

Washoe County PLAN SUBMITTAL

Residential Accessory Structures (Garage, Shed, or Barns)

July 2016

PERMITS+PLUS
ZONE



Washoe County
1001 East Ninth Street
Reno, NV89512

GUIDELINES

The following is an outline of the requirements for a residential accessory building not intended for dwelling (i.e. garage, shed, or barn). This guide is for reference purposes only and may not include all items needed to complete the plan review process.

General Information

- Detached garages, sheds, barns and other detached structures may not be located within the required setbacks of a property or lot. See Planning for all setback questions.
- Structures greater than 200 square feet require building permits.
- Structures less than 200 square feet do not require building permits but the structures must still meet the setback requirements and be built to meet the building code requirements.

1. Prerequisite

- **Architectural Committees (NRS 278.563):** If the project is located in an area that has an architectural committee that is registered with Washoe County, architectural committee approval is required prior to submitting your plans to the building department.

2. Plan Sets Required for Submittal

- All plans and engineering must be stamped and signed by a Nevada licensed/registered design professional. (See Plan Requirements)
- Two complete sets of plans plus four sets of architectural & site plans for other agencies. Two additional site plans if lot has a septic system. (For additional septic information, see requirements below.)
- Provide two (2) stamped and signed engineering calculations for the project.
- All drawings shall be firmly bound and on the same size paper with a recommended minimum paper size of 18" x 24".
- Plans and details must be legible, clear, drawn to scale, and fully dimensioned.

3. Site Plan Requirements

The following information shall be present on either the title sheet or on the site plan:

- Owners name & contact information.
- Project address & Assessor's parcel number.
- Show vicinity map, north arrow, date and scale (preferred 1" = 40').
- Show all property lines, with distances, dimensions, and total area.
- Existing topography on sites with a slope of greater than 10% and proposed grading shall be shown with contour intervals of not more than two feet.
- Show location of any watercourse and/or natural drainage channel, bodies of water and 100-year floodplains within 100 feet of subject property.
- Show location of right-of-way, access and utility easements, street and/or driveway serving the structure.
- Slope of the access shall be a maximum of 14%. Show the driveway width and length.
- Show required front, side and rear yard setbacks.
- Show all public utilities, drainage, and easements. Structures shall not be located on any easements.
- Show all structures, existing and proposed, including dimensions, height, location and use.
- Show type and location of any slope stabilization and/or retaining walls including heights and finished grades.
- Show grades and drainage details. Surface drainage shall be diverted to a storm sewer conveyance or other approved point of collection so as to not create a hazard. Lots shall be graded to drain surface water away from foundation walls. The grade shall fall a minimum of 6 inches within the first 10 feet.

Exception: Where lots lines, walls, slopes or other physical barriers prohibit 6 inches of fall within 10 feet, drains or swales shall be constructed to ensure drainage away from the structure. Impervious surfaces within 10 feet of the building foundation shall be sloped a minimum of 2 percent away from the building.

- Grading information needs to include amount of disturbed area and cubic yards of excavation and fill.
- Show location of mechanical equipment.
- Show all fire hydrants within 200' of the property

4. Addition Site Plan Requirements for Septic Systems (Health District)

The items below are required to be submitted with septic system construction permit applications as per the Washoe County District Board of Health Regulations Governing Sewage, Wastewater, and Sanitation (S.W.S.). If you have any questions regarding these requirements, or for information on well applications, please contact Environmental Health Services at 328-2434.

