



City of Chaska BASEMENT FINISH HANDOUT

A. All applications must include:

1. The completed building permit application, including all required information in the numbered spaces, signed, and dated.
2. Two copies of the building plan. Plans shall be drawn to ¼ inch scale minimum, showing work to be completed and:
 - a. Indicate room dimensions
 - b. Label uses of each room
 - c. Bath layout
 - d. Door and egress window layout
 - e. Identify existing and new walls
 - f. Location and type of fireplace (identify if existing)

B. Required Inspections:

1. **Rough-in electrical inspection** to be done by the State Electrical Inspector, Brian Luce, prior to scheduling the other required rough-in inspections. Call (952) 233-8988, Monday through Friday 7:00 a.m. to 8:30 a.m. to schedule this inspection. Electrical permit application forms may be downloaded from the Department of Labor and Industry's web site www.electricity.state.mn.us
2. **Rough-in Inspections:** Heating, Plumbing, Fireplace, Insulation, and Framing. (They can be done as one inspection if all are complete.) Permit card and approved plan must be available on the job site at all times.

a. Framing:

- 1) Construct all walls on treated (or equal material) plates when framing is in contact with cement or masonry.
- 2) Before cutting, notching, or drilling any floor joist or support members, contact the Building Inspection Department.
- 3) Fire-stopping must be installed at all interconnections between concealed vertical and horizontal spaces such as soffits, and every 10 lineal feet in soffits and drop ceilings. (See example on page 4.)
- 4) Habitable rooms shall have a ceiling height of not less than 7 feet with 6 foot 6 inch allowed for projections such as beam and ducts.
- 5) Safety glazing is required in every door, enclosure for bathtubs, showers or similar and within 24 inches of either edge of a door.
- 6) An emergency escape or rescue window is required in basements with habitable space and every sleeping room. It must have:
 - A minimum net clear opening of not less than 5.7 square feet,
 - A minimum net clear opening height of not less than 24 inches, and
 - A minimum net clear opening width dimension of not less than 20 inches.
 - The finished sill height is to be no more than 44 inches above the floor.

Exception: Grade floor openings may have a minimum net clear opening of 5 square feet. (See example on pages 5 & 6.)

- 7.) When alterations, repairs or additions requiring a permit occur, smoke detectors shall be installed on every floor level, in new and existing sleeping rooms, and within 10 feet of sleeping rooms in adjacent hallways. These alarms shall be interconnected and hardwired.

Exception: smoke detectors may be battery powered if alterations or repairs did not require removal of interior walls or ceiling finishes exposing the structure.

b. Plumbing:

- 1) A homeowner may do their own plumbing or hire licensed master plumbers to do the work. An additional permit may be required if there are additions or alterations to the existing underground or above ground plumbing. Check with the Building Inspection Department.
- 2) All copper water piping shall be soldered with an approved lead free solder.
- 3) Not more than 3 fixtures located in the same room may be supplied from a ½ inch size water pipe.
- 4) All plumbing fixtures are required to be properly vented to the atmosphere. (**Note:** Air Admittance Valves (AAZ) are not permitted.)
- 5) Toilets are not to be closer than 15 inches from its centerline to any sidewall or fixture. A minimum of 24 inches clearance is required in front of the toilet.
- 6) Gluing ABS to PVC plastic pipe or fittings is prohibited. An approved mechanical connector is required to join drain or vent pipe of different materials. Contact the Building Inspection Dept. before proceeding.
- 7) A floor drain must not be used for a shower drain.
- 8) Maintenance access to a bathtub trap assembly must be provided.
- 9) Anti-scald valves are required in all shower or shower-bath combination installations.
- 10) A tub or shower base installed against a wall must have a factory installed nailing flange.

c. Mechanical: (heating)

- 1) All habitable rooms that have an exterior wall are to be provided with adequate supply (heat) and return air.
- 2) Bath fans are required to be ducted to the exterior. The duct shall be insulated 3 feet into the conditioned space. The discharge, on the exterior, shall be located at least 3 feet from doors, operable windows, and non-mechanical intake openings.
- 3) Fuel-fired appliances must have a 30-inch clear working space in front. It shall not be located in or obtain combustion air from sleeping rooms, bathrooms, toilet rooms, and storage closets.
Exception: Direct vent appliances that obtain all combustion air directly from the outside.
- 4) Water heater must be able to be removed without moving other appliances or walls.

d. Insulation:

