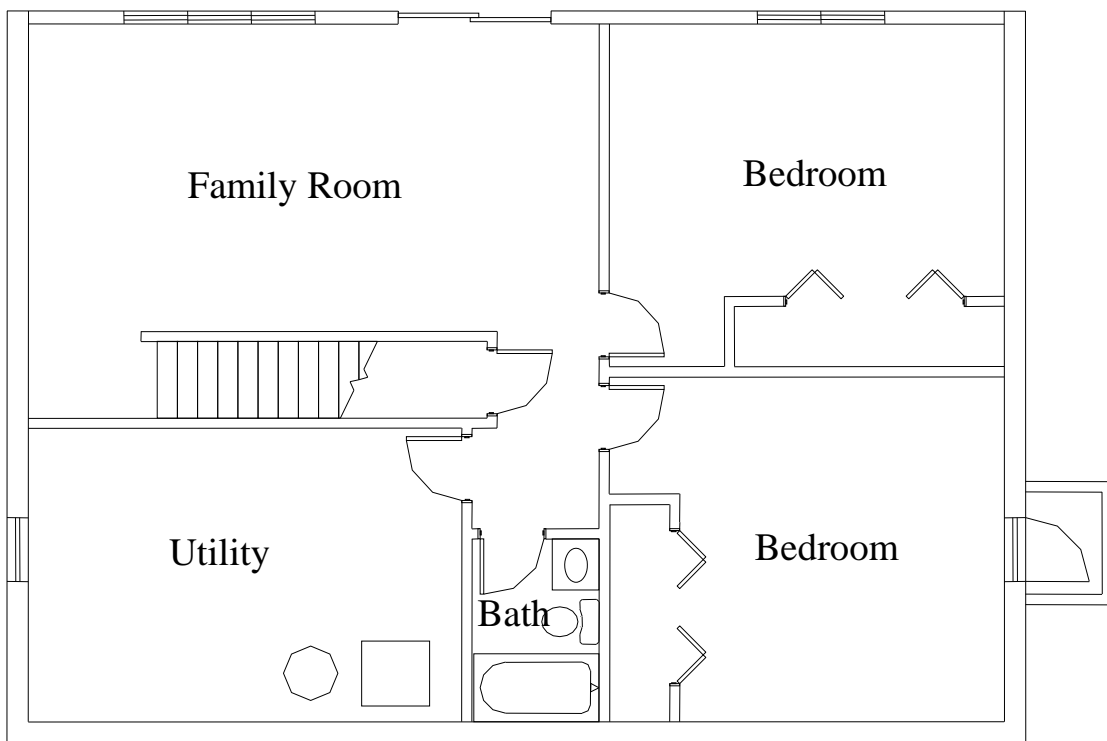


Basement Finish

1 & 2 Family Dwellings and Attached Single Family Dwellings

Based on the 2020 Minnesota State Building Code



MR = Minnesota State Building Code extracted from 2020 Minnesota Rules
IRC = International Residential Code
NEC = National Electrical Code

Basement Finish

Permit Requirements:

Building permits are required for a basement finish when any walls are being built, moved or altered and/or a change of use in the proposed area (Including: installing gypsum board on walls and/or ceiling). Separate trade permits are required if electrical, mechanical and associated ductwork, fireplace, plumbing or gas piping work is being performed. A basement finish shall meet the requirements of the 2020 Minnesota State Building Code which adopts and amends the 2018 International Residential Code.

Permit Fees: *Fees breakdowns are available on our website: <https://www.rochestermn.gov/government/departments/building-safety/construction-residential>*

Building permit fees are based on the value of all proposed improvements and are designed to offset the expenses of Plan Review and Inspection services. An estimate of the permit costs are based on the material and labor valuation—which is the either the amount charged by a contractor for the work or for DIY work, double the materials cost. An example would be to take the materials times two for DIY estimates. This keeps the permit costs consistent whether done as DIY or by hired contractor.

Plan Review & Inspections:

A Plan Review is performed by the Plans Examiner in order to identify potential problems prior to construction. If more information is needed during Review, the Plans Examiner will email a correction letter and a copy of the plans to the applicant. Once the corrections are completed, they should be emailed back to the Examiner who requested them. Inspections will be performed during construction to ensure Code compliance and that the materials used are installed correctly. The Plan Review and Inspections are not designed to be a guarantee of the work; rather they are done to provide a reasonable degree of review and observation so the project will be successful, safe and long lasting.

Submittals for permit: **Apply on line through our public portal at: <https://aca.rochestermn.gov/CitizenAccess>*

The following information is necessary for the Building Safety Department to do a proper Plan Review and issue the permit.

Note: Sample plans provided in this handout are intended as a guide only.

- Completed applications for building, electrical, mechanical, fireplace, plumbing and gas piping permits as applicable to your project.
- A basement plan showing the following:
 - Location and construction details (plates, studs, headers, etc.) of new walls, stairs, window/door openings and window wells is required. (if applicable)
 - Size and location of [egress windows](#).
 - Location of plumbing fixtures, if applicable.
 - Location of [smoke alarms](#) and [carbon monoxide](#) alarms.
 - Location of fireplace, if applicable.
 - Electrical plan. (drawings are required as specified in [Electrical for Homeowners](#)).
 - Ceiling height from finished floor, beams/ductwork and headroom height at stairs.
 - Label room uses (i.e. Bedroom, Bathroom, Family Room)
 - Foundation insulation if (if applicable) with scope of proposed work.

