

Porches

This handout provides answers relating to the guidelines and city code requirements for porches. The information does not cover all requirements. Contact the city about permits and specifications before beginning any project.

Screened and Three-season Porches

- Any porch attached to a building requires a building permit, no matter how small.
- Any free-standing porch requires a building permit, unless its area is no more than 200 sq. ft.
- No porch may be located on, under or above an easement, including drainage and utility easements often found along side and rear lot lines. This includes footings, overhangs/eaves, bumpouts, etc. If you do not have a survey, check the following records for easements.

Platted easements: You can find your property's legal description (addition name, lot & block) by entering your address at bit.ly/3dePx08, then find your addition name (plat) at bit.ly/38VB2Mx to see if there are any platted easements on your lot.

Recorded easements: Easements may not be shown on the plat but separately recorded against your property. These should be listed on your title insurance policy from when you bought the property.

Contact Information:

If you have questions, contact
customerservice@crystalmn.gov, 763-531-1000.



Porch Zoning Ordinance Setbacks

Porches attached to the house must comply with the required minimum setbacks for the principal structure, as follows:


- Front setback is typically 30 ft. from the front lot line.
- Rear setback is typically 30 ft. from the rear lot line.
- Side setback is typically 5 ft. from the side lot line.
- Corner side setback is typically 10 ft. from the corner side lot line.

Note: The corner side setback is typically only applicable to corner lots. In such cases, the lot line with the shorter street frontage is considered the front lot line, and the lot line with the longer street frontage is considered the side street lot line. This rule applies no matter which way the house faces and no matter how it is addressed.

However, open porches may encroach 10 ft. into the required front and rear setbacks, provided no more than 240 sq. ft. encroaches. See Table 6 in the Unified Development Code at bit.ly/3jaNOVj.

Building projections or bumpouts may also encroach into the required front and rear setbacks, again consult Table 6.