- 1) All fiberglass insulation, if required, in stud spaces is to be covered with a 4 mil. vapor barrier.
- 2) Vapor barrier and solid backing shall be installed from floor to ceiling behind above grade bathtubs and showers.

e. Fireplace:

- 1) Installation of a manufactured fireplace must comply with the installation instructions. A copy of the manual must be available to verify clearances.
- 2) Any new gas line must be sized and installed per the Minnesota Fuel Gas code. The Inspector must witness a 10-minute, 25-pound air test.
- 3) Masonry fireplace, detailed plans are required, contact the Building Inspection Department before beginning construction.

f. Wallboard Requirements:

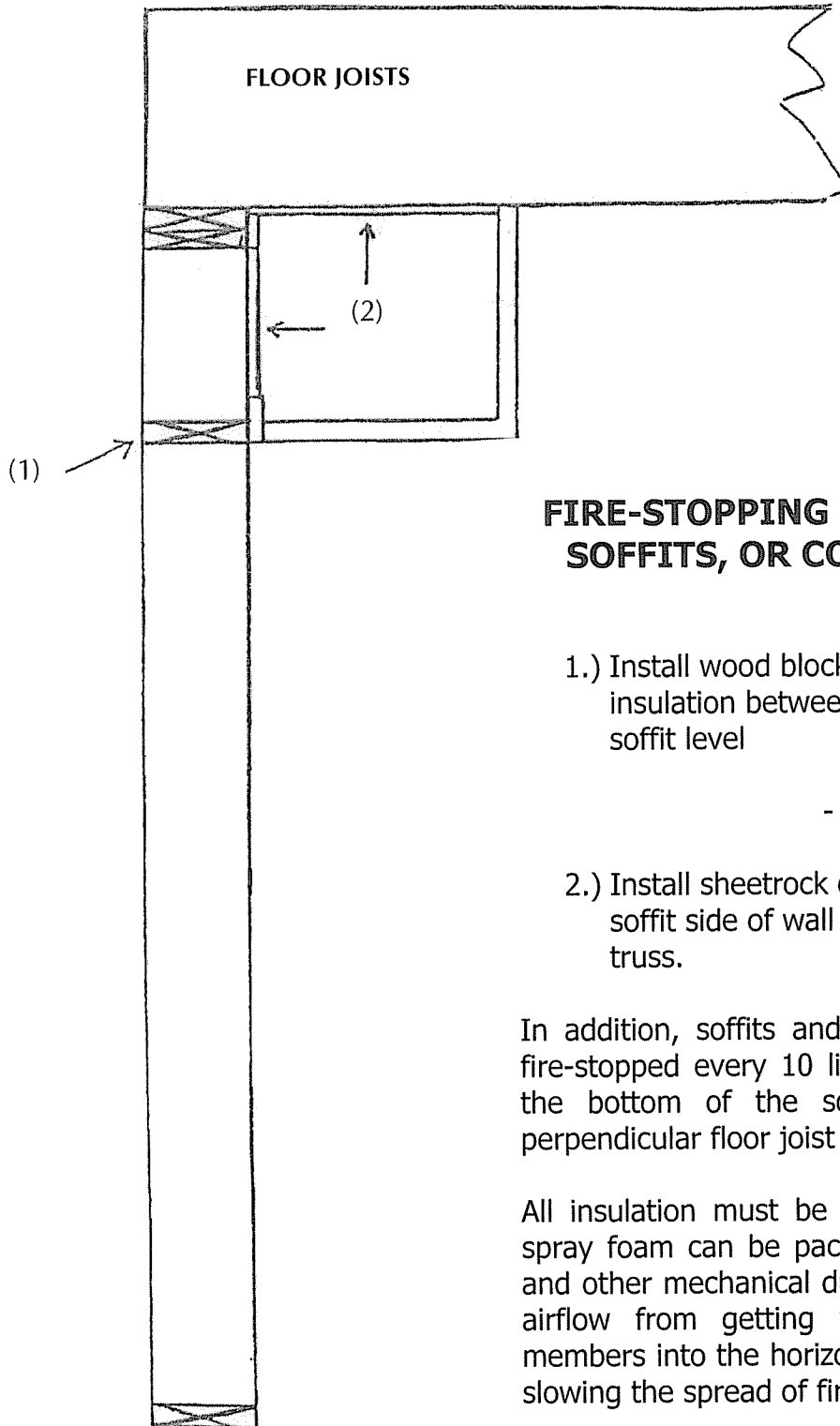
- 1) Water-resistant gypsum board shall not be placed over a vapor retarder in a shower or tub compartment. It also may not be used where there will be direct exposure to water or in areas subject to continuous high humidity.
- 2) Ceramic tile is to be installed over cement, fiber-cement, or glass mat gypsum backers for walls in tub and shower areas and wall panels in shower areas. (**DO NOT** install tile over water-resistant or regular gypsum wallboard.)
- 3) Enclosed accessible space under stairs shall have walls and under-stair surface protected on the enclosed side with a minimum of 1/2 inch gypsum wallboard.

