

one eighth inch = one root

16

16

16

16

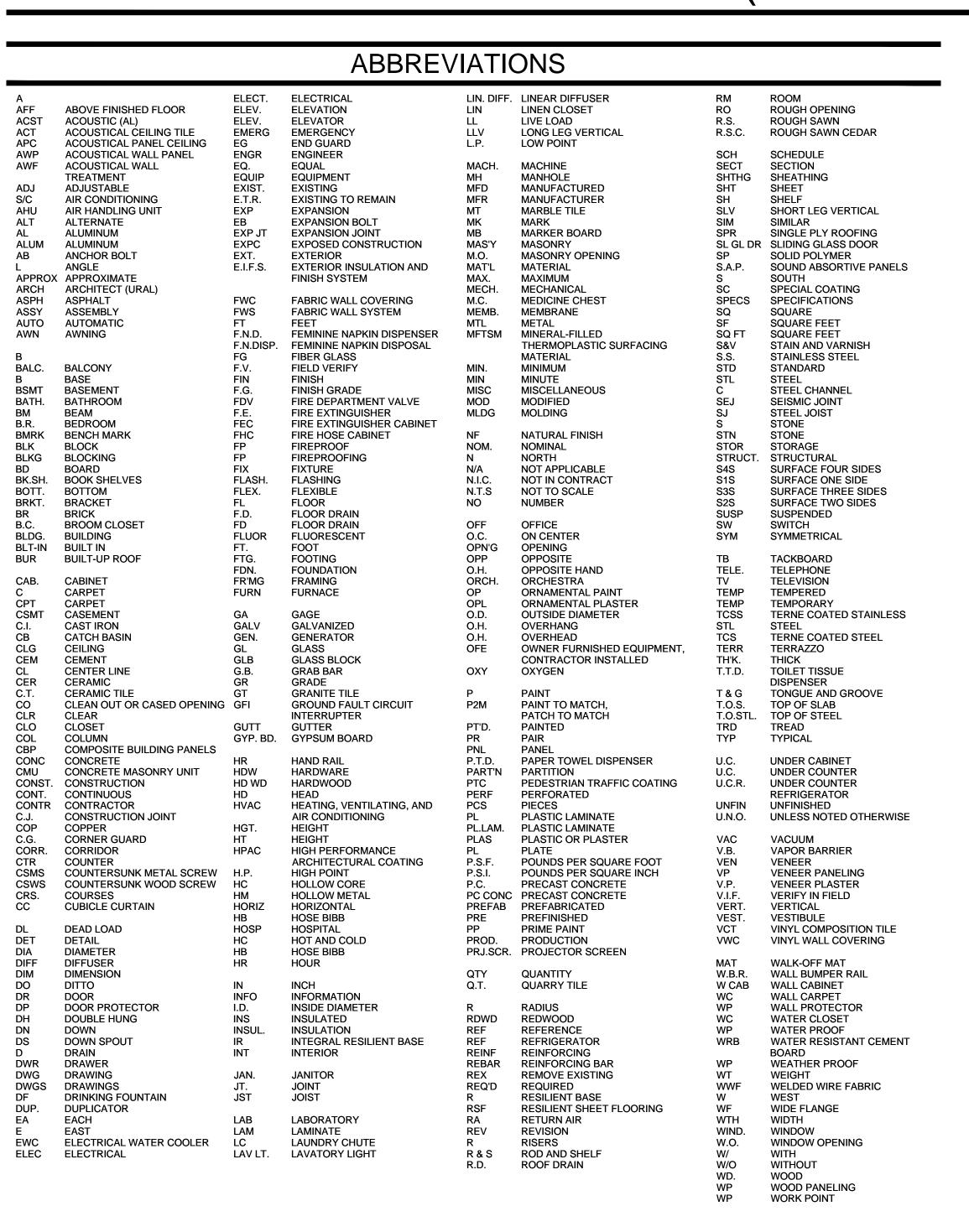
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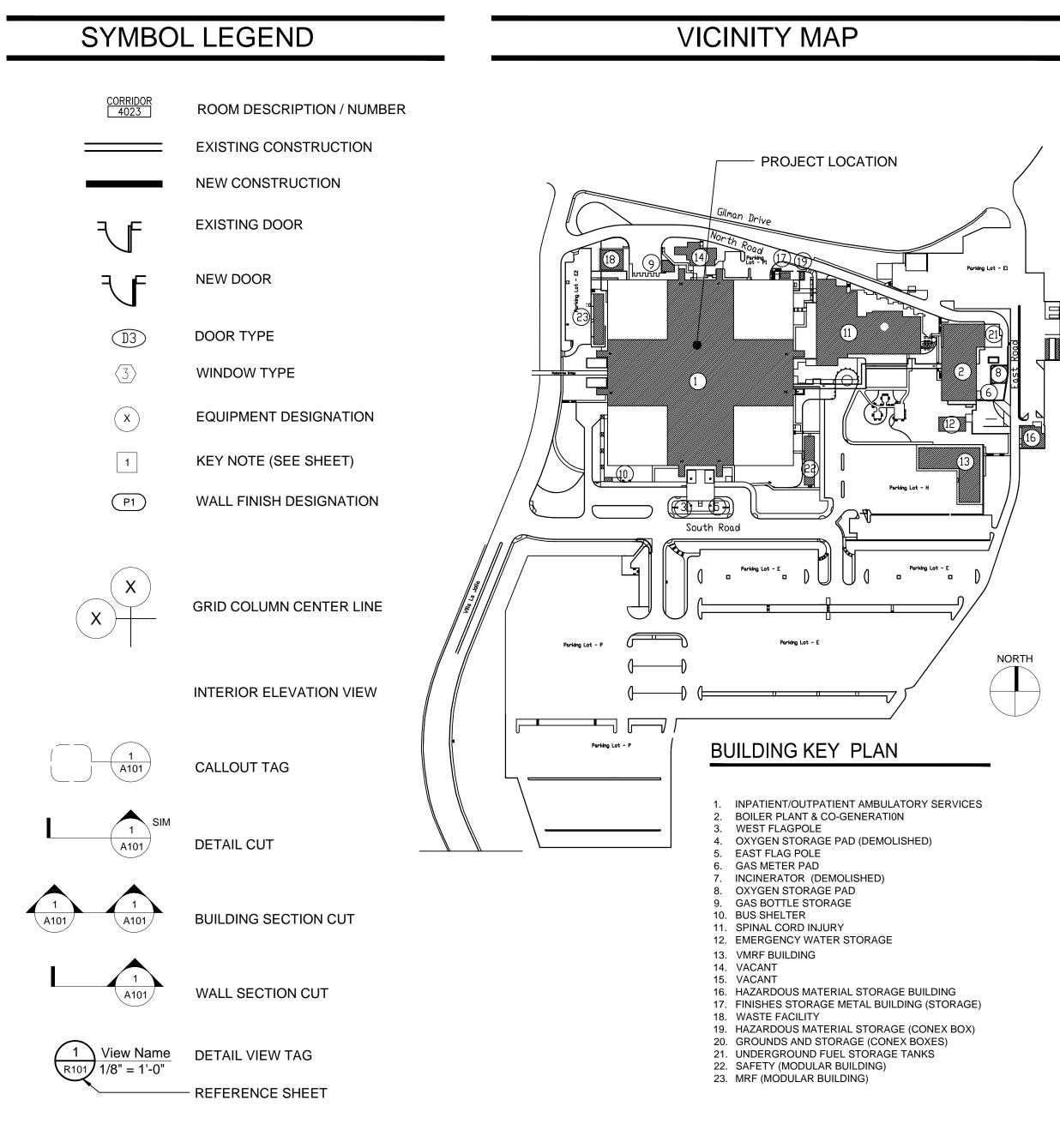
16