Required Permit Application Information

 <p>4141 Douglas Dr. N. Crystal, MN 55422 Phone: 763-531-1889 customerservice@crystalmn.gov Website: www.crystalmn.gov</p>		<p>Application for Building Permit</p>	
Date _____		Permit No. _____	
Rec'd By/Date _____			
Site Address _____			
Tenant/Bldg Name _____			
Applicant: (check one) <input type="checkbox"/> Owner <input type="checkbox"/> Contractor <input type="checkbox"/> Tenant			
Property Owner (provide complete information, including phone #)		Name/Company _____ Phone No. _____	
Address _____		City _____ State _____ Zip _____	
Contractor		Company _____ Phone No. _____	
Contractor License No. _____		Expiration Date _____	
EPA Certificate No. _____		Expiration Date _____	
Contact Person (Print) _____		Phone No. _____	
Address _____		City _____ State _____ Zip _____	
E-mail Address _____			
Permit Sub-Type: <input type="checkbox"/> Add/Alt Residential <input type="checkbox"/> Garage <input type="checkbox"/> Renof <input type="checkbox"/> Egress (1) <input type="checkbox"/> Add/Alt Commercial <input type="checkbox"/> New Res. <input type="checkbox"/> Siding <input type="checkbox"/> Egress (2-3) <input type="checkbox"/> Add/Alt Industrial <input type="checkbox"/> Demolition <input type="checkbox"/> Windows (1-3) <input type="checkbox"/> Deck <input type="checkbox"/> Windows (4-7) <input type="checkbox"/> New Commercial <input type="checkbox"/> Pool <input type="checkbox"/> Patio Door <input type="checkbox"/> Driveway			
Work Type: <input type="checkbox"/> New <input type="checkbox"/> Repair <input type="checkbox"/> Demolition <input type="checkbox"/> Removal/Install <input type="checkbox"/> Alteration <input type="checkbox"/> Move/Close			
Office Use Required Inspections <input type="checkbox"/> Accessibility <input type="checkbox"/> Excavation/Grading <input type="checkbox"/> Firms <input type="checkbox"/> Masonry Reinforcement <input type="checkbox"/> Board Wall <input type="checkbox"/> Foundation <input type="checkbox"/> Framing <input type="checkbox"/> Site Inspection <input type="checkbox"/> C.O. Required <input type="checkbox"/> Fire Wall/Deck Stop <input type="checkbox"/> Insulation <input type="checkbox"/> Special <input type="checkbox"/> E.F.I.A. <input type="checkbox"/> Air/Waterproof <input type="checkbox"/> Air Barrier/Seal <input type="checkbox"/> Sub-Slab Prep <input type="checkbox"/> Energy Efficiency <input type="checkbox"/> Radon Assessment <input type="checkbox"/> Landmark <input type="checkbox"/> Water Meter-Testing <input type="checkbox"/> Emission Control <input type="checkbox"/> Roofing <input type="checkbox"/> Lube			
Office Use Census Code: <input type="checkbox"/> New <input type="checkbox"/> 118 - Amusement/Recreation <input type="checkbox"/> 320 - Utilities <input type="checkbox"/> 417 - All Other Comm. <input type="checkbox"/> 100 - 1 Fam. Res. Detach <input type="checkbox"/> 119 - Place of Worship <input type="checkbox"/> 321 - Schools/Ed. <input type="checkbox"/> 418 - Gas/Flap/Alk. <input type="checkbox"/> Special <input type="checkbox"/> 101 - 2 Fam. (Duplex) <input type="checkbox"/> 120 - Industrial <input type="checkbox"/> 322 - Retail/Buss. <input type="checkbox"/> 445 - Dens. 1 Fam. <input type="checkbox"/> 446 - Dens. 2 Fam. <input type="checkbox"/> 102 - 3 & 4 Family <input type="checkbox"/> 121 - Parking Garage <input type="checkbox"/> 323 - Storage/Buss. <input type="checkbox"/> 447 - Dens. 1 & 2 Fam. <input type="checkbox"/> 448 - Dens. 1 & 2 Fam. <input type="checkbox"/> 103 - Multi Units 1 or more <input type="checkbox"/> 122 - Service Station <input type="checkbox"/> 324 - Public <input type="checkbox"/> 449 - Dens. Other <input type="checkbox"/> 450 - Dens. Other <input type="checkbox"/> 104 - Other Detach. <input type="checkbox"/> 123 - Heavy Warehouse <input type="checkbox"/> 325 - Other <input type="checkbox"/> 451 - Other			
Office Use SAC Code: <input type="checkbox"/> 10 - Single Family <input type="checkbox"/> 11 - Apartments <input type="checkbox"/> 21 - Duplex <input type="checkbox"/> 30 - Commercial Institution <input type="checkbox"/> 12 - Duplex <input type="checkbox"/> 22 - Public Housing (20-24) <input type="checkbox"/> 31 - Industrial <input type="checkbox"/> 32 - Institutional <input type="checkbox"/> 13 - Townhouse/Condo's <input type="checkbox"/> 23 - Single Family <input type="checkbox"/> 33 - Single Family <input type="checkbox"/> 39 - Demolition			
<small>Permit and Plan Review Fee are based on Chapter 130A.0100 of the 2020 Minnesota State Building Code. Plan fees may apply to permits that do not require plan review.</small>			

- City of Crystal building permit application.
- Two copies of a Certificate of Survey or two copies of a site plan drawn to scale, indicating:
 - Lot dimensions
 - Location and dimensions of existing structure(s), including all buildings, sheds, garages, decks, patios, sidewalks, porches, driveways and swimming pools.
 - Location and dimensions of the proposed structure(s).
 - Setback measurements from property lines (see site plan drawing).
- Two copies of plans, drawn to scale with all dimensions, showing the design of proposed structure(s) and type of materials being used for construction of the structure(s). The plans should also indicate:

Floor Plan:

- proposed porch size.
- Size and spacing of floor joist.
- Size, location and spacing of posts.
- Window and door openings.
- Header sizes.
- Size, spacing and direction of rafter material.

