



Building Division  
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Arcata CA 95521  
707-822-5956  
permits@cityofarcata.org

# NEW RESIDENTIAL AND ADDITIONS CONSTRUCTION CHECKLIST

Use this checklist when submitting a building permit application for new residential construction and expanding the footprint of existing structures. *Incomplete submissions cannot be accepted.*

## **PLEASE NOTE – OTHER POSSIBLE PERMIT AND COMPLIANCE REQUIREMENTS:**

**Water Meters and Sewer Connections** may be necessary, and separate applications are provided for these by the Building Division. Fees for these may change and are determined by the Engineering Department during the plan review process.

**Encroachment Permits** are required if work will be performed in any public right-of-way. An application and insurance needs can be found at [www.cityofarcata.org/268/Forms-Applications](http://www.cityofarcata.org/268/Forms-Applications). The permit is processed through the Engineering Department.

**Land Use Code Compliance** can be reviewed with the Planning Division, and is recommended even when no planning permit is required. Call 707-822-5955 to speak with a planner.

**Sewer Lateral Certification** is required for remodels valued over \$30,000, when 2 or more drainage fixture units (DFUs) are added, and when a home is sold.

## **NEW SINGLE FAMILY RESIDENCE OR RESIDENTIAL ADDITION MINIMUM SUBMISSION REQUIREMENTS**

5 copies of site plans showing location of utilities. Include Stormwater Information Sheet.

3 copies of construction plans (4 copies if not in a plot development).

2 copies of California Energy Code calculations Title 14 (may be on plans).

2 copies of structural calculations.

2 sets of engineer stamped truss drawings.

2 copies of manufacturer's proprietary floor system design layout with all requirements (I-Joint, Open-web, etc.).

1 copy of Construction & Demolition Waste Management Plan.

*See following pages for specific plan requirements.*

## **GARAGE CONVERSION / EXPANSION MINIMUM SUBMISSION REQUIREMENTS**

3 copies of site plans showing location of utilities. Include Stormwater Information Sheet.

3 copies of construction plans.

2 copies of California Energy Code calculations (may be on plans).

1 copy of Construction & Demolition Waste Management Plan.

**NOTE:** *For garage conversions only, use the Residential Alteration Checklist form for construction drawings information and specific plan requirements.*

## **MOVED BUILDING MINIMUM SUBMISSION REQUIREMENTS**

5 copies of site plans showing location of utilities. Include Stormwater Information Sheet.

3 copies of foundation plan

3 copies of plans showing all new and existing framing members and bearing walls

2 copies of California Energy Code calculations Title 14 (may be on plans).

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Any new portions of the structure must comply with the requirements of the 2015 California Residential Code (CRC) or 2016 California Building Code (CBC); the 2016 California Plumbing Code; and the 2016 California State Energy Code.

See following pages for specific plan requirements.

**NOTE: The City of Arcata enforces the 2016 California Residential Code.** Design Criteria for Arcata for CRC Table R301.2.(1) are as follows:

Seismic Design Category	D2 and E
Wind Speed	85 MPH
Ground Snow Load	0
Frost Line Depth	5"
Winter Design Temp	38
Mean Annual Temp	50
Ice Shield Underlayment	Not Required
Air Freezing Index	0 – 1,000

Subject to Damage From:

Weathering	Moderate
Termite	Moderate to Heavy
Decay	Slight to Moderate

Flood Hazards:

NFIP
Map Date November 4, 2016
FIRM & FBFM
Zones AE, AH, AO, AR, A99, D, V, VE & Zone X

## GENERAL REQUIREMENTS FOR ALL CONSTRUCTION DRAWINGS:

Plans must be of sufficient clarity to indicate the location, nature, and extent of the work proposed and show that it will conform to the provisions of the adopted Codes and ordinances.

Acceptable drawings sizes are 24" x 36" or 22" x 34" and drawn to an appropriate scale as described below. Plans must be drawn in indelible ink. Plan sheets that are cut and pasted, taped, or that have

been altered by any means (pen, pencil, marking pens, etc.) will not be acceptable for plan review. Provide an electronic copy in addition to hard copies.

Show address or addresses as applicable.

California State law requires that any registered professional who prepares or supervises the preparation of drawings and construction documents stamp and sign such documents. Where multiple copies of stamped submittal documents are submitted, at least one set must bear an original wet seal.

## SITE PLAN Requirements

Provide scale and north arrow. Use an Engineering scale (not an architectural scale). Preferred scale is 1" =20', or maximum 1" =40'.

Show property lines, including lengths and bearings.

Label streets and tracts on the site plan.