*Note: The Building Safety Department may have an existing drawing in the property file that can be used to create a floor plan. Send records requests to:

<https://www.rochestermn.gov/government/departments/city-clerk/records>

Building Code Requirements:

- Basements or sleeping rooms in basements shall have at least one emergency escape and rescue opening with a clear opening height of not more than 44” above the finished floor and shall provide not less than 5.7 square feet (clear opening) or 5.0 square feet (clear opening) for grade floor openings. If a building is protected with an automatic sprinkler system installed in accordance with IRC Section R2904 or NFPA 13D, then no emergency escape and rescue opening is required. See the [Emergency Escape Window](#) handout for more details. MN Amendment 1309.0310 Section R310.1
- Smoke alarms shall be located in each sleeping room, outside of each separate sleeping area in the immediate vicinity of the bedrooms and shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms. Smoke alarms shall also be hardwired and have battery backup. Smoke alarms in existing areas may be solely battery operated when the alterations or repairs do not result in the removal of interior wall or ceiling finishes exposing the structure unless there is a crawl space or basement available which could provide access for hardwiring and interconnection without removal of interior finishes. IRC R314 and MN Amendment 1309.0314 Section R314.3.1
- Mechanical exhaust is required in bathrooms without operable windows. IRC R303.3
- Pressure treated wood sill plates must be used when in contact with concrete or masonry. IRC R317
- Enclosed accessible space under stairs shall have walls, under stair surface and any soffits protected on the enclosed side with minimum ½” gypsum board. IRC R302.7
- Minimum ceiling height is 6’-4” for alterations to existing basements (including beams, girders, ducts or other obstructions) with habitable rooms, hallways, corridors, bathrooms, toilet rooms and laundry rooms. MN Amendment 1309.0305 Section R305.2.1
- Minimum headroom height is 6’4” for alterations to existing stairs serving basements. MN Amendment 1309.0305 Section R305.2.2
- Carbon Monoxide (CO²) alarms shall be located within 10 feet outside of each sleeping room in existing dwellings that have an attached garage or fuel-fired appliances. CO² alarms shall be listed as complying with UL 2034 Section R315.

Required Inspections:

- **Every effort is made to perform all inspections the next business day following the request. Inspections may be scheduled on line at: www.rochestermn.gov/CitizenAccess.**
 - **Or call 507-328-2600 and please have your permit number available when you call. Inspectors’ work schedules fill up fast at certain times of the year, so if you can call more than a day in advance you may avoid any potential delays in the progress of your project.**
- 1. **Rough-in inspection:** Prior to the framing inspection & gypsum board installation the electrical, mechanical, fireplace & plumbing rough-in inspections must be scheduled.
- 2. **Framing inspection:** Prior to installation of insulation and gypsum board and after the electrical, mechanical, fireplace & plumbing rough-in inspections have been approved.
- 3. **Insulation inspection:** May be performed during framing inspection.
- 4. **Final inspections:** After all work is finished. Trade finals scheduled first, then building final.
- 5. **Smoke alarms:** During the final inspection the inspector will verify that there are smoke and CO² alarms in the proper locations in the work area as well as existing areas of the house. See smoke and CO² alarm requirements above.

General Notes: *for more information and forms see <https://www.rochestermn.gov/government/departments/building-safety/construction-residential>*

- Paper copies of the approved plans and inspection card may be kept at the work site for reference, but are no longer required for inspection purposes.
- Should a revision be needed, please send as an attachment to either the Plans Examiner or to: BuildingSafety@RochesterMN.gov with the permit number in the subject line. Once approved, the revised plans must be available at the work site.
- **All contractors must be licensed by the State of Minnesota, or have a Certificate of Exemption from the State of Minnesota.**

INSPECTION GUIDELINES

ELECTRICAL INSPECTIONS: *<https://www.rochestermn.gov/government/departments/building-safety/construction-residential>*

- __1. Electrical installations must be in accordance with the current National Electrical Code. See the [electrical handout](#) which has instructions for the plans required at time of submittal.

PLUMBING INSPECTIONS:

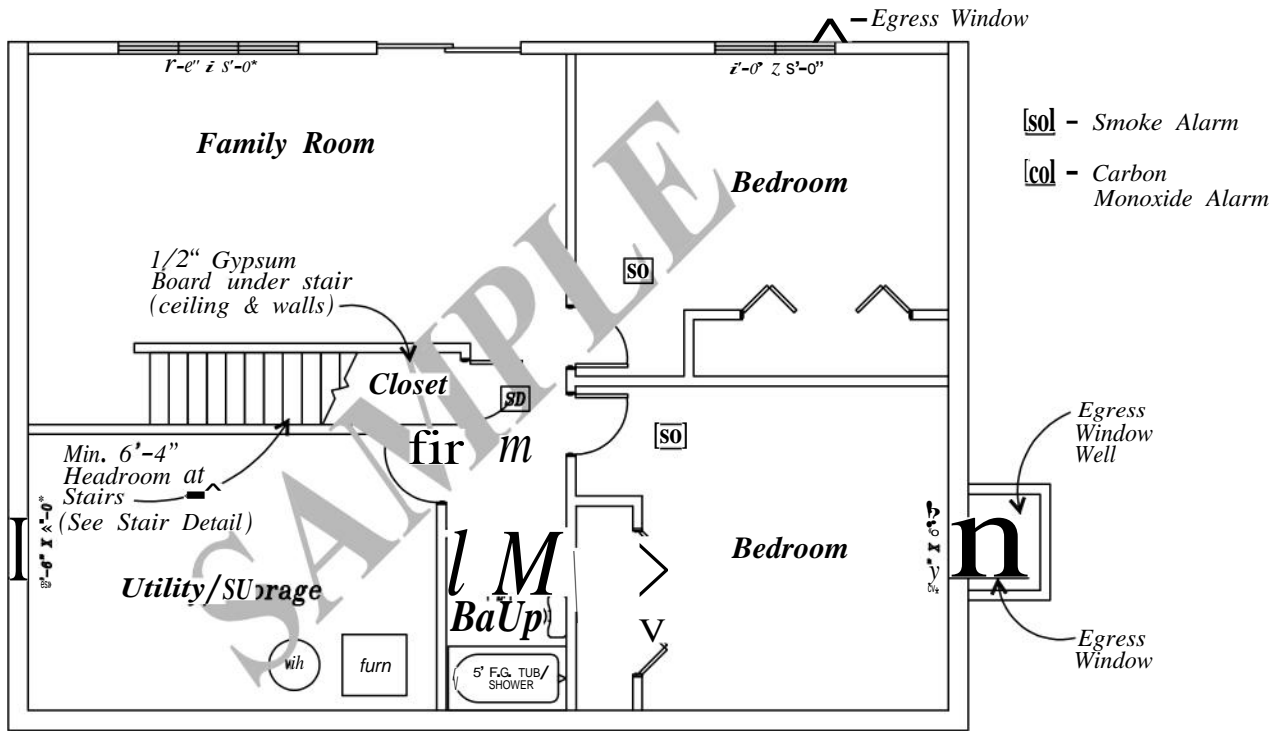
- __2. Plumbing installations must be in accordance with the Minnesota Plumbing Code, Minnesota Rules, Chapter 4715.

MECHANICAL INSPECTIONS:

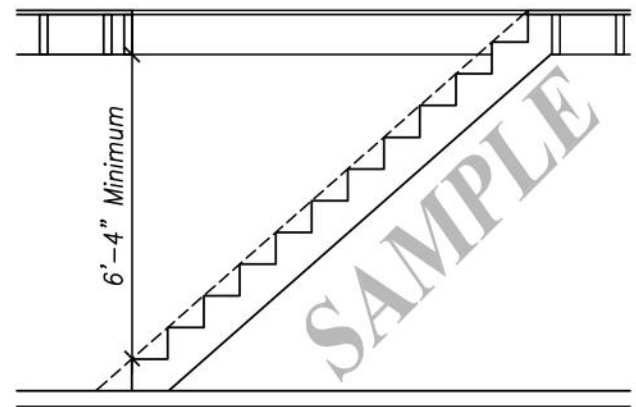
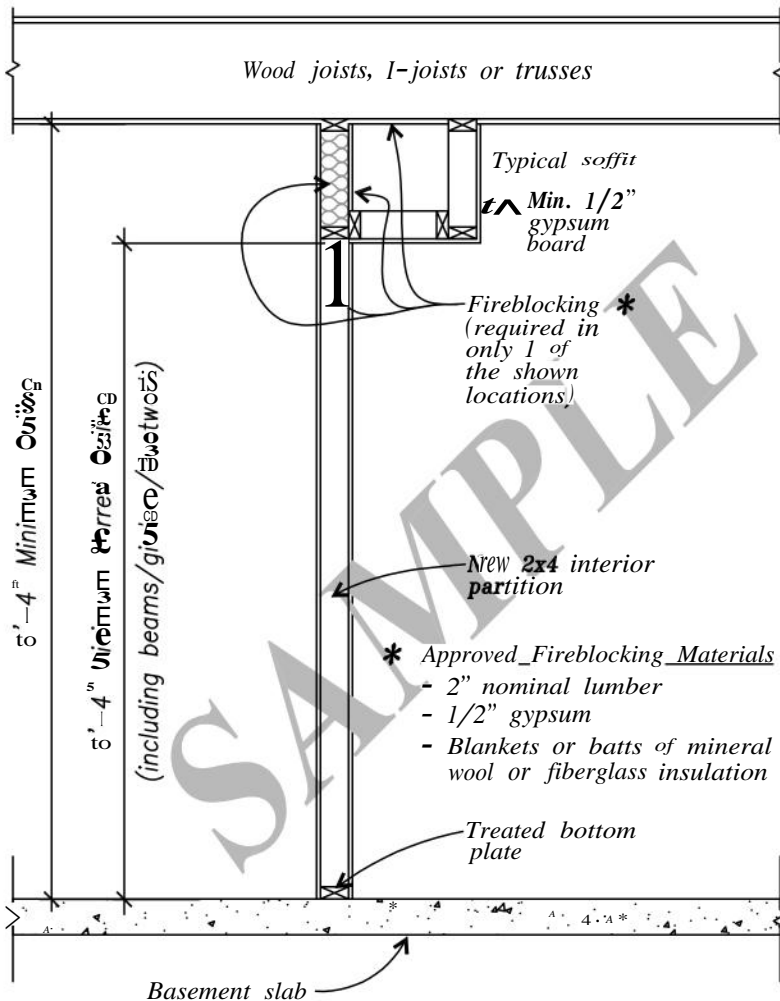
- __3. Exhaust fan must be installed in bathrooms without operable windows.
- __4. Heat supplies and cold air returns must be installed in each habitable room.
- __5. Fireplaces must be installed in accordance to their manufacturer's listing.
- __6. New gas line installations must be tested and approved for 25 psi.
- __7. Mechanical installations must be in accordance with the current Mechanical Code.