Cross Section:

- Diameter and depth of footings.
- Size and spacing of floor joists.
- Size of posts.
- Header size supporting floor joists.
- Header size over windows and screened openings.
- Types of sheathing, siding, lumber, flooring and roofing material.
- Guardrail and ceiling height.
- Size and spacing of rafter material.
- Pitch of roof.

Elevations:

- front and side view, indicating height of structure.

Building Code Requirements

Footings

- All footings are required to be a minimum of 42 ft. below grade with a flared base.
- Individual concrete or masonry piers shall project at least 8" above exposed ground unless the columns or posts which they support are of redwood, cedar or approved treated material.

Joists and Framing

- Wood joists 18 in. or closer to grade or wood beams 12 in. or closer to grade, and their supports, shall be redwood, cedar or approved treated material.
- Floor joist spacing at 24 in. on center requires 2 x decking and floor joist spacing at 16 in. on center permits 1 x decking.
- Any wood members that are exposed to weather without adequate protection from a roof, eave or overhang must be of approved treated material

NOTE: ACQ treated wood requires special fasteners and connections.

Stairways

- If stairway is provided, the minimum clear width is 36 in. The maximum tread rise is 7-3/4 in., minimum tread rise 4 in. and minimum tread run 10 in.
- The dimensions of any one tread run or riser may not vary from the dimensions of any other tread run and rise by more than 3/8 in.
- Stairway illumination is required.

Guardrails and Handrails

- All decks, landings, ramps, balconies and porches more than 30 in. above grade or above a lower structure must be protected by a guardrail at least 36 in. in height. Open guardrails and stair railings must have intermediate rails or an ornamental pattern that a 4 in. sphere cannot pass through.
- A handrail shall be provided at all stairways having four or more risers.
- Handrails shall be placed not less than 34 in. or more than 38 in. above the nosing of the treads. They shall be continuous the full length of stairs from a point directly above the top riser of a flight to a point directly above the lowest riser of the flight.
- Handrail ends must be returned or terminated in posts.
- Handrails shall have a grippable cross section of not less than 1-1/4 in. or more than 2 in. in cross-sectional dimension or the shape shall provide an equivalent gripping surface.
- The handgrip must have a smooth surface with no sharp corners; edges shall have a minimum radius of 1/8 in.
- Handrails adjacent to a wall shall have a space not less than 1-1/2 in. between the wall and the handrail.



PERMITS

Building permits are required for construction of all porches. Heated porches may need to conform to the Minnesota Energy Code. All porches must comply with the land-use requirements of the community's zoning code. Direct questions about setbacks from property lines to the local planning and zoning department.

PERMIT FEES, PLAN REVIEW, INSPECTIONS

Building permit fees are established by the municipality for plan review and inspection. The building official completes the plan review to spot potential problems and may make notes on the plan for your use. Inspections are performed at various stages of construction to verify code compliance. Permit costs can be obtained by calling your local building inspection department with your estimated construction value.



Note: Setbacks from property lines vary depending on the city and zoning districts. Other zoning provisions may include lot coverage or screening.

- The building inspector will need:**
- application for permit
 - site plan or survey
 - foundation plan
 - floor plan
 - section
 - elevation
 - energy calculation worksheet if required

REQUIRED INSPECTIONS

- **Footings:** After excavation, but prior to the pouring of concrete.
- **Framing:** Inspected after framing is complete and construction is accessible for building inspection. The framing inspection is scheduled after other required rough-in inspections are completed and approved.
- **Energy:** Energy efficiency inspection.
- **Final:** The project is inspected upon completion.
- **Other:** The inspector may require other inspections to ensure code compliance or to assist with any questions.