VA- San Diego Healthcare System Department of Veteran's Affairs

3350 La Jolla Village Dr., San Diego CA 92161

BLDG 1 EAST (3RD FLOOR) REMODEL - CLEAN ROOM AND BIO HOOD UPGRADE





DRAWINGS LIST

Drawing No Drawing Name

HEALTHC

GENERAL

G-001 COVER DRAWING, DRAWING INDEX, PROJECT INFORMATION

ARCHITECTURAL

AE-100 EXISTING FLOOR AND REFLECTED CEILING PLAN

VA SAN D
HEALTHC

3350 La J
San Dlego
ENGINEE

NOT USED

MECHANICAL

MAGO MECHANICAL TITLE QUEET, OVARDOLOGO ADDRESMATIONO

M-100 MECHANICAL TITLE SHEET, SYMBOLS & ABBREVIATIONS
M-101 MECHANICAL EXIST/DEMO FLOOR PLAN, DEMO NOTES
M-102 MECHANICAL DETAILS AND CONTROLS

PLUMBING

NOT USED

ELECTRICAL

E-001 GENERAL NOTES, SYMBOL LIST, DEMOLITION AND REMODEL PLANS

OWNER

VA SAN DIEGO
HEALTHCARE SYSTEM
3350 La Jolla Village Drive
San Dlego, California 92161

ENGINEERING SERVICES BLDG 1, ROOM BB108(MC138)

DESIGN TEAM

Architect
VA San Diego - Engineering Services
3350 La Jolla Village Drive (MC138)

