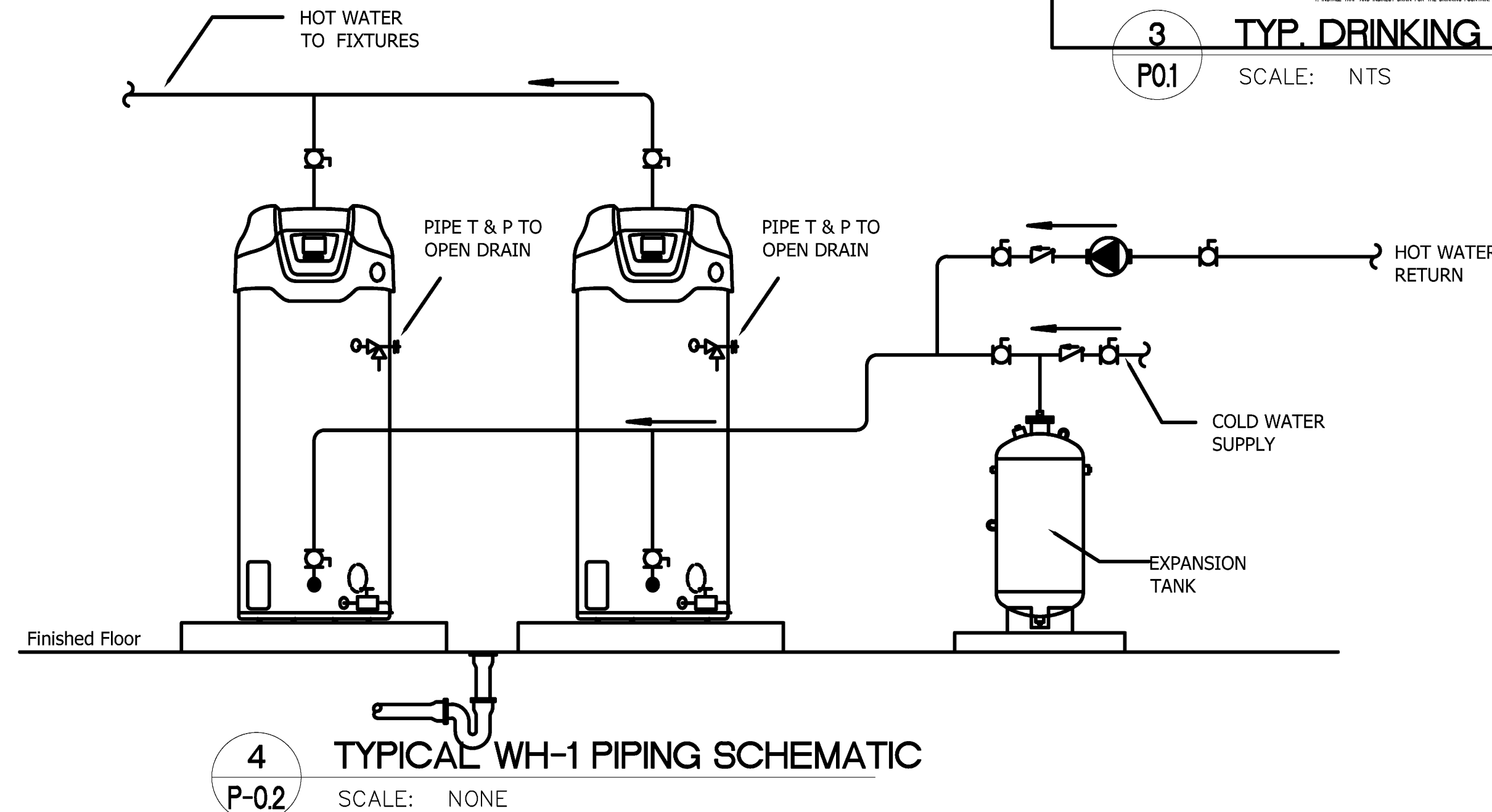
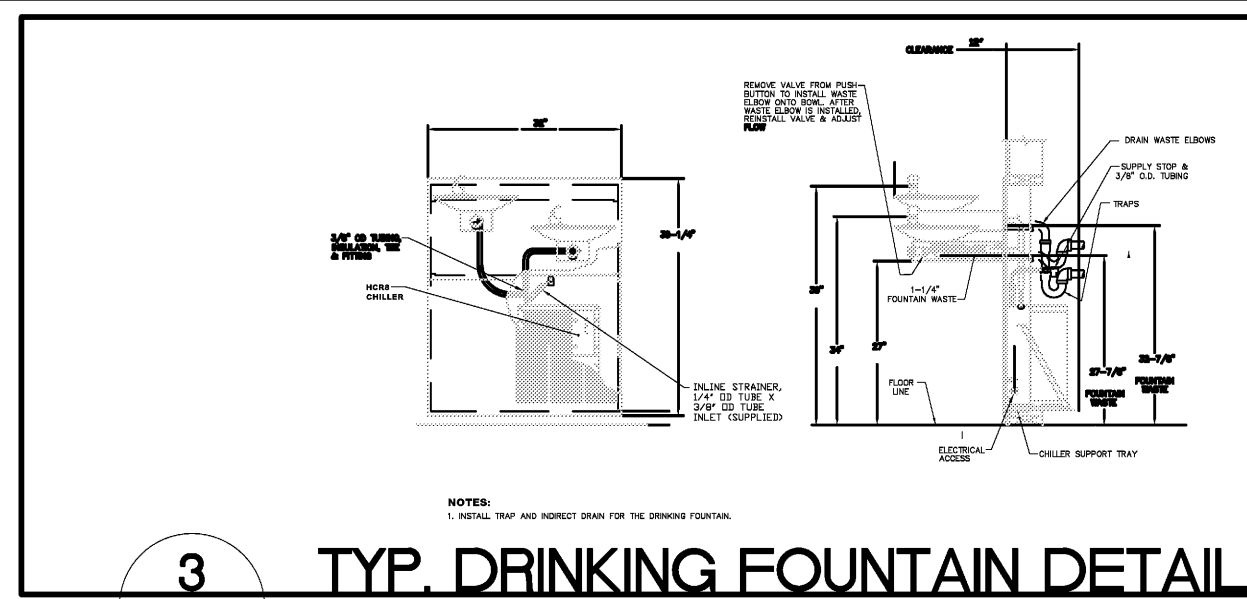


PLUMBING GENERAL NOTES

- PLUMBING CONTRACTOR SHALL PROVIDE PLUMBING MATERIALS AS REQUIRED FOR BUILDING CONDITIONS FOR CONSTRUCTION. SEE SPECIFICATIONS FOR PLUMBING FIXTURE AND MATERIAL REQUIREMENTS.
- ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST APPLICABLE FEDERAL, STATE AND CITY OF LIVERMORE PLUMBING CODES, LAWS AND REGULATIONS.
- CONTRACTOR SHALL SET PLUMBING FIXTURES AND DRAINS TO ELEVATIONS AND LOCATIONS SHOWN ON ARCHITECTURAL PLANS.
- CONTRACTOR SHALL VISIT THE SITE AND CONFIRM ALL EXISTING CONDITIONS PRIOR TO SUBMITTING THE BIDS. DISCREPANCIES, IF ANY, MUST BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/OWNER IMMEDIATELY FOR CLARIFICATION.
- FOR EXACT SCOPE OF WORK AND PHASING REQUIREMENTS, SEE ARCHITECTURAL DRAWINGS.
- PLUMBING MATERIALS SHALL BE IN COMPLIANCE WITH 2007 CPC. CONNECTION BETWEEN COPPER AND IRON AND STEEL PIPE SHALL BE MADE WITH DIELECTRIC ISOLATING FITTINGS, DIELECTRIC UNIONS OR DIELECTRIC FLANGES.
- PROVIDE INSULATION FOR ALL DOMESTIC HOT WATER PIPING PER TITLE-24. INSULATE ALL HORIZONTAL COLD WATER PIPING AND PIPES SUBJECT TO FREEZING. INSULATION SHALL BE FIBERGLASS, RIGID MOLDED, NON-COMBUSTIBLE. PROTECT OUTDOOR INSULATION WITH HEAVY DUTY ALUMINUM JACKETING.
- PENETRATIONS THROUGH THE SLABS, FOUNDATION WALLS AND FOOTINGS SHALL BE SLEEVED AND COORDINATED WITH THE STRUCTURAL AND ARCHITECTURAL PLANS. IF CORE DRILLING OF FLOOR IS NECESSARY, COORDINATE WITH THE STRUCTURAL ENGINEER AND VERIFY BY X-RAYING LOCATION OF REINFORCEMENT, EMBEDDED ELECTRICAL, TELEPHONE LINES AND OTHER UTILITIES TO PREVENT POSSIBLE CONFLICT BEFORE CORE DRILLING.
- CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ALL THE OWNER FURNISHED EQUIPMENT, PROVIDING ALL THE REQUIRED UTILITIES SUPPORTS, INSULATION, GAGES, VALVING, ETC. PER THE RESPECTIVE EQUIPMENT MANUFACTURER AND APPLICABLE CODE REQUIREMENTS FOR A FULLY FUNCTIONING SYSTEM.
- ON DIRECTION OF ARCHITECT/OWNER, PROVIDE PRODUCTS SAMPLES, MOCK-UPS AS REQUIRED. COORDINATE WITH GENERAL CONTRACTOR AND OTHER TRADE WORK AS NECESSARY TO PROVIDE THE FIELD MOCK-UP AND OBTAIN ARCHITECT/OWNER APPROVALS BEFORE PROCEEDING.
- COORDINATE PLUMBING WORK WITH CIVIL/SITE WORK AND UTILITY COMPANY FOR PROPER INTERFACING OF THE UTILITY SIZES, PIPE INVERTS, CAPACITY, FLOW, PRESSURE, POINT-OF-CONNECTIONS, MATERIALS OF CONSTRUCTION, SUPPORTING AND CORROSION PROTECTION, ETC. MAKE ADJUSTMENTS TO PLUMBING WORK TO PROPERLY INTERFACE THE WORK WITH SITE UTILITIES.
- ALL WORK SHALL BE WARRANTED FOR 1-YEAR FROM THE PROJECT ACCEPTANCE BY THE ARCHITECT/OWNER, AFTER OBTAINING ALL THE OCCUPANCY PERMITS FROM THE CITY, UPON RECEIVING ALL THE OPERATING AND MAINTENANCE (O&M) MANUALS, AS-BUILT PLANS, COMPLETION OF ALL THE PUNCHLISTED ITEMS AND SUBMITTING THE WRITTEN WARRANTY FOR THE WORK.
- REMOVE ALL CONSTRUCTION DEBRIS AND DISPOSE OFF, CLEAN ALL THE PLUMBING FIXTURES, SEWER ROD THE DRAINAGE LINES TO UNOCLOG CONSTRUCTION DEBRIS, STERILIZE THE POTABLE WATER SYSTEM AND OBTAIN CERTIFICATION FROM THE LOCAL HEALTH DEPARTMENT, PRIOR TO THE PROJECT COMPLETION.