C. FINAL INSPECTION

1. Final electrical inspection to be completed by the State Electrical Inspector prior to scheduling the final construction inspection. Call Brian Luce at (952) 233-8988 Monday through Friday 7:00 a.m. to 8:30 a.m. to schedule his inspection. When complete:
2. Schedule the Plumbing, Mechanical, and Building Final. (They can be done as one inspection if all are complete.)
3. The permit card and the approved plans **must** be available on the job site.
4. Any additional smoke detectors (if required) shall be installed according to their installation instructions.

All construction projects are unique. This information is a guide to the most common questions. It is not intended, nor shall it be considered, a complete set of requirements.

As permit holder, you are responsible to schedule these listed inspections and complete the project in a timely manor. ***For the safety of you, your family, future homeowners, or even your neighbors, do not attempt work that is beyond your skill level.*** If you have any questions, contact the Building Inspection Department at (952) 448-9200.



FIRE-STOPPING DROPPED CEILING, SOFFITS, OR CONCEALED SPACES

- 1.) Install wood blocking or tightly packed insulation between framing members at soffit level

- *OR* -

- 2.) Install sheetrock or 1/2" wood sheathing on soffit side of wall or bottom of floor joist or truss.

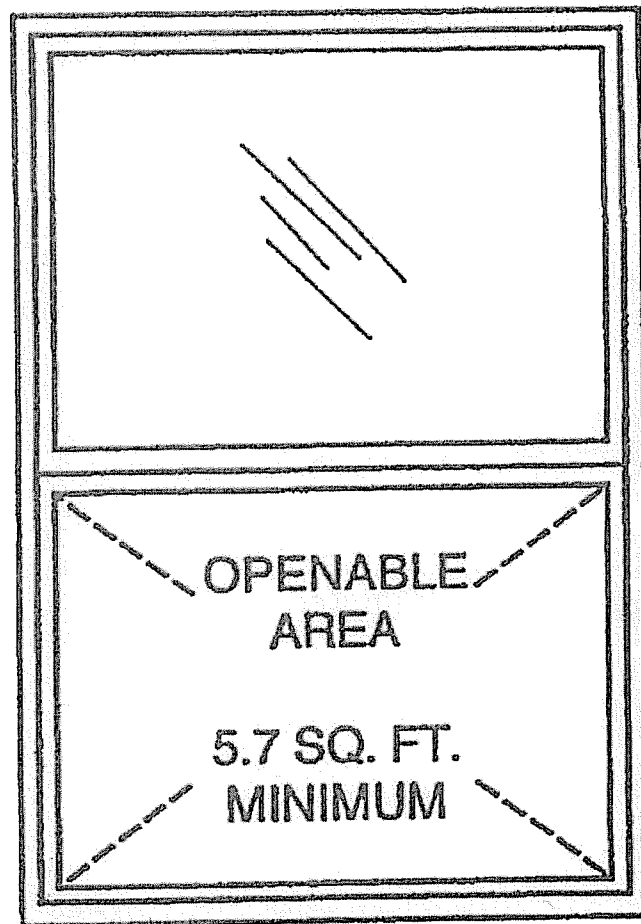
In addition, soffits and dropped ceilings must be fire-stopped every 10 lineal feet horizontally, from the bottom of the soffit to the bottom of a perpendicular floor joist or framing member.

All insulation must be tight fitting. Insulation or spray foam can be packed around plumbing pipes and other mechanical ducts. The object is to block airflow from getting from the vertical framing members into the horizontal floor system, therefore slowing the spread of fire.

Emergency Escape and Rescue

All emergency escape and rescue openings shall have a minimum net clear opening of 5.7 square feet.

Exception follows on page 6.



Emergency Escape and Rescue

Exception: Grade floor openings shall have a minimum of net clear opening of 5 square feet.

(Grade floor opening is a window or other opening located such that the sill height of the opening is not more than 44 inches above or below the finished ground level adjacent to the opening.)

