

MECHANICAL & PLUMBING GROUND LEVEL PLAN



- KEY NOTES
- 1

MOUNT THERMOSTAT AT (+) 48" AFF.
- 2

REFER TO CIVIL PLANS FOR SIZE.
- 3

REFER TO CIVIL PLANS FOR INVERT.
- 4

SLOPE 1/8" PER FOOT IN DIRECTION INDICATED.
- 5

10" DROP FROM ABOVE WITH CLEANOUT.
- 6

NOT USED.
- 7

1 1/2" COLD WATER RISE UP IN GREN COUNTY IN WALL SEE MP201 AND MP201 FOR CONTINUATION.
- 8

FIRE STAND PIPE.
- 9

FDC CONNECTION.
- 10


ROUTE REFRIGERANT LINES THRU MECHANICAL ROOM WALL AND ROUTE TO IDU-1 IN MACHINE ROOM. TO BE GROUND MOUNTED ADJACENT TO MECHANICAL ROOM.
- 11

HOSE BIBS NOT TO WIDE PARKING. SET 4' ABOVE FINISHED FLOOR.

CONSTRUCTION DOCUMENTS - FINAL SUBMISSION

Revisions:		Date:	
Consultants:		Architects / Engineers:	
Drawing Title: Mechanical & Plumbing Ground Level Plan		Project Title: VA Northern California Health Care System Parking Structure	
Approved, Project Director		Location: 10535 Hospital Way, Mather, CA 95655	
Date: 11/1/2012		Checked: GML	
Drawn: KLA		Drawing Number: MP 101	
Dwg. 54 of 74		Office of Construction and Facilities Management Department of Veterans Affairs	

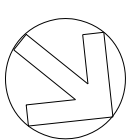
MECHANICAL & PLUMBING THIRD LEVEL PLAN



CONSTRUCTION DOCUMENTS - FINAL SUBMISSION

[illegible]

