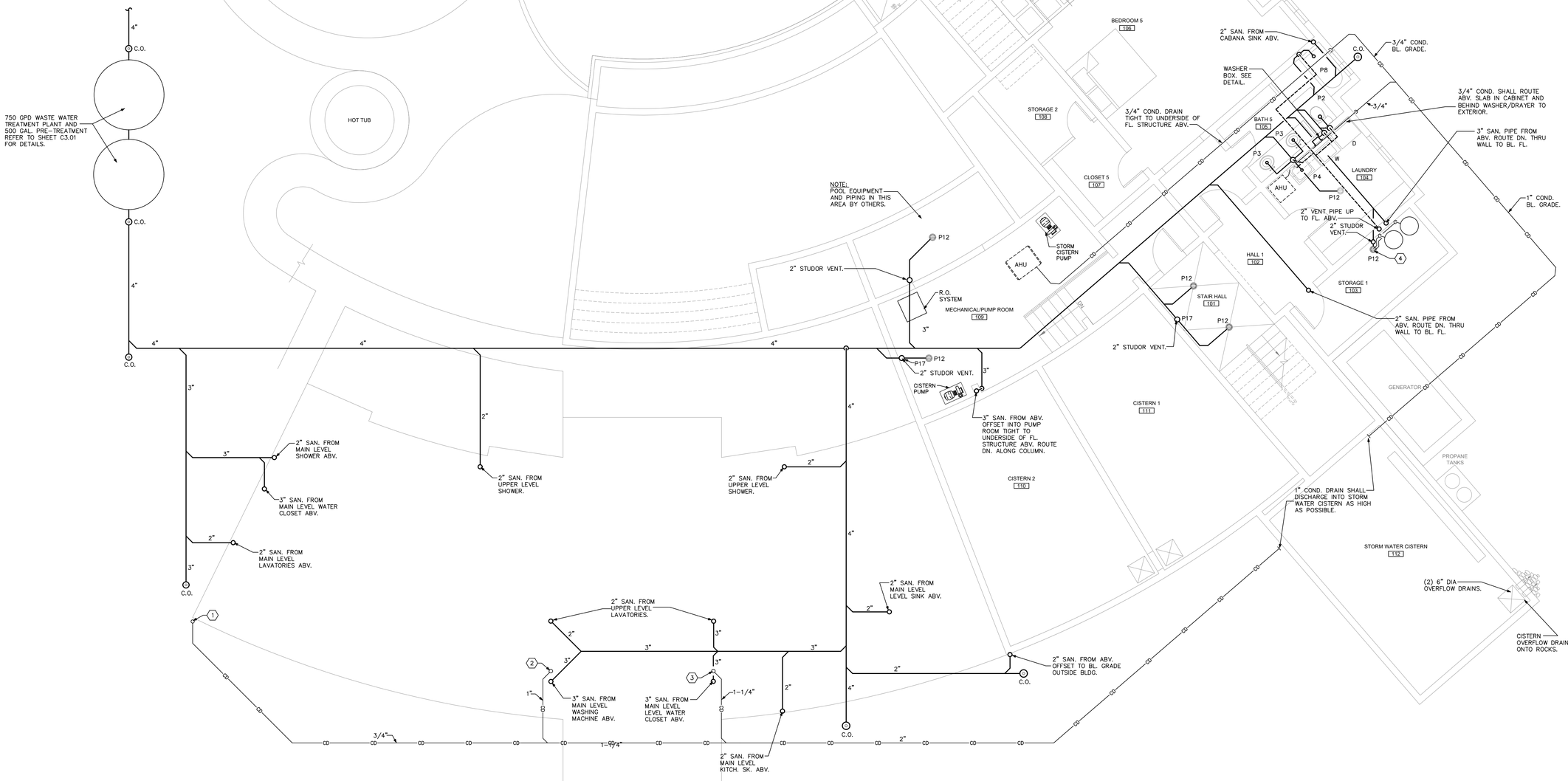
NOTE:
ALL L.P. GAS PIPING IS SIZED BASED ON GAS PIPING WITH AND INLET PRESSURE OF 11.0 W.C. AND A 1.50 SPECIFIC GRAVITY. GAS PIPING IS SIZED AS PER UNDILUTED PROPANE PIPE BETWEEN REGULATOR AND APPLIANCE – 2009 NFPA 54 TABLE 6.3(d).

2 GAS ISOMETRIC
NO SCALE

M2.01

SPECIFIC PLUMBING NOTES

1. 3/4" CONDENSATE DRAIN FROM ABOVE. OFFSET BELOW GRADE AS INDICATED.
2. 1" CONDENSATE DRAIN FROM ABOVE. OFFSET BELOW GRADE AS INDICATED.
3. 1-1/4" CONDENSATE DRAIN FROM ABOVE. OFFSET BELOW GRADE AS INDICATED.
4. 3/4" P&T RELIEF DRAIN FOR FROM WATER HEATER AND SOLAR HEATING STORAGE TANK SHALL ROUTE TO FLOOR DRAIN. DISCHARGE A MIN. OF 2" ABV. DRAIN.
5.



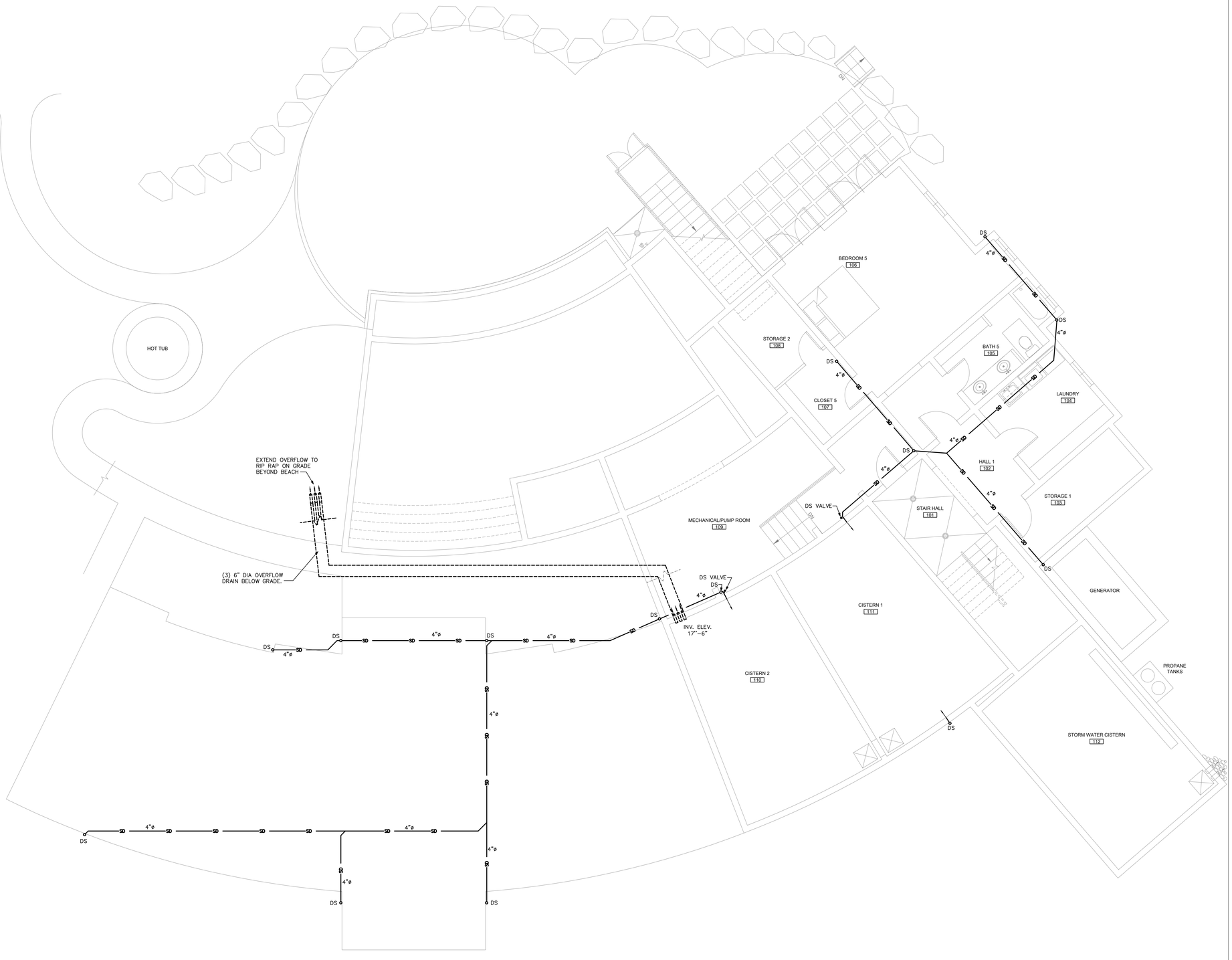
(SANITARY PIPING)

1 CISTERN LEVEL PLAN - PLUMBING

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

NORTH

P1.01A



(STORM DRAIN PIPING)

1 CISTERN LEVEL PLAN - PLUMBING

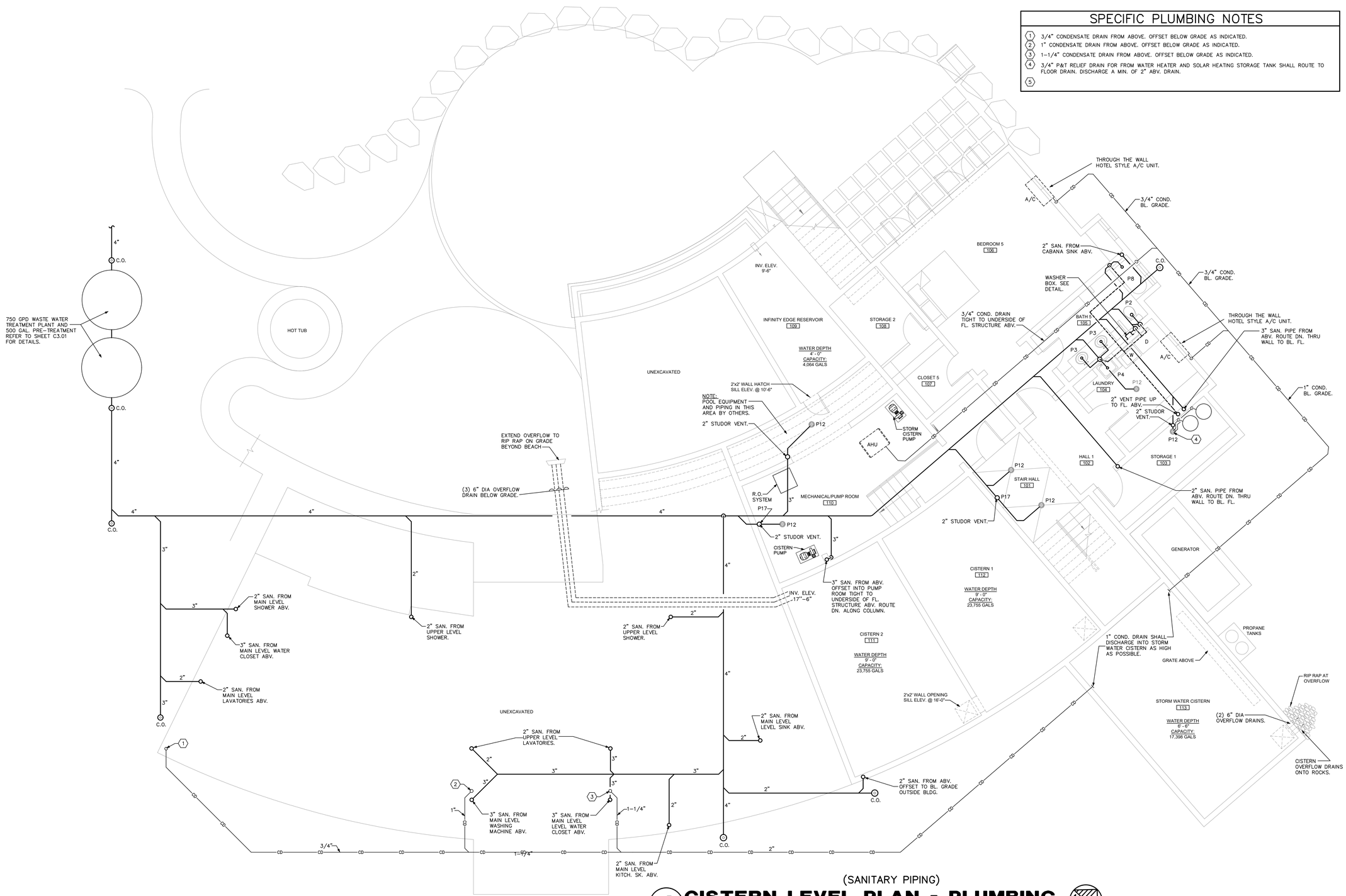
SCALE: 3/16"=1'-0"

NORTH

P1.01B

SPECIFIC PLUMBING NOTES

1. 3/4" CONDENSATE DRAIN FROM ABOVE. OFFSET BELOW GRADE AS INDICATED.
2. 1" CONDENSATE DRAIN FROM ABOVE. OFFSET BELOW GRADE AS INDICATED.
3. 1-1/4" CONDENSATE DRAIN FROM ABOVE. OFFSET BELOW GRADE AS INDICATED.
4. 3/4" P&T RELIEF DRAIN FOR FROM WATER HEATER AND SOLAR HEATING STORAGE TANK SHALL ROUTE TO FLOOR DRAIN. DISCHARGE A MIN. OF 2" ABV. DRAIN.
5.



