



CERTIFICATION  
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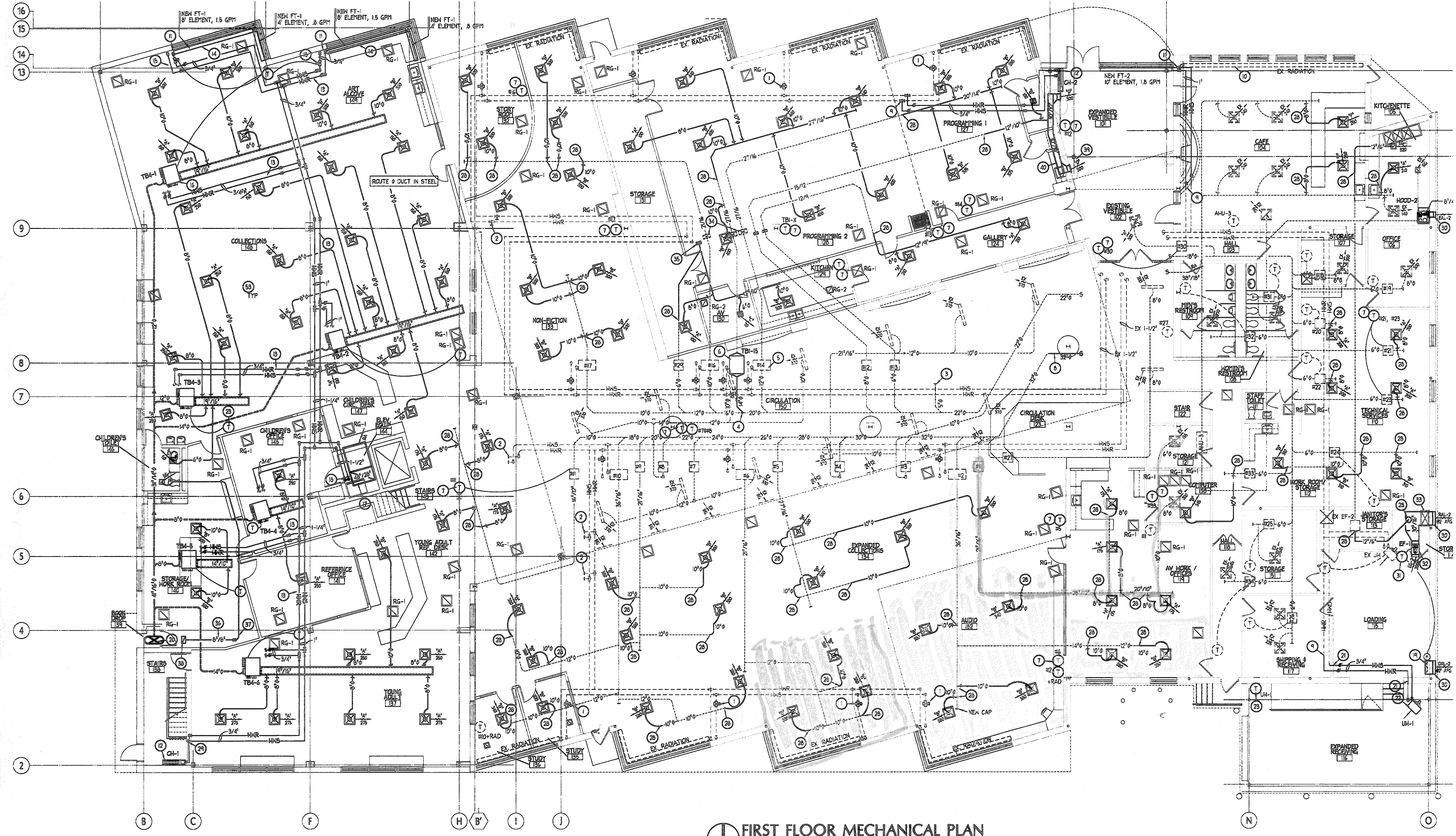