BUILDING INSPECTIONS:

- __8. Emergency escape and rescue openings from each bedroom unless sprinkler system is provided in structure,
- __9. Smoke alarm locations (sleeping rooms, each level and basements).
- __10. CO (carbon monoxide) alarms within 10 feet outside sleeping rooms.
- __10. Enclosed usable space under stairs must be protected with min. ½" gypsum wallboard.
- __11. Foam plastic insulation must be covered by a minimum ½" gypsum wallboard or other approved thermal barrier unless foam meets testing requirements to be exposed.
- __12. Framing along foundation walls with interior insulation being provided shall not be in direct contact with the foundation wall. See sheets 5 and 6 of handout for additional information.
- __13. Provide an interior air and vapor barrier on the warm-in-winter side of the thermal insulation prior to the interior finish installation such as gypsum board. All penetrations of the interior air barrier shall be sealed, chalked or gasketed such as penetrations for electrical boxes, etc... See sheets 5 and 6 of handout for additional detailed information.
- __14. Verify the cutting and notching of joists, beams and studs.
- __15. Finished ceiling height a minimum of 6'-4" (including beams, girders, ducts or other obstructions).
- __16. Headroom at stairs a minimum of 6'-4".

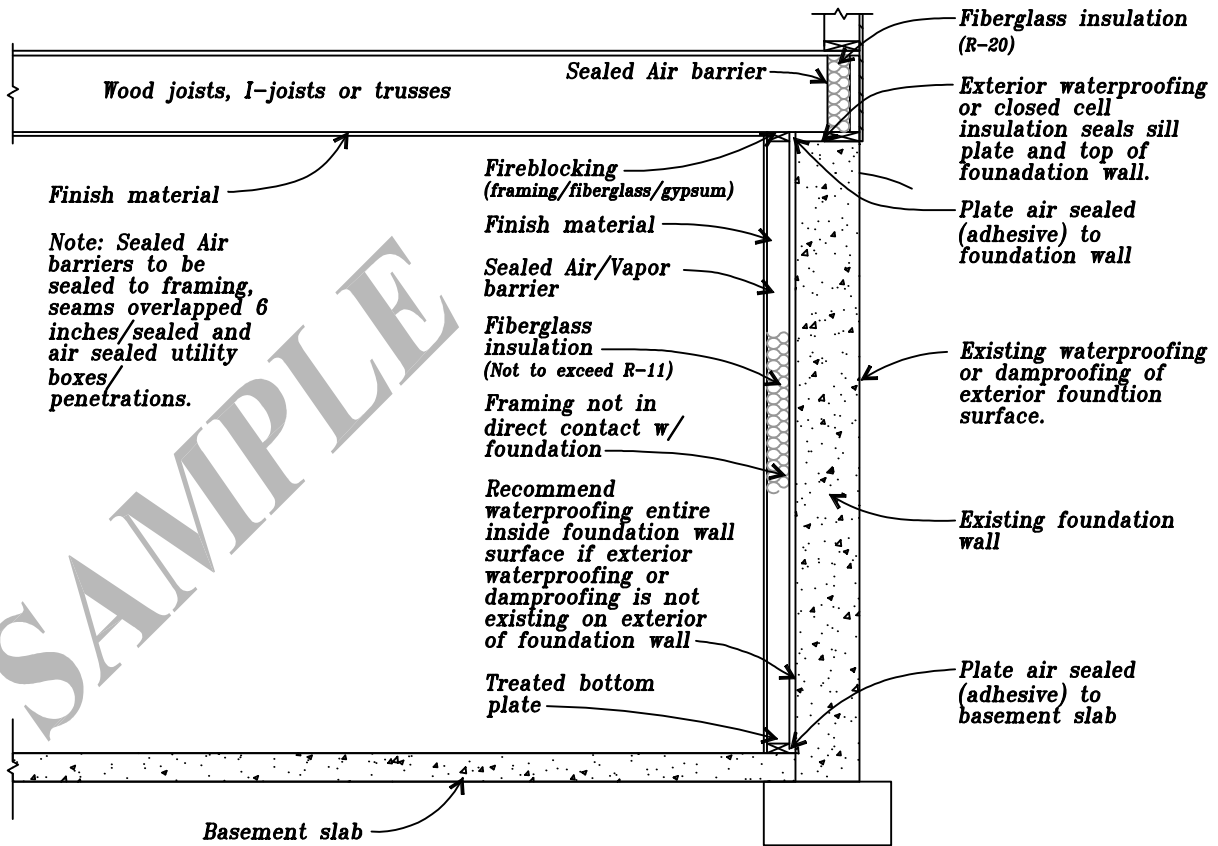


Plan



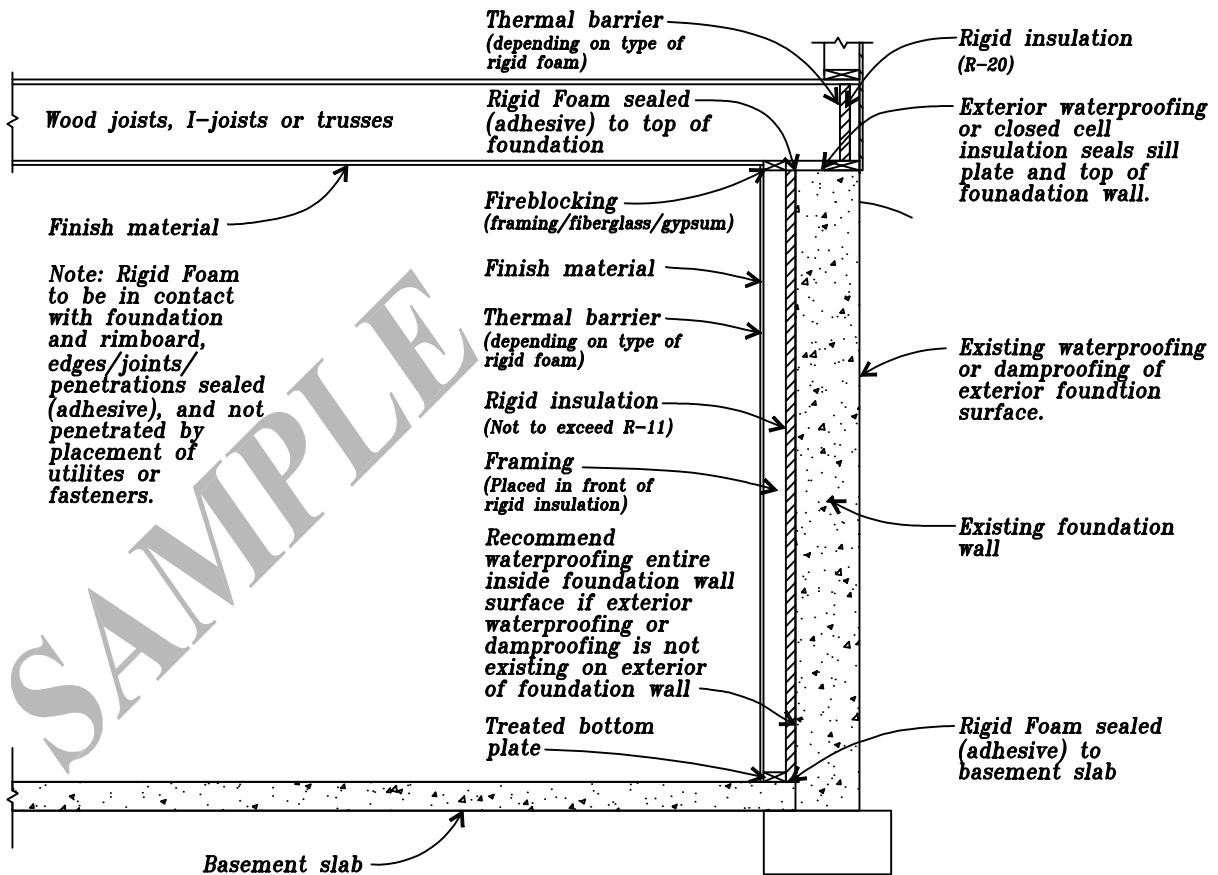
Stair Detail

Interior Framing and Ceiling Heights



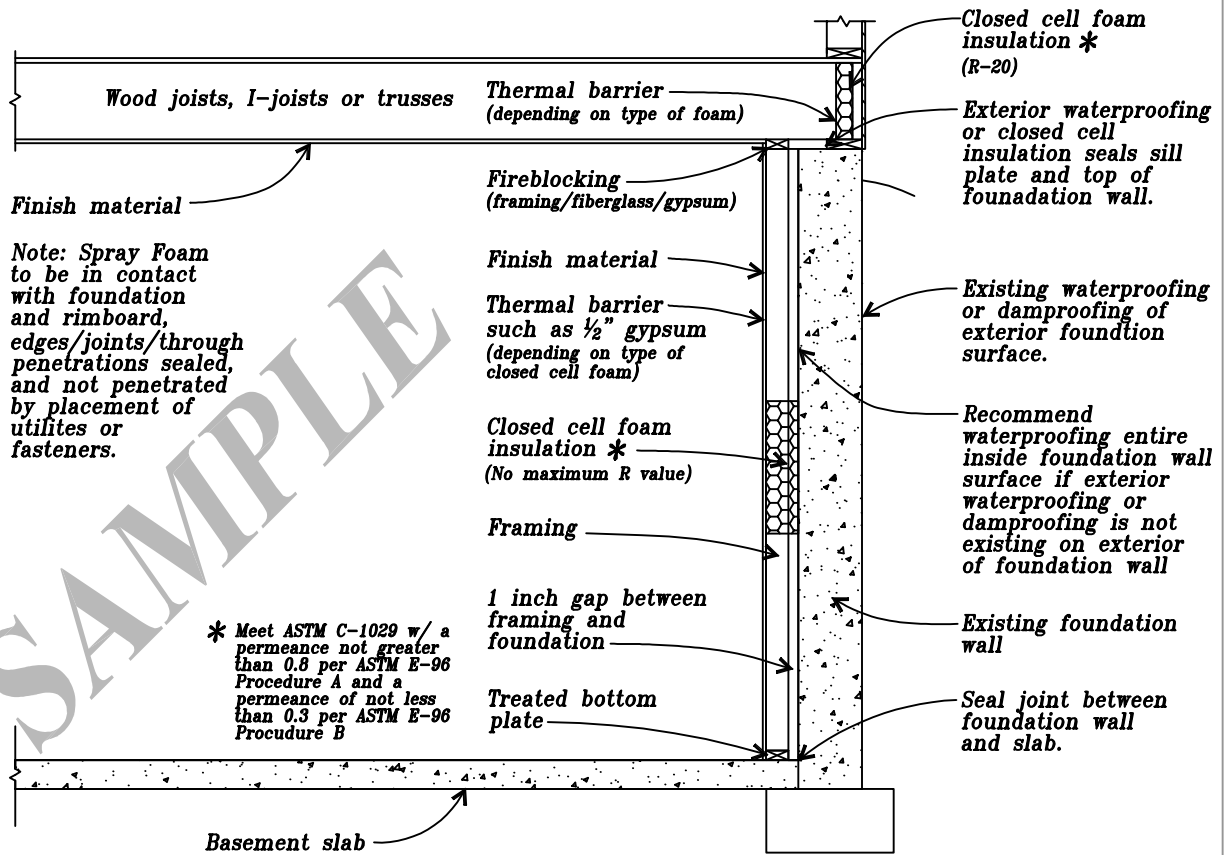
Interior Insulation – Fiberglass

Recommended for Houses Constructed prior June 1, 2009



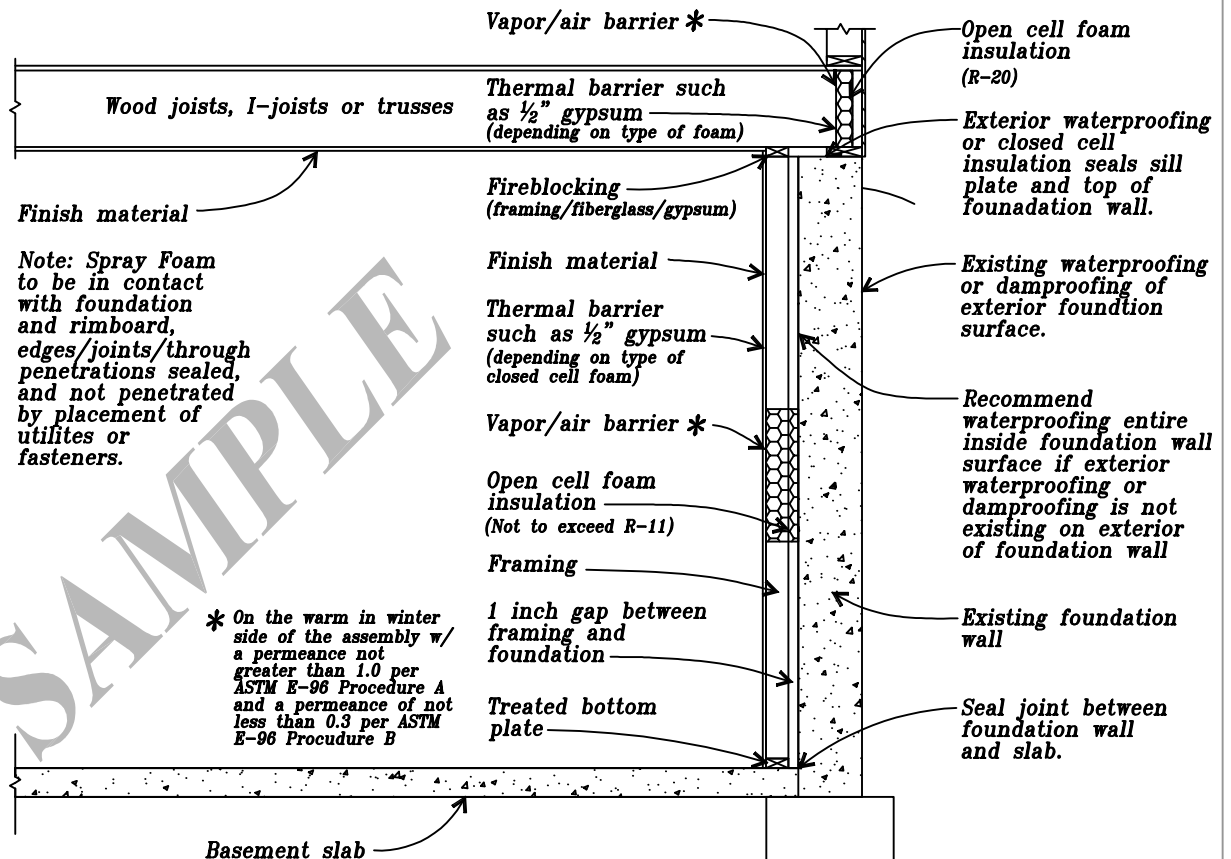
Interior Insulation – Rigid Foam

(Recommended for Houses Constructed prior June 1, 2009)



Interior Insulation – Closed Cell Foam

(Recommended for Houses Constructed prior June 1, 2009)

