

EXHAUST FAN SCHEDULE													
SYMBOL	SERVICE	MANUFACTURER MODEL	TYPE	DRIVE	CFM	SP IN WG	RPM	ELECTRICAL DATA				APPROX. WT (LBS)	REMARKS
								HP	V	PH	HZ		
(E) EF-1	CAPTAINS RESTROOM	LOREN COOK GN-740	INLINE	DIRECT	630	0.5	1,600	0.25	115	1	60	50	EXISTING UNIT
(E) EF-2	KITCHEN EXHAUST FAN	BREIDERT LO-1857	ROOF	DIRECT	1,000	1.5	-	1.0	230	3	60	-	EXISTING UNIT
	MEN'S RESTROOM	GREENHECK SQ-88-V6	INLINE	DIRECT	250	0.8	1,725	0.13	115	1	60	58	1 2

REMARKS:

- 1 PROVIDE WITH BACKDRAFT DAMPER AND NEMA 1 DISCONNECT SWITCH.
- 2 FAN SHALL BE CONTROLLED VIA WALL MOUNTED BATHROOM LIGHT SWITCH.

KITCHEN RANGE HOOD SCHEDULE																		
SYMBOL	SERVICE	MANUFACTURER MODEL	QUANTITY	TYPE	HOOD DIMENSIONS	TOTAL EXH. CFM	EXHAUST PLENUM				S.P.	FILTER(S)				HOOD CONSTRUCTION	APPROX. WT LBS	REMARKS
							WIDTH	LENGTH	HEIGHT	EFFICIENCY AT 9 MICRONS		QTY.	HEIGHT	LENGTH	EFFICIENCY AT 9 MICRONS			
	KITCHEN	CAPTIVEAIRE 3347-BD-2	1	WALL MOUNT	68"X 33"	1,100	10"	9"	4"	-0.444"	SS BAFFLE WITH HANDLES	4	16"	16"	30%	430 SS WHERE EXPOSED	215	1 2 3 4

REMARKS:

- 1 PROVIDE WITH FACTORY INSTALLED INSULATION FOR THE TOP AS WELL AS THE BACK OF THE HOOD. REFER TO DETAIL 3 ON SHEET M5.1 FOR MORE INFORMATION.
- 2 PROVIDE WITH LEFT AND RIGHT END STANDOFF (FIN/SLP) 1" WIDE, 33" LONG INSULATED.
- 3 PROVIDE WITH LEFT AND RIGHT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS.
- 4 FAN SHALL BE CONTROLLED VIA WALL MOUNTED SWITCH.

GRILLE/DIFFUSER SCHEDULE						
DIFFUSER TAG	MAKE & MODEL	DESCRIPTION	AIRFLOW PERFORMANCE			REMARKS
			MAX CFM	NECK SIZE	NECK SIZE	
A	TITUS 350R	24"x12" RETURN DIFFUSER	910			COORDINATE FINISH COLOR WITH ARCHITECT.
B	TITUS TMS	24"x24" SUPPLY DIFFUSER	236	419	545	COORDINATE FINISH COLOR WITH ARCHITECT.
C	TITUS 300R	12"x12" EXHAUST GRILLE	156	246	288	COORDINATE FINISH COLOR WITH ARCHITECT.

### MECHANICAL GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LOCAL CODES AND ORDINANCES AS ADOPTED BY THE STATE OF CALIFORNIA AND THE CITY OF BEVERLY HILLS INCLUDING BUT NOT LIMITED TO:
  - 1.1. 2013 CALIFORNIA BUILDING CODE (CBC)
  - 1.2. 2013 CALIFORNIA ENERGY CODE (CEC)
  - 1.3. 2013 CALIFORNIA MECHANICAL CODE (CMC)
  - 1.4. 2013 CALIFORNIA PLUMBING CODE (CPC)
  - 1.5. 2013 CALIFORNIA GREEN BUILDING CODE (CGBC)
2. FIELD INSPECT THE PROJECT TO BE FULLY INFORMED AS TO THE SCOPE OF WORK AND ALL EXISTING CONDITIONS PRIOR TO STARTING OF WORK. VERIFY ALL EXISTING DUCTWORK, PIPING, ELEVATIONS, SIZES AND POINT OF CONNECTIONS PRIOR TO START OF WORK. NOT ALL CONDITIONS INDICATED ON PLANS.
3. ALL DUCTWORK SHALL BE CONSTRUCTED, ERECTED, AND TESTED IN ACCORDANCE WITH THE MOST RESTRICTIVE OF REGULATIONS, PROCEDURES DETAILED IN THE ASHRAE HANDBOOK OF FUNDAMENTALS, OR THE APPLICABLE STANDARDS ADOPTED BY THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION (SMACNA).
4. ALL EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE EQUIPMENT MANUFACTURER'S RECOMMENDATIONS. PROVIDE ALL FITTINGS, TRANSITIONS, DAMPERS, VALVES, AND OTHER DEVICES REQUIRED FOR A COMPLETE WORKABLE INSTALLATION.
5. EQUIPMENT FURNISHED UNDER THIS CONTRACT SHALL HAVE A PERMANENT LABEL CLEARLY INDICATING THE UNIT IDENTIFICATION TAG, THE NAME OF THE AREA(S) THAT IT SERVES AND THE MAINTENANCE TO BE PERFORMED TO MAINTAIN THE EQUIPMENT IN EFFICIENT OPERATION CONDITION. EQUIPMENT SUPPLIERS SHALL FURNISH THE FULL AND PARTIAL INPUT AND OUTPUT CAPACITIES TO ENABLE DETERMINATION OF COMPLIANCE WITH THE ENERGY CONSERVATION CODE.
6. ALL PIPING AND DUCT WORK SHALL BE INSULATED CONSISTENT PER THE REQUIREMENTS OF SECTION 604 OF 2013 CMC AND SECTION 120.3 OF 2013 CEC.
7. LINE EXPOSED DUCTS WITH MINIMUM 2 INCH THICK FIBERGLASS DUCT LINER, WRAP CONCEALED DUCTS WITH MINIMUM 2 INCH THICK FIBERGLASS DUCT WRAP (ALL SUPPLY DUCT TO HAVE VAPOR BARRIER). ALL INSULATION TO HAVE MINIMUM 8.0 R-VALUE.
8. INSULATION APPLIED TO THE EXTERIOR SURFACE OF DUCTS LOCATED IN BUILDINGS SHALL HAVE A FLAME SPREAD OF NOT MORE THAN 25 AND SMOKE DEVELOPED RATING OF NOT MORE THAN 50 WHEN TESTED AS A COMPOSITE INSTALLATION INCLUDING INSULATION, FACING MATERIALS, TAPES AND ADHESIVES AS NORMALLY APPLIED.
9. MANUFACTURER'S INSTALLATION INSTRUCTIONS SHALL BE MADE AVAILABLE TO THE INSPECTING AUTHORITIES.
10. AIR LEAKAGE TESTING, IF REQUIRED SHALL BE PERFORMED BY SMACNA HVAC DUCT LEAKAGE TEST MANUAL.
11. PROVIDE BACKDRAFT DAMPERS AT ALL EXHAUST AND FRESH AIR INTAKES.
12. OUTSIDE OR RETURN AIR SHALL NOT BE TAKEN FROM A LOCATION LESS THAN 10 FEET FROM AN APPLIANCE VENT OUTLET, PLUMBING VENT OR OUTLET OF AN EXHAUST FAN UNLESS THE OUTLET IS 3 FEET ABOVE THE OUTSIDE AIR INLET.
13. LINE VOLTAGE WIRING, ALL LINE AND LOW VOLTAGE CONDUIT, DISCONNECT SWITCHES AND FINAL CONNECTION BY ELECTRICAL CONTRACTOR. LOW VOLTAGE CONDUCTORS AND WIRING AND FINAL CONNECTION BY MECHANICAL CONTRACTOR. POWER WIRING AND SIGNAL WIRING SHALL BE SEPARATED INTO INDIVIDUAL CONDUITS.
14. HEATING, VENTILATING, AND AIR CONDITIONING SYSTEMS (INCLUDING HYDRONIC SYSTEMS) SHALL BE BALANCED IN ACCORDANCE WITH AN APPROVED METHODS PER SECTION 517.1 OF THE CALIFORNIA MECHANICAL CODE.
15. NOTE: FOR THE PURPOSE OF CLARITY AND LEGIBILITY, THE DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC AND ALTHOUGH SIZES AND LOCATIONS OF EQUIPMENT ARE DRAWN TO SCALE WHEREVER POSSIBLE, THE CONTRACTOR SHALL MAKE USE OF ALL DATA IN THE CONTRACT DOCUMENTS AND VERIFY THIS INFORMATION BEFORE ORDERING, FABRICATING OR INSTALLING ANY MATERIALS.
16. CERTIFICATE OF ACCEPTANCE (NRCA-MCH) AND ALL RELATED ACCEPTANCE DOCUMENTS SHALL BE SUBMITTED TO THE FIELD INSPECTOR DURING CONSTRUCTION. CERTIFICATE OF OCCUPANCY SHALL NOT BE ISSUED UNTIL THESE FORMS ARE REVIEWED AND APPROVED.
17. ALL PIPING AND DUCT WORK SHALL BE INSULATED AND MEET THE REQUIREMENTS PER SECTIONS 120.3, 120.4 AND 120.7 TITLE 24 ENERGY STANDARDS AND CHAPTER 6 OF CMC.
18. ALL DUCT OPENINGS AND MECHANICAL EQUIPMENT SHALL BE COVERED AND PROTECTED DURING CONSTRUCTION PER SECTION 5.504.3 CHAPTER 5 OF THE CGBC.

