Attic and Crawlspace Access
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When constructing a building that contains an attic, crawlspace, or both, proper access to the attic and/or crawlspace must be provided. Sometime during the life of a structure, access to electrical, plumbing, or mechanical equipment will be required. With a code compliant attic/crawlspace access opening, the attic/crawlspace can be entered without the removal of wall, floor or ceiling finish materials. Easy access is created by installing a code compliant access and panel.

The 2003 Michigan Residential Building Code (MRC) has a few sections that address the access to areas such as crawlspace and attics. Section R408.1 of the 2003 MRC addresses access to crawlspace areas. Access is required to be provided to all under-floor areas (with exception to concrete slab on grade construction). The requirements for a code compliant crawlspace access are:

♦ Access openings to a crawlspace through the floor, minimum size = 18 inches by 24 inches.
♦ Access opening through a wall, minimum size = 16 inches by 24 inches.
♦ Access openings through exterior walls can not be located under a door to a residence.
♦ When any part of the access is located below grade, an area-way must be provided. The area-way must be a minimum of 16 inches by 24 inches, with the bottom of the area-way below the threshold of the access opening. The area-way allows space for removal of the access panel and space to maneuver to enter and exit the crawlspace.
♦ When the access is provided in an insulated exterior foundation wall, the access panel must be provided with minimum R5 insulation.
♦ When interior access is provided to a crawlspace, the insulation in the crawlspace may be required (depending on insulation material used) to be separated from the interior of the building. When thermal protection is required, the access panel must meet the minimum thermal barrier requirements of the code.

Section R807.1 of the 2003 MRC addresses access openings to attic spaces. The requirements for a code compliant attic access are:

♦ In any building with a combustible ceiling or roof construction, an attic access opening must be provided to attic areas that exceed 30 square feet in area and have a vertical height of 30 inches or more.
♦ The rough framed opening must be a minimum of 22 inches by 30 inches.
♦ A minimum 30 inch unobstructed head clearance must be provided above the attic access opening.
♦ The attic access must be located in a hallway or other readily accessible location in the building.
♦ The attic access panel must be insulated to a minimum R38 insulation value, in new construction.
♦ Attic access panels in garages must be rated to meet the garage/house separation requirements of the code. A minimum ½ inch gypsum board is required for a code compliant garage/house separation unless the ceiling is supporting floor load above. When floor load is being supported above a garage, a minimum 5/8 inch gypsum board is required on the ceiling. Access panels must meet or exceed the thermal barrier protection provided by the gypsum board.
♦ When mechanical equipment is located in the attic, the access opening provided must meet the requirements of section M1305.1.3 of the 2003 MRC.

Sections M1305.1.3 & M1305.1.4 of the 2003 MRC deal with the required access size when mechanical equipment is located in an attic or crawlspace. Should a boiler, furnace, water heater, or similar equipment be located in the crawlspace or attic, adequate space must be provided to allow for the removal of that equipment. These two code sections require an opening large enough to allow removal of the largest appliance located in the crawlspace or attic, with the opening being no less than 22 inches by 30 inches.

Pull down ladders in garages typically present problems for final inspection approval, as the thin layer of plywood on the underside of these ladders usually will not meet the code requirements for adequate garage/house separation. There are ladder assemblies available that have fire ratings. Some ladder manufacturer’s also have rated replacement panels available. Check with your supplier or the manufacturer prior to an installation, to confirm that the ladder being installed will meet the garage/house separation code requirements when installed through a drywall ceiling of a garage. When using an attic for storage, the Builder or Homeowner should confirm that the ceiling framing, or trusses, are sized adequately to support a load. Many times trusses are designed with a minimal bottom chord load value. The bottom chord will support the ceiling finish material and insulation, but may not carry additional load from materials stored in the attic space. Bottom chord load values can be determined by checking with the truss manufacturer, or by checking the value assigned to the bottom chord, as shown on the truss engineering. Ceiling joists, just as with trusses, are only capable of handling a certain amount of load. When using an attic for storage, the ceiling joists must be adequately sized to support the load being placed on them.

As with all construction, a code compliant installation, beginning with the initial installation, can save a contractor or do-it-yourselfer from having to re-do what has already been done, to make it meet code. Code compliant installation can eliminate frustration and additional costs involved in re-construction. As always, should you have questions regarding the building code, consult your local Building Dept. The Building Dept can and should be your best source of code information.

Code information from the 2003 Michigan Residential Building Code