WATER HAMMER ARRESTOR SCHEDULE

CODE	J.R. SMITH FIG. NUMBER	PIPE SIZE	PDI SIZE	ALLOWABLE FIXTURE UNITS	REMARKS
WHA-A	5005	1"	A	1-11	PROVIDE WITH 8" X 8" S/S WALL MOUNTED ACCESS PANEL
WHA-B	5010	1"	B	12-32	PROVIDE WITH 8" X 8" S/S WALL MOUNTED ACCESS PANEL



DRAIN AND CLEANOUT SCHEDULE

CODE	DESCRIPTION - FLOOR FINISH	J.R. SMITH FIG. NUMBER	CONN.	TOP GR. MATERIAL	GRATE SIZE	REMARKS
FD-1	FLOOR DRAIN - TILE	2005Y-B-P050	2"	NB	5" SQ	① SHOWERS & TOILET ROOMS
FD-2	FLOOR DRAIN - CONCRETE	2005C-B-P050	2"	NB	5" SQ	①
FCO-1	FLOOR CLEANOUT-TILE/CONC.	4100S-PB	2" - 4"	-	-	POLISHED BRONZE TOP
WCO-1	WALL CLEANOUT	-	3" & 4"	-	-	STAINLESS STEEL COVER

- NOTES**
① PROVIDE P-TRAP WITH TRAP PRIMER CONNECTION

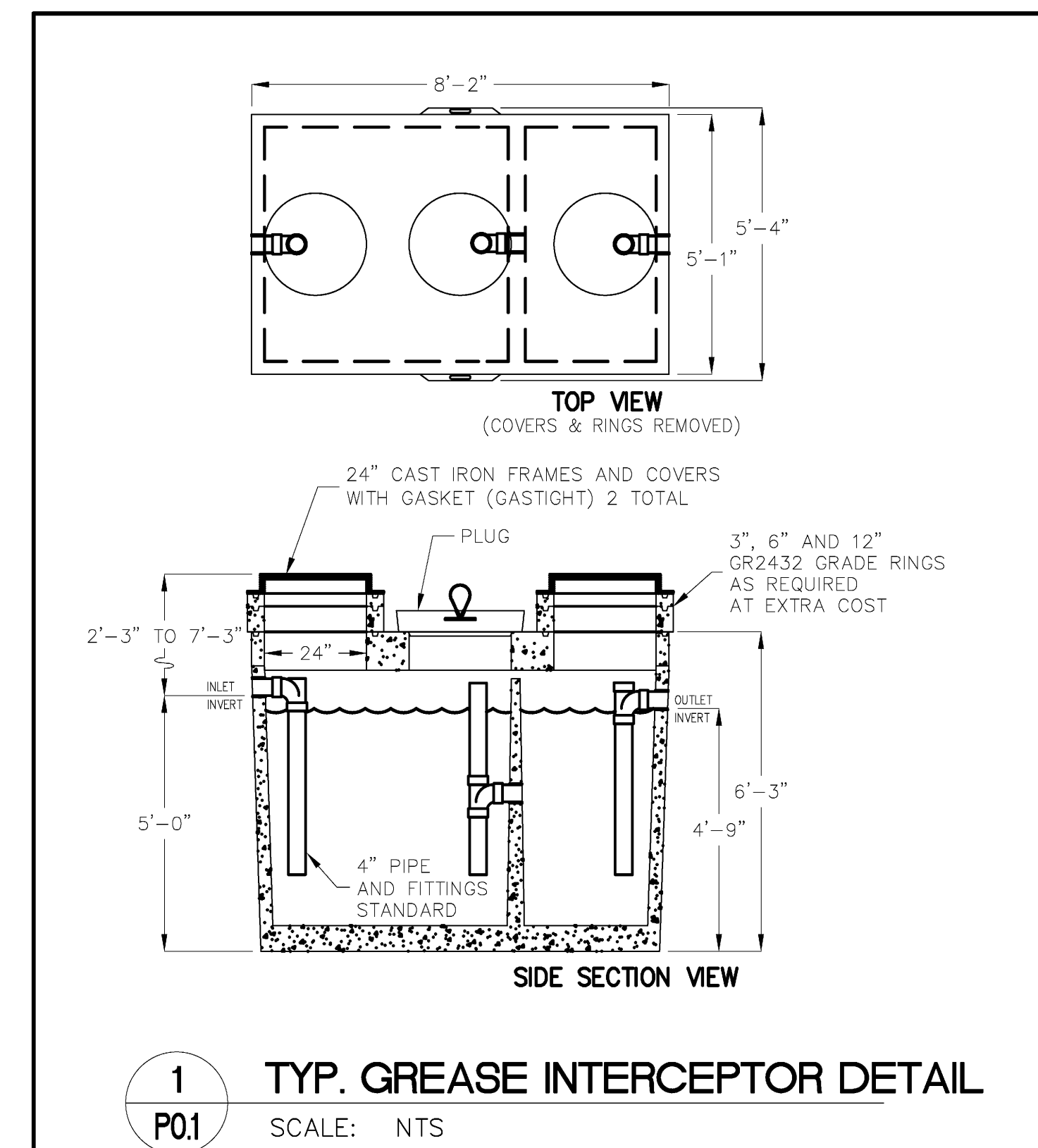
FIXTURE AND EQUIPMENT SCHEDULE

TAG	FIXTURE / EQUIPMENT	MFG.	MODEL NO.	SOIL WASTE	TRAP	VENT	CW	HW	SIZE / CAPACITY	TRIM / ACCESSORIES	REMARKS
U1	URINAL	AMERICAN STANDARD	#6150.100 FLOWISE FLUSH FREE WATERLESS	2"	-	2"	-	-	-	WALL HUNG, INTEGRAL HOUSING AND DRAIN INSERT ODOR BARRIER LIQUID DRAIN INSERT, WHITE, ADA	(1)(4)(5)
WC1	WATER CLOSET	AMERICAN STANDARD	3351.128 AFWALL FLOWISE ELONGATED	4"	-	2"	1-1/2"	-	1-1/2" TOP SPUD	OPEN FRONT SEAT MOD. 5905.100 WHITE, 1.28 GPF EXPOSED PUBLIC FLUSH VALVE SLOAN ROYAL 111-1.28 WITH VACUUM BREAKER FLUSH CONN'N.	(1)(4)(5)
L1	LAVATORY (COUNTER MOUNT)	AMERICAN STANDARD	0495.221 'OVALYN' UNDERCOUNTER SINK	2"	1-1/4X1-1/2	1-1/2"	1/2"	1/2"	SINGLE CENTER HOLE	FOR PUBLIC USE TOILET ROOMS. UNDER COUNTER MOUNTED, ADA COMPLIANT, SLOAN HANDS FREE FAUCET #SF-2350 SERIES, BATTERY POWERED	(1)(4)
L2	LAVATORY (WALL HUNG)	AMERICAN STANDARD	0954.000 MURRO UNIVERSAL DESIGN	2"	1-1/4X1-1/2	1-1/2"	1/2"	1/2"	SINGLE CENTER HOLE		(1)(4)
SH1	SHOWER	AMERICAN STANDARD		-	-	-	1"	-			(3)
HB1	HOSE BIB	CHICAGO FAUCETS	CHICAGO FAUCETS #932	-	-	2"	-	-	3/4" CW	FURNISH WITH VACUUM BREAKER	(1)(4)(5)
