

GENERAL NOTES

- WORK PROVIDED UNDER THIS DIVISION SHALL BE IN CONFORMANCE WITH THE APPLICABLE PORTION OF THE 2007 CBC, CMC, CFC, NEC, 2008 TITLE-24 ENERGY STANDARDS, AND THE CITY OF LIVERMORE AND THE COUNTY REQUIREMENTS.
- PROVIDE U.L. 555 LISTED FIRE DAMPERS AT ALL DUCT PENETRATION THROUGH THE FIRE RATED ASSEMBLIES. PROVIDE UL-555S LISTED COMBINATION FIRE-SMOKE DAMPERS AT ALL THE OCCUPANCY SEPARATION WALLS AND DUCTS PENETRATING RATED CORRIDOR WALLS & SHAFT ASSEMBLIES IN ACCORDANCE WITH 2007 CBC SECTION 713.10/11. PROVIDE PROPER SLEEVE LENGTHS TO MATCH THE WALL DEPTH. MOUNT ACTUATORS, END SWITCHES, HEAT DETECTOR, SMOKE DETECTORS, ETC. ON ACCESSIBLE SIDE OF FSD.
- FIRE AND FIRE-SMOKE DAMPERS SHALL BE INSTALLED STRICTLY IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. THE MANUFACTURER'S SPECIFICATIONS SHALL BE MADE AVAILABLE TO THE INSPECTING AUTHORITY.
- ALL PENETRATIONS AT WALLS, CEILINGS, FLOORS, ETC. BY THE DUCTWORK, PIPING, CONDUITS, ETC. SHALL BE SEALED WITH APPROVED U.L. LISTED FIRE STOPPING ASSEMBLIES TO MAINTAIN THE INTEGRITY OF THE FIRE RATING OF THOSE ASSEMBLIES. REFER TO ARCHITECTURAL FLOOR PLANS FOR WALL TYPES & LOCATIONS.
- ALL MECHANICAL EQUIPMENT, DUCTWORK, PIPING, CONDUITS, TANKS, PACKAGED EQUIPMENT, ETC. SHALL BE SEISMICALLY ANCHORED AND BRACED IN ACCORDANCE WITH CBC, SMACNA REQUIREMENTS.
- DIVISION-15 CONTRACTOR SHALL COORDINATE THE POWER REQUIREMENT WITH THE DIVISION-16 WORK, INCLUDING THE VOLTAGE, PHASE, AMP REQUIREMENT, OVERLOAD PROTECTION REQUIREMENT, LOCATION OF STARTERS, DISCONNECTS, INTERLOCK WIRING, POWER WIRING TO FSD'S, WIRING TO SMOKE DETECTORS, ACTUATORS, ETC.
- INSTALL FANS, FIRE DAMPERS & FIRE/SMOKE DAMPERS AND OTHER MECHANICAL COMPONENTS REQUIRING PERIODIC SERVICE & MAINTENANCE ACCESS TO BE COMPLETELY ACCESSIBLE FROM THE CEILING ACCESS PANELS. PROVIDE CODE MANDATED CLEARANCES AT ALL EQUIPMENT & ELECTRICAL PANELS.
- DIVISION-15 CONTRACTOR SHALL COORDINATE THE LOCATION, SIZE & ELEVATION OF THE CONCRETE HOUSEKEEPING PADS WITH THE CONCRETE WORK BASED ON THE ACTUAL MECHANICAL EQUIPMENT PROPOSED FOR THE PROJECT. CONTRACTOR SHALL ALSO COORDINATE THE LOCATION, SIZE OF THE CONCRETE WALL AND SLAB PENETRATIONS WITH THE RESPECTIVE TRADE CONTRACTORS.
- THIS DIVISION CONTRACTOR SHALL PROVIDE COMPLETE COOPERATION IN COMMISSIONING OF ALL THE MECHANICAL, ELECTRICAL, PLUMBING AND CONTROL SYSTEMS BY PROVIDING FULLY QUALIFIED PERSONNEL, EQUIPMENT, TESTING TOOLS, MANPOWER AS NECESSARY TO COMPLETE THE COMMISSIONING, TESTING & DOCUMENTATION TASKS AS NECESSARY LEED V2.2 FUNDAMENTAL COMMISSIONING REQUIREMENT.
- ALL MATERIALS OF CONSTRUCTION INCLUDING SELANTS; WALL, ROOF, & CEILING ELEMENTS; INSULATION; WIRING & CABLES; DEVICES AND EQUIPMENTS; TUBING, ETC. THAT COMES IN CONTACT WITH SUPPLY AIR, OUTSIDE AIR AND RETURN AIR SHALL HAVE A FLAME SPREAD RATING OF NOT MORE THAN 25 AND SMOKE DEVELOPED RATING OF NOT MORE THAN 50.
- FOR DUCTWORK, PIPING & CONDUIT PENETRATIONS THROUGH SOUND-RATED WALLS REFER TO DETAILS AND LOCATION OF SOUND-RATED WALLS REFER TO ARCHITECTURAL PLANS.
- AIR-MOVING SYSTEMS SUPPLYING AIR IN EXCESS OF 2,000 CFM TO ENCLOSED SPACES WITHIN THE BUILDING SHALL BE EQUIPPED WITH AN AUTOMATIC SHUTOFF IN COMPLIANCE WITH UMC SECTION 609. THE AUTOMATIC SHUTOFF SHALL BE ACCOMPLISHED BY INTERRUPTING THE POWER SOURCE OF THE AIR-MOVING EQUIPMENT WHEN SMOKE IS DETECTED IN THE MAIN SUPPLY DUCT CONNECTED TO THE EQUIPMENT.
- DIVISION-15 CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE T-24 MANDATORY POST-INSTALLATION TESTING AND COMPLIANCE VERIFICATION AND DOCUMENTING, THE ECONOMIZER OPERATION, OUTSIDE AIR MEASUREMENT FOR EACH EACH, DUCT LEAKAGE TESTING AND DOCUMENTATION AND CONTROL SYSTEM OPERATION PER THE 2008 T-24 REQUIREMENTS.
- LEED COMPLIANCE REQUIREMENTS: COMPLY WITH THE MANDATORY REQUIREMENTS AND OPTIONAL LEED COMPLIANCE REQUIREMENTS AS OUTLINED BELOW FOR MECHANICAL AND PLUMBING SYSTEMS. REFER TO OTHER LEED COMPLIANCE REQUIREMENTS SPECIFIED IN THE LEED CHECKLIST TITLED "LEED FOR NEW CONSTRUCTION V2.2 WORKSHEET FOR HINDU COMMUNITY AND CULTURAL CENTER PHASE-1B BUILDING-C ADMINISTRATION BUILDING, ADDRESS:1232 ARROWHEAD AVENUE".

CREDIT#	POINTS	DESCRIPTION
- WEc3.1	1	WATER USE REDUCTION, 20% REDUCTION
- EAcp1	MANDATORY	FUNDAMENTAL COMMISSIONING OF THE BUILDING ENERGY SYSTEMS
- EAcp2	MANDATORY	MINIMUM ENERGY PERFORMANCE 9(TITLE-24 COMPLIANCE)
- EAcp3	MANDATORY	FUNDAMENTAL REFRIGERANT MANAGEMENT (NO CFC & HCFC)
- EAcl	2	OPTIMIZE ENERGY PERFORMANCE (14% BETTER THAN 2008 TITLE-24)
- EQp1	MANDATORY	MINIMUM IAQ PERFORMANCE. COMPLY WITH ASHRAE 62.1 FOR VENTILATION.
- EQc3.1	1	CONSTRUCTION IAQ MANAGEMENT PLAN, DURING CONSTRUCTION.
- EQc3.2	1	CONSTRUCTION IAQ MANAGEMENT PLAN, BEFORE OCCUPANCY.
- EQc5	1	INDOOR CHEMICAL & POLLUTANT SOURCE CONTROL.

DRAWING LIST - BUILDING "D"

DWG. NO.	DESCRIPTION
M-10.0	MECHANICAL LEGEND, DRAWING INDEX, GENERAL NOTES
M-11.1	MECHANICAL EQUIPMENT SCHEDULES
M-11.2	MECHANICAL EQUIPMENT SCHEDULES
M-11.3	SPECIFICATIONS
M-11.4	SPECIFICATIONS
M-13.0	MECHANICAL PLAN - BUILDING D
M-14.0	MECHANICAL ROOF PLAN - BUILDING D
M-15.0	MECHANICAL DETAILS - BUILDING D
T-24.1	TITLE-24 COMPLIANCE FORMS
T-24.2	TITLE-24 COMPLIANCE FORMS
T-24.3	TITLE-24 COMPLIANCE FORMS
T-24.4	TITLE-24 COMPLIANCE FORMS
T-24.5	TITLE-24 COMPLIANCE FORMS

ABBREVIATIONS

ABBR	DESCRIPTION
ACU	AIR CONDITIONING UNIT
AD	ACCESS DOOR (DUCT)
AFMD	AIR FLOW MEASURING DEVICE
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AP	ACCESS PANEL (WALL OR CEILING)
ARCH	ARCHITECTURAL
AS	AIR SEPARATOR
ASD	AUTOMATIC SMOKE DAMPER
AVD	AUTOMATIC VOLUME DAMPER
BDD	BACKDRAFT DAMPER
BHP	BRAKE HORSEPOWER
BOD	BOTTOM OF DUCT
BAS	BUILDING AUTOMATION SYSTEM
BTUH	BRITISH THERMAL UNITS PER HOUR
CBBDD	COUNTER BALANCED BACKDRAFT DAMPER
CC	COOLING COIL
CF	CAPPED FOR FUTURE
CFM	CUBIC FEET PER MINUTE
CU	OUTDOOR CONDENSER UNIT
DB	DRY BULB
DDC	DIRECT DIGITAL CONTROL
DEFL	DEFLECTION
E	EXISTING
EA,OA	EXHAUST AIR, OUTSIDE AIR
EAT	ENTERING AIR TEMPERATURE
EF	EXHAUST FAN
ET	EXPANSION TANK
FCU	FAN COIL UNIT
EWT	ENTERING WATER TEMPERATURE
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FLA	FULL LOAD AMPS
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FSG	FLOOR SUPPLY GRILLE
FT	FEET
GPM	GALLONS PER MINUTE
HW	HEATING HOT WATER
HC	HEATING COIL
HP	HORSE POWER
HWP	HEATING WATER PUMP
HV	HEATING & VENTILATING
KW	KILOWATT
LAT	LEAVING AIR TEMPERATURE
LEED	LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN (USGBC)
LRA	LOCKED ROTOR AMPS
LVL	LEVEL
LWT	LEAVING WATER TEMPERATURE
MBH	THOUSAND BTU PER HOUR
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CONTROL PANEL
MFR	MANUFACTURER
NC	NORMALLY CLOSED OR NOISE CRITERIA
NIMC	NOT IN MECHANICAL CONTRACT
NO	NORMALLY OPEN
OBD	OPPOSED BLADE DAMPER
OPER	OPERATING WEIGHT
OPP	OPPOSITE
PCD	PRIMARY CONDENSATE DRAIN
PD	PRESSURE DROP
PH	PHASE
PRESS	PRESSURE
PSIG	POUNDS PER SQUARE INCH
RA,SA	RETURN AIR, SUPPLY AIR
REF	REFERENCE
RF	RETURN FAN
RHC	REHEAT COIL
RPM	REVOLUTIONS PER MINUTE
SAD	SEE ARCHITECTURAL DRAWINGS
SCD	SECONDARY CONDENSATE DRAIN
SF	SUPPLY FAN
S.F.	SQUARE FEET
SN	SHEET NOTES
SP	STATIC PRESSURE
ST	SOUND TRAP
STR	STRAINER
TCV	TEMPERATURE CONTROL VALVE
TCP	TEMPERATURE CONTROL PANEL
TD	TEMPERATURE DIFFERENCE
TEF	TOILET EXHAUST FAN
TEMP	TEMPERATURE
TDH	TOTAL DYNAMIC HEAD
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
V	VAV TERMINAL OR VOLT
VEL	VELOCITY
VFD	VARIABLE FREQUENCY DRIVE
VIB	VIBRATION ISOLATOR
WB	WET BULB
WG	WATER GAUGE
WMS	WIRE MESH SCREEN
XFMR	TRANSFORMER
OA	OUTSIDE AIR
SD	DUCT SMOKE DETECTOR

LEGEND

SYMBOL	ABBR	DESCRIPTION
		DETAIL NUMBER DRAWING NUMBER
		SECTION NUMBER DRAWING NUMBER
		EQUIPMENT IDENTIFICATION EQUIPMENT NUMBER
(E)		EXISTING
(N)		NEW
	CSD/CMS	CEILING SUPPLY DIFFUSER
	CER (G)	CEILING EXHAUST REGISTER(GRILLE)
	CRR/CMR (G)	CEILING RETURN REGISTER(GRILLE)
	WSR	WALL SUPPLY REGISTER
	WER (G)	WALL EXHAUST REGISTER (GRILLE)
	WRR (G)	WALL RETURN REGISTER (GRILLE)
		SECTION THRU SUPPLY OR OUTSIDE AIR DUCT
		SECTION THRU RETURN DUCT
		SECTION THRU EXHAUST DUCT
	FSR	FLOOR SUPPLY REGISTER
		AIR OUTLET DESIGNATION (SEE SCHEDULE)
		AIR OUTLET DESIGNATION
		EXHAUST/RETURN OUTLET
		LINEAR DIFFUSER DESIGNATION

LEGEND

SYMBOL	ABBR	DESCRIPTION
	R (D)	DUCT RISE OR DROP
	AL(PL)	ACOUSTICAL LINING (PLENUM LINING)
		DUCT ENCLOSED IN GYP. BOARD ENCLOSURE (SEE ARCHITECTURAL DWGS)
		DIRECTION OF AIRFLOW
	FC	FLEXIBLE DUCT CONNECTION
		FLEXIBLE DUCT FOR SUPPLY (FLEXIBLE DUCT CONNECTION FOR EXHAUST)
	AVD	AUTOMATIC VOLUME DAMPER
	ASD(SD)	AUTOMATIC SMOKE DAMPER
	CBBDD	COUNTER BALANCED BACK DRAFT DAMPER
	FD	FIRE DAMPER
	BDD	BACK DRAFT DAMPER
	FSD	COMBINATION FIRE/SMOKE DAMPER WITH ACTUATOR
	VD	VOLUME DAMPER
	VD	VOLUME DAMPER WITH REMOTE REGULATOR
	TV	TURNING VANES
	BP	BEAM PENETRATION
		ACCESS PANEL
		SQUARE TO ROUND DUCT
		REDUCING TRANSITION
		REDUCING TRANSITION
		UNDERCUT DOOR - SEE ARCH. DWGS.
		THERMOSTAT
		TEMPERATURE SENSOR
	SD	DUCT SMOKE DETECTOR
		LINE CONTINUED
	CFF	CAPPED FOR FUTURE
	UP	PIPING UP
	DN	PIPING DOWN
	SL	REFRIGERANT SUCTION LINE
	LL	REFRIGERANT LIQUID LINE
	CD	CONDENSATE DRAIN
	G	NATURAL GAS
	D	DRAIN
	TF	TEST FITTING
		UNION
	PG	PRESSURE GAUGE
	TH	THERMOMETER
	GV	GATE VALVE
	BV	BUTTERFLY (2 1/2" OR LARGER), (BALL VALVE 2" OR SMALLER)

REVISIONS BY
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10-28-11

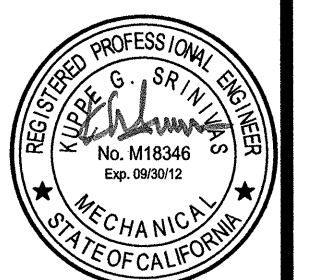
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1200 ARROWHEAD AVE. LIVERMORE, CA 94551
Om Namoh Shivaya
Om Namah Narayanaya

LEGEND, NOTES & DRAWING INDEX
BUILDING "D"

DATE
10/28/11
SCALE:
NONE
DRAWN BY:
PT
PROJECT:
ARROWHEAD



M-10.0

PACKAGED ROOFTOP AIR CONDITIONING UNIT SCHEDULE

MANUFACTURER: Trane, Carrier or Approved Equal

CODE	MODEL	COOLING CAPACITY			COOLING COIL				GAS HEATING CAPACITY		SUPPLY FAN						FILTERS			POWER EXHAUST FAN					UNIT ELECTRICAL			SEER/AFUE	OPER. WEIGHT LBS.	REMARKS			
		TONS	SENS MBH	TOTAL MBH	EAT DB	EAT WB	LAT DB	LAT WB	INPUT (MBH)	OUTPUT (MBH)	CFM	ESP (in.W.G.)	RPM	BHP	HP	MIN. OA CFM	TYPE	QTY	PD		EFF/MERV	TYPE & MODEL NO.	CFM	SP (in.W.G.)	BHP	HP	RPM				MCA	MOCP	V/PH/HZ
																			CLEAN	DIRTY													
AC-D-1	YHC-060	5	48.4	62.4	80	67	60	57.6	60	48	2000	0.6	1057	0.99	1	600	2"	-	0.35	1"	85/MERV-13	TRANE	2000	0.375	0.42	0.31	KW	28.8	45	208/3PH/60	12 / 81	1,300	① THRU ② ③
AC-D-2	YHC-072	6	55.6	72.5	80	67	60	57.6	80	64	2,500	0.6	850	0.95	1	690	2"	-	0.35	1"	85/MERV-13	TRANE	2,500	0.375	0.42	0.31	KW	34.80	50	208/3PH/60	12 / 81	1,750	③
AC-D-3	YHC-048	4	39.4	49.4	80	67	60	57.6	60	48	1,600	0.6	973	0.7	1	600	2"	-	0.35	1"	85/MERV-13	TRANE	1,600	0.375	0.42	0.31	KW	22.8	35	208/3PH/60	12 / 81	1,200	
AC-D-4	YHC-060	5	45.4	61.4	80	67	60	57.6	60	48	1850	0.6	1000	0.81	1	630	2"	-	0.35	1"	85/MERV-13	TRANE	1850	0.375	0.42	0.31	KW	28.8	45	208/3PH/60	12 / 81	1,300	③
AC-D-5	YHC-060	5	45.4	61.4	80	67	60	57.6	60	48	1850	0.6	1000	0.81	1	660	2"	-	0.35	1"	85/MERV-13	TRANE	1850	0.375	0.42	0.31	KW	28.8	45	208/3PH/60	12 / 81	1,300	③

NOTES:

- | | |
|---|--|
| <ul style="list-style-type: none"> ① UNIT LOCATED ON MAIN ROOF ON 14" ROOF CURB. ② UNIT WITH R-410A REFRIGERANT, A/CU COND & EVAP COILS ③ SEER LISTED AT STANDARD CONDITIONS. ④ UNIT SELECTION BASED ON 95 F AMBIENT. ⑤ BOTTOM SUPPLY AND RETURN DISCHARGE. ⑥ FACTORY INSTALLED OSA ECONOMIZER CONTROL & POWER EXHAUST & SINGLE-POINT POWER SUPPLY. ⑦ PROVIDE 14" TALL WELDED STEEL CURB, 2007 CBC COMPLIANT, MICROMETL CORP. SERIES OR EQUAL TO MATCH THE AC UNIT SIZE. | <ul style="list-style-type: none"> ⑧ PROVIDE HINGED AND INSULATED ACCESS DOOR AND 2-INCH THICK MERV 13 FILTERS. ⑨ PROVIDE MATCHING ELECTRONIC PROGRAMMABLE, T-24 COMPLIANT 7-DAY WALL THERMOSTAT. ⑩ PROVIDE FACTORY FURNISHED OUTSIDE AIR HOOD AND EXHAUST AIR HOOD AT AC UNIT AIR INLET AND EXHAUST (TYP). ⑪ PROVIDE GAS PRESSURE REGULATOR IF REQUIRED. ⑫ AC UNITS SHALL BE PROVIDED WITH DEMAND CONTROL VENTILATION OPTIONAL PACKAGE AND ROOM CO2 SENSOR TO MODULATE OPEN THE OUTSIDE AIR DAMPER BETWEEN MINIMUM AND MAX SETTINGS (ADJUSTABLE) TO LIMIT THE AMOUNT OF CO2 LEVEL IN THE OCCUPIED SPACE PER T-24. ⑬ PROVIDE SMOKE DETECTOR(S) FOR AUTO SHUT-DOWN OF UNIT. |
|---|--|

