



CITY OF WORTHINGTON

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BASEMENT FINISHING GUIDE

This information is a guide to the most common questions and problems. It is not intended nor shall it be considered a complete set of requirements.

Required Permits:

Basement finishing does require a building permit issued through the City of Worthington. Mechanical work will be included in the building permit. Fireplaces can be included on the building permit. Plumbing permits may also be required. Owners that actually occupy the dwelling may do the plumbing work in that dwelling only. Please note that all electrical work, done by a Minnesota licenced electrical contractor or the homeowner requires inspection.

An electrical permit is required and can be obtained through the State of Minnesota Board of Electricity. The local inspector is Scott Pruess and can be contacted at 507-449-8870 between the hours of 7:00 am and 8:30 am - Monday through Friday. For other times leave a message.

Plan Requirements:

To obtain a building permit, submit two sets of plans showing the basement layout, indicating the use of each room, show proposed walls, doors, windows, emergency escape and rescue openings if needed, the location of smoke alarms, stairways (show rise and run), sump receptors, water heater, water treating equipment, electric breaker panels, fireplaces, furnaces, and other equipment.

General Code Requirements:

Please note; Ceiling height must be seven feet or greater. If the ceiling height is less than this the basement is considered a crawlspace by the code, and should be used for storage only. Bedrooms must be at least 7 feet long in one dimension and have an area of at least 70 square feet.

1. The bottom plate of proposed walls shall be treated or decay resistant.
2. Enclosed closets under stairs must be entirely finished with ½ inch minimum gypsum wallboard.
3. Smoke alarms are required to be installed in all sleeping rooms, hallways that serve sleeping room and at each level of the house that does not have sleeping rooms, excluding attics and crawlspaces. Please request the smoke alarm handout for further information.
4. Existing unfinished basements with the correct ceiling height may be used for family rooms and sleeping rooms if emergency escape and rescue openings are provided. An escape opening in a bedroom can serve as the escape opening for the family room. A family room only in the basement may not require an escape opening. Emergency escape and rescue openings shall have:
 - An overall minimum net clear openable area of 5.7 square feet.
 - Minimum clear opening height of 24 inches.
 - Minimum clear opening width of 20 inches. Note; opening of 20" x 24" does not equal 5.7 sq. ft.
 - A finished sill height not to exceed 44 inches.An escape well must be provided if the opening is below the adjoining grade level. The well must have a net area of 9 sq. ft. with minimum horizontal projection and width of 36 inches. If the depth of the well from the surface exceeds 44 inches a ladder or step must be provided.
5. Fuel fired water heaters and fuel fired furnaces must not be accessed through, or located in a bedroom or bathroom. Furnaces shall have an unobstructed working space of not less than 30 inches in front of them and shall be provided with outside combustion air when fuel fired. Provide the minimum clearance for the furnace per the manufacturers installation instructions. Gas fired water heaters may need outside combustion air. Outside combustion air openings shall have one square inch of free area for every 3000 btuh input of appliances served.
6. Proper clearance to combustibles from the gas fired furnace flue shall be maintained (example - 1 inch clearance for double wall type "B" vent and 6 inches clearance for a single wall type "A" vent connector) Single wall vent connectors shall not pass through floors, ceilings, closets, or attics, and shall not be concealed.
7. Provide access for the water heater, water softener, water meter, plumbing clean-outs and other equipment to allow for service and replacement. Refer to the installation instructions.

8. Do not locate the electrical panel in closets. 3 feet of clear floor space must be provided in front of the panel. Do not locate the sump basket in this floor space. Do not install water piping above the panel.
9. Water closets (toilet) shall be centered in a clear floor space of not less than 30 inches wide and have 24 inches of clear floor space in front of the bowl. New or replacement water closets shall consume no more than 1.6 gallons per flush. Whirlpools/bathtubs installed against walls must have a factory flange to receive drywall or other finishes. Fixtures without the flange are for deck mounting only.
10. Dissimilar waste and vent piping must be connected using the correct connectors. PVC and ABS piping cannot be glued to each other. Appropriate glue and primer must be used. Cast iron or metal pipe to plastic pipe connections must be made using the appropriate mechanical connector. Plastic piping shall be supported at 32 inch intervals. Plastic pipe passing through wood framing with less than 1-1/4" of wood remaining must be protected by nail protector plates at least 1/16" (060.") thick steel.
11. An approved anti-scald (thermostatic or pressure balanced) faucet must be installed in new shower or shower/bathtub installations.
12. Shower stalls must be capable of encompassing a 30 inch diameter circle measured at the elevation of the control handles. Bathtub/shower combinations are exempt from this feature.
13. Bathrooms shall be provided with an operable window or a powered exhaust fan that exhausts to the outside of the house. The final 4 ft. of this duct shall be insulated (minimum R-3).
14. Non-vented plumbing fixtures shall not receive waste water from water treating equipment (softeners) Non-vented floor drains are not acceptable for this purpose. Waste water discharge piping from water treating equipment must be indirectly wasted to a receptor utilizing an air gap of at least one and one half inches minimum or twice the diameter of the outlet piping, whichever is greater.
15. Hose bibbs used for other than clothes washer hook ups shall have code compliant vacuum breakers to help prevent cross contamination of the water supply.
16. Ground water sumps shall not discharge into the sanitary sewer.
17. Fuel gas piping must be of the appropriate materials, shut off valves, dirt legs and unions are required for each appliance. Gas piping must be tested and inspected.
18. Outlets, lighting and smoke alarms in sleeping rooms must be arc fault protected. Bathroom outlets must be ground fault protected. Contact your electrical contractor for more information.

