



Residential Detached Accessory Structure

Required Inspections

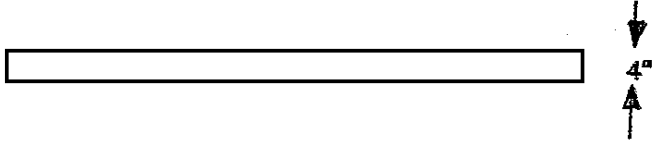
1. **Footings-Foundation /Setbacks** (to verify approved placement) When footings-foundations are formed and before they are poured. The property corner pins must be exposed to verify setbacks.
2. **Shear Wall Inspection** - If applicable, and your project requires “braced wall” construction, this must be inspected prior to weather barrier and siding installation.
3. **Framing Inspection** - Can be combined with the Final Inspection if the studs and rafters remain exposed.
4. **Electrical Rough-In**
Underground - must be inspected prior to burial.
Interior Rough-in- can be combined with framing inspection.
5. **Final Inspection** (All Permits) – **Please schedule once work has been completed to close permit.**

Design

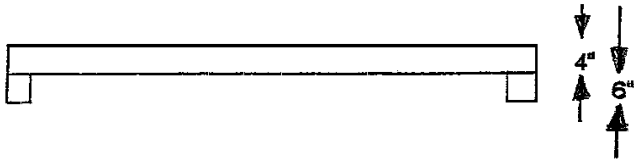
- Permits are not required for one story detached accessory structures used as tool and storage sheds, playhouses, and similar uses, provided the floor area does not exceed 120 square feet and the structure does not utilize a permanent foundation. All others require a permit. (Muni Code Sec. 150.03 (2) a).
- **Easements**: Easements may not be encroached by an accessory structure so setback distances may be increased according to easements of record. Easements will be reviewed by City staff at the time of the building permit application and easement information will be noted on the permit.
- **Restrictive Covenants**: The owner should check the restrictive covenants for their neighborhood to assure compliance with covenant regulations regarding accessory structures. Covenant information may also be obtained at the Community Development Office.
- See *Detached Accessory Structure Slab Specifications page 2* for minimum slab and footing requirements.
- Accessory structures less than 10 ft. from any other building or structure on the same parcel and/or less than 3 ft. from a property line must be provided with 5/8 in. type X gypsum board or equivalent on those walls less than 10 ft. from any other building or structure on that parcel. Any accessory structure opening(s) in wall(s) parallel to and less than ten feet from dwelling unit wall(s) must be fire rated in accordance with this Code. (R302.1 & Muni Code Sec. 150.03(15)a)
- Bottom plates must be treated or approved wood of natural resistance to decay and must be bolted down with foundation bolts located within 12 in. of the ends of each piece and spaced no more than 6 ft. on center, minimum of two per plate section (sections 24 in. or less one anchor in located in middle third). Top plates must be doubled, and splices lapped at least 4 ft. (R317, R403.1.6, & R602.3.2)
- All corners must have wind bracing consisting of full sheets of plywood or let-in diagonal 1X4 boards or diagonal metal wind bracing 16 in. o.c. framing only. (R602.10.4 & T602.10.4)
- Garage door header must be sized to support the roof load and bracing requirements. Beams may be made from 2x dimensional lumber as well as glue laminated, flitch plate, or steel beam. (R602.7 & T.602.7(1))
- Maximum rafter spacing is 24in. on center, rafter and ceiling joist must be sized base on spacing and span. Other spans and spacing can be utilized and should be verified by referencing the code span chart. (R802.4 & T.802.4.1(3), T.802.4.1(4))
- Roof sheathing may be 1” nominal dimension lumber or plywood / oriented strand material (OSB) with the proper span stamp, or. (R803.1 & R803.2)

Detached Accessory Structure Slab Specifications Muni Code Sec. 150.03 (28)

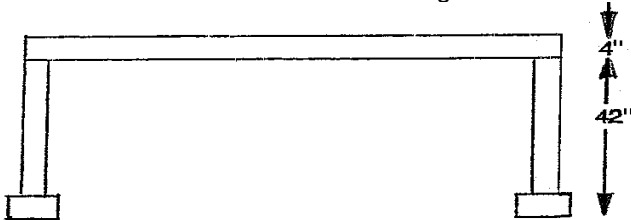
- Garage slabs less than 400 Sq. Ft. may be a plain 4in. thick slab.