Show contour lines and existing grade on lot at 2-foot intervals. For a flat lot, provide elevation readings at corners of lot and house.

Show proposed grade elevations, finished floor elevations, and directional arrows to show surface drainage.

Show the sizes, locations, and uses of existing and proposed buildings, and on-site parking.

Show dimensions of setbacks of structure(s) from all property lines.

Show the location of existing and proposed utilities (water, sewer, storm water stub-out, gas, and electricity).

Identify any existing structures, or portions thereof, that are to be removed or demolished.

Indicate the location and dimensions of driveways and describe paving materials. If applicable, show connectivity of driveway from edge of existing street pavement to property

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with an asphalt apron, or show curb, gutter & sidewalk with driveway opening.

Show all easements (public and private), tracts, and right of ways, i.e. utility, railroad, ingress and egress, drainage, water, sanitary sewer on the property with labels and dimensions.

Show all trees to be retained or planted. (Not required for additions.)

Show connection to the storm stub-out.

List the lot square footage, total impervious area (including driveway) in square feet and the total percentage of lot coverage. Plans should denote square footage of any new or replaced impervious surface.

Show all manmade or natural features on-site and adjacent to the site, i.e. streams, creeks, drainage ditches, railroad tracks, lakes, natural areas, etc.

Show and label any appurtenances adjacent to the property such as street lights, telephone or street light junction boxes, mailboxes or fire hydrants that may impede driveway access.

## **SOILS REPORT Requirements**

Investigation and analysis of soils per CRC Sec. 401 prepared by a California State licensed geotechnical engineer will be required under the following conditions:

When foundations are supported by fill material, unless the foundation design is based on 1500 psf.

For structures on or adjacent to slopes when the building clearance from ascending or descending slopes is less than shown in CRC Figure R403.1.7.1 (below). Foundation Plan - See CRC Chapter 4 Provide scale (1/4" or 1/8") and north arrow.

<b>Table R401.4.1 – Presumptive Load bearing Values of Foundation Materials</b>	
<b>Class of Material</b>	<b>Load Bearing Pressure (pounds per square foot)</b>
Sandy gravel and/or gravel (GW and GP)	3,000
Sand, silty sand, clayey sand, silty gravel and clayey gravel (SW, SP, SM, SC, GM and GC)	2,000
Clay, sandy clay, silty clay, clayey silt, silt and sandy silt (CI, ML, MH, and CH)	1,500
For SI: 1 pound per square foot = 0.0479 kN/m <sup>2</sup> .	
a. When soil tests are required by Section R401.4, the allowable bearing capacities of the soils shall be part of the recommendations.	
b. Where the building official determines that in-place soils with an allowable bearing capacity of less than 1,500 psf are likely to be present at the site, the allowable bearing capacity shall be determined by a soils investigation.	

*NOTE: Building sites on hillsides and with slopes ≥ 15% within RVL zoning may require a Hillside Development planning permit. Check with the Planning Division at 707-822-5955. See Land Use Code 9.52.70 for more information at <https://www.codepublishing.com/CA/Arcata/>.*

## **FOUNDATION PLAN Requirements**

Show dimensions of perimeter foundation, isolated footings, concrete slabs, patios, porches, landings, and deck supports.

Provide complete foundation sections and details showing the minimum foundation sizes required by the 2016 CRC Sec. R403 and R404, or approved structural design.

Clearly indicate the locations and sizes of exterior and interior bearing footings / foundations. Specify pier sizes (show thickened footings where posts are supported on exterior footings where necessary to support imposed loads).

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All required hold-downs shall be shown on the foundation plans and shall be consistent with engineering when building has been engineered.

Show the locations, sizes, embedment and spacing of anchor bolts and hold-downs. Foundation plates or sills shall be bolted to the foundation or foundation wall with not less than ½" bolts embedded at least 7" into the concrete or masonry spaced not more than 6' apart. There shall be a minimum of two bolts per piece with one bolt located not more than 12" or less than 7 bolt diameters from each end of the plate section. CRC Sec. R403.1.6. and CRC Sec. R403.1.6.1.

A properly sized nut and washer shall be tightened on each bolt to the plate. CRC Sec. 403.1.6.1. Washer size to be 0.229 inch by 3 inches x 3 inches in size per CRC Sec. R602.11.1.

For engineered buildings, the size and spacing of all anchor bolts shall be shown on the shear wall schedule. Shear wall schedule shall be shown on the plans and be consistent with foundation sections.

Foundations with stem walls shall be shown with a minimum of one No. 4 horizontal bar located in the upper 12 inches of the wall per CRC Sec. R403.1.3. Additionally, stem walls shall be provided with a minimum of one No. 4 bar at the top of the wall and one No. 4 bar at the bottom of the footing per CRC Sec. R403.1.3.1. See CRC Sec. R403.1.3 for additional requirements from footing to wall connection.