S1	SERVICE SINK	AMERICAN STANDARD	7741.000 AND 7745.811 RIM GUARD	2"	-	2"	1/2"	1/2"	1/2" CW & 1/2"HW	FAUCET:8344.112 WITH VACUUM BREAKER,BUCKET HOOK,SCREW DRIVER STOPS AND 3/4" THREADED HOSE END SPOUT. 7721.038 FLAT GRID DRAIN.	(1)(4)(5)
GI1	GREASE INTERCEPTOR	JENSEN PRECAST	JP1000EPE-G	4"	-	2"	-	-	1000 GAL.		(1)(4)(5)
DF1	DRINKING FOUNTAIN	HAWS	H1011.8	2"	-	-	1/2"	-	-	8 GPH OF WATER AT 50° F FROM 80° F INLET WATER AT 90° F AMBIENT	(1)(5)
WH1	WATER HEATER	AO SMITH	FSGH-30	-	-	-	3/4"	3/4"	30 GAL., 38,000 BTUH INPUT	TOTAL OF 1 WATER HEATERS	(1)(5)
WH2	WATER HEATER	AO SMITH	BTH-300A	-	-	-	1-1/2"	1-1/2"	130 GAL., 300,000 BTUH INPUT	TOTAL OF 2 WATER HEATERS	(1)(5)

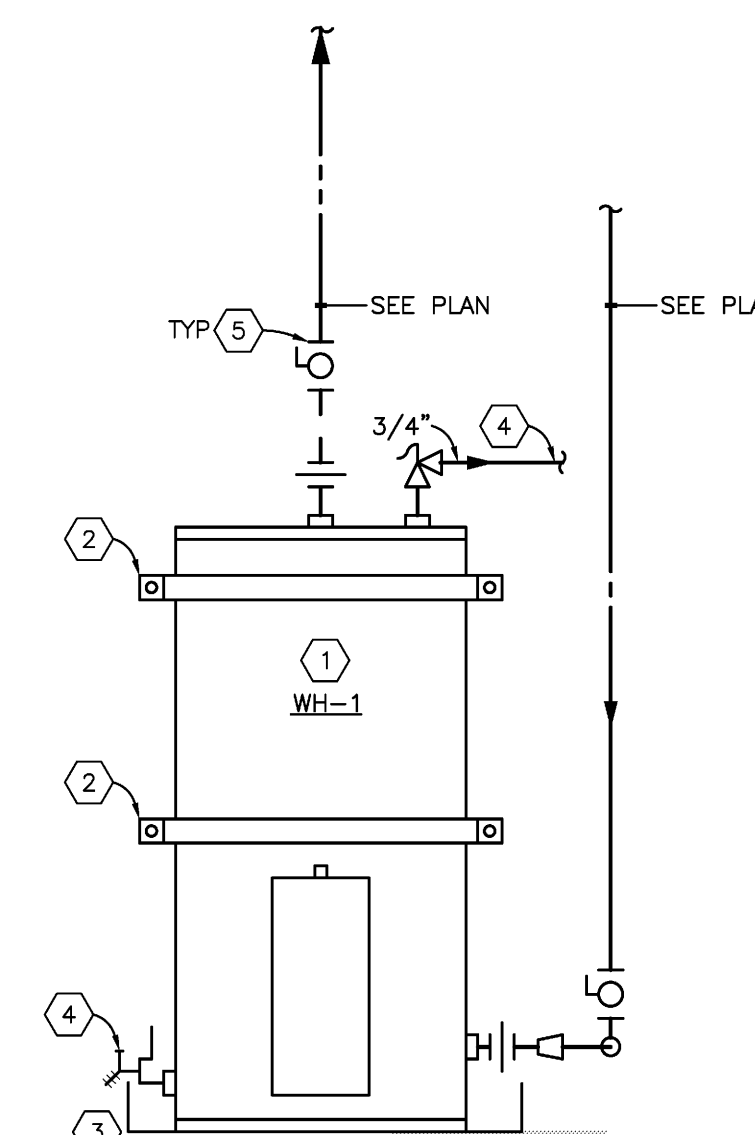
- (1) SEE ARCH. FOR THE FIXTURES TO BE INSTALLED WITH A.D.A. COMPLIANCE.
(2) PROVIDE AND INSTALL TRAP PRIMER.
(3) SEE DWG FOR UNIT SIZE.
(4) WHITE
(5) ALL FIXTURES SHALL COMPLY TO TITLE 24 STANDARDS

GREASE INTERCEPTOR SIZE:

NUMBER OF MEALS PER PEAK HOUR: 150
WASTE FLOW RATE @ SINGLE SERVICE KITCHEN: 2
RETENTION TIME @ SINGLE SERVICE KITCHEN: 1.5
STORAGE FACTOR @ SINGLE SERVICE KITCHEN: 1.5
INTERCEPTOR SIZE REQUIRED: 150X2X1.5X1.5 = 675 GALLONS

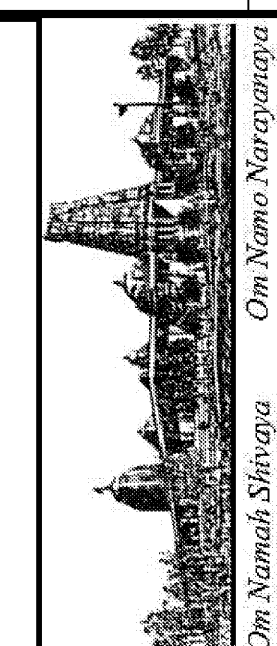


Fixture	Drainage Fixture Units (DFU)	Water Supply Fixture Units (WSFU)	Qty	Total Drainage Fixture Units (TDFU)	Total Water Supply Fixture Units (TWSFU)	Remarks
Rest Room 133-134						
Water Closet	8	4	12	96	245	
Urinal, Waterless	0.5	0	4	2	2	
Lav	2	1	12	24	12	
Floor Drain	2	0	1	2	0	
Hose Bib	0	2.5	1	0	2.5	
Drinking Fountain	.5	.5	1	.5	.5	
Total for Rest Room 133-134				124.5	260	Water = 8"



- (1) DOMESTIC WATER HEATER SET OPERATING STAT TO DELIVER 110°F HOT WATER
(2) 2" WIDE X 14 GA. GSM STRAP. SECURE TO BLOCKING IN WALL
(3) LEAK CONTAINMENT TRAY
(4) TERMINATE T&P RELIEF VALVE TO OUTSIDE
(5) FULL PORT BALL VALVE

REVISIONS	BY
05-24-10 ISSUED FOR PLAN CHECK	SR



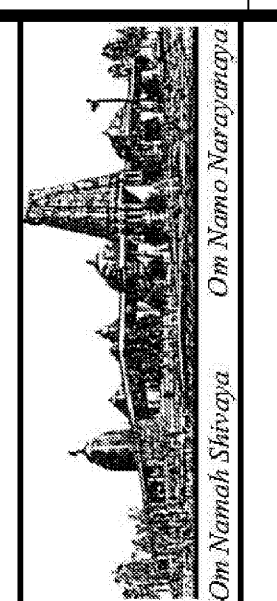
HINDU COMMUNITY and CULTURAL CENTER
1232 ARROWHEAD AVE. LIVERMORE, CA 94551

