MECHANICAL GENERAL NOTES

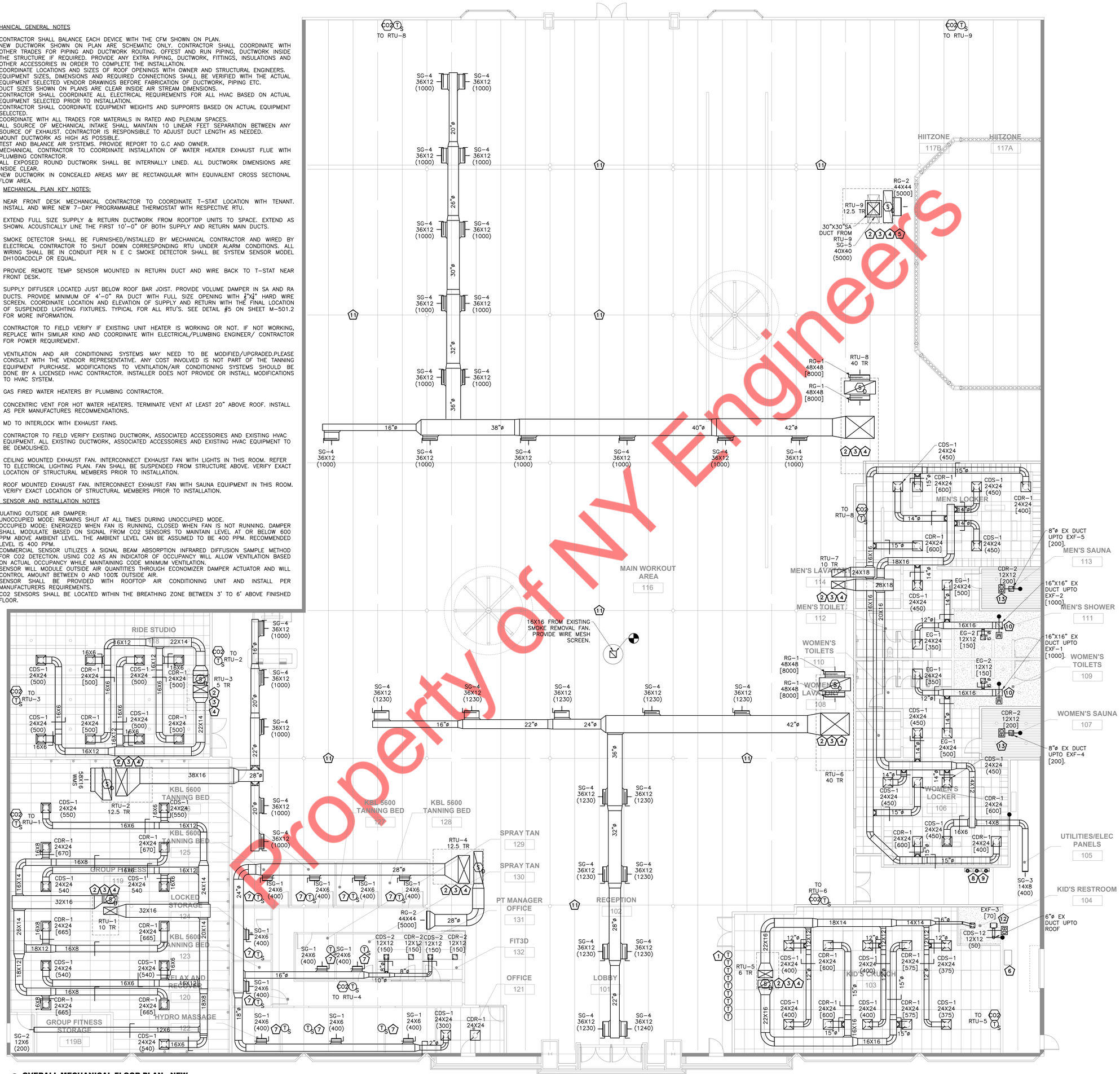
A. CONTRACTOR SHALL BALANCE EACH DEVICE WITH THE CFM SHOWN ON PLAN.
B. NEW DUCTWORK SHOWN ON PLAN ARE SCHEMATIC ONLY. CONTRACTOR SHALL COORDINATE WITH OTHER TRADES FOR PIPING AND DUCTWORK ROUTING. OFFEST AND RUN PIPING, DUCTWORK INSIDE THE STRUCTURE IF REQUIRED. PROVIDE ANY EXTRA PIPING, DUCTWORK, FITTINGS, INSULATIONS AND OTHER ACCESSORIES IN ORDER TO COMPLETE THE INSTALLATION.
C. COORDINATE LOCATIONS AND SIZES OF ROOF OPENINGS WITH OWNER AND STRUCTURAL ENGINEERS.
D. EQUIPMENT SIZES, DIMENSIONS AND REQUIRED CONNECTIONS SHALL BE VERIFIED WITH THE ACTUAL EQUIPMENT SELECTED VENDOR DRAWINGS BEFORE FABRICATION OF DUCTWORK, PIPING ETC.
E. DUCT SIZES SHOWN ON PLANS ARE CLEAR INSIDE AIR STREAM DIMENSIONS.