EXHAUST FAN SCHEDULE

MFR: GREENHECK

CODE	SYSTEM	SERVICE	LOCATION	CFM	TOTAL SP IN. WC	RPM	BHP	MODEL NO./SIZE	TYPE	ROOF CURB THROAT SIZE LXWXH	POWER REQUIREMENT			OPER. WT LBS	SOUND CRITERIA (SONE)	REMARKS	
											MTR HP	VFD	V/PH/HZ				
EF-D-1		BLDG-D, MENS TOILET ROOM EXH.	ROOF	625	0.375	1550	0.12	G-95-D	MUSHROOM	14X14	1/8		NO	120V/1Ø	150	8.7	① ② ③
EF-D-2		BLDG-D, WOMENS TOILET ROOM EXH.	ROOF	575	0.375	1500	0.12	G-95-D	MUSHROOM	14X14	1/8		NO	120V/1Ø	150	8.7	① ② ③
BEF-D-1		BLDG-D, LOUNGE TOILET	CEILING	80/30	0.20	-	-	FV-08VKS3	CABINET	-	10 WATTS	-	120V/1Ø	15	0.3	⑤ ⑥ PANASONIC	
BEF-D-2		BLDG-D, LOUNGE TOILET	CEILING	80/30	0.20	-	-	FV-08VKS3	CABINET	-	10 WATTS	-	120V/1Ø	15	0.3	⑤ ⑥ PANASONIC	
BEF-D-3		BLDG-D, LOUNGE TOILET	CEILING	80/30	0.20	-	-	FV-08VKS3	CABINET	-	10 WATTS	-	120V/1Ø	15	0.3	⑤ ⑥ PANASONIC	
BEF-D-4		BLDG-D, LOUNGE TOILET	CEILING	80/30	0.20	-	-	FV-08VKS3	CABINET	-	10 WATTS	-	120V/1Ø	15	0.3	⑤ ⑥ PANASONIC	

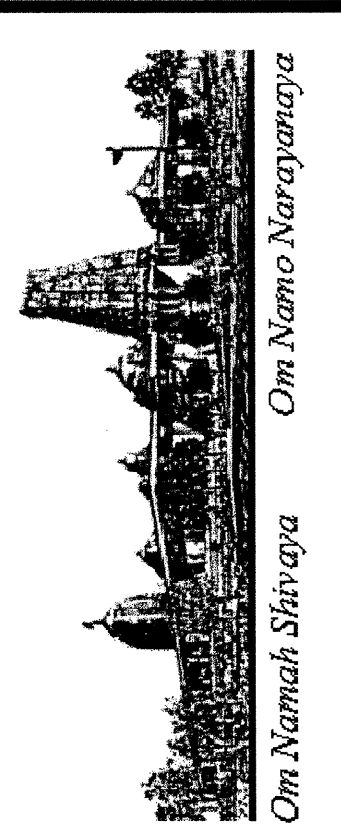
REMARKS:

- ① PROVIDE FACTORY MATCHED 8" ROOF CURB, FLASHING AND COUNTERFLASHING. SECURE CURB TO THE ROOF STRUCTURE WITH GALV. STEEL ANCHOR BOLTS.
- ② EXHAUST FANS SHALL BE FACTORY FURNISHED WITH BACKDRAFT DAMPER. FURNISHED SPEED CONTROLLER TO BE MOUNTED IN NEMA 3R ENCLOSURE BY MECHANICAL AND WIRED BY ELECTRICAL CONTRACTOR.
- ③ EXHAUST FANS SHALL BE CONTROLLED FROM A CENTRALLY LOCATED ELECTRONIC PROGRAMMABLE TIME CLOCK.
- ④ EXHAUST FANS SHALL BE CONTROLLED ON/OFF BY LIGHT SWITCH.
- ⑤ PANASONIC "WHISPER GREEN" EXHAUST FAN WITH VARIABLE SPEED CONTROL & INTEGRAL HIGH/LOW DELAY TIMER, ENERGY STAR, UL LISTED FOR TUB/SHOWER ENCLOSURE. EXHAUST FAN WIRED BY ELECTRICAL, SUPPLIED & INSTALLED BY MECHANICAL.
- ⑥ WHEN FAN SWITCH IS IN OFF MODE, EXH FAN SHALL RUN AT LOW SPEED TO PROVIDE CONTINUOUS 30 CFM EXH. WHEN SWITCH IS IN "ON" MODE, IT SHALL EXHAUST 100% FULL CAPACITY.

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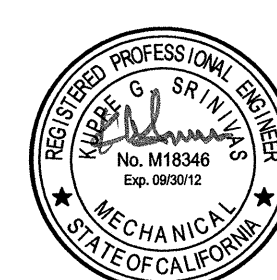
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SCHEDULES
BUILDING "D"
HINDU COMMUNITY and CULTURAL CENTER
 1200 ARROWHEAD AVE. LIVERMORE, CA 94551

DATE
10/28/11
 SCALE:
NONE
 DRAWN BY:
PT
 PROJECT:
ARROWHEAD



M-11.1

VIBRATION ISOLATOR SCHEDULE

MANUF: MASON OR APPROVED EQUAL

EQUIPMENT	TYPE	SERVICE	LOCATION	ISOLATOR		BASE		SEISMIC RESTRAINTS	MODEL NO. ISOLATOR/SEISMIC	REMARKS
				CODE	S.D.	CODE	WT#			
AC-D-1	ROOFTOP ACU	BUILDING D	ROOF	N-1	1/4"	-	-	ANCHOR BOLTS	-	①②③④
AC-D-2	ROOFTOP ACU	BUILDING D	ROOF	N-1	↓	↓	↓	↓	↓	↓
AC-D-3	ROOFTOP ACU	BUILDING D	ROOF	N-1	↓	↓	↓	↓	↓	↓
AC-D-4	ROOFTOP ACU	BUILDING D	ROOF	N-1	↓	↓	↓	↓	↓	↓
AC-D-5	ROOFTOP ACU	BUILDING D	ROOF	N-1	↓	↓	↓	↓	↓	↓
EF-D-1	MUSHROOM	TOILET EXH	ROOF	N-1	1/8"	-	-	ANCHOR BOLTS	-	①④
EF-D-2	MUSHROOM	TOILET EXH	ROOF	N-1	1/8"	-	-	ANCHOR BOLTS	-	①④

NOTES:

- ① FANS LOCATED INSIDE THE EQUIPMENT SHALL BE INTERNALLY ISOLATED.
- ② ANCHOR BOLTS AND ISOLATORS EXPOSED TO WEATHER SHALL BE HOT-DIPPED GALVANIZED OR PROTECTED WITH EXTERIOR GRADE ENAMEL PAINT.
- ③ NEOPRENE SUPER-W PAD ISOLATORS SHALL BE LOCATED BETWEEN THE ROOF CURB AND THE UNIT BASE TO SEAL AND ISOLATE. INSTALL PER MANUFACTURERS' GUIDELINES.
- ④ UNITS WITH FACTORY FURNISHED MATCHING ROOF CURB. SEE EQUIPMENT SCHEDULE.

SPLIT SYSTEM HEAT PUMP SCHEDULE (INDOOR)

MFR: FUJITSU

CODE	MODEL/TYPE	TONS	SERVICE	LOCATION	NOM. CAPACITY (MBH)		SUPPLY FAN			INDOOR UNIT ELECTRICAL				WEIGHT	REMARKS
					COOLING	HEATING	MIN. CFM	MAX. CFM	HP	FUSE	WSA	HFCB	VOLT/Ø		
IAC-D-1	12RLS / WALL MOUNTED	1	PRIEST LOUNGE RM # 112	RM. # 112	12.0	16.0	177	430	-	15A	-	-	208/1	50	①②③④
IAC-D-1	12RLS / WALL MOUNTED	1	PRIEST LOUNGE RM # 111	RM. # 111	12.0	16.0	177	430	-	15A	-	-	208/1	50	①②③④
IAC-D-1	12RLS / WALL MOUNTED	1	SENIOR LOUNGE RM # 110	RM. # 112	12.0	16.0	177	430	-	15A	-	-	208/1	50	①②③④
IAC-D-1	12RLS / WALL MOUNTED	1	SENIOR LOUNGE RM # 109	RM. # 112	12.0	16.0	177	430	-	15A	-	-	208/1	50	①②③④

REMARKS:

- ① PROVIDE INDOOR FAN COIL UNIT WITH MATCHING OUTDOOR UNITS.
- ② PROVIDE REFRIGERANT PIPES TO EACH FAN COIL UNIT.
- ③ CONFIRM REFRIGERANT PIPE SIZES WITH FACTORY PRIOR TO INSTALLATION.
- ④ INSULATE SUCTION PIPE WITH FOAM INSULATION (TYP).

SPLIT SYSTEM HEAT PUMP UNIT SCHEDULE (OUTDOOR)

MFR: FUJITSU

CODE	SERVICE	LOCATION	MODEL NO.	OUTDOOR UNIT ELECTRICAL							WEIGHT	REMARKS
				VOLT	PHASE	Hz	MCA	FLA	WSA	FUSE		
ACC-D-1	IAC-D-1	ROOF	AOU12RLS	208	1	60	10A	-	-	15A	120 LBS.	EER=14.5, HSPF=12.00
ACC-D-2	IAC-D-2	ROOF	AOU12RLS	208	1	60	10A	-	-	15A	120 LBS.	EER=14.5, HSPF=12.00
ACC-D-3	IAC-D-3	ROOF	AOU12RLS	208	1	60	10A	-	-	15A	120 LBS.	EER=14.5, HSPF=12.00
ACC-D-4	IAC-D-4	ROOF	AOU12RLS	208	1	60	10A	-	-	15A	120 LBS.	EER=14.5, HSPF=12.00

AIR OUTLET SCHEDULE

MFR: TITUS U.O.N.

CODE	MODEL ②	DESCRIPTION ①③④
CSD1	PSS	PERFORATED FACE, MODULAR CORE CEILING SUPPLY DIFFUSER, 24"x24" FACE, STEEL CONSTRUCTION. BORDER TYPE TO MATCH CEILING TYPE. PROVIDE OBD WHERE REQUIRED FOR BALANCING AND AS INDICATED ON DRAWINGS. PROVIDE SQUARE TO ROUND TRANSITION FOR CONNECTION TO ROUND DUCT.
CSD2	PSS	SAME AS CSD1 EXCEPT 12"x12" FACE.
CER1, CEG1 CRR1, CRG1	PAR	PERFORATED FACE EXHAUST OR RETURN REGISTER OR GRILLE, 24"x24" FACE, STEEL CONSTRUCTION. BORDER TYPE TO MATCH CEILING TYPE. PROVIDE OBD FOR REGISTERS. PROVIDE LINED PLENUM WITH TOP OR SIDE OUTLET FOR DUCT CONNECTION. PROVIDE ACOUSTICAL BOOT WITH VOLUME DAMPER WHERE SHOWN.
CER2, CEG2 CRR2, CRG2	PAR	SAME AS CER1, CEG1, CRR1, CRG1, EXCEPT 12"x12" OR 18"x18" FACE.
WSG1	350FL	LOUVERED WALL SUPPLY GRILLE, 3/4" BLADE SPACING, ALUMINUM CONSTRUCTION.

NOTES:

- ① FINISHES AS SELECTED BY AND APPROVED BY ARCHITECT.
- ② SUFFIX "-A" DESIGNATES ALUMINUM CONSTRUCTION.
- ③ ALL AIR OUTLETS SHALL BE SELECTED FOR NC-25, UNLESS MENTIONED OTHERWISE.
- ④ ALL BRANCH DUCT INLET CONNECTION SIZES SHALL BE THE SAME SIZE AS THE AIR OUTLET DUCT CONNECTION SIZES UNLESS OTHERWISE NOTED. PROVIDE SQUARE TO ROUND DUCT TRANSITION AS REQUIRED.

FIRE SMOKE DAMPERS SCHEDULE

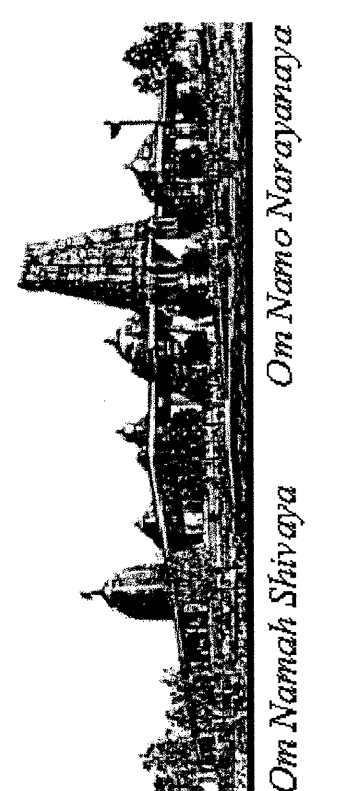
MFR: RUSKIN

CODE	MODEL NO.	DESCRIPTION
FSD-1	FSD-60	COMBINATION FIRE/SMOKE DAMPER UL 555S CLASSIFIED AND CLASS I LEAKAGE RATED AND TESTED. PROVIDE 120V ELECTRIC MOTOR ACTUATOR TS 150 FIRESTAT AND MOUNTING ANGLES. FSD TO HAVE PRIMARY HEAT SENSING DEVICE SET AT 165°F AND SECONDARY HEAT SENSING DEVICE SET AT 350°F. POWER OPEN, FAIL CLOSE TYPE. CALIFORNIA STATE FIRE MARSHAL LISTING NUMBER 3225-245-102. FSD SHALL INCLUDE REMOTE POSITION INDICATOR LIGHT PLATE AFFIXED TO THE CEILING TILE.

REVISIONS	BY
ISSUE FOR PERMIT 10-28-11	

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SCHEDULES
BUILDING "D"
HINDU COMMUNITY and CULTURAL CENTER
1200 ARROWHEAD AVE. LIVERMORE, CA 94551

DATE
10/28/11
SCALE:
AS NOTED
DRAWN BY:
PT
PROJECT:
ARROWHEAD

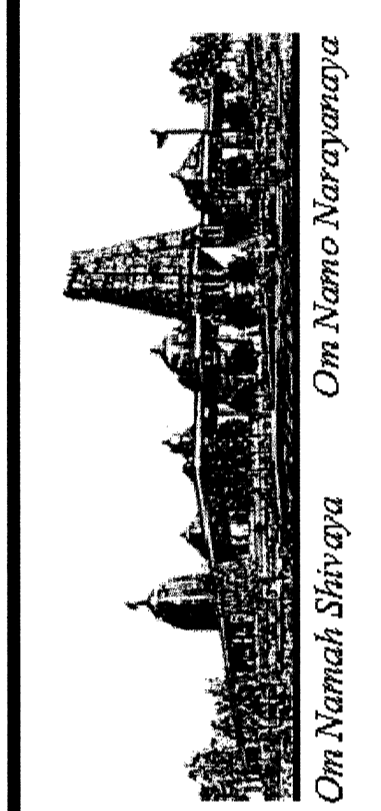


M-11.2

REVISIONS	BY
10-28-11	FOR BUILDING PERMIT
12-14-11	PLAN CHECK RESUBMITTAL

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MECHANICAL PLAN
BUILDING "D"
HINDU COMMUNITY and CULTURAL CENTER
 1200 ARROWHEAD AVE. LIVERMORE, CA 94551

DATE: 10/28/11
 SCALE: AS NOTED
 DRAWN BY: PT
 PROJECT: ARROWHEAD

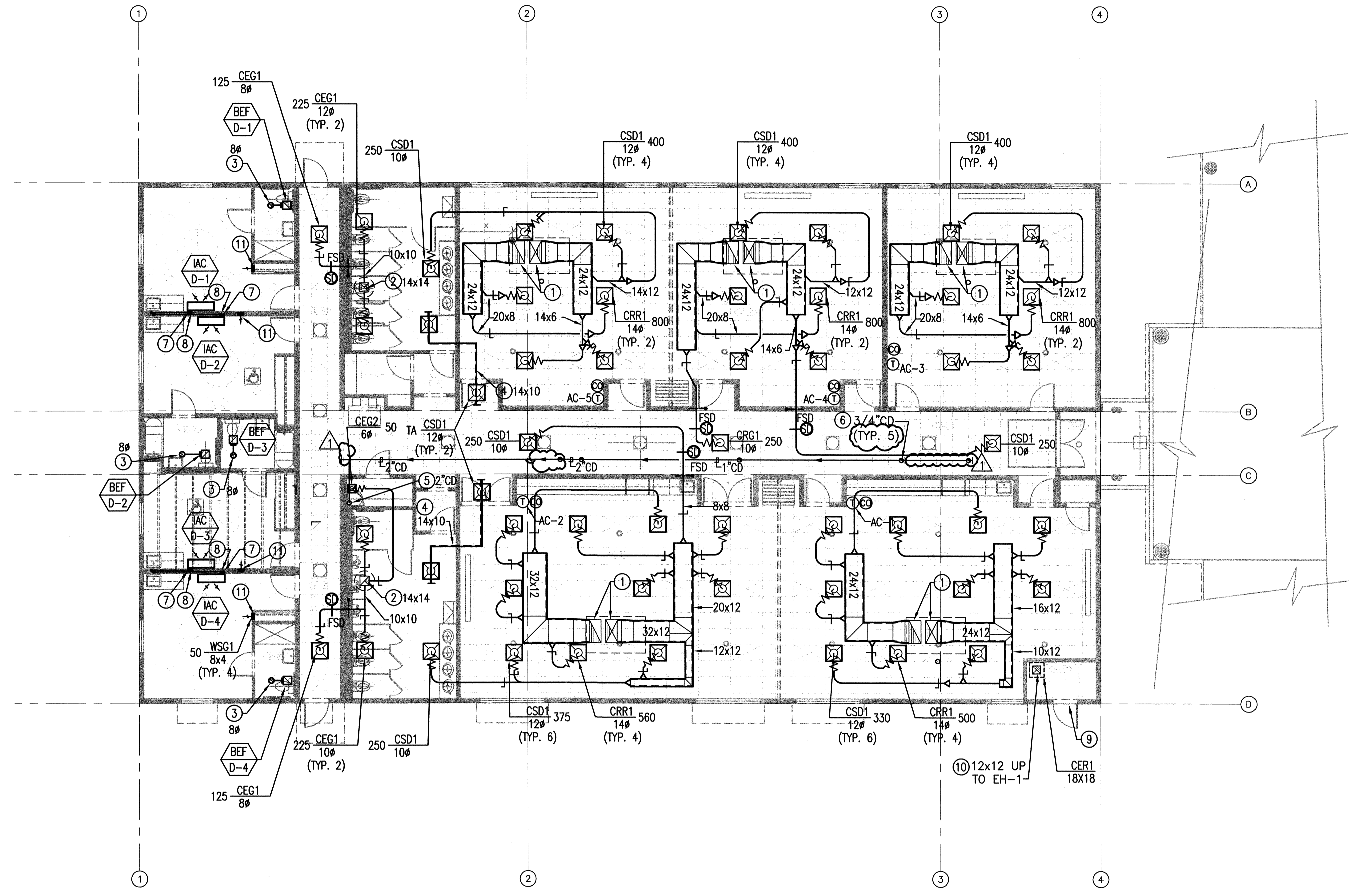
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GENERAL NOTES

- A. ALL INSTALLATIONS SHALL COMPLY WITH THE CURRENT TENANT BUILDING STANDARDS AND ALL APPLICABLE CALIFORNIA AND LOCAL CODES.
- B. ALL NEW WORK SHALL COMPLY WITH CURRENT SMACNA DUCT CONSTRUCTION STANDARDS.
- C. PROVIDE VOLUME DAMPERS IN EACH BRANCH DUCTS FOR AIR BALANCING.
- D. PROVIDE TRANSFER AIR BOOT ABOVE CEILING AT ALL FULL-HEIGHT PARTITIONS.