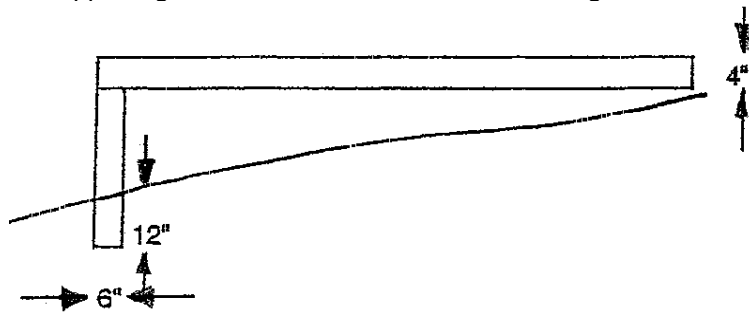
- Garage slabs exceeding 400 Sq. Ft., but less than 1000 Sq. Ft., must have a 6in. X 6in. thickened area around the perimeter of the slab, underneath the 4" slab.



- Garage slabs exceeding 1000 Sq. Ft. must have frost protected footings a minimum of 42in. below grade. Well crumbed out 8in. trenched footings are allowed.



- Garage slabs for those garages smaller than 720 Sq. Ft., but where the site is sloping, must have a supporting wall a minimum of 12in. into the original soil, and the minimum wall thickness is 6 in.