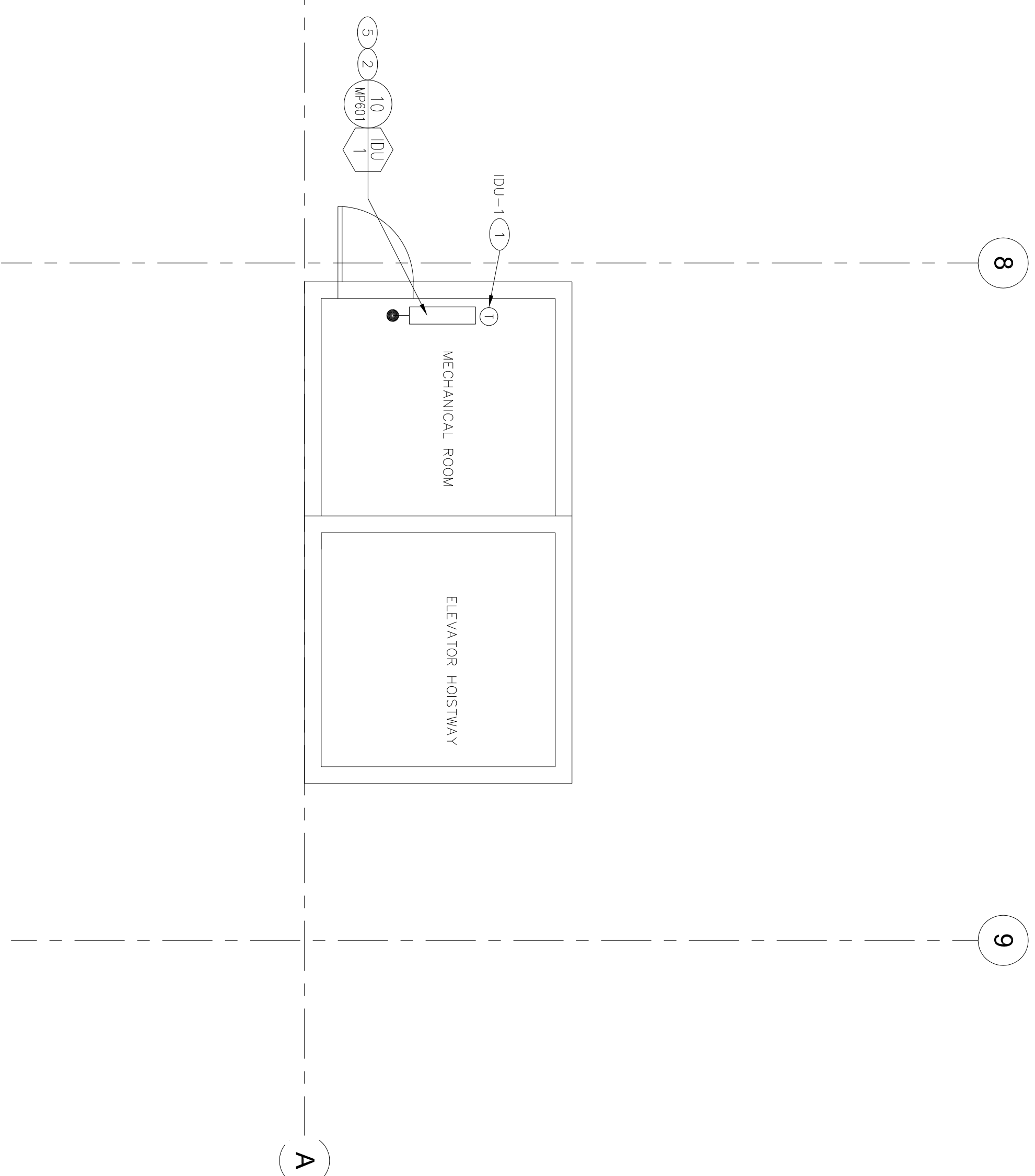
MECHANICAL & PLUMBING TOP LEVEL PLAN

$$1/8^{\circ} = 1^{\circ} 0'$$


CONSTRUCTION DOCUMENTS - FINAL SUBMISSION

[illegible]

MECHANICAL ROOM AND ELEVATOR ROOF PLAN

MECHANICAL ROOM PLAN
1/4" = 1'-0"

- 1 MOUNT THERMOSTAT AT (+) -45° AFF.
- 2 DU-1 MOUNTED AT 7'-0" AFF.
- 3 ROUTE REFRIGERANT LINES THRU MECHANICAL ROOM WALL AND ROUTE TO DU-1 IN MACHINE ROOM. TO BE GROUND MOUNTED ADJACENT TO MECHANICAL ROOM.
- 4 ELEVATOR VENT LOCATED ON THE SOUTH FACING CURB WALL. REFERENCE STRUCTURAL SHEET SS-421 FOR VENT LOCATION.
- 5 INDOOR UNIT TO BE EQUIPPED WITH CONDENSATE LIFT PUMP SPECIFIED ON SCHEDULE. SEE SHEET MP-01.

CONSTRUCTION DOCUMENTS - FINAL SUBMISSION

Revisions:						
Date:						
Consultants:						
Architects / Engineers:			 <p>885 W. Ardner Avenue, Suite 102 Costa Mesa, CA 92626 TEL: (949) 255-7444 WWW.ERAMPION.COM</p>			
Drawing Title: Mechanical Room and Elevator Roof Plan Mechanical Room Plan			Project Number: VA Northern California Health Care System Parking Structure			
Approved: Project Director			Location: 10535 Hospital Way, Mather, CA 95655			
Date: 11/1/2012			Checked: GML			
Drawing Number: MP 501			Building Number: N/A			
Dwg. 58 of 74						

NT

Drawing Title:	Project Title:	Project Number:	
----------------	----------------	-----------------	--



