

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

SUPPLY DIFFUSER SCHEDULE				
A	DESIGNATES LABEL FOR DIFFUSER TYPE	ALL DIFFUSERS ARE TO BE PROVIDED WITH OPPOSED BLADE DAMPERS UNLESS OTHERWISE SPECIFIED ON PLANS.		
100	DESIGNATES CFM QUANTITY FOR DIFFUSER			
LABEL	MANUFACTURER & MODEL NO.	NECK SIZE	CFM RANGE	REMARKS
A	TITUS 250-AA	8X6	0 - 125	CEILING REGISTER
B	TITUS 250-AA	10X6	125 - 200	CEILING REGISTER
C	TITUS 250-AA	12X6	205 - 325	CEILING REGISTER

RETURN GRILLE SCHEDULE				
A	DESIGNATES LABEL FOR GRILLE TYPE	FILTER SHALL BE PROVIDED AT UNIT.		
100	DESIGNATES CFM QUANTITY FOR GRILLE			
LABEL	MANUFACTURER & MODEL NO.	NECK SIZE	CFM RANGE	REMARKS
1	TITUS 355FL	12X12	350 - 450	
2	TITUS 355FL	14X14	400 - 600	

NOTE:  
RETURN AIR GRILLE SHALL BE PROVIDED WITH A SURFACE MOUNT BORDER TYPE 1.

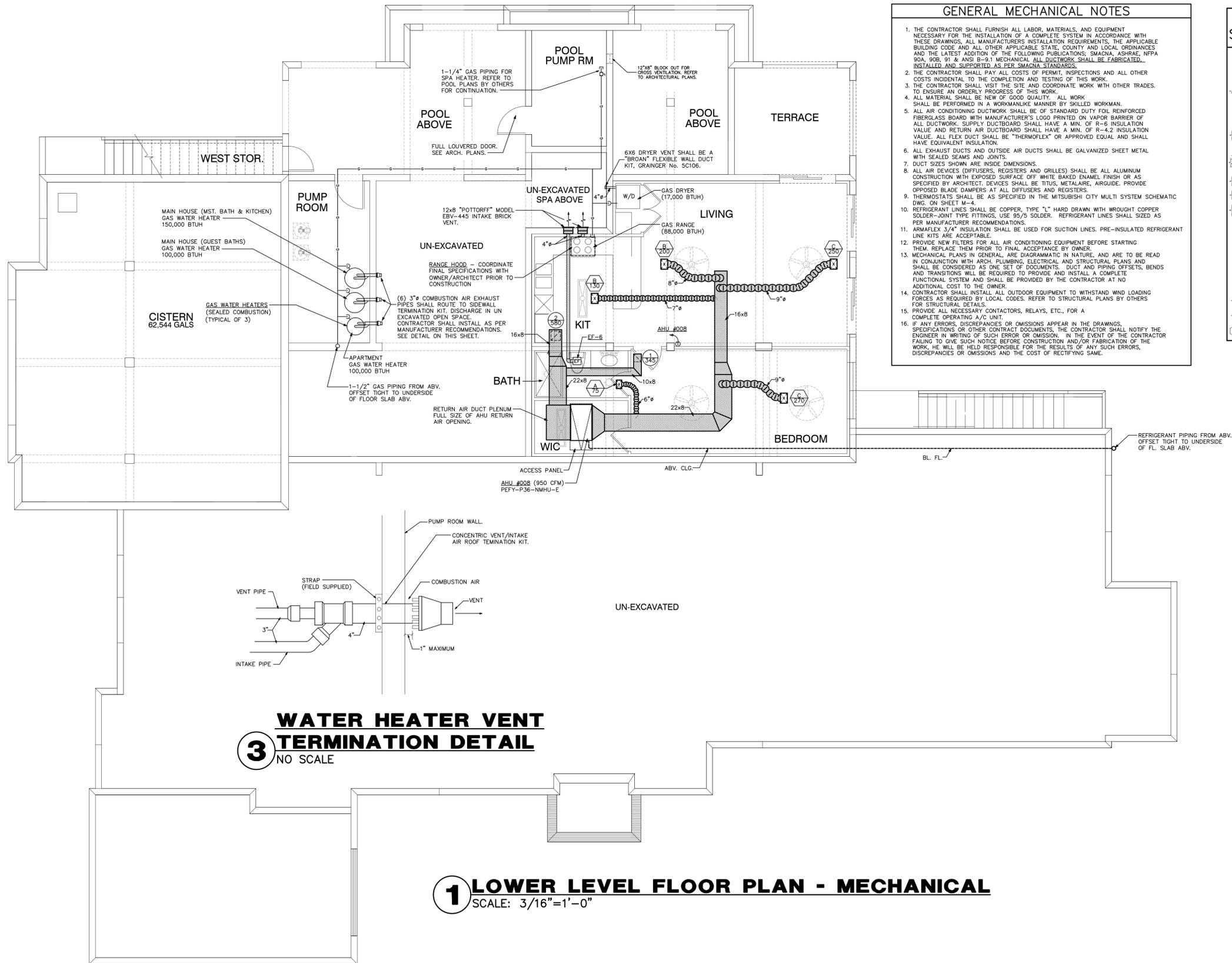
NOTE:  
SUPPLY REGISTER SHALL BE PROVIDED WITH A SURFACE MOUNT BORDER TYPE 1.

### GENERAL MECHANICAL NOTES

- THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY FOR THE INSTALLATION OF A COMPLETE SYSTEM IN ACCORDANCE WITH THESE DRAWINGS. ALL MANUFACTURERS INSTALLATION REQUIREMENTS, THE APPLICABLE BUILDING CODE AND ALL OTHER APPLICABLE STATE, COUNTY AND LOCAL ORDINANCES AND THE LATEST ADDITION OF THE FOLLOWING PUBLICATIONS: SMACNA, ASHRAE, NFPA 90A, 90B, 91 & ANSI B-9.1 MECHANICAL ALL DUCTWORK SHALL BE FABRICATED, INSTALLED AND SUPPORTED AS PER SMACNA STANDARDS.
- THE CONTRACTOR SHALL PAY ALL COSTS OF PERMIT, INSPECTIONS AND ALL OTHER COSTS INCIDENTAL TO THE COMPLETION AND TESTING OF THIS WORK.
- THE CONTRACTOR SHALL VISIT THE SITE AND COORDINATE WORK WITH OTHER TRADES. TO ENSURE AN ORDERLY PROGRESS OF THIS WORK.
- ALL MATERIAL SHALL BE NEW OF GOOD QUALITY. ALL WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER BY SKILLED WORKMAN.
- ALL AIR CONDITIONING DUCTWORK SHALL BE OF STANDARD DUTY FOIL REINFORCED FIBERGLASS BOARD WITH MANUFACTURER'S LOGO PRINTED ON VAPOR BARRIER OF ALL DUCTWORK. SUPPLY DUCTBOARD SHALL HAVE A MIN. OF R-8 INSULATION VALUE AND RETURN AIR DUCTBOARD SHALL HAVE A MIN. OF R-4.2 INSULATION VALUE. ALL FLEX DUCT SHALL BE "THERMOFLEX" OR APPROVED EQUAL AND SHALL HAVE EQUIVALENT INSULATION.
- ALL EXHAUST DUCTS AND OUTSIDE AIR DUCTS SHALL BE GALVANIZED SHEET METAL WITH SEALED SEAMS AND JOINTS.
- DUCT SIZES SHOWN ARE INSIDE DIMENSIONS.
- ALL AIR DEVICES (DIFFUSERS, REGISTERS AND GRILLES) SHALL BE ALL ALUMINUM CONSTRUCTION WITH EXPOSED SURFACE OFF WHITE BAKED ENAMEL FINISH OR AS SPECIFIED BY ARCHITECT. DEVICES SHALL BE TITUS, METALAIR, AIRGUIDE. PROVIDE OPPOSED BLADE DAMPERS AT ALL DIFFUSERS AND REGISTERS.
- THERMOSTATS SHALL BE AS SPECIFIED IN THE MITSUBISHI CITY MULTI SYSTEM SCHEMATIC DWG. ON SHEET M-4.
- REFRIGERANT LINES SHALL BE COPPER, TYPE "L" HARD DRAWN WITH WROUGHT COPPER SOLDER-JOINT TYPE FITTINGS, USE 95/5 SOLDER. REFRIGERANT LINES SHALL BE SIZED AS PER MANUFACTURER RECOMMENDATIONS.
- ARMARLEX 3/4" INSULATION SHALL BE USED FOR SUCTION LINES. PRE-INSULATED REFRIGERANT LINE KITS ARE ACCEPTABLE.
- PROVIDE NEW FILTERS FOR ALL AIR CONDITIONING EQUIPMENT BEFORE STARTING THEM. REPLACE THEM PRIOR TO FINAL ACCEPTANCE BY OWNER.
- 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.
- CONTRACTOR SHALL INSTALL ALL OUTDOOR EQUIPMENT TO WITHSTAND WIND LOADING FORCES AS REQUIRED BY LOCAL CODES. REFER TO STRUCTURAL PLANS BY OTHERS FOR STRUCTURAL DETAILS.
- PROVIDE ALL NECESSARY CONTACTORS, RELAYS, ETC., FOR A COMPLETE OPERATING A/C UNIT.
- 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.

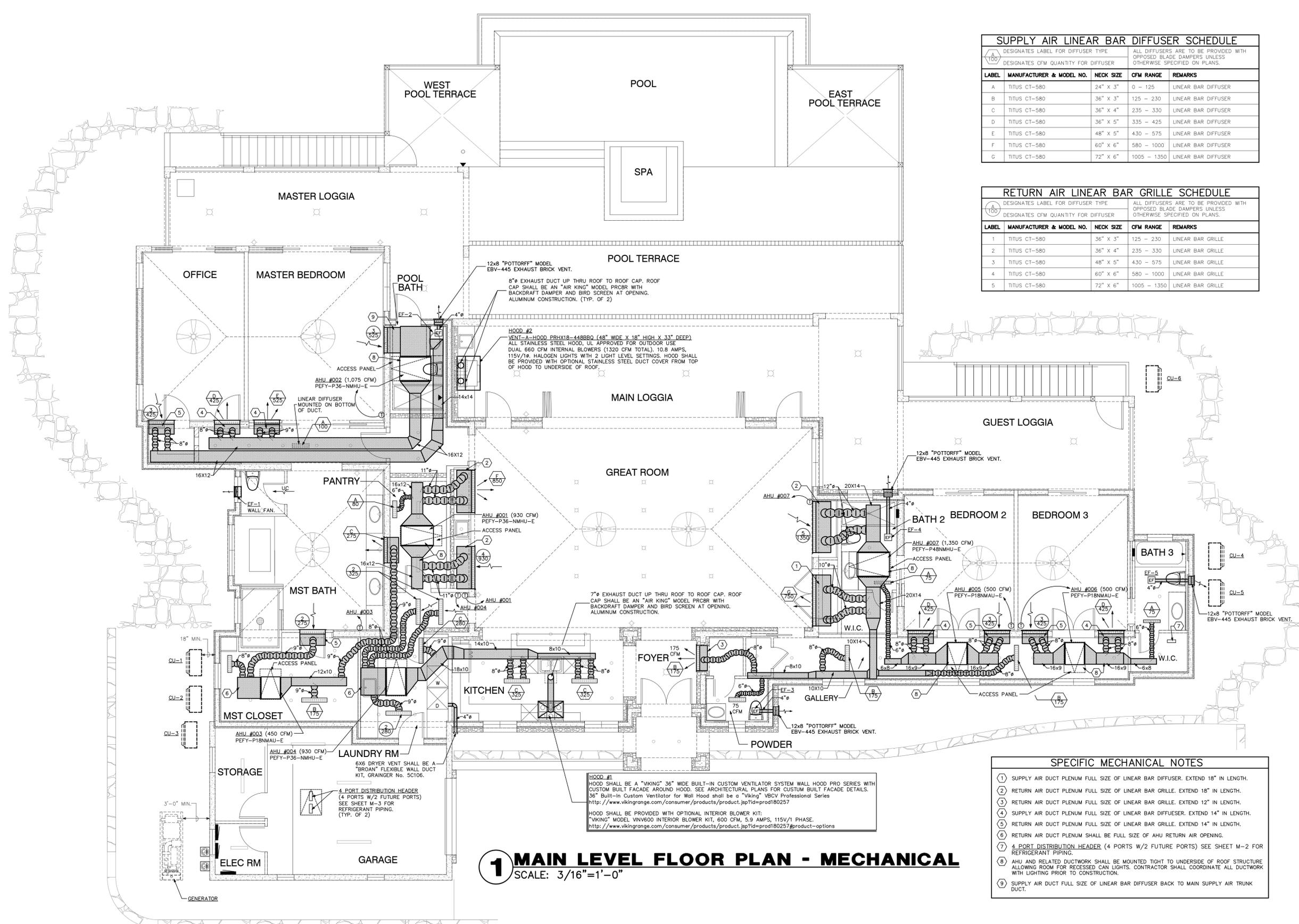
### HVAC SYMBOLS LEGEND

- ⊕ 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
- VOLUME CONTROL DAMPER
- RETURN REGISTER
- SUPPLY DIFFUSER
- RETURN AIR GRILLE
- SUPPLY REGISTER
- AIR FLOW DIRECTION
- ROOF MTD. EXH. FAN
- DUCT TURN DOWN
- DUCT TURN UP
- FLEXIBLE DUCT



