

Architecture ■ Planning ■ Consulting

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**ALTERATIONS TO
WESTERN VIRGINIA
WATER AUTHORITY**

SECOND
FLOOR
PLAN

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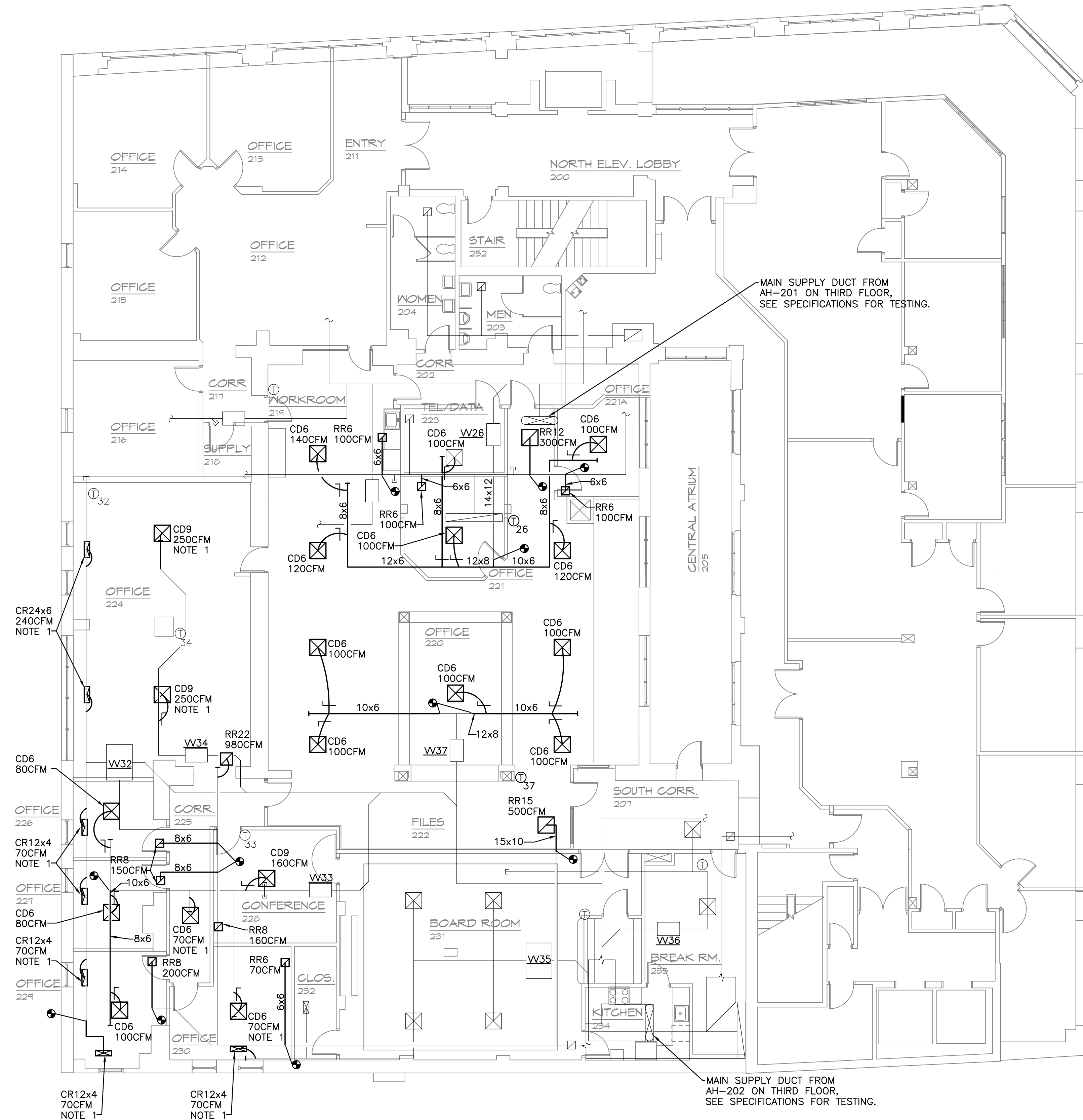
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HUGHES ASSOCIATES ARCHITECTS
FALL 2005

