#### PLUMBING SYMBOL LIST

illa la Garding	l list and not all symbols and abbrevia					~~~~~
	<u>VALVES</u>		ROOF DRAIN	GAL	GALLONS	Piping Systems
	VALVE, GENERAL	VTR ©	VENT THROUGH ROOF	GPH	GALLONS PER HOUR	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
	VALVE, GENERAL	<b>*</b>	VERT TITLOGGE NOO!	GPM	GALLONS PER MINUTE	GREASE WASTE BELOW GRADE OR FINISHED FLOO
<u></u> \$	VALVE		PIPING SYSTEMS	НВ	HOSE BIBB	
	GATE VALVE	anacytosineaporphilips winder contributamentalepolap	COLD WATER PIPING	HD	HEAD	
	GATE VALVE		OOLD WASEN FRANCE	HUD	HUB DRAIN	
<u> </u>	PRESSURE REDUCING VALVE	menomicalisminus soluto meno estatisminustrono	HOT WATER PIPING	HP	HORSE POWER	
	MOTORIZED, 2-WAY VALVE	ADDROGRADOROUS MANUE MANUE WHOCH WHOCHANGE	HOT WATER RETURN PIPING	HTR	HEATER	
	MOTORIZED, Z-WAT VALVE		HOT WATER RETORN FILMS	<u>∕</u> \$\\\ HW/H \\\	HOT WATER	
7	CHECK VALVE	macronical $G$ , making constants	GAS PIPING	HWR	HOT WATER RETURN	
w w	QUARTER TURN VALVE	D	CONDENSATE PIPING	ID	INSIDE DIAMETER	
Ψ	QOARTER TORIN VALVE	<i>U</i>	CONDENSATE FIFTING	IE	INVERT ELEVATION	
	GLOBE VALVE	AR	ACID RESISTANT PIPING	IN	INCHES	
₩ BY	BALANCING VALVE	<b>.</b>	FIRE PROTECTION PIPING	L	LAVATORY	
Contrary Con	BALANCING VALVE	econocimiente per consequences	FIRE PROTECTION FIFING	LBS.	POUNDS	
<del></del>	MOTORIZED, 3-WAY VALVE		COMPRESSED AIR PIPING	MBH	THOUSAND BTU'S PER HOUR	
and continues	CITTINICS		WASTE PIPING BELOW GRADE OR	MIN	MINIMUM	
	<u>FITTINGS</u>	WARE COMPANY TO THE C	FINISHED FLOOR	(N)	NEW	
	PIPE RISE		WASTE PIPING ABOVE GRADE OR	N/A	NOT APPLICABLE	
_	DIDE ADAD	Scripping and Assert Scripping Company of the Compa	FINISHED FLOOR	NIC	NOT IN CONTRACT	
	PIPE DROP	60	CTODA DDAIN DIDING ADOLE ODADE	NO.	NUMBER	
	TEE UP ON PIPE	annamiconericani SD ensocializateani	STORM DRAIN PIPING ABOVE GRADE OR FINISHED FLOOR	NOP	NORMALLY OPEN	
	TTT DAME AN DIDT	CD	CTODA DE ANA DIDINO DELOM ODADE	NTS	NOT TO SCALE	
and an extension of the second	TEE DOWN ON PIPE	es menero SD menero en	STORM DRAIN PIPING BELOW GRADE OR FINISHED FLOOR	OD	OUTSIDE DIAMETER	
essentinen papaulikan niitopi displosopateja mahrusti oppinisaalitan siisse	CONTINUATION		MACTE ARAIT DIDING	Р	PUMP	
	0.40	त्रका शाब सक्का स्थाप प्रकृत स्थाप	WASTE VENT PIPING	PDI	PLUMBING & DRAINAGE INSTITUTE	
ости не при	CAP		<u>ABBREVIATIONS</u>	PRV	PRESSURE REDUCING VALVE	
CONTRACTOR AND A STATE OF THE S	UNION			PSI	POUNDS PER SQUARE INCH	
		/2) •	AT	RD	ROOF DRAIN	
occumus aftennis accumum free municipalis accumum accu	PIPE BELOW GRADE	AD	AREA DRAIN	REC	ROOF CEPTOR	•
<del></del>	PIPE REMOVED IN DEMOLITION	AFG	ABOVE FINISHED GRADE	RET	RETURN	
		AFF		,	RAIN WATER LEADER	
nech nechonological and produce and a control of the control of th	CONCENTRIC REDUCER	ZŽ ASTM	AMERICAN SOCIETY FOR TESTING & MATI	/ er	SQUARE FEET	
	ECCENTRIC REDUCER	BFP	BACKFLOW PREVENTER	SMS	SHEET METAL STRAP	
	has to to the ( V ) ( V ) V toucher to the last V	BFF	BELOW FINISHED FLOOR	SOV	SHUT OFF VALVE	
raceput scale (representative and responsible	FLOW DIRECTION	CD	CONDENSATE DRAIN	TEMP	TEMPERATURE	
	HOSE BIBB	CF	CUBIC FOOT	TP	TRAP PRIMER PIPING	
1*	1 TW What had had bed	CFH	CUBIC FEET PER HOUR	TPV	TRAP PRIMER VALVE	
6	PUMP	CL	CENTERLINE	2 TYP	TYPICAL	
WCO_	WALL CLEANOUT	CLG	CEILING		URINAL	
•	VV Note: Vanlant NVV 1	CONT.	CONTINUATION	UH	UNIT HEATER	
FCO	FLOOR CLEANOUT	CV	CHECK VALVE	٧	VENT	
<b>Ⅲ</b> <u>CB</u>	CATCH BASIN	CW	COLD WATER	VAC	VACUUM	
3234.	ONION BROIN	DIA	DIAMETER	VTR	VENT THRU ROOF	
● FD	FLOOR DRAIN	DN	DOWN	W	WASTE	
M EC	FLOOR SINK	(E)	EXISTING	w/	WITH	
⊠ <u>FS</u>	i mover vister	EL	ELEVATION	WC	WATER CLOSET	
		ELECT	ELECTRICAL	WHA	WATER HAMMER ARRESTOR	
		FC	FLEXIBLE CONNECTOR	VVF 33 1		
		FPS	FEET PER SECOND	, (	General	
		FS	FLOW SWITCH	(2)	>	
		FT	FEET	$\left\{ \begin{array}{c} x \\ x \end{array} \right\}$	DETAIL BUBBLE	
		GCO	GRADE CLEANOUT	}		
				<b>&amp;</b>	POINT OF CONNECTION )	