**3 WATER HEATER VENT TERMINATION DETAIL**  
NO SCALE

**1 LOWER LEVEL FLOOR PLAN - MECHANICAL**  
SCALE: 3/16"=1'-0"

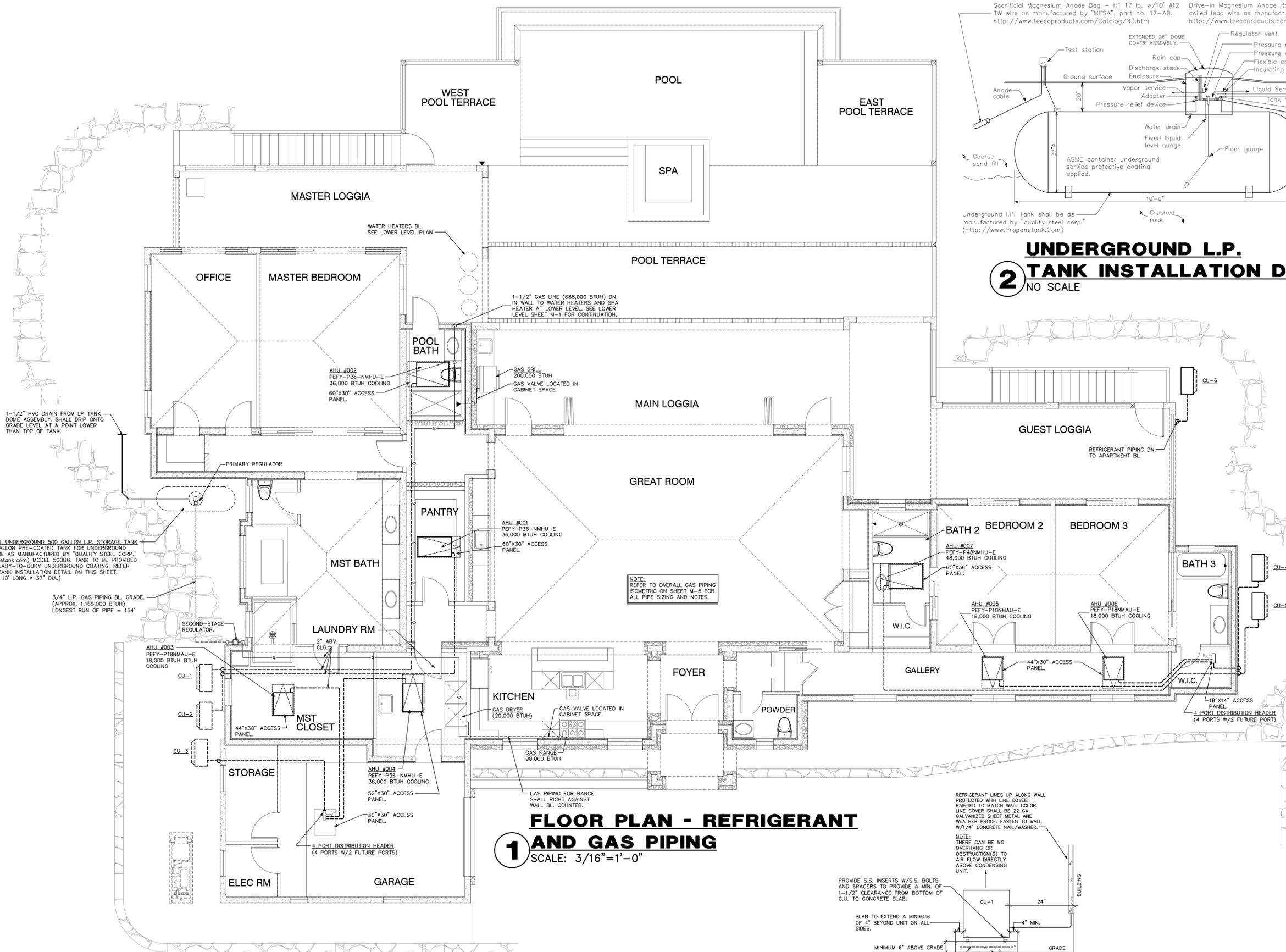


SUPPLY AIR LINEAR BAR DIFFUSER SCHEDULE				
DESIGNATES LABEL FOR DIFFUSER TYPE		ALL DIFFUSERS ARE TO BE PROVIDED WITH OPPOSED BLADE DAMPERS UNLESS OTHERWISE SPECIFIED ON PLANS.		
DESIGNATES CFM QUANTITY FOR DIFFUSER				
LABEL	MANUFACTURER & MODEL NO.	NECK SIZE	CFM RANGE	REMARKS
A	TITUS CT-580	24" X 3"	0 - 125	LINEAR BAR DIFFUSER
B	TITUS CT-580	36" X 3"	125 - 230	LINEAR BAR DIFFUSER
C	TITUS CT-580	36" X 4"	235 - 330	LINEAR BAR DIFFUSER
D	TITUS CT-580	36" X 5"	335 - 425	LINEAR BAR DIFFUSER
E	TITUS CT-580	48" X 5"	430 - 575	LINEAR BAR DIFFUSER
F	TITUS CT-580	60" X 6"	580 - 1000	LINEAR BAR DIFFUSER
G	TITUS CT-580	72" X 6"	1005 - 1350	LINEAR BAR DIFFUSER

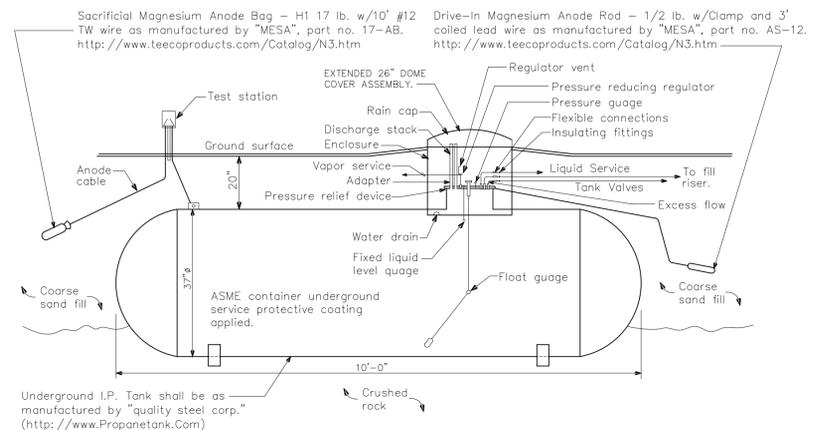
RETURN AIR LINEAR BAR GRILLE SCHEDULE				
DESIGNATES LABEL FOR DIFFUSER TYPE		ALL DIFFUSERS ARE TO BE PROVIDED WITH OPPOSED BLADE DAMPERS UNLESS OTHERWISE SPECIFIED ON PLANS.		
DESIGNATES CFM QUANTITY FOR DIFFUSER				
LABEL	MANUFACTURER & MODEL NO.	NECK SIZE	CFM RANGE	REMARKS
1	TITUS CT-580	36" X 3"	125 - 230	LINEAR BAR GRILLE
2	TITUS CT-580	36" X 4"	235 - 330	LINEAR BAR GRILLE
3	TITUS CT-580	48" X 5"	430 - 575	LINEAR BAR GRILLE
4	TITUS CT-580	60" X 6"	580 - 1000	LINEAR BAR GRILLE
5	TITUS CT-580	72" X 6"	1005 - 1350	LINEAR BAR GRILLE

**1 MAIN LEVEL FLOOR PLAN - MECHANICAL**  
SCALE: 3/16"=1'-0"

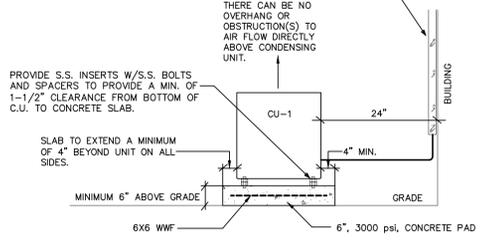
- SPECIFIC MECHANICAL NOTES**
- (1) SUPPLY AIR DUCT PLENUM FULL SIZE OF LINEAR BAR DIFFUSER. EXTEND 18" IN LENGTH.
  - (2) RETURN AIR DUCT PLENUM FULL SIZE OF LINEAR BAR GRILLE. EXTEND 18" IN LENGTH.
  - (3) RETURN AIR DUCT PLENUM FULL SIZE OF LINEAR BAR GRILLE. EXTEND 12" IN LENGTH.
  - (4) SUPPLY AIR DUCT PLENUM FULL SIZE OF LINEAR BAR DIFFUSER. EXTEND 14" IN LENGTH.
  - (5) RETURN AIR DUCT PLENUM FULL SIZE OF LINEAR BAR GRILLE. EXTEND 14" IN LENGTH.
  - (6) RETURN AIR DUCT PLENUM SHALL BE FULL SIZE OF AHU RETURN AIR OPENING.
  - (7) 4 PORT DISTRIBUTION HEADER (4 PORTS W/2 FUTURE PORTS) SEE SHEET M-2 FOR REFRIGERANT PIPING.
  - (8) AHU AND RELATED DUCTWORK SHALL BE MOUNTED TIGHT TO UNDERSIDE OF ROOF STRUCTURE ALLOWING ROOM FOR RECESSED CAN LIGHTS. CONTRACTOR SHALL COORDINATE ALL DUCTWORK WITH LIGHTING PRIOR TO CONSTRUCTION.
  - (9) SUPPLY AIR DUCT FULL SIZE OF LINEAR BAR DIFFUSER BACK TO MAIN SUPPLY AIR TRUNK DUCT.



**1 FLOOR PLAN - REFRIGERANT AND GAS PIPING**  
 SCALE: 3/16"=1'-0"



**2 UNDERGROUND L.P. TANK INSTALLATION DETAIL**  
 NO SCALE



**3 COND. UNIT MTG. DETAIL**  
 NO SCALE

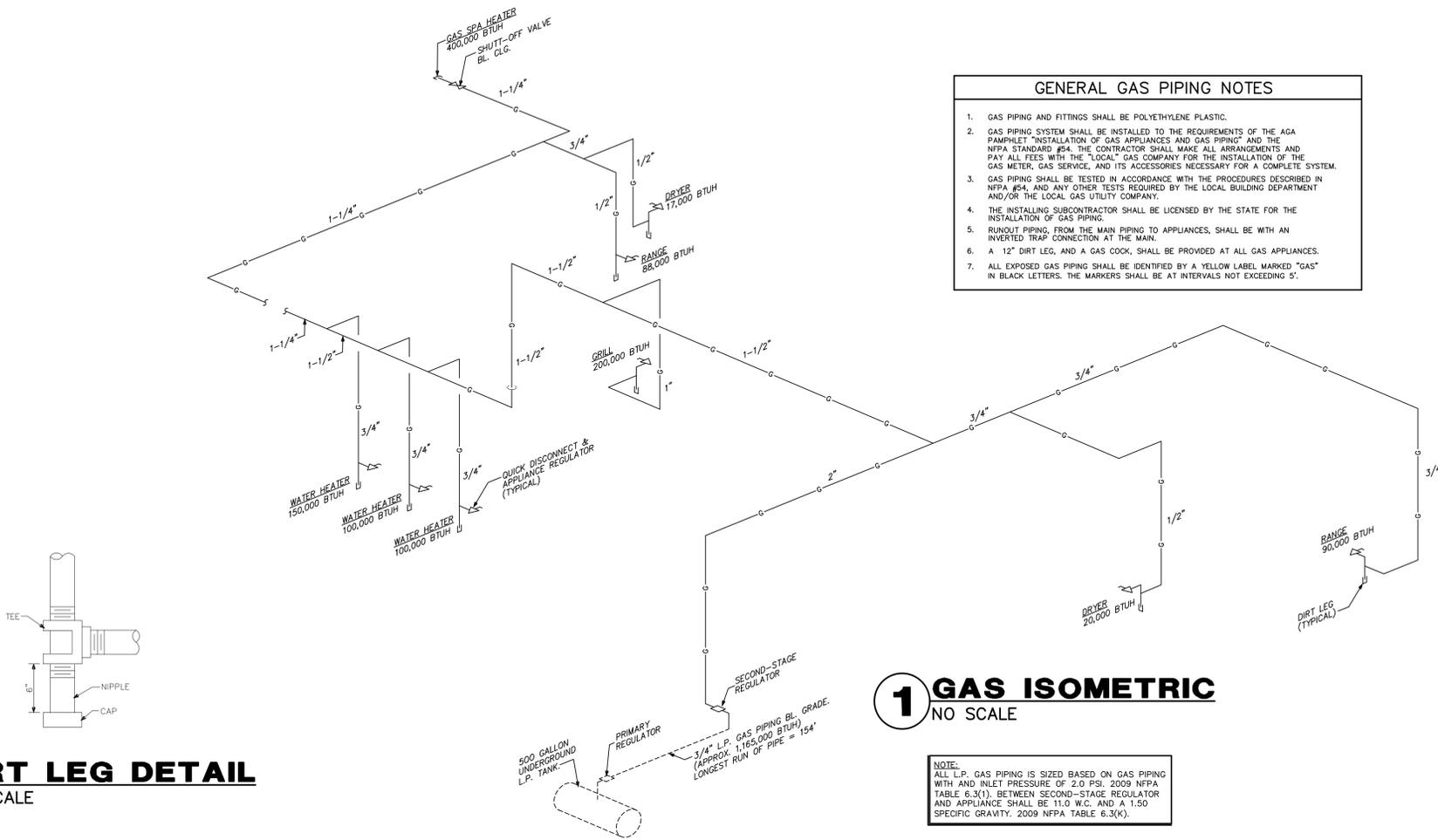
A.S.M.E. HORIZONTAL UNDERGROUND 500 GALLON L.P. STORAGE TANK SHALL BE A 500 GALLON PRE-COATED TANK FOR UNDERGROUND USE. TANK SHALL BE AS MANUFACTURED BY "QUALITY STEEL CORP." (<http://www.propanetank.com>) MODEL 500UG. TANK TO BE PROVIDED WITH "G-THANE" READY-TO-BURY UNDERGROUND COATING. REFER TO UNDERGROUND TANK INSTALLATION DETAIL ON THIS SHEET. (TANK DIMENSIONS: 10' LONG X 37" DIA.)