Department of
Veterans Affairs

EXHAUST FAN SCHEDULE	
NUMBER	EF-1
TYPE	CENTRIFUGAL
MATERIAL	12/17
VOLTS/PHASE	115/1
E.S.P. (IN. WC.)	0.25
DRIVE	DIRECT
CONTROL	ON/OFF
SIZE/HP (FPM)	2 0/1666
SECTOR	5/8
OPERATING H. (INB)	34
MANUFACTURER	GREYHOUND
MODEL	SE-2410
NOTES:	
1. PROVIDE BACKDRAFT DAMPER,	
2. PROVIDE FACTORY SUD STATE SPEED CONTROLLER,	
3. PROVIDE 100% OF FAN SWITCH IN LOCK BOX FOR EF-1.	
STATUS: CONTROL EF-1 ON CAMPUS EAS SYSTEM TO MONITOR	

NOTES:

1. PROVIDE BACKDRIFT DAMPER.
2. PROVIDE FACTORY-SOLID STATE SPEED CONTROLLER.
3. PROVIDE "FAST STOP" BUT NOT OPERATION OF EF-1.
4. CONNECT EF-1 TO CAMPUS EMS SYSTEM TO MONITOR STATUS.

EMS NOTES
NOTES: 1. CONNECT EXHAUST FANS, INDOOR UNIT AND SUMP PUMP TO CAMPUS EMS TO MONITOR STATUS.

INDOOR UNIT SCHEDULE	
NUMBER	IDU-1
NAME	HORIZONTAL DISBURSE
MOULTING	209.71
VOLUME/PHASE	2/2
TSF/ STER UP	- / 6.60
0 SUPPLY CUB	406
0 E.E.F. (N. WC)	-
0 DIVE	DIRECT
R. MIN. OA. (CH)	1.70
0 SENS. CUB. (WH)	9.0
0 E. 03/AIR (T)	80 / 67
1 ALBERTIN TEMP. (7)	105
N COIL TYPE	DIRECT EXP.
SEERICE	SEE PLANS
ACCESSORIES	SEE NOTES
MANUFACTURER	WILKINS
MODEL	MS-A17WA

0	SENS. CAP. (MEH)	9.0
1	E.A. DB/WB (°F)	80 / 67
2	E.A. DB/WB (°F)	—
3	AMB. TEMP. (°F)	105
4	COIL TYPE	DIRECT EXP.
5		
6		
7	SERVICE ACCESSORIES	SEE PLANTS
8	OPER. WT. (LBS.)	27
9	MANUFACTURER	MITSUBISHI
	MODEL	MS-A-12MA

NOTES:

1. PROVIDE FACTORY INTERNAL FILTER ASSEMBLY.
2. PROVIDE FACTORY CONDENSATE PUMP CAPABLE OF LIFTING CONDENSATE A MINIMUM OF 48".
3. PROVIDE FACTORY THERMOSTAT, MOUNT 64-146 AFF.
4. CONSULT MANUFACTURER FOR REFRIGERANT LINE SIZE AND CONNECTIONS.
5. USE POWER TO BE PROVIDED BY OIL.
6. PROVIDE FACTORY THERMOSTAT, MOUNT 64-146 AFF. CONNECT TO CAMPUS EMS SYSTEM TO MONITOR STATUS.
7. PROVIDE WITH AUTOMATIC SHUT DOWN OF UNIT IF CONDENSATE PUMP FAILS.

OUTDOOR UNIT SCHEDULE	
NUMBER	ODU-1

TYPE	COMPRESSOR
VALVE/SHRINK	209 F
MANUFACTURER'S MARKS	29
DATE OF EXAMINATION	10-10-20
SEAL/EXAMINATION (MM)	130
EXAMINATION TYPE (Y/N)	Y
EXAMINATION TYPE	RT/RTA
REFRIG. LIQ. SPEC. (DOW/SID)	SEE NOTES
SEFVED	SEE PLANS
COMPRESSOR (HS)	SEE PLANS
MANUFACTURER	WATSON
MODEL	W1-22M

NOTES

1. REFRIG. LIQ. AND REFRIG. COMPRESSOR, UNIT SMITHS.
2. MANUFACTURER'S REQUIRED SERVICE.
3. REFRIG. LIQUID FILTER PAIR.
4. PROVIDE MANUFACTURER PART REFRIGERANT LINE.
5. PROVIDE EXAMINED REFRIG. COIL, COILS.