### DESIGN INTENT

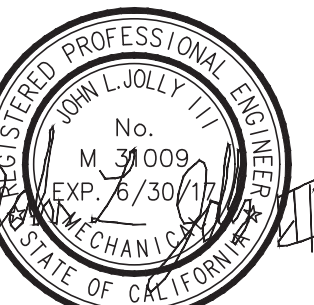
PROVIDE ONE NEW INLINE EXHAUST FAN TO SERVICE THE MEN'S RESTROOM. PROVIDE ONE NEW WALL MOUNTED KITCHEN RANGE HOOD FOR THE RANGE AND CONNECT TO THE EXISTING EXHAUST FAN AS INDICATED ON PLANS. PROVIDE NEW SUPPLY/RETURN REGISTERS AS WELL AS EXHAUST GRILLES AS INDICATED ON PLANS.

### HVAC LEGEND

SYMBOL (DOUBLE LINE)	DESCRIPTION	SYMBOL (SINGLE LINE)
	FLEXIBLE CONNECTION	
	FLEXIBLE DUCT RUNOUT TO DIFFUSER	
	DUCT SIZE (WIDTH X DEPTH) INCHES	
	DUCT THROUGH BEAM PENETRATION	
	VOLUME DAMPER	
	FIRE, OR FIRE-SOKOME DAMPER	
	SUPPLY AIR DUCT UP	
	SUPPLY AIR DUCT DOWN	
	RETURN AIR DUCT UP	
	RETURN AIR DUCT DOWN	
	EXHAUST AIR DUCT UP	
	EXHAUST AIR DUCT DOWN	
	CROSS SECTION OF SUPPLY DUCT	
	CROSS SECTION OF RETURN DUCT	
	CROSS SECTION OF EXHAUST DUCT	
	CROSS SECTION OF ROUND DUCT	
	DUCT ELBOW WITH TURNING VANES	
	DUCT ELBOW WITHOUT TURNING VANES	
	ACOUSTICAL LINING (DUCT INSIDE DIMENSIONS)	
	TRANSFER AIR DUCT	
	SUPPLY AIR DIFFUSER (4-WAY THROW UNLESS IND.)	
	RETURN REGISTER	
	EXHAUST REGISTER	
	WALL SUPPLY REGISTER	
	WALL RETURN REGISTER	
	DUCT MOUNTED SMOKE DETECTOR	
	WALL MOUNTED THERMOSTAT	
	DETAIL X, DRAWING M-X	
	EQUIPMENT IDENTIFICATION UNIT TYPE AND NUMBER	
	REVISION CLOUD AND DELTA	
	POINT OF CONNECTION	
	POINT OF DISCONNECTION	

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MECHANICAL ABBREVIATIONS, SYMBOLS, NOTES AND SCHEDULES

CITY OF BEVERLY HILLS  
FIRESTATION # 2 - TENANT IMPROVEMENTS  
1100 COLDWATER CANYON DRIVE  
BEVERLY HILLS, CA. 90210

MO.1

11.10.2016

MECHANICAL SPECIFICATIONS

PART 1.00 - GENERAL

1.01 GENERAL REQUIREMENTS:

- A. THIS SECTION OF THE SPECIFICATION SHALL BE CONSIDERED AS A PART OF THE ENTIRE SPECIFICATION AND ALL APPLICABLE PORTIONS OF GENERAL CONDITIONS, SPECIAL CONDITIONS, AND DIVISION 1 SHALL APPLY.
B. BEFORE COMMENCEMENT OF WORK THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION, SIZE, ELEVATION, AND AVAILABILITY OF ALL UTILITIES RELEVANT TO THE MECHANICAL WORK AND IMMEDIATELY NOTIFY THE ENGINEER WITH WRITTEN NOTIFICATION OF ANY DISCREPANCIES.
C. ERECTION: THE CONTRACTOR SHALL FURNISH THE SERVICES OF AN EXPERIENCED SUPERINTENDENT, WHO SHALL BE CONSTANTLY IN CHARGE OF THE ERECTION OF THE WORK, TOGETHER WITH ALL NECESSARY JOURNEYMEN, HELPERS, AND LABORERS REQUIRED TO PROPERLY UNLOAD, ERECT, CONNECT, ADJUST, START UP OPERATION AND TEST THE WORK INVOLVED.

1.02 SCOPE OF WORK:

- A. WORK UNDER THIS SECTION INCLUDES ALL LABOR, EQUIPMENT, MATERIAL, SERVICES, ETC. REQUIRED FOR AND REASONABLY INCIDENTAL TO THE COMPLETE AND SATISFACTORY INSTALLATION OF ALL OF THE MECHANICAL SYSTEMS AS INDICATED ON THE DRAWINGS OR SPECIFIED HEREIN.
B. WORK UNDER THIS SECTION INCLUDES:
1.1. PROVIDE ONE NEW INLINE EXHAUST FAN TO SERVE THE EXISTING RESTROOM.
1.2. PROVIDE NEW EXHAUST DUCTWORK FOR THE NEW INLINE EXHAUST FAN AND PROVIDE NEW SUPPLY, RETURN AND EXHAUST REGISTERS WITHIN THE AREA OF WORK.
C. WORK NOT INCLUDED: (COORDINATE WITH THE GENERAL CONTRACTOR PRIOR TO BID OR PROVIDE AS PART OF THE MECHANICAL CONTRACT.)
1.1. ELECTRICAL AND PLUMBING WORK
1.2. GENERAL CUTTING AND PATCHING
1.3. CONCRETE WORK.

1.03 SUBMITTALS AND SHOP DRAWINGS:

- A. THE CONTRACTOR AGREES THAT SHOP DRAWING SUBMITTALS DO NOT BECOME CONTRACT DOCUMENTS AND ARE NOT CHANGE ORDERS; THAT THE PURPOSE OF THE SHOP DRAWING REVIEW IS TO ESTABLISH A REPORTING PROCEDURE AND IS INTENDED FOR THE CONTRACTOR'S CONVENIENCE IN ORGANIZING HIS WORK AND TO PERMIT THE ENGINEER TO MONITOR THE CONTRACTOR'S PROGRESS AND UNDERSTANDING OF THE DESIGN. THE PROCESS OF REVIEW OF THE CONTRACTOR'S SUBMITTALS IS NOT OF TESTING THE ENGINEER'S PERCEPTION. IF DEVIATIONS, DISCREPANCIES OR CONFLICTS BETWEEN SHOP DRAWING SUBMITTALS AND THE CONTRACT DOCUMENTS ARE DISCOVERED EITHER PRIOR TO OR AFTER THE SHOP DRAWING SUBMITTALS ARE PROCESSED BY THE ENGINEER, THE CONTRACTOR AGREES THAT THE CONTRACT DOCUMENTS SHALL CONTROL AND SHALL BE FOLLOWED.
B. MATERIALS AND EQUIPMENT: AS SOON AS POSSIBLE AND WITHIN 21 DAYS AFTER AWARD OF THE CONTRACT, AND BEFORE THEIR PURCHASE, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER ELECTRONIC COPIES FOR APPROVAL CONTAINING A COMPLETE LIST OF MATERIALS, SPECIALTIES AND EQUIPMENT HE IS TO FURNISH FOR THE INSTALLATION. ALL SUBMITTALS SHALL BE MADE AT ONE TIME.
C. EACH ITEM SHALL BE IDENTIFIED BY THE MANUFACTURER, BRAND AND TRADE NAME, NUMBER, SIZE, RATING AND WHATEVER OTHER DATA ARE NECESSARY TO PROPERLY IDENTIFY AND CHECK THE MATERIALS AND EQUIPMENT. THE WORDS, "AS SPECIFIED" WILL NOT BE CONSIDERED SUFFICIENT IDENTIFICATION.
D. ACCESSORIES, CONTROLS, FINISH, ETC., NOT SUBMITTED OR IDENTIFIED WITH THE SUBMITTED EQUIPMENT SHALL BE FURNISHED AND INSTALLED AS SPECIFIED.
E. SHOP DRAWINGS WILL BE APPROVED ONLY TO EXTENT OF INFORMATION INDICATED. APPROVAL OF AN ITEM OF EQUIPMENT SHALL NOT BE CONSTRUED TO MEAN APPROVAL FOR COMPONENTS FOR THAT ITEM FOR WHICH CONTRACTOR HAS PROVIDED NO INFORMATION.
F. APPROVAL OF THE SHOP DRAWINGS SHALL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR PROVIDING ALL CONTROLS, WIRING COMPONENTS, ETC. WHICH ARE SHOWN OR SPECIFIED, OR ALL ADDITIONAL CONTROLS, WIRING, COMPONENTS, ETC. REQUIRED TO PROVIDE A COMPLETE OPERATING MECHANICAL SYSTEM.