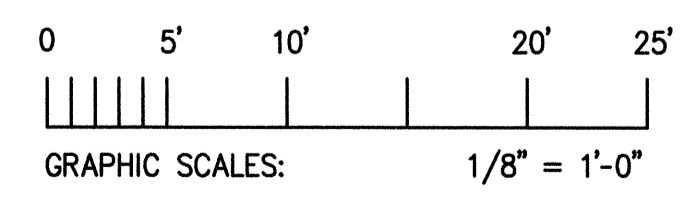
SHEET NOTES

- ① SUPPLY AND RETURN AIR DUCTS WITH ACOUSTICAL LINING FROM ROOFTOP AC UNIT IN THE ROOF. SEE ROOF PLANS FOR CONTINUATION.
- ② 14x14 EXHAUST AIR DUCT UP TO TOILET EXHAUST FANS IN THE ROOF. SEE ROOF PLANS FOR CONTINUATION.
- ③ 6ø EXHAUST DUCT UP TO GOOSENECK EXHAUST IN THE ROOF. (TYPICAL OF 4).
- ④ 14x10 TRANSFER AIR DUCT WITH ACOUSTICAL LINING. (TYPICAL OF 2).
- ⑤ TERMINATE 2" CONDENSATE DRAIN LINE OVER THE JANITOR'S SINK.
- ⑥ 3/4" CONDENSATE DRAIN LINE FROM ROOFTOP AC UNITS IN THE ROOF. TYPICAL OF 6. PROVIDE MINIMUM 1/8" PER FOOT SLOPE DOWN TO THE JANITOR'S SINK IN THE MOP ROOM.
- ⑦ 3/4" CONDENSATE DRAIN LINE FROM INDOOR AC UNIT. TERMINATE DRAIN LINE AT LAVATORY WASTE LINE IN THE ROOM WITH INDIRECT FITTING. INSTALL DRAIN LINE INSIDE WALL SPACE. (TYP.)
- ⑧ REFRIGERANT LINES & CONTROL WIRINGS TO OUTDOOR AIR-COOLED CONDENSING UNIT ON ROOF.(TYP.)
- ⑨ SIGHT-PROOF 18x12 EXTERIOR GRADE DOOR LOUVER WITH INSECT SCREEN.
- ⑩ 12x12 EXHAUST AIR DUCT UP TO EXHAUST HOOD (EH-1) ON THE ROOF FOR GRAVITY EXHAUST VENTILATION. PROVIDE 18X18 EXHAUST GRILLE.
- ⑪ 8x3 SUPPLY DUCT FROM ROOF. INSTALL WSR1 24" ABOVE FINISH FLOOR(TYP)



BUILDING D - PHASE 2
MECHANICAL PLAN

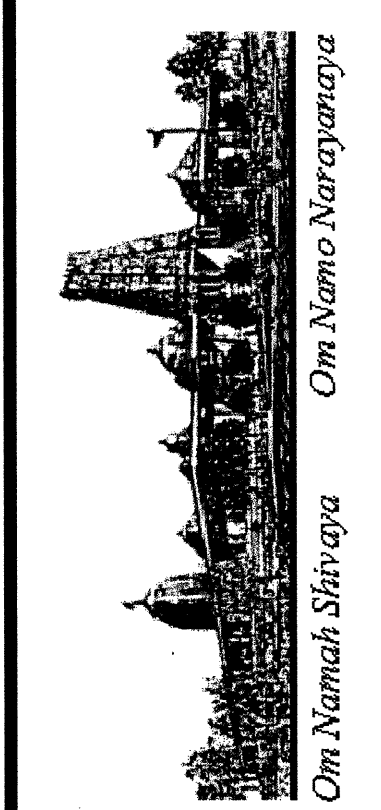
TOTAL 7800 SQ. FT.
 SCALE: 1/8" = 1'-0"



REVISIONS	BY
10-28-11	FOR BUILDING PERMIT
12-14-11	PLAN CHECK RESUBMITTAL

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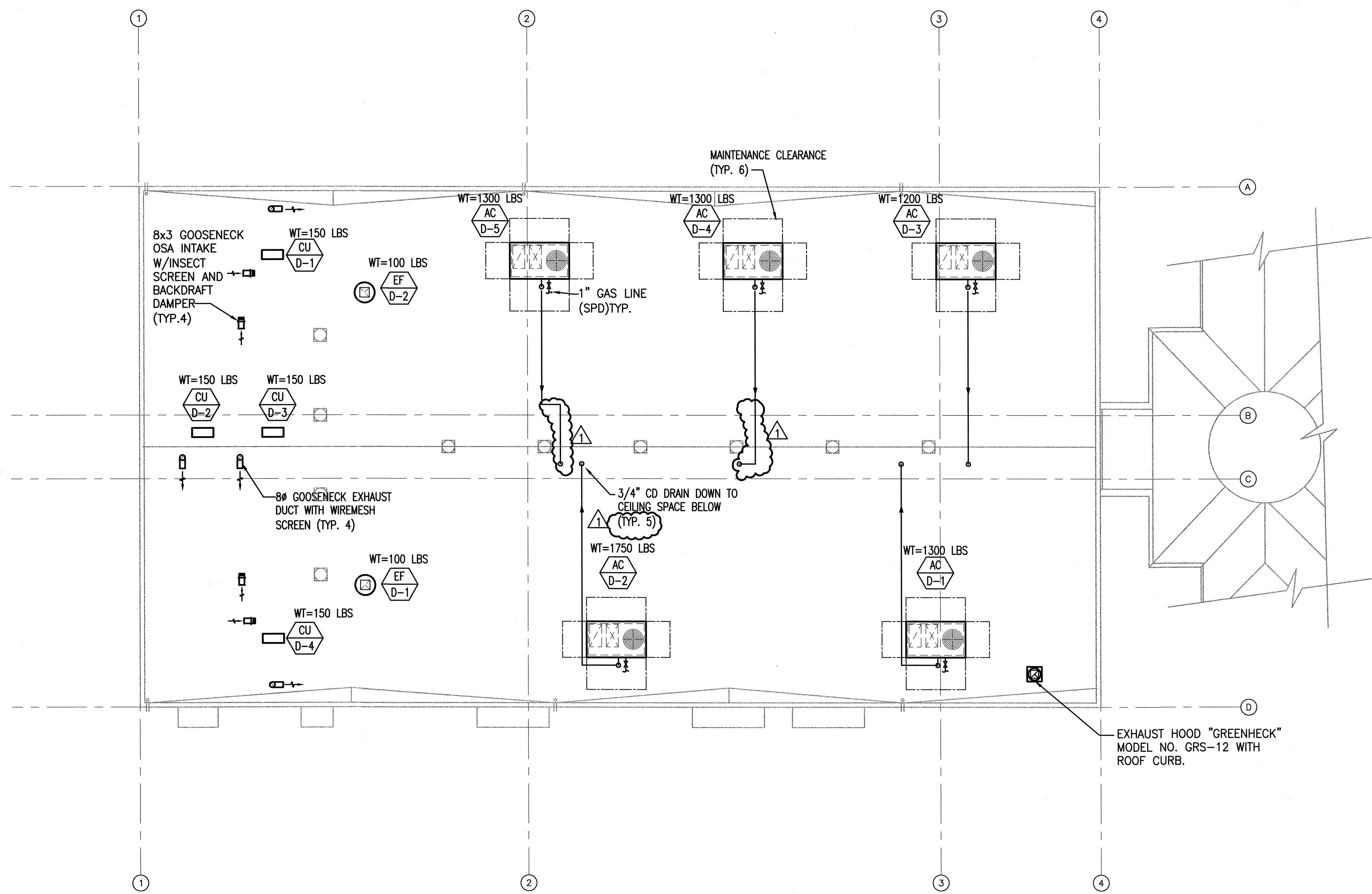
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MECHANICAL ROOF PLAN
 BUILDING "D"
 HINDU COMMUNITY and CULTURAL CENTER
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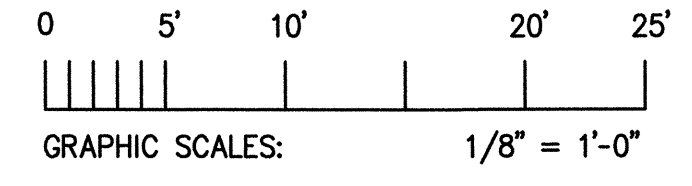
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 PROJECT: ARROWHEAD

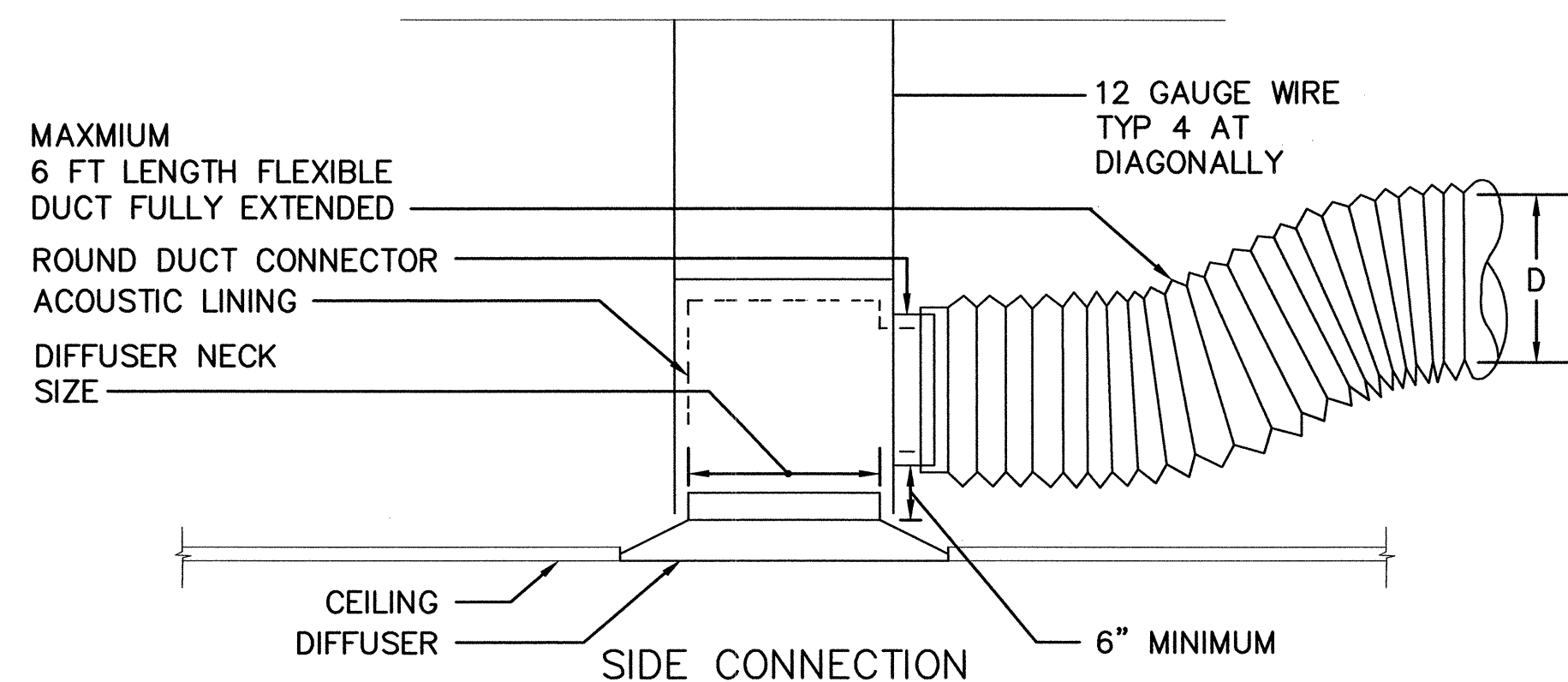
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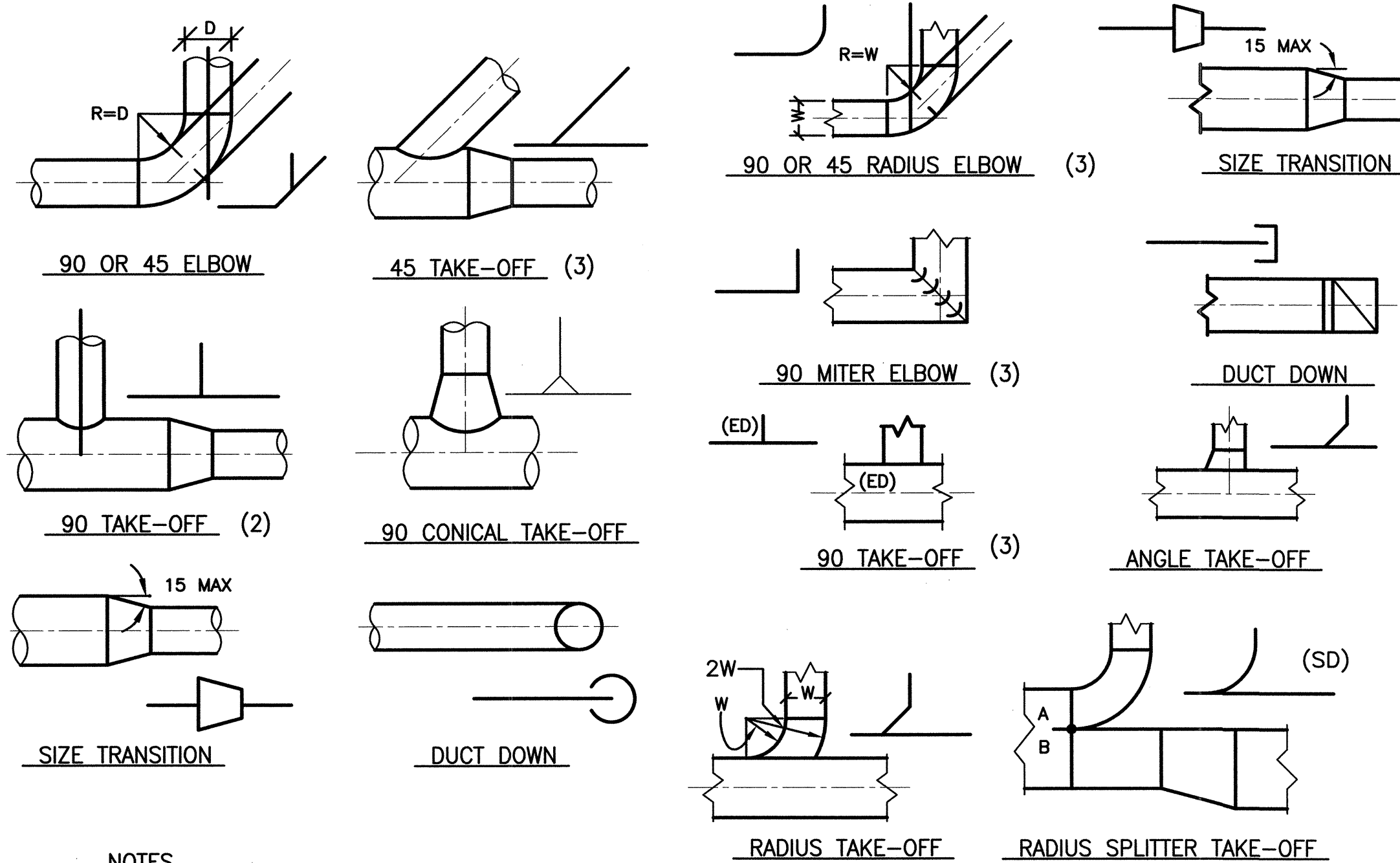
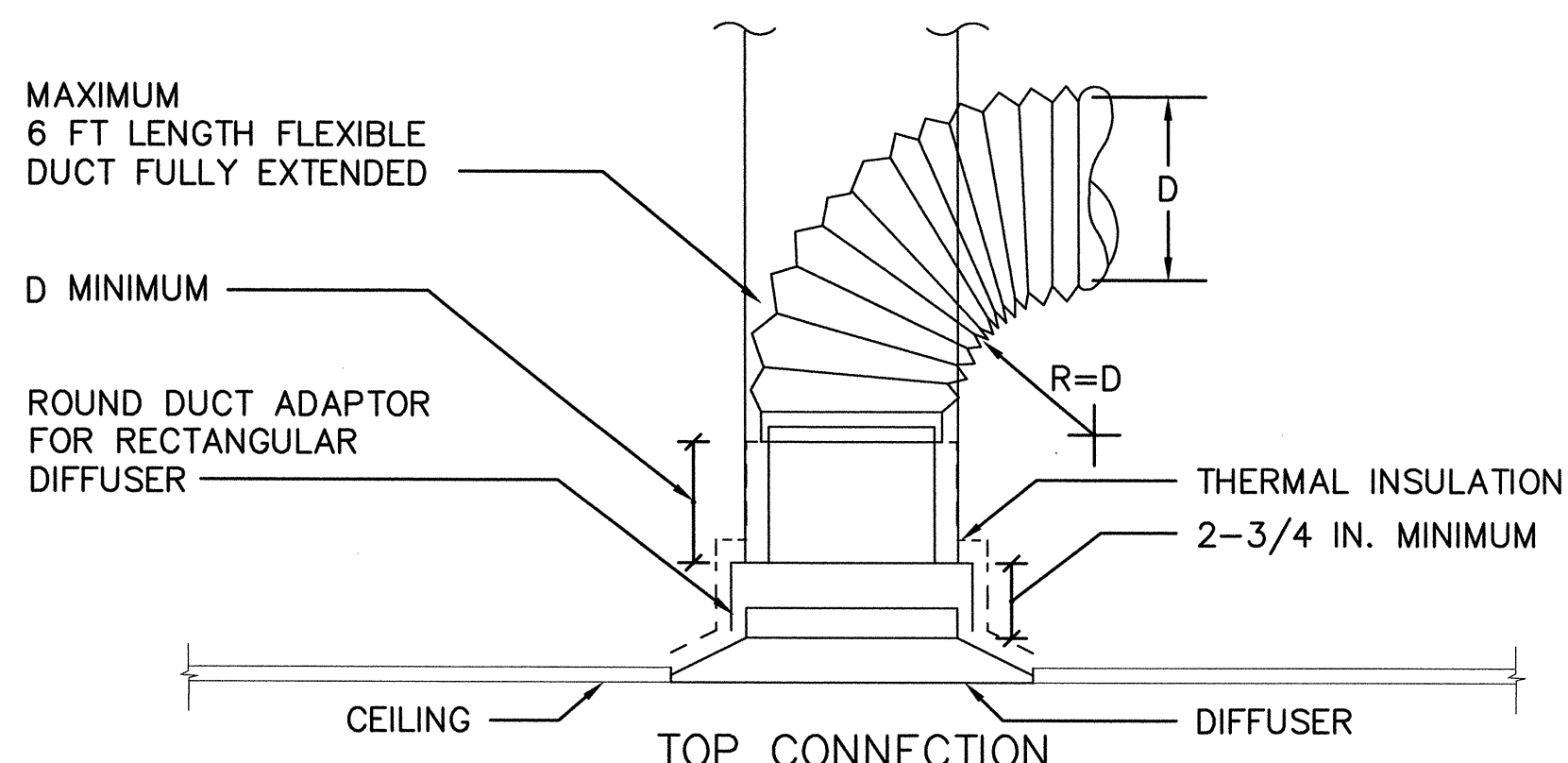
BUILDING D - ROOF PLAN
 MECHANICAL PLAN

TOTAL 7800 SQ. FT.
 SCALE: 1/8"=1'-0"





1 DIFFUSER CONNECTION DETAIL
SCALE: NOT TO SCALE

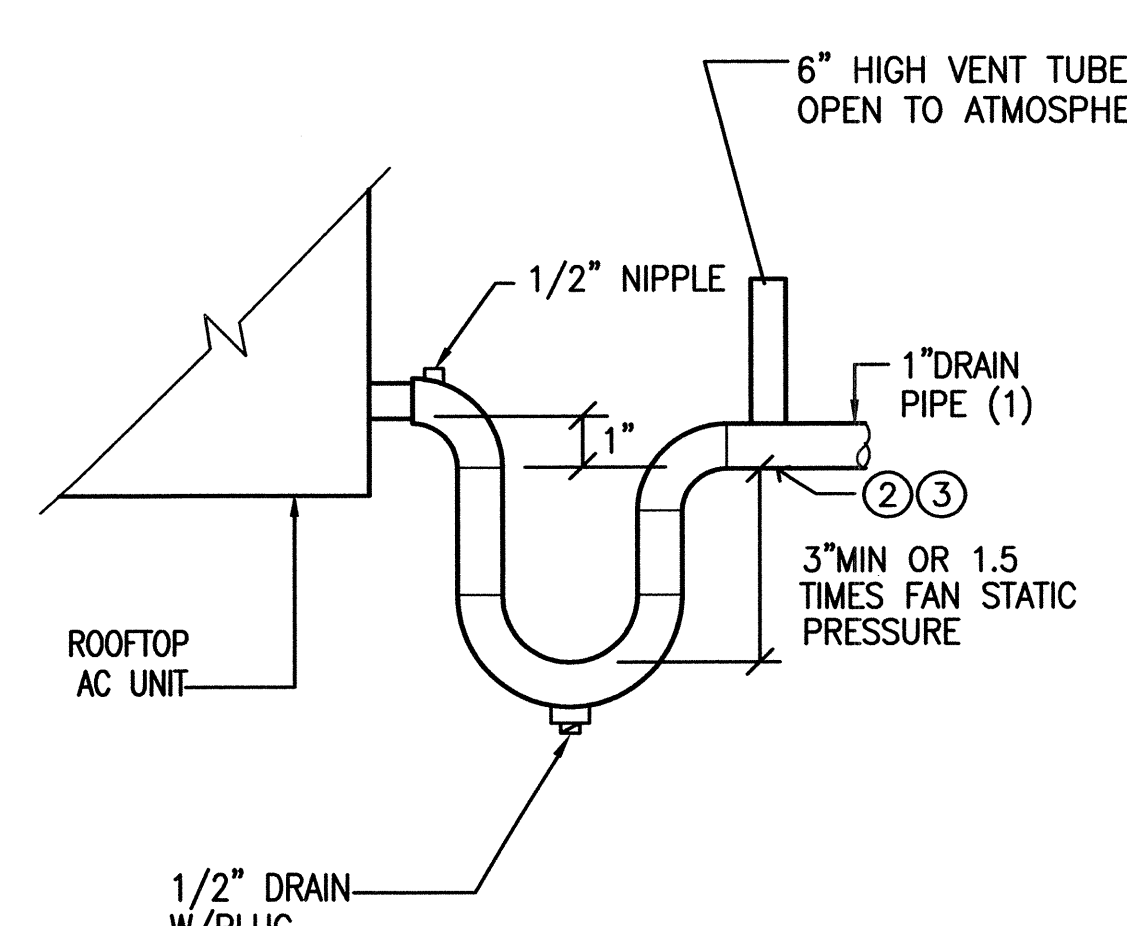


2 ROOFTOP AC UNIT GAS CONNECTION DETAIL
SCALE: NOT TO SCALE
NOTE:
1. PROVIDE FLEXIBLE CONNECTORS ON UNITS W/ SPRING ISOLATORS.