F. CONTRACTOR SHALL COORDINATE ALL ELECTRICAL REQUIREMENTS FOR ALL HVAC BASED ON ACTUAL EQUIPMENT SELECTED PRIOR TO INSTALLATION.
G. CONTRACTOR SHALL COORDINATE EQUIPMENT WEIGHTS AND SUPPORTS BASED ON ACTUAL EQUIPMENT SELECTED.
H. COORDINATE WITH ALL TRADES FOR MATERIALS IN RATED AND PLENUM SPACES.
I. ALL SOURCE OF MECHANICAL INTAKE SHALL MAINTAIN 10 LINEAR FEET SEPARATION BETWEEN ANY SOURCE OF EXHAUST. CONTRACTOR IS RESPONSIBLE TO ADJUST DUCT LENGTH AS NEEDED.
J. MOUNT DUCTWORK AS HIGH AS POSSIBLE.
K. TEST AND BALANCE AIR SYSTEMS. PROVIDE REPORT TO G.C AND OWNER.
L. MECHANICAL CONTRACTOR TO COORDINATE INSTALLATION OF WATER HEATER EXHAUST FLUE WITH PLUMBING CONTRACTOR.
M. ALL EXPOSED ROUND DUCTWORK SHALL BE INTERNALLY LINED. ALL DUCTWORK DIMENSIONS ARE INSIDE CLEAR.
N. NEW DUCTWORK IN CONCEALED AREAS MAY BE RECTANGULAR WITH EQUIVALENT CROSS SECTIONAL FLOW AREA.

