

## Building permits

A. **Survey\* or scale drawing** must be submitted by owner or applicant. The following must be indicated:

1. Lot size and all adjacent public streets;
2. Exact location and dimensions of all existing and proposed buildings and impervious surface on lot; i.e. driveways, patios, sidewalks;
3. When required, the owner and/or contractor must be able to expose the property irons on the site and string a line or equivalent so the Building Inspector can verify the setback(s) to the new construction.
4. Statement of elevation where elevation is not shown on survey.

\*Most dwellings built after 1958 have copies of Survey on file and proposed buildings or additions can simply be added to the Survey.

- B. **Two sets of plans** - Submitted plans must have sufficient detail to build the addition from them. A plan view, section view and elevations are required; all drawn to scale. Indicate all materials and sizes being used. For more information, visit the City's Web site at [www.ci.bloomington.mn.us](http://www.ci.bloomington.mn.us), keywords: Addition plan.
- C. See next page for **energy code requirements**.
- D. **Permit application** must be completed. Be sure you include your daytime phone number.
- E. **Certificate of Occupancy** is issued to owner upon completion and approval of the Building Official. Addition must not be occupied until the Certificate of Occupancy is received.
- F. **Building permit fee** is based on a published fee schedule available at the Building and Inspection Division.

## Other permits

Separate plumbing, heating, fireplace and electrical permits are required for each type of work being done.

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

## Setback requirements

	Setback in feet			
	Front*	Side	Rear	Side/rear (adj. to st.)
Dwelling	30	10	30	30
Screen porch	30	10	30	30
3-Season porch	30	10	30	30

\* The front yard setback is 30 feet or the prevailing setback in the immediate vicinity, whichever is greater. Greater setbacks may be required based upon the planned, widened rights-of-way contained in the current master plan for streets and highways.

**Note A:** Setback distances are measured from **property lines**, **not** from streets, curbs, sidewalks, fences, hedges, trees or telephone poles. Property irons are located underground and they establish property lines.

**Note B:** Maximum impervious surface coverage of ALL buildings, decks, driveways, walks, patios, etc. may not exceed 35 percent of the lot area.

## Framing requirements

- A. **Base plates** on concrete shall be of approved treated wood.
- B. **Studs** Minimum 2 X 4 studs, not more than 10 feet in length. Maximum 24 inches O.C. spacing. If only one top plate is used, trusses or rafters must bear over studs (1 inch tolerance allowed.)
- C. **Rafters and roof sheathing** for sloped roofs shall be designed for a 35 lb./sq.ft. live load.  
Collar ties are installed at a maximum of 4 feet within the top third of the rafters.  
Trusses **must** be engineered by an approved manufacturer. Truss specs must be on-site.
- D. **Allowable header spans** for openings in outside bearing walls on one story frame buildings, assuming a 20 foot wide addition and a 2 foot overhang. Spans are both Spruce-Pine-Fir and Hem-Fir.

Quantity	Size in inches	Maximum span of header
2	2 X 4	38 inches
2	2 X 6	56 inches
2	2 X 8	71 inches
2	2 X 10	87 inches
2	2 X 12	101 inches

- E. **Allowable rafter spans** for roofs with a pitch of 3-12 or greater; assumes a “dead load” of seven pounds per square foot (PSF) and a deflection limit of 1/180 (span in inches divided by 180).

Spruce-Pine-Fir (SPF) #2 or better

Rafter size	Ceiling type					
	Flat	Vaulted	Flat	Vaulted	Flat	Vaulted
	12" O.C.	12" O.C.	16" O.C.	16" O.C.	24" O.C.	24" O.C.
2 X 6	12'-8"	11'-9"	11'-0"	10'-2"	9'-0"	8'-4"
2 X 8	16'-1"	14'-10"	13'-11"	12'-11"	11'-5"	10'-6"
2 X 10	19'-8"	18'-2"	17'-0"	15'-9"	13'-11"	12'-10"
2 X 12	22'-9"	21'-1"	19'-9"	18'-3"	16'-1"	14'-11"

Hem-Fir #2 or better

Rafter size	Ceiling type					
	Flat	Vaulted	Flat	Vaulted	Flat	Vaulted
	12" O.C.	12" O.C.	16" O.C.	16" O.C.	24" O.C.	24" O.C.
2 X 6	12'-6"	11'-5"	10'-10"	10'-0"	8'-10"	8'-2"
2 X 8	15'-10"	14'-8"	13'-9"	12'-8"	11'-3"	10'-4"
2 X 10	19'-4"	17'-11"	16'-9"	15'-6"	13'-8"	12'-8"
2 X 12	22'-6"	20'-9"	19'-5"	18'-0"	15'-11"	14'-8"

- F. **Allowable ceiling joist spans**

Assumes limited attic storage (20PSF) and drywall ceilings.

