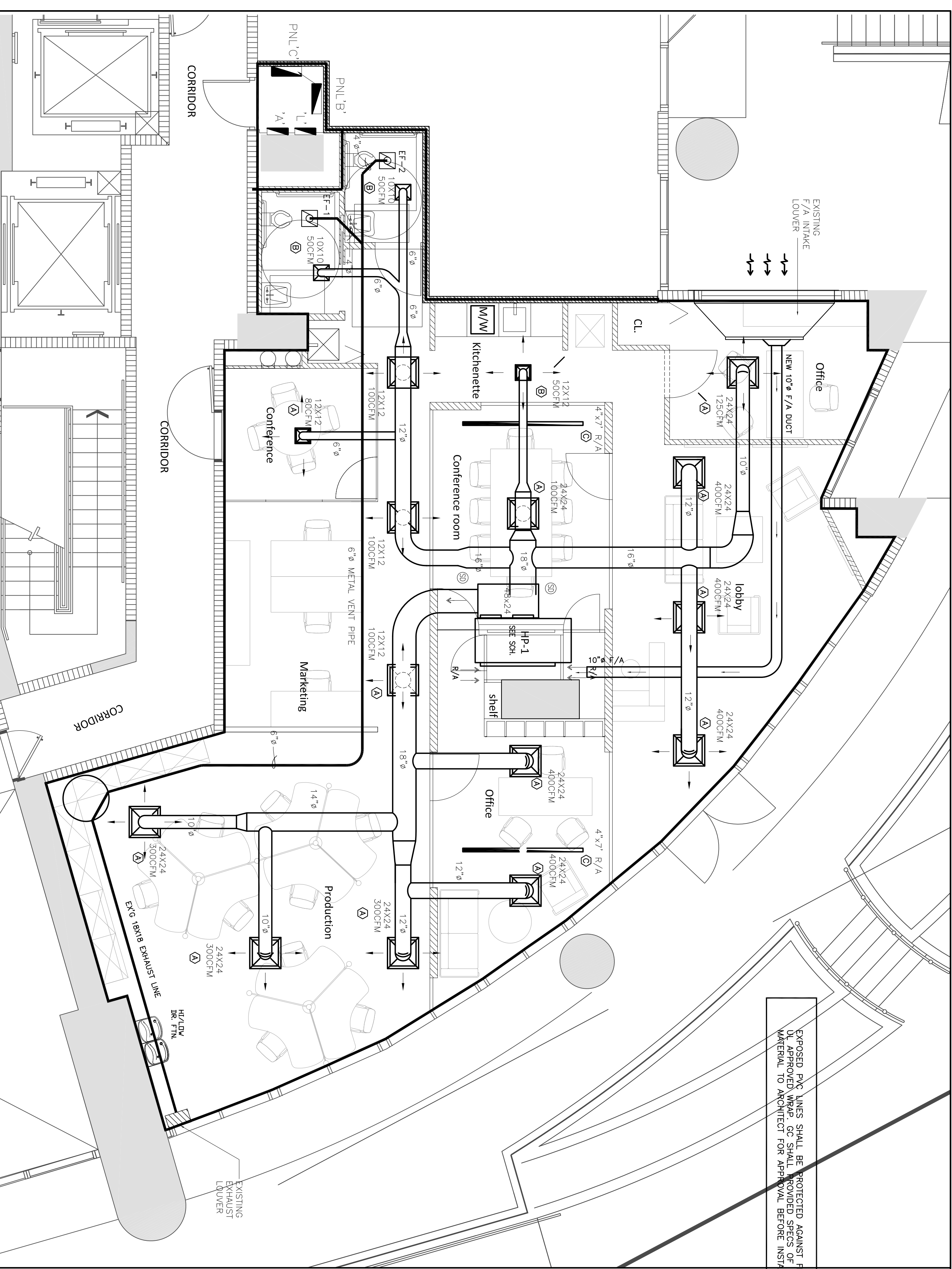


H.V.A.C. GENERAL NOTES:

- THE WORK THAT IS TO BE DONE UNDER THIS HEADING INCLUDES THE FURNISHING OF ALL LABOR, MATERIALS, EQUIPMENT, PERMITS, FEES, INSPECTIONS, TESTS, INSURANCE, ETC., REQUIRED FOR THE COMPLETION OF THE AIR CONDITIONING SYSTEM SHOWN ON THE DRAWINGS AND/OR LISTED BELOW.
- CONTRACTOR SHALL VISIT THE SITE TO BECOME FAMILIAR WITH ALL EXISTING CONDITIONS AND OPERATIONS OF THE MECHANICAL SYSTEM PRIOR TO BID. THE NATURE OF THIS PROJECT INVOLVES THE REMODELING OF EXISTING FACILITIES.
- INTERRUPTION OF EXISTING FACILITIES AND/OR SERVICES SHALL BE KEPT TO A MINIMUM AND THE CONTRACTOR SHALL FURNISH ALL MATERIALS REQUIRED WHENEVER TEMPORARY CONNECTIONS ARE MADE TO EXISTING SYSTEMS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INTERUPTION OF SERVICES WITH THE OWNER'S REPRESENTATIVE.
- VENTILATION DUCTWORK SHALL BE GALVANIZED STEEL WITH GAUGES, DUCT CONSTRUCTION, BRACING AND SUSPENSION IN ACCORDANCE WITH THE RECOMMENDATIONS SET FORTH IN THE LATEST EDITION OF THE A.S.H.R.A.E. GUIDE AND S.M.A.C.N.A. STANDARDS. DUCT SIZES SHOWN ARE INSIDE DIMENSIONS. VERIFY EXACT LOCATION OF DUCT WITH RESPECT TO STRUCTURE BEFORE FABRICATION.
- FLEXIBLE DUCT SHALL BE STEEL HELIX WIRE ON 7/8" CENTERS ENCAPSULATED IN A CONTINUOUS SOFT VINYL FILM, JOINED BY MOLECULAR WELDING TO FORM AN AIR TIGHT INNER CORE. THE CORE IS TO BE INSULATED WITH FIBERGLASS INSULATION (R-6) AND SHEATHED IN A REINFORCED, ALUMINUM METALIZED POLYESTER VAPOR BARRIER JACKET. PROVIDE SPIN COLLAR WITH DAMPER AND EXTRACTOR WHERE FLEXIBLE DUCT IS CONNECTED TO RECTANGULAR DUCTWORK. DAMPER ACTUATOR AIR CONDITIONING SUPPLY AND RETURN DUCTWORK SHALL BE 1-1/2" MINIMUM WALL THICKNESS. VERIFY EXACT LOCATION WITH S.M.A.C.N.A. STANDARDS. (R-6 TOP LEVEL, R-42 IN OTHER LEVELS).
- ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH ALL APPLICABLE CODES AND STANDARDS.
- SUBMIT SHOP DRAWING OF ALL MATERIALS AND EQUIPMENT FOR APPROVAL PRIOR TO FABRICATION.
- OBTAIN FULL INFORMATION REGARDING PECULIARITIES AND LIMITATIONS OF SPACE AVAILABLE FOR INSTALLATION OF THE EQUIPMENT AND MATERIALS UNDER CONTRACT AND PROVIDE READY ACCESSIBILITY TO DAMPERS, VALVES AND OTHER APPARATUS, INCLUDING ANY PART OF SYSTEM REQUIRED TO BE REACHED FOR MAINTENANCE AND OPERATIONS.