MECHANICAL SPECIFICATIONS

1. CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING IN ORDER TO BECOME FAMILIAR WITH EXISTING CONDITIONS OF THE SPACE AND ADJACENT AREAS. COORDINATE WITH EXISTING STRUCTURE AND OTHER TRADES.
2. ALL WORK SHALL COMPLY WITH THE VIRGINIA UNIFORM STATEWIDE BUILDING CODE, THE 2000 ISSUE OF THE INTERNATIONAL MECHANICAL CODE, NFPA, AND LOCAL REGULATIONS. ARRANGE AND PAY FOR ALL PERMITS AND INSPECTIONS.
3. DRAWINGS INDICATE GENERAL LAYOUT OF DUCTWORK AND EQUIPMENT. COORDINATE INSTALLATION WITH OTHER TRADES AND ACTUAL CONDITIONS AND PROVIDE ADDITIONAL FITTINGS, OFFSETS AND TRANSITIONS AS REQUIRED.
4. MECHANICAL EQUIPMENT, MATERIALS AND LABOR SHALL INCLUDE A ONE YEAR WARRANTY EXCEPT COMPRESSOR WARRANTY SHALL BE FIVE YEARS.
5. SUBMIT SHOP DRAWINGS FOR REVIEW ON ALL EQUIPMENT.
6. PROVIDE TWO BOUND SETS OF APPROVED SHOP DRAWING INFORMATION AND ALL MANUFACTURERS' INSTRUCTIONS FOR OPERATION AND MAINTENANCE. PROVIDE RED LINED AS-BUILT DRAWINGS AT THE END OF THE PROJECT INDICATING INSTALLED CONDITIONS, LOCATIONS AND EQUIPMENT.
7. COORDINATE LOCATIONS OF CEILING MOUNTED DIFFUSERS AND OTHER ITEMS WITH LIGHT FIXTURES.
8. VERIFY AND DEMONSTRATE TO OWNER THE OPERATION OF ALL EQUIPMENT AND CONTROLS. BALANCE AIRFLOW WITH DAMPERS FOR ACCEPTABLE SPACE TEMPERATURES AND NOISE LEVELS.
9. DUCTWORK SHALL BE GALVANIZED SHEET METAL PER SMACNA WITH TURNING VANES IN ELBOWS AND MANUAL DAMPERS FOR BALANCING. INSULATE DUCTS WITH 2" FIBERGLASS WRAP WITH ALL SERVICE VAPOR BARRIER JACKET. EXTERIOR DUCT ON ROOF SHALL HAVE RIGID BOARD INSULATION AND ALUMINUM JACKET SEALED WATER TIGHT.
10. FLEXIBLE DUCTS SHALL HAVE STEEL WIRE HELIX REINFORCEMENT, CONTINUOUS INNER LINER, 1-1/2" FIBERGLASS INSULATION AND OUTER JACKET TO COMPLY WITH UL 181, CLASS 1. DIAMETER OF FLEX DUCT SHALL MATCH DIFFUSER INLET SIZE. MAXIMUM LENGTH IS TEN FEET.
11. APPLY UL RATED FIRE STOPPING SEALANT AROUND DUCTS AND PIPES THAT PENETRATE RATED WALLS AND FLOORS.
12. FIRE DAMPERS SHALL BE STYLE B DYNAMIC TYPE, UL LISTED, 1 1/2 HOUR RATING. PROVIDE ACCESS DOOR ADJACENT TO ALL DAMPERS.
13. CEILING DIFFUSERS (CD) TO BE EXTRUDED ALUMINUM WITH DAMPER, METAL AIRE 5000 SERIES FOR LAY-IN CEILING (OR SURFACE MOUNT WHERE REQUIRED), FOUR WAY THROW UNLESS INDICATED OTHERWISE. CEILING REGISTERS (CR) TO BE SIDEWALL TYPE REGISTER, ALUMINUM, HORIZONTAL BLADES, H4004 SERIES WITH DAMPER. CEILING RETURN REGISTERS (RR) TO BE PERFORATED 7000R SERIES FOR LAY-IN CEILING OR SURFACE MOUNT.
14. TEST AND BALANCE VAV BOXES AND ALL AIR FLOWS INDICATED FOR PROPER OPERATION AND AIRFLOW. TEST AND MEASURE VAV BOX AIR FLOWS AT MAXIMUM AND MINIMUM (1/3 MAX) AND HEATING WHERE APPLICABLE. ADJUST DAMPERS AS REQUIRED. PERFORM TAB AND RECORD RESULTS PER AABC OR NEBB STANDARDS. SUBMIT TWO COPIES OF REPORT FOR REVIEW.
15. EXISTING AIR HANDLERS: TEST EXISTING AH-201 AND AH-202 LOCATED IN THIRD FLOOR MECHANICAL ROOMS. MAKE ADJUSTMENTS AND VERIFY CONTROLS, TURNING VANES, BELTED WATER VALVES, AND SYSTEM CONTROLS. LUBRICATE UNIT, REPLACE BELTS AND FILTERS, AND MAKE ADJUSTMENTS NECESSARY FOR PROPER OPERATION. NOTIFY OWNER OF ANY EQUIPMENT OR DEVICES THAT REQUIRE REPLACEMENT.

NOTES THIS SHEET

1. PROVIDE NEW DUCT CONNECTION FROM EXISTING BRANCH DUCT TO NEW CEILING DIFFUSER/REGISTER. PROVIDE MANUAL VOLUME DAMPER AT CONNECTION.



SECOND FLOOR PLAN