- Diagram to scale the location of all proposed or existing on-site sewage disposal system components, including location, length, depth, and width of disposal trenches, location and size of septic tank and a delineated area for future replacement of disposal trench(es). Distances to any part of the septic system shall be shown to the closest property line, and the location thereof shall also be established relative to the building it serves.
- Diagram to scale all areas subject to vehicular traffic and material storage
- Show the location of on-site well with dimensions to the nearest two property lines and to all components of septic systems on site.
- Diagram and locate to the nearest property lines any percolation hole or test trench(s) on the property.
- Diagram the distance to any available sewer system within 400 feet of property line. (If none, so indicate.)
- Indicate the number of bedrooms in the proposed residence.
- Show existing and proposed ground slope of the on-site sewage disposal system area at contour intervals of not more than two feet.
- Diagram the location of water supply line.
- Locate and diagram all septic systems and private wells within 100 feet of site property line. (If none, so indicate.) Show any public well within 200 feet of site property line. (If none, so indicate.)

A construction permit for a new on-site sewage disposal system shall only be issued in conjunction with a building permit application for the building it serves. A building permit application is not required to obtain a construction permit to repair an existing on-site sewage disposal system.

GENERAL REQUIREMENTS

1. Grading (See Grading Handout for more detailed information)

If the project disturbs an acre or more of land, the applicant **must** contact:

- Air Quality Management Division of the District Health Department to obtain a dust control permit.
- Nevada Division of Environmental Protection (NDEP) to obtain a Notice of Intent (NOI) and construction stormwater discharge permit (or waiver).
- Washoe County Engineering Division and submit a Construction Permit Submittal Checklist, a Performance Standards Compliance Checklist and payment of the Construction Storm Water Inspection Fee.

2. Height, Setbacks, & Plumbing Fixtures:

- Detached accessory structures larger than the dwelling may or may not be allowed; contact Planning.
- Must meet established setbacks and height of the regulatory zone. Planning staff can provide property's zoning classification and required setbacks.
- Any plumbing fixtures may require dedicating water rights, paying sewer fees, and recording a covenant stating that the structure will not be used as a dwelling.
- Accessory structures may be situated five (5) feet from the side or rear property line **IF** the height of the detached accessory structure is less than twelve (12) feet measured from natural grade to the mid-point of the roof.

3. Floodplains

- If the structure is in a FEMA floodplain or in an area determined to be a floodplain, there will be additional requirements for construction. There are several options and methods of construction in a floodplain, and the Engineering Division will assist you in determining which methods meet your needs.
- The services of a licensed engineer or land surveyor will be required to complete a FEMA Elevation Certificate. The first part of the elevation certificate is required before a building permit is issued. The second part is required prior to Certificate of Occupancy and can be used to obtain flood insurance for the structure.

4. Fire Department

- Contact your local fire department for fire requirements and access issues.
- For construction requirements mandated by fire hazard area designation see the **Wildland Urban Interface Code (WUI) Guide: Building Construction Requirements** available at http://www.washoecounty.us/building/application_page/index.html.

PLAN REQUIREMENTS

1. Drafting of Plans

- All design documents must be stamped and signed by a licensed/registered design professional.
- Plans drawn by persons **not** licensed/registered by the Nevada State Board of Architecture or the Nevada State Board of Registered Professional Engineers & Land Surveyors, cannot be accepted.

Exceptions:

1. An owner builder may prepare plans for use with his own residential construction. This does not exempt the owner builder from any engineering requirements set forth in the building code or by Washoe County.
2. Plans submitted by a licensed contractor under the provisions of NRS 623 who provides his own drawings for his own construction activity.

2. Engineering Requirements

Structural engineering is required if the ground snow load (See table below) is more than 70 pounds per square foot, exceeds the prescriptive design requirements, or exceeds 25' length braced wall line.

- Provide two (2) stamped and signed engineering calculations for the project.
- All engineering requirements are to be shown on plans.
- The project engineer or architect shall wet stamp and seal all engineered plan sheets.

