
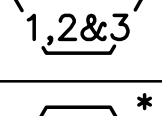
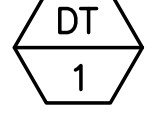







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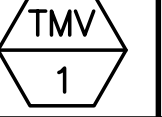
PLUMBING EQUIPMENT SCHEDULE	
SYMBOL	DESCRIPTION
 FT FURNISH FULL WITH FUEL	FUEL OIL TANK: PRE-FABRICATED U.L. LISTED, PRIMARY STEEL TANK, SECONDARY CONTAINMENT OF 30 MIL POLYGEOTHERMAL MEMBRANE, ENCASED IN 6" OF 4500 PSI REINFORCED CONCRETE, 2 HOUR FIRE RATED, IN COMPLIANCE W/ N.F.P.A. 30/30-A, ASTM A615/A706 GRADE 60, COMPLETE DISPENSING SYSTEM 8'-0" W X 23'-1" L X 8'-10" H DIMENSIONS, 150,000 LBS. OPERATING WT, 8,000 GAL., CON-Vault W/ARCHITECTURAL FINISH & GROUND LEVEL FILL BOX W/ SPILL CONTAINMENT ANALOG LEVEL GAGE, LEAK DETECTION & ALARM SYSTEM, ANTI-SIPHON VALVE, BRASS FOOTVALVE, LOW AND HIGH LEVEL LOCAL ALARM, PROVIDE LOW ALARM (10% FULL), LOW WARNING (20% FULL), HIGH WARNING (90% FULL), HIGH ALARM (95% FULL). FURNISH RESTRAINTS WITH WELDED GUSSET PLATES.
 FOP 1,2&3	FUEL OIL PUMP: POSITIVE DISPLACEMENT PUMP MOUNTED IN DAY TANK ENCLOSURE, FOP-1&2 @7 GPM @ 70 FT. TDH 1/3 HP, FOP-3 @ 19GPM -70' HEAD, 1 HP, 110V, 1 PH, 60 HZ.
 DT 1	DAY TANK: SPEC 26 32 13, 100 GAL PRE-FABRICATED U.L. LISTED, STEEL TANK WITH ANCHORING CLIPS, SECONDARY CONTAINMENT IN COMPLIANCE W/ N.F.P.A. 30/30-A, ASTM A615/A706, COMPLETE SYSTEM WITH BUILT-IN PUMPS AND 2000PLUS ECM CONTROLS, 2" VENT AND 3" EMERGENCY VENT WITH CAP, WEATHERPROOF, TRAMONT UTRS-100, TWO FEED PUMP & OVERFLOW PUMP (FOP1,2,3), 1400 LB WEIGHT
 DWH 1	(FUEL GAS) WATER HEATER: A.O.SMITH # BTH-150, 100 GALLON, 150 CFH INPUT, 94% THERMAL EFFICIENCY 171 GPH RECOVERY AT 100 DELTA T, UL LISTED, ASHRAE/IES 90.16-1992., 120V, 60HZ, 1PH, 1500 LBS OPERATING WT. WITH EXPANSION TANK.
 CP 1	CIRCULATING PUMP: BELL & GOSSETT SERIES 100, 5 GPM, 1/12 HP, 60 HZ, 1 PH, 25 LBS (DETAIL 6/M-702 SIM FOR MOUNTING)
 EA 1	EXPANSION TANK: AMTROL ST-12-C 4.7 GAL, 75 LBS (DETAIL 6/M-702 SIM FOR MOUNTING)

\* FURNISH FULL WITH FUEL

VACUUM PUMP (CENTRAL VACUUM CLEANING) - DETAIL 8/M704

SYMBOL	SERVICE	CFM	VACUUM HG	MOTOR DATA				MIN. CAPACITY DIRT CAN (GALLONS)	WEIGHT LBS	REMARKS
				NO	HP	V	Ø			
 VP 1	SECOND FLR RM 209	150	5.0	1	5.0	480	3	60	24	750 VECTOR, QVR 50, STATIONARY, WITH SILENCER

SUMP PUMP										
SYMBOL	LOCATION	GPM	TYPE	HEAD FT WATER	MOTOR DATA				MANUFACTURER MODEL	REMARKS
					NO	HP	V	Ø		
 SP 1	CRAWL SPACE 001	30	DUPLEX	14'	2	1/3	110	1	60	WEIL #1409 OR EQUAL FURNISHED WITH MICRO SWITCH CONTROL, 15' LONG PLUG IN GROUNDED CORD & LIFT CABLE