Joist size	Spruce-Pine-Fir #2		Hem-Fir #2	
	16" O.C.	24" O.C.	16" O.C.	24" O.C.
2 X 4	8'-7"	7'-2"	8'-4"	7'-1"
2 X 6	12'-10"	10'-6"	12'-8"	10'-4"
2 X 8	16'-3"	13'-3"	16'-0"	13'-1"
2 X 10	19'-10"	16'-3"	19'-7"	16'-0"

- G. **Allowable floor joist spans**

Joist size	Spruce-Pine-Fir #2			Hem-Fir #2		
	12" O.C.	16" O.C.	24" O.C.	12" O.C.	16" O.C.	24" O.C.
2 x 6	10'-3"	9'-4"	8'-1"	10'-0"	9'-1"	7'-11"
2 X 8	13'-6"	12'-3"	10'-3"	13'-2"	12'-0"	10'-2"
2 X 10	17'-3"	15'-5"	12'-7"	16'-10"	15'-2"	12'-5"
2 X 12	20'-7"	17'-10"	14'-7"	20'-4"	17'-7"	14'-4"

## Landings

In each single family home there must be a minimum of one, 3 foot x 6 foot 8 inch, side-hinged door leading directly to the exterior. This exit door must have a landing/floor on each side. The floor/landing on the interior may be no more than 1-1/2 inches below the threshold. The exterior landing must be, at a minimum, the width of the door and a minimum 36 inches in depth from the door/wall plane. This landing may be up to 7-3/4 inches lower than the top of the door threshold if the primary door does not swing out.

## Landings for exterior doors other than defined exit

If no door other than a storm/screen door swings over the exterior landing, that landing may be up to 7-3/4 inches below the top of the threshold.

The code allows an exterior stair, when less than 30 inches high, to butt up to the opening without a landing if no door swings over it. This would include sliding patio doors. The 30 inches measurement is taken from the interior floor height to the exterior finished grade or surface the bottom of the stair rests on.

## Light, ventilation and ceiling height

All habitable rooms shall have a window area equal to at least 8 percent of the floor area. The minimum openable area to the outdoors shall be 4 percent of the floor area being ventilated.

**Note:** Some exceptions apply.

Minimum ceiling height for habitable spaces is 7 feet, with exceptions for beams and sloped ceilings.

## Additions over garages

Fire separation is required. The underside of floor joists and/or truss members require 5/8 inch type X gypsum. Walls supporting the joists and/or truss ends and the wall separating the house from garage require 1/2 inch gypsum.

## Energy code requirements

Additions and alterations to homes built after April 15, 2000, must include methods, materials and mechanical equipment to meet the provisions of the current *Minnesota Energy Code*. Go to <http://www.energycodes.gov/rescheck/download.stm> and click on Minnesota. Any alterations in the field from what the City initially approved must be accompanied by a revised RES Check form indicating the project still passes code.

**Note:** The energy rating stickers must be left on doors and windows until the inspector has verified conformance with the application.

## Unvented crawl spaces

The ground must be covered with a vapor retarder. The joints must be overlapped a minimum of 6 inches and be sealed/taped. The edges must extend up the foundation wall a minimum 6 inches and be attached and sealed to the wall.

One of the following mechanical systems must be installed:

1. A **continuously** operated mechanical exhaust at a rate equal to 1 cfm for each 50 square feet and an air pathway to the common area, e.g. a duct or transfer grille.
2. Conditioned air supply sized to deliver at a rate equal to 1 cfm for each 50 square feet. It must include a return air pathway to the common area such as a duct or transfer grill.

## Attic ventilation

Attics above heated spaces must be provided with ventilation equivalent to 1/300th of the attic area, equally distributed between soffit vents and high roof or ridge vents.

## Valley flashing for asphalt shingles

A minimum 26-gauge, by 24 inches wide galvanized steel flashing is required. For open or closed valleys (no metal) the shingle manufacturer's instructions must be followed.

## Crickets

Chimneys greater than 30 inches wide require crickets.

## Shingles

Shall not be installed on roofs with a slope of less than 2-12. Refer to the *"Asphalt Roofing Shingles"* information sheet for special requirements for roofs with low pitch from 2-12 to 4-12.

## Roof starter material

A manufactured ice barrier protection membrane shall be installed to a point no less than 24 inches inside the exterior wall line. The product must start on the fascia board and be installed per the manufacturer's instructions. Detached accessory structures that contain no conditioned floor area are exempt.