- CUT ALL OPENINGS AND CHASES REQUIRED TO ACCOMMODATE THE WORK UNDER THIS DIVISION, AND REPAIR ALL FLOORS, WALLS, ETC., DAMAGED BY SUCH CUTTINGS. ALL WORK DONE UNDER THIS HEADING MUST CONFORM IN EVERY RESPECT TO FINISH AND QUALITY OF MATERIALS AND WORKMANSHIP SPECIFIED UNDER APPROPRIATE SECTIONS FOR THE BUILDING.
- TEMPERATURE CONTROL SHALL BE A ROOM THERMOSTAT FOR HEATING/COOLING WITH STAGES AS REQUIRED.
- VIBRATION ISOLATION: ALL EQUIPMENT AS PER MANUFACTURER'S RECOMMENDATIONS TO ELIMINATE ANY EQUIPMENT NOISE FROM BEING HEARD.
- GUARANTEES:
 - ALL COMPRESSOR MOTORS ON NEW EQUIPMENT FURNISHED UNDER THIS CONTRACT SHALL HAVE A 5 YEARS PRODUCT GUARANTEE FROM DATE OF START-UP.
 - CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN A 1 YEAR FROM DATE OF ACCEPTANCE.
- TESTING:
 - ALL REFRIGERANT HIGH SIDE PIPING TO 300 PSIG. LOW SIDE TO 150 PSIG. AFTER TESTING, EVACUATE SYSTEM TO 28% MERCURY GAUGE PRESSURE WITH VACUUM PUMP. HOLD FOR 25 HOURS WITH PUMP OFF. BREAK VACUUM WITH REFRIGERANT.
 - BALANCE AIR SYSTEM TO DELIVER QUANTITIES AT EACH OUTLET WITHIN 5% USING A.A.B.C. PROCEDURES AND TESTS. SUBMIT AIR BALANCE TEST RESULTS FOR APPROVAL PRIOR TO FINAL INSPECTION.
- MECHANICAL CONTRACTOR SHALL VERIFY OPERATION OF EXISTING STRUCTURE BEFORE INSTALLATION OF EQUIPMENTS AND DUCTWORK. SHOULD ANY DISCREPANCIES BE FOUND CONTACT ARCHITECT/ENGINEER.
- ALL CONDENSER WATER SHALL BE TYPED COPPER TOGETHER WITH WROUGHT COPPER SOLDER FITTINGS. JOINTS SHALL BE MADE SILVER OR SILEX. ALL CONDENSATE DRAINS PIPING SHALL BE SCHEDULE 40 MATERIALS WITH APPROVED SOLVENT INSTALLED IN A MANNER RECOMMENDED BY THE FITTING MANUFACTURER.
- ALL NON-RATED DOORS TO HAVE 1" UNDERCUT FOR RETURN AIR.
- ALL EXPOSED DUCTS SHALL BE GALVANIZED STEEL. (Gauge 26 U.N.O.) WITH GAUGES DUCT CONSTRUCTION IN ACCORDANCE WITH RECOMMENDATION SET FORTH IN THE LATEST EDITION OF THE A.S.H.R.A.E. GUIDE AND S.M.A.C.N.A. STANDARDS, AND SHALL BE INSULATED (INTERIOR) LINED.
- DUCT DETECTOR TO BE CONNECTED TO FREE ALARM SYSTEM. IF THERE IS NOT AUDIBLE SIGNAL IN A APPROVED LOCATION.
- CONNECT TO EXISTING CONDENSING WATER LINES. FIELD VERIFY EXACT LOCATION PRIOR TO ROUGH IN.