Specify the size and spacing of required reinforcing steel. Specify thickness of concrete cover over rebar.

A CA State licensed professional engineer shall design all foundation / retaining walls over eight feet in height (measured from the bottom of the footing to the top of the wall) to retained material in accordance with accepted engineering practices per CRC Sec. R404.1.3

A CA State licensed professional engineer shall design all retaining walls that are 4 feet or more in height measured from the bottom of the footing to the top of the wall, or are supporting a surcharge, or impounding Class I, II, or IIA liquids per 2016 CBC 105.2.

Foundation Walls up to 8' shall comply with CRC Sec. R404.1.4 and Table R404.1.1.(1)

Specify at least a 3½" thickness for concrete slab-on-ground floors per CRC Sec. R506.1 and specify the concrete compression strength per CRC Sec. R402.2.

Provide under-floor ventilation equal to 1 square foot of net opening for each 300 square feet of under floor space area per CRC Sec. R408.2 (except space occupied by a basement). One such ventilation opening shall be within 3 feet of each corner of said building, except one side of the building shall be permitted to have no ventilation openings. Ventilation openings shall be covered with materials listed at CRC Sec. R408.2.

Show a 6-mil black polyethylene ground cover (vapor retarder) overlapped 12 inches minimum at the joints and extending to the foundation wall per CRC Section R408 or beneath slab on grade per CRC Sec. R506.2.3.

Carport & Garage floors surfaces shall be of approved noncombustible material. Floors shall slope to a drain or vehicle door. CRC Sections R309.1 and R309.2.

Lots shall be graded so as to drain surface water away from foundation walls. Grade away from foundation walls shall fall 6" minimum within the first ten feet. CRC Sec. R401.3

## **FLOOR PLAN Requirements**

(1/4" or 1/8" scale)

Submit a fully dimensioned floor plan for each floor, including basements. Label each room or area with intended use.

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Specify project square footage on floor plans. Provide complete breakdown.

Show window and door locations, sizes and types.

Specify header size and type over each opening.

Show beam locations, materials, grades, spacing and sizes. Show posts under beams. Show post support.

Show locations of plumbing/heating fixtures and equipment.

Show the location of a minimum 18" x 24" crawl space access per CRC Sec. R408.4.

Show minimum 22" x 30" attic access per CRC Sec. R807.1.

Show smoke detectors (alarms) installed in each sleeping room, at a point centrally located in the corridor giving access to each separate sleeping area, and on each floor including basements. CRC Sec. R314.3. When more than one smoke alarm is required, they shall be interconnected.

Additions, alterations, and repairs require smoke alarms located as required for new dwellings. For exceptions in existing dwellings, see CRC Sec. R314.2.2.

Show location of carbon monoxide alarms and listing complying with UL 2075 per CRC Sec R315.

Identify on the drawings all locations of safety glazing as required by CRC Sec. R308 and R308.4.7, such as windows, adjacent doors, glazing in walls and surrounds for bathtubs and showers, and glazing within 5 feet of stairs.

Show compliance with CRC Sec. R302 for; construction, projections, openings, and penetrations of exterior walls.

Show hallway minimum width of 36" as per CRC Sec. R311.6.

Bathroom fixtures shall be spaced as per Chapter 4 CPC 2016.

Automatic garage openers, if provided, shall be listed and labeled in accordance with UL 325 per CRC Sec. R309.4.

## **FRAMING PLAN Requirements**

(1/4" or 1/8" scale)

Identify on the drawings all interior and exterior braced wall lines and braced wall sections as required by CRC Sections R602.10, and R602.11.

Braced wall lines shall not exceed 25 feet on center in both the longitudinal and transverse directions in each story, unless accepted in CRC Sec. R602.10.1.5.

All braced wall panels shall be clearly indicated on the plans. Braced wall panels shall start at not more than 10 feet from each end of a braced wall line – CRC Sec. R602.10.1.4.1.

Each braced wall panel length shall comply with CRC Sec. R602.10.3.

Buildings that are not provided with braced wall lines in accordance with CRC Sec. R602.10, or that are of unusual shape as described in CRC Sec. R301.2.2.2.5, shall have a lateral-force-resisting system designed to resist the forces specified in CRC Sec. R301. A California State licensed professional engineer shall stamp structural calculations. Plans shall be consistent with engineer's calculations and a complete shear wall schedule shall be shown on the plans.

Drawings must clearly show the sizes, species, grades, spacing and spans of all framing members.

