



Residential Detached Garages and Accessory Buildings/Sheds

Building Permits: A building permit application must be completed online at: [Residential Building Permit - City of Owatonna, MN](#)

Plan Submittal: A site plan, dimensioned building layout plan and construction details must be submitted with the permit application. Submittals shall include: description of the building size, height of sidewalls, height of the roof peak, and setbacks to property lines. Please submit plan pages with all required information for review of code compliance and construction technique.

A maximum of two buildings, one garage and one shed accumulative of 1000 sq. ft. is allowed without a [conditional use permit](#).

Building permits are not required for accessory buildings under 200 square foot, however, a [zoning permit](#) is required with submittal of a site plan.

Height requirements: A maximum of 20' foot roof peak height shall be allowed.

Setbacks increase as peak height exceeds 15' foot high.

- ❖ 15' or less = 5' setback,
- ❖ 16' = 6'- 5" setback,
- ❖ 17' = 6'- 10" setback,
- ❖ 18' = 7'- 3" setback,
- ❖ 19' = 7'- 7" setback, maximum
- ❖ 20' peak height = 8' setback.

Fire Protection: Garages located closer than 3'-0" foot to the dwelling shall have the wall, parallel to the dwelling, drywalled with ½" drywall installed on the inside wall surface from the floor slab to the roof sheathing or drywall ceiling and supporting walls. Buildings located closer than 5'-0" foot to the property line shall have 1-hour rated wall assemblies (typical assembly may include 5/8" type X drywall installed on each side of the exterior wall from the foundation to roof sheathing or finished ceiling. Overhangs shall not project closer than two feet with projections closer than three feet protected with 5/8" type x drywall on the underside of the soffit and behind the fascia board. No openings shall be allowed closer than 3'-0" feet to the property line. [IRC R302.1\(1\)](#)

Building code requirements:

- ❖ A slab on grade foundation may be used for the support of detached garages on all soils except peat and muck. Root and other organic materials must be removed at a minimum of 12" depth. The perimeter of the slab must be thickened to a minimum vertical dimension of 12" at the edge below finished grade. An additional 6" vertical separation of wood must be provided above finished grade along the exterior wall framing and siding. A minimum of 12" width shall be provided with two ½ (#4) rebar placed within the thickened footing and raised 3" minimum clearance to the bottom soil. The minimum concrete slab thickness must be 3-1/2". The minimum concrete strength is required to be 3500 pounds per square inch. [MR 1303.1600 subp. 2](#) & [IRC R403.1.4](#)
- ❖ Wall plate splices at exterior walls must be bolted to the foundation with not less than ½" diameter steel bolts embedded at least 7" into the concrete. Anchors are to be spaced not more than 6'-0" apart, other approved sill plate anchors may be used. There must be at least two anchors in each plate and within 12" of each side of plate splices and corners. [IRC R403.1.6](#)
- ❖ Sills and sleepers on a concrete slab or masonry that are in direct contact with the ground must be separated from such slab by an impervious moisture barrier or be an approved species and grade of lumber, pressure treated or decay-resistant heartwood of redwood, black locust, or cedars. Sills shall have a width not less than that of the wall studs. [IRC R317.1](#)
- ❖ Studs must be placed with their wide dimension perpendicular to the wall, and not less than three studs must be installed at each corner of an exterior wall. Utility grade wood studs shall not exceed 8' foot in height. Other grade studs shall not exceed 10' in height unless approved. Typical wall framing is 2"x4" studs spaced @ 16" on center. Alternate framing with studs spaced @ 24" on center will require additional construction methods for top plates and wall sheathing. [IRC R602.3](#), [R602.3.1](#), [table R602.3 \(2\)](#)