Table 1608.2.1 – Ground Snow Loads Pg, for Northern Nevada Locations

Elevation In Feet	WEST of U.S. Hwy 395 Sierra slope Carson, Douglas, Washoe , Reno	EAST of U.S. Hwy 395 Carson, Douglas, Washoe Counties, Reno & Sparks	Lyon County	Storey County	All Nevada Counties Lake Tahoe Basin
	Pg (Pounds Per Square Foot)	Pg (Pounds Per Square foot)	Pg (Pounds Per Square foot)	Pg (Pounds Per Square foot)	Pg (Pounds Per Square foot)
4500	30	30	10	10	
5000	30	30	30	10	
5100	41	31	31	10	
5200	52	33	33	10	
5300	64	34	34	10	
5400	75	35	35	10	
5500	86	37	37	50	
6000	142	43	43	70	220
6500	171	43	43	90	235
7000	200	57	57	90	250
7500	215	57	57	90	265
8000	229	86	86	90	280
8500	243	86	86	90	295
9000	271	114	114	114	330
9500	300	142	142	142	390
10000	357	142	142	142	420
<ol style="list-style-type: none"> 1. Drift load design in the 30-psf zones may utilize ASCE 7-10 Table C7-1 ground snow values. 2. The final roof design loads shall not be less than 20 psf after all reductions are factored, except for Lyon County. 3. Intermediate values may be interpolated by proportion. 					

Special Wind Region - Basic Wind Speed, Exposure & Risk Category

- Washoe County is in a Special Wind Region.
- Minimum basic wind speed within Washoe County is 130 MPH (V_{ult}), Exposure C, and Risk Category II.

Seismic Design - IBC Chapter 16, Section 1613

- The seismic design for structures within Washoe County shall be based on the response parameters and equations of Chapter 16. Use Category 'D2' for single family residential structures designed to the IRC.

4. Energy Calculation Forms

- All energy compliance forms must meet the currently adopted International Energy Conservation Code.
- Design may be done prescriptively or calculated and submitted by REScheck or similar software. REScheck is available as a free download from the Department of Energy at www.energycodes.gov.
- Insulation values should be clearly labeled on all plans including building sections. A prescriptive form that does not require a computer is also available at the department's website.

5. Truss Calculations

- Two (2) sets of stamped and signed truss calculations shall be submitted at time of application.
- Calculations must be site specific, either with address or Assessor's Parcel Number.
- All Truss locations are to be identified on the roof-framing layout.
- An approval letter from the project engineer is required that includes the following information:
 - i. Date
 - ii. Project Address
 - iii. Owner's Name
 - iv. Contractor
 - v. Permit Number
 - vi. Truss Manufacturer and date
- Project engineer signature and wet seal stating, "This letter is to certify that I have reviewed the attached truss calculations for the above address, prior to submitting to the Building Department, and find them to be in compliance with the plans and specifications (including, but not limited to, connections, truss loads, load path, bearing points, etc.)."

6. Floor Plan

- Label the function of each room.
- The preferred minimum architectural scale of $\frac{1}{4}'' = 1'$ should be used.
- Show the location of all plumbing fixtures.
- Show water heater and furnace sizes.
- Show all walls and partitions.
- Show all appliances/washer and dryer.
- Show all windows and doors (Include all sizes and types).
- Show shear walls and shear wall schedule.
- Show guardrail type, height, and rail spacing.
- Show fireplace and hearth, including wood or pellet stoves. (Show size and type).
- Show landings at all exterior doors.
- Show size and location of skylight openings (If glass, include manufacturer's information).
- Show width, rise and run of all stairways.

7. Foundation & Floor Framing

- Show size and location of all foundations and piers.
- Show size, span, and spacing of all floor-framing members.

- Show size and spacing of all anchor bolts.
- Show hold-downs and attachment.
- Show all post/beam size (Include connectors used).
- Indicate type of floor sheathing and attachment information.
- Show stepped footings, basement walls, and stem wall footings.
- Show size and location of under floor access and cross ventilation.
- Show deck and porch footings/piers.
- Indicate ground location and size for electrical panel.
- Show separate floor framing layout for upper floors.