## Sleeping rooms

Every sleeping room shall have an exterior door or an egress window meeting all these requirements:

- A. Sill height – not more than 44 inches above the floor.
- B. Openable area – net clear of 5.7 square feet.

**Exception:** An egress window at grade floor may have a net clear opening of 5 square feet.

- C. Opening height – not less than 24 inches.
- D. Opening width – not less than 20 inches.

If this egress window is below exterior grade, then a window well is required. The well must provide a minimum nine square feet net clear opening with the window open and a minimum 36 X 36 inch area from the **open** window to the well. (See *"Egress Escape Windows"* information sheet.)

## Basement emergency escape

Basements and every sleeping room must have at least one emergency and rescue opening. When adding a foundation that is 7 feet high or greater and no emergency opening currently exists in the basement, one must be added in either the existing basement or the new one. (This applies even if there are no sleeping rooms or the basement is unfinished).

## Foam plastic insulation

Shall be an approved type or covered with 1/2 inch gypsum board or equivalent material. Exposed foam plastic insulation is not allowed in any room, including crawl spaces and attics. (Exception: Spray foam in the rim joist area, not exceeding 5-1/2 inches thick and having a flame spread of 25 or less and smoke development 450 or less.)

## Water resistive sheathing paper

A minimum of one layer of No. 15 asphalt felt or other approved water-resistive material shall be applied over sheathing of all exterior walls. Lap a minimum of 2 inches horizontally and 6 inches vertically at joints.

**An inspection is required *prior* to installing any soffits or siding.**

**Note:** Not required for detached accessory buildings, or when specifically prohibited by sheathing and/or siding manufacturer.

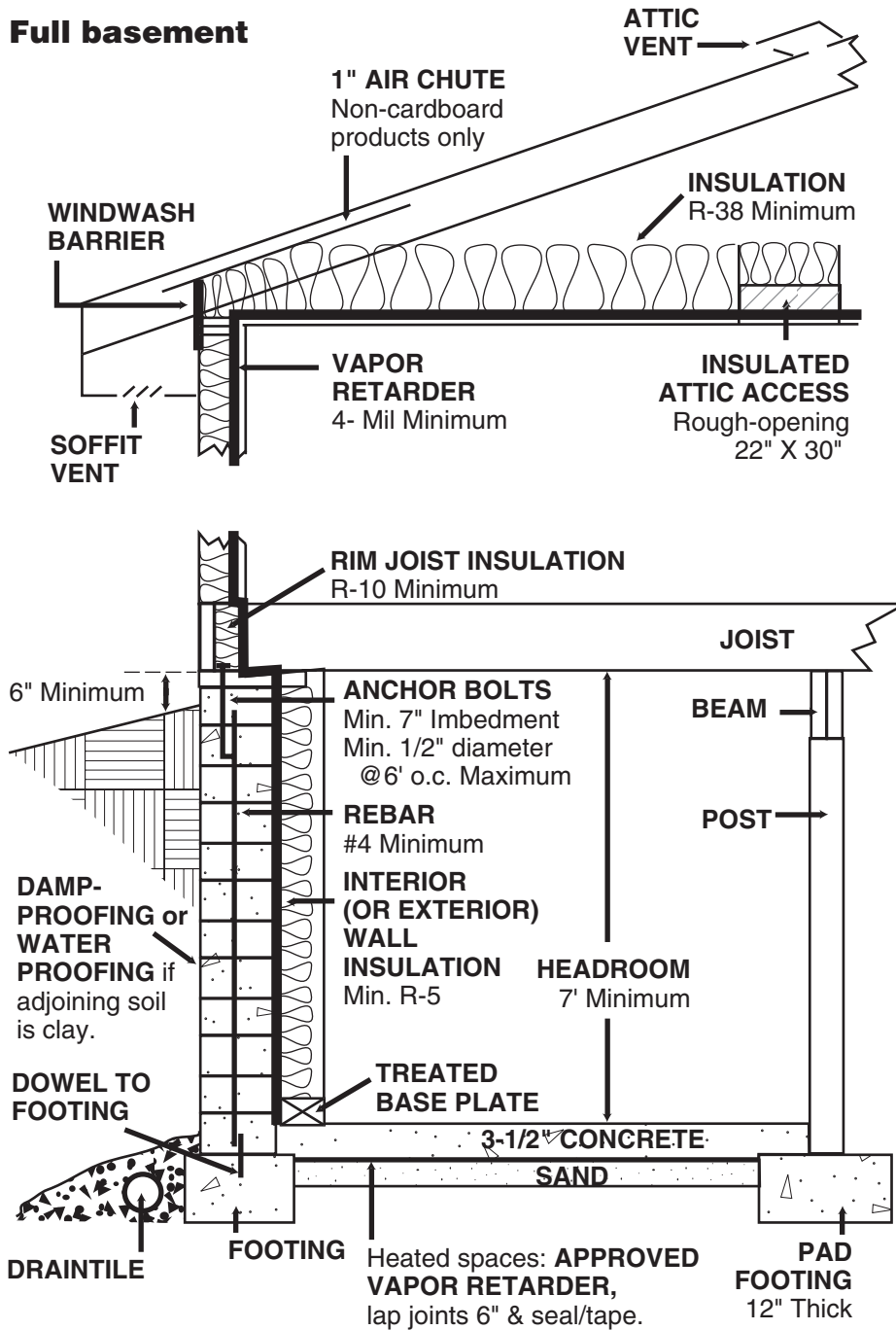
## Flashing (corrosion-resistive)