Structural Engineer NOT USED, N/A

San Diego, CA 92161

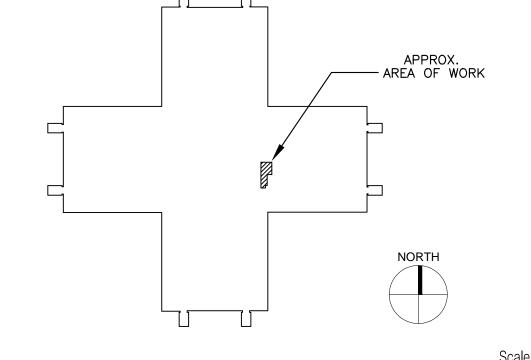
MEP Engineer

VA Engineering Services
3350 La Jolla Village Drive (MC138)
San Diego, CA 92161

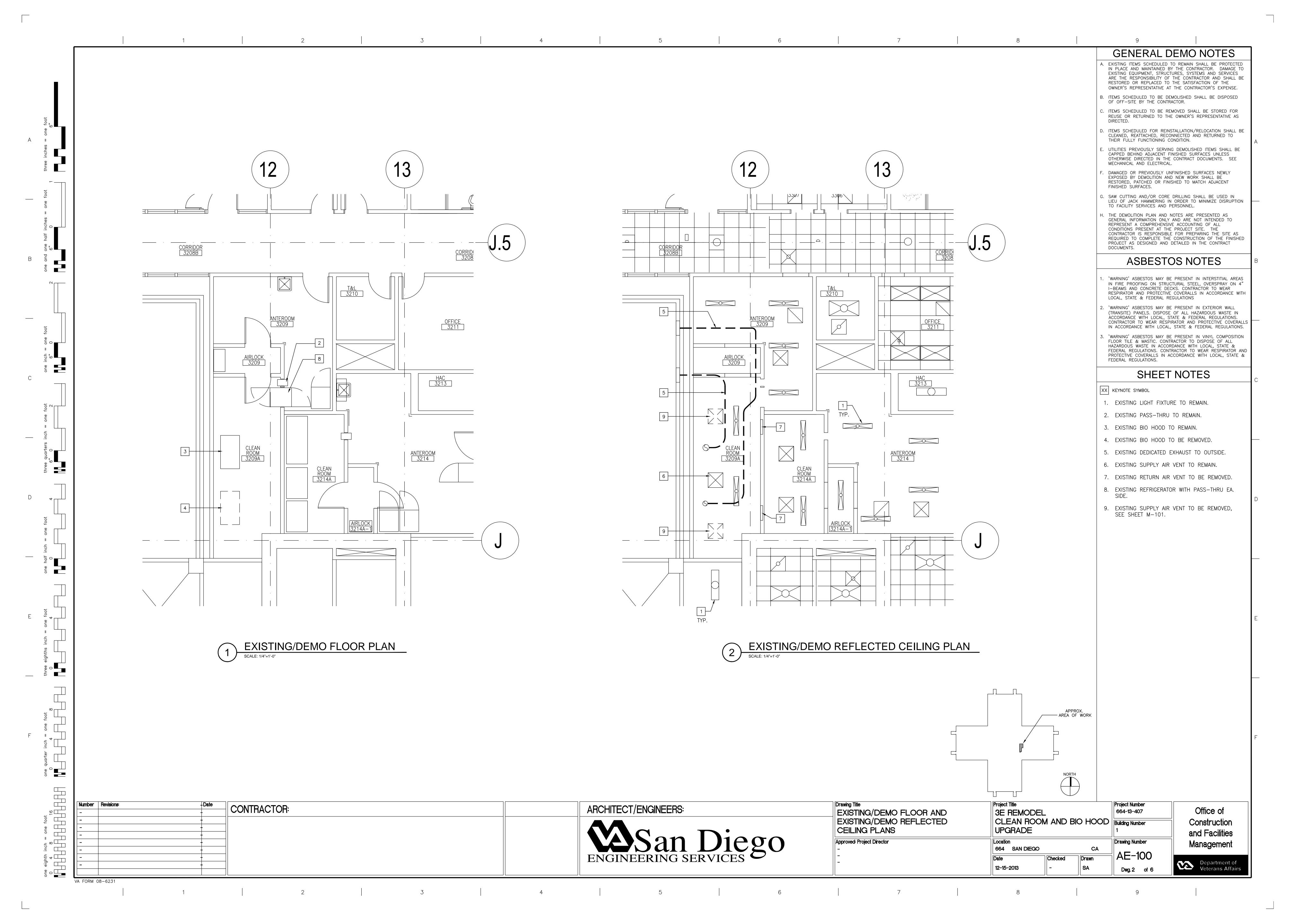
PROJECT DESCRIPTION

THE INFORMATION BELOW IS PROVIDED AS A GENERAL DESCRIPTION AND DOES NOT ALLEVIATE THE BIDDER/CONTRACTOR FROM ALL DUE DILIGENCE REQUIRED IN THE PREPARATION OF HIS OR HER BID:

REMOVAL AND REPLACEMENT OF EXISTING BIO HOOD AND MODIFICATIONS TO AIR SYSTEM TO ALLOW CORRECT AIRFLOWS FOR PROPER OPERATION. ACTUAL AREA OF AFFECTED SPACE IS APPROXIMATELY 210 SQUARE FEET.



Scale: 1/8"=1 Drawing Title ARCHITECT/ENGINEERS: **CONSULTANTS:** Office of 3E REMODEL COVER SHEET 664-13-407 CLEAN ROOM AND BIO HOOD Building Number DRAWING INDEX Construction PROJECT INFORMATION UPGRADE and Facilities Approved: Project Director Management 664 SAN DIEGO |G-001 Checked Department of Veterans Affairs 12-15-2013 Dwg. 1



SYMBOL	ABBR.	DESCRIPTION					
	-	SUPPLY AIR RISER					
	-	RETURN AIR RISER					
	-	EXHAUST AIR RISER					
	SAG	SUPPLY AIR GRILLE					
<u> </u>	RAG	RETURN AIR GRILLE					
<u></u>	EAG	EXHAUST AIR GRILLE					
	SWR	SIDEWALL REGISTER					
<u> </u>	(L)	LINED DUCTWORK					
cmm	-	FLEXIBLE CONNECTION					
	FC	FLEXIBLE CONNECTION					
<u> </u>	-						
, ,	_	NEW DUCT (SEE PLAN)					
)	_	EXISTING DUCT (SEE PLAN)					
\/////\	-	DEMO DUCT (SEE PLAN)					