- ❖ Wood stud walls shall be capped with double or single top plates depending on wall stud spacing and installed to provide overlapping at corners and intersections with bearing partitions. End joints in top plates shall be offset at least 24". Top plate splices shall be nailed with [8-16d common or 12-16d box or 10d box] nails on each side of the plate splice. [IRC R602.3.2](#), [table R602.3\(1\) #13](#)
 - ❖ Braced wall lines with braced wall panels a minimum of 48" inches wide shall be provided no more than 10' foot from the end of a braced wall line and spaced not more than 20' foot apart. The required width of braced wall panels may be reduced depending on wall sheathing material or alternate framing methods. [IRC R602.10.2.2](#)
 - ❖ Approved wall sheathing and siding must be installed according to the manufacturer's installation instructions. Typical wall sheathing is 3/8" - 1/2" O.S.B. or plywood nailed at 6" O.C. @ edges and 12" O.C. in the field. [IRC R602.3](#) & [R703.3](#)
 - ❖ Roof Sheathing and roof coverings must be installed according to the manufacturer's installation instructions. Typical roof sheathing is 3/8" - 1/2" O.S.B. or plywood nailed at 6" O.C. @ edges and 12" O.C. in the field. Span ratings stamped on the sheathing shall be followed. [IRC R602.3\(1\)](#) & [R803.2](#) & [R905](#)
 - ❖ Wall openings shall be framed with king stud, trimmers and headers sized to carry the roof/floor loads above. [IRC R602.7.5](#)
 - ❖ Roof trusses shall be designed and constructed to support a minimum snow load (live load) of 35 pounds per square foot, The bottom cord must be designed for a minimum of 10 pounds live load per square foot if not used for storage and 20 pounds live load per square foot if used for limited storage. Engineered certified truss drawings shall be provided with the plan submittal and on site at the time of the framing inspection. Lofts or storage attic space shall be indicated on the plans for review and on the truss drawings. If hand framing is used, additional detailed drawings must be submitted of the framing. [IRC R802.10.1](#), [IRC table R301.5](#), & [MN amendment table 301.2\(1\)](#)
 - ❖ An alternate braced wall framing method is allowed to reduce the wall segments adjacent to the garage door opening to a minimum of (16" inches for 8' foot tall wall), (18" inches for 9' foot tall wall) if the alternate continuous sheathed portal framing method (CS-PF) is used. (See CS-PF detail drawing within this handout) [IRC R602.10.5](#) & [R602.10.6.4](#)
 - ❖ Heated buildings: if heating appliances are installed, additional regulations must be considered related to insulation, vapor barriers, roof underlayment, wall coverings and equipment protection barriers. Additional permits are required for the mechanical, gas and installation of any type of heating equipment. [Owatonna City Policy: Conditioning Garages](#)
- Required Inspections:**
- ❖ Every effort is made to schedule the inspections on the next business day following the request for inspection. Inspection requests must be made by 4:00 pm to be considered for next day inspection. Call 507-444-4370 to schedule an inspection and please have your permit number and address available when you call.
 - ❖ **Inspections:**
 - 1) Footings/Concrete slab and property line setbacks: To be made after all form work is set up, all required reinforcement is in place and supported and property irons are exposed, prior to pouring concrete.
 - 2) Framing: To be made after all framing, blocking, and bracing are in place, rough electrical (if any) is approved, and roof covering materials are installed and prior to closing the construction (which would make it inaccessible for inspection). Wall construction for braced wall panels, sheathing, building wrap, anchors, and stud framing, installed but before wall coverings are installed.
 - 3) Final inspection: Made upon completion of the garage, grading and exterior wall and roof coverings. Please make sure a final electrical inspection (if applicable) is completed prior to scheduling this inspection.
 - 4) Other inspections: In addition to the three inspections above, the inspector may request other inspections to ensure compliance with the provisions of the code or to assist you with questions or concerns during the construction process.