GENERAL BUILDING CODE REQUIREMENTS

The Minnesota State Building Code is the standard of construction for the entire state (Minnesota Statute 326B.121). The 2020 Minnesota Residential Code adopts the 2018 International Residential Code (2018 IRC). The 2020 Minnesota Residential Code can be viewed at <https://codes.iccsafe.org/content/document/1581>.

- Footings must be extended to frost depth and located at extremities of the porch, or engineering may be required.
- Treated wood or wood with natural resistance to decay (cedar heartwood or redwood) must be used for joists 18 inches or closer to grade, beams 12 inches or closer to grade and their supports as well as all exterior members.
- A guard of at least 36 inches in height must protect all porches, decks and open sides of landings and stairs that are more than 30 inches above grade or the floor below. Guards on open sides of stairways, raised floor areas and porches must have intermediate rails or ornamental closures that do not allow the passage of a 4-inch diameter sphere.
- Columns and posts in contact with the ground or embedded in concrete or masonry must be of pressure-treated wood.
- **Exception:** The triangular openings formed by the riser, tread and bottom rail of a guard at the open side of a stairway are permitted to be of such a size that a 6-inch diameter sphere cannot pass through.

- Openings for required guards on the sides of stair treads must not allow the passage of a 4-3/8-inch diameter sphere.
- Stairways must not be less than 36 inches in width with a 7-3/4-inch maximum riser (height) and a 10-inch minimum run (depth). The greatest riser height and greatest tread depth must not exceed the smallest corresponding riser height or tread depth by more than 3/8 inch. Stairway illumination is required.
- Open risers are permitted, provided the opening between the treads does not permit the passage of a 4-inch diameter sphere.
- Handrails are required on all stairways having four or more risers. Handrails must be graspable and be one of the following types:
- Valley or hip rafters must be not less than two inches (nominal) thickness and not less in depth than the cut of the rafter. Hip and valley rafters must be supported at the ridge by a brace to a bearing partition or designed to carry and distribute the specific load at that point.
- Wall framing studs must be placed with their wide dimension perpendicular to the wall and at least three studs must be installed at each corner of an exterior wall. Studs must be at least 2 inches by 4 inches and spaced not more than 24 inches on center.
- Bearing- and exterior-wall studs must be capped with double-top plates installed to provide overlapping at corners and at intersections with other partitions. End joints in double top plates must be offset at least 24 inches.

Type I handrails with a circular cross section must have an outside diameter of at least 1-1/4 inches but not greater than 2 inches. If the handrail is not circular its perimeter dimension must be at least 4 inches but not greater than 6- 1/4 inches with a maximum cross section or dimension of 2- 1/4 inches.



Type II handrails with a perimeter greater than 6- 1/4 inches must provide a graspable finger recess area on both sides of the profile. The finger recess must begin within 3/4 inch measured vertically from the tallest portion of the profile and achieve a depth of at least 5/16 inch within 7/8 inch below the widest portion of the profile. This required depth must continue for at least 3/8 inch to a level that is not less than 1 3/4 inches below the tallest portion of the profile. The minimum width of the handrail above the recess must be 1 1/4 inches to a maximum of 2 3/4 inches. Edges must have a minimum radius of 0.01 inch.

Handrail height is measured vertically from the sloped plane adjoining the tread nosing or finished surface of ramp slope and must be at least 34 inches and not more than 38 inches.

- Hand-framed roofs require a ridge board at least 1-inch (nominal) thickness and not less in depth than the (plumb) cut end of the rafter.
- Approved wall sheathing, siding, roof sheathing and roof coverings must be installed according to the manufacturer's instructions.
- Roofs over porches must have an ice and water barrier consisting of two layers of 15-pound roofing felt solidly mopped together or of approved ice and water shield underlayment materials.
- Size and spacing of conventional lumber used for roof framing depends on the roof pitch, span, type of material used, and the loading characteristics imposed.
- Porches must be designed for local snow load requirements. Contact your local inspection department for details.
- Rafters must be framed directly opposite each other at the ridge.
- A properly sized and supported ridge beam may be used as an alternative to a ridge board with ties for a vaulted ceiling (see sample). If manufactured trusses are used, submit one copy of truss plans signed by a registered engineer.
- Porch design should take into consideration the existing location of outside meters, wells and septic systems.