	MVD	MANUAL VOLUME DAMPER					
	BDD	BACKDRAFT DAMPER					
S/F — —	SFD	SMOKE / FIRE DAMPER					
F	FD	FIRE DAMPER					
	DL	DOOR LOUVER					
U.C.	UC	UNDERCUT DOOR 3/4"					
——RS——	RS	REFRIGERANT SUCTION LINE					
—RL—	RL	REFRIGERANT LIQUID LINE					
—CD—	CD	CONDENSATE DRAIN					
	S.D.	SMOKE DETECTOR					
3	P.O.C.	POINT OF CONNECTION					
T	T-STAT	THERMOSTAT @ 48" MAX. A.F.F.					
H	н	HUMIDISTAT @ 48" MAX. A.F.F.					
TS	TS	TEMPERATURE SENSOR @ 48" MAX. A.F.F.					
<u>(S)</u>	os	OVERRIDE SWITCH@ 48" MAX. A.F.F.					
PD	PD	PRESSURE DIFFERENTIAL SWITCH					
<u> </u>	S	SWITCH @ 48" MAX. A.F.F.					
	O.C.	ON CENTER					
	HWR	HOT-WATER RETURN					
	HWS	HOT-WATER SUPPLY					
	I.D.	INSIDE DIAMETER					
	O.D.	OUTSIDE DIAMETER					
	W/	WITH					
	S/M	SHEET METAL					
	S/S	STAINLESS STEEL					
	G.C.	GENERAL CONTRACTOR					
	VTR	VENT THRU ROOF					
	EMS	ENERGY MANAGEMENT SYSTEM					
	OBD	OPPOSED BLADE DAMPER					
	FSC	FAN SPEED CONTROL					
E	E	ITEMS FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR AS SPECIFIED ON THE ELECTRICAL CONTRACT DOCUMENTS					
M	М	ITEMS FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR AS SPECIFIED ON THE MECHANICAL CONTRACT DOCUMENTS					
(EM)	EM	ITEMS FURNISHED BY ELECTRICAL CONTRACTOR AND INSTALLED BY MECHANICAL CONTRACTOR.					
ME	ME	ITEMS FURNISHED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR.					
©	C.C.	CONTROLS CONTRACTOR					
	CBD	COUNTER-BALANCE DAMPER					