1.04 SUBSTITUTIONS:

- A. SHOULD THE CONTRACTOR DESIRE TO SUBSTITUTE ANY MATERIAL, EQUIPMENT OR OTHER ITEMS FOR THOSE SPECIFIED, HE SHALL SUBMIT A COMPLETE LIST, INCLUDING DETAILED EQUIPMENT LAYOUTS AND PERFORMANCE CHARACTERISTICS WITHIN 7 CALENDAR DAYS AFTER THE SCHEDULED START OF CONSTRUCTION. SAID DATA SHALL BE SUBMITTED IN ELECTRONIC FORM, ASSEMBLED IN INDIVIDUAL BROCHURES.
B. THE ENTIRE COST OF ALL CHANGES OF ANY TYPE DUE TO SUBSTITUTION FOR MATERIALS SPECIFIED SHALL BE BORNE BY THE CONTRACTOR AT NO EXTRA COST TO THE OWNER.
C. UNSOLICITED AND VOLUNTARY DEDUCTS, ON THE PART OF THE CONTRACTOR FOR SUBSTITUTING UNAPPROVED SYSTEMS AND/OR EQUIPMENT, SHALL NOT BE CONSIDERED FOR THE PURPOSE OF AWARDED THE CONTRACT.
D. THE CONTRACTOR SHALL SUBMIT THE AMOUNT OF COST CREDIT TO THE CONTRACT IN THE EVENT THE PROPOSED SUBSTITUTION IS ACCEPTED.
E. IN ALL CASES WHERE SUBSTITUTIONS ARE PROPOSED AFTER BIDS ARE RECEIVED, THE CONTRACTOR SHALL BEAR THE COST OF EVALUATION ON THE BASIS OF 1-1/2 TIMES TECHNICAL SALARIES OF ENGINEERING PERSONNEL INVOLVED.

1.05 AVAILABILITY OF SPECIFIED EQUIPMENT:

- A. VERIFY PRIOR TO BIDDING THAT ALL SPECIFIED EQUIPMENT IS AVAILABLE AND CAN BE OBTAINED IN TIME FOR INSTALLATION.
B. IN THE EVENT THAT SPECIFIED ITEMS WILL NOT BE AVAILABLE, NOTIFY THE ENGINEER PRIOR TO RECEIPT OF BIDS.
C. COSTS OF DELAYS BECAUSE OF NON-AVAILABILITY OF SPECIFIED ITEMS, WHEN SUCH DELAYS SHOULD HAVE BEEN AVOIDED BY PROPER INVESTIGATION ON THE PART OF THE CONTRACTOR, WILL BE BACK-CHARGED AS NECESSARY AND SHALL NOT BE BORNE BY THE OWNER.

1.06 AS-BUILT DRAWINGS:

- A. THE CONTRACTOR SHALL ARRANGE AND PAY FOR ONE SET OF WHITE PRINTS OF THE PLUMBING DRAWINGS WHICH HE SHALL ALTER IN RED TO SHOW ALL CHANGES MADE TO THE ORIGINAL LAYOUT. THESE DRAWINGS SHALL BE KEPT CURRENT.
B. THE CONTRACTOR SHALL DELIVER THESE COMPLETED TO THE OWNER OR ENGINEER WHEN THE JOB IS FINISHED AND ACCEPTED PRIOR TO FINAL PAYMENT.

1.07 GUARANTEES:

- A. THE CONTRACTOR, IN ACCEPTING THIS CONTRACT, BINDS HIMSELF TO REPLACE OR REPAIR AT HIS OWN EXPENSE ANY DEFECT IN WORKMANSHIP OR MATERIAL WHICH MAY APPEAR WITHIN A PERIOD OF ONE YEAR FROM THE DATE OF THE FINAL ACCEPTANCE OF THE BUILDING, AND TO PAY FOR ALL RESULTING DAMAGE WHICH SHALL APPEAR WITHIN THE SAID PERIOD; PROVIDED ALWAYS THAT THE CONTRACTOR SHALL NOT BE LIABLE FOR ANYTHING ATTRIBUTABLE TO ACTS OF THE PERSONNEL AND AGENTS OF THE OWNER, OR FOR ORDINARY WEAR.

1.08 LOCAL CONDITIONS:

- A. THE CONTRACTOR AND TRADE SUBMITTING TENDERS ON THIS WORK SHALL VISIT AND WILL BE DEEMED TO HAVE VISITED THE SITE TO ENSURE THAT THEY ARE FAMILIAR WITH ALL CONDITIONS RELATING TO THE WORK. FAILURE TO VISIT THE SITE WILL IN NO WAY RELIEVE THE SUCCESSFUL CONTRACTOR OF THE NECESSITY OF FURNISHING ANY MATERIAL OR PERFORMING ANY WORK THAT MAY BE REQUIRED TO COMPLETE THE WORK IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS WITHOUT ADDITIONAL COST TO THE OWNER.
B. EXISTING CONDITIONS, INCLUDING SIZES AND LOCATIONS OF EXISTING MECHANICAL EQUIPMENT SHALL BE EXAMINED BY THE CONTRACTOR PRIOR TO ANY INSTALLATION OR FABRICATION, AND IT SHALL BE UNDERSTOOD THAT THE PRICE QUOTED SHALL INCLUDE ALL WORK NECESSARY TO PROVIDE A COMPLETE WORKABLE SYSTEM WITHIN THE REQUIREMENTS OF APPROPRIATE CODES AND FULLY ADAPTED TO THE EXISTING CONDITIONS. THE CONTRACTOR SHALL DISCONNECT, SEAL OFF AND REMOVE ANY EXISTING SERVICES WHERE NO LONGER REQUIRED AND REROUTE SERVICES WHERE NECESSARY.

1.09 RULES, REGULATIONS AND CODES:

- A. ALL WORK/MATERIALS SHOWN ON PLANS SHALL COMPLY WITH THE 2016 CALIFORNIA BUILDING CODE, 2016 CALIFORNIA GREEN BUILDING CODE, 2016 CALIFORNIA MECHANICAL CODE, 2016 CALIFORNIA PLUMBING CODE, 2017 NATIONAL ELECTRIC CODE, AND ALL LOCAL APPLICABLE CODES AND AUTHORITIES HAVING JURISDICTION.
B. ELECTRICAL WORK: MOTORS, ELECTRICAL APPARATUS AND WIRING SPECIFIED IN THIS SECTION SHALL CONFORM TO THE NATIONAL ELECTRICAL MANUFACTURER'S STANDARDS AND THE NATIONAL ELECTRIC CODE AND BEAR THE UNDERWRITER'S LABEL OF APPROVAL.
C. THE CONTRACTOR SHALL FURNISH, WITHOUT EXTRA CHARGE, ANY ADDITIONAL MATERIAL AND LABOR WHEN AND WHERE REQUIRED TO COMPLY WITH THESE RULES AND REGULATIONS, THOUGH THE WORK BE NOT MENTIONED IN THESE SPECIFICATIONS OR SHOWN ON THE DRAWINGS. WHEN THESE SPECIFICATIONS OR DRAWINGS CALL FOR OR DESCRIBE MATERIALS OR CONSTRUCTION OF A BETTER QUALITY OR LARGER SIZES THAN REQUIRED BY THE ABOVE MENTIONED RULES AND REGULATIONS, THE PROVISIONS OF THESE SPECIFICATIONS AND ACCOMPANYING DRAWINGS SHALL TAKE PRECEDENCE.

1.10 FEES AND PERMITS:

THE CONTRACTOR MUST OBTAIN AND PAY ALL FEES FOR PERMITS, LICENSES, INSPECTIONS, ETC., WHICH ARE REQUIRED BY ANY LEGALLY CONSTITUTED AUTHORITY. COORDINATE EXACT REQUIREMENTS WITH THE OWNER AND/OR GENERAL CONTRACTOR PRIOR TO BID.