PLUMBING SCH., NOTES & DETAILS
BUILDING B FLOOR PLAN
PHASE 1A

DATE: 8/12/09
SCALE: AS NOTED
DRAWN BY: RL/sam
PROJECT: ARROWHEAD

P0.1

REVISIONS	BY

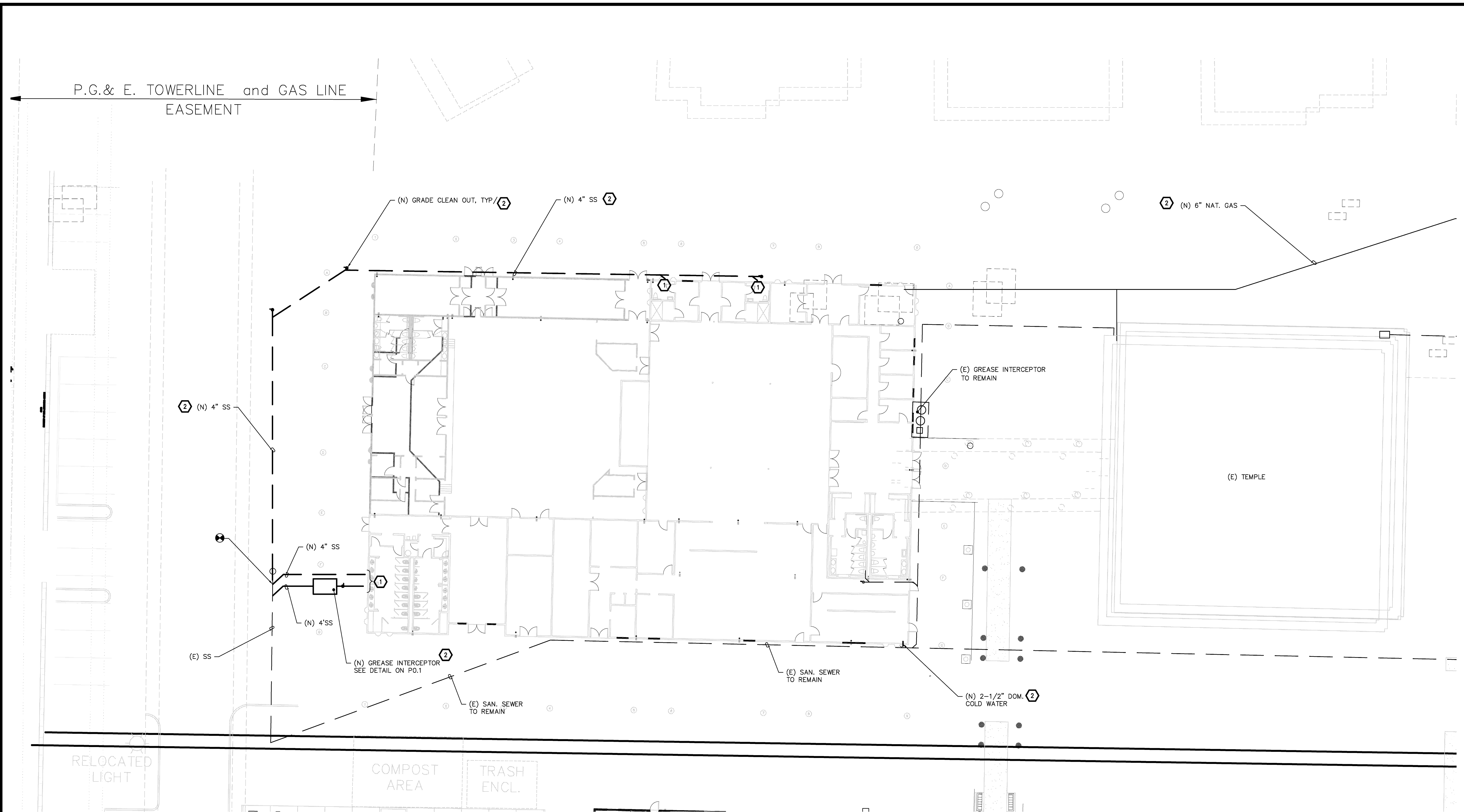


HINDU COMMUNITY and CULTURAL CENTER
1232 ARROWHEAD AVE. LIVERMORE, CA 94551

PLUMBING
BUILDING B SITE PLAN
PHASE 1A

DATE	8/12/09
SCALE	AS NOTED
DRAWN BY:	RL/sam
PROJECT:	ARROWHEAD

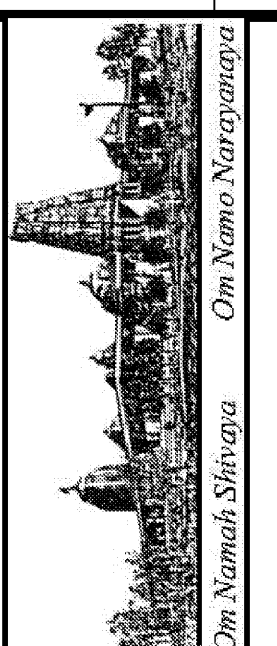
P-02



CONSTRUCTION NOTES:

- ① SEE DWG. P-1 FOR CONTINUATION.
- ② COORDINATE WITH CIVIL DRAWINGS.

1 PLUMBING SITE PLAN
P0.2 SCALE: 1/16"=1'-0"



PLUMBING SPECIFICATIONS:

I. GENERAL

1.01 CONDITIONS AND REQUIREMENTS:

A. PROJECT SHALL COMPLY WITH THE 2007 CALIFORNIA BUILDING, PLUMBING, MECHANICAL AND FIRE CODES AND THE 2007 CALIFORNIA ENERGY CODE.

B. THE GENERAL CONDITIONS AND GENERAL REQUIREMENTS OF THE CONTRACT DOCUMENT ARE HEREBY MADE A PART OF THIS SECTION AS FULLY AS IF REPEATED HEREIN.

1.02 DESCRIPTION OF WORK:

A. EXTENT OF PLUMBING SYSTEM WORK REQUIRED BY THIS SECTION IS INDICATED ON DRAWINGS, SCHEDULES AND BY REQUIREMENTS OF THIS SECTION.

B. TYPE OF WORK SPECIFIED INCLUDE THE FOLLOWING:

- SANITARY DRAINAGE AND VENT SYSTEMS COMPLETE TO POINT OF CONNECTION, SEE CIVIL ENGINEER'S DRAWINGS FOR LOCATION.
- POTABLE WATER SYSTEMS COMPLETE TO POINT OF CONNECTION, SEE CIVIL ENGINEER'S DRAWINGS FOR EXACT LOCATION.
- DOMESTIC HOT WATER SYSTEMS AS SHOWN, INCLUDING WATER HEATERS, EXPANSION TANK, CIRCULATING PUMP, DISTRIBUTION AND INSULATION.
- NATURAL GAS PIPING COMPLETE FROM POINT OF CONNECTION.
- PLUMBING FIXTURES AND TRIM AS SPECIFIED HERE AND THE ARCHITECTURAL DRAWINGS INCLUDING ALL REQUIRED ACCESSORIES.
- ACCESS PANELS AS REQUIRED FOR WALL, FLOOR AND GRADE CLEANOUTS AND VALVES.
- SECURE AND PAY FEES FOR PERMIT, LICENSES, INSPECTIONS AND ROYALTIES REQUIRED FOR WORK OF THIS SECTION.
- OTHER NECESSARY ITEMS REQUIRED AND INCIDENTAL TO COMPLETING ALL PLUMBING WORK AS INDICATED ON THE DRAWINGS AND DESIGNATED HEREIN.

C. TRENCHING AND BACKFILL REQUIRED IN CONJUNCTION WITH PLUMBING PIPING WITHIN 5 FEET OF BUILDING FOUNDATIONS IS INCLUDED AS WORK OF THIS SECTION.

D. FLASHING REQUIRED IN CONJUNCTION WITH WASTE, VENT AND WATER SYSTEMS ARE INCLUDED AS WORK OF THIS SECTION.

1.03 QUALITY ASSURANCE:

A. MANUFACTURER'S QUALIFICATIONS: FIRMS REGULARLY ENGAGED IN MANUFACTURE OF PLUMBING SYSTEMS, PRODUCTS, OF TYPE, MATERIALS AND SIZES REQUIRED, WHOSE PRODUCTS HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR NOT LESS THAN 5 YEARS.

B. INSTALLER'S QUALIFICATIONS: FIRM WITH AT LEAST 3 YEARS OF SUCCESSFUL INSTALLATION EXPERIENCE ON PROJECTS WITH PLUMBING SYSTEMS WORK SIMILAR TO THAT REQUIRED FOR THIS PROJECT.

1.04 SUBMITTALS:

A. OF ALL PLUMBING EQUIPMENT, PLUMBING FIXTURES CUT SHEETS AND PLUMBING MATERIALS FOR OWNER AND OR ARCHITECTS' APPROVAL.

B. PLUMBING PIPING SHOP DRAWINGS AT 1/4"=1'-0" SCALE MINIMUM.

II. PRODUCTS:

2.01 PIPING:

A. DOMESTIC WATER HOT AND COLD: TYPE "L" HARD DRAWN COPPER WITH 95/5 SOLDER JOINTS.

B. PROPANE GAS: BLACK STEEL THREADED MALLEABLE IRON, SCHEDULE 40. PIPING EXPOSED TO THE WEATHER SHALL BE GALVANIZED. ALL THREADS AND JOINTS SHALL BE EPOXY-COATED FOR WEATHER PROTECTION AGAINST RUST. OUTSIDE OF THE BUILDING BELOW GROUND: POLYETHYLENE PIPE: ASTM D-2513.

C. SOIL, WASTE AND VENT ABOVEGROUND: CAST IRON SOIL, PLAN END (HUBLESS) SERVICE WEIGHT WITH NEOPRENE SLEEVE AND STAINLESS STEEL SHIELD JOINTS.

D. SOIL, WASTE AND VENT UNDERGROUND: CAST IRON SOIL, BELL AND SPIGOT, SERVICE WEIGHT WITH COMPRESSION TYPE NEOPRENE GASKET.