- NOTES**
- (1) SINGLE-LINE ILLUSTRATIONS ARE SYMBOLS USED ON DRAWINGS
 - (2) SIZE A & B DIMENSIONS IN PROPORTION TO AIR QUANTITIES IN EACH LEG SPLIT
 - (3) FOR LOW PRESSURE SYSTEM ONLY.
 - (4) PROVIDE ACOUSTICAL LINING WHERE REQUIRED. OR WHERE SHOWN ON PLANS.

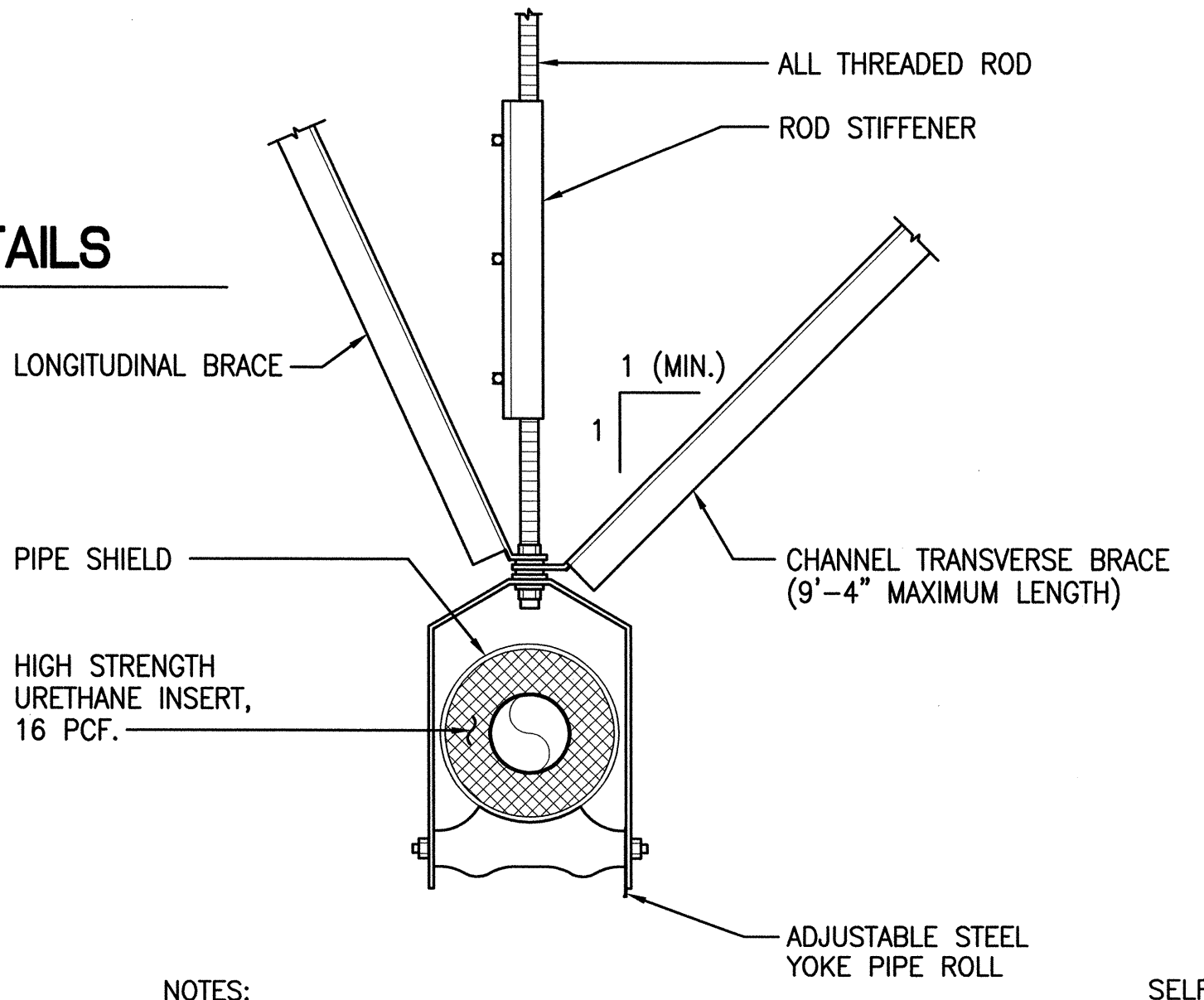
- NOTES**
- (1) SINGLE-LINE ILLUSTRATIONS ARE SYMBOLS USED ON DRAWINGS
 - (2) FOR LOW PRESSURE SYSTEM ONLY.
 - (3) PROVIDE ACOUSTICAL LINING WHERE REQUIRED. OR WHERE SHOWN ON PLANS.

4 ROUND DUCT DETAILS
SCALE: NOT TO SCALE



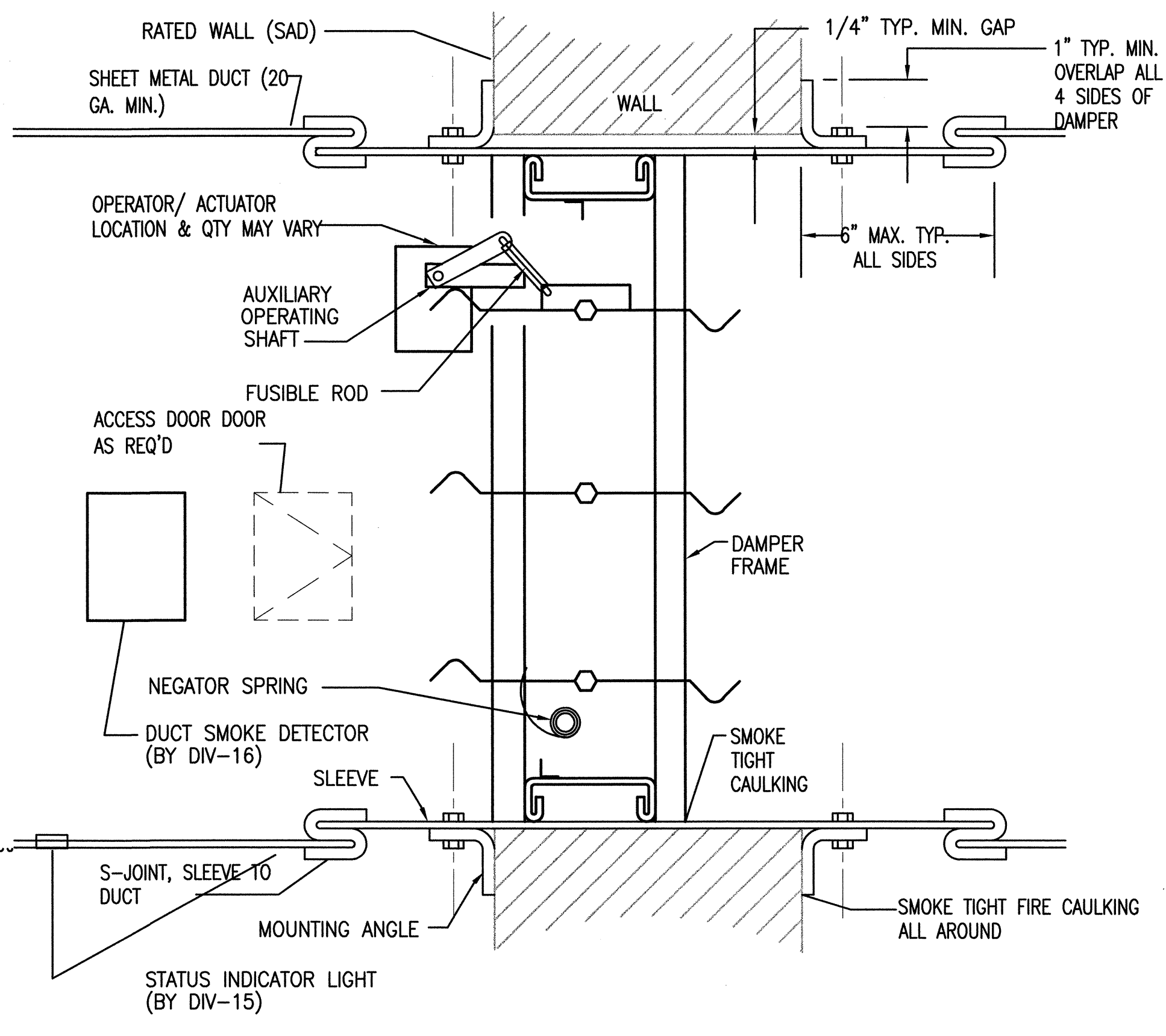
5 COOLING COIL CONDENSATE TRAP (DRAW - THROUGH COIL)
NOT TO SCALE

- NOTES:**
- (1) PITCH DRAIN LINE TOWARDS THE FLOOR DRAIN. INSTALL NEATLY TO PREVENT SAGGING AND TRIPPING. SUPPORT FROM B-LINE PEDESTAL SUPPORTS.
 - (2) TERMINATE CONDENSATE DRAIN TO JANITOR SINK WITH 2" AIR GAP.
 - (3) INSULATE ROOFTOP CONDENSATE LINE TO PREVENT ICE FORMATION. INSULATE LINES INSIDE THE BUILDING TO PREVENT SWEATING AND DRIPPING ON THE CEILING.



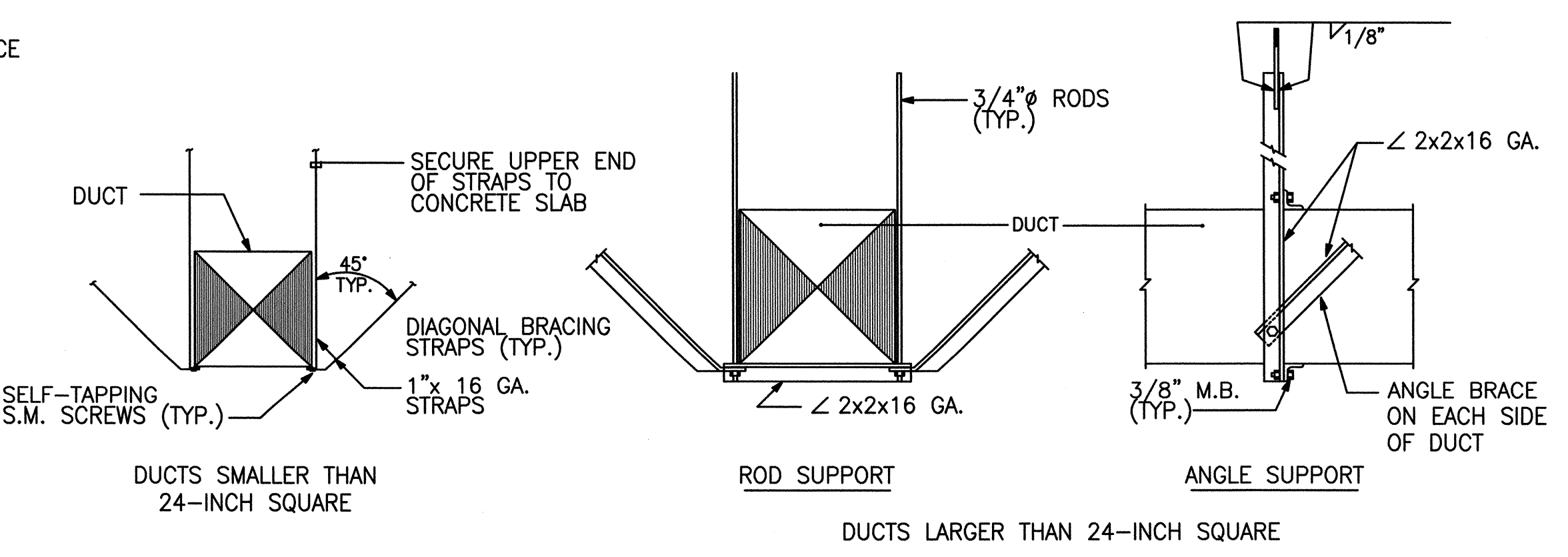
- NOTES:**
1. PROVIDE BRACING AS REQUIRED BY OSHPD REQUIREMENTS. PROVIDE B-LINE B3110 HANGER OR APPROVED EQUAL.
 2. PROVIDE 360° GALVANIZED PIPE SHIELD PER SPECIFICATION AT ALL HANGER SUPPORT.

6 PIPE HANGER DETAIL
SCALE: NOT TO SCALE



- FSD INSTALLATION & OPERATION NOTES:**
1. ENTIRE ASSEMBLY SHALL BE UL LISTED AND FACTORY ASSEMBLED COMPLETE WITH DAMPER, MOTOR, HEAT SWITCH, POSITION SENSORS, INTEGRAL SLEEVE, ETC., ASSEMBLY SHALL BE FACTORY TESTED PRIOR TO SHIPMENT. DAMPER SHALL BE RUSKIN FSD 60 OR APPROVED EQUAL.
 2. DAMPER SHALL BE POWER OPEN & NORMALLY CLOSED DAMPER, WHICH CLOSE UPON LOSS OF POWER.
 3. MOUNT MOTOR OPERATOR ON EXTERIOR OF DUCTWORK & READILY ACCESSIBLE THROUGH THE CEILING ACCESS PANEL.
 4. DAMPER SHALL BE FURNISHED & INSTALLED BY DIVISION-15, MONITORED BY DIVISION-15. DAMPER SHALL BE ACTIVATED BY THE DUCT SMOKE DETECTORS LOCATED WITHIN 5 FEET DISTANCE FROM THE FSD. COORDINATE WITH DIVISION-16 FOR COMPATIBILITY WITH THE BUILDING FIRE ALARM SYSTEM.
 5. FURNISH ACCESS DOORS OF ADEQUATE SIZE FOR DAMPER MAINTENANCE.
 6. DAMPER SHALL BE CALIF. STATE FIRE MARSHAL APPROVED AND INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION GUIDELINES, WHICH SHALL BE MADE AVAILABLE TO THE INSPECTING AUTHORITY. DETAILS SHOWN ARE FOR REFERENCE ONLY.
 7. DUCT SMOKE DETECTOR SHALL BE FURNISHED BY FIRE ALARM (DIVISION-16). INSTALLED BY DIVISION-15.

8 COMBINATION FIRE & SMOKE DAMPER (FSD) DETAIL
SCALE: NOT TO SCALE

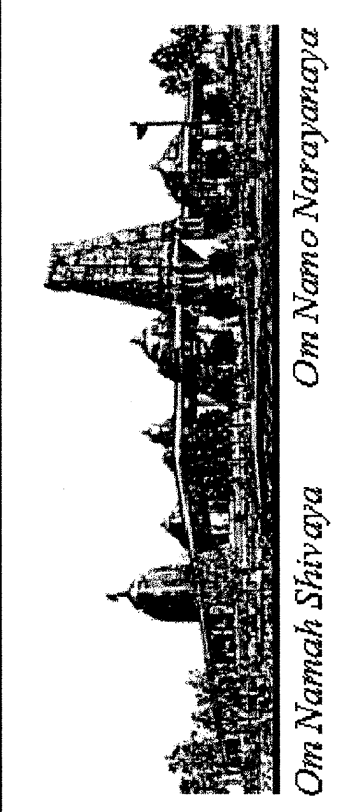


7 DUCT HANGER AND BRACING DETAIL
SCALE: NOT TO SCALE

REVISIONS BY
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DETAILS
BUILDING "D"
HINDU COMMUNITY and CULTURAL CENTER
1200 ARROWHEAD AVE. LIVERMORE, CA 94551

DATE 10/28/11
SCALE: AS NOTED
DRAWN BY: PT
PROJECT: ARROWHEAD



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PHASE-2 SCOPE OF WORK

1. THE PHASE-2 PLUMBING WORK SHALL CONSISTS OF EXTENDING THE PLUMBING UTILITIES FROM AVAILABLE SITE UTILITY SERVICES AND DISTRIBUTING TO THE NEW ADMINISTRATION BUILDING "D". THE UTILITIES SHALL INCLUDE BUT NOT LIMITED TO THE DOMESTIC WATER (CW), FIRE WATER (F), PG&E GAS, SANITARY SEWER AND STORM DRAIN CONNECTIONS.
2. THE REQUIRED UTILITIES SHALL BE COORDINATED WITH THE PHASE-1A SCOPE OF WORK FOR REQUIRED CAPACITY, INVERTS, PIPE MATERIAL, PIPES ZIZE, FLOW CAPACITY REQUIRED AND PRESSURE PRIOR TO THE START OF WORK.
3. THE PLUMBING CONTRACTOR SHALL COORDINATE THE REQUIRED UTILITY SIZES, POINT-OF-CONNECTIONS, PIPE INVERTS, PIPE ROUTING, PIPE MATERIAL TYPE ETC. WITH THE EXISTING SITE UTILITIES AND AS INDICATED IN THE CIVIL & LANDSCAPE DRAWINGS.
4. THE SCOPE SHALL INCLUDE MATERIAL AND LABOR, TRENCHING, BACKFILLING, SUPPORTING, CORROSION PROTECTION, PIPE ANCHORAGE, ETC. AND COORDINATED WITH OTHER TRADE WORK AND IN COMPLIANCE WITH APPLICABLE LOCAL & STATE CODES AND STANDARDS.
5. THE FIRE-PROTECTION WORK SHALL CONSIST OF EXTENDING THE FIRE WATER FROM THE PHASE-1A STUBOUT LOCATIONS AND DISTRIBUTED TO THE FIRE SPRINKLER SYSTEM FOR THE ADMINISTRATION BUILDING "D" AND THE COVERED WALKWAYS. THE DESIGN-BUILD FIRE PROTECTION CONTRACTOR SHALL PREPARE AND SUBMIT PLANS AND SPECIFICATIONS, HYDRAULIC CALCULATIONS AND FIRE PROTECTION SYSTEM LAYOUT INCLUDING HEAD LOCATIONS FOR A FULLY SPRINKLED BUILDING IN ACCORDANCE WITH NFPA-13 AND 14 AND THE CITY OF LIVERMORE FIRE DEPARTMENT REQUIREMENTS. PROVIDE FULL COVERAGE FOR THE BUILDING AND THE COVERED WALKWAYS.

FIRE PROTECTION GENERAL NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE LATEST NFPA 13 & 14 WITH AMENDMENTS FROM THE LIVERMORE FIRE DEPARTMENT, CFC, CBC AND THE REQUIREMENTS OF THE CITY AND COUNTY FIRE MARSHAL'S OFFICE.
2. THE SCOPE OF WORK INCLUDES BUT NOT LIMITED TO PROVIDING FULL SPRINKLER FIRE PROTECTION COVERAGE FOR THE NEW BUILDING "D", AND THE COVERED WALKWAYS AS A DESIGN-BUILD (D-B) WORK. THE D-B FIRE PROTECTION CONTRACTOR SHALL PREPARE AND SUBMIT PLANS AND SPECIFICATIONS, HYDRAULIC CALCULATIONS AND SPRINKLER SYSTEM SHOP DRAWINGS TO THE CITY OF LIVERMORE PERMIT CENTER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
3. THE D-B FIRE PROTECTION CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL OTHER TRADE WORK, CIVIL/SITE WORK, ARCHITECTURAL AND STRUCTURAL FOR PROPER INTERFACING, PIPE ROUTING AND SPRINKLER HEAD LOCATIONS AND MAKE NECESSARY ADJUSTMENTS TO HIS WORK AS REQUIRED.
4. COORDINATE WITH DIVISION-16 FOR MONITORING OF THE FLOW AND TAMPER DEVICES AND ALARM BELL POWER REQUIREMENTS.
5. D-B CONTRACTOR SHALL CONDUCT TESTS AND DEMONSTRATIONS AS REQUIRED BY THE CITY/COUNTY FIRE DEPARTMENT AND OBTAIN FINAL PERMITS & APPROVALS PRIOR TO OCCUPANCY.
6. CONTRACTOR SHALL OBTAIN THE NECESSARY FIRE FLOW TESTS AND STREET MAIN STATIC PRESSURE FROM THE LOCAL UTILITY AND FIRE DEPARTMENT AND CONFIRM THE AVAILABLE STATIC PRESSURE PRIOR TO PREPARING AND SUBMITTING THE HYDRAULIC CALCULATIONS AND SPRINKLER SYSTEM DESIGN.
7. ALL FIRE PROTECTION PIPING, INCLUDING TH FIRE SPRINKLER RISER, SHALL BE LOCATED INSIDE AN APPROVED INDOOR LOCATION.