TEMPERATURE MIXING VALVE						
UNIT	MANUFACTURER MODEL	MAX. FLOW CAP (GPM)	PRES. DROP (PSI)	INLET	OUTLET	REMARKS
 TMV 1	SYMONS #5-500B-T-S	38	10	1"	1 1/4"	SET TEMPERATURE TO 105°F SEMI-RECESS IN CABINET

FUEL OIL PURIFIER SCHEDULE*										
SYMBOL	MANUFACTURER MODEL	SERVICE	FUEL PUMP						WEIGHT LBS	REMARKS
			TYPE	No. OF PUMPS	HP	VOLT	PH	HERTZ		
FP-1	ROI -FRS660-2	FUEL OIL 2 STORAGE TANK	POSITIVE DISPLACEMENT	1	1/3	115	1	60	2	300

\* COMPLETE PACKAGE WITH AUTOMATIC CONTROLS, PUMP AND 15 GAL WATER COLLECTION DRUM WITH WEATHERIZED CABINET FOR OUT DOOR MOUNTING. SINGLE POINT POWER CONNECTION.

GAS METER SCHEDULE					
SYMBOL NO.	LOCATION	TYPE	MANUFACTURERS MODEL	SIZE (IN)	CAPACITY (CFH) Ø2"WC DIFF.
GM-1	OUTDOOR	DIAPHRAGM	EQUIMETER 3000	3"	3000

NOTE:

- FOR PIPE PENETRATION DETAILS SEE 2/M-704, 10/M-704, 1/M-705
- STORM DRAIN PIPING ABOVE GROUND SHALL BE CAST IRON DWV NO-HUB SOIL PIPE AND FITTINGS. PIPE AND FITTINGS MUST MEET REQUIREMENTS OF CISPI 301 AND ALL PIPING RUNNING ON HORIZONTAL UNDER ROOF SHALL BE INSULATED BY 1" THICK PIPING INSULATION.
- PROVIDE FLEXIBLE CONNECTION FOR ALL UNDERGROUND PIPES/CONDUITS ENTERING THE BUILDING TO ALLOW MIN 26" DISPLACEMENT AT ALL DIRECTIONS TO PROTECT THE SYSTEMS DURING EARTHQUAKE.
- THE SEISMIC ANCHORAGE OF MECHANICAL AND ELECTRICAL EQUIPMENT SHALL CONFORM TO C.C.R. TITLE 24, 2001 CBC, SECTION 1632A AND TABLE 16A.O. ANCHORAGE DETAILS FOR ROOF/FLOOR MOUNTED EQUIPMENT SHALL BE SHOWN ON PLANS. WHERE ANCHORAGE DETAILS ARE NOT SHOWN ON THE DRAWINGS OR APPROVED DURING PLAN REVIEW, THE FIELD INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF STRUCTURAL, MECHANICAL, OR ELECTRICAL ENGINEER OF RECORD AND THE FIELD ENGINEER AND/OR DISTRICT STRUCTURAL ENGINEER OF THE DIVISION OF THE STATE ARCHITECT PRIOR TO INSTALLATION AND INSPECTION BY THE PROJECT INSPECTOR.
- CUTTING, BORING, SAWCUTTING OR DRILLING THROUGH THE NEW OR EXISTING STRUCTURAL ELEMENTS TO BE DONE ONLY WHEN SO DETAIL IN THE DRAWINGS OR ACCEPTED IN WRITING BY THE STRUCTURAL ENGINEER OF RECORD & APPROVAL OF DSA REPRESENTATIVE PRIOR TO ANY SUCH WORK IS COMMENCED. ALL WELDING SHALL BE SPECIALLY INSPECTED BY AN AWS-CWI QUALIFIED INSPECTOR APPROVED BY DSA.  
ALL BRACING OF DUCTS AND PIPING SHALL BE INSTALLED IN ACCORDANCE WITH THE SMACNA GUIDELINES AS APPROVED BY DSA. WHERE BRACING DETAILS ARE NOT SHOWN ON THE DRAWINGS OR IN THE GUIDELINES, THE FIELD INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE ARCHITECT, MECHANICAL ENGINEER AND DSA FIELD ENGINEER. A COPY OF THE GUIDELINES PUBLISHED BY SMACNA AND APPROVED BY DSA SHALL BE PROVIDED BY THE CONTRACTOR AND KEPT ON THE JOB AT ALL TIMES.  
SEISMIC BRACING AND RESTRAINTS MUST CONFORM TO SMACNA:  
SHL C - FOR 1st FLOOR APPLICATIONS  
SHL A - FOR 2nd FLOOR APPLICATIONS  
SHL AA - FOR LOW ROOF APPLICATIONS
- FOR VACUUM PUMP DETAIL, SEE 8/M704.