LEGEND

GENERAL NOTES

- 1. THESE DRAWINGS AND SPECIFICATIONS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY.
- SYMBOLS AND ABBREVIATIONS ARE SHOWN FOR REFERENCE; NOT ALL SYMBOLS AND ABBREVIATIONS MAY BE USED.
 ASBESTOS OR HAZARDOUS WASTE: IT IS UNDERSTOOD AND AGREED THAT THIS CONTRACT DOES NOT CONTEMPLATE THE HANDLING
- ASBESTOS OR HAZARDOUS WASTE: IT IS UNDERSTOOD AND AGREED THAT THIS CONTRACT DOES NOT CONTEMPLATE THE HANDLING OF ASBESTOS OR ANY HAZARDOUS WASTE MATERIAL IS ENCOUNTERED, NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY. DO NOT DISTURB, HANDLE, OR ATTEMPT TO REMOVE.
- 4. THE PREMISES AND EXISTING BUILDING AT THE SITE WILL BE IN USE AT THE TIME THE WORK OF THIS CONTRACT IS IN PROGRESS. CONDUCT WORK SO AS TO CAUSE NO INCONVENIENCE OR DANGER TO THE PERSONNEL ON THE PREMISES. MAINTAIN CONTINUITY OF SERVICE TO THE EXISTING MEP SYSTEMS, EXCEPT FOR DESIGNATED INTERVALS DURING WHICH DISCONNECTIONS CAN BE MADE. SHUT DOWN PERIOD SHALL BE COORDINATED WITH VA REPRESENTATIVE PRIOR TO PROCEED.
- 5. CONTRACTOR SHALL OBTAIN PERMIT FROM VA BEFORE CONDUCTING INSPECTION OF THE EXISTING FACILITY.
- 6. CONTRACTOR TO PROVIDE COMPLETE SEISMIC ANCHORAGE AND BRACING FOR ALL PIPING AND EQUIPMENT TO RESIST A HORIZONTAL FORCE ACTING IN ANY DIRECTION AS SHOWN ON THE DRAWINGS.
- 7. THE FIRST FIGURE OF DUCT SIZE INDICATES DIMENSION OF FACE SHOWN OR INDICATED.
- 8. PROJECT IMPLEMENTATION SHALL BE CARRIED OUT IN PHASES TO ENSURE OPERATION WILL NOT BE DISRUPTED. THE CONTRACTOR SHALL SUBMIT PHASING PLAN FOR VA'S APPROVAL. PRIOR TO CONSTRUCTION.
- 9. CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS SET FORTH IN THE UNITED STATES DEPARTMENT OF VETERAN AFFAIRS TIL MASTER CONSTRUCTION SPECIFICATIONS. CONTRACTOR SHALL VISIT THE VA WEBSITE AND DOWNLOAD ALL APPLICABLE SPECIFICATION SECTIONS PRIOR TO BID. WHERE CONFLICT OCCUR BETWEEN THESE DRAWINGS AND THE DOWNLOADED MASTER SPECIFICATIONS, THE MOST STRINGENT REQUIREMENT SHALL APPLY. (TYPICAL ALL SHEETS)