3/4" L.P. GAS PIPING BL. GRADE. (APPROX. 1,165,000 BTUH) LONGEST RUN OF PIPE = 154'

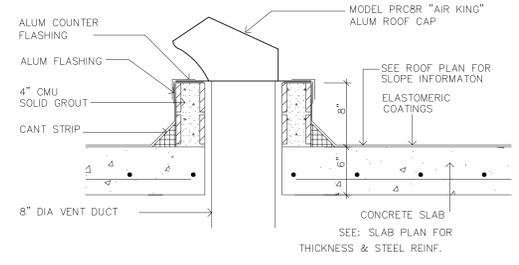
NOTE: REFER TO OVERALL GAS PIPING ISOMETRIC ON SHEET M-5 FOR ALL PIPE SIZING AND NOTES.

REFRIGERANT LINES UP ALONG WALL PROTECTED WITH LINE COVER. PAINTED TO MATCH WALL COLOR. LINE COVER SHALL BE 22 GA. GALVANIZED SHEET METAL AND WEATHER PROOF. FASTEN TO WALL W/1/4" CONCRETE NAIL/WASHER.

NOTE: THERE CAN BE NO OVERHANG OR OBSTRUCTION(S) TO AIR FLOW DIRECTLY ABOVE CONDENSING UNIT.

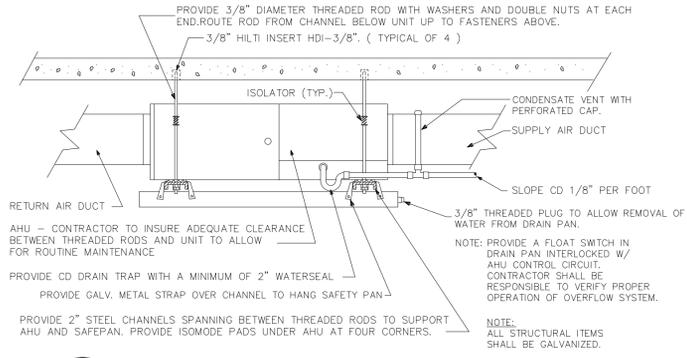


- ### GENERAL GAS PIPING NOTES
- GAS PIPING AND FITTINGS SHALL BE POLYETHYLENE PLASTIC.
  - GAS PIPING SYSTEM SHALL BE INSTALLED TO THE REQUIREMENTS OF THE AGA PAMPHLET "INSTALLATION OF GAS APPLIANCES AND GAS PIPING" AND THE NFPA STANDARD #54. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS AND PAY ALL FEES WITH THE "LOCAL" GAS COMPANY FOR THE INSTALLATION OF THE GAS METER, GAS SERVICE, AND ITS ACCESSORIES NECESSARY FOR A COMPLETE SYSTEM.
  - 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.
  - THE INSTALLING SUBCONTRACTOR SHALL BE LICENSED BY THE STATE FOR THE INSTALLATION OF GAS PIPING.
  - RUNOUT PIPING, FROM THE MAIN PIPING TO APPLIANCES, SHALL BE WITH AN INVERTED TRAP CONNECTION AT THE MAIN.
  - A 12" DIRT LEG, AND A GAS COCK, SHALL BE PROVIDED AT ALL GAS APPLIANCES.
  - 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'.



## 2 EXHAUST ROOF CAP CURB DETAIL

NO SCALE



## 3 AHU MOUNTING DETAIL

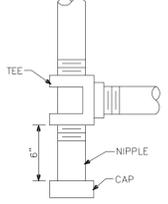
NO SCALE

FAN SCHEDULE											
LABEL	TYPE OF UNIT - AREA SERVED	MANUFACTURER & MODEL NO.	CFM	SP	MOUNTING ARRANGEMENT	MOTOR H.P.	ENCLOSURE TYPE	RPM	VOLTAGE	NOTES	DUCT SIZE
EF-1	WALL FAN - REFER TO PLANS	BROAN 509	180	.125"	WALL MOUNTED	1.5 AMPS	OPEN DRIP PROOF	1925	115V/1φ	1, 2	8"φ
EF-2-7	CABINET FAN - REFER TO PLANS	BROAN QT110E	110	.125"	CEILING MOUNTED	0.7 AMPS	OPEN DRIP PROOF	-	115V/1φ	1	4"φ

NOTES: 1.) REFER TO ELECTRICAL PLANS FOR CONTROL.  
2.) FAN PROVIDED WITH EXTERIOR WALL EXHAUST LOUVER.  
EF-1 - <http://www.broan.com/ImageLibrary/broan/pdf/Specifications/99041068.pdf>  
EF-1-7 - [http://www.broan.com/ImageLibrary/broan/pdf/Specifications/Broan\\_QT110E\\_Specification\\_Sheet\\_99044833A.pdf](http://www.broan.com/ImageLibrary/broan/pdf/Specifications/Broan_QT110E_Specification_Sheet_99044833A.pdf)

## 1 DIRT LEG DETAIL

NO SCALE

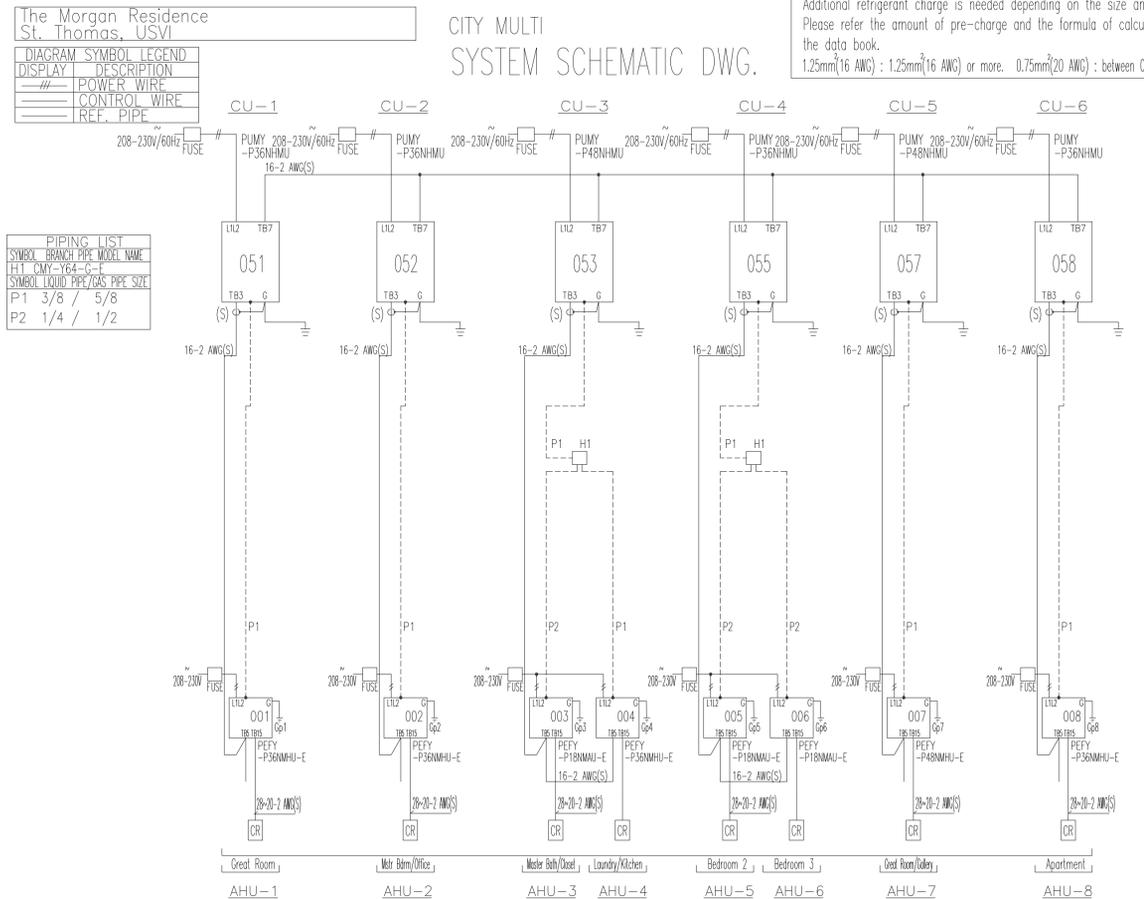


## 1 GAS ISOMETRIC

NO SCALE

NOTE:  
ALL L.P. GAS PIPING IS SIZED BASED ON GAS PIPING WITH AN INLET PRESSURE OF 2.0 PSI, 2009 NFPA TABLE 6.3(1). BETWEEN SECOND-STAGE REGULATOR AND APPLIANCE SHALL BE 11.0 W.C. AND A 1.50 SPECIFIC GRAVITY, 2009 NFPA TABLE 6.3(K).

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.  
1.25mm<sup>2</sup>(16 AWG) : 1.25mm<sup>2</sup>(16 AWG) or more. 0.75mm<sup>2</sup>(20 AWG) : between 0.5mm<sup>2</sup>(24 AWG) and 0.75mm<sup>2</sup>(20 AWG).

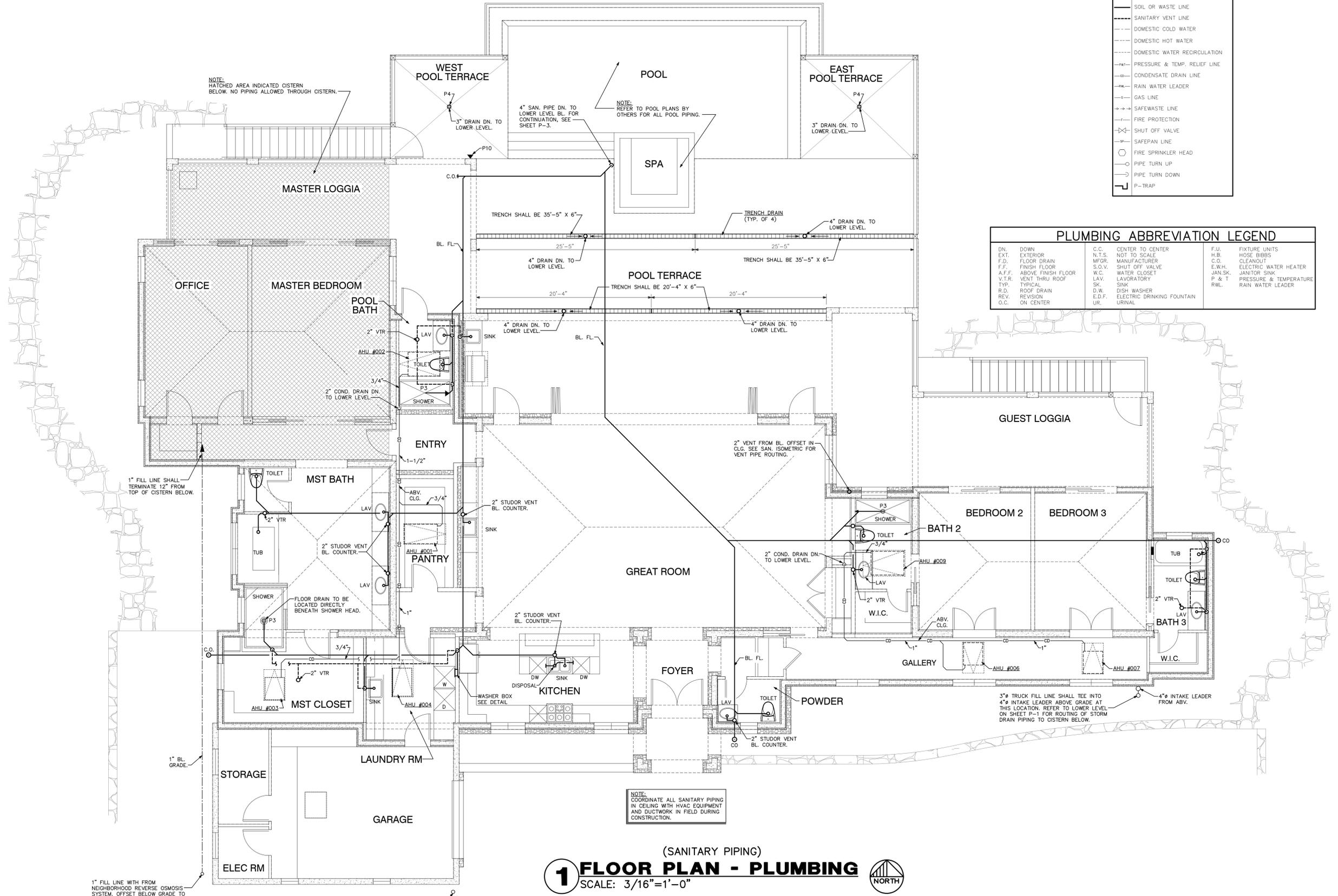


MITSUBISHI CITY MULTI SYSTEM SPECIFICATIONS						
H.V.A.C. OUTDOOR UNIT / INDOOR UNIT / CONTROLLER SCHEDULE						
Refrigerant system	Model name	Room	Indoor unit		Controller	
	Add.		Ref.	Model name	Model name	Group name
CU-1	PUMY-P36NHMU	Great Room	AHU-1	PEFY-P36NMHU-E	PAC-YT51CRB	1
CU-2	PUMY-P36NHMU	Mstr Bdrm/Office	AHU-2	PEFY-P36NMHU-E	PAC-YT51CRB	2
CU-3	PUMY-P48NHMU	Master Bath/Closet	AHU-3	PEFY-P18NMAU-E	PAC-YT51CRB	3
		Laundry/Kitchen	AHU-4	PEFY-P36NMHU-E	PAC-YT51CRB	4
CU-4	PUMY-P36NHMU	Bedroom 2	AHU-5	PEFY-P18NMAU-E	PAC-YT51CRB	5
		Bedroom 3	AHU-6	PEFY-P18NMAU-E	PAC-YT51CRB	6
CU-5	PUMY-P48NHMU	Great Room/Gallery	AHU-7	PEFY-P48NMHU-E	PAC-YT51CRB	7
CU-6	PUMY-P36NHMU	Apartment	AHU-8	PEFY-P36NMHU-E	PAC-YT51CRB	8



