

Plan submittal checklist for residential plan submittal for dwelling units and additions

Complete and submit this checklist with your construction plans.

This check list will be used for two purposes: It will provide a basic plan check list for the builder to follow and for the plans examiner to verify required information to be identified on the construction documents as submitted.

Basic Design Information: Site-specific (**circle one**) wind exposure B or C; **Ground snow load:** 50psf; **Floor load:** 30-60psf; **Basic wind speed:** 90mph; **Weather:** severe; **Soil condition:** Type III - 1500psi maximum (assumed); **Frost line depth:** 42 inches; **Termite hazard:** moderate; **Decay:** slight; **Winter design temperature:** -16^{oF}; **Code edition:** 2007 Minnesota State Building Code, Amendments & IRC 2006.

Project Address/ Job Identification: _____
 General Contractor: _____
 Contact information: Phone number _____
 Mailing address: _____
 E-mail address: _____

Applicant; check off each item below that you are submitting in your construction documents. Note; All of the information is required.

Plans Examiner; check off each item that has been provided.

| | | |
|------------------|-----------------|------------------------------------------------------------------------------------------------------------------------|
| Applicant | Plans ex | <u>Provide two complete sets of scaled (minimum 1/4" per foot) plans which must include the following information;</u> |
|------------------|-----------------|------------------------------------------------------------------------------------------------------------------------|

- | | | |
|-------------------------------------------|-------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| _____ _____ _____ _____ _____ | _____ _____ _____ _____ _____ | <p>1. Plot (site) plan.</p> <p>A. Full legal description including lot, block and addition name.</p> <p>B. Setbacks from all property lines, proposed site drainage, driveway size, location and easements.</p> <p>C. Grading/Erosion & Sediment Control permit application.</p> <p>D. Designation of side street for corner lot projects.</p> <p>E. Location of existing or proposed accessory structures.</p> <p>2. Energy envelope calculation (i.e. MN check) showing compliance with State of Minnesota Energy Code.</p> <p>A. 7670 Category 2</p> <p>B. 7672</p> |
|-------------------------------------------|-------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Applicant

Plans ex

3. Depressurization/ventilation form completed by mechanical contractor.

A. Submit white and yellow copies (form developed by City of Owatonna).

4. Special evaluation report or manufacturer's testing criteria.

5. Construction Document (general).

A. Building elevation for front, rear and sides, indicate hill sides, easements and ceiling heights of all rooms and garages.

B. Locations egress window in lower level on elevation sheets.

C. Windows: manufacturer, identification number, safety glazed, and style or type of window, i.e. double hung, casement, awning, slider etc. May be required to submit a current catalog.

D. Property address indentified on the structure.

F. Ventilation for roof system. How many and what type of vents are Required and provided.

6. Continuous spread footings-show location, width, depth and reinforcement. Size footings per the following;

A. Number of stories supported and type of exterior wall covering.

B. Total load path and point loads from roof to sub-soil. (submit calculation for extreme loads ie: multiple floor/roof).

C. Depth below grade (frost depth).

7. Pad Footings-show location, width, depth and reinforcement. Size pad footings per the following; (total load ÷ 1500lbs assumed soil capacity).

A. Show total loads from each end reactions from all headers, beam and, girders on each floor, accounting for all cumulative wall and roof loads.

B. Footing sizes shall be reflect point loads over 5000 lbs.

C. Structural engineering required for cumulative loads $\geq 12,000$ lbs.

8. Foundation walls – full height.

A. Provide code/manufacturer's design and installation requirements for non-traditional foundations (i.e. ICF and wood foundations).

B. Foundation wall type, width and height and backfill elevation.

C. Method of anchorage to footings.

D. Wall reinforcement: size, spacing, placement in wall and at core-fill point load locations of 5000lbs and greater.

E. Concrete and masonry foundation wall intersection methods.

- ___ ___ F. Provide which method will be used for water-proofing and drainage. All products shall be evaluated and approved by the Building Safety Division before use.
- ___ ___ G. Type of material that will be used for sill plate and the sill plate anchorage, type, locations and spacing.
- ___ ___ H. Wall covering/thermal barrier.
- ___ ___ I. Clearance from finished grade to wood sills, siding etc. Show grade level at all walls.
- ___ ___ J. Application of exterior wall veneer and support. Masonry ledger block maximum loading – 1 story.
- ___ ___ K. Provide the exact connectors that will be used for all laterally supported foundation walls, including detail diagram of attachment to floor truss, I-joist and the block to sill plate attachment.