MECHANICAL PLAN KEY NOTES:

1. NEAR FRONT DESK MECHANICAL CONTRACTOR TO COORDINATE T–STAT LOCATION WITH TENANT. INSTALL AND WIRE NEW 7–DAY PROGRAMMABLE THERMOSTAT WITH RESPECTIVE RTU.
2. EXTEND FULL SIZE SUPPLY & RETURN DUCTWORK FROM ROOFTOP UNITS TO SPACE. EXTEND AS SHOWN. ACOUSTICALLY LINE THE FIRST 10'–0" OF BOTH SUPPLY AND RETURN MAIN DUCTS.
3. SMOKE DETECTOR SHALL BE FURNISHED/INSTALLED BY MECHANICAL CONTRACTOR AND WIRED BY ELECTRICAL CONTRACTOR TO SHUT DOWN CORRESPONDING RTU UNDER ALARM CONDITIONS. ALL WIRING SHALL BE IN CONDUIT PER N E C SMOKE DETECTOR SHALL BE SYSTEM SENSOR MODEL DH100ACDCLP OR EQUAL.
4. PROVIDE REMOTE TEMP SENSOR MOUNTED IN RETURN DUCT AND WIRE BACK TO T–STAT NEAR FRONT DESK.
5. SUPPLY DIFFUSER LOCATED JUST BELOW ROOF BAR JOIST. PROVIDE VOLUME DAMPER IN SA AND RA DUCTS. PROVIDE MINIMUM OF 4'–0" RA DUCT WITH FULL SIZE OPENING WITH ¼"X¼" HARD WIRE SCREEN. COORDINATE LOCATION AND ELEVATION OF SUPPLY AND RETURN WITH THE FINAL LOCATION OF SUSPENDED LIGHTING FIXTURES. TYPICAL FOR ALL RTU'S. SEE DETAIL #5 ON SHEET M–501.2 FOR MORE INFORMATION.
6. CONTRACTOR TO FIELD VERIFY IF EXISTING UNIT HEATER IS WORKING OR NOT. IF NOT WORKING, REPLACE WITH SIMILAR KIND AND COORDINATE WITH ELECTRICAL/PLUMBING ENGINEER/ CONTRACTOR FOR POWER REQUIREMENT.
7. VENTILATION AND AIR CONDITIONING SYSTEMS MAY NEED TO BE MODIFIED/UPGRADED.PLEASE CONSULT WITH THE VENDOR REPRESENTATIVE. ANY COST INVOLVED IS NOT PART OF THE TANNING EQUIPMENT PURCHASE. MODIFICATIONS TO VENTILATION/AIR CONDITIONING SYSTEMS SHOULD BE DONE BY A LICENSED HVAC CONTRACTOR. INSTALLER DOES NOT PROVIDE OR INSTALL MODIFICATIONS TO HVAC SYSTEM.
8. GAS FIRED WATER HEATERS BY PLUMBING CONTRACTOR.
9. CONCENTRIC VENT FOR HOT WATER HEATERS. TERMINATE VENT AT LEAST 20" ABOVE ROOF. INSTALL AS PER MANUFACTURES RECOMMENDATIONS.
10. MD TO INTERLOCK WITH EXHAUST FANS.
11. CONTRACTOR TO FIELD VERIFY EXISTING DUCTWORK, ASSOCIATED ACCESSORIES AND EXISTING HVAC EQUIPMENT. ALL EXISTING DUCTWORK, ASSOCIATED ACCESSORIES AND EXISTING HVAC EQUIPMENT TO BE DEMOLISHED.
12. CEILING MOUNTED EXHAUST FAN. INTERCONNECT EXHAUST FAN WITH LIGHTS IN THIS ROOM. REFER TO ELECTRICAL LIGHTING PLAN. FAN SHALL BE SUSPENDED FROM STRUCTURE ABOVE. VERIFY EXACT LOCATION OF STRUCTURAL MEMBERS PRIOR TO INSTALLATION.
13. ROOF MOUNTED EXHAUST FAN. INTERCONNECT EXHAUST FAN WITH SAUNA EQUIPMENT IN THIS ROOM. VERIFY EXACT LOCATION OF STRUCTURAL MEMBERS PRIOR TO INSTALLATION.

CO2 SENSOR AND INSTALLATION NOTES

MODULATING OUTSIDE AIR DAMPER:
1. UNOCCUPIED MODE: REMAINS SHUT AT ALL TIMES DURING UNOCCUPIED MODE.
2. OCCUPIED MODE: ENERGIZED WHEN FAN IS RUNNING, CLOSED WHEN FAN IS NOT RUNNING. DAMPER SHALL MODULATE BASED ON SIGNAL FROM CO2 SENSORS TO MAINTAIN LEVEL AT OR BELOW 600 PPM ABOVE AMBIENT LEVEL. THE AMBIENT LEVEL CAN BE ASSUMED TO BE 400 PPM. RECOMMENDED LEVEL IS 400 PPM.
3. COMMERCIAL SENSOR UTILIZES A SIGNAL BEAM ABSORPTION INFRARED DIFFUSION SAMPLE METHOD FOR CO2 DETECTION. USING CO2 AS AN INDICATOR OF OCCUPANCY WILL ALLOW VENTILATION BASED ON ACTUAL OCCUPANCY WHILE MAINTAINING CODE MINIMUM VENTILATION.
4. SENSOR WILL MODULE OUTSIDE AIR QUANTITIES THROUGH ECONOMIZER DAMPER ACTUATOR AND WILL CONTROL AMOUNT BETWEEN 0 AND 100% OUTSIDE AIR.
5. SENSOR SHALL BE PROVIDED WITH ROOFTOP AIR CONDITIONING UNIT AND INSTALL PER MANUFACTURERS REQUIREMENTS.
6. CO2 SENSORS SHALL BE LOCATED WITHIN THE BREATHING ZONE BETWEEN 3' TO 6' ABOVE FINISHED FLOOR.