2.02 VALVES:

A. BALL VALVES: STOCKHAM S-217-BR-R-S, EPT SEAT, THREADED, STOCKHAM FIG. S-214-BR-R-T

B. EARTHQUAKE GAS VALVES: KOSO MODEL 303-LP, LOW PRESSURE OR APPROVED EQUAL.

C. CHECK VALVES: THREADED STOCKHAM FIG. B-319 SWEAT, STOCKHAM FIG. B-309

D. GAS COCKS: ROCKWELL, HOMESTEAD, MATCO OR APPROVED SUBSTITUTE - MATCO CATALOG #585 AGA.

E. WATER PRESSURE REDUCING VALVES: WATTS, AW CASH, CLAYTON OR APPROVED SUBSTITUTE. CASH FIGURE EB-24U, SET PRESSURE AT 60 PSI.

F. GAS REGULATORS-RESIDENTIAL TYPE: AMERICAN METER, OR APPROVED SUBSTITUTE, SERIES 1200 MODEL 1213B2 SET PRESSURE AT 11" W.C.

2.03 PIPING INSULATION:

A. GENERAL IN ACCORDANCE WITH TITLE 24 ENERGY REGULATIONS.

B. MANUFACTURER: OWEN-CORNING FIBERGLASS, ARMSTRONG, MANVILLE OR CETAIN-TEED.

C. PRE-MOLDED 1" FIBERGLASS WITH ASA, R-4 MINIMUM.

2.04 BURIED PIPE WRAPPING AND COATING:

WRAP UNINSULATED, BURIED STEEL AND COPPER PIPING AS FOLLOWS:

A. CLEANING: REMOVE LOOSE SCALE, RUST, DIRT, OIL AND GREASE BEFORE WRAPPING. WIRE-BRUSH AS REQUIRED; USE SOLVENT FOR REMOVAL OF OIL AND GREASE.

B. COATING: JOHNS-MANVILLE #22 PRIMER ADHESIVE.

C. WRAPPINGS: JOHNS-MANVILLE VID-20, 20 MIL THICK POLYVINYL TAPE. STRETCH TAPE TIGHT DURING APPLICATION. OVERLAP TAPE SO AS TO RESULT IN DOUBLE THICKNESS.

2.05 DOMESTIC WATER HEATER:

A. MANUFACTURER: A.O. SMITH OR APPROVED SUBSTITUTE. SIZE AND CAPACITY AS SCHEDULED.

B. APPROVAL: U.L. LISTED IN CALIFORNIA ENERGY COMMISSION DIRECTORY OF CERTIFIED WATER HEATERS.

C. CONSTRUCTION: RESIDENTIAL STORAGE TYPE WITH GLASS LINED TANK AND GAS TANKLESS TYPE. PROVIDE ASME TEMPERATURE AND PRESSURE RELIEF VALVE.

D. CONTROL: ADJUSTABLE THERMOSTAT TEMPERATURE CONTROL, HIGH TEMPERATURE LIMIT CUT-OFF.

E. PROVIDE WATER HEATER DISCONNECT PROTECTION WITH BUILT-IN CIRCUIT BREAKER, SIZED AS REQUIRED.

2.06 DRAINAGE AND PIPING SPECIALTIES:

A. MANUFACTURERS: SMITH, JOSAM, WADE, JONESPEC OR ZURN. 100% USA MANUFACTURED COMPONENTS ONLY.

B. CLEANOUTS: PROVIDE WHERE SHOWN; TYPES AND SIZES AS SCHEDULED.

C. AIR CHAMBERS: PROVIDE ON ALL COLD AND HOT WATER CONNECTIONS WITHOUT A WATER HAMMER ARRESTOR, 18" HIGH AND DIAMETER SAME SIZE AS SUPPLY. NIBCO MODEL 620L.

D. TRAP PRIMER: INSTALL WHERE SHOWN OR REQUIRED BY CODE. PRECISION PLUMBING PRODUCTS OR MIFAB; TYPE AND SIZES AS SCHEDULED.

E. FLOOR DRAINS: PROVIDE WHERE SHOWN; TYPE AND SIZES AS SCHEDULED.

F. TRAPS: PROVIDE FOR DRAINS, SHOWERS AND SIMILAR TYPE FIXTURES. PROVIDE CLEAN-OUT PLUG IN ALL SINK P-TRAPS.

2.07 FIXTURE SUPPORTS:

A. GENERAL: PROVIDE PLUMBING FIXTURE CARRIERS, SUPPORTS, AND DEVICES TO CARRY LOADS INDEPENDENTLY OF WALLS OR PARTITIONS. SECURELY BOLT SUPPORTS TO FLOOR WITH POWDER-DRIVEN OR DRILLED INSERTS OR STUDS.

B. MANUFACTURER: JOSAM, J.R. SMITH, WADE OR ZURN. SELECTION BASED ON J.R. SMITH.

2.08 FLUES AND STACKS:

A. MANUFACTURERS: DURAVENT OR METALBESTOS. METALBESTOS SPECIFIED AS STANDARD.

B. CLASS B FLUE: 8" AND SMALLER, MODEL RV; DOUBLE WALL WITH AIR SPACE, UL LISTED GAS VENT SUPPORTS, ROOF FLASHING, AND TOP. ERECT PER UL LISTING AND MANUFACTURER'S RECOMMENDATIONS.

2.09 ACCESS DOORS AND PANELS: (CEILING AND WALLS)

A. WHERE REQUIRED: WHEREVER A PIECE OF EQUIPMENT OR VALVE AND OPERATOR IS INACCESSIBLE AND REQUIRES ACCESS FOR MAINTENANCE, REPAIR OR ADJUSTMENT.

B. SIZE: SIZE IS DEPENDENT UPON THE RELATIONSHIP OF THE DOOR TO THE PRODUCT BEING SERVICED; THEREFORE, THE SIZE OF THE DOOR SHALL BE SELECTED TO PROVIDE CONVENIENT ACCESS TO ITS CONTENTS. SUBMIT SIZES FOR REVIEW.

C. MANUFACTURER: INRYCO/MILCOR, OR EQUAL BILCO, CESCO, KARP OR NYSTROM.

2.10 FIXTURE SUPPLIES AND STOPS:

A. LAVATORIES: SPEEDWAY CRSST-1912-A OR APPROVED SUBSTITUTE.

B. SINKS: SPEEDWAY CRSST-1912-K OR APPROVED SUBSTITUTE.

C. WALL MOUNTED FAUCETS: SCREWDRIVER STOPS OR FAUCETS MAY HAVE INTEGRAL STOPS IN LIEU OF SEPARATE STOPS.

D. TANK WATER CLOSETS: SPEEDWAY CRSST-1912-DL

2.11 FIXTURE FLOW CONTROLS: TO COMPLY WITH TITLE 24 AT EACH FIXTURE AS FOLLOWS: MODEL ARE FOR DOLE:

A. LAVATORIES: TYPE FMB, 0.5 GPM EXCEPT FAUCETS WITH 0.5 GPM FLOW.

B. SINKS: TYPE SR, 2.2 GPM.

C. SHOWERS: TYPE SR, 2.5 GPM.

2.12 PLUMBING FIXTURES:

A. GENERAL: PROVIDE FACTORY-FABRICATED FIXTURES OF TYPE, STYLE AND MATERIAL FOR EACH TYPE FIXTURE. PROVIDE MANUFACTURER'S STANDARD TRIM, CARRIER, SEATS AND VALVES AS INDICATED BY THEIR PUBLISHED PRODUCT INFORMATION; EITHER AS DESIGNED AND CONSTRUCTED, OR AS RECOMMENDED BY THE MANUFACTURER, AND AS REQUIRED FOR A COMPLETE INSTALLATION. WHERE MORE THAN ONE TYPE IS INDICATED, SELECTION IS INSTALLER'S OPTION BUT ALL FIXTURE OF THE SAME TYPE MUST BE FURNISHED BY A SINGLE MANUFACTURER OR AS INSTRUCTED BY THE OWNER OR THE ARCHITECT.

B. OTHER MATERIALS:

ALL OTHER MATERIALS NOT SPECIFICALLY DESCRIBED BUT REQUIRED FOR A COMPLETE AND PROPER INSTALLATION SHALL BE NEW, FIRST QUALITY OF THEIR RESPECTIVE KINDS, AND SUBJECT TO THE APPROVAL OF THE ARCHITECT.

III. EXECUTION:

3.01 GENERAL:

A. INSPECTIONS:

- PRIOR TO ALL WORK OF THIS SECTION, CAREFULLY INSPECT THE INSTALLED WORK OF ALL OTHER TRADES AND VERIFY THAT ALL SUCH WORK IS COMPLETE TO THE POINT WHERE THIS INSTALLATION MAY PROPERLY COMMENCE.
- VERIFY THAT ALL PLUMBING MAY BE INSTALLED IN STRICT ACCORDANCE WITH ALL PERTINENT CODES AND REGULATIONS AND THE APPROVED SHOP DRAWINGS.

B. DISCREPANCIES:

- IN THE EVENT OF DISCREPANCIES, IMMEDIATELY NOTIFY THE ARCHITECT.
- DO NOT PROCEED WITH INSTALLATION IN AREAS OF DISCREPANCY UNTIL ALL SUCH DISCREPANCIES HAVE BEEN FULLY RESOLVED.