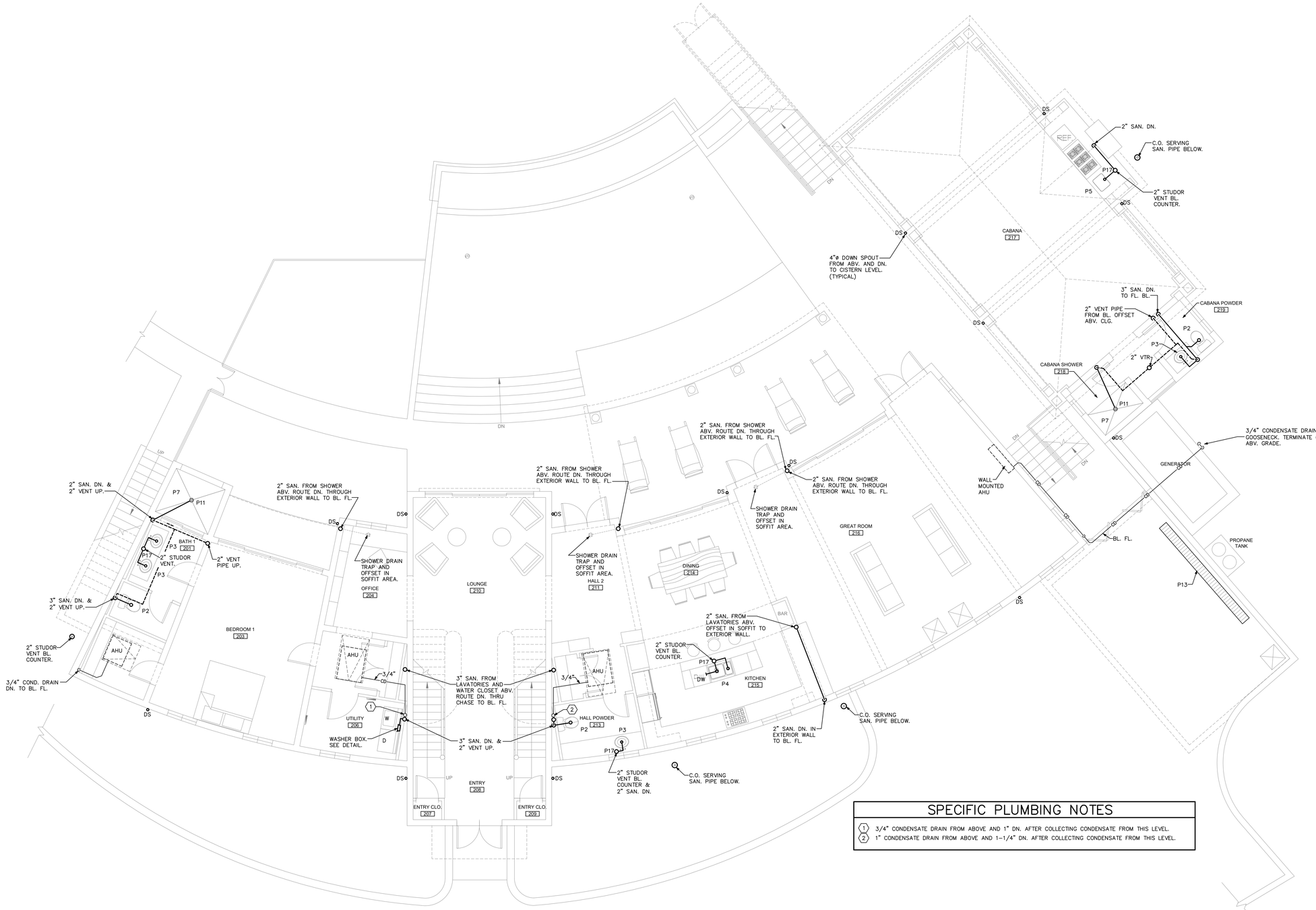
(SANITARY PIPING)

1 CISTERN LEVEL PLAN - PLUMBING

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

NORTH

P1.01



SPECIFIC PLUMBING NOTES

1. 3/4" CONDENSATE DRAIN FROM ABOVE AND 1" DN. AFTER COLLECTING CONDENSATE FROM THIS LEVEL.
2. 1" CONDENSATE DRAIN FROM ABOVE AND 1-1/4" DN. AFTER COLLECTING CONDENSATE FROM THIS LEVEL.

(SANITARY PIPING)

1 MAIN LEVEL PLAN - PLUMBING

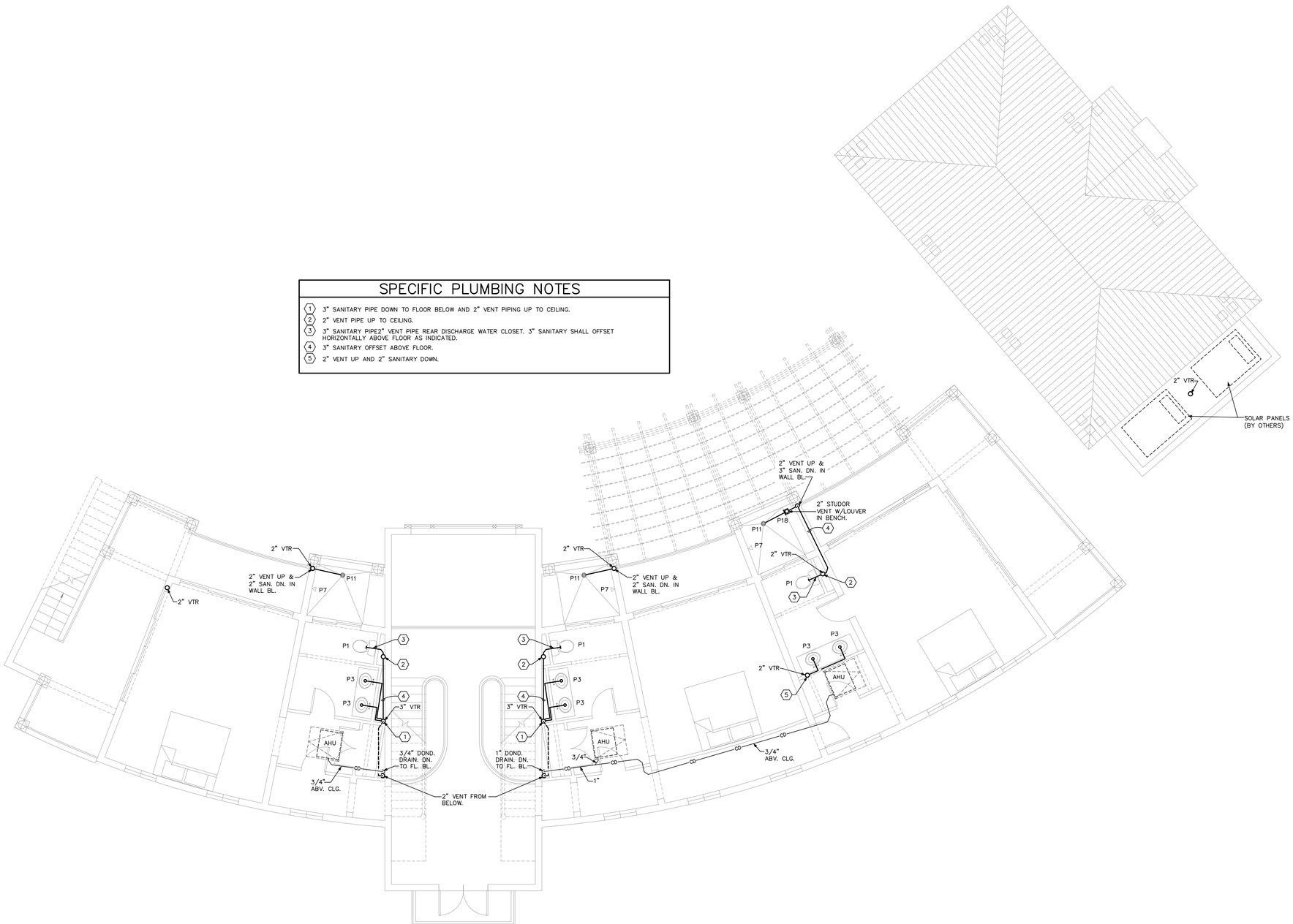
SCALE: 3/16"=1'-0"

NORTH

P1.02

SPECIFIC PLUMBING NOTES

1. 3" SANITARY PIPE DOWN TO FLOOR BELOW AND 2" VENT PIPING UP TO CEILING.
2. 2" VENT PIPE UP TO CEILING.
3. 3" SANITARY PIPE2" VENT PIPE REAR DISCHARGE WATER CLOSET. 3" SANITARY SHALL OFFSET HORIZONTALLY ABOVE FLOOR AS INDICATED.
4. 3" SANITARY OFFSET ABOVE FLOOR.
5. 2" VENT UP AND 2" SANITARY DOWN.