MECHANICAL PLAN

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

AIR DISTRIBUTION SCHEDULE

SYMBOL	NECK SIZE	WFRG	MODEL NUMBER	REMARKS
Ⓐ	12" X 12"	125CFM	S/A REGULAR	
Ⓑ	10" X 10"	100CFM	S/A REGULAR	
Ⓒ	8" X 8"	75CFM	S/A REGULAR	
Ⓓ	6" X 6"	50CFM	S/A REGULAR	

- NOTES:
 1. REFER TO PLAN FOR QUANTITY, LOCATION AIR THROW PATTERN AND SIZES.
 2. ALL AIR DISTRIBUTION DEVICES SHALL BE OF EXTRUDED ALUMINUM CONSTRUCTION, FINISH WITH OPPOSED BLADE DAMPERS AND CONCEALED MOUNTING FRAME FOR ACOUSTICAL OR PLASTER CEILING INSTALLATION.

HVAC DESIGN REQUIRES

REQUIREMENT	YES	NO
DUCT SMOKE DETECTOR	✓	
FIRE DAMPER	✓	
SMOKE DETECTOR	✓	
FIRE RATED ENCLOSURE	✓	
FIRE RATED ROOF CEILING ASSEMBLY	✓	
FIRE STOPPING	✓	
SMOKE CONTROL	✓	

NEW FAN SCHEDULE

UNIT NUMBER	AREA SERVED	LOCATION	DUTY	FAN TYPE	DRIVE	FAN SPEED	AIR QUANTITY	TOTAL STATIC PRESS.	OPENING REQUIRED	FAN MOTOR	ELECTRICAL CHAR.	MANUFACTURER	MODEL NUMBER	WEIGHT	REMARKS
EF-1 AND EF-2	OVER MOP SINK	CEILING	EXHAUST	CEILING	DIRECT	1200	75 CFM	0.25 H ₂ O	IN.	HP 65 WATTS	V/Ø/~/	LOREN COOK	GC-240	25 LBS.	

EXISTING A/C EQUIPMENT

UNIT NUMBER	AREA SERVED	TOTAL SUPPLY AIR	OUTSIDE AIR	EXTERNAL STATIC PRESS	FAN MOTOR	ELECT. CHAR.	TOTAL COOLING CAP.	TOTAL SENS. CAP.	SUMMER ENT. AIR TEMP.	WINTER HEATING CAP.	WINTER ENT. AIR TEMP.	COMPRESSOR	ELECT. CHAR.	WATER TEMP. ENT./AVG.	COND. PRESS. DRDP	WATER QUANTITY	MANUFACTURER	MODEL NUMBER	MIN. SYSTEM	UNIT WEIGHT	UNIT PIPE CONN. SIZE	REMARKS
HP-1	OFFICE SPACE	3600 CFM	254.3 CFM	0.75 H ₂ O	HP/FLA	31	208/230/5/60	96,000 BTU/HR	80 / 67 °F	2.2	79B	88	137 FLA	208/230/5/60	9.7	24	CLIMATE MASTER	GH0989R/CALSS	13.7	560 LBS.	1 1/4"	

1. Summary

Ventilation Sizing Method: Sum of Space OA Airflows

2. Space Ventilation Analysis Table

Zone Name	Space Name	Floor Area (sq ft)	Maximum Occupancy	Maximum Supply Air (CFM)	Required Outdoor Air (CFM)	Required Outdoor Air (CFM)	Required Outdoor Air (% of supply)	Required Outdoor Air (CFM)	Uncorrected Outdoor Air (CFM)
Zone 1	Conference Room	83.0	4.0	77.6	6.00	0.00	0.00	6.00	59.7
	Control Room	161.0	8.0	144.6	6.00	0.00	0.00	6.00	2.5
	Control South	41.0	0.00	5.1	0.00	0.00	0.00	0.00	7.5
	Kitchenette	125.0	0.00	15.7	0.00	0.00	0.00	0.00	13.2
	Lobby	54.0	2.0	41.8	5.00	0.00	0.00	5.00	43.1
	Marketing	143.0	5.00	120.3	0.00	0.00	0.00	0.00	23.6
	Office	180.0	4.0	90.3	5.00	0.00	0.00	5.00	30.8
	Production	470.0	5.0	103.4	5.00	0.00	0.00	5.00	53.2
	Restrooms	40.0	0.00	6.4	0.00	0.00	0.00	0.00	0.0
	North Office	123.0	3.0	29.1	0.00	0.00	0.00	0.00	22.4
	Storage	14.0	0.0	2.4	0.00	0.12	0.00	0.00	1.7
	Totals (incl. Space Multipliers)			3740.3					284.3

RSI Roomscopes
 Architecture, Planning
map architectti

PROJECT NAME: VENEGAS INTERNATIONAL GROUP
 OFFICE - MIAMI
 BUSINESS OFFICE
 ADDRESS: 900 BISCAYNE BLVD. #104
 OWNER: VENEGAS INTERNANTIONAL GR.
 FOLIO: 01-3231-069-0001

ARCHITECT:
STEVEN LURIA, AIA
 9641 SW 100 AVENUE
 MIAMI, FL 33176
 LICENSE NO: AR 0017359
 305-305-3880

JOB NO.: 15.00104.TBA
 REVISIONS: 9-25-15 FIRST ISSUE
 DATE: 8/31/2015
 CHECKED BY: DRAWN BY: SRL
 PLOT: 100%
 SHEET INDEX: MECHANICAL PLAN
 SHEET NO.: M-1