REVISION DATE BY

DATE PROJECT  
11/2/2005 2005.0039

TITLE  
**First Floor Mechanical Plan & Notes**  
SHEET

**M1.1**



**FIRST FLOOR MECHANICAL PLAN**  
SCALE: 1/8" = 1'-0"  
NORTH

**CONSTRUCTION PLAN NOTES** (PARTIAL NOTES - SEE M1.2 FOR CONTINUATION)

- 1 EXISTING ZONE CONTROL VALVES SHALL REMAIN OPERATIONAL WITHOUT MODIFICATION TO THE CONTROLS.
- 2 CAP THE EXISTING HYDRONIC LINES WHERE PIPING WAS REMOVED.
- 3 CAP THE DUCTWORK WHERE THE TERMINAL BOX WAS REMOVED.
- 4 CONNECT THE NEW 1/2" DUCT INTO THE EXISTING AT THIS LOCATION. INSULATE THE SUPPLY DUCT PER SPECS AND CONNECT INTO THE NEW TERMINAL BOX.
- 5 EXISTING TERMINAL BOXES THAT ARE SHOWN DASHED ARE TO REMAIN AND BE REBALANCED PER THE SHOWN AIRFLOWS, TYPICAL.
- 6 INSTALL THE NEW TERMINAL BOX AND RECONNECT THE HYDRONIC LINES AND DUCTWORK. REBALANCE THE WATER AND AIRFLOWS AND REINSTALL A NEW THERMOSTAT IN THE SPACE AS SHOWN.
- 7 RELOCATED THERMOSTATS SHALL BE INSTALLED WITHIN CONDUIT AND ELECTRICAL BOXES, TYPICAL.
- 8 THESE DUCTS SHALL BE RECONNECTED INTO THE EXISTING SUPPLY AIR FROM THE MECHANICAL ROOM TO REDUCE THE AIR VELOCITY AT THE MECHANICAL ROOM HALL. THE EXISTING MECHANICAL HVAC UNITS SHALL HAVE THEIR SUPPLY FAN MOTORS CHANGED ALONG WITH THE EXISTING FREQUENCY DRIVE WITH UNITS WITH NOISE FILTERS INTERNALLY BUILT INTO THE DRIVE. SEE M1.1 EXISTING MEZZ PLANS FOR ADDITIONAL INFORMATION.
- 9 TAP INTO THE EXISTING HYDRONIC LINES AT THIS APPROXIMATE LOCATION.
- 10 EXISTING FIN-TUBE RADIATION TO REMAIN OPERATIONAL AS SHOWN. MODIFY THE WEST END ENCLOSURE TO ALLOW AN END-CAP INSTALLATION.
- 11 REDROUTE NEW LINES DOWN WITHIN THE WALL AS SHOWN AND CONNECT INTO THE FIN-TUBE AND DEVICES PER THE DETAILS ON SHEET M1.2.
- 12 INSTALL THE NEW CABINET HEATER IN STRICT COMPLIANCE WITH MANUFACTURERS RECOMMENDATIONS. SEE THE DETAILS ON SHEET M1.2.
- 13 THESE NEW HYDRONIC LINES SHALL BE INSTALLED AS HIGH AS POSSIBLE UP WITHIN THE WEBS OF THE NEW BAR JOISTS WHERE POSSIBLE IN THE NORTH-SOUTH DIRECTION. IN ADDITION, OFFSET ALL HYDRONIC LINES UP TO WITHIN STEEL BAR JOISTS TO AVOID INTERFERENCES.
- 14 NEW FIN-TUBE RADIATION SHALL EXACTLY MATCH THE EXISTING INSTALLATION ALONG THESE NORTH WINDOWS. SEE SCHEDULE ON SHEET M1.1.
- 15 THE TCC SHALL FURNISH 2-WAY MODULATING CONTROL VALVES AND CONTROL TRIM TO OFFSET HEAT LOSS OF THE LARGE GLASS AREA. SEE TEMPERATURE CONTROL SPECS.
- 16 INSTALL THE NEW TERMINAL BOXES IN STRICT COMPLIANCE WITH MANUFACTURERS RECOMMENDATIONS. TYPICAL. SEE THE DETAILS ON SHEET M1.2.
- 17 RETURN AIR DUCT UP TO 3RD FLOOR MECHANICAL MEZZANINE. SEE SHEET M1.2 FOR CONTINUATION.
- 18 HYDRONIC PIPING UP TO 3RD FLOOR MECHANICAL MEZZANINE. SEE SHEET M1.2 FOR CONTINUATION.