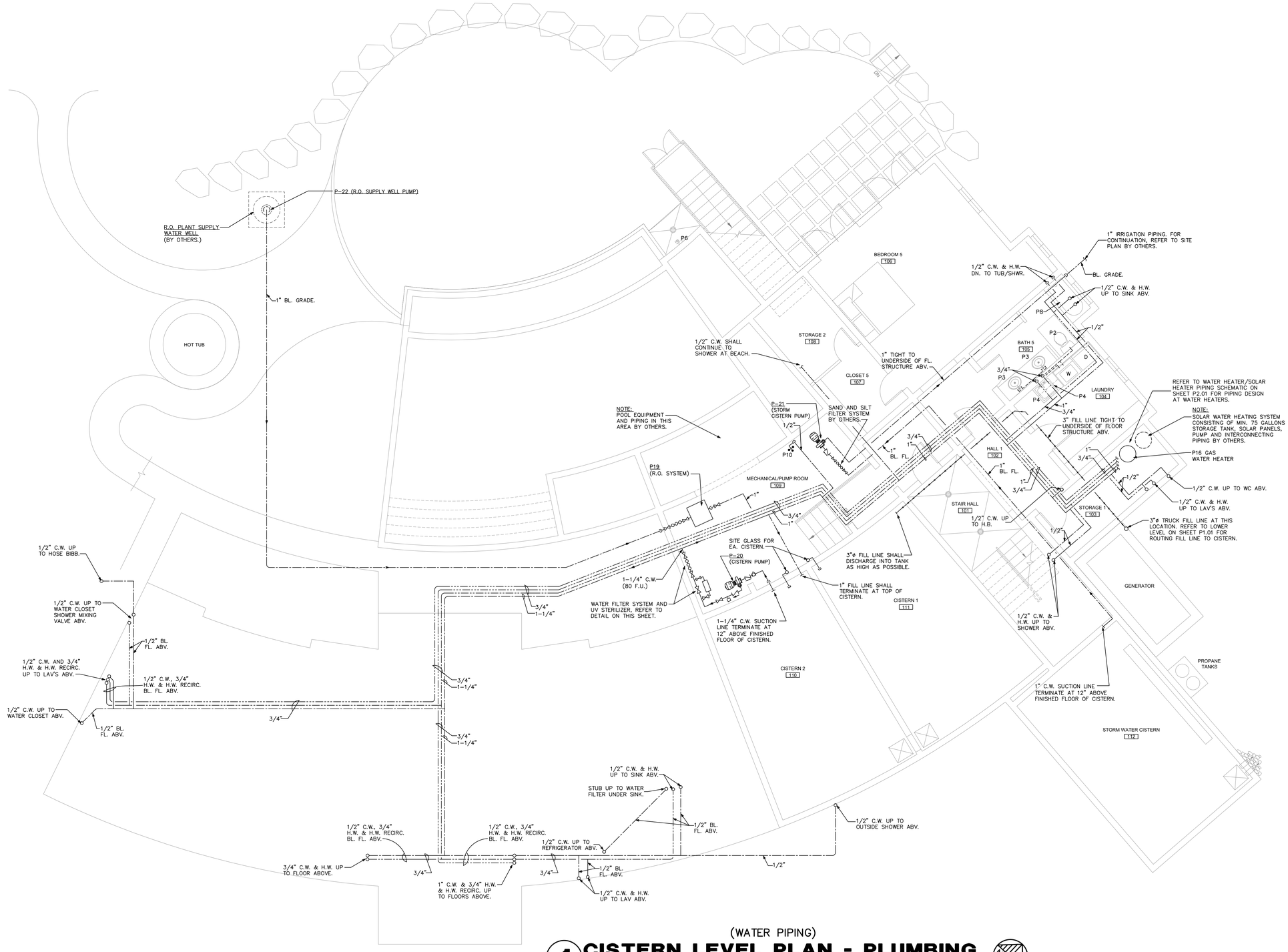


(SANITARY PIPING)

1 UPPER LEVEL PLAN - PLUMBING

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

NORTH



(WATER PIPING)

1 CISTERN LEVEL PLAN - PLUMBING

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

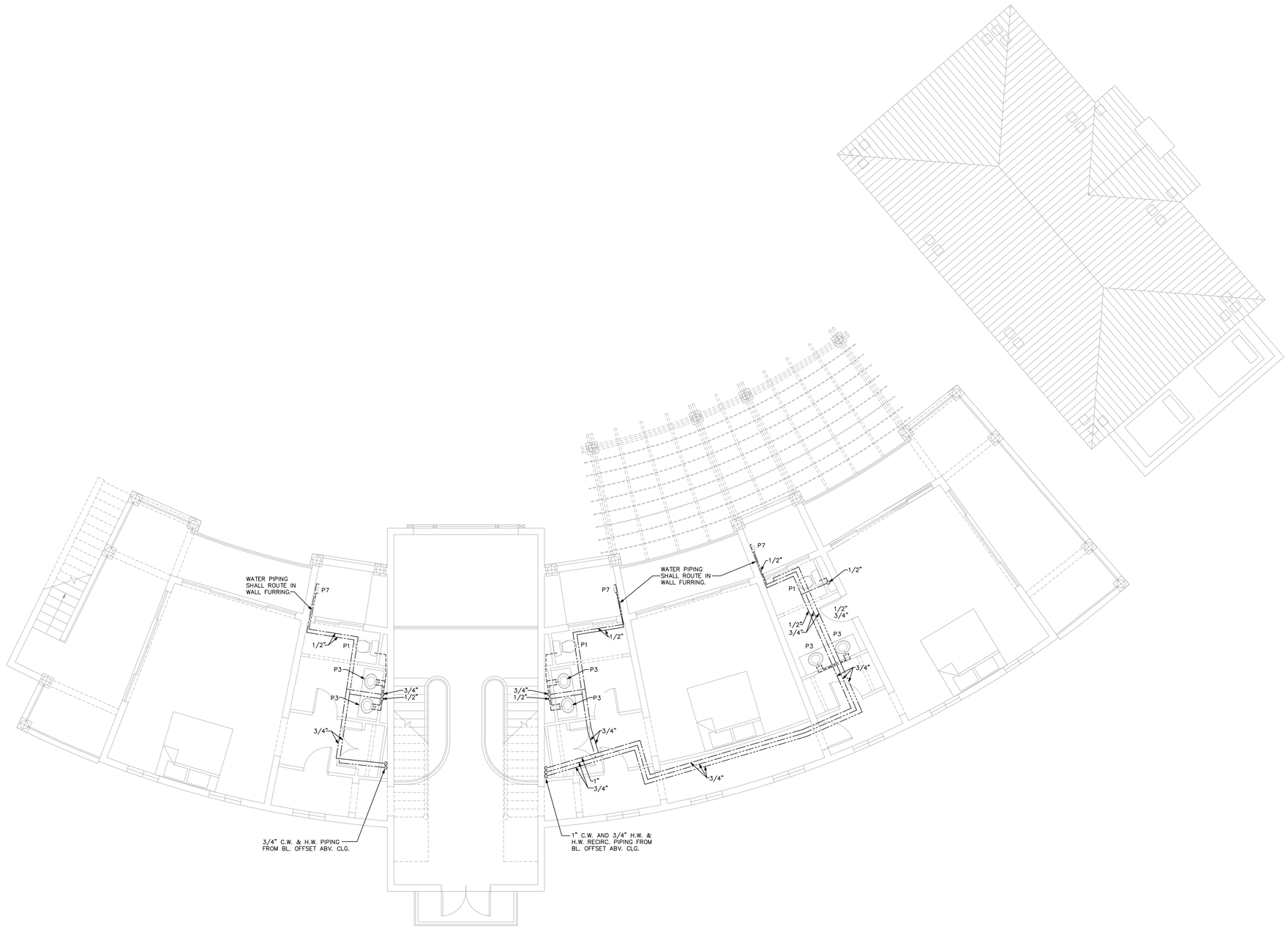
(WATER PIPING)

1 MAIN LEVEL PLAN - PLUMBING

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

NORTH

P1.05



1 UPPER LEVEL PLAN - PLUMBING

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

NORTH

PLUMBING FIXTURE SCHEDULE

P-1 (WATER CLOSET - FLOOR MOUNT, REAR DISCHARGE)
SHALL BE A "KOHLER" WELLWORTH K-3554 WHITE. FLUSH TANK TOILET. FLOOR MOUNT REAR DISCHARGE WATER CLOSET.
http://www.us.kohler.com/webassets/kpna/catalog/pdf/en/1050803_4.pdf

P-2 (WATER CLOSET - FLOOR MOUNT, BOTTOM DISCHARGE)
SHALL BE A "KOHLER" WELLWORTH K-3531 WHITE. FLUSH TANK TOILET.
http://www.us.kohler.com/webassets/kpna/catalog/pdf/en/1054184_4.pdf

P-3 (COUNTER TOP LAVATORY W/FAUCET)
COORDINATE FINAL SPECIFICATIONS WITH OWNER/ARCHITECT PRIOR TO CONSTRUCTION.

P-4 (SINK W/FAUCET)
COORDINATE FINAL SPECIFICATIONS WITH OWNER/ARCHITECT PRIOR TO CONSTRUCTION.

P-5 (CABANA SINK W/FAUCET)
SHALL BE A "JUST" MODEL SBL-1515-A-GR, 18"X12"X6". SINGLE BOWL, SEAMLESS DIE-DRAWN CONSTRUCTION OF TYPE 304, 18-8 STAINLESS STEEL. INTERIOR AND TOP SURFACES POLISHED TO A NONPOROUS HAND-BLENDED JUST FINISH WITH HIGHLIGHTED BOWL RIM. FULLY COATED UNDERSIDE INSULATED FOR SOUND AND REDUCES CONDENSATION. STRAIGHT-SIDED COMPARTMENT WITH RADIUS CORNERS PROVIDES GREATER CAPACITY. SELF- RIMMING TOP MOUNT GRIP-RIM PLUS WITH STAINLESS STEEL MOUNTING CHANNELS. CONFORMS TO ASME/ANSI A112.19.3M. CERTIFIED CONFORMANCE WITH ASME A112.19.3/CSA B45.4. FAUCET SHALL BE A "JUST" MODEL JGN-4-W4 WITH 4" WRIST BLADE HANDLES.
* http://www.justmfg.com/PDF/SBL1515A.pdf
* http://www.justmfg.com/PDF/JGN4.pdf

P-6 (OUTDOOR SHOWER HEAD)
COORDINATE FINAL SPECIFICATIONS WITH OWNER/ARCHITECT.

P-7 (SHOWER MIXING VALVE)
COORDINATE FINAL SPECIFICATIONS WITH OWNER/ARCHITECT.
SHOWER STALL - CUSTOM BUILT. SEE ARCHITECT PLANS FOR DETAILS.

P-8 (BATH TUB/SHOWER COMBO)
COORDINATE FINAL SPECIFICATIONS WITH OWNER/ARCHITECT.

P-9 (HOSE BIBB)
SHALL BE A "WOODFORD" MODEL 101 ANTI-SIPHON WALL FAUCET.
* http://www.wcmind.com/woodford/Wall_Faucet_Pages/Model-101.html

P-10 (HOSE BIBB W/HANDWHEEL)
SHALL BE A "NIBCO" Q755X 3/4, GRAINGER STOCK #1WPV5. HOSE BIBB, NO KINK, QUARTER TURN, NOMINAL SIZE 3/4 IN, CONNECTION FIPT, RATED FOR 125 PSI CWP, MAX TEMP 180 F, OPEN HEIGHT 1 1/2 IN, MATERIAL OF CONSTRUCTION BRASS, ZINC HANDWHEELS, STANDARDS NSF/ANSI 61-9.
* http://www.grainger.com/Grainger/items/1WPV5

P-11 (2" FLOOR DRAIN WITH TRAP SEAL)
SHALL BE A JOSAM 30000-WT-A-49 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 SUPER-FLO STRAINER.
* http://www.josam.com/images/josammkt/sbmtl/s06_30000-WT-A.pdf
FLOOR DRAIN TRAP SEAL
SHALL BE A "SURE SEAL" MODEL SS3000 PREASSEMBLED INLINE FLOOR DRAIN TRAP SEALER, 5 PIECES: COMMERCIAL GRADE ABS PLASTIC HOUSING AND KEEPER PIN, PROPRIETARY NEOPRENE RUBBER DIAPHRAGM, WITH 2 SOFT RUBBER SEALING GASKETS. FLOOR RATING ASSE -1072 AF-GW.
* http://www.thesureseal.com/Portals/49321/docs/pitch_sheet_ss3000.pdf

P-12 (3" FLOOR DRAIN WITH TRAP SEAL)
SHALL BE A JOSAM 30000-WT-A-49 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 SUPER-FLO STRAINER.
* http://www.josam.com/images/josammkt/sbmtl/s06_30000-WT-A.pdf
FLOOR DRAIN TRAP SEAL
SHALL BE A "SURE SEAL" MODEL SS3000 PREASSEMBLED INLINE FLOOR DRAIN TRAP SEALER, 5 PIECES: COMMERCIAL GRADE ABS PLASTIC HOUSING AND KEEPER PIN, PROPRIETARY NEOPRENE RUBBER DIAPHRAGM, WITH 2 SOFT RUBBER SEALING GASKETS. FLOOR RATING ASSE -1072 AF-GW.
* http://www.thesureseal.com/Portals/49321/docs/pitch_sheet_ss3000.pdf

P-13 (12" TRENCH DRAIN GRATE ONLY)
SHALL BE A HEAVY DUTY GRATE ONLY "ZURN" MODEL Z793, 12" WIDE X 14'-0" LONG DURA-COATED CAST IRON HEAVY-DUTY GRATING IN FABRICATED STEEL FRAME WITH ANCHOR STRAPS. REFER TO ARCHITECTURAL PLANS FOR INSTALLATION DETAILS.
* http://content.zurn.com/web_documents/pdfs/specsheets/58966.pdf

P-14 (WATER CONNECTION BOX)
SHALL BE A HIGH QUALITY CONNECTION BOX AS SPECIFIED ON PLUMBINGSUPPLY.COM LOCATED ON THIS PAGE "http://www.plumbingsupply.com/icemaker-outlet-boxes.html" SHALL INCLUDE 2 SUPPORT BRACKETS, HIGH IMPACT POLYSTYRENE, 1/4" BRASS BALL VALVE WITH 1/2" SWEAT CONNECTION. OR APPROVED EQUAL.