C. COORDINATION:

- COORDINATE WORK WITH RELATED TRADES TO PREVENT UNDUE DELAY IN JOB PROGRESS.
- CONTRACTOR SHALL PROVIDE A PERSON TO BE RESPONSIBLE FOR MAINTAINING PROPER POSITIONING AND ALIGNMENT OF ALL ITEMS DURING CONCRETE POURING.
- PROVIDE MATERIALS IN SUFFICIENT QUANTITIES ON JOB SITE TO COMPLETE THE WORK AND TO ACCOMMODATE MINOR UNFORESEEN CHANGES AND ADDITIONS IN THE SCOPE OF WORK.

3.02 PIPING:

A. GENERAL:

- SYSTEM LAYOUTS AS INDICATED ON DRAWINGS ARE GENERALLY DIAGRAMMATIC, BUT SHALL BE FOLLOWED AS CLOSELY AS ACTUAL CONSTRUCTION WILL PERMIT.

B. PIPING:

- ANY SECTION OF PIPE FOR WHICH SIZE IS NOT SHOWN OR ANY INTERMEDIATE SECTION ERRONEOUSLY SHOWN OBVIOUSLY UNDERSIZED SHALL BE THE SAME SIZE AS THE LARGEST LINE CONNECTING TO IT.

2. INSTALL UNIONS AT CONNECTIONS TO EQUIPMENT, ON SERVICE SIDE OF VALVES AND ELSEWHERE AS REQUIRED OR SHOWN TO FACILITATE MAINTENANCE.

3. INSTALL DIELECTRIC INSULATING CONNECTIONS BETWEEN ALL DISSIMILAR METALS UNLESS OTHERWISE INDICATED.

4. ARRANGE PIPING AND HANGERS TO ALLOW FOR EXPANSION, CONTRACTION AND STRUCTURAL SETTLEMENT. DO NOT INSTALL PIPING IN CONTACT WITH THE BUILDING STRUCTURE.

5. UNLESS SPECIFICALLY INDICATED OTHERWISE, INSTALL PIPING CONCEALED ABOVE CEILINGS, BENEATH THE FLOORS OR IN WALLS.

6. SLOPING, VENTING AND DRAINAGE:

SLOPE PIPING AS INDICATED, TRUE TO LINE AND GRADE FREE OF TRAPS AND AIR POCKETS. UNLESS INDICATED OTHERWISE, SLOPE PIPING IN DIRECTION OF FLOW AS FOLLOWS:

SERVICE	INCLINATION	SLOPE
DOMESTIC WATER	LEVEL	
SANITARY VENT	UP	1/2" PER FT (MIN.)
SANITARY WASTE	DOWN	1/4" PER FT (MIN.)

7. RUN ALL PIPING GENERALLY LEVEL, FREE OF UNNECESSARY TRAPS AND BENDS, ARRANGE TO CONFORM TO THE BUILDING REQUIREMENTS AND TO SUIT NECESSITIES OF CLEARANCE FOR OTHER WORK.

8. DOMESTIC WATER: CONNECT COPPER TUBING TO FIXTURES WITH COPPER FITTINGS; CHROME PLATED WHERE EXPOSED. PROVIDE 12" HIGH AIR CHAMBERS AT FIXTURE CONNECTIONS. PREVENT DAMAGE TO FINISHED SURFACES.

9. NATURAL GAS: MAKE EQUIPMENT CONNECTIONS WITH GROUND JOINT UNIONS, 6" MINIMUM DIRT LEG AND GAS COCKS. PROVIDE ACCESSIBLE MAIN SHUT-OFF COCK AT ENTRANCE TO BUILDING.

10. COPPER: CRIMPING OF COPPER TUBING IS PROHIBITED. ISOLATE COPPER PIPE AND TUBING FROM CONTACT WITH STEEL.

11. THREADED JOINTS: APPLY TEFLON TAPE TO MALE THREADS.

12. SOLDERED JOINTS: CLEAN SURFACES TO BE JOINT OF OIL, GREASE, RUST AND OXIDES. CLEAN SOCKET OF FITTING AND END OF PIPE THOROUGHLY WITH EMERY CLOTH SO AS TO REMOVE RUST AND OXIDES. AFTER CLEANING, APPLY AND END OF PIPE THOROUGHLY WITH EMERY CLOTH SO AS FLUX TO JOINT SURFACE AND SPREAD EVENLY BEFORE ASSEMBLY OR HEATING.

13. DO NOT COVER OR ENCLOSE THE PIPING WORK BEFORE IT HAS BEEN TESTED, INSPECTED AND APPROVED.

14. SEAL ALL PIPING PENETRATING THE ROOF WITH 4 LB. SHEET LEAD FLASHING WITH 8" SKIRT AND COUNTER FLASHING RIM SEALED WITH A NON HARDENING MASTIC.

C. PIPE CLEANING:

- DURING INSTALLATION, PIPING SHALL BE KEPT CLEAN AND DRY. THE PLUMBING CONTRACTOR SHALL PHYSICALLY PRE-CLEAN ALL WATER SYSTEM PIPING TO REMOVE DIRT, DEBRIS, GRASE, OIL AND CORROSION PRODUCTS THAT MAY HAVE ACCUMULATED DURING CONSTRUCTION

D. PIPE TESTING:

- TEST PIPING AS NOTED BELOW WITH NO LEAK OR LOSS OF PRESSURE. REPAIR OR REPLACE DEFECTIVE PIPING UNTIL TESTS ARE ACCOMPLISHED SUCCESSFULLY.

SYSTEM	MEDIUM	PRESSURE	TEST TIME
DOMESTIC WATER	WATER	150 PSIG	4 HOURS
SANITARY VENT	WATER	15 FEET	2 HOURS
SANITARY WASTE	WATER	15 FEET	2 HOURS
NATURAL GAS	AIR	50 PSIG	1 HOUR

E. STERILIZATION OF DOMESTIC WATER PIPING:

- AFTER PRELIMINARY PURGING, CLEANING, AND FLUSHING OF THE SYSTEM, CHLORINATE THE ENTIRE POTABLE DOMESTIC WATER SYSTEM IN ACCORDANCE WITH THE CURRENT RECOMMENDATIONS OF THE AMERICAN WATER WORKS ASSOCIATION AND IN ACCORDANCE WITH ALL PERTINENT STATE AND LOCAL HEALTH CODES AND REGULATIONS.
- CHLORINATE ONLY WHEN PRESCHEDULED AND PROVIDE PROPER WARNING SIGNS AT OUTLETS.
- UPON COMPLETION OF THE STERILIZATION, THOROUGHLY FLUSH THE ENTIRE POTABLE WATER SYSTEM AND IMMEDIATELY FILL THE SYSTEM.
- WHEN STERILIZATION AND FLUSHING ARE COMPLETE, ARRANGE WITH PERTINENT AGENCIES FOR ALL REQUIRED TESTS ON MAINS AND SYSTEMS.

F. EXCAVATING, TRENCHING AND BACKFILLING:

- GENERAL: LAY PIPE TO REQUIRED LINES AND GRADES. PLACE FITTINGS AND VALVES AT REQUIRED LOCATIONS AND PLUMB.
- EXCAVATING AND TRENCHING: EXCAVATE AND TRENCHING FOR UNDERGROUND UTILITY LINE TO REQUIRED DEPTHS. TAMP BOTTOM OF TRENCHED HARD; GRADE TO SECURE REQUIRED FALL. EXCAVATE BELL HOLES SO PIPE WILL REST ON SOLID GROUND FOR ITS ENTIRE LENGTH.
- BACKFILLING: PRIOR TO BACKFILLING, CLEAN TRENCHES AND PITS OF TRASH AND DEBRIS. COMPACT BACKFILL TO ORIGINAL DENSITY OR TO SAME DENSITY AS ADJACENT COMPACTED FILL AS APPLICABLE.

3.03 FIXTURE INSTALLATIONS AND CONNECTIONS:

A. GENERAL:

- SET FIXTURES TO EQUAL HEIGHT, PLUMB OR AT RIGHT ANGLES TO WALL. CONNECT TO WASTE AND WATER SUPPLIES IN NEAT, UNIFORM AND FINISHED MANNER. PROVIDE NECESSARY TRIM AND APPURTENANCES FOR COMPLETE INSTALLATION. SEE ARCHITECTURAL DRAWINGS FOR FIXTURE HEIGHTS, SPACING, ARRANGEMENTS, ETC.

B. CLEANING AND PROTECTION:

- CLEAN PLUMBING FIXTURES OF DIRT AND DEBRIS UPON COMPLETION OF INSTALLATION.
- PROTECT INSTALLED FIXTURES FROM DAMAGE DURING THE REMAINDER OF CONSTRUCTION PERIOD.