## GENERAL PLUMBING NOTES

- A. REPORT TO ARCHITECT, IN WRITING, CONDITIONS WHICH WILL PREVENT PROPER PROVISION OF THIS WORK.
- B. THE SUBMISSION OF BID PROPOSAL SHALL BE CONSIDERED AS CONCLUSIVE EVIDENCE THAT THE CONTRACTOR IS THOROUGHLY FAMILIAR WITH THE INTENT OF THE CONTRACT DOCUMENTS AND SCOPE OF WORK. THE CONTRACTOR, PRIOR TO BIDDING, SHALL VISIT THE JOB SITE, CHECK EXISTING INSTALLATIONS AND SYSTEMS RELATED TO HIS WORK AND SHALL IN THE BID PROPOSAL INCLUDE ALL LABOR AND MATERIAL REQUIRED TO COMPLETE THE SYSTEM.
- C. CONTRACTOR SHALL COMPLETE THE WORK WITH MINIMUM INTERFERENCE WITH EXISTING SYSTEMS. ANY SHUTDOWN OF THE EXISTING SYSTEM SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR AND THE OWNER'S REPRESENTATIVE TWO WEEKS IN ADVANCE.
- D. ALL WORK UNDER THIS DIVISION SHALL BE COORDINATED WITH OTHER TRADES.
- E. PROTECT EXISTING BUILDING STRUCTURES, AND ADJACENT FINISHED SURFACES DURING CONSTRUCTION. PATCH, REPAIR AND REFINISH EXISTING WORK DAMAGED BY WORK UNDER THIS DIVISION TO MATCH ADJACENT UNDISTURBED AREAS. PATCHING AND REFINISHING IS TO BE PERFORMED BY WORKMEN SKILLED IN THE TRADES INVOLVED. DO NOT CUT ANY STRUCTURAL MEMBERS WITHOUT THE REVIEW AND APPROVAL OF THE STRUCTURAL ENGINEER.
- F. ALL MATERIALS AND WORKMANSHIP ARE SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT. ANY PORTION OF THE WORK FOUND TO BE DEFECTIVE SHALL BE REPLACED BY THE CONTRACTOR AS PART OF THIS CONTRACT AT NO ADDITIONAL COST TO THE OWNER.
- G. ANY PIPING OFFSETS REQUIRED AS RESULT OF EXISTING JOB CONDITIONS, OR LACK OF COORDINATION WITH OTHER TRADES SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO OWNER AND IS SUBJECT TO REVIEW
- H. ALL FLOOR DRAIN TRAPS WILL BE PRIMED TO PROVIDE WATER SEAL FOR PREVENTION OF DRYING AND PREVENTION OF FUMES EXITING UP THROUGH DRAINS.
- INSULATE HOT WATER PIPING SUPPLY AND RETURN. INSULATE COLD WATER PIPING LOCATED EXPOSED IN TEMPERED ROOMS, IN CRAWL SPACE OR ATTIC AREA, AND EXPOSED OUTSIDE UNDER OVERHANGS. PIPING EXPOSED TO RAIN SHALL BE INSULATED WITH CLOSED CELL INSULATION, ALUMINUM JACKET INSULATION SHALL BE PAINTED TO MATCH THE SURROUNDING, AS APPROVED PER ARCHITECT IN SUBMITTAL.
- J. FOR PIPES PENETRATING WALL, PROVIDE ESCUTCHEON ALL EXPOSED LOCATIONS.
- K. COORDINATE WITH FLOOR, CEILING AND WALL CONSTRUCTION TRADE TO PROVIDE ACCESS PANEL FOR ALL VALVES AND OTHER EQUIPMENT REQUIRING ACCESS.