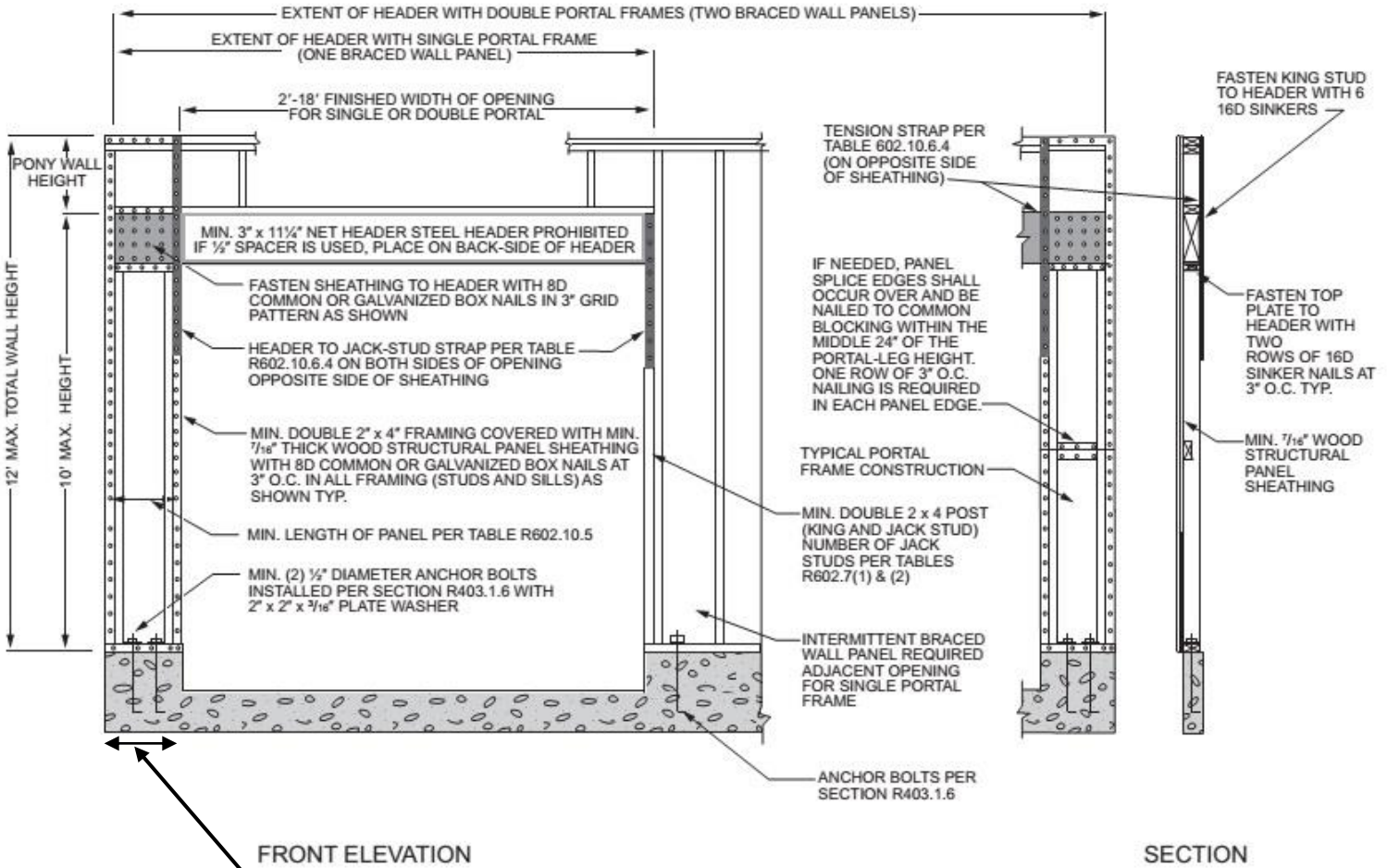
Wall Bracing

Narrow Wall Bracing: large openings in accessory buildings such as garage doors may require additional bracing on one or both ends of your opening when a 48in. wide panel cannot be provided. Larger anchor bolts, hold-downs, and a special nail pattern will be used to achieve this.

See *Narrow Wall detail page3* or IRC 602 for alternative practices. (R602.10.2)

Narrow Wall Bracing

Continuous Sheath - Portal Frame Method



Continuous Sheath - Portal Framing (IRC T.602.10.5)

<u>Header Height</u>	<u>Minimum length of braced panel</u>
8 feet	16 inches
9 feet	18 inches
10 feet	20 inches

Header height max of 10ft, but pony wall may be permitted to 12feet.

Electrical

- If electrical wiring is desired a permit is required. Wiring must conform to the current edition of the National Electrical Code.
- The installer must protect all receptacles with a Ground Fault Circuit Interrupter (*GFCI*). (NEC210.8)
- Non-Metallic Cable (Romex) must be protected from physical damage, so it must be securely attached to the sides of studs and otherwise be inaccessible. (NEC 210.8 & 334.15)
- Receptacles must also be “Tamper Resistant “(NEC 406.12)
- *Grounding electrode*- must be provided for accessory buildings with a subpanel installed. Typically, but not limited to a concrete encased “UFER” would be used on buildings with a foundation and a ground rod would be use for slab on grade construction. See NEC 250 for alternative electrodes. (NEC 250.32)
- *Disconnect means*- must be provided inside or outside the accessory building for either feeders or branch circuits suppling those structures. (NEC 225.31 & 225.39)

Disconnects must have a minimum rating.

One-Circuit installations, limited loads of a single circuit - 15amp minimum

Two-Circuit installations, limited loads of no more than two circuits - 30amp minimum

All others, 60amp minimum

Zoning

GENERAL PROVISIONS

160.25 General Regulations for Land and Structures.

(A) *Accessory buildings*. No accessory building must be constructed upon a lot until the construction of the principal building has been actually commenced, and no accessory building must be used unless the principal building is also being used.

(1) *Detached accessory buildings*.