PLUMBING GENERAL NOTES

1. PLUMBING CONTRACTOR SHALL PROVIDE PLUMBING WORK PER THE CONTRACT DOCUMENT INCLUDING THE ARCHITECTURAL AND PLUMBING DRAWINGS AND DIVISION-15 SPECIFICATIONS.
2. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST APPLICABLE FEDERAL, STATE AND CITY OF LIVERMORE PLUMBING CODES, LAWS AND REGULATIONS INCLUDE USGBC LEED REQUIREMENTS FOR WATER EFFICIENCY.
3. CONTRACTOR SHALL SET PLUMBING FIXTURES AND DRAINS TO ELEVATIONS AND LOCATIONS SHOWN ON ARCHITECTURAL PLANS.
4. CONTRACTOR SHALL VISIT THE SITE AND CONFIRM ALL EXISTING CONDITIONS AND REVIEW ALL DESCRIPTIVE DRAWINGS PRIOR TO SUBMITTING THE BIDS. DISCREPANCIES, IF ANY, MUST BE BROUGHT TO THE ATTENTION OF THE OWNERS' PROJECT MANAGER/ARCHITECT IMMEDIATELY FOR CLARIFICATION.
5. FOR EXACT SCOPE OF WORK AND PHASING REQUIREMENTS, SEE ARCHITECTURAL DRAWINGS.
6. 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.
7. 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.
8. PENETRATIONS THROUGH THE SLABS, FOUNDATION WALLS AND FOOTINGS SHALL BE SLEEVED AND COORDINATED WITH THE STRUCTURAL AND ARCHITECTURAL PLANS.
9. COORDINATE WITH CIVIL PLANS FOR ROUTING OF THE DOMESTIC WATER, FIRE WATER AND IRRIGATION WATER IN THE JOINT TRENCH.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING PLUMBING UTILITY CONNECTIONS TO REFRIGERATORS, COFFEE MAKERS, DRINKING FOUNTAIN, ETC.
11. 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.
12. 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.
13. ALL WORK SHALL BE WARRANTED FOR 1-YEAR FROM THE PROJECT ACCEPTANCE BY THE ARCHITECT/OWNER. THE PROJECT ACCEPTANCE SHALL BEGIN 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 PUNCHED ITEMS AND SUBMITTING THE WRITTEN WARRANTY FOR THE WORK.
14. PRIOR TO REQUESTING FOR THE SUBSTANTIAL COMPLETION, REMOVE ALL CONSTRUCTION DEBRIS AND DISPOSE OFF. CLEAN ALL THE PLUMBING FIXTURES, SEWER ROD THE DRAINAGE LINES TO UNBLOCK CONSTRUCTION DEBRIS, STERILIZE THE POTABLE WATER SYSTEM AND OBTAIN CERTIFICATION FROM THE LOCAL HEALTH DEPARTMENT, PRIOR TO THE PROJECT COMPLETION.
15. CONTRACTOR TO FIELD VERIFY WATER SUPPLY PRESSURE AT RESIDENTIAL UNITS AND PROVIDE A MASTER PRESSURE REDUCING VALVE TO LIMIT THE WATER PRESSURE TO 80 PSI MAXIMUM.

PIPING SCHEDULE

SYSTEM	LOCATION	SIZE	PIPE	FITTINGS	JOINTS
SANITARY WASTE & VENT SYSTEM	BURIED	ALL	CAST IRON SOIL NO-HUB	CAST IRON SOIL NO-HUB	NO-HUB COUPLING
	ABOVE GROUND	ALL	COPPER PIPING SOIL NO-HUB	CAST IRON SOIL NO-HUB	NO-HUB COUPLING
	OPTION: ABOVE GROUND SANITARY W & V	W & V 2 1/2" & SMALLER	SCHEDULE 40 GALV. STEEL	GALV. CAST IRON DRAINAGE FITTINGS	SCORED
INDIRECT WASTE (INCLUDING CONDENSATION PIPING)	ALL	1-1/4" & ABOVE	COPPER PIPING	DWV CAST DRAINAGE	50-50 SOLDER
	ALL	3/4" & 1"	COPPER PIPING	COPPER PIPING	SOLDER
DOMESTIC WATER (CW)	ABOVE GROUND	ALL	COPPER PIPING	COPPER PIPING	95-5 SOLDER
NATURAL GAS	BURIED	PG&E SPECS. & LOCAL CODE REQMTS.			
	ABOVE GROUND	3" & LARGER	SCHEDULE 40 BLACK STEEL	BUTT WELDING SEAMLESS STEEL	WELDED
	NOTE: ALL PIPING SHALL CONFORM W/LOCAL CODE	2 1/2" & SMALLER	SCHEDULE 40 BLACK STEEL	150LB MALLEABLE IRON	SCORED
	EXPOSED TO WEATHER	ALL GAS PIPING EXPOSED TO WEATHER (ABOVE ROOF, AT METER, ETC.) SHALL BE GALVANIZED. PROVIDE APPROVED COATING (GALVALLOY, OR EQUAL) OVER GALV. PIPING WELDS.			

NOTES:

1. IF "NO-HUB" IS NOT ACCEPTABLE (BY LANDLORD OR LOCAL CODE) SUBSTITUTE USING TYLER MFGP. CO. TY-SEAL JOINTS.
2. PIPING & FITTINGS SHALL BE MANUFACTURED WITHIN U.S.A.
3. DO NOT SUBSTITUTE ABOVE PIPING & FITTINGS UNLESS APPROVED BY ARCHITECT. IF LOCAL CODE/AUTHORITIES REQMTS. DIFFER &/OR ARE MORE STRINGENT NOTIFY ARCHITECT PRIOR TO COMMENCING WORK.
4. COPPER PIPING SHALL USE LEAD-FREE SOLDER MEETING ALL CURRENT LOCAL & STATE REQMTS.
5. ALL EXPOSED WASTE & VENT PIPING IN FINISHED AREAS SHALL BE DWV COPPER W/ WROUGHT COPPER FITTINGS (ALL W & V (2-1/2" & SMALLER))

ABBREVIATIONS

ACU	AIR CONDITIONING UNIT
AD	ACCESS DOOR
A.F.F.	ABOVE FINISHED FLOOR
AP	ACCESS PANEL (WALL OR CEILING)
ARCH.	ARCHITECTURAL
AG	AIR GAP
AHU	AIR HANDLING UNIT
BFF	BELOW FINISHED FLOOR
BTU	BRITISH THERMAL UNIT
CD	CONDENSATE DRAIN
CO	CLEAN OUT
COTG	CLEAN OUT TO GRADE
CONT	CONTINUATION
CONN	CONNECTION
CV	CHECK VALVE
CW	COLD WATER
D	SPRINKLER DRAIN
DCDVA	DOUBLE CHECK DETECTOR VALVE ASSEMBLY
DD	DECK DRAIN
DFU	DRAINAGE FIXTURE UNIT
DN	DOWN
DWG	DRAWING
ET	EXPANSION TANK
FC	FLEXIBLE CONNECTION
FCO	FLOOR CLEAN OUT
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FPS	FEET PER SECOND
FT.	FEET
GAL.	GALLONS
GC	GAS COCK
GN	GENERAL NOTE
GPH	GALLONS PER FLUSH
GPM	GALLONS PER HOUR
GV	GALLONS PER MINUTE
HB	GATE VALVE
HP	HOSE BIBB
HR	HORSEPOWER
HR	HOUR
HW	HOT WATER
HWR	HOT WATER RETURN
HZ	HERTZ
ICW	INDUSTRIAL COLD WATER/MAKE-UP WATER
IE	INVERT ELEVATION
IN.	INCHES
IW	INDIRECT WASTE
LV	LAVATORY
LBS	POUNDS
LW	LANDSCAPE WASTE
MAX.	MAXIMUM
MBH	1000 BTU PER HOUR
MECH.	MECHANICAL
MV	MIXING VALVE
N.I.C.	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
OD	OVERFLOW DRAIN
PCW	PUMPED COLD WATER
PLBG	PLUMBING
P.O.C.	POINT OF CONNECTION
RD	ROOF DRAIN
RR	ROOF RECEPTOR
RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
S	SOIL
SAD	SEE ARCHITECTURAL DRAWINGS
SCD	SEE CIVIL DRAWINGS
SCVA	SPRINKLER CONTROL VALVE ASSEMBLY
SE	SEWAGE EJECTOR
SED	SEE ELECTRICAL DRAWINGS
SI	SAND INTERCEPTOR
SLD	SEE LANDSCAPE DRAWING
SMD	SEE MECHANICAL DRAWINGS
SP	SUMP PUMP
SPR	FIRE SPRINKLER PIPING
SS	SANITARY SEWER DRAINAGE
S.S.D.	SEE STRUCTURAL DRAWINGS
SSK	SERVICE SINK
TD	TRENCH DRAIN
TP	TRAP PRIMER
TYP.	TYPICAL
U.O.N.	UNLESS OTHERWISE NOTED
UR	URINAL
V	VENT OR VOLTS
VB	VACUUM BREAKER
VR	VENT RISER
VTR	VENT THRU ROOF
W	WASTE
W/	WITH
W/O	WITHOUT
WC	WATER CLOSET
WCO	WALL CLEAN OUT
WFO	WATER FIXTURE UNIT
WHA	WATER HAMMER ARRESTER
WMB	WASHING MACHINE BOX
WT.	WEIGHT

LEGEND

SYMBOL	ABBR	DESCRIPTION
		RISER IDENTIFICATION RISER NUMBER
		DETAIL NUMBER DRAWING NUMBER
		EQUIPMENT IDENTIFICATION EQUIPMENT NUMBER
	S,W	SANITARY SOIL OR WASTE PIPING ABOVE GROUND
	S,W	SANITARY SOIL OR WASTE PIPING BELOW FLOOR
	SD	STORM DRAIN
	RWL	RAIN WATER LEADER
	V	VENT PIPING
	CW	DOMESTIC COLD WATER PIPING
	HW	DOMESTIC HOT WATER
	HWR	HOT WATER RETURN
	G	NATURAL GAS, LOW PRESSURE, PIPING
	ICW	INDUSTRIAL COLD WATER PIPING
	CA	COMPRESSED AIR
	SOL	SOLAR HAT WATER
	VAC	VACUUM
	F	FIRE PROTECTION PIPING
		SLOPE DOWN
	HB	HOSE BIBB
	CO	CLEAN OUT
	FCO	FLOOR CLEAN OUT
	WCO	WALL CLEAN OUT
	TPRV	TEMPERATURE & PRESSURE RELIEF VALVE
	FD	FLOOR DRAIN
		UNION
		REDUCER
	PG	PRESSURE GAUGE
	TH	THERMOMETER LINE CONTINUED
	GV	GATE VALVE
	GC	GAS COCK
	BV	BALL VALVE (2" OR SMALLER)
	GLV	GLOBE VALVE
	CV	CHECK VALVE
		STRAINER
	FCV	FLOW CONTROL VALVE
	PRV	PRESSURE REDUCING VALVE
	SF	SQUARE FEET
	POC	POINT OF CONNECTION

DRAWING LIST

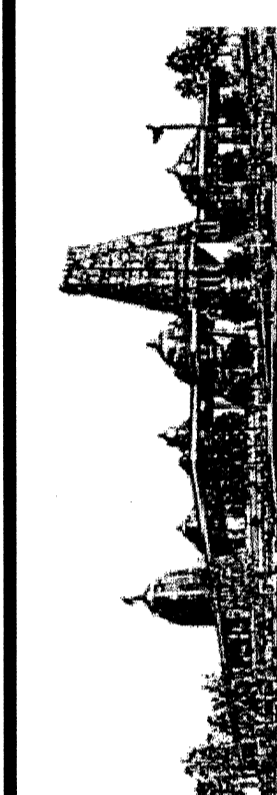
DWG. NO.	DESCRIPTION
P10.0D	PLUMBING GENERAL NOTES, LEGEND, ABBREVIATIONS
P10.1D	PLUMBING SCHEDULES
P11.1D	PLUMBING RISER DIAGRAMS
P11.2D	PLUMBING SPECIFICATIONS
P12.0D	PLUMBING SITE PLAN (PHASE-2A)
P13.0D	PLUMBING FLOOR PLAN
P14.0D	PLUMBING ROOF PLAN
P15.0D	PLUMBING DETAILS

REVISIONS	BY
10-28-11	FOR BUILDING PERMIT
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PLUMBING LEGEND & GENERAL NOTES
BUILDING "D"
HINDU COMMUNITY and CULTURAL CENTER
1200 ARROWHEAD AVE. LIVERMORE, CA 94551

DATE
10/28/11
SCALE:
NONE
DRAWN BY:
FC
PROJECT:
ARROWHEAD



P-10.0D

FIXTURE CONNECTION SCHEDULE

CODE	DESCRIPTION	MANUFACTURER & MODEL NO.	SOIL-WASTE	TRAP	VENT	CW	HW	REMARKS
WC-1	WATER CLOSET (WALL HUNG)	AMERICAN STANDARD, AFWALL FLOWISE, ELONGATED, 1.28 GPF MODEL 3351.128, WHITE, OPEN FRONT SEAT #5905.100,	4"	-	2"	1 1/4"	-	1.28 GPF PUBLIC USE FLUSH VALVE SLOAN ROYAL 111-1.28 WITH VACUUM BREAKER FLUSH CONN'N.
WC-2	WATER CLOSET ADA (WALL HUNG)	SAME AS WC-1 MOUNT FOR HANDICAP	4"	-	2"	1 1/4"	-	1.28 GPF PUBLIC USE FLUSH VALVE SLOAN ROYAL 111-1.28 WITH VACUUM BRKER FLUSH CONN'N, ADA HANDLE.
WC-3	WATER CLOSET ADA (FLOOR MOUNTED)	AMERICAN STANDARD, CADET 3 FLOWISE, ELONGATED, 1.28 GPF MODEL 4021.128, TANK, WHITE, OPEN FRONT SEAT #5905.100,	4"	-	2"	3/4"	-	1.28 GPF,PRIVID USE. TANK TYPE.
UR-1	URINAL ADA (WALL HUNG)	AMERICAN STANDARD 'FLOWISE FLUSH-FREE WATERLESS URINAL MODEL 6150.100	2"	-	2"	-	-	WALL HUNG, INTEGRAL HOUSING AND DRAIN INSERT ODOR BARRIER LIQUID DRAIN INSERT, WHITE, ADA
LV-1	LAVATORY (COUNTER MOUNT)	AMERICAN STANDARD 'OVALYN' UNDERCOUNTER SINK MODEL 0495.221	2"	1 1/4" X 1 1/2"	1 1/2"	1/2"	1/2"	FOR PUBLIC USE TOILET ROOMS. UNDER COUNTER MOUNTED, ADA COMPLIANT. SLOAN HANDS FREE FAUCET #SF-2350 SERIES BATTERY POWERED
LV-2	LAVATORY (WALL MOUNT)	AMERICAN STANDARD 'MURRO' WALL HUNG SINK MODEL 0954.000	2"	1 1/4" X 1 1/2"	1 1/2"	1/2"	1/2"	WALL HUNG MOUNTED, ADA COMPLIANT. MOEN ADA TWO-HANDLE LAVATORY FAUCET MODEL #8801 FOR 2-1" HOLES 4" ON CENTER.
BT-1	BATHTUB ADA	AMERICAN STANDARD 'CAMBRIDGE 5FT' BATHING POOL MODEL 2460.102 TEMTROL II TUB AND SHOWER SYSTEM WITH HAND SPRAY MODEL 25-600-B30-V	2"	1 1/4" X 1 1/2"	1 1/2"	1/2"	1/2"	BATHING POOL WITH GRAB BAR DRILLING FOR LEFT HAND DRAIN OUTLET. COORDINATE DIMENTIONS WITH ARCHITECT. SHOWER SYSTEM WITH PRESSURE MIXING VALVE, LEVER DIVERTER, CLEAR-FLOW SHOWER HEAD, TUB SPOUT, FLEXIBLE METAL HOSE, IN-LINE VACUUM BREAKER, WALL CONN. AND FLANGE. 30" SLIDE BAR FOR HAQND SHOWER MOUNTING.
SH-1	SHOWER ADA	SYMMONS HYDAPPIPE 1-912RS-FSB	2"	-	1 1/2"	1/2"	1/2"	PRESSURE BALANCING MIXING VALVE WITH SCREW DRIVER SERVICE STOPS AND ADJUSTABLE STOP SCREW TO LIMIT HANDLE TURN. FRE-FLO, ALL BRASS, LEVERTROL LEVER DIVERTER WITH VOLUME CONTROL. WALL/HAND SHOWER WITH FLEXIBLE 5 FT. METAL HOSE WITH IN-LINE VACUUM BREAKER, WALL CONNECTION AND FLANGE. 30" SLIDE BAR FOR HAND SHOWER MOUNTING. RECESSED SOAP DISH. STAINLESS STEEL COVERING TO BE 16 GAUGE WITH #4 BRUSH FINISH.
SSK-1	SERVICE SINK	CORNER - FIAT TSBC 1610 SERVICE SINK	3"	3"	2"	3/4"	3/4"	FAUCET - FIAT 830-AA.
DF-1	ELECTRIC WATER COOLER	HAWS WALL MOUNTED MODEL H1119.8	2"	1 1/4" X 1 1/2"	1 1/2"	1/2"	-	HI-LO TYPE WITH DUAL BUBBLER, ADA ACCESSIBLE WITH NON-CFC & NON HCFC R-134a REFRIGERATION SYSTEM.
HB-1	HOSE BIBB-INTERIOR	WOODFORD MODEL 24P, 1/2" CHROME PLATED WALL FAUCET WITH VACUUM BREAKER & TEE KEY.	-	-	-	3/4"	-	MOUNT ON WALL UNDER LAV'S IN PUBLIC TOILET ROOMS
HB-2	HOSE BIBB-EXTERIOR	WOODFORD MODEL B74 SERIES 3/4" WALL HYDRANT WITH VACUUM BREAKER, LOOSE TEE KEY, AND DOOR.	-	-	-	3/4"	-	FOR EXTERIOR AREAS. SEE NOTE ②
TP-1	TRAP PRIMER	PROVIDE MIFAB MR-500 SERIES WITH MI-DU 1/2" CW CONNECTION	-	-	-	-	-	SEE NOTE ①

- NOTES**
- ① PROVIDE TRAP PRIMERS TO ALL FLOOR DRAINS TO MAINTAIN WATER SEAL AT THE TRAPS.
 - ② PROVIDE TWO HOSE BIBBS ON EAST AND WEST ENDS OF THE BUILDING AND TWO HOSE BIBBS ON ROOF ON EACH OF EAST & WEST ENDS FOR PERIODIC WASHING SOLAR PV PANELS.

PLUMBING EQUIPMENT SCHEDULE

SYMBOL	DESCRIPTION	MANUFACTURER & MODEL NO.
ET 1	EXPANSION TANK	BELL AND GOSSETT MODEL PTA-12, ASME, 125 PSIG WORKING PRESSURE PROVIDE NORMALLY OPEN VALVE WITH LOCK; WEIGHT WITH WATER = 100 LBS.

- NOTES**
- ① ---

WATER HEATER SCHEDULE

CODE	MFR	MODEL	SERVICE/LOCATION	GAS INPUT (BTU/HR)	EFF. (%)	GPH	GALS.	TEMP. RISE	WORKING PRESS. (MAX)	OPERATING WEIGHT (LBS.)	REMARKS (SEE NOTES BELOW)
WH 3	RINNAI TANKLESS	RC98HPI-NG	BLDG-D/JAN ROOM	199,000	96	588	-	60	150	100	TANKLESS, ELECTRONIC IGNITION, LOW PRESSURE GAS, 110 F SUPPLY TO PUB. LAVATORIES

- NOTES**
- ① INSTALL WATER HEATER ON THE ROOM WALL PER MANUFACTURER INSTALLATION GUIDELINES AND MAINTAINING CODE CLEARANCES TO ELECTRICAL PANEL.
 - ② PROVIDE DIRECT VENT COMBUSTION AIR INTAKE AND EXHAUST VENTS FROM ROOF PER WATER MANUF. RECOMMENDATIONS.
 - ③ TERMINATE WH CONDENSATE DRAIN AND FLUE DRAIN INTO CONDENSATE NEUTRALIZER KIT PRIOR TO TERMINATING INDIRECTLY TO JANITOR SINK.
 - ④ 120V/1PH POWER. COORDINATE WITH DIVISION-16 FOR REQUIRED POWER SUPPLY. WATER HEATER SHALL BE CEC TITLE-24 LISTED.
 - ⑤ PROVIDE STANDARD DIGITAL CONTROLLER #MC-91-S/W, CEILING/ROOF PENETRATION ASSEMBLY, VENT TERMINATION HEAD, CONDENSATE NEUTRALIZING KIT.
 - ⑥ SEISMICALLY ANCHOR THE UNIT TO THE WALL. PROVIDE NECESSARY MOUNTING BRACKETS, HARWARE AND BACKING PLATE SUPPORTS AS REQUIRED.

