

**Kurylo/Dodd House
HVAC Duct Planning Diagram
May 31, 2010**

Design Criteria

- * Closed-loop (coil) geothermal system with a single compressor/air handler unit.
- * 4,265 S.F. total (1,790 on main floor, 1,925 in finished basement).
- * Tight house, sprayed foam insulation. R24 in walls, R30 in roof.
- * Hot roof, so dropped-ceiling area (yellow) is conditioned space, and there is no concern about running ductwork in unconditioned space.
- * **No floor vents.** Wall vents preferred, but ceiling vents acceptable in some areas.
- * Air return in major rooms - no thru-wall holes with grills.
- * Two zones via electric duct dampers, main floor and basement.
- * ERV for efficient fresh air exchanges.
- * De-superheater to boost domestic hot water.
- * Extremely quiet compressor/air handler unit in finished basement mechanical room.
- * Unusual house - contractor must work closely with owners because of floor truss constraints.

** Floor trusses may not be cut, notched, or drilled.*

Online, see <http://house.mdodd.com/contractors.html> for a link to a PDF file of this drawing.

Legend

- Main Floor
- Basement
- Mechanical room in Basement
- Dropped ceiling above living area available for ducts

Cathedral ceiling in white areas results in wall for HVAC grills where dropped ceiling meets cathedral ceiling

A Wall panel designation