PLAN CHECK# VIA PARKING DATE: PREPARED BY:

Water Meter Size 2" (EXTENDING) LOCATION: WATER, G.A.

Total Fixture Units 17.5 TOTAL GPM 714

Total Fixture Units 17.5 Total Flow 15.9 ft/s

Total loss through meter 3.5 ft or 0.43 PSI

PSI required for meter (closed/normal flow)

PSI flow loss through water meter (Chart A-1)

PSI flow loss through backflow preventer (Chart A-1)

PSI flow loss through backflow preventer (Chart A-1)

(P=12.0 PSI, D.C.=12.0 PSI) (100 GPM) (100 GPM)

MINIMUM PSI available @ jobsite 0.7 PSI

System pressure (if positive) 35.0 PSI

Booster pump PSI 27.9 PSI

Required pressure (if negative use booster pump) 7.1 PSI

PSI available (if positive) 7.1 PSI

Use line 2.6. Total Feet = $0.026 \times 100 = 2.6$ PSI/100 FT

VELOCITIES SHALL NOT EXCEED 8 FT/SEC.

* NO LOSS AT 10 GPM THRU 2" METER, LINE AND METER UPSIZED FOR POSSIBLE FUTURE DEMAND.

PIPE SIZE (IN)	WILL DEVELOP (GPM)	FOR F.V. (F.U.)	FOR F.T. (F.U.)
6"			
5"			
4"			
3"			
2-1/2"	50	48	128
2"	26	9	46
1-1/2"	18	8	27
1"	8	-	11
3/4"	4	-	5
1/2"	2	-	2

F.V. = Flushometer Valve

F.T. = Flush Tank

SIED = SIGHT

FIXTURE WATER (COLD WATER)			
NO. OF FIX.	TYPE OF FIXTURE	F.U. / FIX.	TOTAL FIX. UNITS
---	WATER CLOSET (F. TANK)	---	---
---	WATER CLOSET (F. VALVE)	---	---
---	URINAL (WALL)	---	---
---	LAUNDRY	---	---
---	SINK	---	---
---	KITCHEN SINK 3- COMP. (POT)	---	---
---	SERVICE SINK	---	---
---	TUB/SHOWER	---	---
---	SHOWER	---	---
---	DRAINING FOUNTAIN (2) BUBBLER	---	---
1	HOSE BIBB	2.5	2.5
15	HOSE BIBB (EX. ADDITION)	1.0	15.0
TOTAL			17.5

PLUMBING FIXTURE SCHEDULE						
MARK	FIXTURE	S or W	V	CW	HIN	DESCRIPTION
(H) 1	HOSE BIBB	---	---	3/4"	---	BRASS FAUCET, LOOSE KEY HANDLE, AND NON-REMOVABLE VACUUM BREAKER AND POLISHED CHROME WOODFORD 2SP-3/24.
(D) 1-A THRU 4-C	FLOOR DRAIN	VARIABLES	---	---	---	ZILBER MOPR, 7534-HP-Y PLUMBING STRUCTURE DRAIN, DUTRY-COATED CAST IRON BODY WITH BOTTOM OUTLET, HEAVY-DUTY GASSEITED DRINK SUPPORT FLANGE, HEAVY DUTY GASKETED DRAIN CONNECTION, 1/2" NPT INLET, 1/2" NPT FOR CONNECTION SIZE, 2" MINIMUM SET SIZE SHALL BE A MIN. 2" I.D. THE AREA OF THE DRAIN UNIT.
(D) 2	FLOOR DRAIN	4"	2"	TIP	---	ZILBER ZALIS-ES COATED CAST IRON WITH 1/2" ROUND BRONZE GASKET WITH WINDUP SCREW, DOUBLE WEDGE FLANGE & NO HUB OUTLET, P-TAP, TRAP PRIMER CONNECTION.