1.11 COORDINATION:

- A. FOLLOWING THE GENERAL ARRANGEMENT INDICATED ON THE DRAWINGS AS CLOSELY AS POSSIBLE, THE CONTRACTOR SHALL COORDINATE WITH THE STRUCTURAL, MECHANICAL, ELECTRICAL AND ALL OTHER TRADES PRIOR TO INSTALLATION OF THE MATERIALS AND EQUIPMENT TO VERIFY ADEQUATE SPACE AVAILABLE FOR INSTALLATION OF THE WORK SHOWN. THE ARCHITECT AND ENGINEER SHALL BE IMMEDIATELY NOTIFIED IF AN AREA OF CONFLICT OCCURS BETWEEN TRADES.
B. THE CONTRACTOR SHALL BEAR ALL COSTS INCURRED FOR WORK THAT MUST BE RELOCATED DUE TO CONFLICTS BETWEEN TRADES.
C. THE MECHANICAL CONTRACTOR SHALL COORDINATE ALL REQUIREMENTS FOR ALL POINTS OF CONNECTION WITH THE GENERAL CONTRACTOR AND OTHER TRADES PRIOR TO BID.

1.12 DRAWINGS:

- A. THE WORK SHALL BE INSTALLED AS INDICATED ON DRAWINGS; HOWEVER, CHANGES TO ACCOMMODATE INSTALLATION OF THIS WORK WITH OTHER WORK, OR IN ORDER TO MEET STRUCTURAL, PLUMBING OR ELECTRICAL CONDITIONS, SHALL BE MADE WITHOUT ADDITIONAL COST TO THE OWNER.
B. FOR THE PURPOSE OF CLARITY AND LEGIBILITY, THE DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC TO THE EXTENT THAT MANY SIZES AND EXACT LOCATIONS ARE NOT INDICATED. THE CONTRACTOR SHALL MAKE USE OF ALL DATA IN ALL OF THE CONTRACT DOCUMENTS, AND SHALL VERIFY THIS INFORMATION AT THE SITE.

1.13 INSPECTION:

- A. THE CONTRACTOR SHALL NOT ALLOW OR CAUSE ANY OF HIS WORK TO BE CLOSED IN UNTIL IT HAS BEEN INSPECTED, TESTED, APPROVED BY ALL AUTHORITIES HAVING JURISDICTION, AND UNTIL PROJECT RECORD DRAWINGS HAVE BEEN PROPERLY ANNOTATED.
B. SHOULD ANY OF HIS WORK BE CLOSED IN BEFORE SUCH INSPECTION, HE SHALL, AT HIS OWN EXPENSE, UNCOVER THE WORK TO THE SATISFACTION OF THE INSPECTION PARTY. ALL RELATED REPAIR WORK AND COST SHALL BE BORNE BY THE CONTRACTOR.

1.14 DELIVERY, STORAGE AND PROTECTION OF PROPERTY:

- A. PLACE ORDERS FOR ALL EQUIPMENT IN TIME TO PREVENT ANY DELAY IN CONSTRUCTION SCHEDULE OR COMPLETION OF PROJECT. IF ANY MATERIALS OR EQUIPMENT ARE NOT ORDERED IN TIME, ADDITIONAL CHARGES MADE BY EQUIPMENT MANUFACTURER'S TO COMPLETE THEIR EQUIPMENT IN TIME TO MEET CONSTRUCTION SCHEDULE, TOGETHER WITH ANY SPECIAL HANDLING CHARGES, SHALL BE BORNE BY THE CONTRACTOR.
B. MATERIALS SHALL BE DELIVERED IN AMPLE QUANTITIES FROM TIME TO TIME AS MAY BE NECESSARY FOR THE UNINTERRUPTED PROGRESS OF THE WORK. THEY SHALL BE STORED SO AS TO CAUSE THE LEAST OBSTRUCTION TO THE PREMISES AND DISTRIBUTED SO AS TO PREVENT OVERLOADING TO ANY PORTION OF THE STRUCTURE.
C. THE CONTRACTOR SHALL PROVIDE TEMPORARY STORAGE AND SHOP AREAS THAT ARE REQUIRED AT THE SITE FOR THE SAFE AND PROPER STORAGE OF MATERIALS, TOOLS, AND OTHER ITEMS USED IN THE PERFORMANCE OF THIS WORK. THESE AREAS SHALL BE CONSTRUCTED ONLY IN APPROVED LOCATIONS AND SHALL NOT INTERFERE WITH THE WORK OF ANY OTHER CONTRACTOR.
D. ALL WORK, EQUIPMENT AND MATERIALS SHALL BE PROTECTED AT ALL TIMES. THE CONTRACTOR SHALL MAKE GOOD ALL DAMAGE CAUSED EITHER DIRECTLY OR INDIRECTLY BY HIS OWN WORKMEN. THE CONTRACTOR SHALL ALSO PROTECT HIS OWN WORK FROM DAMAGE. HE SHALL PROTECT ALL OF HIS EQUIPMENT AND MATERIALS AGAINST DIRT, WATER, CHEMICAL AND MECHANICAL INJURY. UPON COMPLETION, ALL WORK SHALL BE THOROUGHLY CLEANED AND DELIVERED IN A NEW CONDITION.

1.15 ACCESS TO EQUIPMENT FOR MAINTENANCE:

- A. INSTALL ALL EQUIPMENT, DUCTING, ETC. TO PERMIT ACCESS FOR NORMAL MAINTENANCE.
B. FURNISH AND INSTALL ACCESS DOORS OR PANELS IN WALLS, ENCLOSURES, AND CEILINGS TO PERMIT ACCESS TO ALL EQUIPMENT REQUIRING SERVICE. COORDINATE LOCATION OF ACCESS DOORS WITH OTHER TRADES AS REQUIRED.
C. SIZE ACCESS PANELS TO ALLOW INSPECTION AND REMOVAL OF ALL ITEMS SERVED.
D. USE MILCOR STYLE AS REQUIRED FOR MATERIAL IN WHICH DOOR IS INSTALLED. WHERE DOOR IS INSTALLED IN FIRE RATED CONSTRUCTION, PROVIDE DOOR BEARING UL LABEL REQUIRED FOR CONDITION.

PART 2.00 - PRODUCTS

2.01 GENERAL:

- A. THE EQUIPMENT SPECIFIED IN THE MECHANICAL SCHEDULE SHALL BE THE BASIS OF DESIGN. ALTERNATE EQUIPMENT SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR APPROVAL PRIOR TO ORDERING.
B. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND OF THE BEST OF THEIR RESPECTIVE GRADES, FREE FROM ALL DEFECTS AND OF THE MAKE, BRAND OR QUALITY HEREIN SPECIFIED OR AS ACCEPTED BY THE ENGINEER.
C. ALL MATERIALS AND EQUIPMENT SHALL BE IDENTIFIED BY MANUFACTURER'S NAME OR NAME PLATE DATA. UNIDENTIFIED MATERIAL OR EQUIPMENT SHALL BE REMOVED FROM THE SITE.
D. EQUIPMENT SPECIFIED BY MANUFACTURER'S NUMBER SHALL INCLUDE ALL ACCESSORIES, CONTROLS, ETC. LISTED IN THE CATALOG AS STANDARD WITH THE EQUIPMENT. OPTIONAL OR ADDITIONAL ACCESSORIES SHALL BE FURNISHED AS SPECIFIED.
E. WHERE NO SPECIFIC MAKE OF MATERIAL OR EQUIPMENT IS MENTIONED, ANY FIRST CLASS PRODUCT OF A REPUTABLE MANUFACTURER MAY BE USED, PROVIDED IT CONFORMS TO THE REQUIREMENTS OF THE SYSTEM AND MEETS WITH THE APPROVAL OF THE ENGINEER.
F. EQUIPMENT AND MATERIALS DAMAGED DURING TRANSPORTATION, INSTALLATION AND OPERATION SHALL BE CONSIDERED AS "TOTALLY DAMAGED" AND SHALL BE REPLACED WITH NEW. ANY VARIANCE FROM THIS CLAUSE SHALL BE MADE ONLY WITH WRITTEN APPROVAL OF THE ENGINEER.

2.02 EXHAUST FAN:

- A. THE EXHAUST FAN SHALL BE MANUFACTURED BY GREENHECK OR AN APPROVED EQUAL.
B. THE EQUIPMENT SHALL BE CENTRIFUGAL TYPE INLINE FAN, GALVANIZED STEEL HOUSING, BACKWARD INCLINED ALUMINUM WHEEL AND INTEGRAL DUCT CONNECTION FLANGES.
C. THE EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S MANUAL AND PROVIDED WITH A NEMA-1 DISCONNECT SWITCH.
D. THE EQUIPMENT SHALL BE PROVIDED WITH A BACKDRAFT DAMPER.
E. THE FAN SHALL BE INTERLOCKED WITH THE WALL MOUNTED BATHROOM LIGHT SWITCH.