C. FIELD QUALITY CONTROL:

- UPON COMPLETION OF INSTALLATION OF PLUMBING FIXTURES AND AFTER UNITS ARE WATER PRESSURIZED, TEST FIXTURES TO DEMONSTRATE CAPABILITY AND COMPLIANCE WITH REQUIREMENTS. WHEN POSSIBLE, CORRECT MALFUNCTIONING UNITS AT SITE, THEN RE-TEST TO DEMONSTRATE COMPLIANCE; OTHERWISE REMOVE AND REPLACE WITH NEW UNITS AND PROCEED WITH RETESTING.
- INSPECT EACH INSTALLED UNIT FOR DAMAGE TO FINISH. IF FEASIBLE, RESTORE AND MATCH FINISH TO ORIGINAL AT SIRE; OTHERWISE, REMOVE FIXTURE AND REPLACE WITH NEW UNIT. FEASIBILITY AND MATCH TO BE JUDGED BY THE ARCHITECT. REMOVE CRACKED OR DENTED UNITS AND REPLACE WITH NEW UNITS.

3.04 CLEANING UP:

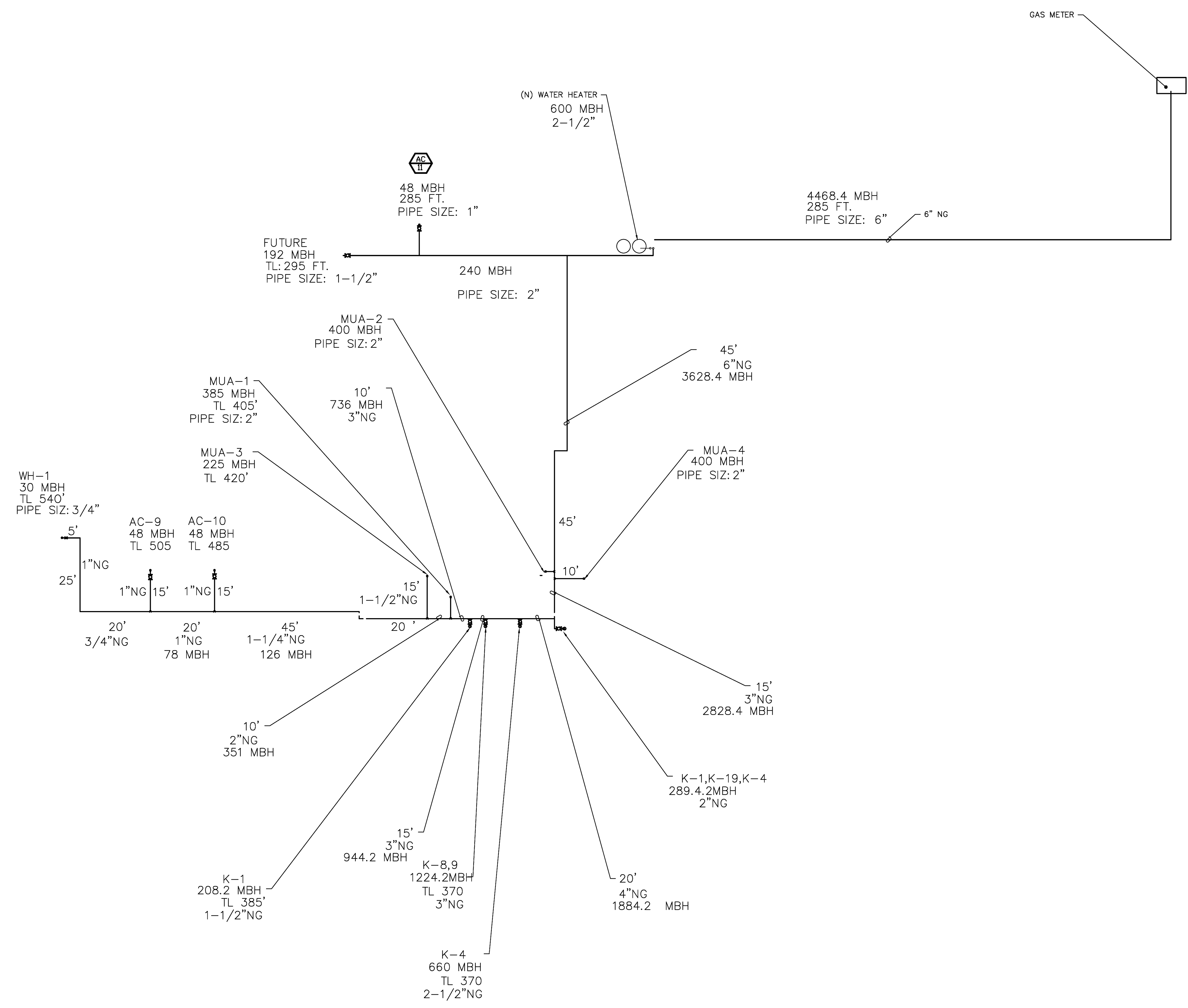
A. PRIOR TO ACCEPTANCE OF THE BUILDINGS, THOROUGHLY CLEAN ALL EXPOSED PORTIONS OF THE PLUMBING INSTALLATION, REMOVING ALL LABELS AND ALL TRACES OF FOREIGN SUBSTANCE, USING ONLY A CLEANING SOLUTION APPROVED BY THE MANUFACTURER OF THE PLUMBING ITEM AND BEING CAREFUL TO AVOID ALL DAMAGE TO FINISHED SURFACES.

B. SUBMIT A SIGNED COPY OF ALL TEST REPORTS TO THE ARCHITECTS.

REVISIONS	BY
05-24-10 ISSUED FOR PLAN CHECK	SR

CONSTRUCTION NOTES:

- ① MOST REMOTE APPLIANCE AT 540 FEET.
- ② PIPE SIZES ARE BASED ON CPC 2010, TABLE 12-6 FOR THE 550 FEET.