PLUMBING FIXTURE SCHEDULE										
SYMBOL	DESCRIPTION	MINIMUM PIPE SIZE CONNECTION					REMARKS			
		W	TRAP	V	CW	HW				
WC-1	WATER CLOSET	4"	INT.	2"	1"	-	WALL HUNG, VITREOUS CHINA W/ EXPOSED DUAL-FLUSH FLUSHOMETER MODEL WES-111 LOW CONSUMPTION, (DOWN 1.6 GPF/6.0 LPF, UP 1.1 GPF/4.2 LPF), SEAT: OLSONITE 10 C HEAVY DUTY WHITE SOLID PLASTIC OPEN FRONT SEAT FOR ELONGATED BOWL			
WC-2	WATER CLOSET (ACCESSIBLE)	4"	INT.	2"	1"	-				
WC-3	WATER CLOSET (ACCESSIBLE)	4"	INT.	2"	1"	-				
UR-1	URINAL	2"	INT.	1 1/2"	3/4"	-	WALL HUNG, VITREOUS CHINA W/ WATERLESS TYPE			
UR-2	URINAL (ACCESSIBLE)	2"	INT.	1 1/2"	3/4"	-	WALL HUNG, VITREOUS CHINA W/ WATERLESS TYPE, ACCESSIBLE			
L-1	LAVATORY (ACCESSIBLE)	2"	1 1/2"	1 1/2"	1/2"	1/2"	COUNTER TOP MOUNTED, VITREOUS CHINA, COMPLETE WITH FAUCET (AERATED-0.5 CGPM) ELECTRONIC SENSOR SLOAN "OPTIMA" ETF-600-A, TRAP & SUPPLIES, ACCESSIBLE, WITH POWER TRANSFORMER			
L-2	LAVATORY (ACCESSIBLE)	2"	1 1/2"	1 1/2"	1/2"	1/2"	WALL HUNG, VITREOUS CHINA, COMPLETE WITH FAUCET (AERATED-0.5 GPM) ELECTRONIC SENSOR SLOAN "OPTIMA" ETF-600-A, TRAP & SUPPLIES, ACCESSIBLE, WITH POWER TRANSFORMER			
S-1	SINK (ACCESSIBLE)	2"	1 1/2"	1 1/2"	1/2"	1/2"	SINGLE COMPARTMENT SINK, STAINLESS STEEL, DUAL LEVER FAUCET, ACCESSIBLE & GARBAGE DISPOSER			
S-2	SINK (ACCESSIBLE)	2"	1 1/2"	1 1/2"	1/2"	1/2"	BOUBLE COMPARTMENT SINK, STAINLESS STEEL, SINGLE-HANDLE FAUCET, ACCESSIBLE & GARBAGE DISPOSER			
SS-1	SERVICE SINK	3"	2"	2"	3/4"	3/4"	ENAMELED CAST IRON, CORNER TYPE FLOOR MOUNTED BASIN, WALL MOUNTED FAUCET W/ VACUUM BREAKER, THREADED OUTLET, INTEGRAL STOPS			
SH-1	SHOWER UNIT (ACCESSIBLE)	2"	2"	1 1/2"	1/2"	1/2"	PRESS BALANCING VALVE, WALL/HAND SHOWER HEADS, FLEXIBLE METAL HOSE, 30" SLIDE BAR, SINGLE LEVER HANDLE, ACCESSIBLE, 1.5 GPM FLOW.			
EWC-1	ELECTRIC WATER COOLER (ACCESSIBLE)	2"	1 1/2"	1 1/2"	1/2"	-	DUAL HEIGHT TWO STATION, STAINLESS STEEL, ELECTRONIC SENSOR ACTIVATED, 115 V, 60 HZ, 1 PH, ACCESSIBLE. HALSEY TAYLOR OVL-II BI-LEVEL EYE.			
FD-1	FLOOR DRAIN	2"	2"	1 1/2"	1/2"	-	NICKEL BRONZE GRATE WITH TRAP PRIMER.(TOILET ROOM)			
FD-2	FLOOR DRAIN	SEE PLAN					NICKEL BRONZE GRATE			
FD-3	FLOOR DRAIN	3"	3"	2"	1/2"	-	WITH FUNNEL & TRAP PRIMER (BELOW RAISED FLOOR)			
FD-4	FLOOR DRAIN	3"	3"	2"	-	-	WITH CAP & TRAP (BELOW RAISED FLOOR) PROVIDE PLUG WITH REMOVABLE CHAIN			
FS-1	FLOOR SINK	SEE PLAN					NICKEL BRONZE (3/4)GRATE WITH TRAP PRIMER.			
FS-2	FLOOR SINK	SEE PLAN					NICKEL BRONZE (3/4)GRATE WITH TRAP PRIMER.			
RD-1	ROOF DRAIN	-	-	-	-	-	SEE PLAN FOR SIZES			
OD-1	OVERFLOW DRAIN	-	-	-	-	-	SEE PLAN FOR SIZES			
GD-1	GUTTER DRAIN	-	-	-	-	-	J.R. SMITH 1620T-03, 2-INCHES DEEP BODY; SEE PLAN FOR SIZES. PIPING EXPOSED TO OUTSIDE (EXTERIOR) SHALL BE STAINLESS STEEL			
NZ-1	OVERFLOW DRAIN NOZZLE	-	-	-	-	-	SEE PLAN FOR SIZES			
RR-1	ROOF RECEPTOR	-	-	-	-	-	SEE PLAN FOR SIZES			
TP-1	TRAP PRIMER	-	-	-	-	-	SEE PLAN FOR SIZES PROVIDE ACCESS PANEL & DISTRIBUTION VALVE WHERE REQUIRED			
HB-1	HOSE BIBB	-	-	-	3/4	-	WITH VACUUM BREAKER, W/ LOOSE KEY HANDLE			
HB-2	HOSE BIBB	-	-	-	3/4	-	WITH VACUUM BREAKER			
WHA-X	WATER HAMMER ARRESTERS	-	-	-	-	-	SEE DIAGRAM FOR SIZES PROVIDE ACCESS PANEL WHERE REQUIRED			
WH-1	WALL HYDRANT	-	-	-	3/4"	-	SEE PLAN FOR SIZES			
EEW-1	EMERGENCY EYE WASH (ACCESSIBLE)	-	-	-	-	-	SELF-CONTAINED PORTABLE EYE WASH UNIT WITH 14 GALLON PRESSURIZED TANK, ANTI-SURGE SOFT-FLOW EYE WASH HEAD, FLOW CONTROL, DUST COVER, AIR PRESSURE GAUGE, PRESSURE RELIEF VALVE, TIRE-TYPE AIR FILL VALVE.			