2.03 DUCTWORK

- A. HVAC DUCTING SHALL BE CONSTRUCTED OF GALVANIZED STEEL OR ALUMINUM.
B. DUCT SHALL BE SUPPORTED IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS.
C. SUPPLY, RETURN AND EXHAUST AIR BRANCHES SHALL BE PROVIDED WITH MANUAL VOLUME DAMPERS.
D. 90 DEGREE BRANCH TAKE-OFFS SHALL BE OF THE CONICAL TYPE.
E. FLEXIBLE TYPE DUCT SHALL BE PERMISSIBLE FOR USE UPSTREAM OF THE SUPPLY DIFFUSERS NOT TO EXCEED 7 FEET IN LENGTH WITH A MAXIMUM SAG DEFLECTION OF 1/2" PER FOOT BETWEEN SUPPORTS.
F. MANUFACTURE: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, AVAILABLE MANUFACTURES OFFERING PRODUCTS THAT MAY BE INCORPORATED INTO THE WORK INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:

1.1 CAPTIVEAIRE

- INSULATION:
1.1 1" LAYER OF INSULATION FACTORY INSTALLED ON THE TOP OF THE HOOD. MEETS 0 INCH REQUIREMENTS FOR CLEARANCE TO COMBUSTIBLE SURFACES.
1.2 1" LAYER OF INSULATION FACTORY INSTALLED IN 3" INTERNAL STANDOFF. MEETS 0 INCH REQUIREMENTS FOR CLEARANCE TO COMBUSTIBLE SURFACES.
G. HOOD EXHAUST SHALL BE INTERLOCKED WITH THE WALL MOUNTED BATHROOM LIGHT SWITCH.

2.04 REGISTERS

- A. LOUVER FACE DIFFUSER:
1. MANUFACTURE: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, AVAILABLE MANUFACTURES OFFERING PRODUCTS THAT MAY BE INCORPORATED INTO THE WORK INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
1.1. TITUS
2. MATERIAL: STEEL
3. FACE SIZE: 24"x24"
4. MOUNTING TYPE: SURFACE AND T-BAR

2.05 MISCELLANEOUS ACCESSORIES:

- A. INSULATION:
1. DUCTWORK: ALL EXTERIOR DUCTWORK SHALL HAVE WRAPPED INSULATION WITH UV PROTECTION AND APPROPRIATE FOR OUTDOOR USE. ALL INTERIOR SUPPLY AIR DUCTWORK BELOW THE ROOF LINE IN UNCONDITIONED SPACES SHALL HAVE WRAPPED INSULATION. INSULATION SHALL BE OWENS CORNING, JOHNS MANVILLE OR EQUIVALENT.

2.06 SEISMIC RESTRAINT REQUIREMENTS:

- A. DUCT SHALL BE SEISMICALLY SUPPORTED PER SMACNA "SEISMIC RESTRAINT MANUAL GUIDELINES FOR MECHANICAL SYSTEMS" AND STATE AND LOCAL CODES.
B. ALL PREFABRICATED EQUIPMENT IS TO BE DESIGNED AND CONSTRUCTED IN SUCH A MANNER THAT ALL PORTIONS, ELEMENTS, SUB-ASSEMBLIES, AND/OR ITS ATTACHMENTS, WILL RESIST A HORIZONTAL AND VERTICAL LOAD EQUAL TO THE OPERATING WEIGHTS OF THOSE PARTS MULTIPLIED BY THE FOLLOWING FACTORS:
TYPE OF EQUIPMENT HORIZONTAL CP VERTICAL CP
RIGID AND RIGIDLY SUPPORTED PIPING OR EQUIPMENT 0.50 0.33
C. LOAD IS TO BE APPLIED AT THE CENTER OF GRAVITY OF THE PART AND TO BE IN ANY DIRECTION HORIZONTALLY AND VERTICALLY. DESIGN STRESSES SHALL BE IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF TITLES 17 AND 24, CALIFORNIA ADMINISTRATIVE CODE. ANCHORAGE, SUPPORT, AND/OR ATTACHMENT OF SAID PREFABRICATED EQUIPMENT TO THE STRUCTURE SHALL BE IN ACCORDANCE WITH "GUIDELINES FOR SEISMIC RESTRAINTS OF MECHANICAL EQUIPMENT", SMACNA.

2.07 KITCHEN HOOD:

- A. MANUFACTURE: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, AVAILABLE MANUFACTURES OFFERING PRODUCTS THAT MAY BE INCORPORATED INTO THE WORK INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
1.1 CAPTIVEAIRE
INSULATION:
1.1 1" LAYER OF INSULATION FACTORY INSTALLED ON THE TOP OF THE HOOD. MEETS 0 INCH REQUIREMENTS FOR CLEARANCE TO COMBUSTIBLE SURFACES.
1.2 1" LAYER OF INSULATION FACTORY INSTALLED IN 3" INTERNAL STANDOFF. MEETS 0 INCH REQUIREMENTS FOR CLEARANCE TO COMBUSTIBLE SURFACES.

PART 3 - EXECUTION

3.01 FIXTURES AND EQUIPMENT:

- A. ALL EQUIPMENT, FIXTURES, ETC. SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

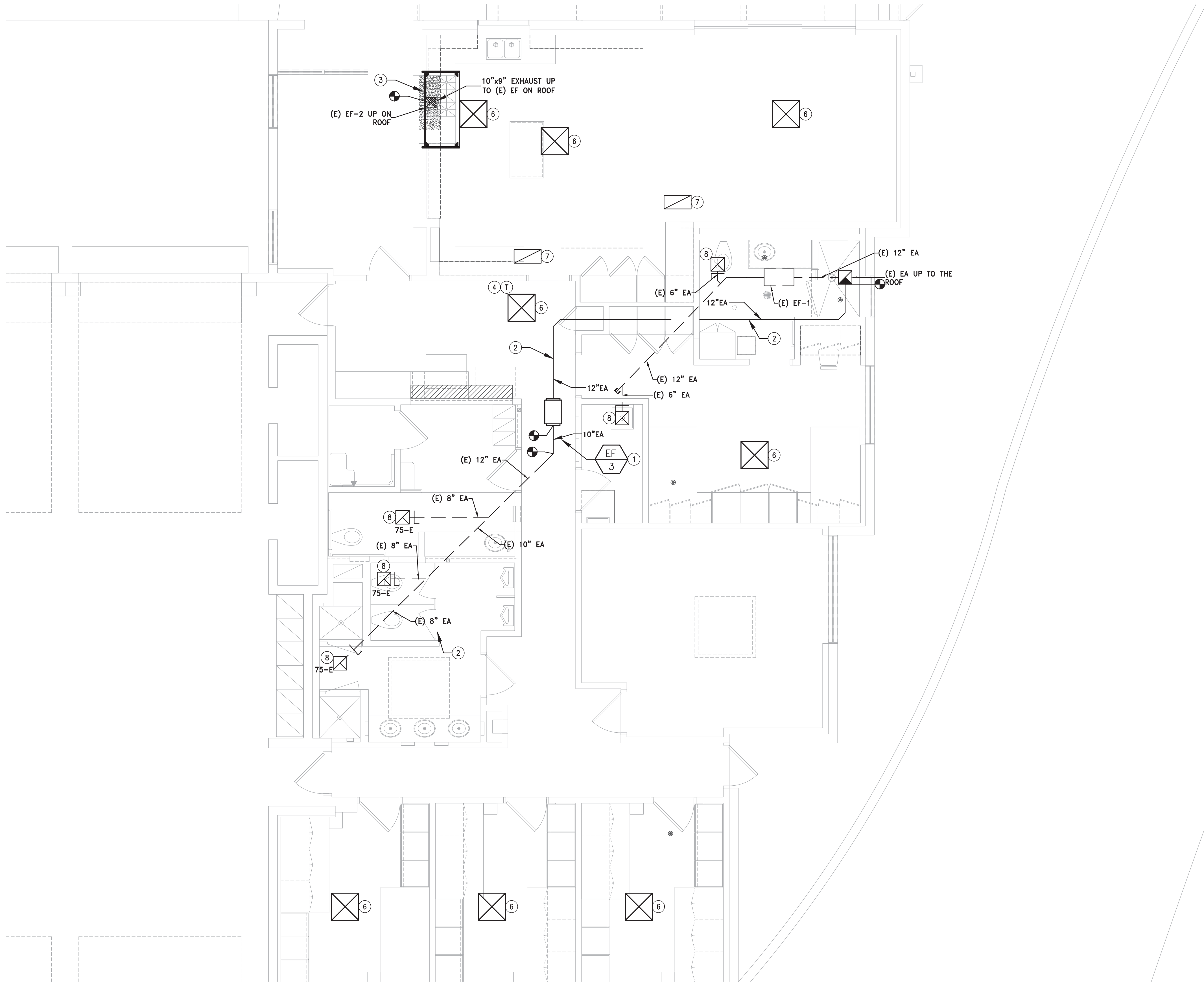
3.02 COMPLETION OF INSTALLATION:

- A. CLEAN ALL EQUIPMENT AND MATERIALS THOROUGHLY.
B. THE CONTRACTOR SHALL PREPARE AND SUBMIT TO THE OWNER 3 COPIES OF EQUIPMENT MAINTENANCE AND INSTALLATION MANUALS WHICH SHALL INCLUDE ALL THE NECESSARY OR PERTINENT DATA, SUCH AS:
C. 1. INSTALLATION INSTRUCTIONS.
2. PART NUMBERS OF ALL REPLACEABLE ITEMS.
3. MAINTENANCE INSTRUCTIONS.
4. TEST AND AIR BALANCE RECORD
END OF SECTION

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Table with columns: No., Date, By, Revision, Job No., Submittal, Issue Date, Drawn By, Checked By. Values include 1612400, 11/10/2016, HCA, J-H.