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

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.	LAVATORY
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
C.O.	CLEANOUT	E.W.H.	ELECTRIC WATER HEATER
JAN. SK.	JANITOR SINK	P & T	PRESSURE & TEMPERATURE
R.W.L.	RAIN WATER LEADER		

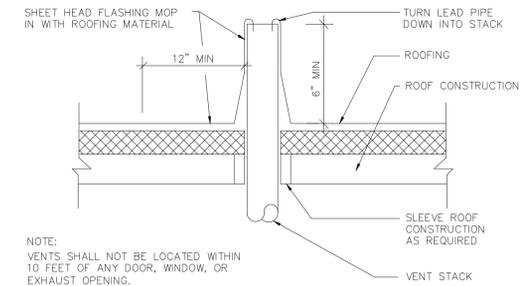
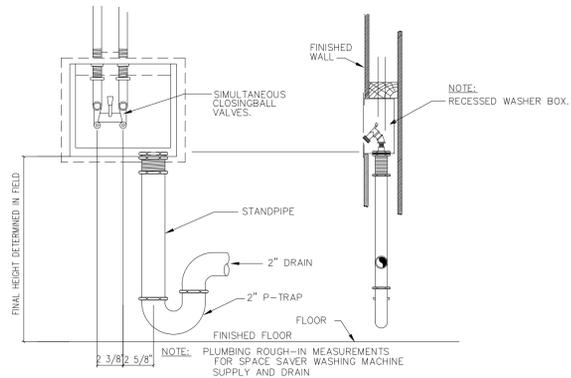


(SANITARY PIPING)  
**1 FLOOR PLAN - PLUMBING**  
 SCALE: 3/16"=1'-0"

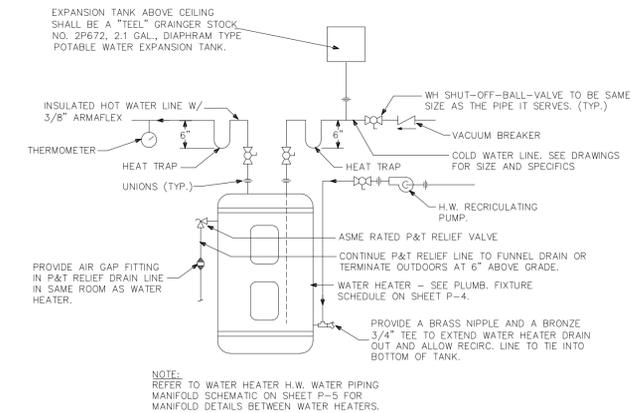
1" FILL LINE WITH FROM NEIGHBORHOOD REVERSE OSMOSIS SYSTEM. OFFSET BELOW GRADE TO CISTERN AS INDICATED. PROVIDE BALL-VALVE SHUT-OFF ON RISE.

1" FILL LINE FOR CISTERN. COORDINATE FINAL LOCATION IN FIELD WITH ARCH/OWNER PRIOR TO CONSTRUCTION.

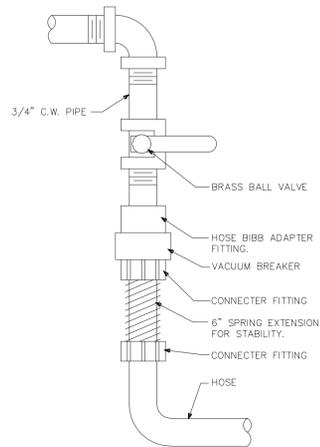
NOTE: COORDINATE ALL SANITARY PIPING IN CEILING WITH HVAC EQUIPMENT AND DUCTWORK IN FIELD DURING CONSTRUCTION.



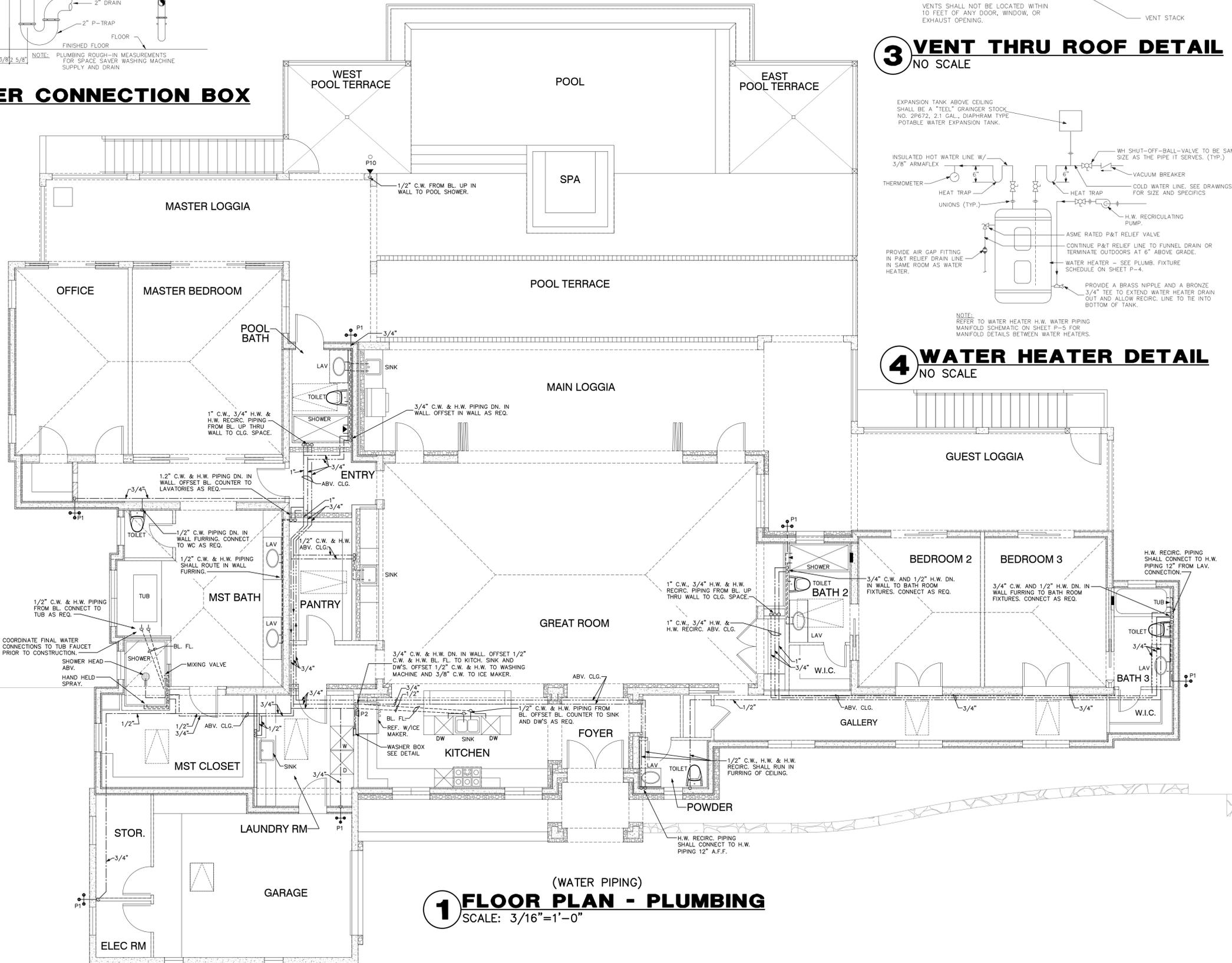
**3 VENT THRU ROOF DETAIL**  
NO SCALE



**4 WATER HEATER DETAIL**  
NO SCALE

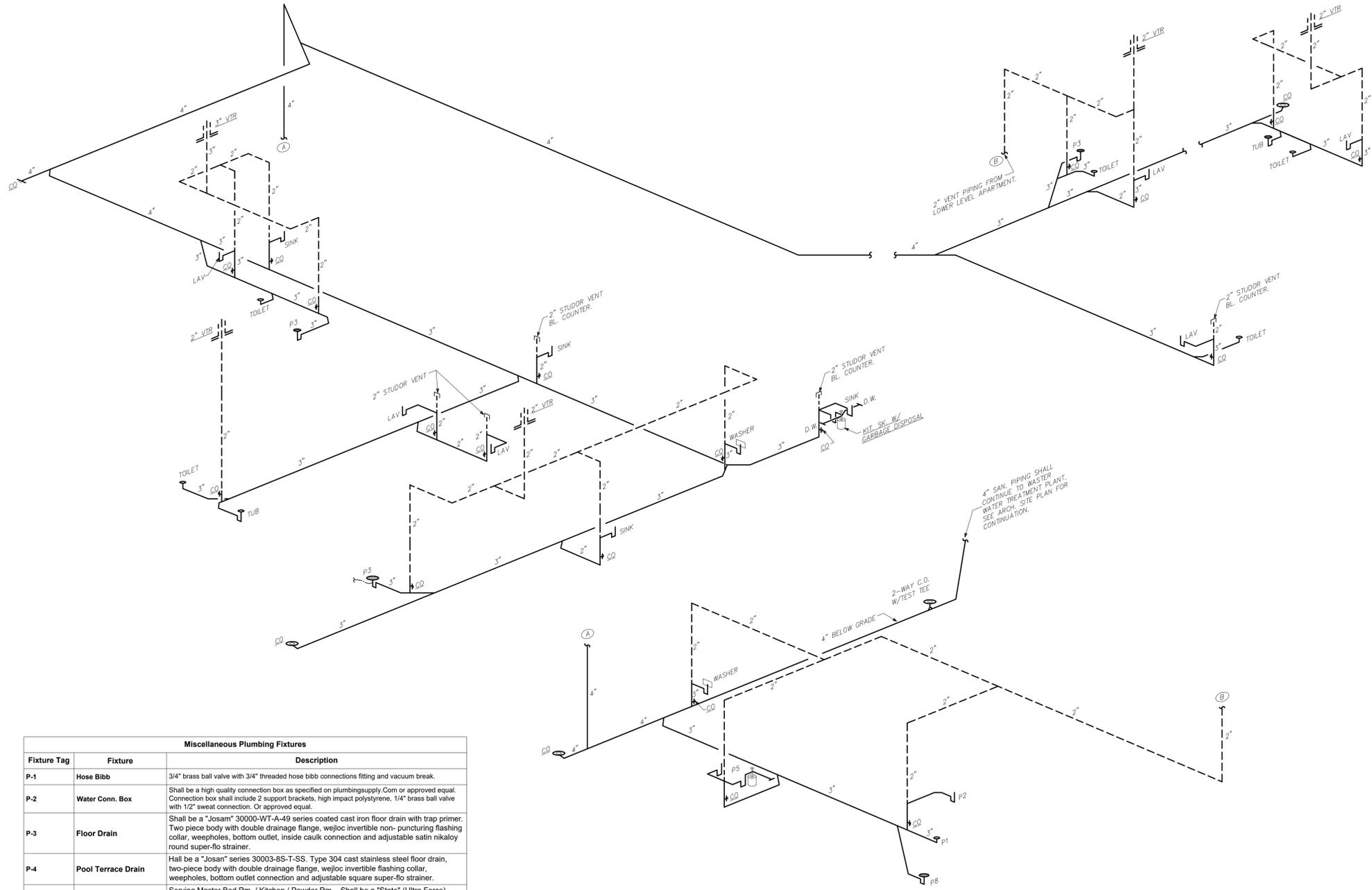


**2 HOSE BIBB DETAIL**  
NO SCALE



- 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. Contractor is responsible to install all fixtures and equipment in strict compliance with the manufacturer's installation instructions. This requirement is to supersede any details or information contained on these drawings.
  - 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.
  - All below floor slab water piping shall be flexible "temprite pex (cross-linked polyethylene)" installed as per manufacturers recommendations found here: [www.lubrizon.com](http://www.lubrizon.com). All above slab water piping shall be "FlowGuard Gold CPVC" installed as per manufacturers recommendations found here: [www.flowguardgold.com](http://www.flowguardgold.com). All water piping as specified or approved equal. All water piping larger than 1" 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 water hammer arrestors at each plumbing fixture and PDI approved shock arrestors on main lines and risers.
  - Provide chrome plated combination covered plate and cleantout plug for all wall clearouts, Joism 58890.
  - Insulate lines as follows:
    - 1" thick armafex preformed insulation shall be provided on both c.w. & h.w. when piping is located outside of the insulated building envelope.
    - 1/2" thick armafex preformed insulation shall be provided on h.w. piping & h.w. recirc. piping, only when there is a h.w. recirculating piping system.
    - Condensate piping: 1/2" thick armafex preformed or approved equal.