HINDU COMMUNITY and CULTURAL CENTER

1232 ARROWHEAD AVE. LIVERMORE, CA 94551

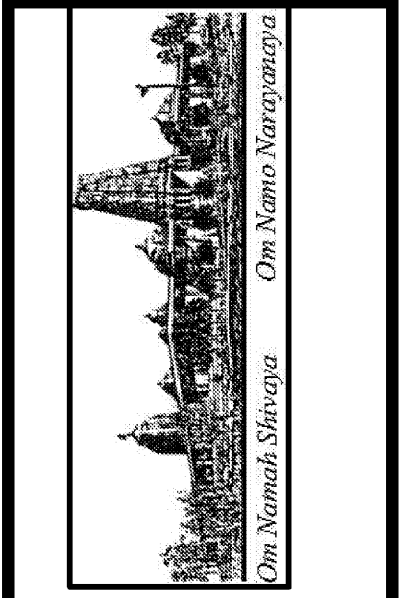
NATURAL GAS PIPING SCHEMATIC
BUILDING B FLOOR PLAN
PHASE 1A

DATE	8/12/09
SCALE:	AS NOTED
DRAWN BY:	RL/sam
PROJECT:	ARROWHEAD

1 NATURAL GAS SCHEMATIC
P-04 SCALE: NONE

P04

REVISIONS	BY
05-24-10 ISSUED FOR PLAN CHECK	SR



HINDU COMMUNITY and CULTURAL CENTER
1232 ARROWHEAD AVE. LIVERMORE, CA 94551

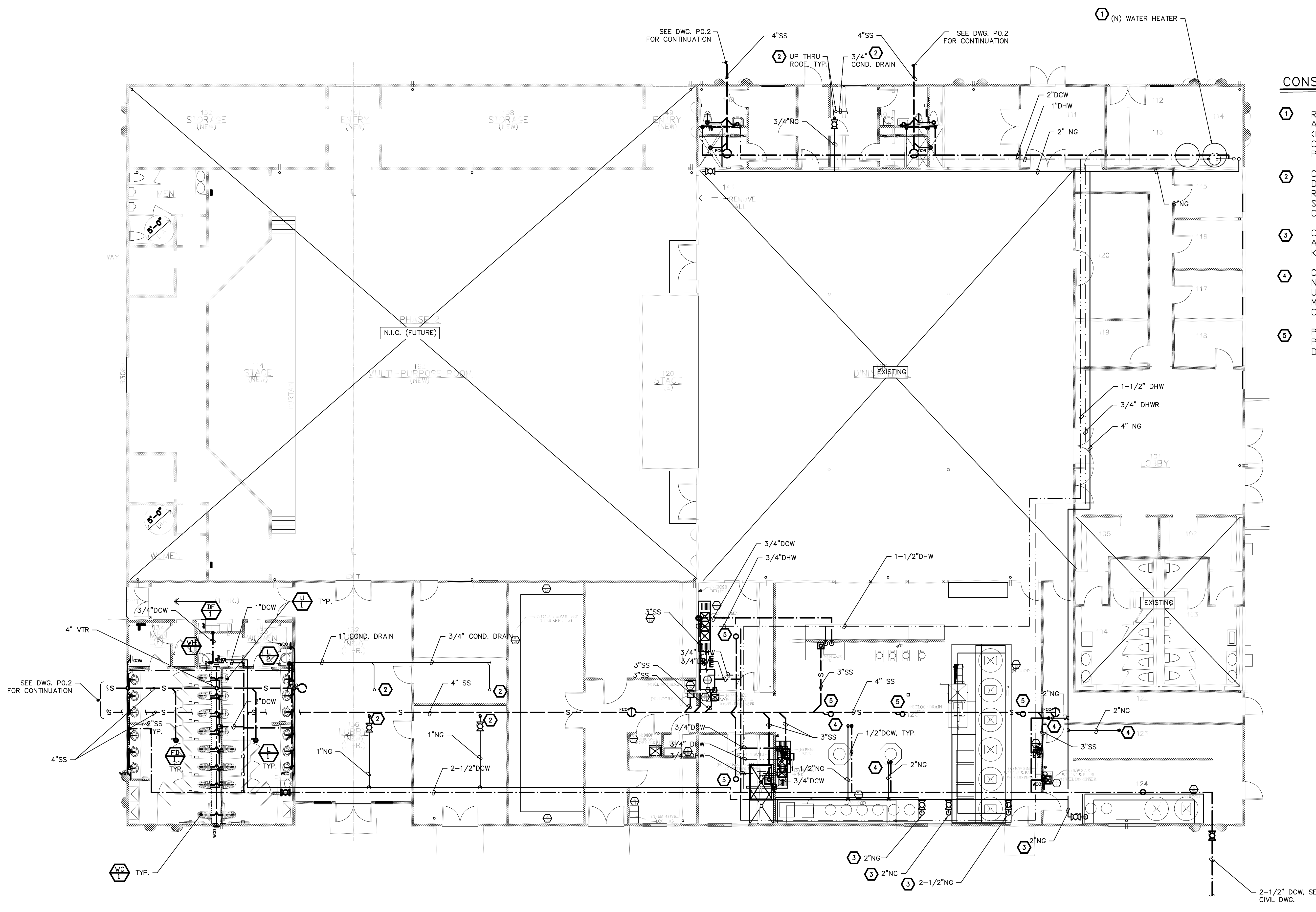
PLUMBING B FLOOR PLAN
PHASE 1A

DATE	8/12/09
SCALE:	AS NOTED
DRAWN BY:	RL/ssm
PROJECT:	ARROWHEAD

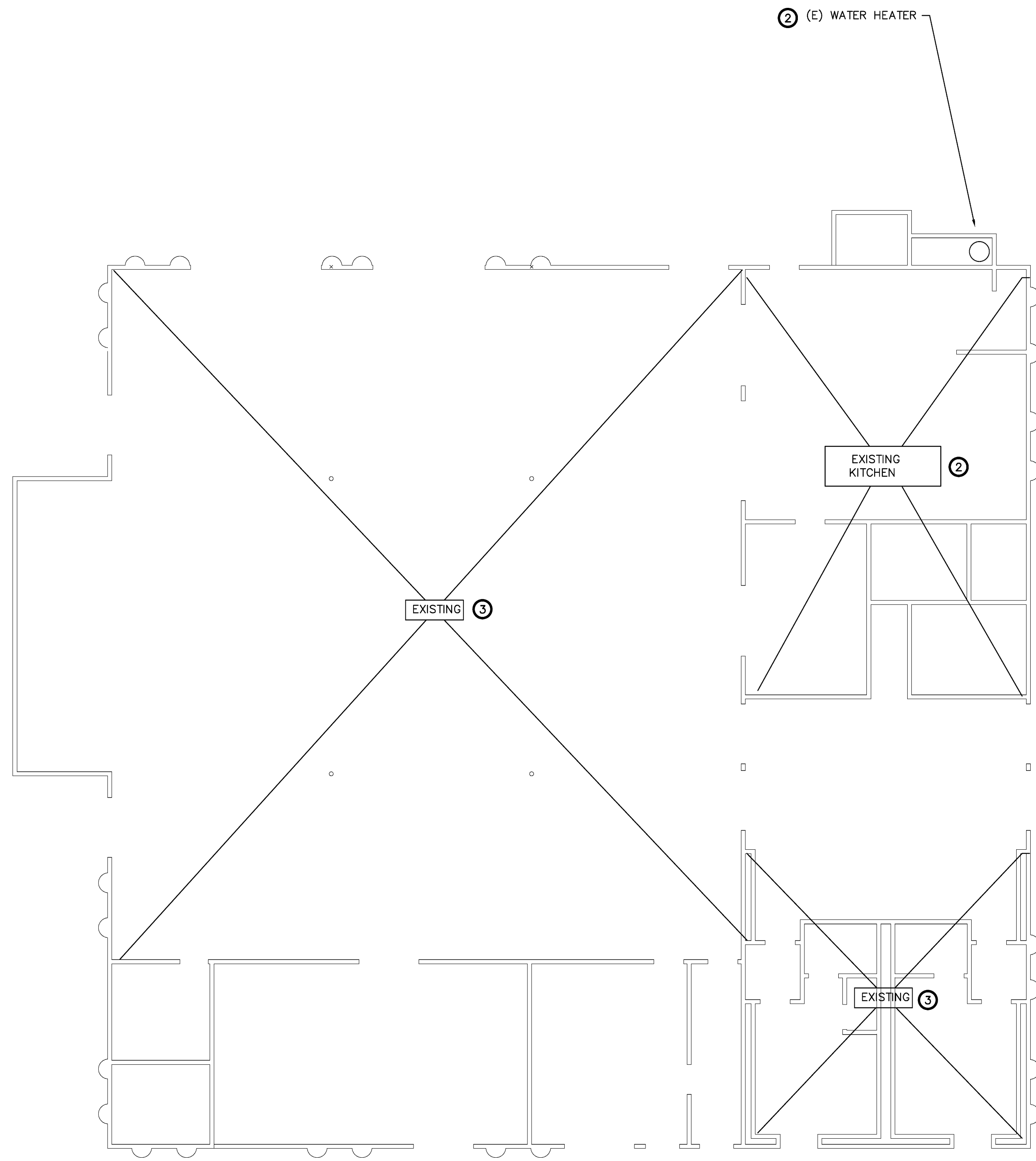
P-1

CONSTRUCTION NOTES:

- 1 REMOVE ALL DOM. HOT WATER SUPPLY AND RETURN PIPING ASSOCIATED WITH (E) DOM. WATER HEATER. MODIFY AND CONNECT (N) SUPPLY AND RETURN PIPES.
- 2 CONNECT NAT. GAS AND CONDENSATE DRAIN TO ROOF TOP A.C. UNITS ON THE ROOF. TERMINATE COND. DRAIN IN JAN. SERVICE SINK OR FLOOR DRAIN. COORDINATE WITH MECH. CONTRACTOR.
- 3 CONNECT NAT. GAS TO THE KITCHEN APPLIANCE. SEE AND COORDINATE WITH KITCHEN DRAWINGS K-1 AND K-2.
- 4 CONNECT DOMESTIC COLD WATER AND NAT. GAS TO ROOF TOP MAKE-UP AIR UNITS ON THE ROOF AS PER MANUFACTURER'S RECOMMENDATIONS. COORDINATE WITH MECH. CONTRACTOR.
- 5 PROVIDE FLOOR DRAIN WITH TRAP PRIMER AND CONNECT WITH (N) SAN. DRAIN.



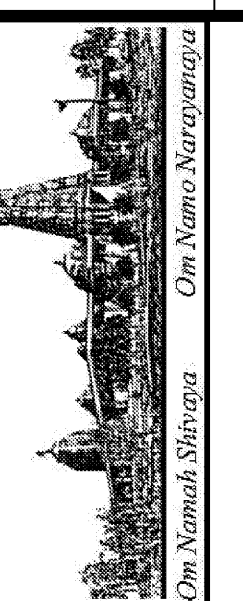
1 PLUMBING FLOOR PLAN-COSTRUCTION
P-1 SCALE: 1/8"=1'-0"



REVISIONS	BY
05-24-10 ISSUED FOR PLAN CHECK	SR

CONSTRUCTION NOTES:

- ① REMOVE ALL PLUMBING FIXTURES AND CONNECTED UTILITIES INCLUDING NAT. GAS, DOMESTIC COLD WATER, HOT WATER, SAN. DRAIN AND VENT. COORDINATE THE REMOVAL WITH THE CONSTRUCTION MANAGER.
- ② REMOVE ALL DOM. HOT WATER SUPPLY AND RETURN PIPING ASSOCIATED WITH (E) DOM. WATER HEATER. MODIFY AND CONNECT (N) SUPPLY AND RETURN PIPES AS PER DWG. P-1. COORDINATE THE REMOVAL WITH THE CONSTRUCTION MANAGER.
- ③ EXISTING AND TO REMAIN AS IS.



HINDU COMMUNITY and CULTURAL CENTER
1232 ARROWHEAD AVE. LIVERMORE, CA 94551

PLUMBING DEMOLITION
BUILDING B FLOOR PLAN
PHASE 1A

1 PLUMBING FLOOR PLAN-DEMOLITION
SCALE: 1/8"=1'-0"

DATE	8/12/09
SCALE	AS NOTED
DRAWN BY:	RL/sam
PROJECT:	ARROWHEAD

PD-1