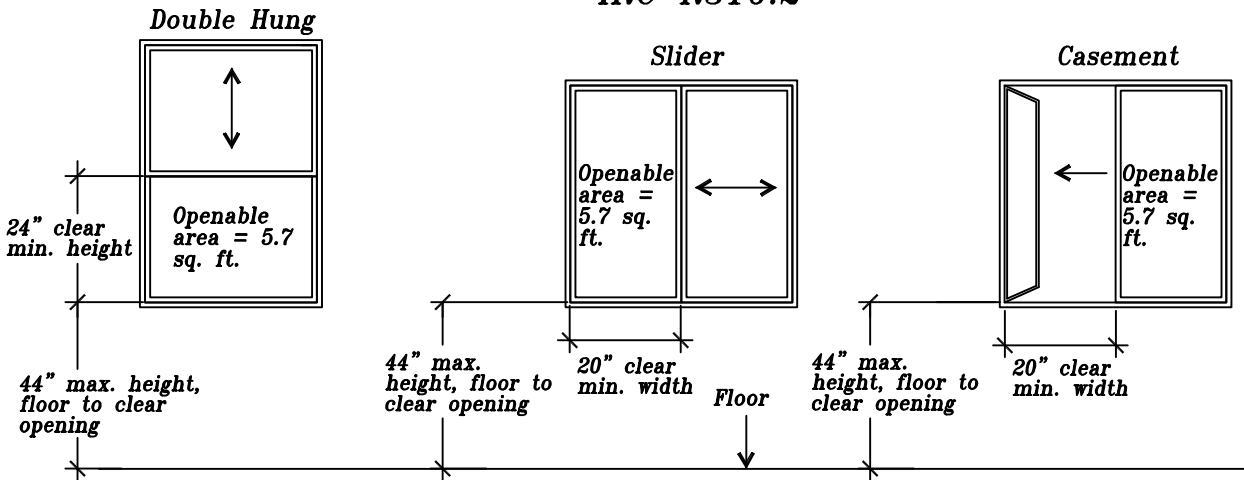


Interior Insulation – Open Cell Foam

(Recommended for Houses Constructed prior June 1, 2009)

Emergency Escape & Rescue Window

IRC R310.2



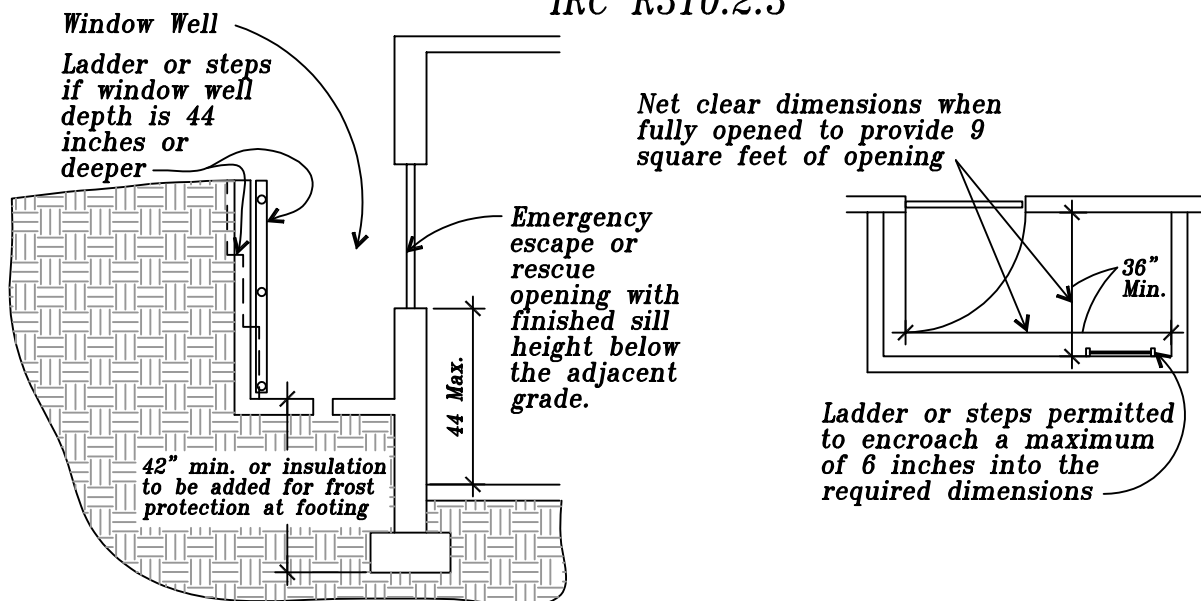
Emergency Escape and Rescue Windows must meet the following criteria:

- A minimum total net openable area of not less than 5.7 sq. ft.(820 sq. in.). *
- A minimum clear opening height of not less than 24 inches.
- A minimum clear opening width of not less than 20 inches(casement windows may require egress hardware to provide clear opening).
- The clear opening not more than 44" above the floor and should be openable from the inside with normal operation and without use the use of tools, keys or special knowledge. See rescue window detail below.

* Exception: Grade floor openings shall have a min. total net clear opening of 5.0 sq.ft.(720 sq.in.) Grade floor opening is a window or other opening located such that the height of the clear opening is not more than 44 inches above or below the finished ground level adjacent to the opening. See detail #1 on back of sheet.