General Notes:

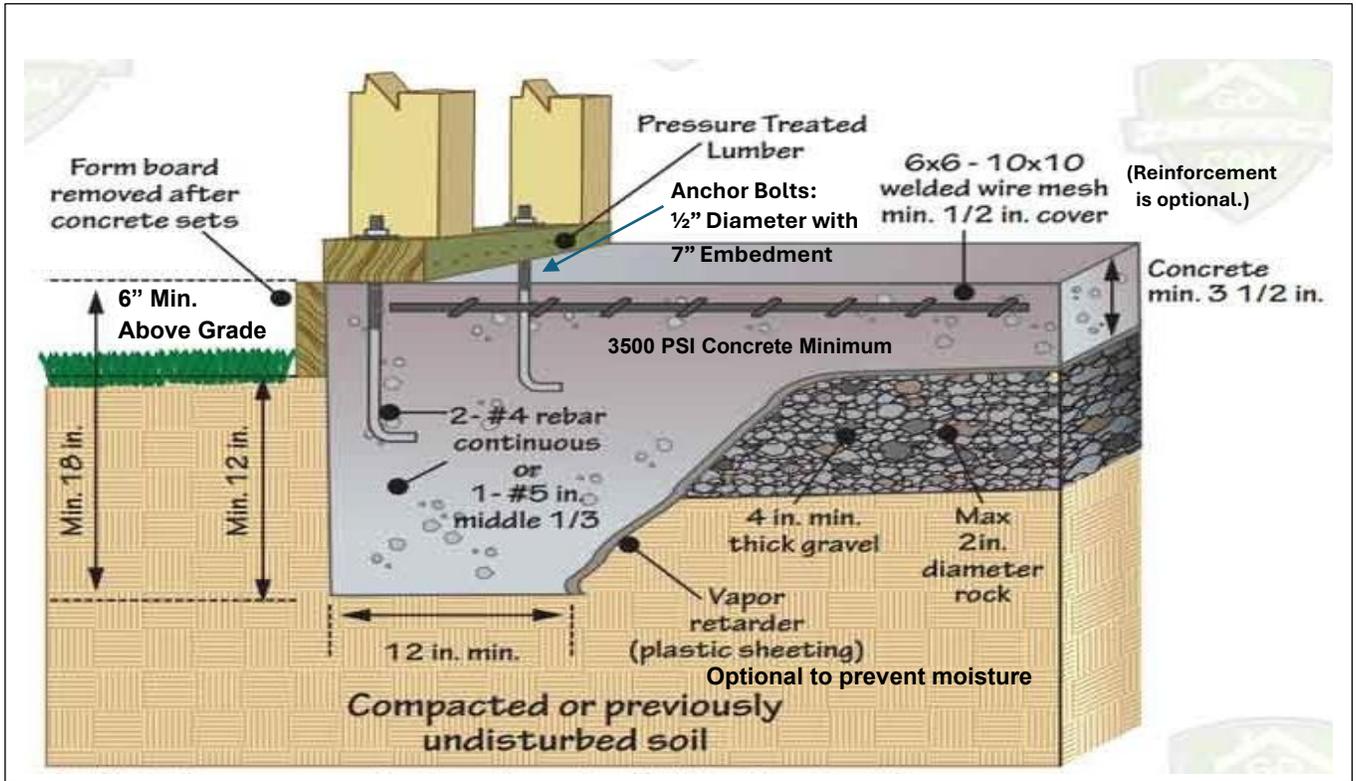
Online permitted electronic plans and documentation or printed construction plans shall be available until the final inspection has been performed and approved, as applicable. All hired contractors must be properly licensed/registered by the State of Minnesota or have a Certificate of Exemption from the State of Minnesota.

Erosion and sediment control plans shall be included in the permit application and plan submittal:

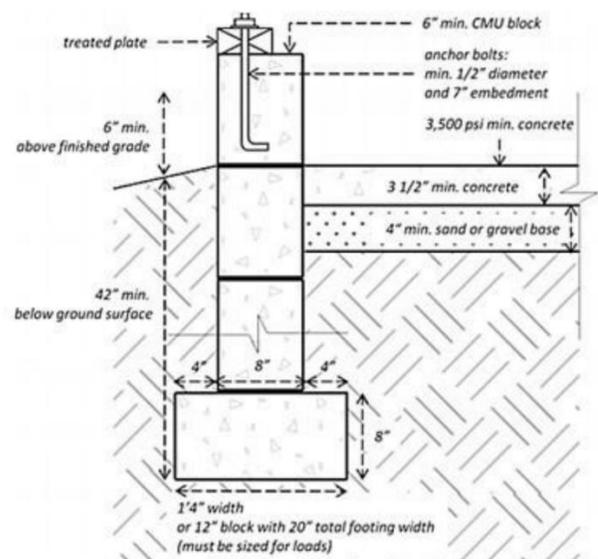
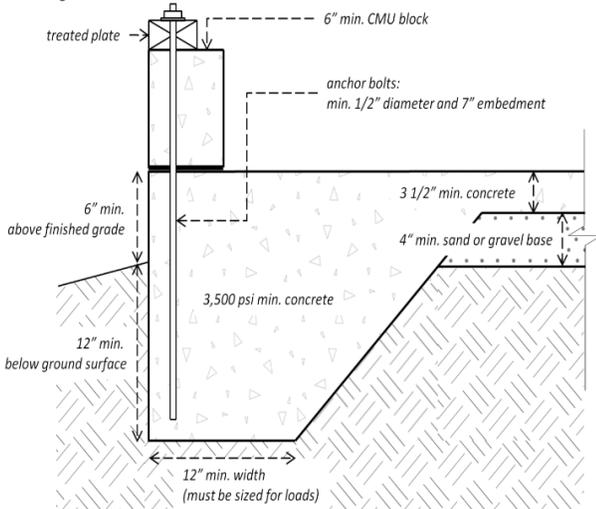
- ❖ if the projects grading disturbance exceeds 5000 sq. feet in area a [City Grading Permit](#) is required.

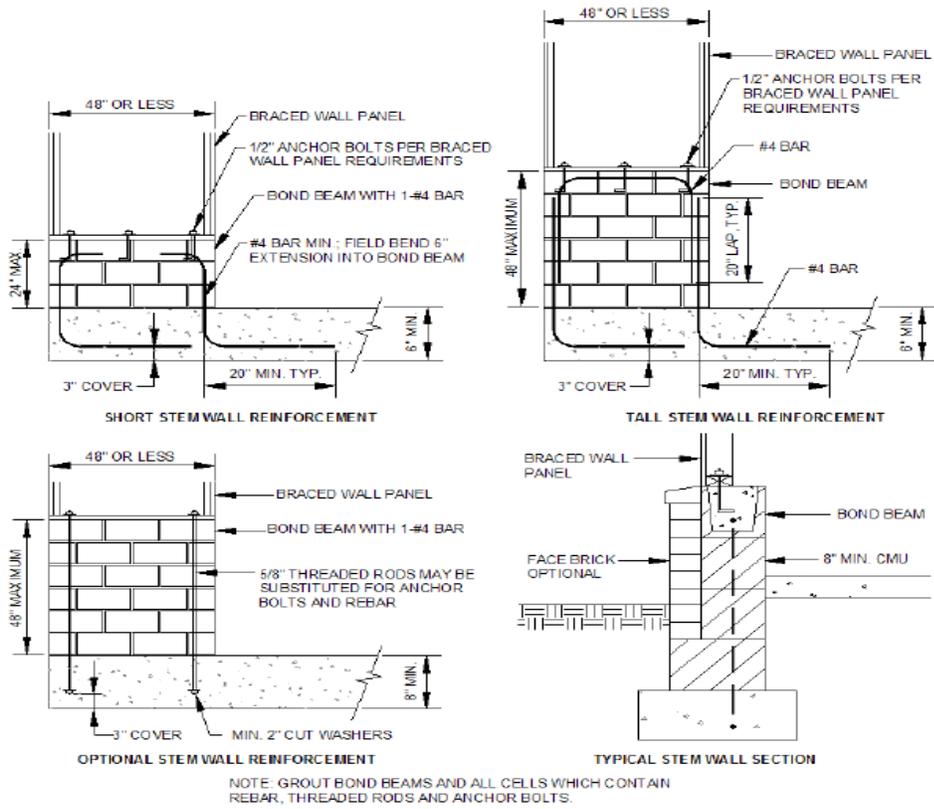
Proposed construction shall maintain existing drainage. Provisions for temporary construction Stormwater BMPs outlined in the stormwater Management Code 52.00 shall be adhered to. [General-ESC-Guidelines-PDF \(owatonna.gov\)](#)

Call Gopher One at least 2 full days before you dig at 1-800-252-1166 or send an email to www.gopherstateonecall.org



1 Course Masonry Foundation: Wall framing and plate sit on one course of masonry block on top of thickened perimeter footing.