Required over all exterior exposed openings. Flashing must be designed to shed water **away** from the building wall. When installing vinyl siding manufacturer's installation instructions **must** be followed.

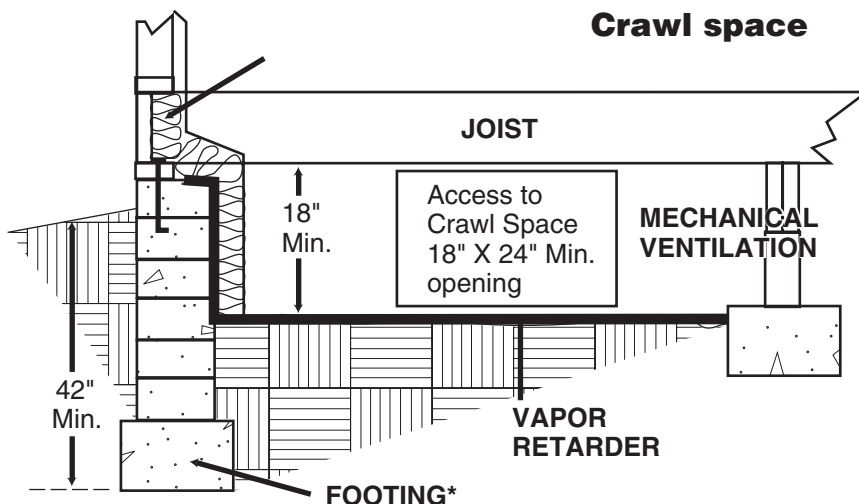
## Fire/smoke alarm system

When alterations, repairs or additions requiring a permit occur, or when one or more sleeping rooms are added or created in existing homes, the entire building shall be provided with smoke detectors as required for new homes. This includes the installation of a smoke detector in the basement of houses having a stairway which opens from the basement into the dwelling. Smoke detectors may be battery operated when installed in existing buildings unless walls and ceilings are open and new wiring is being installed. In that case, smoke detectors must be "hard wired"– interconnected without a disconnect switch other than a breaker.

## Full basement



## Crawl space



\*Note: Submit soil type on plans submitted for permit.

## Inspections needed

**Footing:** When footing is excavated and formed or slab is formed and sand cushion and reinforcement are in place but before placement of any concrete.

**Poured foundation walls:** Prior to pour. All reinforcing must be in place and secured by time of requested inspection.

**Foundation walls of concrete, block or wood:** Prior to backfill. The drain tile system is in place. dampproofing and/or waterproofing are completed. Any proposed exterior insulation is installed to manufacturer's specifications. The walls shall have sufficient strength and be anchored to the floor above or be braced to prevent damage by the backfill.

**Rough-in:** For any plumbing, heating or electrical work that is involved.

**Water resistive barrier:** Prior to installing siding.

**Framing:** When all framing is complete, all mechanicals installed, but before insulating.

**Note:** Rough-in inspections for all trades must be approved and signed off on the orange permit card before a framing inspection will be performed.

**Insulation:** When all wall insulation is in place and ceiling and wall vapor barriers are in place.

**Fireplace:** Masonry smoke chamber inspections are required before the placement of flues.

**Final:** When all work is complete and before occupancy.

**Note:** Final inspections for all trades must be approved and signed off on the orange permit card before a building final inspection will be conducted.

**When calling for an inspection have permit number(s) available.**

**Questions?  
Need an inspection?**

Contact the City of Bloomington,  
Community Development  
Department,

**Building and Inspection**

1800 West Old Shakopee Road  
Bloomington MN 55431-3027

952-563-8930

FAX 952-563-8949

TTY 952-563-8740

Upon request, this information can be available in Braille, large print, audio tape and/or computer disk.