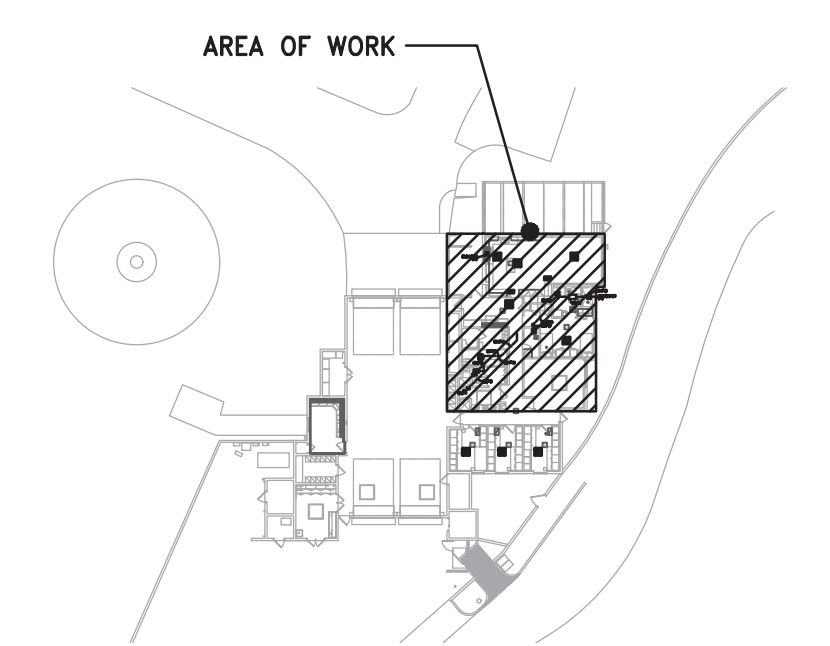
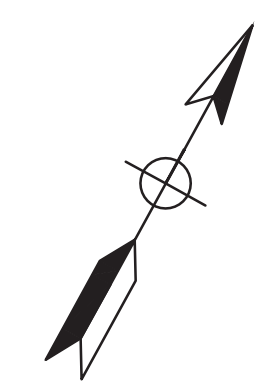
MECHANICAL SPECIFICATIONS CITY OF BEVERLY HILLS FIRESTATION # 2 - TENANT IMPROVEMENTS 1100 COLDWATER CANYON DRIVE BEVERLY HILLS, CA. 90210



PARTIAL MECHANICAL REMODEL FLOOR PLAN

SCALE: 1/4" = 1'-0"

1



KEY PLAN

SHEET NOTES	
1.	THE APPROXIMATE LOCATIONS OF THE EXISTING SYSTEMS ARE SHOWN FOR REFERENCE. CONTRACTOR SHALL VERIFY IN FIELD PRIOR TO COMMENCING WORK.
2.	COORDINATE EQUIPMENT SHUTDOWN AND WATER SHUT OFF WITH THE FIRE CHIEF AND THE GENERAL CONTRACTOR.
3.	HVAC UNITS SHALL BE PERMANENTLY LABELED TO INCLUDE THE UNIT IDENTIFICATION TAG AND THE NAME OF THE AREA(S) THAT IT SERVES.
4.	PROVIDE BALANCING DAMPERS IN ALL SUPPLY AND EXHAUST AIR BRANCH DUCTS IF NOT ALREADY INSTALLED.
CONSTRUCTION NOTES	
①	PROVIDE AND INSTALL A NEW INLINE EXHAUST FAN AS INDICATED. REFER TO DETAIL 1 ON SHEET M5.1.
②	PROVIDE NEW EXHAUST DUCTWORK AS INDICATED.
③	PROVIDE A NEW KITCHEN RANGE HOOD AS INDICATED. RECONNECT TO THE EXISTING EXHAUST FAN. REFER TO DETAILS 2 AND 3 ON SHEET M5.1.
④	RELOCATE EXISTING THE THERMOSTAT AS INDICATED.
⑤	PROVIDE NEW EXHAUST GRILLES AND CONNECT TO DUCTWORK AS INDICATED.
⑥	PROVIDE NEW 24" X 24" SUPPLY AIR DIFFUSERS AS INDICATED.
⑦	PROVIDE NEW 24" X 12" RETURN AIR GRILLES AS INDICATED.
⑧	PROVIDE NEW 12" X 12" EXHAUST AIR GRILLES AS INDICATED.