Plumbing Fixtures					
Location	Fixture	Material	Style	Manufacturer	Model No.
Powder Room	Toilet	Porcelain Biscuit	High Line Class Five	Kohler	K-3999-96
	Tank	Porcelain Biscuit	Wellworth	Kohler	K-446796
	Vessel Sink	Decorative Glass	Crystal	European Sink Outlet	Swirl 15.5" Vessel Sinks OC-005204000
	Faucet	Venetian Bronze	Widespread	West Brass	WB-1805XA12V
Bath 2	Toilet	Porcelain Biscuit	High Line Class Five	Kohler	K-3999-96
	Tank	Porcelain Biscuit	Wellworth	Kohler	K-446796
	Lavatory Sink	Porcelain Biscuit	Oval Undercounter	Kohler	K-2881-96
	Faucet	Venetian Bronze	Widespread Faucet	Newport Brass	850.0000
	Shower	Venetian Bronze	Shower Trim	Newport Brass	3-854PB
Bath 3	Toilet	Porcelain Biscuit	High Line Class Five	Kohler	K-3999-96
	Tank	Porcelain Biscuit	Wellworth	Kohler	K-446796
	Lavatory Sink	Porcelain Biscuit	Oval Undercounter	Kohler	K-2881-96
	Faucet	Venetian Bronze	Widespread Faucet	Newport Brass	NB-850CVB
	Tub	Venetian Bronze	30X60	European Sink outlet	PFB16RBS
Loggia	Bar Sink	Granite/Cafe Brown	Medium Single Undermount		BL-515653
	Bar Sink Faucet	Venetian Bronze	Pull Down	Brizo	BZ-63903LFRB
Kitchen	Strainer	Cafe Brown		Bianco	441094.0000
	Sink	Granite/Cafe Brown	Bianco Diamond Undermount	European Sink outlet	440177.0000
	Sink Faucet	Venetian Bronze		Brizo	63003LF-RB
	Waste Flange	Cafe Brown		Bianco	441099.0000
	Disposal		3/4HP	InSinkerator	IS-pro compact
	Disposal Drain	Oil Rubbed Bronze		European Sink outlet	JB-JBX130E
Laundry	Soap Dish	Venetian Bronze	Talo Soap /Lotion	Brizo	RP50274RB
	Sink	Granite/Cafe Brown	Bianco Diamond Single Bowl Undermount	European Sink outlet	440172.0000
	Sink Faucet	Venetian Bronze	pull down	Brizo	63903LF RB
Pool Bath	Strainer	Cafe Brown		Bianco	441094.0000
	Toilet	Porcelain Biscuit	High Line Class Five	Kohler	K-3999-96
	Tank	Porcelain Biscuit	Wellworth	Kohler	K-446796
	Lavatory Sink	Porcelain Biscuit	Oval Undercounter	Kohler	K-2881-96
Master Bathroom	Lav. Faucet	Venetian Bronze	Widespread Faucet	Newport Brass	850 CVB
	Shower Trim	Venetian Bronze	Shower Trim	Newport Brass	4-854BP VB
	Shower Valve		Pressure Balanc	Newport Brass	1594.0000
	Shower Head	Venetian Bronze	9"	Newport Brass	NB-215VB
	Nipple	Venetian Bronze	1/2"	Newport Brass	517-12VB
	Strainer	Venetian Bronze	4"	Newport Brass	238VB
	Tub	Acrylic Biscuit	Classic Airbath Biscuit Roma 60X30		ACR-RO60009BT
	Tub Drain	Venetian Bronze	Cable operated		238VB
	Trim	Venetian Bronze	Trim Kit		3-856VB
	Valve		quick con&ext Ring		1-502R/T
Great Room	Bar Sink	Cafe Brown	Rondo Bar Sink		515803.0000
	Faucet	Venetian Bronze	Talo Bar Pull Down		63903LFRB
	Strainer	Cafe Brown		Bianco	441094.0000
Apartment	Toilet	Porcelain Biscuit	High Line Class Five	Kohler	K-3999-96
	Tank	Porcelain Biscuit	Wellworth	Kohler	K-446796
	Lavatory Sink	Porcelain Biscuit	Oval Undercounter	Kohler	K-2881-96
	Lav. Faucet	Venetian Bronze	Widespread Faucet	Newport Brass	850 CVB
	Shower	Venetian Bronze	Shower Trim	Newport Brass	3854PVB
	Sink		GLASS Door		
	Sink Faucet	Stainless Steel		Just	DL-2133-A-GR
Pool Terrace	Sink		Stainless Steel	Just	JWF
	Sink		Stainless Steel	Just	JWF
	Sink Faucet		Stainless Steel	Just	JWF
Pool Terrace	Sink		Biancoprecis Undermount	Bianco	23456.0000
	Faucet		Talo Bar Pull Down	Brizo	BZ-63903LFRB
	Strainer		Oil Rubbed Bronze	bianco	11259.0000



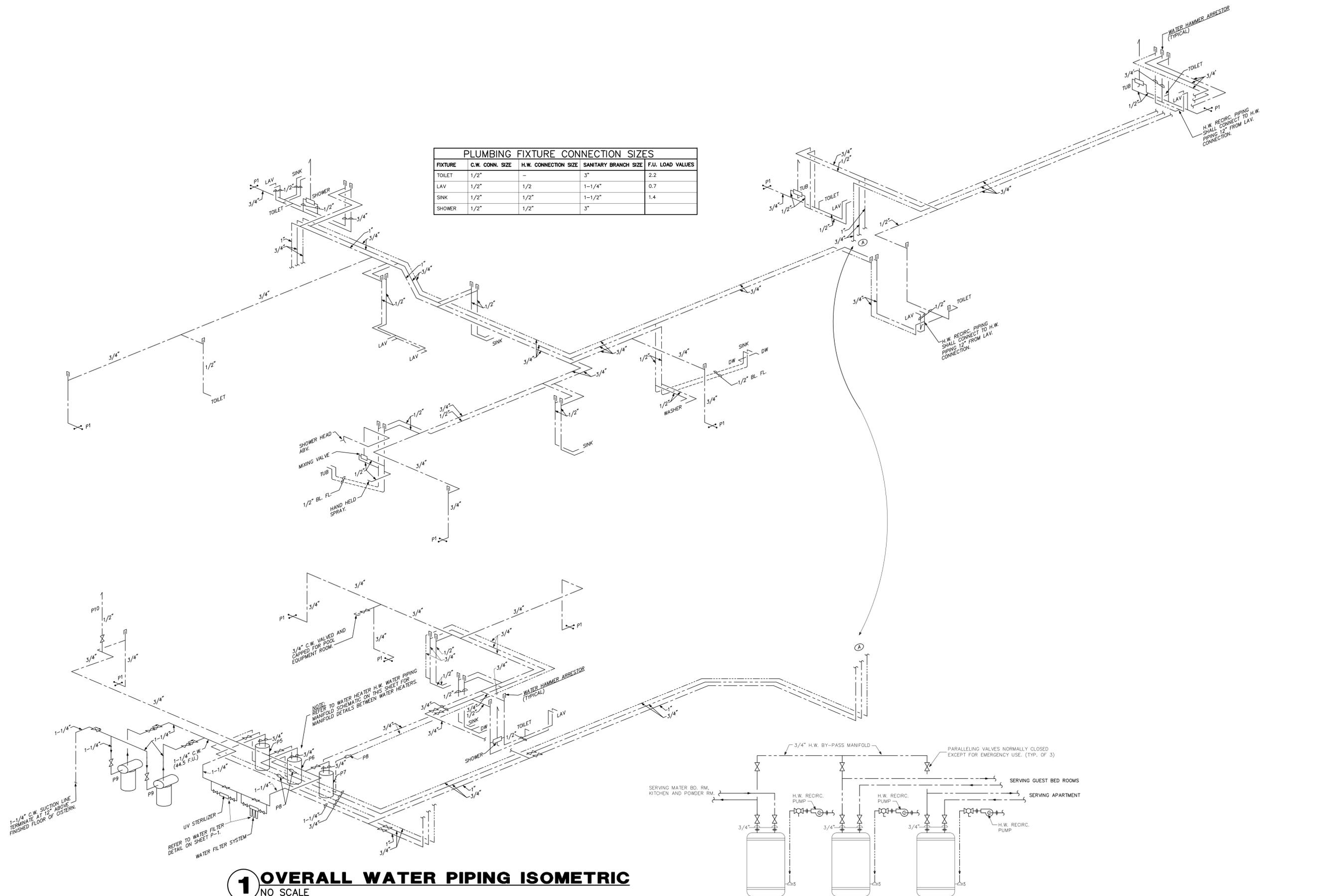
Miscellaneous Plumbing Fixtures		
Fixture Tag	Fixture	Description
P-1	Hose Bibb	3/4" brass ball valve with 3/4" threaded hose bibb connections fitting and vacuum break.
P-2	Water Conn. Box	Shall be a high quality connection box as specified on plumbingSupply.com or approved equal. Connection box shall include 2 support brackets, high impact polystyrene, 1/4" brass ball valve with 1/2" sweat connection. Or approved equal.
P-3	Floor Drain	Shall be a "Josam" 30000-WT-A-49 series coated cast iron floor drain with trap primer. Two piece body with double drainage flange, wejloc invertible non-puncturing flashing collar, weepholes, bottom outlet, inside caulk connection and adjustable satin nikaloy round super-flo strainer.
P-4	Pool Terrace Drain	Hall be a "Josam" series 30003-BS-T-SS. Type 304 cast stainless steel floor drain, two-piece body with double drainage flange, wejloc invertible flashing collar, weepholes, bottom outlet connection and adjustable square super-flo strainer.
P-5	Gas Water Heater #1	Serving Master Bed Rm. / Kitchen / Powder Rm. - Shall be a "State" (Ultra Force) Model "SUIF" 100 150 NE" direct vent gas fired water heater. 150,000 btu input to produce 173 gallons per hour of hot water at 100 degree rise. Insulated glasslined 100 gallon storage tank. 3 year limited warranty on storage tank against tank failure. Water heater shall meet or exceed all applicable sections of ashrae sections 90-80a and naeca requirements for energy conservation. Installation manual here: <a href="http://www.statewaterheaters.com/lit/im/com-Gas/19784-001.pdf">http://www.statewaterheaters.com/lit/im/com-Gas/19784-001.pdf</a> - Product data here: <a href="http://www.statewaterheaters.com/lit/spec/comm-gas/SCGSS00207.pdf">http://www.statewaterheaters.com/lit/spec/comm-gas/SCGSS00207.pdf</a>
P-6	Gas Water Heater #2	Serving Guest Bed Rooms - Shall be a "State" (Force 90+) Model SHE50 100NE direct vent gas fired water heater. 100,000 btu input to produce 116 gallons per hour of hot water at 90 degree rise. Insulated glasslined 50 gallon storage tank. 3 year limited warranty on storage tank against tank failure. Water heater shall meet or exceed all applicable sections of ashrae sections 90-80a and naeca requirements for energy conservation. Installation manual here: <a href="http://www.statewaterheaters.com/lit/im/com-Gas/197834-001.pdf">http://www.statewaterheaters.com/lit/im/com-Gas/197834-001.pdf</a> - Product data here: <a href="http://www.statewaterheaters.com/lit/spec/comm-gas/SCGSS01108.pdf">http://www.statewaterheaters.com/lit/spec/comm-gas/SCGSS01108.pdf</a>
P-7	Gas Water Heater #3	Serving Apartment - Shall be a "State" (Force 90+) Model SHE50 100NE direct vent gas fired water heater. 100,000 btu input to produce 116 gallons per hour of hot water at 90 degree rise. Insulated glasslined 50 gallon storage tank. 3 year limited warranty on storage tank against tank failure. Water heater shall meet or exceed all applicable sections of ashrae sections 90-80a and naeca requirements for energy conservation. Installation manual here: <a href="http://www.statewaterheaters.com/lit/im/com-Gas/197834-001.pdf">http://www.statewaterheaters.com/lit/im/com-Gas/197834-001.pdf</a> - Product data here: <a href="http://www.statewaterheaters.com/lit/spec/comm-gas/SCGSS01108.pdf">http://www.statewaterheaters.com/lit/spec/comm-gas/SCGSS01108.pdf</a>
P-8	HW Recirculating Pump	Shall be a "Bell & Gossett" Model #PI-36B, grainger stock #5JPC3, inline circulator pump, open loop system, 1/8 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.
P-9	Cinstern Pump #1 & 2	Shall be a "Dayton" Model 5UXL3, shallow well jet pump system, stainless steel, 3/4 hp, voltage 115/230, suction pipe size 1 1/4 in., 1 npt outlet, 15.6/7.8 amps ac, tank 6 gal., shut off 64 psi, max. Inlet pressure 75 psi, max. Case pressure 141 psi, motor type capacitor start, odp, seal type mechanical, suction lift 0-25 ft., length 25 in., width 25 in., height 28 in., includes stainless steel pump and tank.
P-10	Pool Area Shower	Shall be a "Newport Brass" model 219904 venetian bronze trim, kit-bp shower set., "Newport" 14282 pressure balancing valve.