P-15 (HOT WATER RECIRCULATING PUMP)
SHALL BE A"BELL & GOSSETT" MODEL #PL-36B, GRAINGER STOCK #5JPC3, INLINE CIRCULATOR PUMP, OPEN LOOP SYSTEM, 1/6 HP, 1 PHASE, VOLTAGE 115, INLET/OUTLET FLANGED, HOUSING MATERIAL BRONZE, MAX. TEMP. 225 F, MAX. WORKING PRESSURE 150 PSI, SHUT-OFF 37 FT., 3300 RPM, IMPELLER MATERIAL NORYL, THERMAL PROTECTION, MECHANICAL SEAL CARBON/SILICON CARBIDE, ADDITIONAL FEATURES MAINTENANCE-FREE, WARRANTY LENGTH 3 YEARS.
* http://www.grainger.com/Grainger/BELL-GOSSETT-Circulator-Pump-5JPC3?Pid=search

P-16 (GAS WATER HEATER - DIRECT VENT - SEALED COMBUSTION)
SHALL BE A STATE "POWER DIRECT VENT" MODEL GS6 75VRPDT GAS FIRED RESIDENTIAL WATER HEATER. 70,000 BTU INPUT TO PRODUCE 130 GALLONS PER HOUR OF HOT WATER AT 100 DEGREE RISE. INSULATED GLASSLINED 75 GALLON STORAGE TANK. WATER HEATER SHALL MEET OR EXCEED ALL APPLICABLE SECTIONS OF ASHRAE SECTIONS 90-80A AND NAECA REQUIREMENTS FOR ENERGY CONSERVATION.
* http://www.statewaterheaters.com/lit/spec/res-gas/SRGSS00107.pdf

P-17 (STUDOR VENT - AIR ADMITTANCE VALVE)
SHALL BE A IPS CORPORATION "STUDOR MINI-VENT". 2" VENT.
* http://www.ipscorp.com/plumbing/studor/minivent
WHEN NEEDED:

P-18 (STUDOR VENT - AIR ADMITTANCE VALVE RECESSED BOX)
SHALL BE A IPS CORPORATION "STUDOR RECESSED BOX" FOR PROPER VENTING.
* http://www.ipscorp.com/plumbing/studor/recessbox

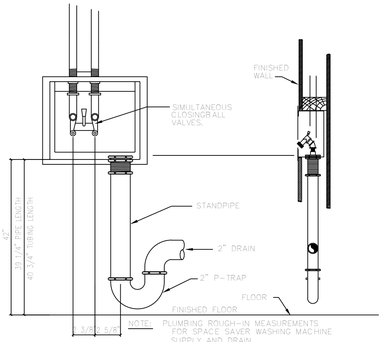
P-19 (R.O. SYSTEM)
SHALL BE A "RAINDANCE" MODEL TV-SWRO-1500 PREMIUM COMPACT DESALINATION SYSTEM, 208V/1Ø, 1500 GPD OUTPUT. INCLUDED IN PACKAGE: HIGH PERFORMANCE SAND, SILT, AND TURBIDITY PRETREATMENT INSTALLED BEFORE DESALINATION UNIT. ULTRAVIOLET DISINFECTION SYSTEM AFTER DESALINATION UNIT. STAINLESS STEEL FRAME, STRUCTURAL ABS CONTROL PANEL. 316 SS HIGH PRESSURE PUMP WITH SAFETY RELIEF VALVE. FIBER REINFORCED 1000 PSI PRESSURE VESSELS, 20" PREFILTER FOR 2.5"X20" CARTRIDGE, QUICK CONNECT BRINE AND PRODUCT CONNECTIONS. PREFILTER IN & OUT AND MEMBRANE VESSEL IN & OUT. PRESSURE GAUGES, PRODUCT WATER FLOW METER, BRINE FLOW METER, HIGH PRESSURE CONTROL SS NEEDLE VALVE, PANEL MOUNTED DIGITAL TDS PRODUCT WATER QUALITY MONITOR, MICROPROCESSOR SYSTEM CONTROLLER, AUTOMATIC PRODUCT WATER MEMBRANE FLUSH.
* http://watersandancewatersystems.com/

P-20 (CISTERN PUMP)
CISTERN PUMP FOR HOUSE SHALL BE A "GRUNDFOS" MODEL CME 5-5 PLUS, 1.5 HP @ 208V/1, 27 GPM @ 157' HD. BLADDER/ACCUMULATOR TANK INCLUDED.

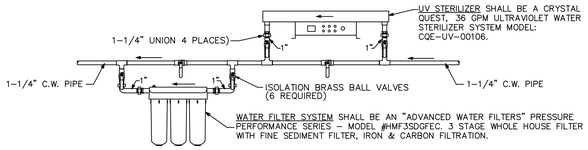
P-21 (STORM CISTERN PUMP)
STORM WATER CISTERN PUMP FOR IRRIGATION SHALL BE A "GRUNDFOS" MODEL CME 5-5 PLUS, 1.5 HP @ 208V/1, 27 GPM @ 157' HD. BLADDER/ACCUMULATOR TANK INCLUDED.

P-22 (R.O. SUPPLY WELL PUMP)
WELL PUMP SHALL BE A "GRUNDFOS" MODEL 7S03-8, .5 HP @ 208V/1, 6 GPM @ 147' HD.

NOTES:
1.) ALL PLUMBING FIXTURES SHALL BE AS SPECIFIED OR APPROVED EQUAL.
2.) PROVIDE ANGLE STOPS ON ALL WATER SERVICE LINES TO FIXTURES FOR INDIVIDUAL SHUT-OFF.



1 WASHER CONN. BOX DTL.
NO SCALE



3-STAGE WATER FILTER - "ADVANCED WATER FILTERS" MODEL #HMF3SDGFEC
http://www.advancedwaterfilters.com/filter-products/home-master-3-stage-sediment-iron-carbon-filter.html

UV STERILIZER - "CRYSTAL QUEST" MODEL CQE-UV-00106
http://www.crystalquest.com/p6.htm

3 WATER FILTER DETAIL
NO SCALE

GENERAL PLUMBING NOTES

1.) 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. CONTRACTOR IS RESPONSIBLE TO INSTALL ALL FIXTURES AND EQUIPMENT IN STRICT COMPLIANCE WITH THE MANUFACTURES INSTALLATION INSTRUCTIONS. THIS REQUIREMENT IS TO SUPERSEDE ANY DETAILS OR INFORMATION CONTAINED ON THESE DRAWINGS.

2.) ALL WORK AND MATERIALS SHALL COMPLY WITH THE LATEST EDITION OF THE NATIONAL, STATE, AND ALL LOCAL CODES AND ORDINANCES HAVING JURISDICTION.

3.) 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.

4.) ALL MATERIAL SHALL BE NEW.

5.) 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.

6.) ALL REQUIRED INSURANCE SHALL BE PROVIDED FOR PROTECTION AGAINST PUBLIC LIABILITY OR PROPERTY DAMAGE FOR THE DURATION OF THE WORK.

7.) THE PLUMBING CONTRACTOR SHALL SECURE AND PAY ALL PERMIT FEES, INSPECTIONS, AND TESTS.

8.) ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGRESS OF CONSTRUCTION.

9.) 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.

10.) VERIFY LOCATION, SIZE AND INVERTS OF ALL EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION. ADVISE ARCHITECT/ENGINEER OF ANY DISCREPANCIES.

11.) ALL FIXTURES SHALL BE PROVIDED WITH READILY ACCESSIBLE STOPS.

12.) ALL BELOW FLOOR SLAB WATER PIPING SHALL BE FLEXIBLE "TEMPRITE PEX (CROSS-LINKED POLYETHYLENE)" INTALLED AS PER MANUFACTURERS RECOMMENDATIONS FOUND HERE: WWW.LUBRIZOL.COM. ALL ABOVE SLAB WATER PIPING SHALL BE "FLOWGUARD GOLD CPVC" INSTALLED AS PER MANUFACTURERS RECOMMENDATIONS FOUND HERE: WWW.FLOWGUARDGOLD.COM. ALL WATER PIPING AS SPECIFIED OR APPROVED EQUAL. ALL WATER PIPING LARGER THAN 1" SHALL BE CPVC.

13.) SOIL, WASTES AND VENT PIPING SHALL BE PVC Ø40 DWV. 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.

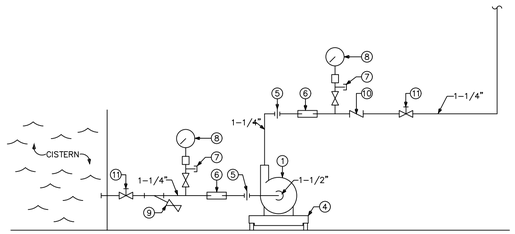
14.) AIR CONDITIONING CONDENSATE DRAIN PIPING SHALL BE PVC Ø40 OR COPPER DRAIN WASTE AND BENT PIPE AND FITTINGS. INSULATE ALL CONDENSATE PIPING EXCEPT EXTERIOR PIPING. INSTALL ALL CONDENSATE PIPING FOR AIR CONDITIONING UNITS AS REQUIRED PER LOCAL CODES.

15.) FURNISH AND INSTALL APPROVED WATER HAMMER ARRESTORS AT EACH GROUP OF FIXTURES. INSTALLATION OF WATER HAMMER ARRESTORS SHALL CONFORM TO THE MANUFACTURER'S RECOMMENDATIONS. PROVIDE AND INSTALL AN APPROVED WATER HAMMER ARRESTOR AT EACH FIXTURE OR DEVICE THAT HAS A SOLENOID WATER CONTROL VALVE.

16.) PROVIDE CHROME PLATED COMBINATION COVERED PLATE AND CLEANOUT PLUG FOR ALL WALL CLEANOUTS, JOSAM 58890.

17.) INSULATE LINES AS FOLLOWS:
A.) 1" THICK ARMAFLEX PREFORMED INSULATION SHALL BE PROVIDED ON BOTH C.W. & H.W. WHEN PIPING IS LOCATED OUTSIDE OF THE INSULATED BUILDING ENVELOPE.
B.) 1/2" THICK ARMAFLEX PREFORMED INSULATION SHALL BE PROVIDED ON HW PIPING & H.W. RECIRC. PIPING, ONLY WHEN THERE IS A H.W. RECIRCULATING PIPING SYSTEM.
C.) CONDENSATE PIPING: 1/2" THICK ARMAFLEX PREFORMED OR APPROVED EQUAL.

18.) STORM DRAIN PIPING SHALL BE SCHED. 40 PVC.