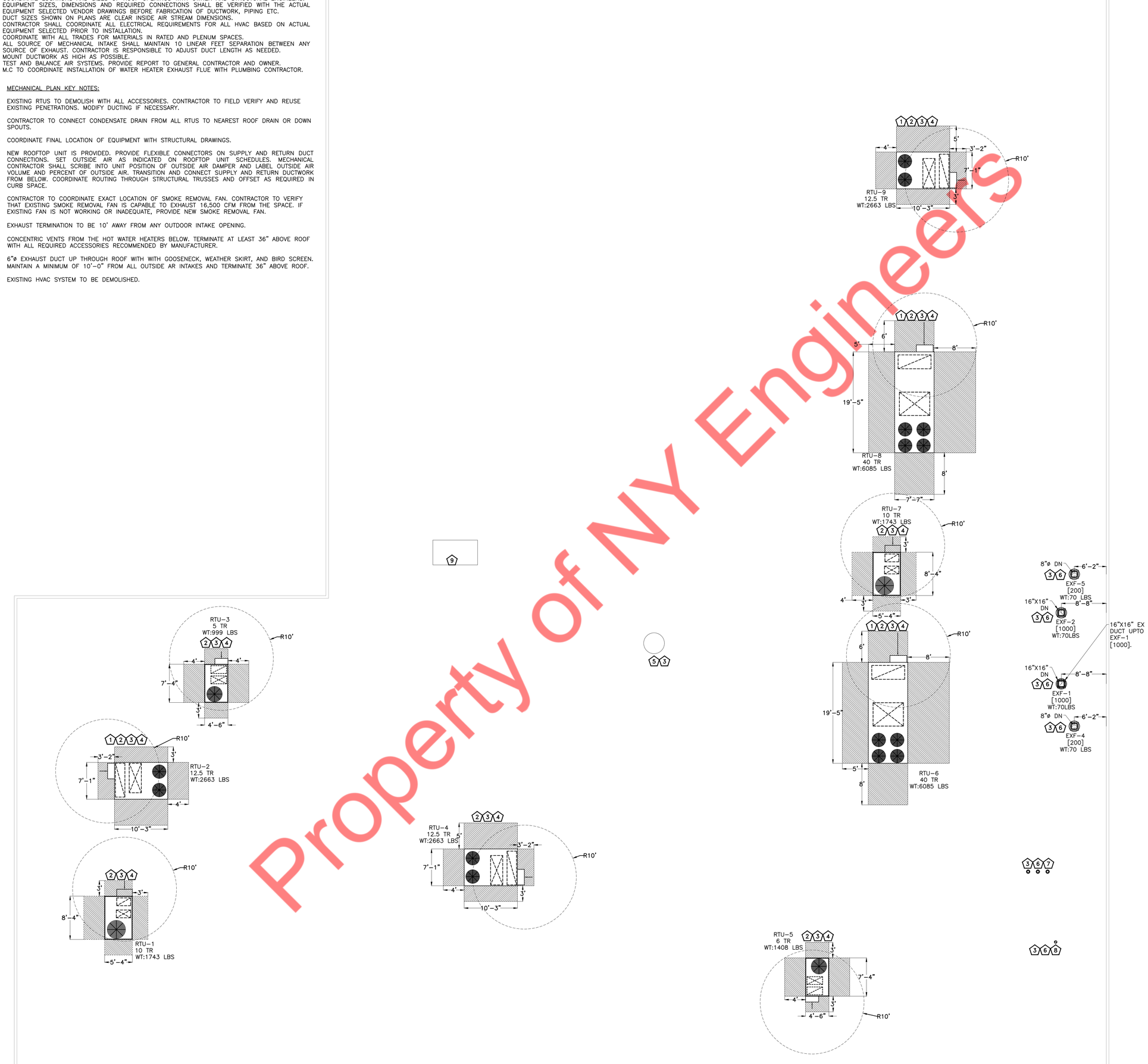
1 OVERALL MECHANICAL FLOOR PLAN - NEW
1/8" = 1'-0"