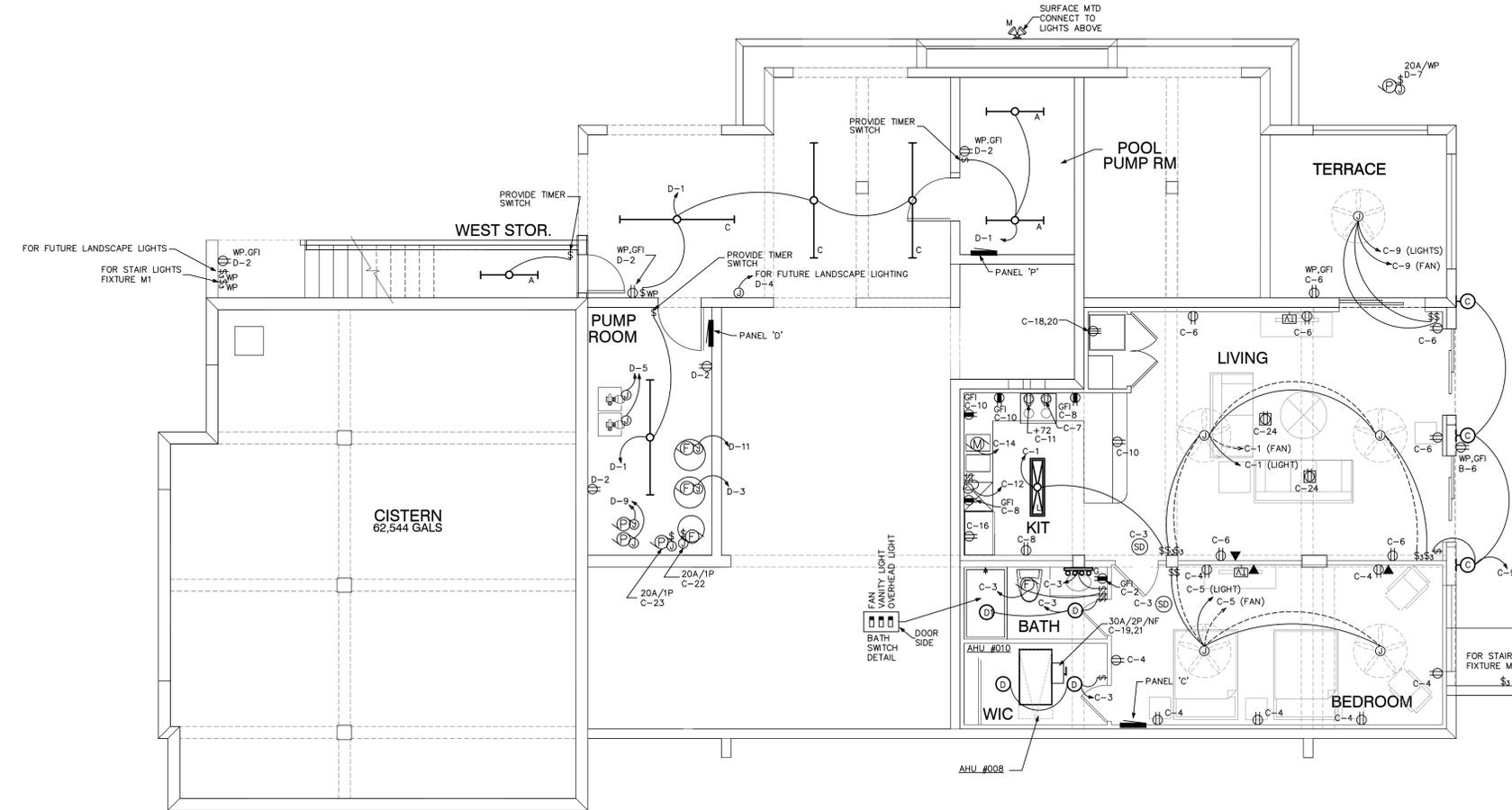
# 1 OVERALL SANITARY ISOMETRIC

NO SCALE

PLUMBING FIXTURE CONNECTION SIZES				
FIXTURE	C.W. CONN. SIZE	H.W. CONNECTION SIZE	SANITARY BRANCH SIZE	F.U. LOAD VALUES
TOILET	1/2"	-	3"	2.2
LAV	1/2"	1/2"	1-1/4"	0.7
SINK	1/2"	1/2"	1-1/2"	1.4
SHOWER	1/2"	1/2"	3"	

PLUMBING FIXTURE CONNECTION SIZES				
FIXTURE	C.W. CONN. SIZE	H.W. CONNECTION SIZE	SANITARY BRANCH SIZE	F.U. LOAD VALUES
TOILET	1/2"	-	3"	2.2
LAV	1/2"	1/2"	1-1/4"	0.7
SINK	1/2"	1/2"	1-1/2"	1.4
SHOWER	1/2"	1/2"	3"	





- ### ELECTRICAL NOTES:
- 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.
  - 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.
  - 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.
  - 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.
  - GROUNDING: GROUNDING SHALL BE IN ACCORDANCE WITH ARTICLE 250, NEC.
  - SHARED NEUTRAL CONDUCTORS SHALL NOT BE ALLOWED UNLESS INSTALLED IN ACCORDANCE WITH NEC-210.4
  - 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.
  - CONDUCTORS: CONDUCTORS SHALL BE AS SCHEDULED ON PANEL SCHEDULES. ALL POWER CONDUCTORS SHALL NOT BE SMALLER THAN #12 AWG (CU), OR #10 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 TERMINAL STRIP TERMINALS FOR IDENTIFICATION OF CIRCUITS.  
 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.
  - 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.
  - 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.
  - 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.
  - TERMINALS: ALL ELECTRICAL EQUIPMENT FURNISHED ON THIS PROJECT IS TO HAVE TERMINALS RATED FOR 75° C. OPERATION.

### ELECTRICAL SYMBOLS LEGEND

NOTE - NOT ALL SYMBOLS MAY BE USED ON PROJECT

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

### LIGHTING FIXTURE SCHEDULE

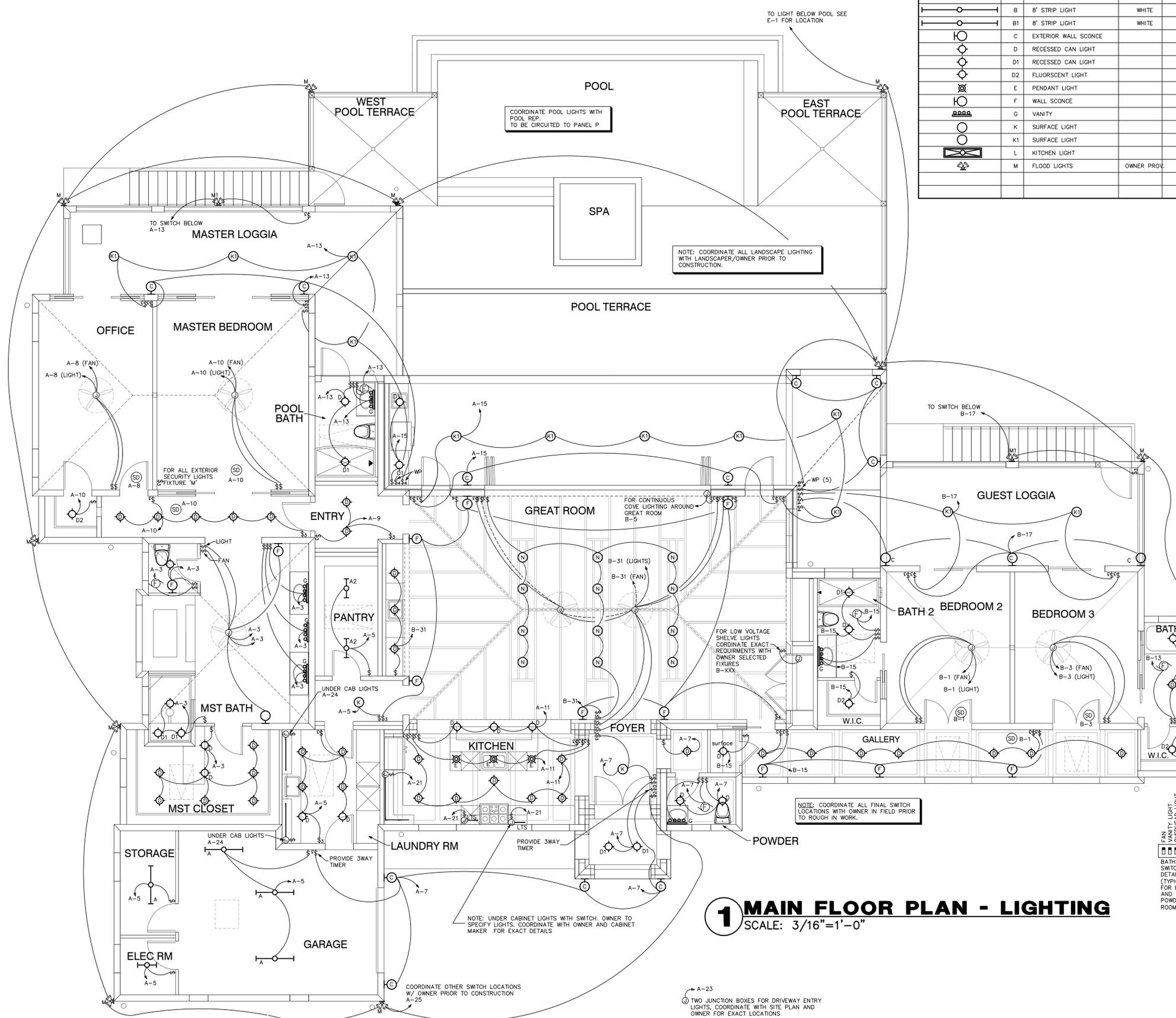
SYMBOL	LABEL	TYPE OF FIXTURE	FINISH	LENS TYPE	VOLTAGE	LAMP	MANUFACTURER & MODEL NO.	REMARKS
Ⓛ	A	4' STRIP LIGHT	WHITE		120	(2) 32W T8	LITHONIA C-232-MVOLT	
Ⓛ	A2	2' STRIP LIGHT	WHITE		120	(2) 17W T8	LITHONIA C-217-MVOLT	
Ⓛ	B	8' STRIP LIGHT	WHITE		120	(1) 32W T8/4FT	LITHONIA TC-32-MVOLT	
Ⓛ	B1	8' STRIP LIGHT	WHITE		120	(1) 96W T8	LITHONIA DMW-196T8-MVOLT	WET LOCATION LISTED
Ⓛ	C	EXTERIOR WALL SCONCE			120	100W MAX	OWNER SELECTED	
Ⓛ	D	RECESSED CAN LIGHT			120	75W MAX	OWNER SELECTED	
Ⓛ	D1	RECESSED CAN LIGHT			120	75W MAX	OWNER SELECTED	WET LOCATION LISTED
Ⓛ	D2	FLUORESCENT LIGHT			120	75W MAX	OWNER SELECTED	
Ⓛ	E	PENDANT LIGHT			120	75W MAX	OWNER SELECTED	
Ⓛ	F	WALL SCONCE			120	75W MAX	OWNER SELECTED	
Ⓛ	G	VANITY			120	(4) 75W MAX	OWNER SELECTED	
Ⓛ	K	SURFACE LIGHT			120	75W MAX	OWNER SELECTED	
Ⓛ	K1	SURFACE LIGHT			120	75W MAX	OWNER SELECTED	WET LOCATION LISTED
Ⓛ	L	KITCHEN LIGHT			120	(2) 32W T8	OWNER SELECTED	
Ⓛ	M	FLOOD LIGHTS	OWNER PROV.		120	INCLUDED	LITHONIA OFLR-6LC-120-MO	