PIPE HANGER SCHEDULE AND NOTES				
			HORIZONTAL	VERTICAL
PILING USE	PIPE SIZE	ROD SIZE	MAXIMUM INTERVAL	MAXIMUM INTERVAL
WATER OR	LESS THAN 1-1/2"	3/8"	6'	EVERY EXCEED 10'
CONDENSATE	2"-4"	3/8"	10'	EVERY EXCEED 10'
OR SPECIFIC	10"-12"	5/8"	10'	EVERY EXCEED 10'
(FOR MATERIAL)				
DRAIN LINE	LESS THAN 1-1/2"	3/8"	EVERY OTHER JOINT,	AT BASE AND AT
(REFER TO SPEC	2"-6"	5/8"	THIS SPECIFIC	EVERY OTHER JOINT
FOR MATERIAL)	10"-12"	5/8"	PER NOTES 1-4.	TO EXCEED 15'

4. HANGERS SHALL NOT BE PLACED ON PIPE COUPLINGS.
5. VERTICAL WATER LINES MAY BE SUPPORTED IN ACCORDANCE WITH RECOGNIZED ENGINEERING PRINCIPLES WITH REGARD TO EXPANSION AND CONTRACTION, WHEN FIRST APPROVED BY THE ADMINISTRATIVE AUTHORITY.
6. ALL PIPE SUPPORT SHALL BE IN ACCORDANCE WITH IP 308 FOR SPACING, SEISMIC SUPPORT, SLAM BRACING AT CHANGES OF DIRECTION AND CHANGE OF DIRECTION RESTRAINTS.

PIPE MATERIAL NOTES

GENERAL NOTES

1. ALL BRACING OF PIPING SHALL BE INSTALLED IN ACCORDANCE WITH IPC AND SMACNA GUIDELINES, HAZARD LEVEL "A".
2. 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 FIELD INSPECTOR.
3. FOR PLUMBING FIXTURE, MOUNTING HEIGHTS AND LOCATIONS, REFER TO THE ARCHITECTURAL DRAWINGS.
4. SUPPORT AND BRACING OF ALL PIPING SHALL BE IN ACCORDANCE WITH THE IPC AND SMACNA "GUIDELINES FOR SEISMIC RESTRAINTS OF PLUMBING PIPING SYSTEMS", OR THE "SUPERSTRUT SEISMIC RESTRAINT SYSTEM" FOR PIPING ONLY.
5. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO PROCEEDING WITH INSTALLATION. CONTRACTOR SHALL NOTIFY ARCHITECT/ENGINEER OF ANY EXISTING CONDITIONS WHICH CONFLICT WITH INFORMATION PROVIDED IN CONSTRUCTION DOCUMENTS.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL PIPE ROUTING WITH WORK OF OTHER TRADES AND MAKE ANY OFFSETS AS REQUIRED TO AVOID CONFLICT WITH DUCTWORK, LIGHT FIXTURES, SKYLIGHTS, ETC.
7. PLUMBING CONTRACTOR TO COORDINATE WITH MECHANICAL CONTRACTOR FOR ALL CONDENSATE DRAIN CONNECTIONS TO MECHANICAL EQUIPMENT.

MECHANICAL & PLUMBING SCHEDULES

CONSTRUCTION DOCUMENTS - FINAL SUBMISSION

[illegible]

Consultants:	



Architects / Engineers:

 **Frampton
Consulting
Engineers**

885 W. Ashlar Avenue, Suite 102
TEL: (650) 341-4800 FAX: (650) 346-2000
WWW.FCE-ENG.COM



Drawing Title: Mechanical & Plumbing Schedules	Project Title: VA Northern California Health Care System Parking Structure	Project Number: 612A4-CSH-102	Building Number: N/A
Approved Project Director	Location: 10535 Hospital Way, Mather, CA 95655 Date: 11/1/2012	Checked: GML Drawn: KLA	Drawing Number: MP 701 Dwg. 80 of 74