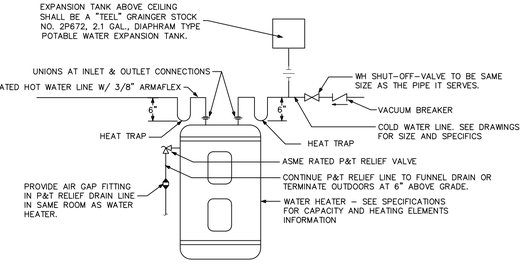


1 PUMP
2 N/A
3 N/A
4 INERTIA BASE
5 UNION
6 FLEXIBLE CONNECTOR
7 GAUGE COCK AND TEST GAUGE FITTING
8 PRESSURE GAUGE WITH SNUBBER
9 STRAINER WITH BLOWOFF
10 CHECK VALVE
11 GATE OR BUTTERFLY VALVE
12 N/A
13 EXPANSION TANK
14 RELIEF VALVE

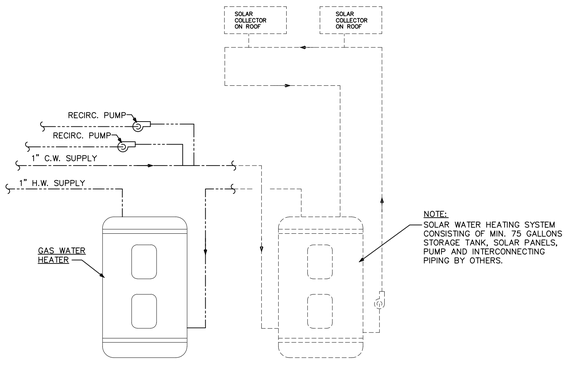
2 CISTERN PUMP SYSTEM SCHEMATIC
NO SCALE

IECC NOTES

1.) THE SUBJECT PROPERTY IS CONDITIONED.
2.) THE ROOF MINIMUM REQUIRED R-VALUE = 30.
3.) THE ROOF REQUIRES A MINIMUM OF 1"FOAM INSULATION. SEE DETAIL (1/A4.03).
4.) THE MASS WALL MINIMUM REQIRED R-VALUE = 3.
5.) THE MASS WALL REQUIRES A MINIMUM OF 1"FOAM INSULATION ON THE EXTERIOR WALL OF THE SUBJECT PROPERTY. SEE DETAIL (2.A4.03).
6.) FENESTRATIONS (WNDOWS AND DOORS) SHALL BE PROPERLY CAULKED AND SEALED.
7.) FENESTRATIONS MINIMUM REQUIRED U-FACTOR = 1.2; SKYLIGHTS MINIMUM REQUIRED U-FACTOR -0.75. SEE SHEETS (A5.01 & A5.02) 'WINDOW AND DOOR SCHEDULE'. IF U-FACTOR IS NOT PROVIDED REFER TO 2009 IEDD 303.1.3(3).*
8.) SEE PAGES P1.04 - P1.06 FOR SERVICE WATER HEATING (S.W.H.) DISTRIBUTION.
9.) THE S.W.H. PIPE THICKNESS IS 1" INSULATION @ R 4.2 ;A MINIMUM OF R-3 INSULATION IS REQUIRED ON HOT WATER LINE (H.W.L.)
10.) WATER HEATER TYPE- (GAS & SOLAR), CAPACITY- (2)@75 GALLONS, & EFFICIENCY RATING IS (.58 ENERGY FACTOR).
11.) SEE PAGE E1.02 FOR LIGHTING SYSTEMS'S SCHEDULE DEPICTING, FIXTURE LAMPS, BALLASTS, BALLAST SPECIFICATIONS, FIXTURE INPUT WATTS, FIXTURE WIRING METHODS, POWER FACTOR, ETC. REFER TO ELECTRICAL PLANS FOR LIGHT FIXTURE LOCATIONS.
12.) ALL LIGHTS SHALL BE IC-RATED. (INSULATED CONTACT).
13.) THE S.W.H. SHALL BE PROVIDED WITH AN AUTOMATIC OR READILY ACCESSIBLE MANUAL SWITCH THAT CAN TURN OFF THE HOT-WATER CIRCULATING PUMP WHEN THE SYSTEM IS NOT IN USE.
14.) RECESSED LUMINAIRES LIGHTS SHALL BE IC-RATED (INSULATED CONTACT), AND A MINIMUM OF 75 PERCENT OF THE LAMPS IN PERMANENTLY INSTALLED LIGHTING FIXTURES SHALL BE HIGH-EFFICACY LAMPS.
15.) CENTRAL AIR CONDITIONING SYSTEM TYPE VRF, SIZE (VARIES), CONTROLS (ELECTRIC), AND PERFORMANCE EFFICIENCY OF SEER 19+. * REFER TO HVAC SCHEDULES ON SHEET M2.01.

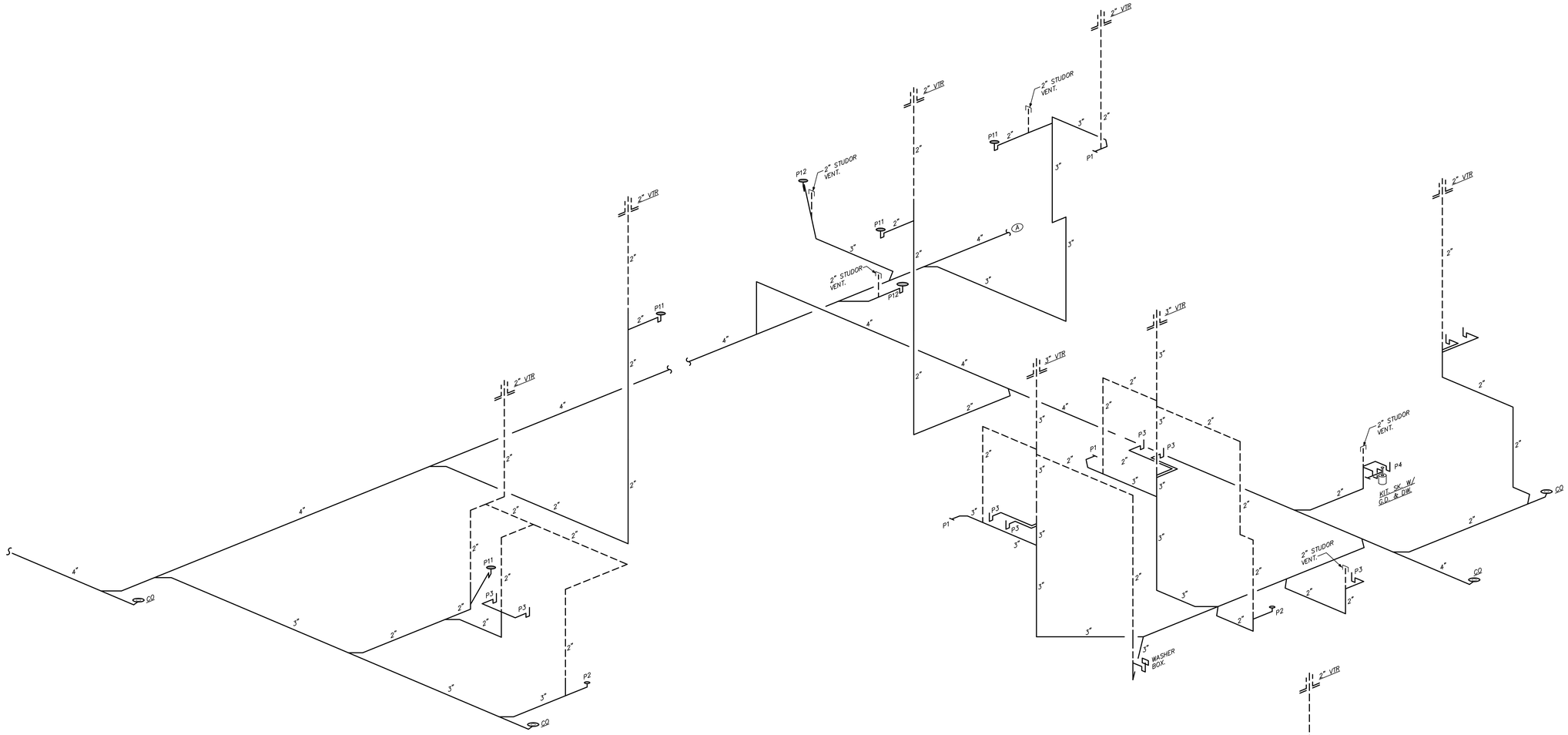


4 WATER HEATER DETAIL
NO SCALE



5 WATER HEATER/SOLAR HEATER PIPING SCHEMATIC
NO SCALE

P2.01



PLUMBING FIXTURE CONNECTION SIZES				
FIXTURE	**C.W. CONN. SIZE**	**H.W. CONNECTION SIZE**	**SANITARY BRANCH SIZE**	**F.U. LOAD VALUES**
WATER CLOSET (P1,P2)	1/2"	–	3"	5.0
LAVATORY (P3)	1/2"	1/2"	1–1/4"	2.0
SINK (P4,P5)	1/2"	1/2"	1–1/2"	4.0
OUTDOOR SHOWER (P6)	1/2"	1/2"	–	3.0
SHOWER (P7,P8)	1/2"	1/2"	2"	3.0

NOTE: F.U. LOAD VALUES BASED ON IPC 2012 – APPENDIX E TABLE E103.3(2)

1 OVERALL SANITARY ISOMETRIC

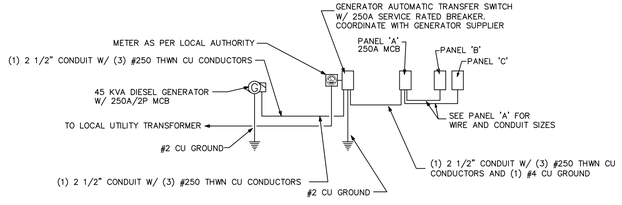
NO SCALE

1 CISTERN LEVEL PLAN - ELECTRICAL

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

NOTE TAGS:

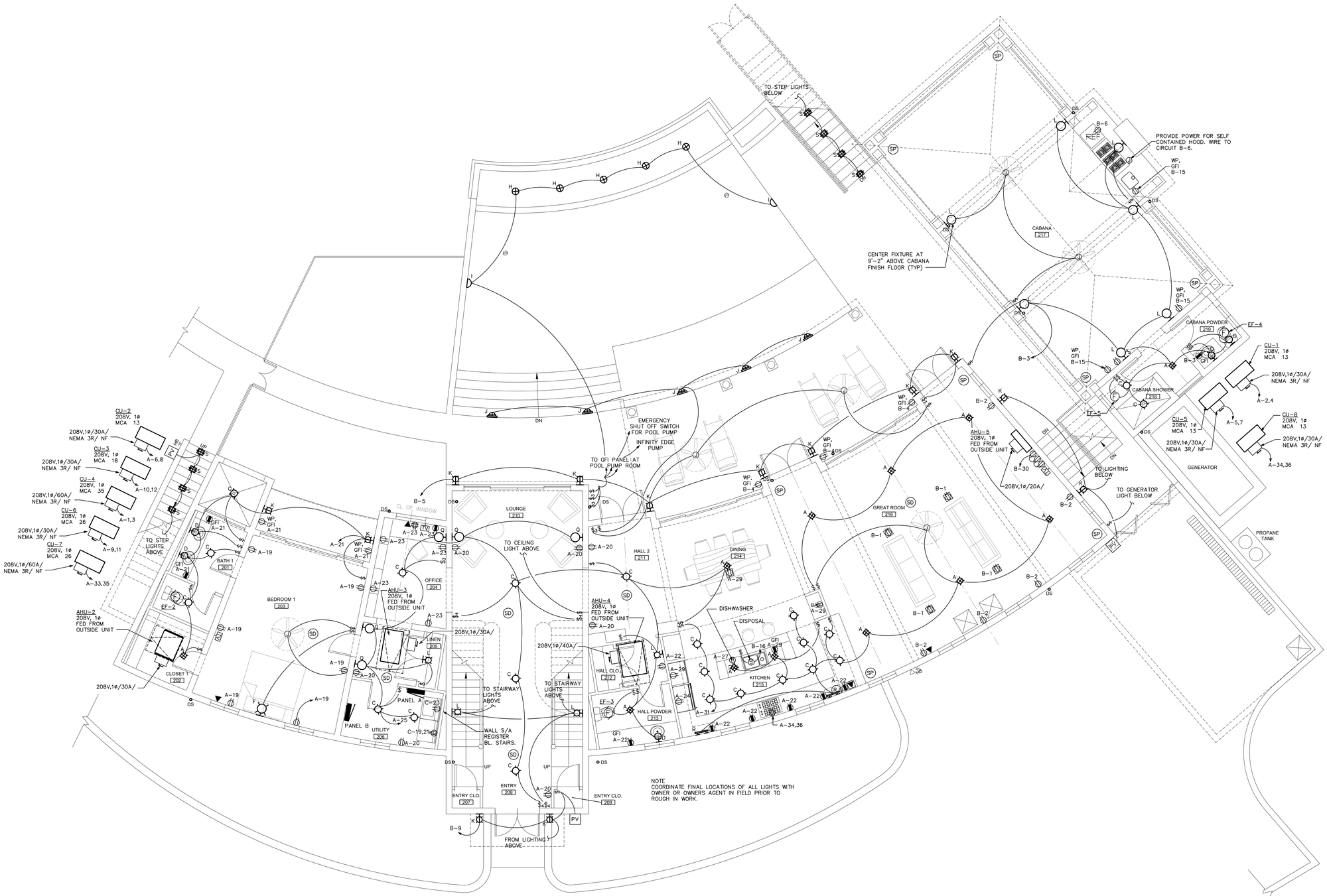
(1) DAMPER INTERLOCKED WITH AND POWERED FROM FAN EF-10.