NOTES FOR SEISMIC BRACING

<u>GENERAL</u>

- . NO BRACING IS REQUIRED IF THE TOP OF THE DUCT OR PIPE IS SUSPENDED 12 INCHES OR LESS FROM THE SUPPORTING STRUCTURAL MEMBER.
- 2. WALLS, INCLUDING DRYWALL PARTITIONS, MAY REPLACE REQUIRED TRANSVERSE OR VERTICAL BRACING FOR DUCTWORK OR PIPING.
- 3. ATTACHMENT TO STRUCTURAL MEMBERS SHALL USE DEVICES INCLUDED IN FEDERAL SPECIFICATION WW—H—171 (MSS SP—58) OR BE BOLTED/WELDED AS APPROVED BY RESIDENT ENGINEER. BRACES SHALL BE CONNECTED TO THE HANGERS/SUPPORTS FOR DUCTS, PIPING AND SUSPENDED EQUIPMENT.
- 4. LATERAL SEISMIC FORCE SHALL BE CONSIDERED TO ACT CONCURRENTLY WITH THE DEAD LOAD. THE SLENDERNESS RATIO (I/r) OF BRACES SHALL NOT EXCEED 200, WHERE (I) IS THE LENGTH OF THE BRACE AND (r) IS THE LEAST RADIUS OF GYRATION, BOTH IN INCHES.
- 5. SWAY BRACING METHODS SHOWN IN NFPA 13 (SPRINKLER PIPING MAY BE USED IN LIEU OF DETAILS SHOWN ON THE DRAWINGS FOR PIPING AND DUCTWORK.

<u>DUCTWORK</u>

- 1. BRACE ALL RECTANGULAR DUCTS OF 6 SQ. FT. CROSS SECTIONAL AREA AND LARGER AT THE BOTH ENDS OF THE DUCT RUN AND LONGITUDINAL BRACING AT LEAST ONCE PER DUCT RUN. BRACE ALL ROUND/OVAL DUCTS 28 INCHES IN DIAMETER AND LARGER.
- 2. TRANSVERSE AND VERTICAL BRACING SHALL OCCUR AT 30 FOOT INTERVALS, MAXIMUM. LONGITUDINAL BRACING SHALL OCCUR AT 60 FOOT INTERVALS, MAXIMUM.

 PIPING
- 1. BRACE ALL PIPES 2-1/2" INSIDE DIAMETER & LARGER LOCATED OUTSIDE OF THE MECHANICAL ROOM . BRACE ALL PIPES INSIDE THE MECHANICAL ROOMS FROM 1-1/4 AND LARGER.
- 2. TRANSVERSE AND VERTICAL BRACING SHALL OCCUR AT 40 FOOT INTERVALS, MAXIMUM. LONGITUDINAL BRACING SHALL OCCUR AT 80 FOOT INTERVALS, MAXIMUM. REFER TO SMACNA FOR RECOMMENDED DISTANCE BETWEEN BRACING DEPENDING ON THE SIZE OF THE PIPES.
- 3. DO NOT FASTEN ONE RIGID PIPING SYSTEM TO TWO DISSIMILAR PARTS OF THE BUILDING THAT MAY RESPOND IN A DIFFERENT MODE DURING AN EARTHQUAKE; FOR EXAMPLE, A WALL AND A ROOF.
- 4. DO NOT USE BRANCH LINES TO BRACE MAIN LINES.