#### GENERAL DEMOLITION NOTES

- A. COORDINATE DEMOLITION, CUTTING PATCHING, ETC. WITH GENERAL CONTRACTOR AND EXISTING FIELD CONDITIONS PRIOR TO SUBMITTING CONSTRUCTION CONTRACT BIDS. SEE SPECIFICATIONS GENERAL PROVISIONS, NOT ALL PIPING IS ILLUSTRATED.
- B. REFER TO ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR SPACE ALLOTMENT, BEAM LOCATION AND COORDINATION PURPOSES. CONFLICTS REGARDING SPACE REQUIREMENTS, CLEARANCES, INTERFERENCE WITH STRUCTURE OR OTHER WORK, ETC., SHALL BE DIRECTED TO THE ARCHITECT FOR RESOLUTION PRIOR TO INSTALLATION OF
- C. CUTTING, PATCHING AND PAINTING OF EXISTING WALLS, CEILINGS AND FLOOR TO ACCOMODATE WORK AS SHOWN OR SPECIFIED HEREIN, SHALL BE INCLUDED IN THE WORK FOR EACH TRADE.
- D. VERIFY AND COORDINATE EXISTING WASTE, VENT AND WATER PIPING TO REMAIN IN SERVICE. EXISTING WASTE, VENT AND WATER PIPING SERVING EXISTING PLUMBING FIXTURES, FLOOR SINKS AND FLOOR DRAINS TO BE REMOVED ARE TO BE CAPPED BELOW FLOOR OR REMOVED BACK TO PLUMBING PIPING REMAINING IN SERVICE THEN CAPPED, EXCEPT AS NOTED. CONTRACTOR SHALL REPOUTE/REPIPE EXISTING PIPING TO REMAIN AS REQUIRED TO MAINTAIN SERVICE. EXISTING PIPING SERVING OTHER TENANTS/BUILDING SPACES IS TO REMAIN.
- E. REMOVE EXISTING FIXTURES, CLEAN AND RE-CONNECT TO EXISTING SERVICES AFTER NEW WALL AND/OR COUNTER FINISHES HAVE BEEN INSTALLED. COORDINATE LOCATION OF EACH FIXTURE WITH ARCHITECT.

## GENERAL SEISMIC NOTES

A. PIPING AND DUCTWORK DISTRIBUTION SYSTEMS SHALL BE BRACED TO SYSTEM THE FORCES PRESCRIBED IN ASCE 7-05 SECTION 13.3 AS DEFINED IN ASCE 7-05 SECTION 13.6.8, 13.6.7, AND 13.6.5.5, ITEM 6, RESPECTIVELY.