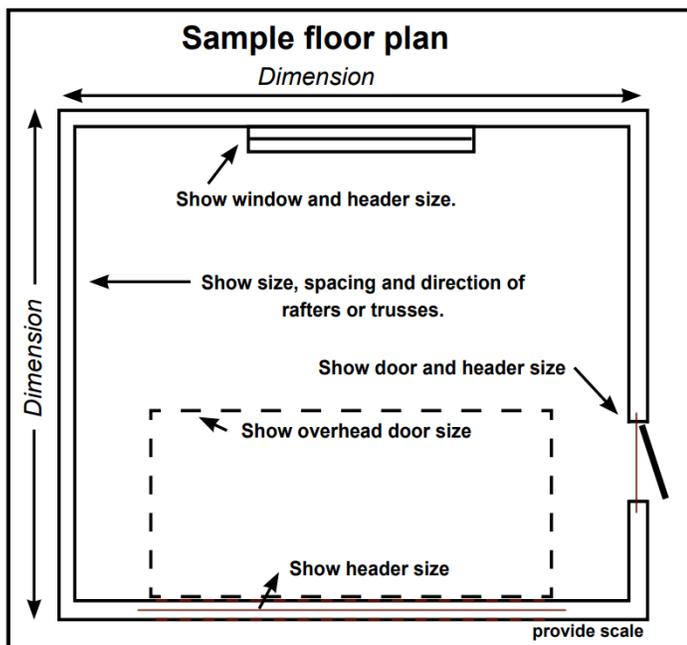


For SI: 1 inch = 25.4 mm.

**FIGURE R602.10.9
MASONRY STEM WALLS SUPPORTING BRACED WALL PANELS**

IRC 602.10.9 Braced wall panel support. Braced wall panel support shall be provided as follows:

- ❖ Masonry stem walls with a length of 48” inches or less supporting braced wall panels shall be reinforced in accordance with Figure R602.10.9. Masonry stem wall with a length of greater than 48” inches supporting braced wall panels shall be constructed in accordance with section R403.1 Methods ABW and PFH shall not be permitted to attach to masonry stem walls.
- ❖ Concrete stem walls with a length of 48 inches or less, greater than 12” inches tall and less than 6” inches thick shall have reinforcement sized and located in accordance with Figure R602.10.9.