# 1 LOWER LEVEL FLOOR PLAN - ELECTRICAL

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

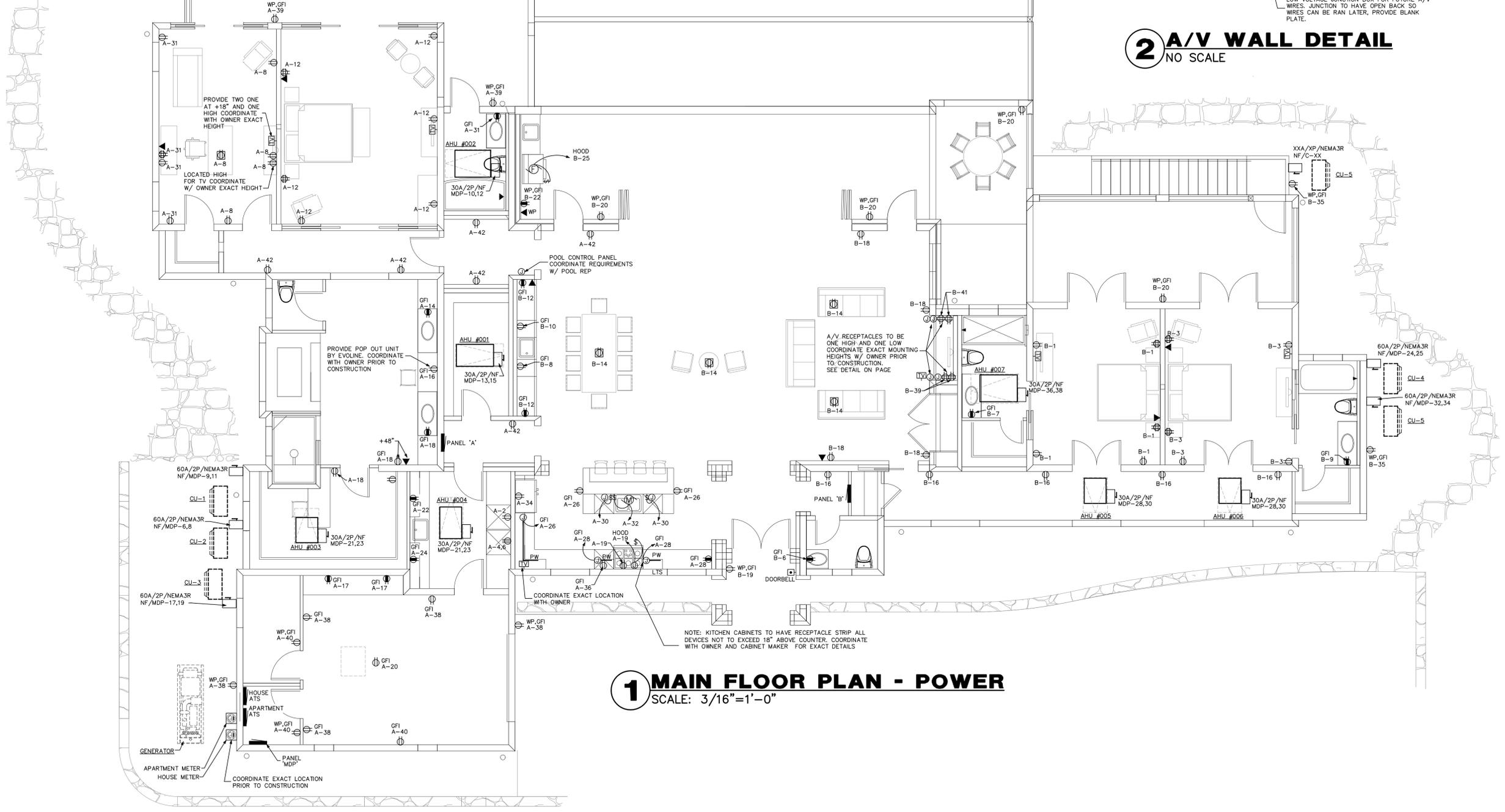
LIGHTING FIXTURE SCHEDULE								
SYMBOL	LABEL	TYPE OF FIXTURE	FINISH	LENS TYPE	VOLTAGE	LAMP	MANUFACTURER & MODEL NO.	REMARKS
	A	4' STRIP LIGHT	WHITE		120	(2) 32W TB	LITHONIA C-232-MVOLT	
	A2	2' STRIP LIGHT	WHITE		120	(2) 17W TB	LITHONIA C-217-MVOLT	
	B	8' STRIP LIGHT	WHITE		120	(1) 32W TB/4FT	LITHONIA TC-32-MVOLT	
	B1	8' STRIP LIGHT	WHITE		120	(1) 96W TB	LITHONIA DMW-196TB-MVOLT	WET LOCATION LISTED
	C	EXTERIOR WALL SCONCE			120	100W MAX	OWNER SELECTED	
	D	RECESSED CAN LIGHT			120	75W MAX	OWNER SELECTED	
	D1	RECESSED CAN LIGHT			120	75W MAX	OWNER SELECTED	WET LOCATION LISTED
	D2	FLUORESCENT LIGHT			120	75W MAX	OWNER SELECTED	
	E	PENDANT LIGHT			120	75W MAX	OWNER SELECTED	
	F	WALL SCONCE			120	75W MAX	OWNER SELECTED	
	G	VANITY			120	(4) 75W MAX	OWNER SELECTED	
	K	SURFACE LIGHT			120	75W MAX	OWNER SELECTED	
	K1	SURFACE LIGHT			120	75W MAX	OWNER SELECTED	WET LOCATION LISTED
	L	KITCHEN LIGHT			120	(2) 32W TB	OWNER SELECTED	
	M	FLOOD LIGHTS	OWNER PROV.		120	INCLUDED	LITHONIA OFLR-6LC-120-MO	

ELECTRICAL SYMBOLS LEGEND			
SYMBOLS	DESCRIPTION	SYMBOLS	DESCRIPTION
	DUPLEX RECEPTACLE, MTD. +18" AFF		TRANSFORMER - SIZE AS NOTED
	240 VOLT RECEPTACLE (HT. AS REQ.)		PANEL - SIZE AS NOTED
	QUADRUPLX RECEPTACLE, MTD. +18"		MOMENTARY CONTACT PUSH BUTTON
	COUNTERTOP HT. RECEPTACLE +42"		F-FAN; M-MOTOR; P-PUMP
	SINGLE POLE SWITCH, MTD +47"		SPECIAL OUTLET - AS REQUIRED
	THREE-WAY SWITCH, MTD +47"		CKT. HOMERUN (B INDICATES PANEL)
	MANUAL STARTER SWITCH		EXIT SIGN; ONE SIDED, OR TWO SIDED
	DIMMER SWITCH, MTD +47"		EMERGENCY LIGHTING
	SWITCH W/ ILLUM. WHEN ON +47"		RECESSED MOUNTED LIGHTING FIXTURE B DESIGNATES FIXTURE TYPE
	SWITCH W/ OCCU SENSOR		OVERHEAD OCCUPANCY SENSOR
	THREE-WAY SWITCH W/ OCCU SENSOR		HIGHBAY HID LIGHTING FIXTURE B DESIGNATES FIXTURE TYPE
	JUNCTION BOX, FLUSH IF POSSIBLE		FLUORESCENT LIGHTING FIXTURE B DESIGNATES FIXTURE TYPE
	TELEPHONE / DATA OUTLET +18"		FLUORESCENT LIGHTING NIGHT LIGHT B DESIGNATES FIXTURE TYPE
	DED. COMPUTER TERM. OUTLET +18"		FLUORESCENT STRIP LIGHTING FIXTURE B DESIGNATES FIXTURE TYPE
	DISCONNECT SWITCH W/ STARTER		IG ISOLATED GROUND
	DISCONNECT SWITCH		WP WEATHER-PROOF
	FLR. MTD. FLUSH DUPLEX RECEPTACLE		BC BELOW COUNTER
	FLR. MTD. FLUSH QUAD. RECEPTACLE		TC TIME CLOCK - 24 HOUR
	FLR. MTD. FLUSH PHONE/DATA OUTLET		GFI GROUND FAULT INTERRUPTER
	FLR. MTD. FLUSH COMPUTER OUTLET		AFF ABOVE FINISHED FLOOR
	AREA SMOKE DETECTOR		EWC ELECTRIC WATER COOLER
	HEAT DETECTOR		ASW ABOVE SHOW WINDOW
	DUCT SMOKE DETECTOR		BSW BELOW SHOW WINDOW
	FIRE ALARM MAN. PULL STATION +47"		FACP FIRE ALARM CONTROL PANEL
	HORN WITH STROBE LIGHT, MTD. +80"		FAAP FIRE ALARM ANNUNCIATOR PANEL
	STROBE LIGHT ONLY, MTD. +80"		TV OUTLET +18"
	# BESIDE DEVICE IS CANDELLA RATING		

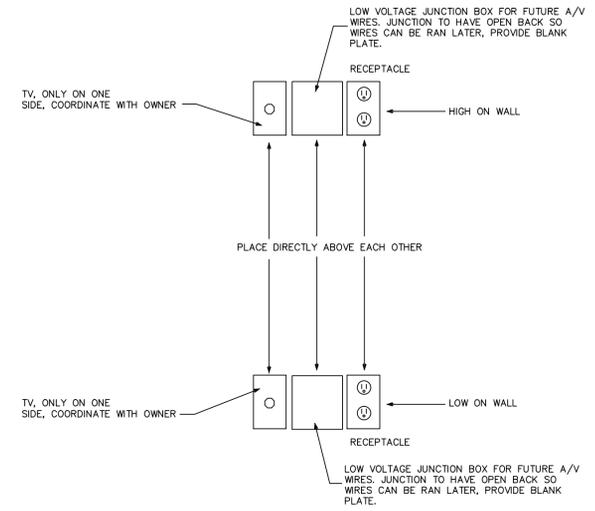


**1 MAIN FLOOR PLAN - LIGHTING**  
SCALE: 3/16"=1'-0"

ELECTRICAL SYMBOLS LEGEND		NOTE - NOT ALL SYMBOLS MAY BE USED ON PROJECT	
SYMBOLS	DESCRIPTION	SYMBOLS	DESCRIPTION
⊕	DUPLEX RECEPTACLE, MTD. +18" AFF	⊕	TRANSFORMER - SIZE AS NOTED
⊕	240 VOLT RECEPTACLE (HT. AS REQ.)	□	PANEL - SIZE AS NOTED
⊕	QUADRUPEX RECEPTACLE, MTD. +18"	⊕	MOMENTARY CONTACT PUSH BUTTON
⊕	COUNTERTOP HT. RECEPTACLE +42"	⊕	F-FAN; M-MOTOR; P-PUMP
⊕	SINGLE POLE SWITCH, MTD +47"	⊕	SPECIAL OUTLET - AS REQUIRED
⊕	THREE-WAY SWITCH, MTD +47"	⊕	CKT. HOMERUN (8 INDICATES PANEL) 2' DESIGNATES CIRCUIT NUMBER
⊕	MANUAL STARTER SWITCH	⊕	EXIT SIGN, ONE SIDED, OR TWO SIDED
⊕	DIMMER SWITCH, MTD +47"	⊕	EMERGENCY LIGHTING
⊕	SWITCH W/ ILLUM. WHEN ON +47"	⊕	RECESSED MOUNTED LIGHTING FIXTURE B DESIGNATES FIXTURE TYPE
⊕	SWITCH W/ OCCU SENSOR	⊕	OVERHEAD OCCUPANCY SENSOR
⊕	THREE-WAY SWITCH W/ OCCU SENSOR	⊕	HIGHWAY MID LIGHTING FIXTURE B DESIGNATES FIXTURE TYPE
⊕	JUNCTION BOX, FLUSH IF POSSIBLE	⊕	FLUORESCENT LIGHTING FIXTURE B DESIGNATES FIXTURE TYPE
⊕	TELEPHONE / DATA OUTLET +18"	⊕	FLUORESCENT LIGHTING NIGHT LIGHT B DESIGNATES FIXTURE TYPE
⊕	DED. COMPUTER TERM. OUTLET +18"	⊕	FLUORESCENT STRIP LIGHTING FIXTURE B DESIGNATES FIXTURE TYPE
⊕	DISCONNECT SWITCH W/ STARTER	⊕	ISOLATED GROUND
⊕	DISCONNECT SWITCH	⊕	WEATHER-PROOF
⊕	FLR. MTD. FLUSH DUPLEX RECEPTACLE	⊕	BC BELOW COUNTER
⊕	FLR. MTD. FLUSH QUAD. RECEPTACLE	⊕	TC TIME CLOCK - 24 HOUR
⊕	FLR. MTD. FLUSH PHONE/DATA OUTLET	⊕	GFI GROUND FAULT INTERRUPTER
⊕	FLR. MTD. FLUSH COMPUTER OUTLET	⊕	AFF ABOVE FINISHED FLOOR
⊕	AREA SMOKE DETECTOR	⊕	EWC ELECTRIC WATER COOLER
⊕	HEAT DETECTOR	⊕	ASW ABOVE SHOW WINDOW
⊕	DUCT SMOKE DETECTOR	⊕	BSW BELOW SHOW WINDOW
⊕	FIRE ALARM MAN. PULL STATION +47"	⊕	FACP FIRE ALARM CONTROL PANEL
⊕	HORN WITH STROBE LIGHT, MTD. +80" # RESISE DEVICE IS CANSOLA RATING	⊕	FAAP FIRE ALARM ANNUNCIATOR PANEL
⊕	STROBE LIGHT ONLY, MTD. +80" # RESISE DEVICE IS CANSOLA RATING	⊕	TV TV OUTLET +18"