Required Inspections:

It is the responsibility of the owner or authorized agent to request inspections

Rough-ins (do not conceal any work until after inspections are completed)

Plumbing - includes piping under the floor, above floor waste and vent and water piping.

Waste and vent rough work must hold 5 psi air test for 15 minutes.

Electrical - before work is covered contact Scott Pruess at 507-449-8870

Mechanical - duct-work & furnace installation, fire place installations, gas piping.

Framing - Insulation (exterior walls must be insulated) after above inspections are complete

Gypsum wall board (sheetrock) after all wallboard has been hung & fastened, but before taping.

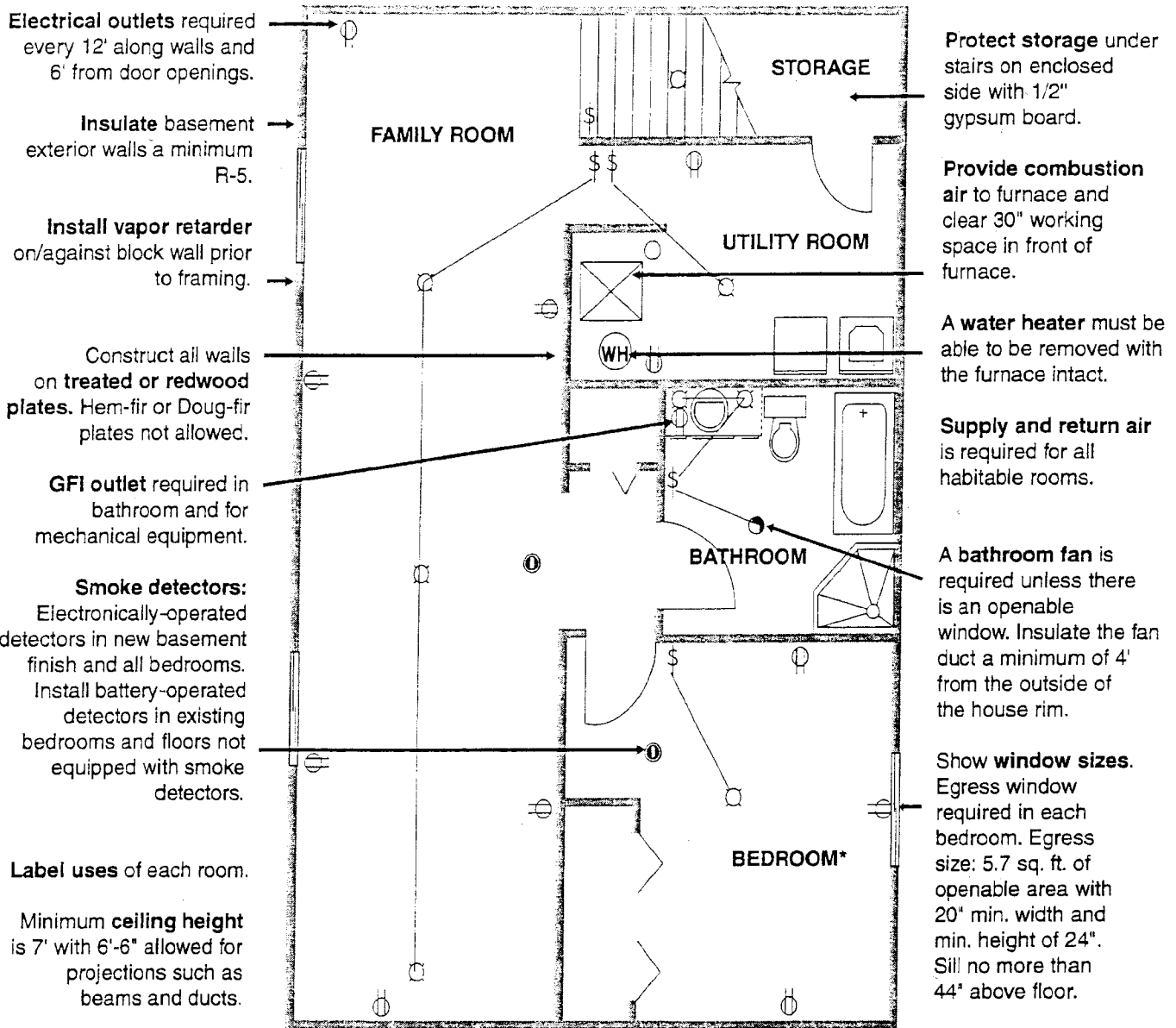
Final - plumbing (includes manometer test), electrical and mechanical

Note: multiple inspections can sometimes be done at the same time

Final building inspection following approval of all other final inspections.

Recommendations

1. To prevent possible water staining on ceilings, you may want to insulate cold water supply piping.
2. If you do not have a thorough understanding of the work, it is strongly suggested that you hire a MN licenced Residential Contractor, a MN licenced Electrical Contractor, a MN licenced Plumbing Contractor and a bonded HVAC Contractor.
3. Please contact the Building Official for answers to code questions. Call 507 372-8640.



* All bedroom wiring must be protected by arc-fault circuit breakers (AFCB).

Note: Electrical boxes/panels are NOT allowed in bathrooms or closets.

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