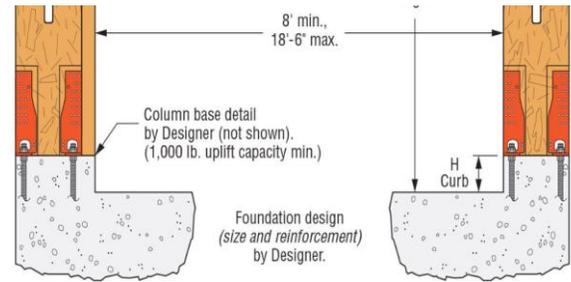
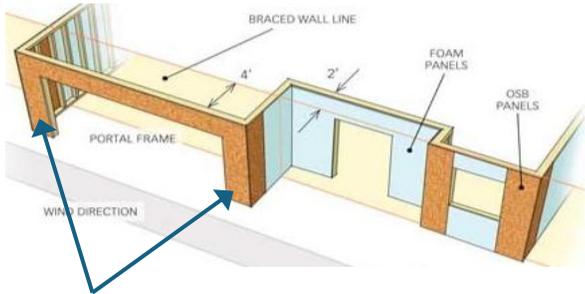
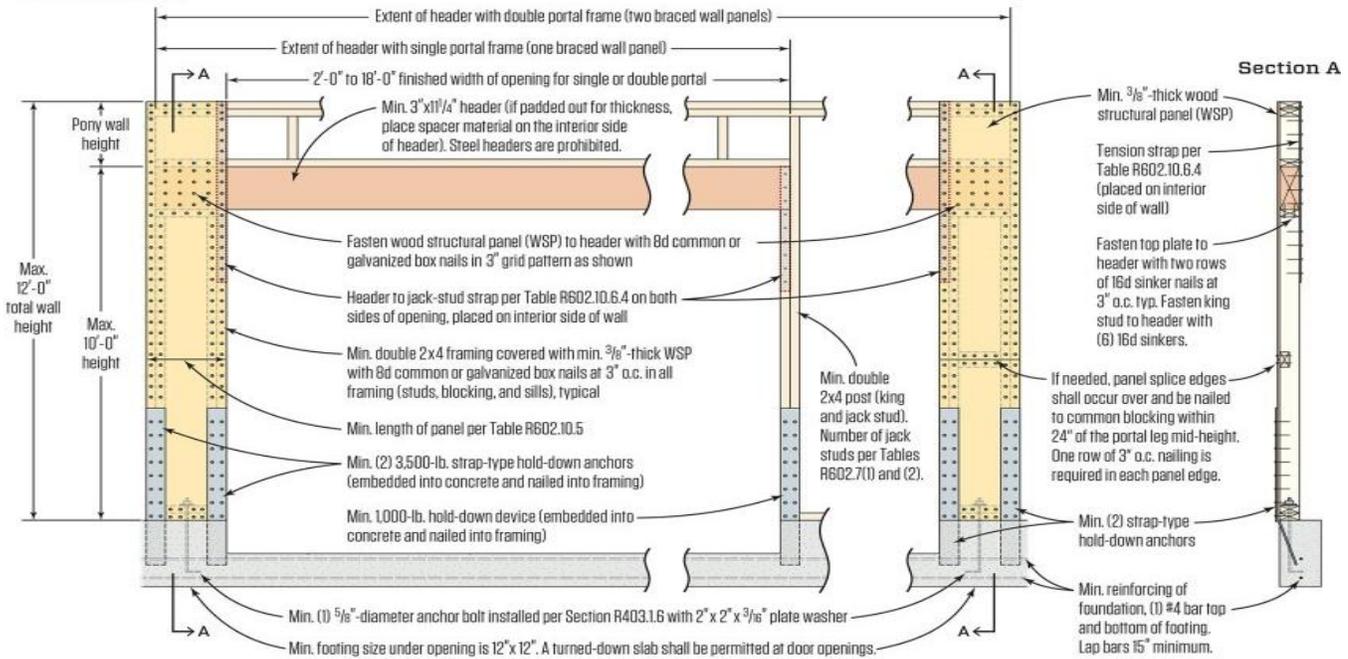
Plans should include:

- ❖ Dimensions including the wall length on each side of the garage door opening. (This will determine your need for a braced wall portal framed garage opening)
- ❖ Windows and service door locations.
- ❖ Header sizes over openings. (Example: 2-2x12' Doug Fir #2 with 2 cripples and 1 king stud).
- ❖ Overhang dimension.
- ❖ Placement of heating equipment, as applicable?
- ❖ Provide Roof Truss design / spec. sheet.