- 19 INSTALL A NEW MOTOR OPERATED 3/4" LON LEAK DAMPER TO OPEN DURING EXHAUST FAN (EF-1) OPERATION. TCC TO PROVIDE DAMPER, OPERATOR AND INTERLOCK OF UNIT.
- 20 FLAT OVAL HIGH PRESSURE SUPPLY AIR DUCT (INTERNALLY LINED K-27) UP TO 3RD FLOOR MECHANICAL MEZZANINE. SEE SHEET M1.2 FOR CONTINUATION.
- 21 CORE THRU THE EXISTING WALL AND ROUTE THE NEW HYDRONIC LINES AS HIGH AS POSSIBLE. CONNECT INTO THE NEW UNIT HEATER PER DETAILS ON SHEET M1.2.
- 22 INSTALL THE NEW UNIT HEATER IN STRICT COMPLIANCE WITH MANUFACTURERS RECOMMENDATIONS. TYPICAL. SEE THE DETAILS ON SHEET M1.2. MOUNT UNIT AS HIGH AS POSSIBLE TO MAINTAIN MANUFACTURERS RECOMMENDATIONS.
- 23 NEW THERMOSTAT SHALL BE INSTALLED WITHIN CONDUIT AND ELECTRICAL BOXES, TYPICAL.
- 24 RETURN AIR DUCT FROM 1ST FLOOR UP TO 3RD FLOOR MECHANICAL MEZZANINE. SEE SHEET M1.1 AND THE ENLARGED MEZZANINE MECHANICAL PLAN AT RIGHT FOR CONTINUATION.
- 25 HYDRONIC PIPING FROM 1ST FLOOR UP TO 3RD FLOOR MECHANICAL MEZZANINE. SEE SHEET M1.1 AND THE ENLARGED MEZZANINE MECHANICAL PLAN AT RIGHT FOR CONTINUATION.
- 26 SUPPLY DUCT FROM THE NEW HVAC UNIT. SEE THE ENLARGED MEZZANINE MECHANICAL PLAN AT RIGHT FOR CONTINUATION.
- 27 SUPPLY AIR DUCT (INTERNALLY LINED K-27) DOWN TO 1ST FLOOR SEE SHEET M1.1 FOR CONTINUATION.
- 28 TAP OR CONNECT INTO THE EXISTING DUCTWORK AT THESE APPROXIMATE LOCATIONS. TYPICAL.
- 29 OFFSET HYDRONIC PIPING DOWN INSIDE THE RATED WALL AND FIRE CAULK WHERE THE PENETRATION IS MADE.
- 30 SAWCUT THE EXISTING WALL TO THE EXACT DIMENSIONS OF THE NEW LOUVERS. SET THE LOUVERS BACK INTO THE BRICK APPROXIMATELY 1/4" AND SEAL THE LOUVERS GOR WATER AND AIRTIGHT. LOUVERS ON THIS WALL SHALL MATCH THE EXISTING WINDOW FRAME COLOR. POINT THE LOUVERS AT JUST BELOW THE EXISTING SOFFIT AS HIGH AS POSSIBLE. TYPICAL.
- 31 ROUTE THE HYDRONIC PIPING DOWN INSIDE MALL AND FIRE CAULK AS REQUIRED.
- 32 INSTALL THE NEW EF-1 AS HIGH AS POSSIBLE. THIS FAN IS TO REMOVE HEAT FROM THE EXISTING EMERGENCY GENERATOR.
- 33 INSTALL NEW DUCT AS TIGHT TO THE WALL AS POSSIBLE. THIS EXHAUST DUCT SHALL BE INSULATED INTERNALLY WITH 1" DUCT LINER.
- 34 EXISTING DUCTWORK THAT ROUTES VERTICALLY ALONG MALL TO REMAIN OPERATIONAL AS SHOWN.
- 35 ROUTE NEW DUCT DOWN ALONG MALL AS SHOWN.
- 36 ROUTE THIS DUCT UP WITHIN STEEL BAR JOISTS. CAREFULLY COORDINATE WITH ALL TRADES IN THESE CEILING AREAS AS THEY ARE VERY CONGESTED. TYPICAL ALL FIRST FLOOR AND BELOW MEZZANINE AREAS.
- 37 OFFSET AS REQUIRED AVOIDING OTHER TRADES.
- 38 ROUTE EXHAUST DUCT UP TO SECOND FLOOR. SEE SHEET M1.2 FOR CONTINUATION.
- 39 INSTALL SIDEWALL GRILL AS HIGH AS POSSIBLE.
- 40 INSTALL THE NEW SUPPLY DUCTWORK WITHIN THE NEW BULKHEAD.