- (a) No detached accessory building must be erected within the minimum setback required along any street, or within the minimum side yard setback required for a principal structure. Accessory buildings must be located a minimum of ten feet from any other building or structure other than a fence on the same property unless fire protection is installed within the accessory building in accordance with the provisions of the Urbandale Building Code for an attached garage, in which case such minimum separation may be reduced to six feet. An accessory building must not exceed 12 ft. in height, except as provided herein.
- (b) Detached accessory buildings for a single-family residence must not occupy more than 30% of the dwelling's rear yard; must have minimum setbacks of three feet from all property lines if the building's main floor is 720 sq. ft. or less in area; minimum setback of 10 ft. from the rear property line and comply with the minimum side yard setbacks for the principal structure if the building's main floor area is more than 720 square feet but less than 1,000 sq. ft., or if a detached accessory building exceeds 12 ft. but is not more than 14 ft. in height; and must comply with all setback requirements for a principal structure if the building's main floor area exceeds 1,000 sq. ft. of floor area or if a detached accessory building has a height of more than 14 ft.
- (c) Detached accessory buildings for multi-family or nonresidential uses must have minimum setbacks of ten feet from all property lines if the building's main floor has less than 1,000 sq. ft. of area; and must have minimum setbacks of 25 ft. from all property lines if the building's main floor area exceeds 1,000 sq. ft. or if the building has a height of more than 12 ft.
- (d) No detached accessory building may exceed a height of 25 ft. in any case.

(2) *Attached accessory buildings*. Accessory buildings except structures used to house urban or other livestock may be attached to the principal building provided that the accessory building complies with all yard requirements for a principal building, regardless of whether the connection consists of a common wall or a connection by a breezeway or open porch. If the connection is by breezeway or porch, a separation must be maintained between the principal and accessory structures in accordance with division (A)(1) above.

- (3) *Additions creating nonconformity.*
- (a) In the event that a legally existing detached accessory building will be made nonconforming by reason of being placed in a side yard by an addition to a principal building, such existing accessory building may be retained as a legal nonconforming structure provided the following conditions have been met.
- The existing accessory building and the addition to the principal building comply with all other zoning regulations and the Urbandale Building and Fire Codes including but not limited to separation between principal and accessory structures and other regulations specified by divisions (A)(1) and (A)(2) above.
 - The location and design of the addition to the principal building is determined by the Zoning Administrator to be the only reasonable and practical location for the addition.
 - The accessory building has been in existence for a minimum of three years as determined by the date of the certificate of occupancy or other verifiable means.
 - The Zoning Administrator determines that the nonconformity created does not alter the character of the neighborhood nor impair health, safety, or general welfare.
- (b) Such nonconforming accessory building must not be constructed as part of the principal building nor attached thereto by a breezeway or similar structure.
- (c) Such nonconforming accessory building must be subject to the provisions of § [160.59](#) and must not be extended, enlarged, reconstructed, moved, or structurally altered except when required to do so by law or order or so as to be in full compliance with divisions (A)(1), (A)(2) and (A)(3) above and other applicable regulations and requirements of this and other applicable codes, and if damaged to the extent of more than 50% of its assessed value, or is abandoned or becomes obsolete, it must not be restored except as to comply with the provisions of divisions (A)(1), (A)(2) and (A)(3) above and all other applicable regulations and requirements.
- (d) If a building permit is denied by the Zoning Administrator because of failure to meet divisions (A)(3)(a)1. through (A)(3)(a)4. above or for other reasons specified by this Code, the applicant may appeal the decision to the Board of Adjustment.
- (4) *Providing area for accessory structures.* Area should be provided for accessory buildings on properties zoned for detached single-family residences by preserving an area upon which a 22 ft. X 22 ft. detached structure or a 12 X 22 ft. attached accessory structure can be in compliance with all applicable regulations. Such area and access thereto must have a slope of 5% or less and be suited for the intended purpose. Failure to include such provisions must be grounds for rejecting plans for a principal structure or additions thereto.