EQUIPMENT INSTALLATION

NOTE, EQUIPMENT (VAV) HF IS

OWNER FURNISHED OWNER INSTALLED

VARIABLE AIR VOLUME BOX SCHEDULE

	LAED A	4054	CFM		CEM		SIZE STATIC PRESSURE		IRF	NC I	HOT WATER HEAT COIL C LEVELS WATER AIR I HEATING													
SYM	MFR. & MODEL #	AREA SERVED	MAX COOL	MIN	MAX HEAT		OUTLET	INLET	DOWN	MIN		DISCH.	ODM		ATER	LWDD	Leur e I	AIR	4.00	ROWS	FPI	HEATING	REMARKS	ANCHORAGE DETAIL
	"		WAX COOL	IVIIII	IWIAX TILAT	UNIT	OOTEET	IINLLI	DOWN	IVIIIN	NAD.	DISCI1.	GPM	ENT F	LVG F	WPD	ENT F	LVG F	APD			MBH CAP.		DET/IIE
VAV	TITUS DESV	SEE PLANS	610	200	210	08	12x10	1.00	0.25	0.18	19	20	0.3	180	135.1	0.07	55	84.9	0.17	1-RH	10	7	1, 2, 3.	5 M-102

Office of

Construction

and Facilities

Management

NOTES:

*CONTROLS SHALL BE FACTORY MOUNTED — COORDINATE WITH CONTROLS CONTRACTOR AS NECESSARY.

*PROVIDE 24 VOLT CONTROL TRANSFORMER.

- REMARKS:

 1. STAINLESS STEEL CONSTRUCTION.
- 2. HEPA 99.99% @ 0.3 MICRON UL 900. 3. SOLID STATE SPEED CONTROL (SC).

HEPA FILTER SUPPLY BOX SCHEDULE

TIET AT IETET GOTTET BOX GOTTEBGEE											
	MFR. &		FILTER SIZE		ELECT	RICAL				ANCHORAGE	
SYM.	MODEL #	CFM		VOLTAGE	HERTZ	PHASE	FLA	WEIGHT	REMARKS	DETAIL	
HF 1	ENVIRCO MAC10	610	2'x4'	115	60	1	3.0	80 LB	1, 2, 3, 4, 5, 6, 7, 8, 9	7 M-102	

REMARKS:

- 304 STAINLESS STEEL CONSTRUCTION.
 HEPA 99.99% @ 0.3 MICRON UL 900.
 SOLID STATE SPEED CONTROL (SC).
- 4. 12" ALUM. DUCT COLLAR. 5. POWER CORD.
- 5. POWER CORD.6. IL "GREEN" INDICATOR LIGHT.
- 7. ILS-PSS "RED" FILTER LOAD INDICATOR LIGHT. 8. 0-10V OUTPUT SIGNAL WITH PRESSURE TRANSMITTER
- FOR CONTINUOUS FILTER MONITORING.

 9. CONFIRM IF FEEDBACK NEEDS TO BE PROVIDED BY SURVEYING EXISTING CONDITIONS:
- a. IF EXISTING ADJACENT FUME HOOD(S) IS/ARE ISOLATED THEN THE NEW FUME HOOD WILL BE ISOLATED.
- b. IF EXISTING ADJACENT FUME HOOD(S) HAS/HAVE FEEDBACK THEN THE NEW FUME HOOD MUST HAVE FEEDBACK.
 10. IF FEEDBACK IS REQUIRED, IT MUST BE CONFIGURED TO BE MONITORED FROM BUILDING 2.

S.NO.	SHEET No.	SHEET TITLE
1	ME-100	MECHANICAL LEGEND, GENERAL NOTES AND SCHEDULES
2	ME-101	MECHANICAL DEMOLITION AND REMODEL FLOOR PLANS
3	ME-102	MECHANICAL DETAILS AND CONTROLS

mber Revisions: +Date	CONTRACTOR:	A DOUITEOT /ENOINEEDO:	Drawing Title	Project Title			Project Number	
+	CONTRACTOR	ARCHITECT/ENGINEERS:	MECHANICAL LEGEND,	3E REMODEL			664-13-407	
+			GENERAL NOTES AND SCHEDULES	CLEAN ROO	M AND BI	O HOOD	Building Number	
†				UPGRADE			1	
†		145.3n 11eon	Ammanada Drainad Director				Decuir a Number	
+			Approved: Project Director	Location 664 SAN DIEGO		CA	Drawing Number	
		ENCINEEDING SERVICES		OO4 SAN DIEGO			M-100	
		ENGINEERING SERVICES C	-	Date	Checked	Drawn		
<u>T</u>				12/12/2013	MUSICH	TRAN	Dwa.3 of 6	