① CAPPED COLD WATER BRANCH TO EACH URINAL IN CASE OF FUTURE USE.

WATER HAMMER ARRESTERS		
SYMBOL NO.	FIXTURE UNIT RATING	NIPPLE SIZE (INCHES)
WHA-A	1 - 11	3/4
WHA-B	12 - 32	1
WHA-C	33 - 60	1
WHA-D	61 - 113	1
WHA-E	114 - 154	1
WHA-F	155 - 330	1

NOTES:

- REFER TO EXITING PLAN DRAWING G-101 FOR RATED ASSEMBLIES. PIPES THRU RATED ASSEMBLIES SHALL BE PER DETAIL ON 7/M-703, 2/M-704 & 1/M-705.
- REFER TO DRAWING FP-101 FOR DIFFERED FIRE SPRINKLER SUBMITTAL INFORMATION.
- ACCESSIBLE PLUMBING FIXTURES SHALL COMPLY WITH ALL OF THE REQUIREMENTS OF CBC SECTION 1115B.
- HEIGHTS AND LOCATION OF ALL FIXTURES SHALL BE ACCORDING TO CBC TABLE 1115B-1.
- FIXTURE CONTROLS SHALL COMPLY WITH CBC SECTION 1118B.

PLUMBING LEGEND		
SYMBOL	ABBREV.	DESCRIPTION
-----	CW	COLD WATER
-----	H OR HW	HOT WATER
-----	HWR	HOT WATER RETURN
---W/S---	W/S	WASTE OR SEWER BELOW FLOOR
---W/S---	W/S	WASTE OR SEWER ABOVE FLOOR
-----	V	SANITARY VENT
---FOS---	FOS	FUEL OIL SUPPLY
---FOR---	FOR	FUEL OIL RETURN
---FOV---	FOV	FUEL OIL VENT
---ICW---	ICW	INDUSTRIAL COLD WATER
---ID---	ID	INDIRECT DRAIN
---CD---	CD	CONDENSATE DRAIN
---TP---	TP	TRAP PRIMER
---G---	G	FUEL GAS
---SD/OD---	SD/OD	STORM OR OVERFLOW DRAIN BELOW FLOOR
---SD/OD---	SD/OD	STORM OR OVERFLOW DRAIN ABOVE FLOOR
---CWV---	CWV	COMBINATION WASTE AND VENT
---HV---	HV	HOUSE VACUUM
---VE---	VE	VACUUM EXHAUST
---X---	SOV	SHUT OFF VALVE
---S---	SOC	SHUT OFF COCK
---HB---	HB	HOSE-BIBB
○+○+---		PIPE-UP OR RISER
○+○+---		PIPE-DOWN OR DROP
--- ---		UNION
--- ---	WCO	WALL CLEANOUT
○	FCO	FLOOR CLEANOUT
○	FD	FLOOR DRAIN
⊗	FS	FLOOR SINK
Ø	DIA.	DIAMETER