___ ___ **9. If a crawlspace is proposed show:**

- ___ ___ A. Under-floor clearance from earth to wood or alternate.
- ___ ___ B. Ventilation method.
- ___ ___ C. Location and size of access panel.
- ___ ___ D. Type of insulation, placement and ground vapor barrier (minimum 6mil. required).
- ___ ___ E. Placement of anchorage, size and vertical reinforcement.
- ___ ___ F. Provide the exact connectors that will be used for all laterally supported foundation walls, including detail diagram of attachment to floor truss, I-joist and the block to sill plate.

___ ___ **10. Cantilever foundation wall** including all applicable code footnotes.

- ___ ___ A. Identify frost depth.
- ___ ___ B. Wall reinforcement: size, spacing, placement in wall and at core fill point load locations of 5000lbs. and greater.
- ___ ___ C. Provide a complete wall load calculation from roof to sub-soil.
- ___ ___ D. Provide which product will be used for water-proofing and drainage. All waterproofing products shall be evaluated and approved by the Building Safety Division before use.
- ___ ___ E. Method of anchorage to footings.
- ___ ___ F. Demonstrate alternate method for cantilever foundation walls over 35' in length.

___ ___ **11. Provide truss designs.**

- ___ ___ A. Floor truss specifications and ¼" layout (preferred).
- ___ ___ B. Provide the I-Joist span chart from manufacture (prefer ¼ inch layouts).
- ___ ___ C. Show connection detail of floor joist, truss or I-joist assemblies to sill plate, top plate and rim board according to manufacturer's installation instructions.

- ___ ___ D. Roof truss spec and ¼" layout(preferred).
 ___ ___ E. All connectors, hangers, uplifts, fasteners & special attachments. (Uplift connectors required at 180psi of uplift reaction)
 ___ ___ F. Provide additional framing method for crushing of the top plate due to reaction loading of the truss design.

12. Structural components & coordination

- ___ ___ A. All headers are called out showing size and type of wood species.
 ___ ___ B. All fastening schedules for beams identified.
 ___ ___ C. Identify size, type of column/post and how this column/post will be attached to structure (top and bottom) and protected from decay.
 ___ ___ D. All end reactions and point loads are identified on each floor level.
 ___ ___ E. Show load path values from beginning of concentrated load continuous to footing including special blocking locations in the floor cavity.
 ___ ___ F. All support locations are shown for each load path with the type and size of support identified with each location designated on each level, including rim cavity to the mud-sill.
 ___ ___ G. Submit steel beam calculation and size (i.e. W10x29).
 ___ ___ H. Built-up column size and connection at top and bottom.
 ___ ___ I. NDS Built-up column: species of nominal wood, number of ply's, fastening schedule, (i.e.: 1-2x4 = 2400lbs and 1-2x6 = 3500lbs). All point loads shall be identified on each level with adequate support through each floor system to the sub-soil.
 ___ ___ J. Provided structural engineering for walls over 10 feet in height that have opening(s) in them. Engineer spec's shall be job specific and include details addressing: axial loading, deflection, bracing, fastening and connections over raised floor assemblies.

13. Provide floor plans for each floor level including basement.

- ___ ___ A. Show room uses, dimensions and indicate either finished or unfinished.
 ___ ___ B. Show utility/furnace/laundry room appliance/equipment locations.
 ___ ___ C. Show placement of smoke and carbon monoxide alarms according to code requirements, Minnesota Statute 299.F50 and manufacturer's installation instructions, NFPA 72.
 ___ ___ D. Show window and door locations and sizes.
 ___ ___ E. Indicate locations of egress and safety glazed windows. Show egress window well location, size, depth, ladder location and other pertinent information relating to the egress component.

Applicant

Plans ex

16. Provide cross section from footing thru roof.

- ___ ___ A. Exterior & interior footing sizes, (width and depth) with reinforcement size and placement.
- ___ ___ B. Foundation type, size, reinforcement, water-proofing, wall coverings, moisture barrier and thermal barriers.
- ___ ___ C. Type of foundation drainage system, size and placement of aggregate and minimum coverage of drainage system.
- ___ ___ D. Footing depth below grade and grade separation to wood.
- ___ ___ E. Sill plate type and size, rim and rim insulation.
- ___ ___ F. Anchor bolt size, type, location and spacing.
- ___ ___ G. Floor joist type, span, spacing and sub-floor type.
- ___ ___ H. Type of species, size and thickness of material used for top/ bottom plates; studs, sheathing for floor, walls and roofing.
- ___ ___ I. Wall framing size, type, height, headers, insulation, air barrier, vapor barrier, interior and exterior wall finish materials.
- ___ ___ J. Roof/ceiling framing, attachment to bearing walls, attic insulation vapor barrier and ceiling finish.
- ___ ___ K. Eave overhang dimension, energy heels, wind-wash protection, ventilation, insulation baffles and fascia material.
- ___ ___ L. Roof slopes, ice dam protection, underlayment, roof covering and ventilation.
- ___ ___ M. Clear headroom at all floor levels and at areas with dropped ceilings, soffits and ductwork.