MECHANICAL GENERAL NOTES

A. COORDINATE LOCATIONS AND SIZES OF ROOF OPENINGS WITH OWNER AND STRUCTURAL ENGINEERS.
B. EQUIPMENT SIZES, DIMENSIONS AND REQUIRED CONNECTIONS SHALL BE VERIFIED WITH THE ACTUAL EQUIPMENT SELECTED VENDOR DRAWINGS BEFORE FABRICATION OF DUCTWORK, PIPING ETC.
C. DUCT SIZES SHOWN ON PLANS ARE CLEAR INSIDE AIR STREAM DIMENSIONS.
D. CONTRACTOR SHALL COORDINATE ALL ELECTRICAL REQUIREMENTS FOR ALL HVAC BASED ON ACTUAL EQUIPMENT SELECTED PRIOR TO INSTALLATION.
E. COORDINATE WITH ALL TRADES FOR MATERIALS IN RATED AND PLENUM SPACES.
F. ALL SOURCE OF MECHANICAL INTAKE SHALL MAINTAIN 10 LINEAR FEET SEPARATION BETWEEN ANY SOURCE OF EXHAUST. CONTRACTOR IS RESPONSIBLE TO ADJUST DUCT LENGTH AS NEEDED.
G. MOUNT DUCTWORK AS HIGH AS POSSIBLE.
H. TEST AND BALANCE AIR SYSTEMS. PROVIDE REPORT TO GENERAL CONTRACTOR AND OWNER.
I. M.C TO COORDINATE INSTALLATION OF WATER HEATER EXHAUST FLUE WITH PLUMBING CONTRACTOR.

MECHANICAL PLAN KEY NOTES:

1. EXISTING RTUS TO DEMOLISH WITH ALL ACCESSORIES. CONTRACTOR TO FIELD VERIFY AND REUSE EXISTING PENETRATIONS. MODIFY DUCTING IF NECESSARY.
2. CONTRACTOR TO CONNECT CONDENSATE DRAIN FROM ALL RTUS TO NEAREST ROOF DRAIN OR DOWN SPOUTS.
3. COORDINATE FINAL LOCATION OF EQUIPMENT WITH STRUCTURAL DRAWINGS.
4. NEW ROOFTOP UNIT IS PROVIDED. PROVIDE FLEXIBLE CONNECTORS ON SUPPLY AND RETURN DUCT CONNECTIONS. SET OUTSIDE AIR AS INDICATED ON ROOFTOP UNIT SCHEDULES. MECHANICAL CONTRACTOR SHALL SCRIBE INTO UNIT POSITION OF OUTSIDE AIR DAMPER AND LABEL OUTSIDE AIR VOLUME AND PERCENT OF OUTSIDE AIR. TRANSITION AND CONNECT SUPPLY AND RETURN DUCTWORK FROM BELOW. COORDINATE ROUTING THROUGH STRUCTURAL TRUSSES AND OFFSET AS REQUIRED IN CURB SPACE.
5. CONTRACTOR TO COORDINATE EXACT LOCATION OF SMOKE REMOVAL FAN. CONTRACTOR TO VERIFY THAT EXISTING SMOKE REMOVAL FAN IS CAPABLE TO EXHAUST 16,500 CFM FROM THE SPACE. IF EXISTING FAN IS NOT WORKING OR INADEQUATE, PROVIDE NEW SMOKE REMOVAL FAN.
6. EXHAUST TERMINATION TO BE 10' AWAY FROM ANY OUTDOOR INTAKE OPENING.
7. CONCENTRIC VENTS FROM THE HOT WATER HEATERS BELOW. TERMINATE AT LEAST 36" ABOVE ROOF WITH ALL REQUIRED ACCESSORIES RECOMMENDED BY MANUFACTURER.
8. 6"ø EXHAUST DUCT UP THROUGH ROOF WITH WITH GOOSENECK, WEATHER SKIRT, AND BIRD SCREEN. MAINTAIN A MINIMUM OF 10'-0" FROM ALL OUTSIDE AR INTAKES AND TERMINATE 36" ABOVE ROOF.
9. EXISTING HVAC SYSTEM TO BE DEMOLISHED.



1 OVERALL MECHANICAL ROOF PLAN - NEW
1/8" = 1'-0"