WATER HAMMER ARRESTOR SCHEDULE

CODE	J.R. SMITH FIG. NUMBER	PIPE SIZE	PDI SIZE	ALLOWABLE FIXTURE UNITS	REMARKS
WHA-A	5005	3/4"	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

PUMP SCHEDULE

CODE	GPM	TDH FT	MFR	TYPE & SIZE	V/PH	HP	SERVICE	LOCATION	REMARKS
CP 1	10	20	B&G	NBF-36-1	120V/1	1/3 HP	HOT WATER CIRCULATING	BLDG-C/ JAN ROOM	CIRCULATING PUMP

- NOTES**
- ① PROVIDE B&G AUTOMATIC TIMER KIT TC-1 7 AQUASTAT MODEL AQS-3/4, 120V/1PH.

DRAIN AND CLEANOUT SCHEDULE

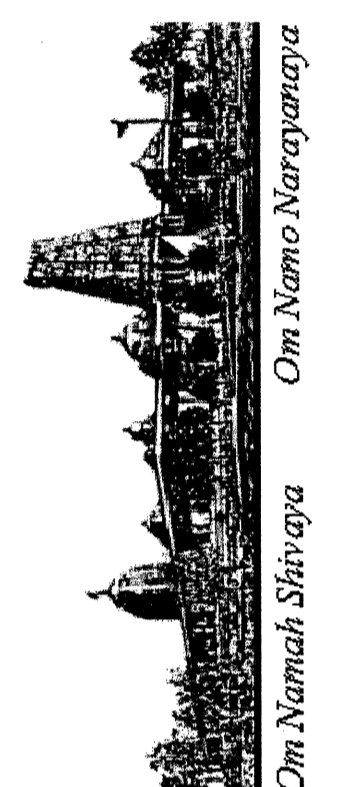
CODE	DESCRIPTION - FLOOR FINISH	J.R. SMITH FIG. NUMBER	CONN.	TOP GR. MATERIAL	GRATE SIZE	REMARKS
FD-1	FLOOR DRAIN - TILE	2005Y-B-P050	2"	NB	5" SQ	① ② TOILET ROOMS
FD-2	FLOOR DRAIN - CONCRETE	2005C-B-P050	2"	NB	5" DIA	① ② TOILET ROOMS
FCO-1	FLOOR CLEANOUT-TILE/CONC.	4100S-PB	2" - 4"	-	-	POLISHED BRONZE TOP
WCO-1	WALL CLEANOUT	4402	3" & 4"	-	-	STAINLESS STEEL COVER
RD-1	ROOF DRAIN - MAIN	1010Y-C-R-CL	3" & 4"	-	-	

- NOTES**
- ① PROVIDE P-TRAP WITH TRAP PRIMER CONNECTION
 - ② LOCATE THE FLOOR DRAINS AWAY FROM FOOT TRAFFIC.

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10-28-11	FOR BUILDING PERMIT
12-14-11	PLAN CHECK REVISIONAL

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PLUMBING SCHEDULES
BUILDING "D"
HINDU COMMUNITY and CULTURAL CENTER
 1200 ARROWHEAD AVE. LIVERMORE, CA 94551

DATE
10/28/11
SCALE
NONE
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PROJECT
ARROWHEAD

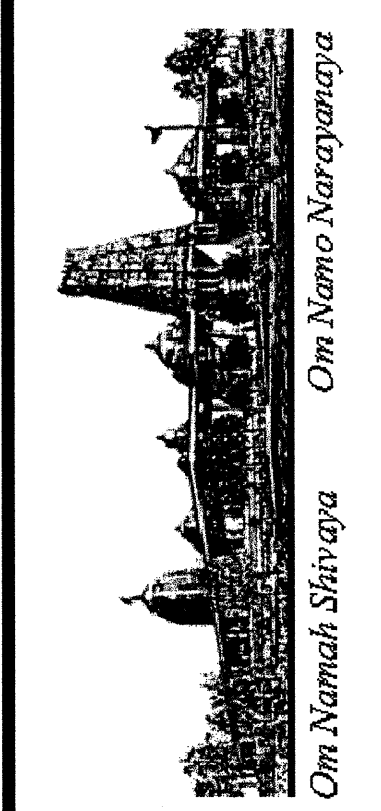
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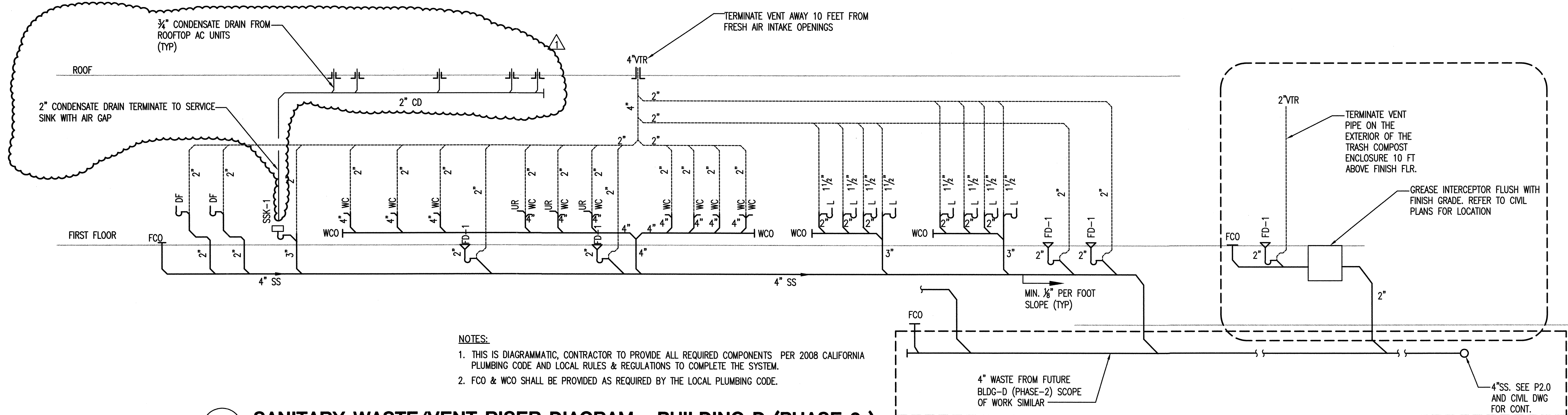
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PLUMBING RISER DIAGRAMS
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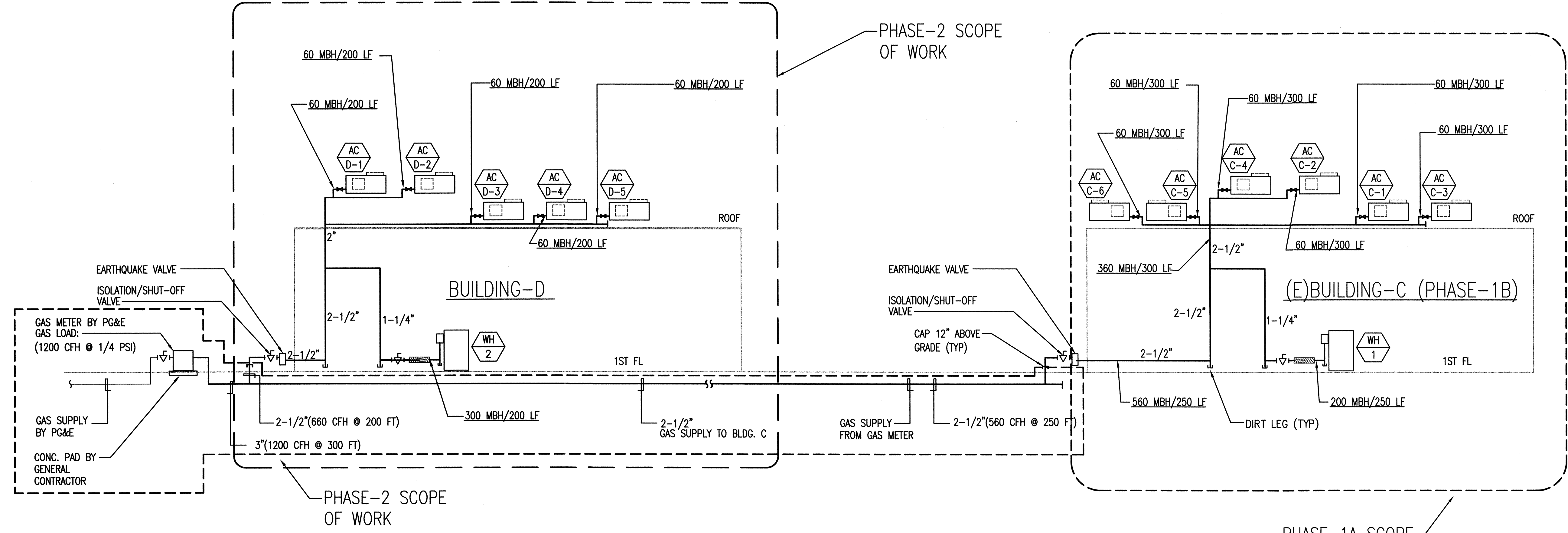
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- NOTES:**
1. THIS IS DIAGRAMMATIC, CONTRACTOR TO PROVIDE ALL REQUIRED COMPONENTS PER 2008 CALIFORNIA PLUMBING CODE AND LOCAL RULES & REGULATIONS TO COMPLETE THE SYSTEM.
 2. FCO & WCO SHALL BE PROVIDED AS REQUIRED BY THE LOCAL PLUMBING CODE.

1 SANITARY WASTE/VENT RISER DIAGRAM - BUILDING D (PHASE-2)
 SCALE: N.T.S.



2 NATURAL GAS RISER DIAGRAMS - BUILDING C AND D
 SCALE: N.T.S.



PLUMBING SPECIFICATIONS:

I. GENERAL

- 1.01 CONDITIONS AND REQUIREMENTS:
- A. 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:
 1. SANITARY DRAINAGE AND VENT SYSTEMS COMPLETE TO POINT OF CONNECTION.
 2. POTABLE WATER SYSTEMS COMPLETE TO POINT OF CONNECTION.
 3. DOMESTIC HOT WATER SYSTEMS AS SHOWN TO POINT, PIPING, VALVES AND INSULATION.
 4. PLUMBING FIXTURES AND TRIM AS SPECIFIED HERE AND THE ARCHITECTURAL DRAWINGS INCLUDING ALL REQUIRED ACCESSORIES.
 5. ACCESS PANELS AS REQUIRED FOR WALL, FLOOR AND GRADE CLEANOUTS AND VALVES.
 6. SECURE AND PAY FEES FOR PERMIT, LICENSES, INSPECTIONS AND ROYALTIES REQUIRED FOR WORK OF THIS SECTION.
 7. OTHER NECESSARY ITEMS REQUIRED AND INCIDENTAL TO COMPLETING ALL PLUMBING WORK AS INDICATED ON THE DRAWINGS AND DESIGNATED HEREIN.
 - C. 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.
 - C. CODES AND STANDARDS:
 1. 2008 CALIFORNIA PLUMBING CODE COMPLIANCE: COMPLY WITH APPLICABLE PORTIONS OF LOCAL PLUMBING CODE PERTAINING TO SELECTION AND INSTALLATION OF PLUMBING MATERIALS AND PRODUCTS.
 2. CCR COMPLIANCE: COMPLY WITH APPLICABLE STATE ENERGY REGULATIONS REQUIREMENTS.
 3. AGA COMPLIANCE: ALL GAS APPLIANCES AND EQUIPMENT SHALL COMPLY WITH REQUIREMENTS OF AMERICAN GAS ASSOCIATION.
 4. USGBC - LEED v2.2 REQUIREMENTS FOR WATER EFFICIENCY AND WATER SAVINGS.
- 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. SOIL, WASTE AND VENT ABOVEGROUND: CAST IRON SOIL, PLAIN END (HUBLESS) SERVICE WEIGHT WITH NEOPRENE SLEEVE AND STAINLESS STEEL SHIELD JOINTS.
- 2.02 VALVES:
- A. BALL VALVES: STOCKHAM S-217-BR-R-S, EPT SEAT, THREADED, STOCKHAM FIG. S-214-BR-R-T
 - B. CHECK VALVES: THREADED STOCKHAM FIG. B-319 SWEAT, STOCKHAM FIG. B-309
 - C. WATER PRESSURE REDUCING VALVES: WATTS, AW CASH, CLAYTON OR APPROVED SUBSTITUTE. CASH FIGURE EB-24U. SET PRESSURE AT 60 PSI.
- 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 ASJ, R-4 MINIMUM.

2.04 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.
 - G. HOSE BIBBS: WOODFORD OR APPROVED EQUAL HB-1 - MODEL 24P, CHROME FINISH, VACUUM BREAKER HB-2 - MODEL 24P, BRASS FINISH, VACUUM BREAKER
- 2.05 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.

2.06 ACCESS DOORS AND PANELS: (CEILINGS 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.

2.07 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

2.08 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, 2.0 GPM.

2.14 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:
1. 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.
 2. VERIFY THAT ALL PLUMBING MAY BE INSTALLED IN STRICT ACCORDANCE WITH ALL PERTINENT CODES AND REGULATIONS AND THE APPROVED SHOP DRAWINGS.
- B. DISCREPANCIES:
1. IN THE EVENT OF DISCREPANCIES, IMMEDIATELY NOTIFY THE ARCHITECT.
 2. DO NOT PROCEED WITH INSTALLATION IN AREAS OF DISCREPANCY UNTIL ALL SUCH DISCREPANCIES HAVE BEEN FULLY RESOLVED.
- C. COORDINATION:
1. COORDINATE WORK WITH RELATED TRADES TO PREVENT UNDUE DELAY IN JOB PROGRESS.
 2. CONTRACTOR SHALL PROVIDE A PERSON TO BE RESPONSIBLE FOR MAINTAINING PROPER POSITIONING AND ALIGNMENT OF ALL ITEMS DURING CONCRETE POURING.
 3. 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:
1. SYSTEM LAYOUTS AS INDICATED ON DRAWINGS ARE GENERALLY DIAGRAMMATIC, BUT SHALL BE FOLLOWED AS CLOSELY AS ACTUAL CONSTRUCTION WILL PERMIT.
- B. PIPING:
1. 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 PING IN DIRECTION OF FLOW AS FOLLOWS:
- | SERVICE | INCLINATION | SLOPE |
|------------------|-------------|--------------------|
| DOMESTIC WATER | LEVEL | |
| SANITARY VENT | UP | 1/8" PER FT (MIN.) |
| SANITARY WASTE | DOWN | 1/4" PER FT (MIN.) |
| CONDENSATE DRAIN | 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. COPPER: CRIMPING OF COPPER TUBING IS PROHIBITED. ISOLATE COPPER PIPE AND TUBING FROM CONTACT WITH STEEL.
 10. THREADED JOINTS: APPLY TEFLON TAPE TO MALE THREADS.
 11. 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.

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

13. 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:

1. 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:

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

TEST SCHEDULE:

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
PROPANE GAS	AIR	50 PSIG	1 HOUR

E. STERILIZATION OF DOMESTIC WATER PIPING:

1. 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.
2. CHLORINATE ONLY WHEN PRESCHEDULED AND PROVIDE PROPER WARNING SIGNS AT OUTLETS.
3. UPON COMPLETION OF THE STERILIZATION, THOROUGHLY FLUSH THE ENTIRE POTABLE WATER SYSTEM AND IMMEDIATELY FILL THE SYSTEM.
4. WHEN STERILIZATION AND FLUSHING ARE COMPLETE, ARRANGE WITH PERTINENT AGENCIES FOR ALL REQUIRED TESTS ON MAINS AND SYSTEMS.

3.03 FIXTURE INSTALLATIONS AND CONNECTIONS:

A. GENERAL:

1. 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:

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

C. FIELD QUALITY CONTROL:

1. 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.
2. 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:

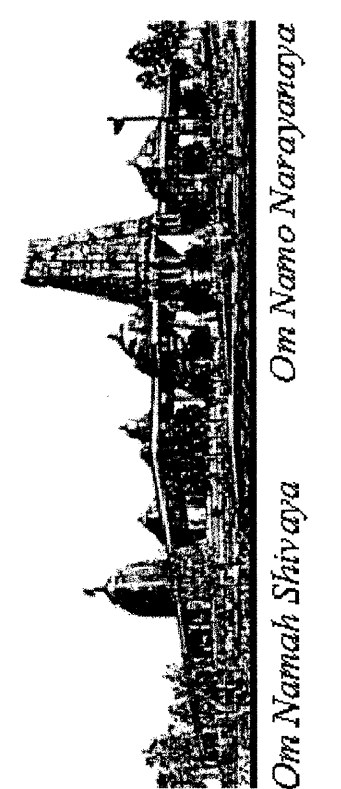
A. PRIOR TO ACCEPTANCE OF THE BUILDINGS, THOROUGHLY CLEAN ALL EXPOSED PORTIONS OF THE PLUMBING INSTALLATION, REMOVING ALL LABELS AND ALL TRACES OF FOREIGN SUBSTANCE, USING ONLY A CLEANING SOLUTION APPROVED BY THE MANUFACTURER OF THE PLUMBING ITEM AND BEING CAREFUL TO AVOID ALL DAMAGE TO FINISHED SURFACES.

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

REVISIONS	BY
ISSUE FOR PERMIT 10-28-11	

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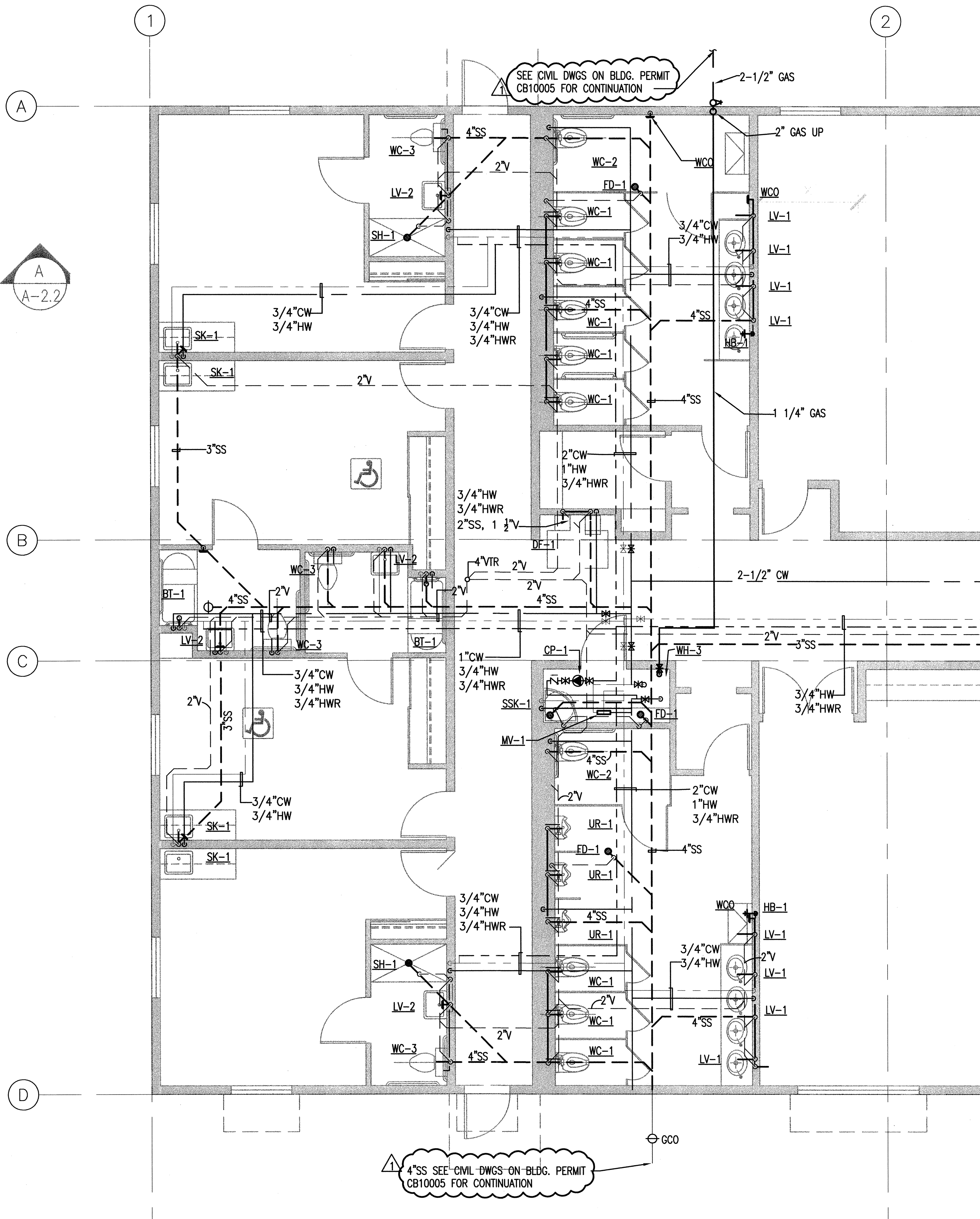


PLUMBING SPECIFICATIONS
BUILDING "D"
HINDU COMMUNITY and CULTURAL CENTER
1200 ARROWHEAD AVE. LIVERMORE, CA 94551

DATE
10/28/11
SCALE
NONE
DRAWN BY:
KS
PROJECT:
ARROWHEAD



P-11.2D



GENERAL NOTES

- A. ALL PLUMBING WORK INCLUDING EQUIPMENT, FIXTURES AND INSTALLATION SHALL COMPLY WITH THE CURRENT BUILDING STANDARDS FOR UNIFORMITY, LEED REQUIREMENTS AND THE APPLICABLE CALIFORNIA BUILDING, FIRE, MECHANICAL AND PLUMBING CODES WITH LOCAL AMMENDMENTS.
- B. REFER TO RISER DIAGRAMS FOR WASTE AND VENT SIZES AND SCHEDULES FOR PLUMBING FIXTURES, FAUCETS, CONNECTION SIZES.
- C. PROVIDE AUTOMATIC TEMPERING VALVES TO GENERATE 110 DEG F TEMPERED HOT WATER SUPPLY AND DISTRIBUTE TO THE LAVATORIES PER T-24.
- D. PROVIDE CW DISTRIBUTION TO ALL THE PLUMBING FIXTURES PER CPC.
- E. PROVIDE CW, GAS, SANITARY WASTE, STORM DRAIN AND FIRE WATER SERVICE CONNECTIONS FROM THE SITE UTILITIES AND EXTEND & DISTRIBUTE TO SERVE THE BUILDING. COORDINATE WITH THE PHASE-2 CIVIL AND LANDSCAPE TRADE WORK FOR EXACT SIZE, LOCATION, INVERT, POINT-OF-CONNECTION, ETC.
- F. PROVIDE WATER EFFICIENT PLUMBING FIXTURES TO SATISFY THE LEED WATER EFFICIENCY REQUIREMENTS (SEE LEED CHECKLIST) AND PER THE PLUMBING FIXTURE SCHEDULE. INSTALL PLUMBING FIXTURES IN COMPLIANCE WITH ADA REQUIREMENTS.
- G. CONTRACTOR SHALL PREPARE AND SUBMIT DETAILED SHOP DRAWING FOR PLUMBING AND FIRE PROTECTION WORK FULLY COORDINATED WITH THE CIVIL AND LANDSCAPE WORK FOR REVIEW AND APPROVAL BY THE OWNER'S ENGINEERS. AFTER APPROVAL BY OWNER'S ENGINEERS, SUBMIT THE SAME TO CITY AS A DEFERRED SUBMITTAL AND OBTAIN CITY APPROVALS PRIOR TO START OF CONSTRUCTION. COORDINATE THE ROUTING OF THE UNDERGROUND UTILITIES WITH OTHER TRADEWORK AND UTILITY COMPANIES AND MAKE NECESSARY ADJUSTMENTS TO ROUTING TO AVOID CONFLICTS.