Emergency Escape & Rescue Window Well

IRC R310.2.3

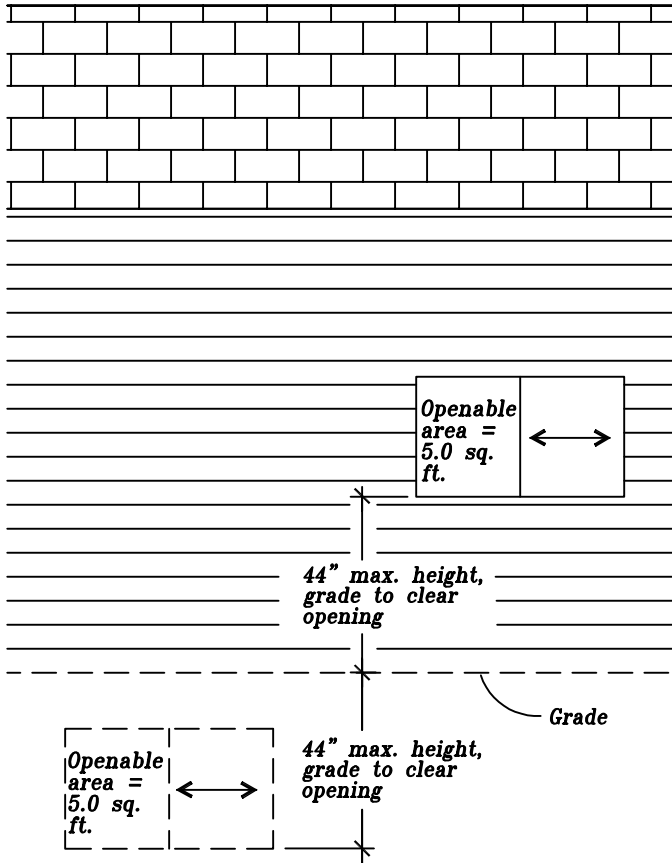


Emergency Escape and Rescue Window wells must meet the following criteria:

- A minimum area of 9 square feet with a minimum dimension of 36" and shall enable the window to open fully.
- If the depth of the window well exceeds 44 inches, a permanently affixed ladder or steps must be provided. The ladder must not interfere with the operation of the window.
- A minimum height clearance of 36 inches shall be maintained above the exterior grade. (Example: A deck above the escape window. See detail #2 on back.)

Emergency Escape and Rescue Grade Windows

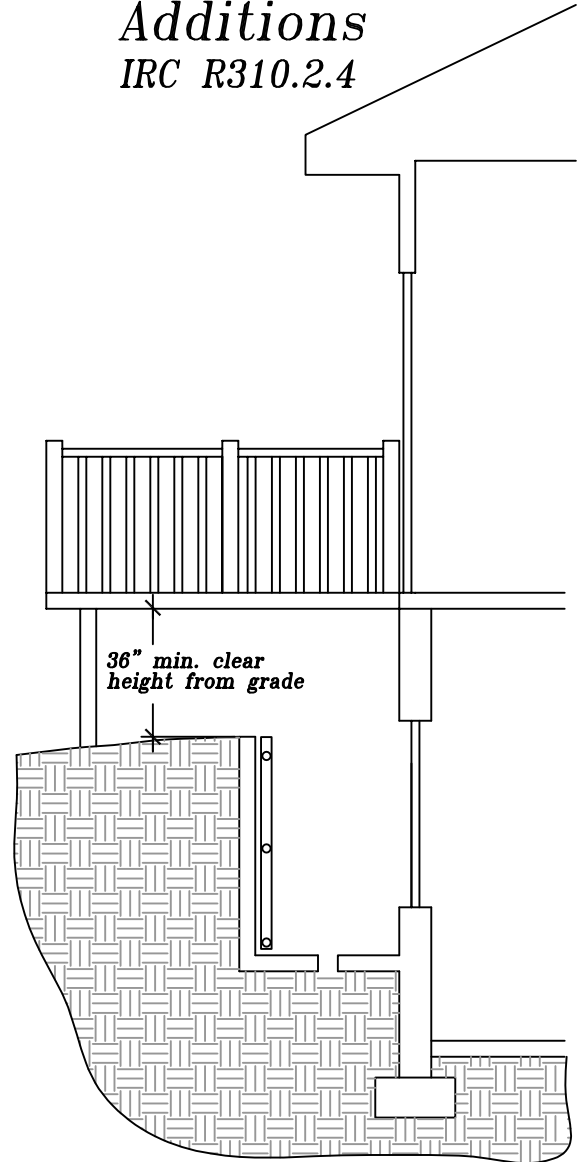
IRC R310.2.1 & R310.2.2



Detail 1

Emergency Escapes below Decks and Additions

IRC R310.2.4



Detail 2

Replacement Windows

IRC R310.2.5

Replacement Windows must meet the following criteria:

1. The replacement window is the manufacturer's largest standard size window that will fit within the existing frame or existing rough opening. The replacement window shall be permitted to be of the same operating style as the existing window or a style that provides for a greater window opening than the existing.
2. Windows in rooms used for foster care or day care licensed or registered by the state of Minnesota shall comply with R310.2.5 (note 1 above) or all of the following conditions below, whichever is more restrictive:
 1. Minimum of 20 inches in clear opening width.
 2. Minimum of 20 inches in clear opening height.
 3. Minimum of 4.5 square feet (648 square inches) clear opening.
 4. Maximum of 48 inches from the floor to the sill height

Note: Building permits are required for replacement egress windows, window or door openings being increased in size and where safety glazing is required.