Size	Building Width (feet)					
	Up To: 12 Foot		Up To: 24 Foot		Up To: 24 Foot	
	Span	# of Jacks	Span	# of Jacks	Span	# of Jacks
1-2 x 6	3'-5"	1	2'-8"	2	2'-3"	2
1-2 x 8	4'-4"	2	3'-4"	2	2'-10"	2
1-2 x 10	5'-2"	2	4'-10"	2	3'-4"	3
1-2 x 12	6'-1"	2	4'-8"	3	3'-11"	3
2-2 x 4	3'-5"	1	2'-7"	1	2'-2"	1
2-2 x 6	5'-1"	1	3'-11"	1	3'-3"	2
2-2 x 8	6'-5"	1	5'-0"	2	4'-2"	2
2-2 x 10	7'-8"	2	5'-11"	2	4'-11"	2
2-2 x 12	9'-0"	2	6'-11"	2	5'-10"	2
3-2 x 8	8'-1"	1	6'-3"	1	5'-3"	2
3-2 x 10	9'-7"	1	7'-4"	2	6'-2"	2
3-2 x 12	11'-3"	2	8'-8"	2	7'-4"	2
Engineered Lumber Req'd.	CS-PF or PFG Portal Frame Garage Door Header shall be at least: (3" x 11-1/4") size					

Method PFH (Portal Frame With Hold-Downs)

Front Elevation

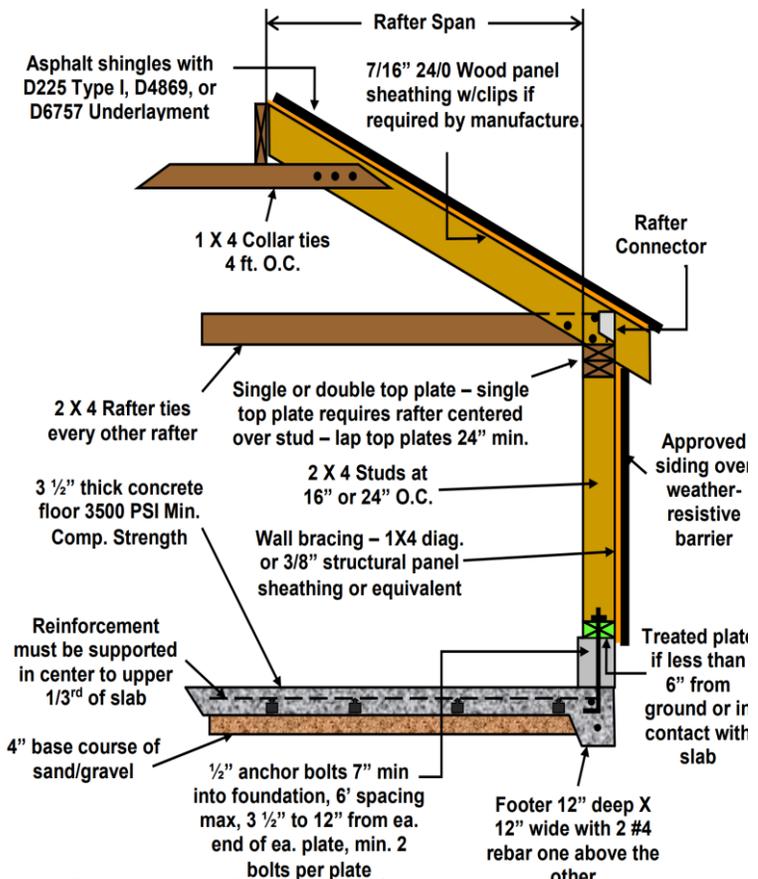
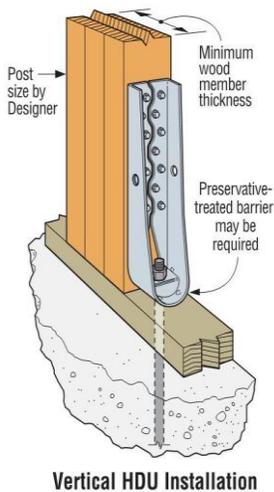


PFH
(With hold-downs 2-
each panel)

8' ft. = 16" width
9' ft. = 16" width
10' ft. = 16" width

**CS-PF (Continuous
Sheathing)**
(No hold-downs)

8' ft. = 16" width
9' ft. = 18" width
10' ft. = 20" width



Building Inspections Division

540 West Hills Circle; Owatonna, MN 55060-4701; Owatonna.Gov; 507-444-4370