2 ELECTRICAL SERVICE RISER

NO SCALE

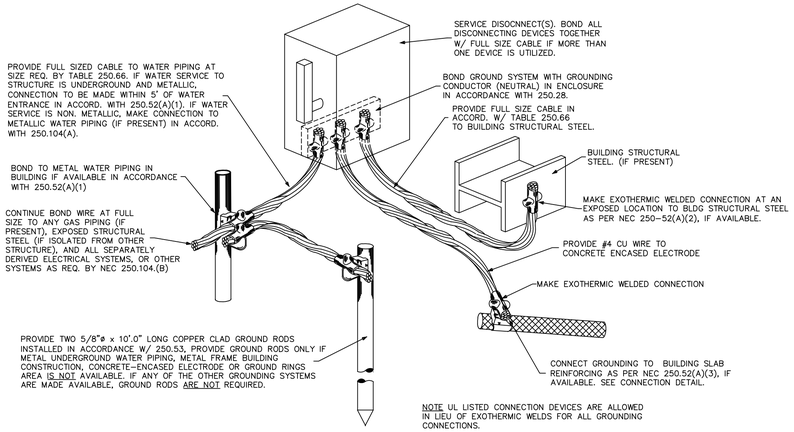
E1.01



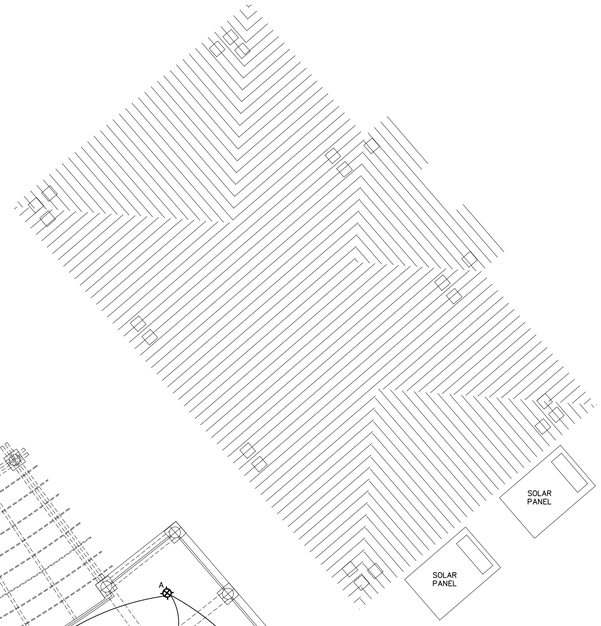
1 MAIN LEVEL PLAN - ELECTRICAL

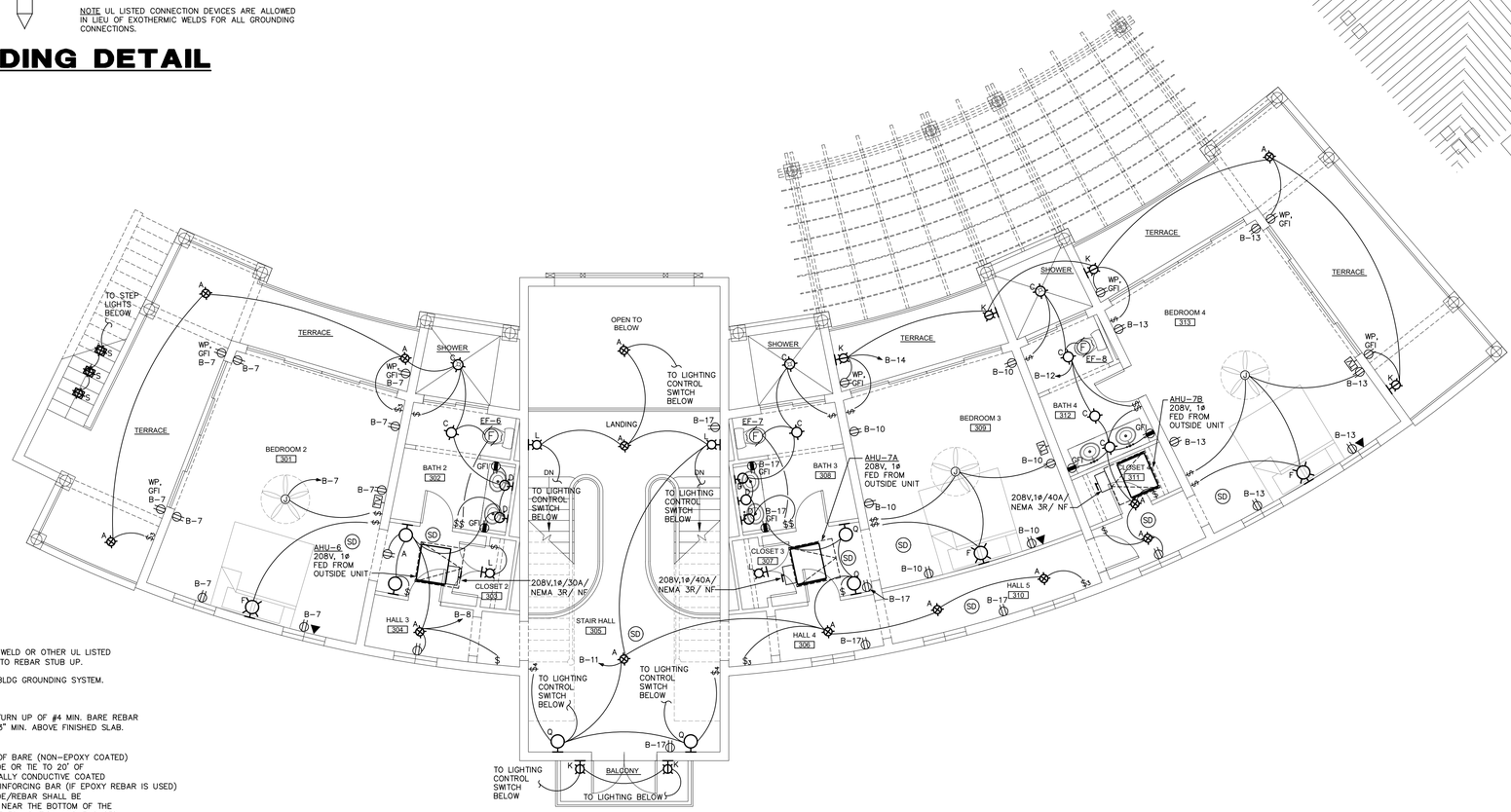
SCALE: 3/16"=1'-0"

E1.02

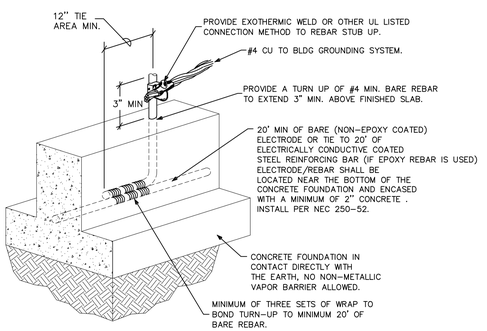


2 GROUNDING DETAIL
NO SCALE





1 UPPER LEVEL PLAN - ELECTRICAL
SCALE: 3/16"=1'-0"



3 GROUNDING DETAIL
NO SCALE

E1.03

ELECTRICAL SYMBOLS LEGEND

NOTE – NOT ALL SYMBOLS MAY BE USED ON PROJECT

SYMBOLS	DESCRIPTION	SYMBOLS	DESCRIPTION
	DUPLEX RECEPTACLE, MTD. +18" AFF	T	TRANSFORMER – SIZE AS NOTED
	240 VOLT RECEPTACLE (HT. AS REQ.)		PANEL – SIZE AS NOTED
	QUADRUPLEX RECEPTACLE, MTD. +18"	F	F–FAN; M–MOTOR; P–PUMP
	COUNTERTOP HT. RECEPTACLE +42"		SPECIAL OUTLET – AS REQUIRED
$	SINGLE POLE SWITCH, MTD +47"	B–2	CKT. HOMERUN (B INDICATES PANEL) "2" DESIGNATES CIRCUIT NUMBER
$3	THREE–WAY SWITCH, MTD +47"		EXIT SIGN; ONE SIDED, OR TWO SIDED
$M	MANUAL STARTER SWITCH		EMERGENCY LIGHTING
$D	DIMMER SWITCH, MTD +47"	B	RECESSED LIGHTING FIXTURE B DESIGNATES FIXTURE TYPE
$L	SWITCH W/ ILLUM WHEN ON MTD +47"	B	RECESSED LIGHTING FIXTURE B DESIGNATES FIXTURE TYPE
$O3	THREE–WAY SWITCH W/ OCCU SENSOR MTD. +47"	B	WALL MOUNTED LIGHTING FIXTURE B DESIGNATES FIXTURE TYPE
$O	SWITCH W/ OCCU SENSOR. MTD. +47"	B	WALL MOUNTED LIGHTING FIXTURE B DESIGNATES FIXTURE TYPE
J	JUNCTION BOX, FLUSH IF POSSIBLE	B	FLUORESCENT POOL LIGHT I DESIGNATES FIXTURE TYPE
	TELEPHONE / DATA OUTLET +18"	B	FLUORESCENT STRIP LIGHTING FIXTURE B DESIGNATES FIXTURE TYPE
	DED. COMPUTER TERM. OUTLET +18"		PENDANT MOUNTED CEILING FAN WITH LIGHT FIXTURE ATTACHMENT
	DISCONNECT SWITCH W/ STARTER		
	DISCONNECT SWITCH	IG	ISOLATED GROUND
	FLR. MTD. FLUSH DUPLEX RECEPTACLE	WP	WEATHER–PROOF
	FLR. MTD. FLUSH QUAD. RECEPTACLE	BC	BELOW COUNTER
	FLR. MTD. FLUSH PHONE/DATA OUTLET	TC	TIME CLOCK – 24 HOUR
	FLR. MTD. FLUSH COMPUTER OUTLET	GFI	GROUND FAULT INTERRUPTER
SD	AREA SMOKE DETECTOR	AFF	ABOVE FINISHED FLOOR
H	HEAT DETECTOR	EWC	ELECTRIC WATER COOLER
D	DUCT SMOKE DETECTOR	ASW	ABOVE SHOW WINDOW
F	FIRE ALARM MAN. PULL STATION +47"	BSW	BELOW SHOW WINDOW
H30	HORN WITH STROBE LIGHT, MTD. +80" # BESIDE DEVICE IS CANDELLA RATING	FACP	FIRE ALARM CONTROL PANEL
L30	STROBE LIGHT ONLY, MTD. +80" # BESIDE DEVICE IS CANDELLA RATING	FAAP	FIRE ALARM ANNUNCIATOR PANEL

ELECTRICAL NOTES:

1. GENERAL: ALL WORK SHALL CONFORM TO THE LATEST APPROVED EDITION OF THE NATIONAL ELECTRICAL CODE (NEC) AND ALL LOCAL JURISDICTIONAL CODES.

   THE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE DRAWINGS AND ANY APPLICABLE SPECIFICATIONS. IF A PROBLEM IS ENCOUNTERED IN COMPLYING WITH THIS REQUIREMENT, THE CONTRACTOR SHALL NOTIFY THE OWNER OR HIS REPRESENTATIVE AS SOON AS POSSIBLE AFTER DISCOVERY OF THE PROBLEM, AND SHALL NOT PROCEED WITH THAT PORTION OF THE WORK UNTIL THE OWNER HAS DIRECTED THE CORRECTIVE ACTION TO BE TAKEN.