--- ---	RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
⚠		EQUIPMENT IDENTIFICATION
XX-1	RD	ROOF DRAIN
○	OD	OVERFLOW DRAIN
○	ABV	ABOVE
	AP	ACCESS PANEL
	AD	AREA DRAIN
	BEL	BELOW
	BEH	BEHIND
	BFP	BACKFLOW PREVENTER
	CI	CAST IRON
	CLG	CEILING
	CO	CLEANOUT
	CONN	CONNECT OR CONNECTION
	CONC	CONCRETE
	CONT	CONTINUATION
	CFH	CUBIC FEET PER HOUR
	EL	ELEVATION
	EQUIP	EQUIPMENT
	FLEX	FLEXIBLE
	FU	FIXTURE UNIT
	FIN	FINISH
	FFE	FINISH FLOOR ELEVATION
	FLR	FLOOR
	FT	LINEAR FEET OR LINEAR FOOT
	GAL	GALLON
	GPF	GALLONS PER FLUSH
	GPM	GALLONS PER MINUTE
	HDR	HEADER
	HZ	HERTZ
	HP	HORSE POWER
	ID	INSIDE DIAMETER
	IE	INVERT ELEVATION
	KW	KILOWATT
	L	LENGTH
	LBS	POUNDS
	LOC	LOCATION
	TYP	TYPICAL
	MIN	MINIMUM
	MAX	MAXIMUM
	MECH	MECHANICAL
	NTS	NOT TO SCALE
	NO	NUMBER
	OD	OUTSIDE DIAMETER
	PH	PHASE
	Sq	SQUARE
	T.D.H.	TOTAL DYNAMIC HEAD
	T.D.L.	TOTAL DEVELOPED LENGTH
	U.L.	UNDERWRITERS LABORATORY
	VB	VACUUM BREAKER
	W/	WITH
	WT	WEIGHT
	N.F.P.A.	NATIONAL FIRE PROTECTION ASSOCIATION
	A.S.T.M	AMERICAN SOCIETY TESTING MATERIALS
	C.P.C.	CALIFORNIA PLUMBING CODE
	VB	VACUUM BREAKER
	VTR	VENT THRU ROOF

PROJECT



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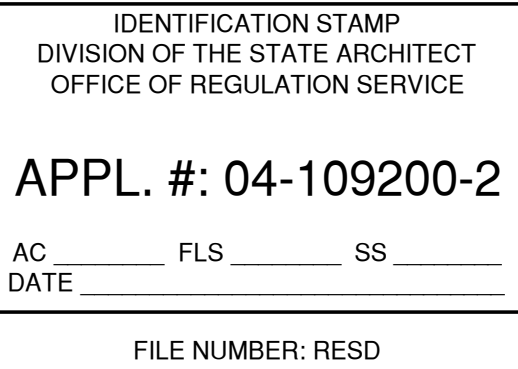
DESIGNER

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CONSULTANT

DSA STAMP



SHEET TITLE

JULY 30, 2008

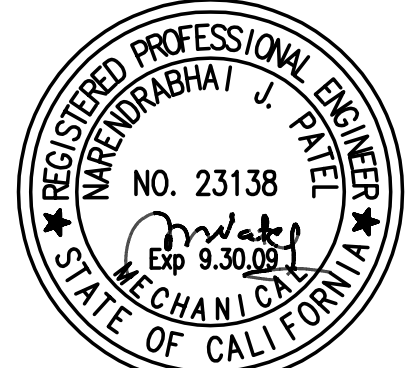
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MARK	DATE	DESCRIPTION
△	10/27/2008	BID PERIOD ADDENDUM#5
△	09/26/2008	BID PERIOD ADDENDUM

PROJECT NO: 60004333.4000

DRAWN BY: E.DELROSARIO  
CHECKED BY: N.PATEL

STAMP



SHEET TITLE

PLUMBING LEGEND  
NOTES AND SCHEDULE

P-101