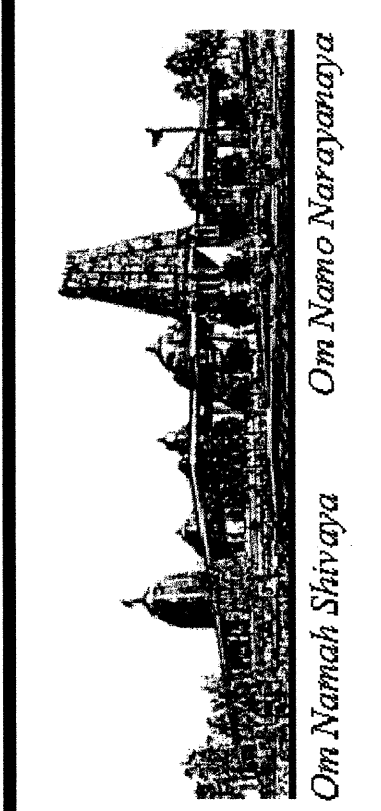
SHEET NOTES

- ① WATER HEATER AIR INTAKE AND FLUE EXHAUST FROM THE ROOF. TERMINATE FLUE EXHAUST MINIMUM 3'-0" ABOVE FINISHED ROOF. COORDINATE WITH SOLAR PV AND THERMAL SYSTEM PROVIDER FOR TERMINATION. PROVIDE FLASHING AND COUNTERFLASHING.
- ② PROVIDE ALL PLUMBING FIXTURES INDICATED WITH COMPLETE UTILITY DISTRIBUTION PER CPC INCLUDING BUT NOT LIMITED TO COLD WATER, HOT WATER, TEMPERED WATER, SANITARY WASTE AND VENT CONNECTIONS.
- ③ PROVIDE FLOOR DRAINS COMPLETE WITH FLOOR DRAINS, WASTE & VENT CONNECTIONS, TRAP PRIMER CONNECTIONS.
- ④ PROVIDE PROPERLY SIZED WATER HAMMER ARRESTORS FOR COLD WATER AND TEMPERED WATER SUPPLIES PIPING TO PLUMBING FIXTURES PER CPC TO PREVENT WATER HAMMER FROM FLUSH VALVES, AUTOMATIC AND QUICK SHUT-OFF TYPE VALVES.
- ⑤ PROVIDE STAINLESS STEEL WALL ACCESS PANELS FOR SERVICE ACCESS TO WATER HAMMER ARRESTORS, TEMPERING VALVES, SHUT-OFF VALVES AND OTHER DEVICES CONCEALED BEHIND WALLS AND CEILING THAT REQUIRES ACCESS. COORDINATE LOCATIONS WITH ARCHITECT.
- ⑥ PROVIDE HEAT TRACING FOR TEMPERED WATER AND HOT WATER PIPING TO THE PLUMBING FIXTURES, COMPLETE WITH POWER SUPPLY, TEMPERATURE REGULATORS, THERMAL INSULATION, ETC. COORDINATE WITH DIVISION-16 FOR POWER SUPPLY.
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- ⑨ PROVIDE COMPLETE FIRE SPRINKLER WATER SERVICE EXTENSION FROM THE CITY FIRE WATER SERVICE COMPLETE WITH THE SPRINKLER RISER ASSEMBLY, CONTROL VALVE ASSEMBLIES, FIRE HOSE CONNECTIONS, DISTRIBUTION, QUICK RESPONSE CONCEALED HEADS, INSPECTOR TEST AND DRAIN ASSEMBLY, SPRINKLER ALARM BELL AND FLOW & TAMPER SWITCHES FOR MONITORING BY THE BUILDING FIRE ALARM SYSTEM TO PROVIDE FULL COVERAGE FOR THE BUILDING. SUBMIT COMPLETE DESIGN-BUILD SHOP DRAWINGS AND HYDRAULIC CALCULATIONS. SUBMIT AND OBTAIN ALL NECESSARY APPROVALS FROM THE LOCAL CITY AND COUNTY CODE AUTHORITIES.
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REVISIONS	BY
10-28-11	
12-14-11	

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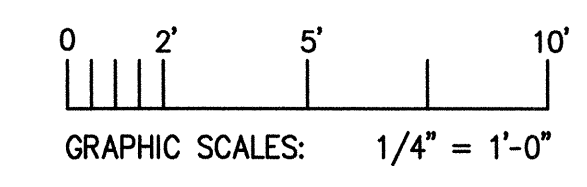


PLUMBING ENLARGED PLAN
BUILDING "D"
HINDU COMMUNITY and CULTURAL CENTER
 1200 ARROWHEAD AVE. LIVERMORE, CA 94551

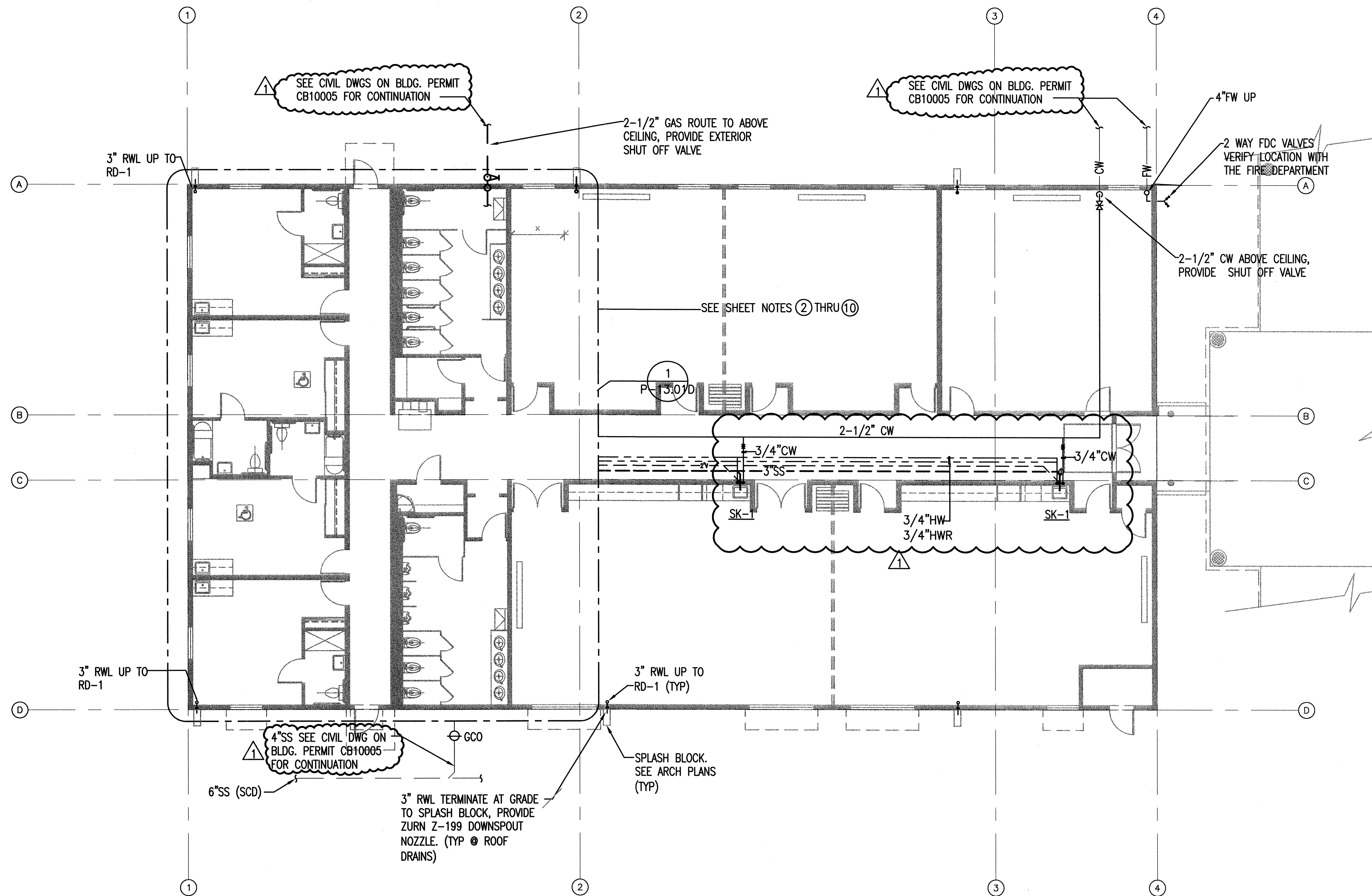
DATE: 10/28/11
 SCALE: AS SHOWN
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 PROJECT: ARROWHEAD

BUILDING D - PHASE 2
PLUMBING ENLARGED PLAN

TOTAL 7800 SQ. FT.
 SCALE: 1/4"=1'-0"

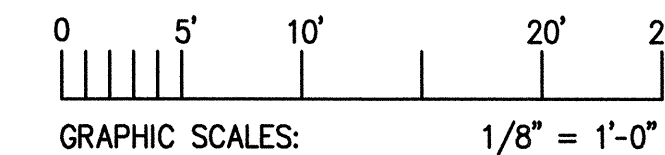


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BUILDING D - PHASE 2
PLUMBING PLAN

TOTAL 7800 SQ. FT.
 SCALE: 1/8" = 1'-0"



GENERAL NOTES

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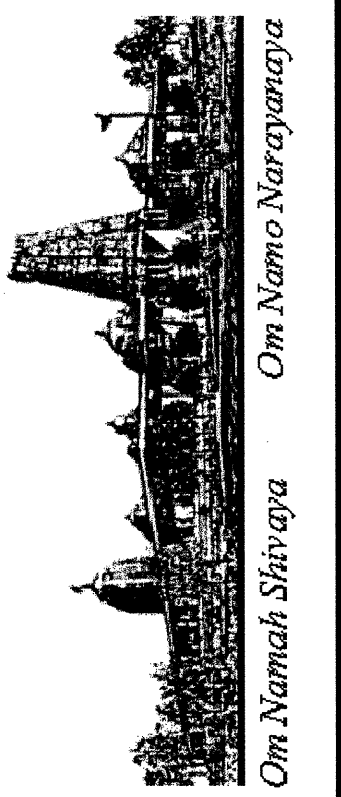
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REVISIONS	BY
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12-14-11	PLAN CHECK RESUBMITTAL

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PLUMBING PLAN
BUILDING "D"
HINDU COMMUNITY and CULTURAL CENTER
 1200 ARROWHEAD AVE. LIVERMORE, CA 94551

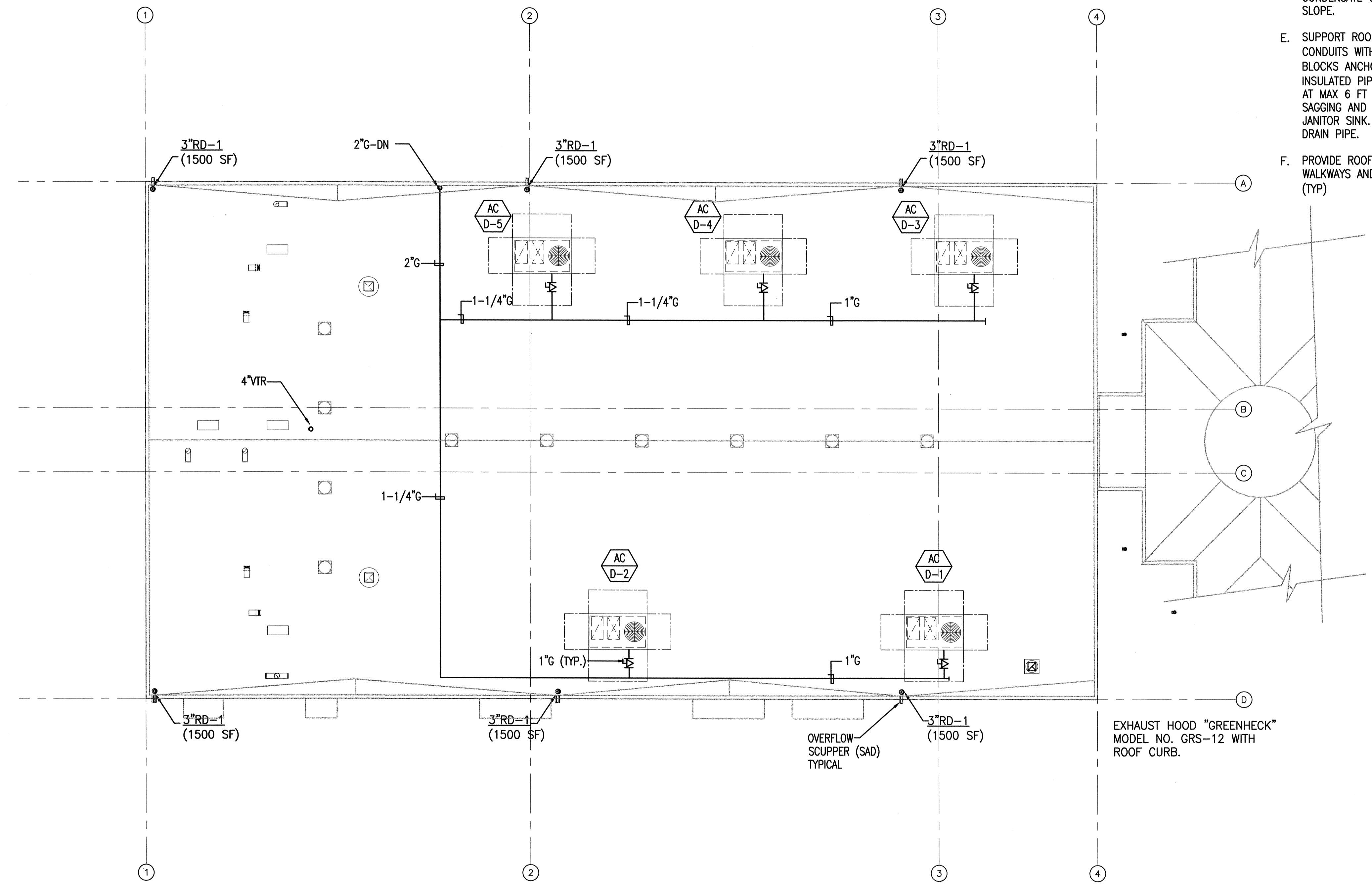
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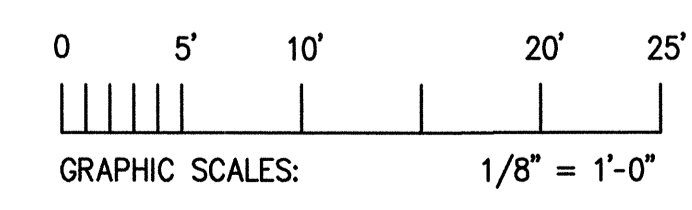
GENERAL NOTES

- A. ALL INSTALLATIONS SHALL COMPLY WITH ALL APPLICABLE CALIFORNIA AND LOCAL CODES.
- B. ALL NEW WORK SHALL COMPLY WITH CURRENT 2007 CMC AND CPC REQUIREMENTS.
- C. PROVIDE GALVANIZED PIPING & FITTINGS FOR EXPOSED GAS PIPING ON ROOF. PROVIDE GAS COCK, DIRT LEG, LISTED GAS CONNECTORS RATED FOR OUTDOOR APPLICATION AT CONNECTIONS TO EACH AC UNIT. PROVIDE GAS REGULATORS IF REQUIRED. REFER TO GAS RISER DIAGRAM P11.1B FOR SIZING.
- D. PROVIDE TRAPPED CONDENSATE DRAIN FROM THE AC UNIT AND TERMINATE TO THE SERVICE SINK IN JANITOR CLOSET. INSTALL CONDENSATE COLLECTOR DRAIN PIPING WITH MINIMUM 2% SLOPE.
- E. SUPPORT ROOFTOP GAS AND CONDENSATE PIPING AND CONDUITS WITH B-LINE "DURA-BLOCK" DB SERIES SUPPORT BLOCKS ANCHORED TO ROOF. USE DURA-BLOCK "BVT" SERIES INSULATED PIPE CLAMPS (TYP). PROVIDE SLEEPER SUPPORTS AT MAX 6 FT ON CENTERS OR AS REQUIRED TO PREVENT PIPE SAGGING AND TO DRAIN THE CONDENSATE TOWARDS THE JANITOR SINK. MAINTAIN 2% SLOPE ON ROOF FOR CONDENSATE DRAIN PIPE.
- F. PROVIDE ROOF GUTTERS AND DOWNSPITS FOR COVERED WALKWAYS AND TERMINATE AT GRADE WITH SPLASHING BLOCKS (TYP)