8. Elevations

- Show all sides of proposed project.
- Show all exterior grades, floor, and roof heights.
- Show types of material to be used such as roofing material, siding, etc.
- Show all posts, decks, overhangs, and details.
- Show foundation and attic vents.
- Show windows and doors matching location on floor plan.
- Indicate roof pitch.
- Indicate ice dam material.
- Indicate building heights of main structure and all other structures to be built on the property as measured from final grade.
- Show height of decks from lowest point of final grade and distance from property line.
- Show elevation of all stories of all structures.
- State composition and color of all siding and roofing materials.

9. Roof Framing Plan

- Show size, span, and spacing of all framing members
- Each individual truss shall bear the same designation as the truss calculations
- Show size and location of all beams, headers and posts
- Show size and type of all framing hardware such as hangers, clips, straps, etc.
- Indicate roof sheathing and connection to framing members.
- Show location of fireplace chimneys and skylights.
- Show size and location of all ridges, hips, and valleys.

10. Electrical

- Size and location of all electrical panels.
- Location of all electrical receptacles, light fixtures, switches, AFCI outlets, GFI outlets, etc.
- Location of all exterior fixtures and outlets.
- Size of electrical ground.
- Size and location of all furnaces and cold air returns.
- Location of A/C-D/C interconnected smoke detectors.

11. Cross Sections

- Show a minimum of one (1) complete **detailed** building construction cross sections.
- Size, span, and spacing of all framing members.
- Show all insulation, (floor/roof/wall).
- Piers, girders, posts, and hangers.
- Sheathing and nailing (floor/roof/wall).
- Anchor bolts.
- Sheetrock, (type and thickness).

- Decks, and deck framing.
- Footing size and depth (include rebar size and spacing) 24" frost line.
- Rafters/trusses, roof framing.
- Floor blocking.
- Roof overhangs, ceiling joists (Show sizes and details).
- Top plates, studs, and sole plates (Show sizes and details).
- Complete construction cross sections of fireplace and chimney framing.
- Type of material to be used under cantilevered floor joists.
- Rim joists (Show sizes and details).
- Shear transfer from roof through foundation.
- Insulation.

12. Details

- Minimum scale 1/2" = 1'
- Show all engineering details and schedules shown or referenced in structural calculations.
- Footings, piers.
- Post to girder.
- Pier to beam.
- Header connections.
- Roof eaves.
- Pony walls, drag strap connections.
- Interior footings.
- Girder truss-to-truss connection.
- Beam to joist connection.
- Top plate splice.
- Retaining walls, etc.
- Deck to house, roof to house, walls-porch to house.