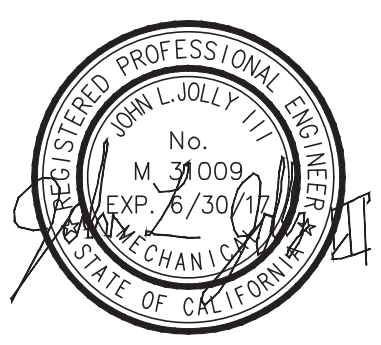
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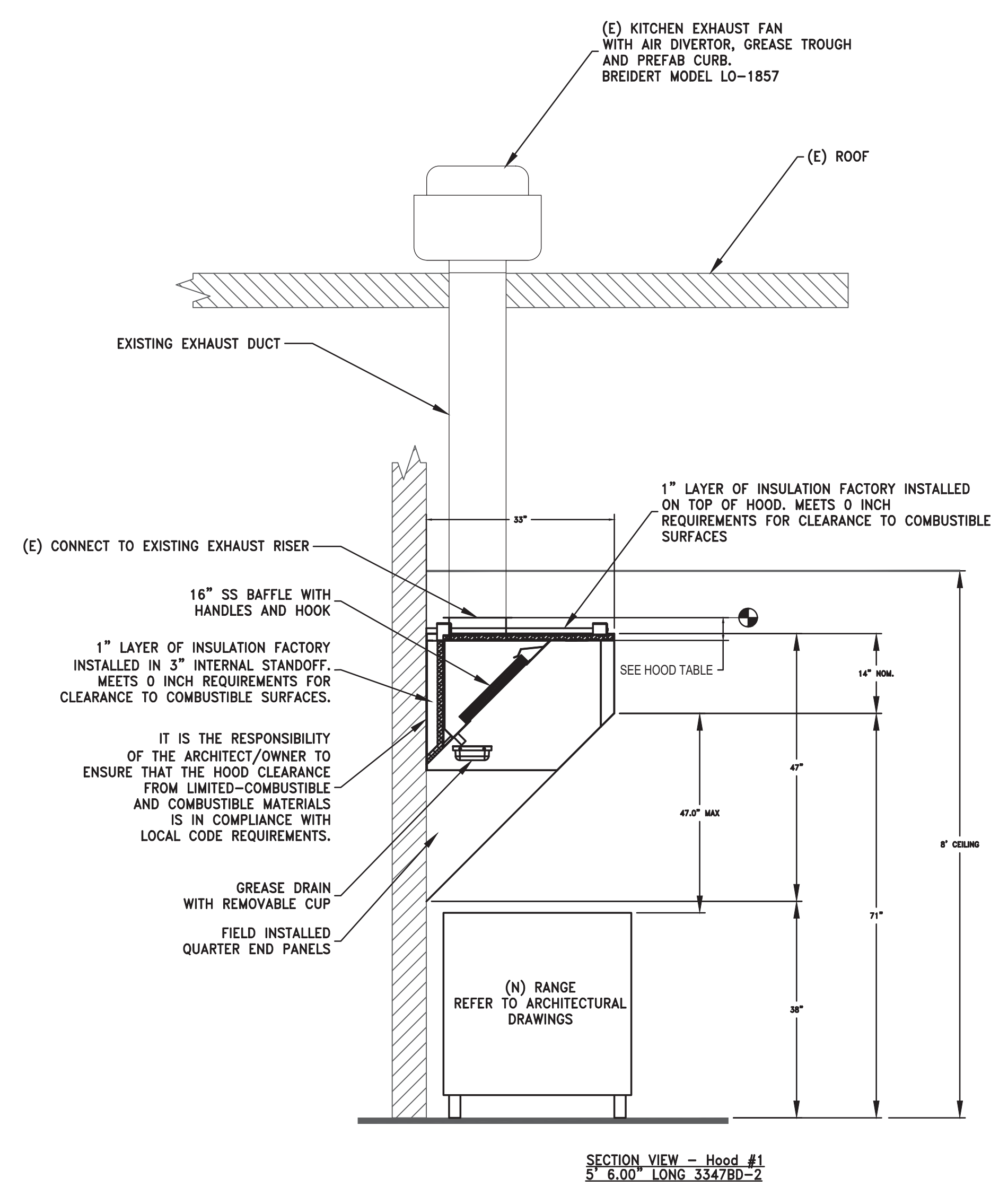
MECHANICAL REMODEL PLAN  
 CITY OF BEVERLY HILLS  
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 1100 COLDWATER CANYON DRIVE  
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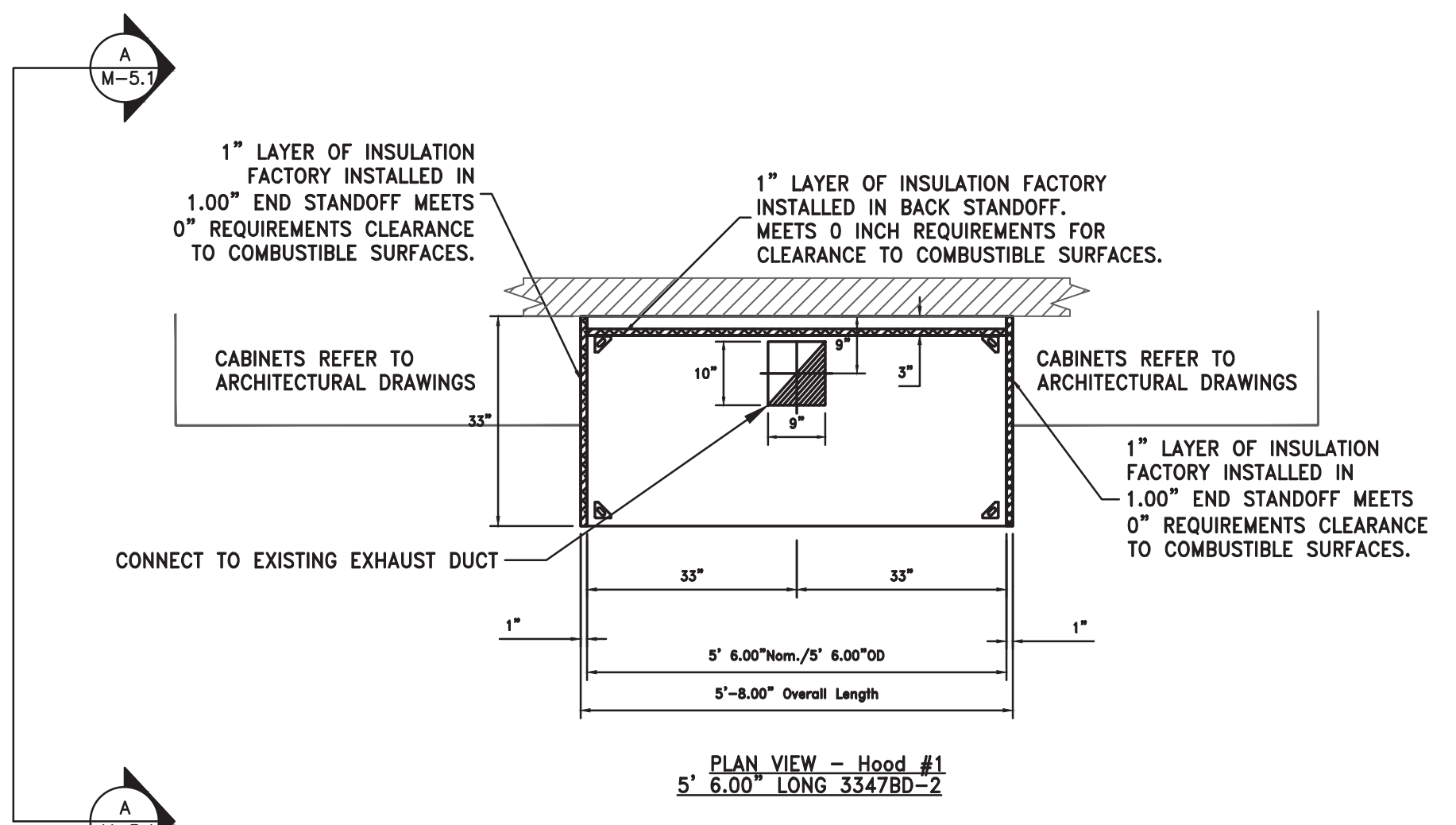
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**MECHANICAL DETAILS**  
 CITY OF BEVERLY HILLS  
 FIRESTATION # 2 - TENANT IMPROVEMENTS  
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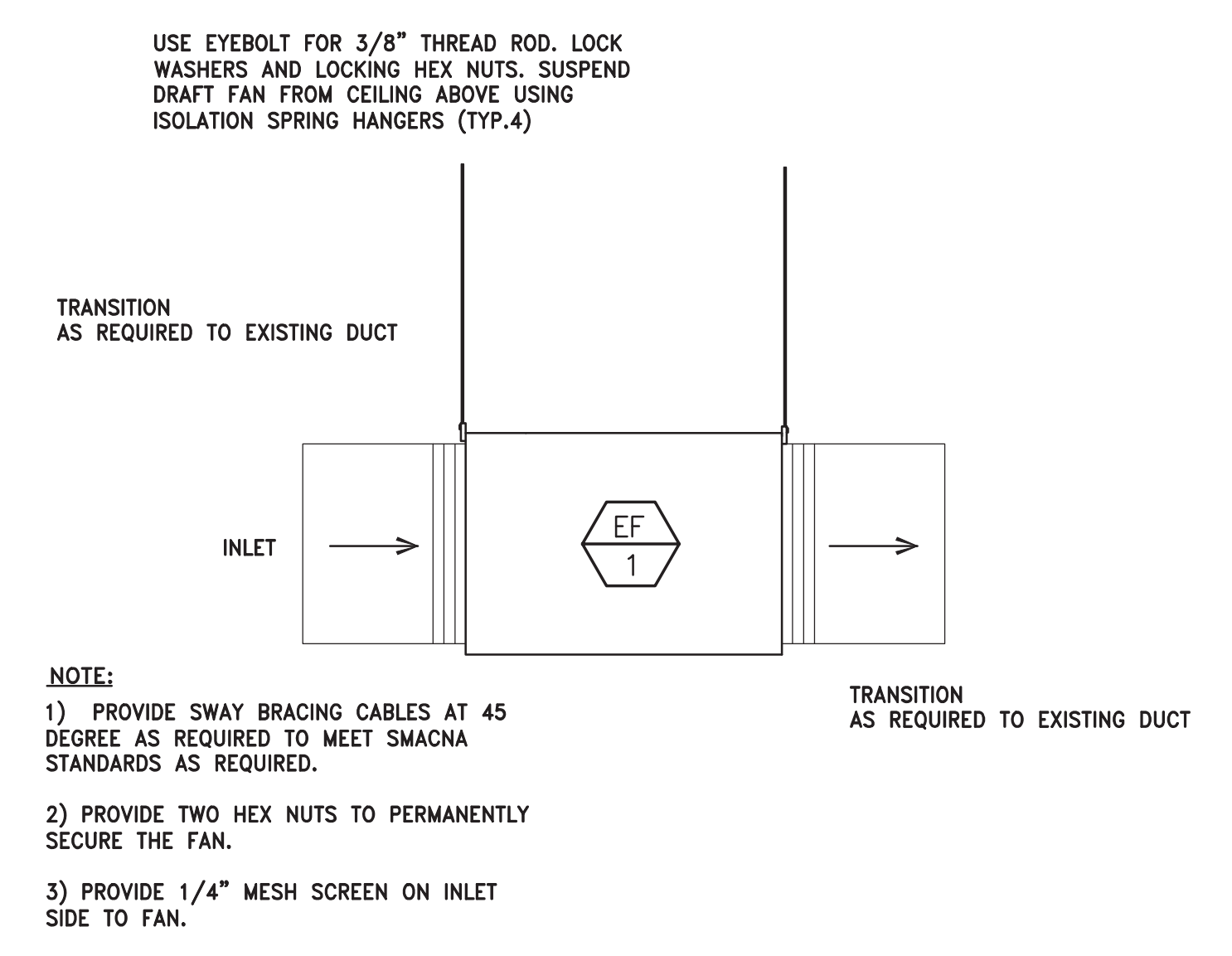
WALL MOUNTED CANOPY HOOD SECTION A