   THE CONTRACTOR SHALL COORDINATE THE PROPOSED LOCATIONS OF ALL ELECTRICAL MATERIALS AND EQUIPMENT WITH THE REPRESENTATIVES OF THE OTHER TRADES INVOLVED BEFORE STARTING INSTALLATION OF THOSE ITEMS.

   COORDINATE THE INSTALLATION OF REQUIRED SUPPORTING DEVICES, CONDUIT, AND SLEEVES TO BE SET IN CAST–IN–PLACE CONCRETE AND OTHER STRUCTURAL COMPONENTS, AS THEY ARE CONSTRUCTED.

   UNLESS OTHERWISE SPECIFIED ON THE PLANS, ALL SPECS ARE NOT INTENDED TO BE PROPRIETARY, SUBSTITUTIONS WILL BE ACCEPTABLE FOR EQUAL RATED AND LISTED UNITS.

2. SCOPE: EXCEPT WHERE OTHERWISE SPECIFICALLY INDICATED ON THE DRAWINGS BY "FUTURE", "BY OTHERS", OR BY A SIMILAR NOTATION, IT IS THE INTENT THAT THE CONTRACTOR FURNISH ALL LABOR, MATERIALS, EQUIPMENT AND TOOLS NECESSARY TO PROVIDE ALL SYSTEMS IN COMPLETE AND OPERATING CONDITION.

3. EXCAVATE AS NECESSARY FOR THE INSTALLATION OF ELECTRICAL MATERIALS AND EQUIPMENT. VERIFY THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES OR STRUCTURES BEFORE EXCAVATING AND EXERCISE CARE TO AVOID DAMAGE TO SUCH ITEMS DURING EXCAVATION. BACKFILL WITH EARTH FREE OF LARGE CLODS, LARGE STONES AND FOREIGN DEBRIS, DEPOSITED IN 6" LAYERS AND COMPACTED TO A DENSITY OF NOT LESS THAN THAT OF THE SURROUNDING UNDISTURBED MATERIAL.

4. MATERIALS: THE MATERIALS AND EQUIPMENT FURNISHED SHALL BE AS INDICATED ON THE DRAWINGS; SUBSTITUTIONS SHALL NOT BE MADE EXCEPT WHERE EXPRESSLY APPROVED BY THE OWNER OR HIS REPRESENTATIVE PRIOR TO STARTING INSTALLATION OF THE ITEMS. THE ELECTRICAL MATERIALS AND EQUIPMENT FURNISHED SHALL BE LISTED OR LABELED BY UNDERWRITERS LABORATORIES OR OTHER RECOGNIZED TESTING ORGANIZATION, AND SHALL BE ACCEPTABLE TO THE LOCAL BUILDING AUTHORITY.

5. GROUNDING: GROUNDING SHALL BE IN ACCORDANCE WITH ARTICLE 250, NEC.

6. SHARED NEUTRAL CONDUCTORS SHALL NOT BE ALLOWED UNLESS INSTALLED IN ACCORDANCE WITH NEC–210.4

7. CONDUITS: PROVIDE CONDUITS WHERE CALLED FOR ON PANEL SCHEDULES; ELECTRICAL METALLIC TUBING (EMT) SHALL BE INSTALLED ONLY IN DRY LOCATIONS, IN CONCRETE ABOVE GRADE, AND WHERE NOT SUBJECT TO PHYSICAL DAMAGE.

   CONDUITS INSTALLED UNDERGROUND SHALL BE POLYVINYLCHLORIDE (PVC) AND SHALL NOT BE SMALLER THAN 3/4" TRADE SIZE, WHERE PVC CONDUIT IS INSTALLED UNDERGROUND, ELBOWS TURNING UP AND CONDUIT EMERGING ABOVE GRADE SHALL BE RSC. THE TOPS OF CONDUITS SHALL NOT BE LESS THAN 24" BELOW FINISHED GRADE. PVC CONDUIT INSTALLED ABOVE GRADE OR DIRECT–BURIED IN EARTH SHALL BE NEMA TC2 TYPE EPC–40–PVC (SCHEDULE 40) EXCEPT THAT WHERE UNDER AREAS SUBJECT TO HEAVY VEHICULAR TRAFFIC, IT SHALL BE NEMA TC2 TYPE EPC–80–PVC (SCHEDULE 80).

   ALL ARMOR CLAD CABLE (AC CABLE) WIRING SHALL MEET OR EXCEED ALL NEC, OSHA AND HUD STANDARDS.

8. CONDUCTORS: CONDUCTORS SHALL BE AS SCHEDULED ON PANEL SCHEDULES. ALL POWER CONDUCTORS SHALL NOT BE SMALLER THAN #14 AWG (CU, OR #12 AWG (AL), CONTROL CIRCUIT CONDUCTORS SHALL NOT BE SMALLER THAN #18 AWG CU. CONDUCTORS SHALL BE CONTINUOUS FROM OUTLET TO OUTLET WITHOUT SPLICES EXCEPT WITHIN WIREWAY OR JUNCTION BOXES. MARK CONDUCTORS IN PANELS, PULL BOXES OR WIREWAYS AND COMPONENTS, AS THEY ARE CONSTRUCTED.

   CONDUCTORS SHALL BE JOINED USING COMPRESSION SPLICES, EXCEPT THAT CONDUCTORS #10 AND SMALLER MAY BE JOINED USING WIRE NUT TYPE CONNECTORS. CONDUCTORS SHALL BE TERMINATED USING COMPRESSION OR PRESSURE TYPE TERMINAL LUGS, OR IN PRESSURE TERMINALS. COMPRESSION SPLICES USED ON CONDUCTORS #10 AWG. AND SMALLER, SHALL BE THE SELF–INSULATED TYPE; OTHER SPLICES SHALL BE INSULATED USING 3M #33+ OR #88 PLASTIC TAPE. SPLICES IN WET LOCATIONS SHALL BE INSULATED WITH ELECTRICAL TAPE AND ENCAPSULATED WITH SCOTCHCAST OR EQUAL POTTING COMPOUND.

9. PROVIDE AND INSTALL JUNCTION AND PULL BOXES WHERE INDICATED AND WHERE NECESSARY TO TERMINATE, TAP OFF, OR REDIRECT MULTIPLE CONDUIT RUNS, OF SIZE INDICATED OR AS REQUIRED BY NEC. WHERE FEEDER SPLICES ARE TO BE MADE, INSTALL BOXES LARGE ENOUGH TO PROVIDE AMPLE WORK SPACE.

10. LIGHTING FIXTURES: LIGHTING FIXTURES SHALL BE AS INDICATED ON THE DRAWINGS, AND SHALL BE INSTALLED COMPLETE WITH LAMPS.

    FIXTURES WITH ADJUSTMENTS AFFECTING LIGHT DISTRIBUTION SHALL BE SET TO PROVIDE THE REQUIRED LIGHT PATTERNS PRIOR TO THE FINAL DEMONSTRATION TEST.

11. TESTS: AFTER EACH SYSTEM HAS BEEN COMPLETED, A FUNCTIONAL TEST SHALL BE PERFORMED TO DEMONSTRATE THAT THE SYSTEM OPERATES IN ACCORDANCE WITH THE REQUIREMENTS OF THE DRAWINGS. THE TEST SHALL BE PERFORMED BY THE CONTRACTOR IN THE PRESENCE OF THE OWNER OR HIS REPRESENTATIVE.

12. TERMINALS: ALL ELECTRICAL EQUIPMENT FURNISHED ON THIS PROJECT IS TO HAVE TERMINALS RATED FOR 75° C. OPERATION.

ELECTRICAL SYSTEM AND EQUIPMENT

METHOD OF COMPLIANCE

PRESCRIPTIVE [X] PERFORMANCE [ ] ENERGY COST BUDGET [ ]

PROVIDE A STANDARD RISER DIAGRAM WHICH INDICATES DESIGNATED POINTS FOR CHECK METERING. PROVIDE A STANDARD PANEL SCHEDULE DESCRIPTION WHICH IDENTIFIES DIFFERENT ENDUSE LOADS.

LIGHTING SCHEDULE
- LAMP TYPE REQUIRED IN FIXTURE ____SEE SCHEDULE ON DRAWINGS
- NUMBER OF LAMPS IN FIXTURE ____SEE SCHEDULE ON DRAWINGS
- BALLAST TYPE USED IN FIXTURE ____SEE SCHEDULE ON DRAWINGS
- NUMBER OF BALLASTS IN FIXTURE ____SEE SCHEDULE ON DRAWINGS
- TOTAL WATTAGE PER FIXTURE ____SEE SCHEDULE ON DRAWINGS
- TOTAL INTERIOR WATTAGE SPECIFIED VS ALLOWED N/A
- TOTAL INTERIOR WATTAGE SPECIFIED VS ALLOWED N/A
- TOTAL EXTERIOR WATTAGE SPECIFIED VS ALLOWED N/A

EQUIPMENT SCHEDULES WITH MOTORS (NOT USED FOR MECHANICAL SYSTEMS)
- MOTOR HORSEPOWER N/A
- NUMBER OF PHASES N/A
- MINIMUM EFFICIENCY N/A
- MOTOR TYPE N/A
- NUMBER OF POLES N/A

DESIGNER STATEMENT:

TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DESIGN OF THIS BUILDING COMPLIES WITH THE ELECTRICAL SYSTEM AND EQUIPMENT REQUIREMENTS OF THE NORTH CAROLINA ENERGY CODE 2009, CHAPTER 5.

SIGNED: Todd W. Carey

NAME: TODD W. CAREY, P.E.

TITLE: NORTH CAROLINA PROFESSIONAL ENGINEER #9079

LIGHTING FIXTURE SCHEDULE

LABEL	TYPE OF FIXTURE	FINISH	LENS TYPE	VOLTAGE	LAMP	MANUFACTURER & MODEL NO.	REMARKS
A	RECESSED DOWNLIGHT			120	75W MAX	PROVIDED BY OWNER	TO BE LOW PROFILE
B	SURFACE MTD 4" STRIP LIGHT			120	75W MAX	PROVIDED BY OWNER	
C	RECESSED DOWNLIGHT			120	75W MAX	PROVIDED BY OWNER	WET LOCATION LISTED
D	VANITY LIGHT			120	65W MAX	PROVIDED BY OWNER	
F	WALL NIGHT LIGHT			120	65W MAX	PROVIDED BY OWNER	
H	POOL LIGHT			12	50W MAX	PROVIDED BY OWNER	
I	POOL LIGHT			12	50W MAX	PROVIDED BY OWNER	
J	POOL LIGHT			12	50W MAX	PROVIDED BY OWNER	
K	EXTERIOR WALL LIGHT			120	75W MAX	PROVIDED BY OWNER	
L	WALL LIGHT			120	75W MAX	PROVIDED BY OWNER	
Q	INTERIOR WALL SCONCE			120	60W MAX	PROVIDED BY OWNER	
R	UNDER CABINET			120	60W MAX	PROVIDED BY OWNER	

PANEL SCHEDULE C

200 AMP, 120/240 VOLT, SINGLE PHASE, THREE WIRE, M.L.O., 10000 AMPS MINIMUM A.I.C. BRACING, FLUSH MOUNTED, TYPE NEMA 1 ENCLOSURE