PLANS: SITE, FLOOR AND ELEVATION SECTION

The text and sample drawings display the minimum detail expected to ensure the permit process can proceed smoothly.

Plans do not need to be professionally drawn. However, plans should be drawn to scale and include all the information requested.

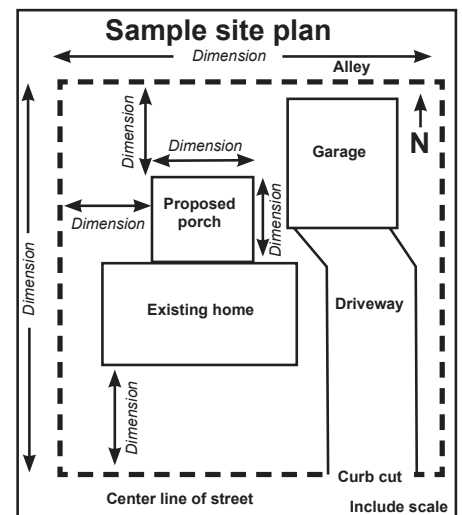
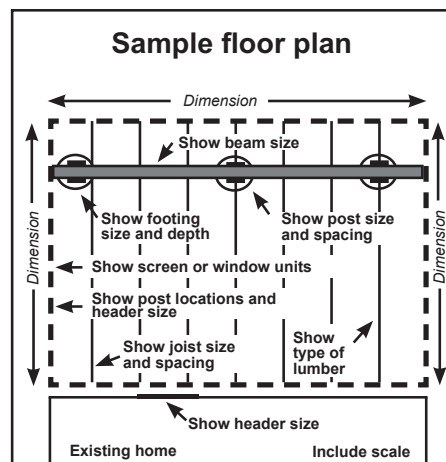
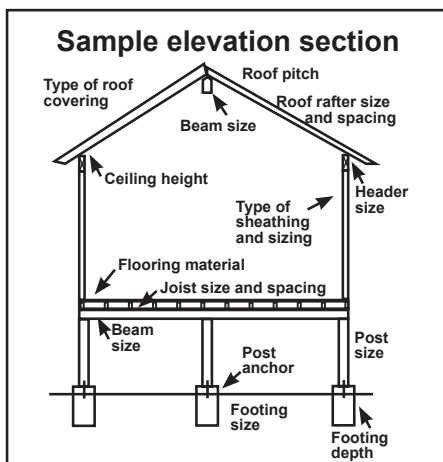
The application for permit can be filled out at the time you drop off your plans or make electronic submittals where permitted.

Submit two copies of a certificate of survey or site plan. The building plan must be drawn to scale indicating the lot dimensions, the location and size of the existing structure(s), and the location and size of the proposed structure. Indicate the setbacks from property lines of the existing and proposed structure(s). Include the septic-system location and wells if applicable.

FLOOR PLANS SHOWING PROPOSED DESIGN, MATERIALS

At minimum, plans submitted for permits should include:

- Proposed size of porch.
- Location and size of windows. Safety glazing may be required due to size and location.
- Size of headers over all doors and window openings.
- Size, spacing, and direction of rafter (roof) materials.
- Size and spacing of floor joists.
- Size, location, and spacing of posts or applicable foundation details.
- Type (grade and species) of lumber to be used.
- Additional information, such as a sectional drawing or elevations, may be required.



Note: Illustrations are examples only.

Be sure your scale site plan includes:

- lot dimensions
- location and size of existing structures
- location and size of the proposed structure
- setbacks from property lines of proposed and existing structures
- septic-system area and wells if applicable

SAMPLE SITE PLAN