17. Details pertaining to specific job

- ___ ___ A. Stair tread & riser dimensions nosing projection dimension; stairway width, headroom height, handrail location, illumination and guard rail locations/dimensions.
- ___ ___ B. Rim board connection to joist and joist connected to sill plate according to manufacturer's installation instructions.
- ___ ___ C. Type of insulation that will be installed: ceiling, walls, rim, cantilevered floors over unconditioned spaces and at exterior foundation walls.
- ___ ___ D. Archway design - ceiling heights, width.
- ___ ___ E. Flashing detail for all exterior penetrations including pan flashing for all exterior windows and doors.
- ___ ___ F. Flashing detail for all kick-out locations
- ___ ___ G. Fireblocking/Draftstopping for concealed spaces, stairways, floor/ceiling penetrations, soffits, energy walls, etc.
- ___ ___ H. Notching and boring of nominal material, engineered products (I-joist, LVL's)
- ___ ___ I. Manufacturer's installation instructions for all exterior window and door applications.

Applicant

Plans ex

- ___ ___ J. Continuous step footing with minimum and maximum head and bed joint spacing.
- ___ ___ K. Identification of type and spacing of lateral connectors that is used from the sill plate to the I-joist/floor truss system and blocking (maximum spacing 24").
- ___ ___ L. Brick veneer, air space, wall ties, weep holes and flashing.
- ___ ___ M. Exterior finishes (EFI/stucco/cultural stone) submit manufacturer's specifications and requirements.
- ___ ___ N. Fire Wall (party wall): submit listed assembly (ie: UL or GA) and a wall section description of the rated assembly construction/listing.
- ___ ___ O. Show all hand framing details.
- ___ ___ P. Notation has been provided for cold weather protection for concrete and masonry installation.
- ___ ___ Q. Demonstrate construction detail of retaining wall over 4 feet in height. (Submit engineering detail from the manufacturer's with 60psi soil pressure).
- ___ ___ R. Indicate beam pocket details.

18. Insulation

- ___ ___ A. Provided flame spread, smoke-development index and radiant flux rating for all insulation, loose fill, spray applied products.
- ___ ___ B. Provide how the habitable space will be fully insulated over unconditioned space(s), how the hvac will be installed along with R-value and required vapor barrier of the ducts. Indicate special requirements for under slab heating.

19. Foam Plastics Installation

- ___ ___ A. Provide evaluation report of material . (www.icc-es.com)
- ___ ___ B. Identify the location where foam plastic will be installed.
- ___ ___ C. Submitted R-value per inch by testing criteria.
- ___ ___ D. Vapor retarder required when greater than 1 perm.
- ___ ___ E. Thermal barrier required (1/2" gypsum min-typical).
- ___ ___ F. Ignition barrier required, (3/8" gypsum minimum requirement).
- ___ ___ G. Other than rim installation the foam plastic has a flame spread index of not more than 75 and shall have a smoke-developed index of not more than 450 when tested in accordance's with ASTM E 119 and remain in place for 15 minutes based on NFPA 286 with the acceptance criteria...
- ___ ___ H. Spray foam in sill areas (rim cavity) shall have a flame spread index of 25 or less and smoke developed index of 450 or less when tested in accordance with ASTM E 84 and shall be restricted to 5.5 max or less if required by the manufacturer's installation requirements.

Applicant

Plans ex

20. Mechanical

- ___ ___ A. Show comfort and water heating system types and locations.
- ___ ___ B. Show mechanical air exchange systems and ventilation fans.
- ___ ___ C. Indicate all other fuel burning equipment and decorative appliances.
- ___ ___ D. Fireplaces; provide the approved listed number, clearances to combustibles and openings, chases, chimney run and termination.
- ___ ___ E. Foundation drainage – location of the sump pump pit, discharge location and under floor hvac.
- ___ ___ F. Corrugated stainless steel tubing (CSST) bonded to electrical.
- ___ ___ G. Type of hearth that will be installed, weight, size and material.

Please be aware that this document has been prepared and is intended to assist in the design preparation and plan review of residential structures and in no way represents all of the requirements found within the State of Minnesota Building Code.