**1 MAIN FLOOR PLAN - POWER**  
SCALE: 3/16"=1'-0"



**2 A/V WALL DETAIL**  
NO SCALE

PANEL SCHEDULE A															
100 AMP, 120/240 VOLT, SINGLE PHASE, THREE WIRE, M.L.D., 10000 AMPS MINIMUM A.I.C. BRACING, SURFACE MOUNTED, TYPE NEMA 4X ENCLOSURE															
#	BKR.	WIRE AND CONDUIT				LOAD DESCRIPTION	NEUT.	LINE A	LINE B	LOAD DESCRIPTION	WIRE AND CONDUIT				BKR. #
		COND.	NEUTRAL	COND.	C. KEYS						KEYS	C.	COND.	NEUTRAL	
1	20/1	#12	#12	#12	1/2	CHAL	WATER HEATER FANS	360	360	-----	360	360	-----	2	
3	20/1	#12	#12	#12	1/2	CHAL	WATER HEATER FAN	1200	1200	-----	1200	1200	-----	4	
5	20/1	#12	#12	#12	1/2	CHAL	WATER HEATER FAN	1200	1200	-----	1200	1200	-----	6	
7	20/1	#12	#12	#12	1/2	CHAL	WATER HEATER FAN	1200	1200	-----	1200	1200	-----	8	
9	20/1	#12	#12	#12	1/2	CHAL	WATER HEATER FAN	1200	1200	-----	1200	1200	-----	10	
11	20/1	#12	#12	#12	1/2	CHAL	WATER HEATER FAN	1200	1200	-----	1200	1200	-----	12	
13	20/1	#12	#12	#12	1/2	CHAL	WATER HEATER FAN	1200	1200	-----	1200	1200	-----	14	
15	20/1	#12	#12	#12	1/2	CHAL	WATER HEATER FAN	1200	1200	-----	1200	1200	-----	16	
17	20/1	#12	#12	#12	1/2	CHAL	WATER HEATER FAN	1200	1200	-----	1200	1200	-----	18	
19	20/1	#12	#12	#12	1/2	CHAL	WATER HEATER FAN	1200	1200	-----	1200	1200	-----	20	
21	20/1	#12	#12	#12	1/2	CHAL	WATER HEATER FAN	1200	1200	-----	1200	1200	-----	22	
23	20/1	#12	#12	#12	1/2	CHAL	WATER HEATER FAN	1200	1200	-----	1200	1200	-----	24	
25	20/1	#12	#12	#12	1/2	CHAL	WATER HEATER FAN	1200	1200	-----	1200	1200	-----	26	
27	20/1	#12	#12	#12	1/2	CHAL	WATER HEATER FAN	1200	1200	-----	1200	1200	-----	28	
29	20/1	#12	#12	#12	1/2	CHAL	WATER HEATER FAN	1200	1200	-----	1200	1200	-----	30	
31							SPACE	0	0	-----	0	0	-----	32	
33							SPACE	0	0	-----	0	0	-----	34	
35							SPACE	0	0	-----	0	0	-----	36	
37							SPACE	0	0	-----	0	0	-----	38	
39							SPACE	0	0	-----	0	0	-----	40	
41	20/1	#12	#12	#12	1/2	CHAL	LOGGIA OUTLETS	540	540	-----	540	540	-----	42	

PANEL SCHEDULE B															
200 AMP, 120/240 VOLT, SINGLE PHASE, THREE WIRE, M.L.D., 10000 AMPS MINIMUM A.I.C. BRACING, SURFACE MOUNTED, TYPE NEMA 4X ENCLOSURE															
#	BKR.	WIRE AND CONDUIT				LOAD DESCRIPTION	NEUT.	LINE A	LINE B	LOAD DESCRIPTION	WIRE AND CONDUIT				BKR. #
		COND.	NEUTRAL	COND.	C. KEYS						KEYS	C.	COND.	NEUTRAL	
1	20/1	#12	#12	#12	1/2	CHAL	WATER HEATER FANS	1450	1450	-----	1450	1450	-----	2	
3	20/1	#12	#12	#12	1/2	CHAL	WATER HEATER FAN	1450	1450	-----	1450	1450	-----	4	
5	20/1	#12	#12	#12	1/2	CHAL	WATER HEATER FAN	1450	1450	-----	1450	1450	-----	6	
7	20/1	#12	#12	#12	1/2	CHAL	WATER HEATER FAN	1450	1450	-----	1450	1450	-----	8	
9	20/1	#12	#12	#12	1/2	CHAL	WATER HEATER FAN	1450	1450	-----	1450	1450	-----	10	
11	20/1	#12	#12	#12	1/2	CHAL	WATER HEATER FAN	1450	1450	-----	1450	1450	-----	12	
13	20/1	#12	#12	#12	1/2	CHAL	WATER HEATER FAN	1450	1450	-----	1450	1450	-----	14	
15	20/1	#12	#12	#12	1/2	CHAL	WATER HEATER FAN	1450	1450	-----	1450	1450	-----	16	
17	20/1	#12	#12	#12	1/2	CHAL	WATER HEATER FAN	1450	1450	-----	1450	1450	-----	18	
19	20/1	#12	#12	#12	1/2	CHAL	WATER HEATER FAN	1450	1450	-----	1450	1450	-----	20	
21							SPACE	0	0	-----	0	0	-----	22	
23							SPACE	0	0	-----	0	0	-----	24	
25	20/1	#12	#12	#12	1/2	CHAL	WATER HEATER FAN	1450	1450	-----	1450	1450	-----	26	
27							SPACE	0	0	-----	0	0	-----	28	
29							SPACE	0	0	-----	0	0	-----	30	
31	20/1	#12	#12	#12	1/2	CHAL	WATER HEATER FAN	1450	1450	-----	1450	1450	-----	32	
33							SPACE	0	0	-----	0	0	-----	34	
35	20/1	#12	#12	#12	1/2	CHAL	WATER HEATER FAN	1450	1450	-----	1450	1450	-----	36	
37							SPACE	0	0	-----	0	0	-----	38	
39	20/1	#12	#12	#12	1/2	CHAL	WATER HEATER FAN	1450	1450	-----	1450	1450	-----	40	
41	20/1	#12	#12	#12	1/2	CHAL	WATER HEATER FAN	1450	1450	-----	1450	1450	-----	42	

PANEL SCHEDULE MDP															
400 AMP, 120/240 VOLT, SINGLE PHASE, THREE WIRE, 400A. M.C.B., 14000 AMPS MINIMUM A.I.C. BRACING, FLUSH MOUNTED, TYPE NEMA 1 ENCLOSURE															
#	BKR.	WIRE AND CONDUIT				LOAD DESCRIPTION	NEUT.	LINE A	LINE B	LOAD DESCRIPTION	WIRE AND CONDUIT				BKR. #
		COND.	NEUTRAL	COND.	C. KEYS						KEYS	C.	COND.	NEUTRAL	
1	100/2	#3	#3	#3	1-1/2	CHAL	PANELBOARD 'A'	14620	17320	-----	14620	17320	-----	2	
3	100/2	#3	#3	#3	1-1/2	CHAL	PANELBOARD 'B'	15816	17101	-----	15816	17101	-----	4	
5	20/2	#12	#12	#12	1/2	CHAL	WATER TREAT PUMP	8590	1440	-----	8590	1440	-----	6	
7	20/2	#12	#12	#12	1/2	CHAL	WATER TREAT PUMP	8590	1440	-----	8590	1440	-----	8	
9	40/2	#8	#8	#8	1/2	CHAL	CONDENSING UNIT 2	0	3120	-----	0	3120	-----	10	
11	40/2	#8	#8	#8	1/2	CHAL	CONDENSING UNIT 1	0	3120	-----	0	3120	-----	12	
13	20/2	#6	#6	#6	1/2	CHAL	AIR HANDLER 1	0	3120	-----	0	3120	-----	14	
15	40/2	#8	#8	#8	1/2	CHAL	AIR HANDLER 2	0	3120	-----	0	3120	-----	16	
17	40/2	#8	#8	#8	1/2	CHAL	AIR HANDLER 3	0	3120	-----	0	3120	-----	18	
19	20/2	#12	#12	#12	1/2	CHAL	AIR HANDLER 3/4	0	3120	-----	0	3120	-----	20	
21							SPACE	0	0	-----	0	0	-----	22	
23							SPACE	0	0	-----	0	0	-----	24	
25							SPACE	0	0	-----	0	0	-----	26	
27							SPACE	0	0	-----	0	0	-----	28	
29							SPACE	0	0	-----	0	0	-----	30	
31							SPACE	0	0	-----	0	0	-----	32	
33							SPACE	0	0	-----	0	0	-----	34	
35							SPACE	0	0	-----	0	0	-----	36	
37							SPACE	0	0	-----	0	0	-----	38	
39							SPACE	0	0	-----	0	0	-----	40	
41							SPACE	0	0	-----	0	0	-----	42	

WIRE/CONDUIT KEY WIRING TYPE INSULATION CONDUIT TYPE TEMP RATING  
 1234 L-TEMP RATING C-CU WIRE R-RODEX H-THWN B-UF A-EMT A-EMT L-78-86 Deg. F.  
 PRINTED ON PANELS PROGRAM SERIAL NUMBER 2001.4001  
 REGISTERED TO - TODD W. CAREY AND ASSOCIATES OF THE CARDINAS

WIRE/CONDUIT KEY WIRING TYPE INSULATION CONDUIT TYPE TEMP RATING  
 1234 L-TEMP RATING C-CU WIRE R-RODEX H-THWN B-UF A-EMT A-EMT L-78-86 Deg. F.  
 PRINTED ON PANELS PROGRAM SERIAL NUMBER 2001.4001  
 REGISTERED TO - TODD W. CAREY AND ASSOCIATES OF THE CARDINAS

WIRE/CONDUIT KEY WIRING TYPE INSULATION CONDUIT TYPE TEMP RATING  
 1234 L-TEMP RATING C-CU WIRE R-RODEX H-THWN B-UF A-EMT A-EMT L-78-86 Deg. F.  
 PRINTED ON PANELS PROGRAM SERIAL NUMBER 2001.4001  
 REGISTERED TO - TODD W. CAREY AND ASSOCIATES OF THE CARDINAS

PANEL SCHEDULE D															
60 AMP, 120/240 VOLT, SINGLE PHASE, THREE WIRE, M.L.D., 10000 AMPS MINIMUM A.I.C. BRACING, FLUSH MOUNTED, TYPE NEMA 1 ENCLOSURE															
#	BKR.	WIRE AND CONDUIT				LOAD DESCRIPTION	NEUT.	LINE A	LINE B	LOAD DESCRIPTION	WIRE AND CONDUIT				BKR. #
		COND.	NEUTRAL	COND.	C. KEYS						KEYS	C.	COND.	NEUTRAL	
1	20/1	#12	#12	#12	1/2	CHAL	SERVICE LIGHTS *	1200	1200	-----	1200	1200	-----	2	
3	20/1	#12	#12	#12	1/2	CHAL	SERVICE LIGHTS *	1200	1200	-----	1200	1200	-----	4	
5	20/1	#12	#12	#12	1/2	CHAL	SERVICE LIGHTS *	1200	1200	-----	1200	1200	-----	6	
7	20/1	#12	#12	#12	1/2	CHAL	SERVICE LIGHTS *	1200	1200	-----	1200	1200	-----	8	
9	20/1	#12	#12	#12	1/2	CHAL	SERVICE LIGHTS *	1200	1200	-----	1200	1200	-----	10	
11	20/1	#12	#12	#12	1/2	CHAL	SERVICE LIGHTS *	1200	1200	-----	1200	1200	-----	12	
13							SPACE	0	0	-----	0	0	-----	14	
15							SPACE	0	0	-----	0	0	-----	16	
17							SPACE	0	0	-----	0	0	-----	18	
19							SPACE	0	0	-----	0	0	-----	20	
21							SPACE	0	0	-----	0	0	-----	22	
23							SPACE	0	0	-----	0	0	-----	24	

PANEL SCHEDULE P															
60 AMP, 120/240 VOLT, SINGLE PHASE, THREE WIRE, M.L.D., 10000 AMPS MINIMUM A.I.C. BRACING, FLUSH MOUNTED, TYPE NEMA 1 ENCLOSURE															
#	BKR.	WIRE AND CONDUIT				LOAD DESCRIPTION	NEUT.	LINE A	LINE B	LOAD DESCRIPTION	WIRE AND CONDUIT				BKR. #
		COND.	NEUTRAL	COND.	C. KEYS						KEYS	C.	COND.	NEUTRAL	
1	15/2	#14	#14	#14	1/2	CHAL	PANEL PUMP	0	1440	-----	0	1440	-----	2	
3	15/2	#14	#14	#14	1/2	CHAL	PANEL PUMP	0	1440	-----	0	1440	-----	4	
5	15/1	#14	#14	#14	1/2	CHAL	PANEL LIGHTS	900	900	-----	900	900	-----	6	
7							SPACE	0	0	-----	0	0	-----	8	
9							SPACE	0	0	-----	0	0	-----	10	
11							SPACE	0	0	-----	0	0	-----	12	
13							SPACE	0	0	-----	0	0	-----	14	
15							SPACE	0	0	-----	0	0	-----	16	
17							SPACE	0	0	-----	0	0	-----	18	
19							SPACE	0	0	-----	0	0	-----	20	
21							SPACE	0	0	-----	0	0	-----	22	
23							SPACE	0	0	-----	0	0	-----	24	

PANEL SCHEDULE C															
125 AMP, 120/240 VOLT, SINGLE PHASE, THREE WIRE, 125A. M.C.B., 14000 AMPS MINIMUM A.I.C. BRACING, FLUSH MOUNTED, TYPE NEMA 1 ENCLOSURE															
#	BKR.	WIRE AND CONDUIT				LOAD DESCRIPTION	NEUT.	LINE A	LINE B	LOAD DESCRIPTION	WIRE AND CONDUIT				BKR. #
		COND.	NEUTRAL	COND.	C. KEYS						KEYS	C.	COND.	NEUTRAL	
1	20/1	#12	#12	#12	1/2	CHAL	BATH RECEPTACLE	1200	1200	-----	1200	1200	-----	2	
3	20/1	#12	#12	#12	1/2	CHAL	BATH RECEPTACLE	1200	1200	-----	1200	1200	-----	4	
5	20/1	#12	#12	#12	1/2	CHAL	BATH RECEPTACLE	1200	1200	-----	1200	1200	-----	6	
7	20/1	#12	#12	#12	1/2	CHAL	BATH RECEPTACLE	1200	1200	-----	1200	1200	-----	8	
9	20/1	#12	#12	#12	1/2	CHAL	BATH RECEPTACLE	1200	1200	-----	1200	1200	-----	10	
11	20/1	#12	#12	#12	1/2	CHAL	BATH RECEPTACLE								