THE BRACING AND ATTACHMENTS TO THE STRUCTURE SHALL COMPLY WITH ONE OF THE OSHPD PRE-APPROVALS WITH AN OPA #, SUCH AS MASON INDUSTRIES (OPA 349), OR ISAT (OPA 485) AS MODIFIED TO SATISFY ANCHORAGE REQUIREMENTS OF ACI 318, APPENDIX D.

THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS. WHERE THEY DO NOT COMPLY WITH THE REQUIREMENT ON DETAIL T/S5.2.

- B. ALL MECHANICAL EQUIPMENT SHALL BE ANCHORED OR BRACED TO MEET THE HORIZONTAL AND VERTICAL FORCES PRESCRIBED IN THE 2007 CBC, SECTION 1614A.1.13 AND ASCE 7-05 SECTIONS 13.3, 13.4 & 13.6. THE ATTACHMENT OF THE FOLLOWING ITEMS SHALL BE DESIGNED TO RESIST THE FORCES PRESCRIBED ABOVE, BUT NEED NOT BE DETAILED ON THE PLANS:
- 1. EQUIPMENT WEIGHTING LESS THAN 400 POUNDS SUPPORT DIRECTLY ON THE FLOOR OR ROOF.
- 2. FURNITURE REQUIRED TO BE ATTACH IN ACCORDANCE WITH PART 2, TITLE 24, C.C.R.
- 3. TEMPORARY OR REMOVABLE EQUIPMENT.
- 4. EQUIPMENT WEIGHTING LESS THAN 20 POUNDS SUPPORT BY VIBRATION ISOLATORS. 5. EQUIPMENT WEIGHTING LESS THAN 20 POUNDS SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM WALL.

FOR THOSE ELEMENTS THAT DO NOT REQUIRE DETAILS ON THE APPROVED DRAWINGS, THE INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE MECHANICAL/ELECTRICAL ENGINEER AND THE FIELD REPRESENTATIVE OF THE DIVISION OF THE STATE ARCHITECT.

THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS. WHERE THEY DO NOT COMPLY WITH THE REQUIREMENT ON DETAIL T/S5.2.

- C. FIRE PROTECTION PIPING
- 1. THE SPACING AND DETAILS OF THE SUPPORT AND BRACING OF FIRE SPRINKLER PIPING SHALL COMPLY WITH
- THE LATEST EDITION OF NFPA 13.
- 2. PROVIDE ANCHORAGE DETAILS AND CALCULATIONS OF THE CONNECTION OF SWAY BRACING TO THE STRUCTURE. 3. DESIGN LOADS FOR THE ANCHORAGE MAY BE COMPUTED PER TABLE 4-6.4.3.5.2 OF NFPA 13, 1994 EDITION.
- 4. WHERE APPLICABLE DETAILS FOR THE SUPPORT AND BRACING MAY BE PER ITEM B ABOVE.
- 5. ALL SHOP DRAWINGS OF THE SPRINKLER SYSTEM SHALL BE SUBMITTED TO THE LOCAL FIRE MARSHAL AND MECHANICAL ENGINEER OF RECORD FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
- D. CALCULATIONS AND DRAWINGS SHALL BE SUBMITTED FOR PIPING SUPPORTS AND BRACING SHOWING: 1. LOCATION OF SEISMIC BRACING.
- 2. REACTION FORCES TO THE SUPPORTING STRUCTURE.
- 3. MANUFACTURER'S DESIGNATION OF SUPPORT DEVICES.
- E. SEISMIC BRACING POINTS SHALL BE SUBMITTED ON CONTRACTOR'S COORDINATED SHOP DRAWINGS.
- F. A COPY OF THE BRACING SYSTEMS INSTALLATION MANUAL SHALL BE ON THE JOB SITE PRIOR TO STARTING THE INSTALLATION OF THE HANGERS AND/OR BRACES. SUBMIT APPLICABLE DETAILS FOR REVIEW AND APPROVAL.

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architecture planning interiors

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REMARKS	DATE
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# BUILDINGS 5 & 6 RENOVATIONS

San Mateo County Community
College District

**BID ADDENDA** 

4200 Farm Hill Boulevard Redwood City, CA 94061

PLUMBING LEGENDS, NOTES, ABBREVIATIONS AND DRAWING INDEX

07013

Drawing Number 08/29/08 AS NOTED **Project Number**