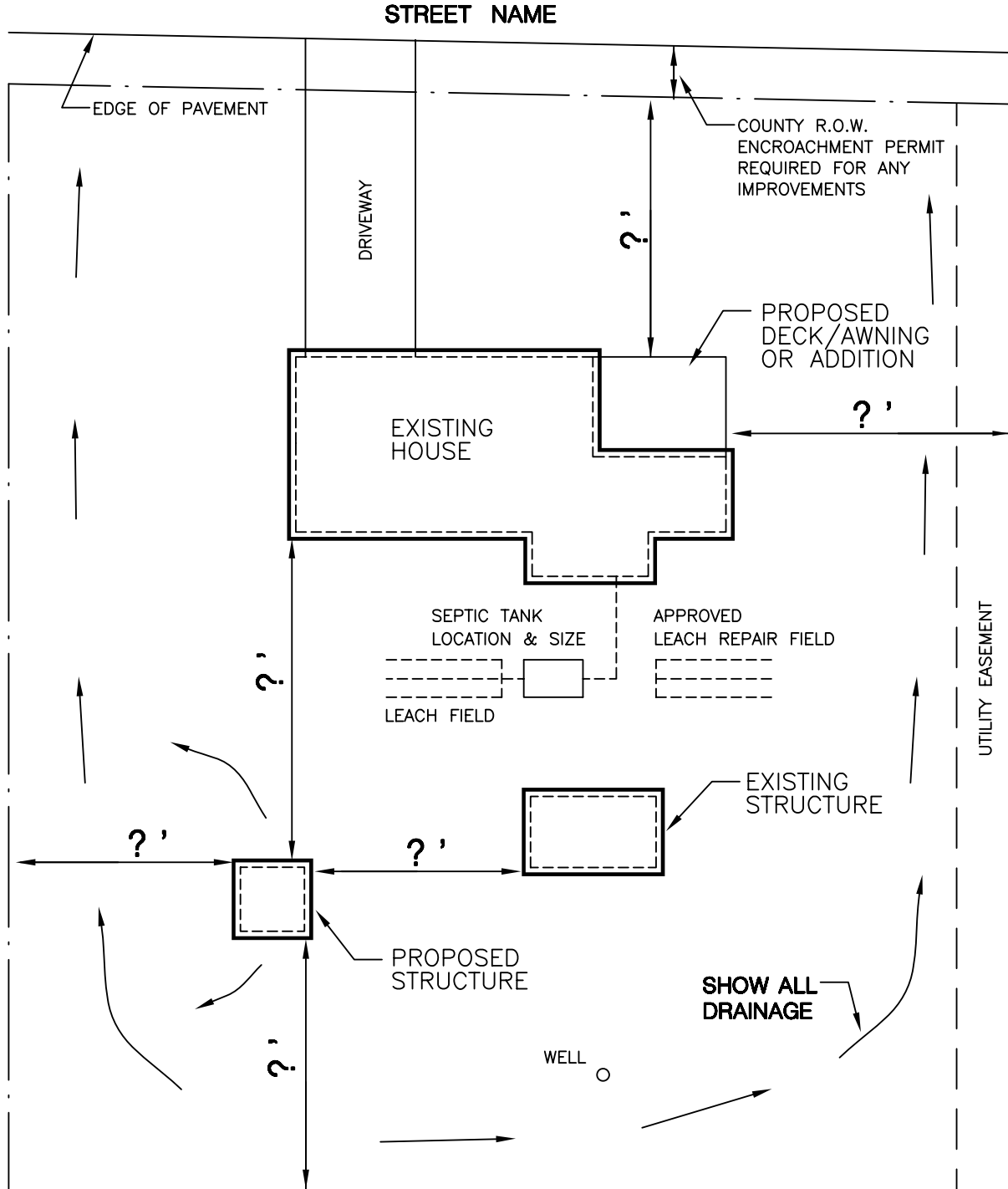
CHECKLIST

- SHOW ALL DIMENSIONS BETWEEN STRUCTURES
- SHOW NEW STRUCTURE DIMENSIONS
- SHOW DISTANCES TO PROPERTY LINES
- SHOW PROPANE TANK LOCATIONS
- SHOW DISTANCES FROM WELL TO LEACH FIELDS
- SHOW ADDRESS & PARCEL NUMBER
- SHOW SEPTIC TANK LOCATION & SIZE
- SHOW ALL UTILITY & ACCESS EASEMENTS
- ** ADDITIONAL GRADING INFO MAY BE REQUIRED

NAME:

ADDRESS:

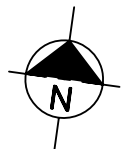
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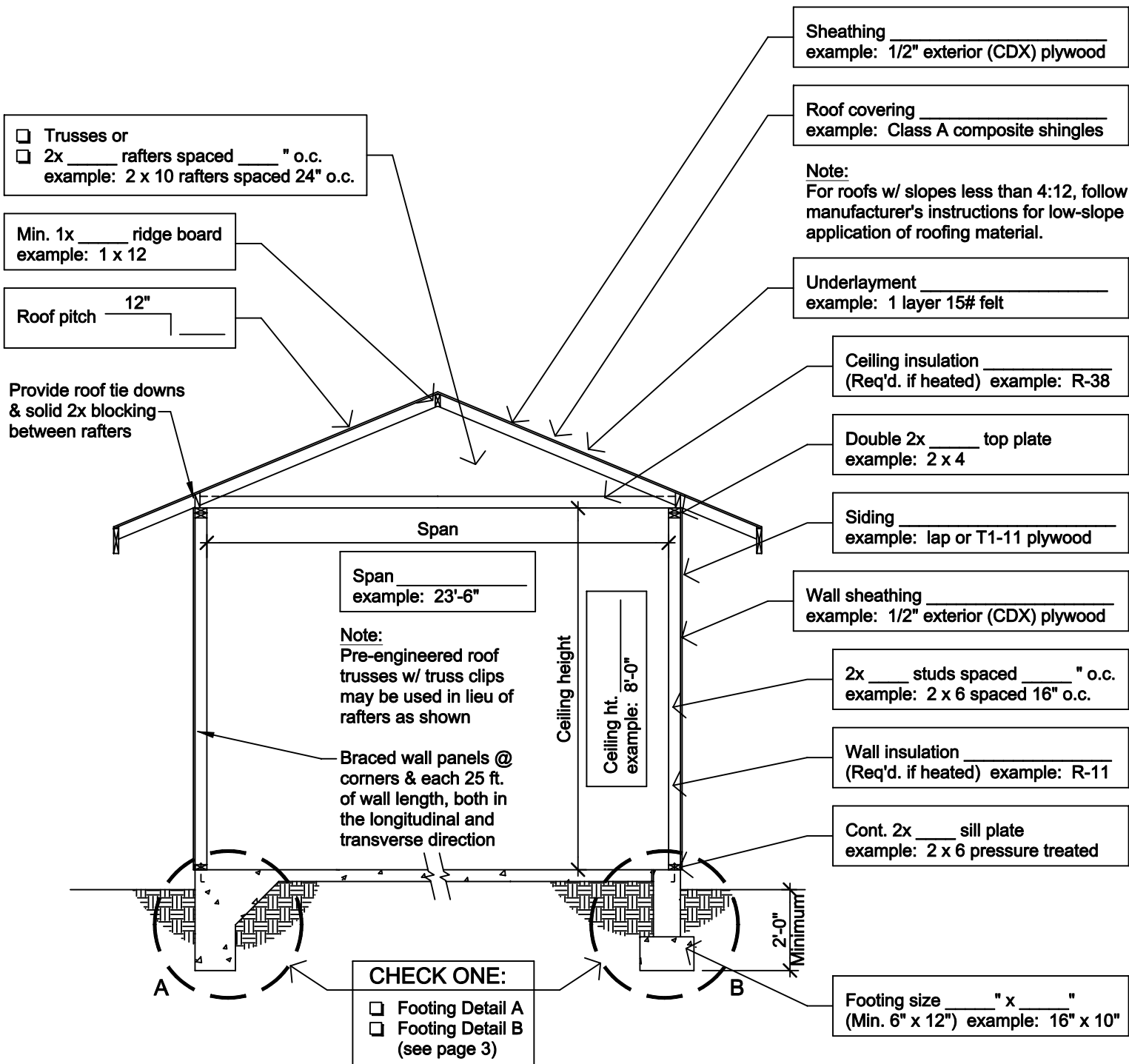


PLOT PLAN EXAMPLE

SCALE (1" = 30'-0" IS RECOMMENDED)