3



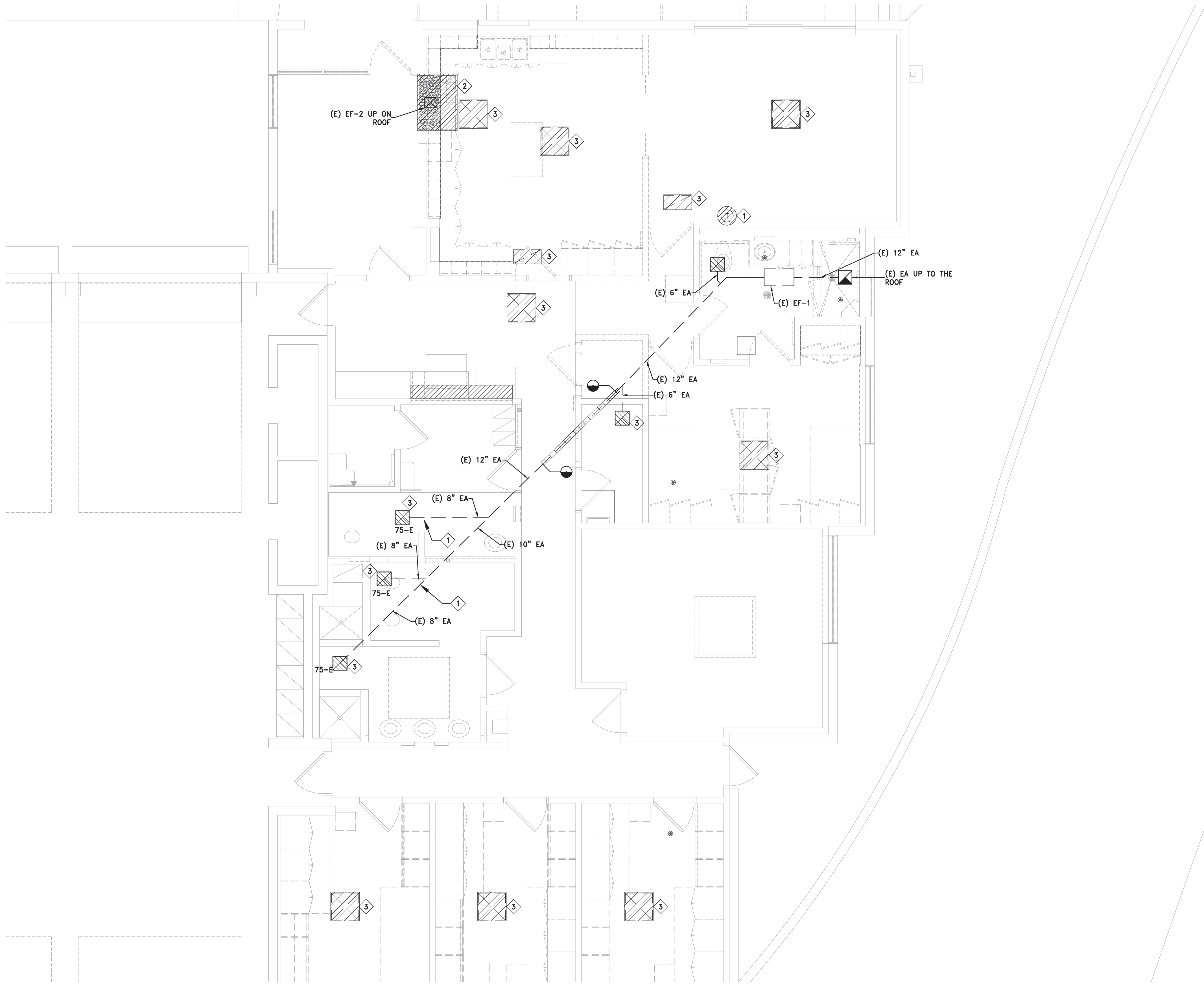
WALL MOUNTED CANOPY HOOD PLAN VIEW

2



INLINE EXHAUST FAN MOUNTING

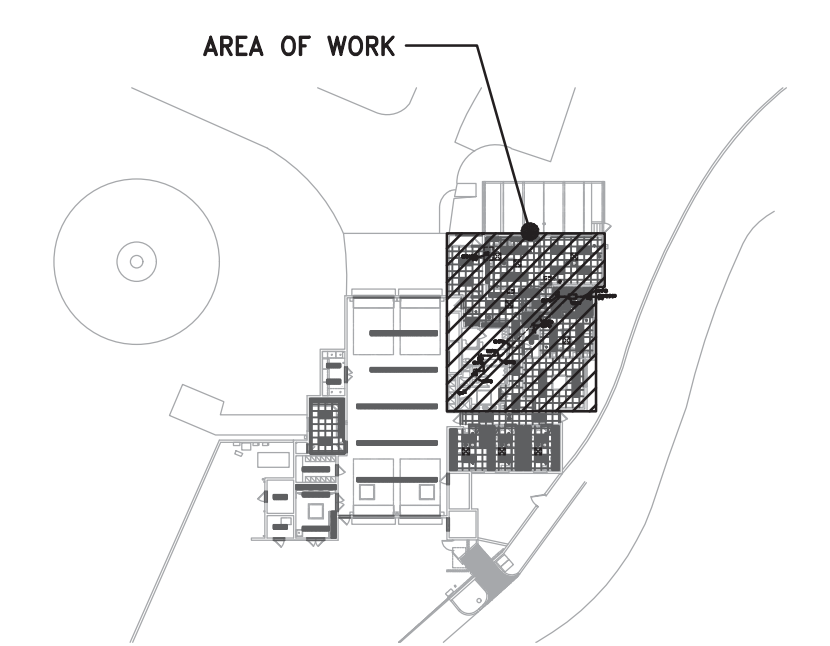
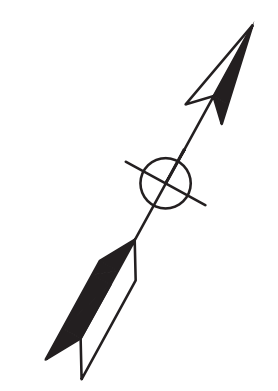
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PARTIAL MECHANICAL DEMOLITION FLOOR PLAN

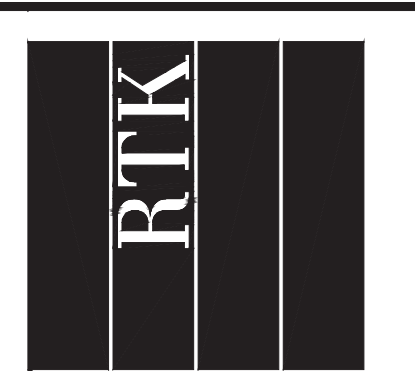
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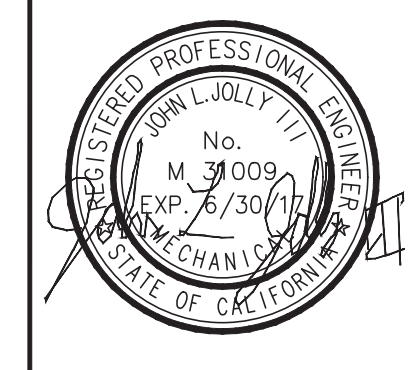


KEY PLAN

- SHEET NOTES**
- APPROXIMATE LOCATIONS OF EXISTING SYSTEMS ARE SHOWN FOR REFERENCE. CONTRACTOR TO VERIFY IN FIELD PRIOR TO COMMENCING WORK.
  - COORDINATE EQUIPMENT SHUTDOWN AND WATER SHUT OFF WITH THE BUILDING ENGINEER AND THE GENERAL CONTRACTOR.
- DEMOLITION NOTES**
- REMOVE AND RELOCATE THE EXISTING THERMOSTAT AS INDICATED ON THE REMODEL PLANS.
  - REMOVE AND DISPOSE OF THE EXISTING KITCHEN RANGE HOOD AS INDICATED. THE EXISTING DUCTWORK WILL STAY IN PLACE TO BE REUSED.
  - REMOVE AND DISPOSE OF THE EXISTING SUPPLY, RETURN AND EXHAUST REGISTERS AS INDICATED.
  - REMOVE AND DISPOSE OF EXHAUST FAN DUCT AS INDICATED.



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**MECHANICAL DEMOLITION PLAN**  
 CITY OF BEVERLY HILLS  
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