BUILDING D - ROOF PLAN
PLUMBING PLAN

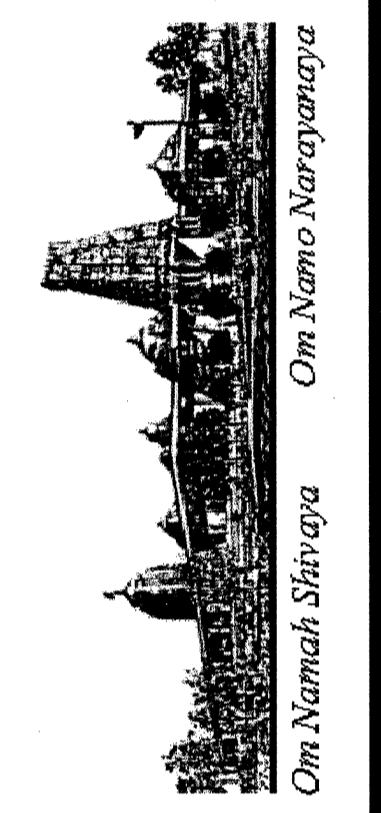
TOTAL 7800 SQ. FT.
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REVISIONS	BY
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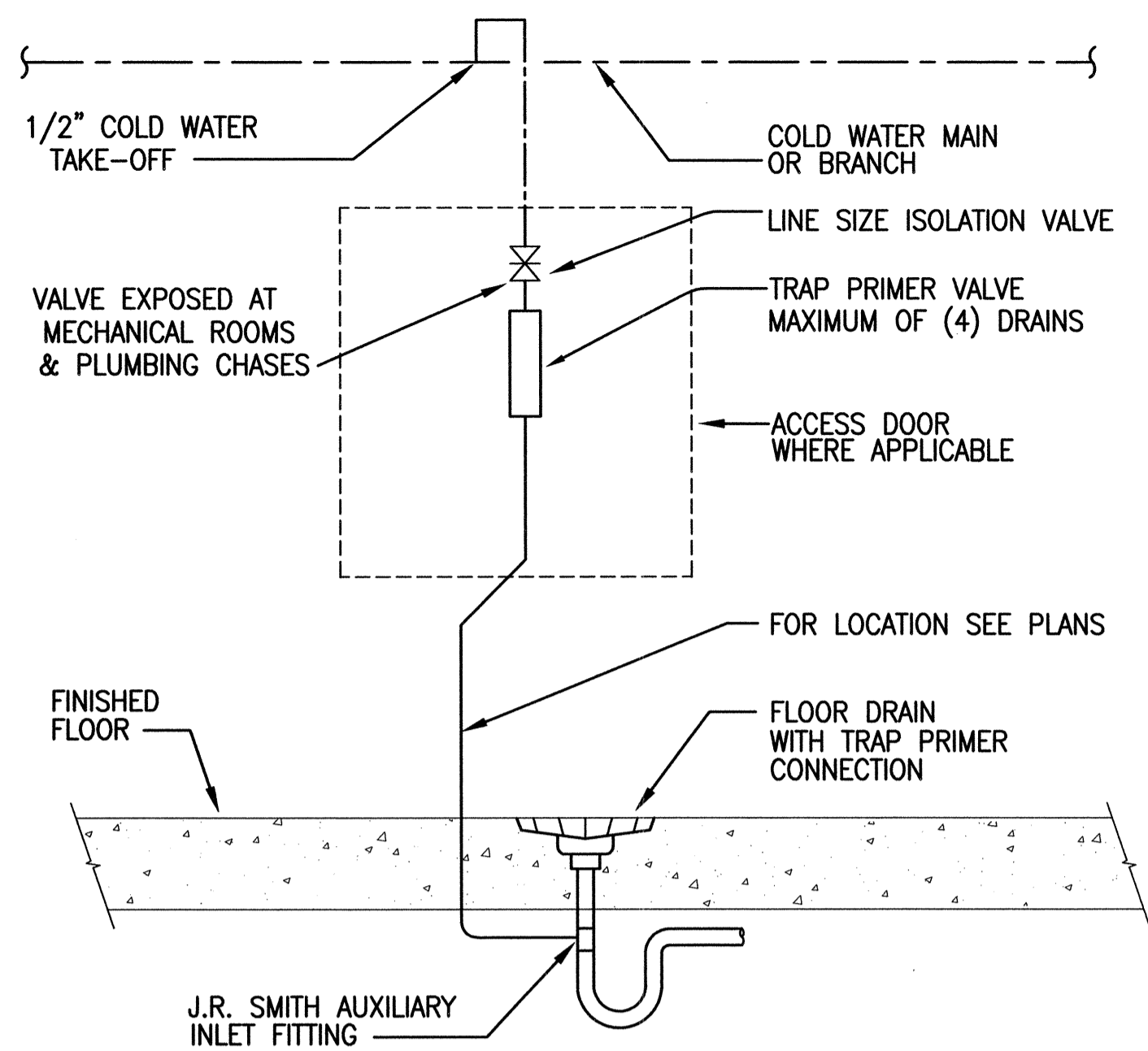


PLUMBING ROOF PLAN
BUILDING "D"
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PROJECT:
ARROWHEAD

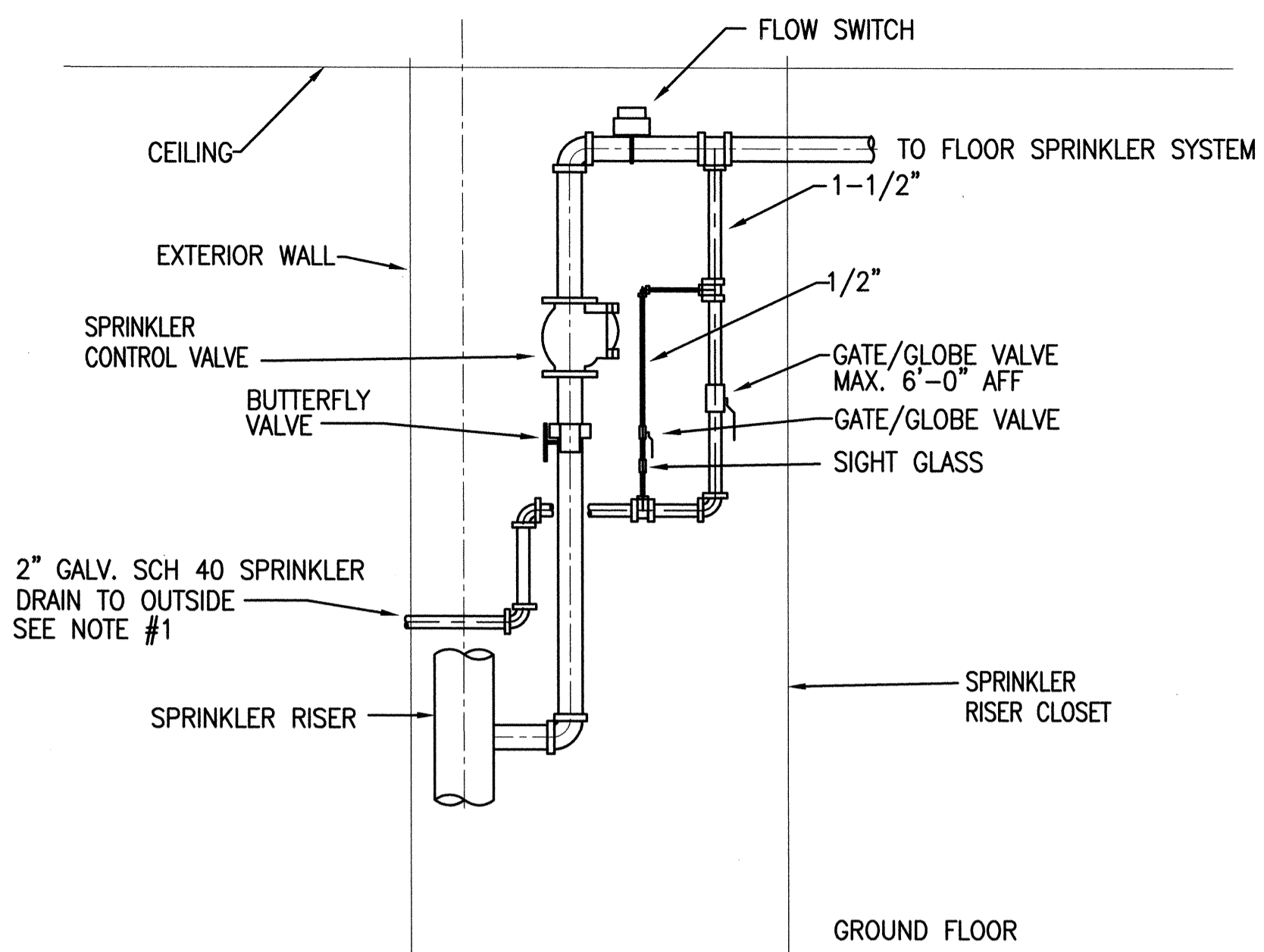


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1 TRAP PRIMER PIPING DETAIL

SCALE: N.T.S.

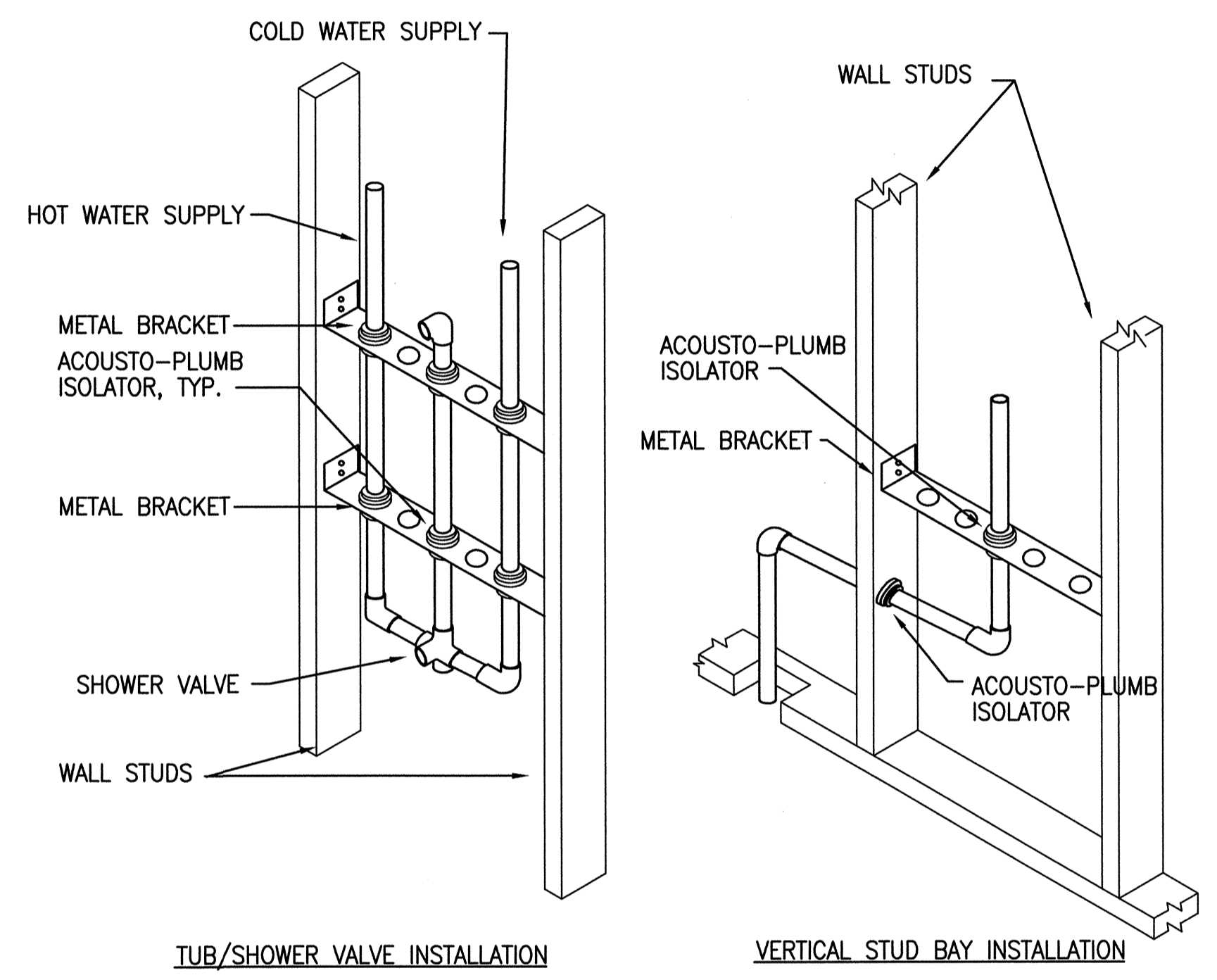
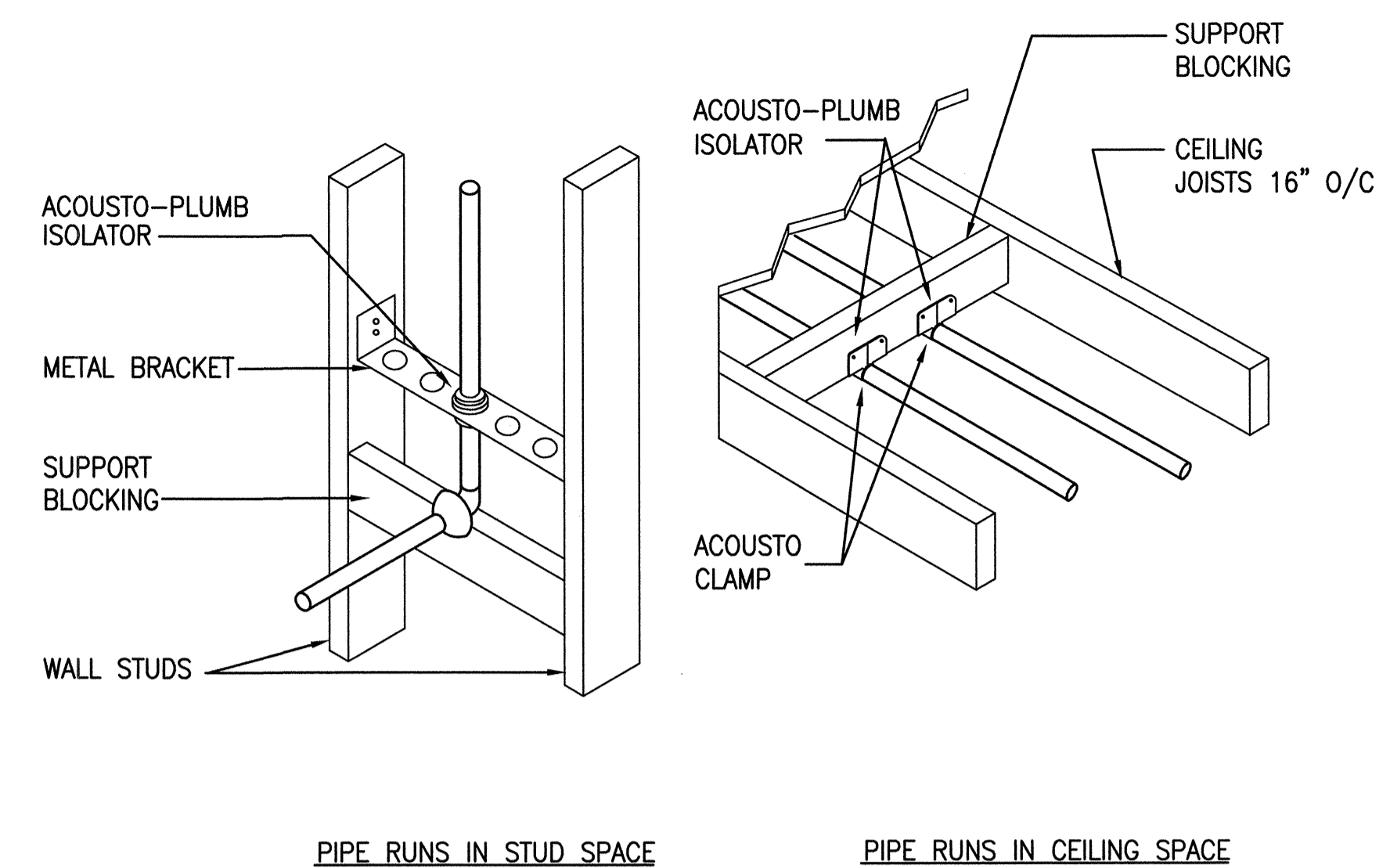


NOTE:

1. TERMINATE TEST DRAIN TO OUTSIDE PER THE LOCAL CODE REQUIREMENTS.
2. PROVIDE FLOW AND TAMPER FOR MONITORING FROM FIRE ALARM SYSTEM.
3. PROVIDE WATER FLOW ALARM PER LOCAL CODE REQUIREMENTS.

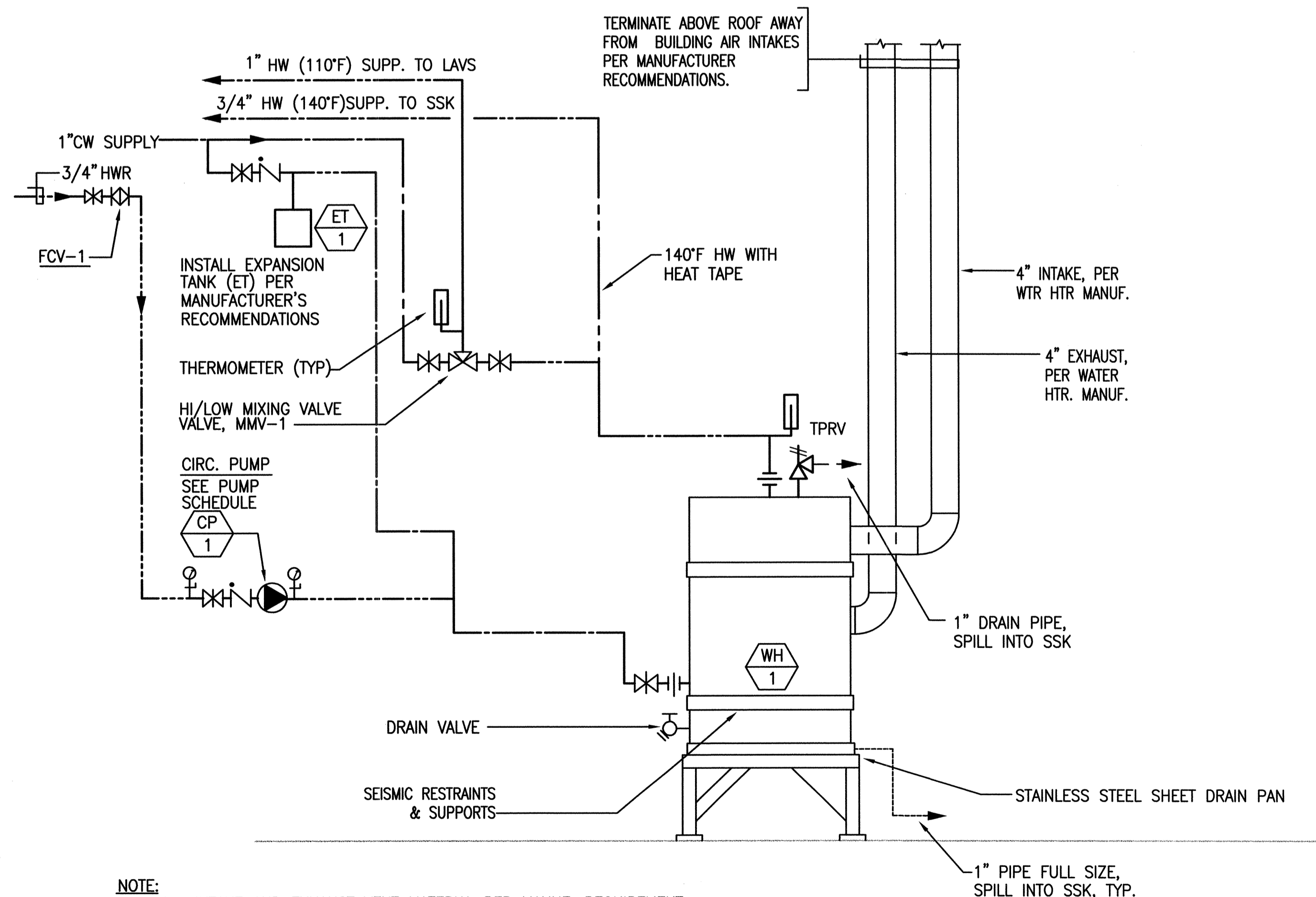
2 SPRINKLER CONTROL VALVE ASSEMBLY DETAIL

SCALE: N.T.S.



3 ACOUSTICAL ISOLATION DETAILS

SCALE: N.T.S.



NOTE:

1. INTAKE AND EXHAUST VENT MATERIAL PER MANUF. REQUIREMENT.
2. MAINTAIN SEPARATION BETWEEN INTAKE & EXHAUST PER MANUFACTURER'S RECOMMENDATIONS.

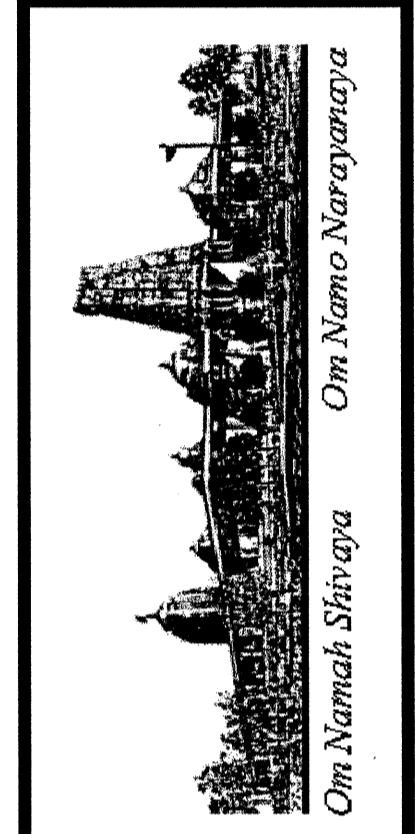
4 WATER HEATER PIPING DETAIL

SCALE: N.T.S.

REVISIONS	BY
ISSUE FOR PERMIT 10-28-11	

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PLUMBING DETAILS
BUILDING "D"
HINDU COMMUNITY and CULTURAL CENTER
 1200 ARROWHEAD AVE. LIVERMORE, CA 94551

DATE: 10/28/11
 SCALE: NONE
 DRAWN BY: FC
 PROJECT: ARROWHEAD

P-15.0D