##	BKR.	WIRE AND CONDUIT COND.	NEUTRAL	GND	C.	KEYS	LOAD DESCRIPTION	NEUT.	LINE A	LINE B	LOAD DESCRIPTION	WIRE AND CONDUIT KEYS	C.	GND	NEUTRAL	COND.	BKR.	##
1	20/2	#12	#12	#12	1/2	CHAL	CISTERN PUMP	0	598	------								2
3								0	884	------	RO PUMP	CHAL	1/2	#12	#12	#12	20/2	4
5	20/1	#12	#12	#12	1/2	CHAL	WTR. HTR. FAN/BLOWER	744	744	------								6
7	20/1	#12	#12	#12	1/2	CHAL	SOLAR SYS. RECIRC PUMP	528	------	528	WELL PUMP	CHAL	1/2	#12	#12	#12	20/2	8
9	20/1	#12	#12	#12	1/2	CHAL	(2) RECIRC. PUMPS	1056	1056	------	RECEPT. 110	CHAL	1/2	#12	#12	#12	20/1	10
11	20/2	#12	#12	#12	1/2	CHAL	STORM CISTERN PUMP	0	------	598								12
13								0	598	------	SPACE							14
15							SPACE	0	------	0								16
17							SPACE	0	------	1250	DRYER 104	CHAL	1/2	#12	---	#12	20/2	18
19	20/2	#12	---	#12	1/2	CHAL	DRYER 206	0	1250	------								20
21								1500	------	1250	WASHER 104	CHAL	1/2	#12	#12	#12	20/1	22
23	20/1	#12	#12	#12	1/2	CHAL	WASHER 206	0	1250	------								24
25	60/2	#8	---	#10	1/2	CHAL	POOL PUMP	1500	------	1250	RANGE 215	CHAL	1/2	#12	---	#10	25/2	26
27								0	3349	------								28
29							SPACE	0	2039	------	INF PUMP	CHAL	1/2	#12	---	#12	40/2	30
31							SPACE	0	0	------								32
33							SPACE	0	------	0	SPACE							34
35							SPACE	0	0	------	SPACE							36
37							SPACE	0	------	0	SPACE							38
39							SPACE	0	0	------	SPACE							40
41							SPACE	0	------	0	SPACE							42

WIRE/CONDUIT KEY 1234 — 1 TEMP RATING, 2 CONDUIT TYPE, 3 INSULATION, 4 WIRING TYPE

WIRING TYPE	INSULATION	CONDUIT TYPE	TEMP RATING	NEUT.	LINE A	LINE B
C-CU WIRE	H-THWN	A-EMT	L-78-86 Deg. F.	15931	16579	
					32,510	

PEAK PHASE (B) UNBALANCED NEUTRAL LOAD AMPS = 29.4 AMPS
NON DIVERSIFIED LOAD AT 240 VOLT, SINGLE PHASE = 135.5 AMPS

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REGISTERED TO - TODD W. CAREY AND ASSOCIATES OF THE CARDINAS

PANEL C DIVERSIFICATION CALCULATIONS
BASED ON RESIDENTIAL 220.82 CALCULATION
COVERING 1000 SQUARE FEET

NEC 220.82 GENERAL LOADS FOR CALCULATION	
LIGHTING AND RECEPTACLES	
1000 SQUARE FEET X 3.0 WATTS/FOOT	3000
MOTOR LOADS AT 100%	17372
MISC NON–CONTINUOUS LOADS AT 100%	14056
TOTAL GENERAL LOADS	51800
FIRST 10KW OF GEN LOADS AT 100%	10000
REMAINDER OF GEN LOADS AT 40%	16720
PLUS HVAC LOADS AT 100%	
TOTAL DIVERSIFIED PANEL LOAD	26720
LOAD AT 120/240v/1–Phase/3–Wire	111.3A

PANEL B
100 AMP, 120/240 VOLT, SINGLE PHASE, THREE WIRE, M.L.O., 10000 AMPS MINIMUM A.I.C. BRACING, FLUSH MOUNTED, TYPE NEMA 1 ENCLOSURE

##	BKR.	WIRE AND CONDUIT COND.	NEUTRAL	GND	C.	KEYS	LOAD DESCRIPTION	NEUT.	LINE A	LINE B	LOAD DESCRIPTION	WIRE AND CONDUIT KEYS	C.	GND	NEUTRAL	COND.	BKR.	##
1	20/1	#12	#12	#12	1/2	CHAL	RECEPTACLES 216	720	720	------								2
3	20/1	#12	#12	#14	1/2	CHAL	LTG. 217–219	900	900	------	RECEPTACLES 216	CHAL	1/2	#12	#12	#12	20/1	4
5	20/1	#12	#12	#12	1/2	CHAL	LTG. EXTERIOR	1050	1050	------								6
7	20/1	#12	#12	#12	1/2	CHAL	RECEPT 301	1000	1000	------	APPLIANCE 217	CHAL	1/2	#14	#12	#12	20/1	8
9	20/1	#12	#12	#12	1/2	CHAL	LTG. ENTRY,BALCONY	1260	------	1260								10
11	20/1	#12	#12	#14	1/2	CHAL	LTG. 305–308	1270	------	1270	LTG. AND RECEPT 301–304	CHAL	1/2	#12	#12	#12	20/1	12
13	20/1	#12	#12	#12	1/2	CHAL	RECEPTACLES 313	400	400	------								14
15	20/1	#12	#12	#12	1/2	CHAL	GFCI RECEPTACLES 217	1080	1080	------	RECEPTACLES 309	CHAL	1/2	#12	#12	#12	20/1	16
17	20/1	#12	#12	#14	1/2	CHAL	RECEPT 305–308	1150	------	1150								18
19							SPACE	940	------	940	LTG. AND RECEPT 311,312	CHAL	1/2	#12	#12	#12	20/1	20
21							SPACE	1080	1080	------								22
23							SPACE	1095	------	1095	LTG. AND RECEPT TERR.	CHAL	1/2	#12	#12	#12	20/1	24
25							SPACE	1260	------	1260								26
27							SPACE	500	------	500	DISPOSAL	CHAL	1/2	#12	#12	#12	20/1	28
29							SPACE	1260	1260	------								30
31							SPACE	0	0	------	SPACE							32
33							SPACE	0	------	0	SPACE							34
35							SPACE	0	0	------	SPACE							36
37							SPACE	0	------	0	SPACE							38
39							SPACE	0	0	------	SPACE							40
41							SPACE	0	------	0	SPACE							42

WIRE/CONDUIT KEY 1234 — 1 TEMP RATING, 2 CONDUIT TYPE, 3 INSULATION, 4 WIRING TYPE

WIRING TYPE	INSULATION	CONDUIT TYPE	TEMP RATING	NEUT.	LINE A	LINE B
C-CU WIRE	H-THWN	A-EMT	L-78-86 Deg. F.	8585	8660	
					17,245	

PEAK PHASE (B) UNBALANCED NEUTRAL LOAD AMPS = 72.2 AMPS
NON DIVERSIFIED LOAD AT 240 VOLT, SINGLE PHASE = 71.9 AMPS

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PANEL B DIVERSIFICATION CALCULATIONS
BASED ON RESIDENTIAL 220.82 CALCULATION
COVERING 2000 SQUARE FEET

NEC 220.82 GENERAL LOADS FOR CALCULATION	
2000 SQUARE FEET X 3.0 WATTS/FOOT	6000
MISC APPLIANCE LOADS AT 100%	1000
MISC NON–CONTINUOUS LOADS AT 100%	500
TOTAL GENERAL LOADS	7500
FIRST 10KW OF GEN LOADS AT 100%	7500
PLUS HVAC LOADS AT 100%	
TOTAL DIVERSIFIED PANEL LOAD	7500
LOAD AT 120/240v/1–Phase/3–Wire	31.3A

PANEL A
250 AMP, 120/240 VOLT, SINGLE PHASE, THREE WIRE, 250A. M.C.B., 10000 AMPS MINIMUM A.I.C. BRACING, FLUSH MOUNTED, TYPE NEMA 1 ENCLOSURE

##	BKR.	WIRE AND CONDUIT COND.	NEUTRAL	GND	C.	KEYS	LOAD DESCRIPTION	NEUT.	LINE A	LINE B	LOAD DESCRIPTION	WIRE AND CONDUIT KEYS	C.	GND	NEUTRAL	COND.	BKR.	##
1	40/2	#8	---	#10	1/2	CHAL	CU–4	0	4200	------								2
3								0	1352	------	CU–1	CHAL	1/2	#12	---	#12	20/2	4
5	20/2	#12	---	#12	1/2	CHAL	CU–5	0	------	4200								6
7								0	1560	------								8
9	25/2	#10	---	#10	1/2	CHAL	CU–6	0	------	1352	CU–2	CHAL	1/2	#12	---	#12	20/2	10
11								0	3000	------								12
13	20/1	#12	#12	#14	1/2	CHAL	A/C WALL UNIT 104	0	------	1872	CU–3	CHAL	1/2	#12	#14	---	#12	20/2
15	20/1	#12	#12	#12	1/2	CHAL	LIGHTING 101–107	1500	1500	------								14
17	20/1	#12	#12	#12	1/2	CHAL	LIGHTING 110	1350	------	1350	RECEPTACLE 102 – 104	CHAL	1/2	#12	#12	#12	20/1	16
19	20/1	#12	#12	#12	1/2	CHAL	LTG–RECEPT	720	------	720	RECEPTACLE TOILET 105	CHAL	1/2	#12	#12	#12	20/1	18
21	20/1	#12	#12	#12	1/2	CHAL	LTG–RECEPT	595	595	------								20
23	20/1	#12	#12	#12	1/2	CHAL	RECEPTACLE	1260	1260	------	RECEPTACLE 106	CHAL	1/2	#12	#12	#12	20/1	22
25	20/1	#12	#12	#12	1/2	CHAL	LIGHTING	1200	------	1200								24
27	20/1	#12	#12	#12	1/2	CHAL	DISHWASHER	1260	------	1260	RECEPTACLES	CHAL	1/2	#12	#12	#12	20/1	26
29	20/1	#12	#12	#12	1/2	CHAL	RECEPTACLE	1400	1400	------								28
31	20/1	#12	#12	#12	1/2	CHAL	LIGHTING 2ND FLR	1260	------	1260	RECEPTACLES	CHAL	1/2	#12	#12	#12	20/1	30
33	40/2	#8	---	#10	3/4	CHAL	CU–7	1260	------	1260	RECEPTACLES	CHAL	1/2	#12	#12	#12	20/1	32
35								1200	------	1200	RECEPTACLE	CHAL	1/2	#12	#12	#12	20/1	34
37							SPACE	1260	------	1260	RECEPTACLE	CHAL	1/2	#12	#12	#12	20/1	36
39							SPACE	1000	------	1000	REFRIGERATOR	CHAL	1/2	#12	#12	#12	20/1	38
41							SPACE	1350	1350	------								40
								8585	8585	------								42
								1500	------	1500	PANELBOARD 'B'	CHAL	1	#8	#3	#3	100/2	26
								8480	------	8480								28
								1000	1000	------								30
								2880	19405	------								32
								1650	------	1650	PANELBOARD 'C'	CHAL	1–1/2	#6	#1/0	#1/0	150/2	34
								3528	------	20053								36
								0	2704	------								38
								0	1710	------								40
								0	------	2704	CONDENSING UNIT–8	CHAL	3/4	#10	---	#10	25/2	42
								0	------	1710								
								0	0	------								
								0	348	------								
								0	------	0	AHU–8	CHAL	1/2	#12	---	#12	20/2	
								0	0	------								
								0	0	------	SPACE							

WIRE/CONDUIT KEY 1234 — 1 TEMP RATING, 2 CONDUIT TYPE, 3 INSULATION, 4 WIRING TYPE

WIRING TYPE	INSULATION	CONDUIT TYPE	TEMP RATING	NEUT.	LINE A	LINE B
C-CU WIRE	H-THWN	A-EMT	L-78-86 Deg. F.	55353	56571	
					111,924	

PEAK PHASE (B) UNBALANCED NEUTRAL LOAD AMPS = 182.9 AMPS
NON DIVERSIFIED LOAD AT 240 VOLT, SINGLE PHASE = 466.4 AMPS

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PANEL A DIVERSIFICATION CALCULATIONS
BASED ON RESIDENTIAL 220.82 CALCULATION
COVERING 3000 SQUARE FEET

NEC 220.82 GENERAL LOADS FOR CALCULATION	
LIGHTING AND RECEPTACLES	
3000 SQUARE FEET X 3.0 WATTS/FOOT	9000
MOTOR LOADS AT 100%	17372
MISC APPLIANCE LOADS AT 100%	1000
MISC NON–CONTINUOUS LOADS AT 100%	57584
TOTAL GENERAL LOADS	102328
FIRST 10KW OF GEN LOADS AT 100%	10000
REMAINDER OF GEN LOADS AT 40%	36931
PLUS HVAC LOADS AT 100%	4116
TOTAL DIVERSIFIED PANEL LOAD	51047
LOAD AT 120/240v/1–Phase/3–Wire	212.7A