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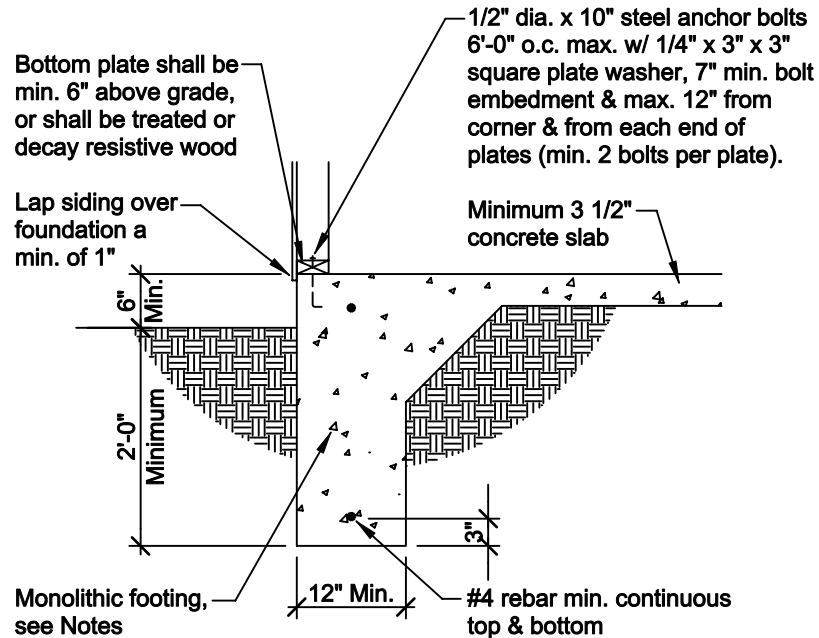




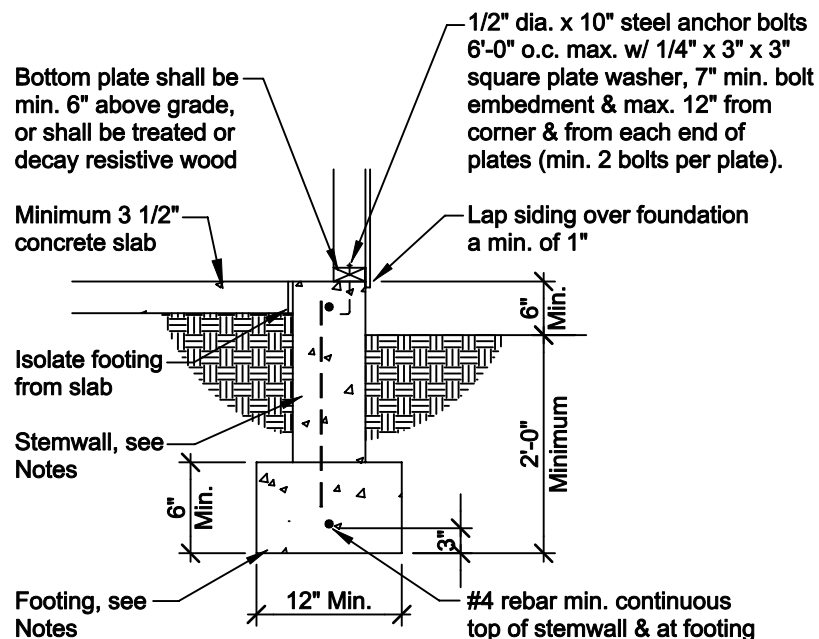
Building Section

Foundation Notes:

1. A soils suitability letter may be required after visual inspection of soils during footing inspection.
2. Footings & foundations shall be constructed of masonry, concrete, or treated wood in conformance with the International Building Code (IBC) and shall in all cases extend below the Frost Line. The Frost Line referred to shall be defined as 24" below finished grade. Footings of concrete & masonry shall be of solid material. Foundations supporting wood shall extend a minimum of 6" above the adjacent finish grade.
3. Minimum footing dimension shall be specified in IBC Table 1805.4.2. There shall be a min. of one (1) #4 continuous reinforcing bar (rebar) in the top 1/3 of all foundation stemwalls, and one (1) #4 continuous rebar in the footing. When the footing & stemwall are placed separately or when the stemwall exceeds 24" in height, #4 vertical bars @ 48" o.c. (32" o.c. with concrete block) shall be used to connect the footing with the foundation stemwall. When engineering date is provided, the footing & stemwall steel requirements may be reduced.



Detail A



Detail B