Show floor joists sizes, directions of run, spans and spacing.

If I-joists are used, also submit the manufacturer's proprietary floor system design layout with all requirements.

Show ceiling joists, trusses, and roof rafter sizes, directions of run, spans and spacing. If trusses, also submit engineered truss sheets and cross-referenced lay-out plan.

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Show on the drawings the numbers and sizes of nails connecting wood members, or include on the drawings CRC Tables 602.3.(1) and 602.3.(2).

Connections that resist seismic forces shall be completely and clearly detailed on the drawings. All of the engineer's requirements must be shown on the drawings. Show the locations and specify the brand names and model numbers of all framing connectors.

Specify on the drawings the panel identification indexes for plywood and particle board floor and roof sheathing – CRC Sec. R503.2 and R604, respectively.

Clearly show bearing and shear walls. Provide nailing schedules.

Show posts under all beams. Specify sizes, grades. Show connections top / bottom.

Where decks are shown, provide complete framing plans including sizes, grades, spacing, and species of all framing members including posts, lateral bracing, and guards. Show sizes and depths of concrete footing pads. Show all connections.

Where supported by attachment to an exterior wall, decks shall be positively anchored to the primary structure and designed for both vertical and lateral loads as applicable. Where positive connection to primary structure cannot be verified by inspection, deck must be self-supporting – CRC Sec. R502.2.2. Deck ledgers connected to a band joist must be connected with minimum one-half inch diameter hot-dipped galvanized or stainless steel lag screws or bolts – CRC R507. Lateral load connections are permitted to be in accordance with R507.2.2.3 and Figure R507.2.3. Where positive connection to primary structure cannot be verified by inspection, deck must be self-supporting – CRC Sec. R502.2.2.

Each dwelling unit shall have one exit door that is side-hinged and provides a minimum clear

width of not less than 32 inches and a minimum clear opening height of not less than 78 inches – CRC Sec. R311.2.

Show landings at doors. The width of each landing shall not be less than the door served and a minimum length in the direction of travel of not less than 3 feet. Exterior door shall have an interior landing not more than 1½" lower than the top of the threshold, and an exterior landing not more than 7¾" below the top of the threshold if the door does not swing over it – CRC Sections R311.3 and R311.3.1.

Show dimensions of stair treads and risers. Maximum riser height shall be 7¾" per CRC Sec. R311.7.5.1, and minimum tread depth shall be 10" per CRC Sec. R311.7.5.2.

Show 6'8" minimum headroom in stairway, as per CRC Sec. R311.7.2.

Show landings for stairways – CRC Sec. R311.7.6.

Show handrails for stairways – CRC Sec. R311.7.8.

Show maximum slope of one unit vertical in twelve units horizontal for all ramps – CRC Sec. R311.8.

Show exterior windows and glass doors comply with CRC Sec. R308.

Wall construction, including fire blocking (CRC Sec. R302.11), notching and drilling (Sec. R602.6) shall comply with CRC Chapter 6 and CRC R302.11.

Wall covering shall comply with CRC Chapter 7.

Roof-Ceiling construction shall comply with CRC Chapter 8.

Roof Assemblies shall comply with CRC Chapter 9.

Chimneys and Fireplaces shall comply with CRC Chapter 10.

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## ELEVATIONS Requirements

Specify the height above finish grade to a) finished floor; b) top plate/ceiling; c) highest point of structure.

Specify all finished materials to be used.

Show all doors and windows (distinguish between openable and fixed).

Show finish grade elevations in relation to structure.

Show Height dimensions to top of roof and eaves.

Show eave overhangs and projections.

## BUILDING CROSS SECTIONS Requirements

Blocking, bridging, straps, approved framing anchors or mechanical fasteners shall be installed to provide continuous ties from the roof to the foundation system.

Specify mudsill material (naturally durable wood or wood that is preservative-treated) – CRC Sec. R317 & R318.

Where post and beam or girder construction is used, the design shall be in accordance with the provisions of this code. Detail positive connections to ensure against uplift and lateral displacement – CRC Sec. R407.3.

Wood joists closer than 18 inches, or wood girders closer than 12 inches to grade shall be shown as an approved wood of natural resistance to decay or treated wood – CRC Sec. R317.1.

Show components of wall construction including exterior and interior wall finishes and insulation R-value. Show double top plates at top of stud walls per CRC Sec. R602.3.2.

Habitable rooms above a garage need minimum 5/8" Type X gypsum board or equivalent applied to garage side of ceiling per CRC Sections R302.5

and R302.6, and Table R302.6. See nailing schedule in CRC Table R702.3.5.

Show ceiling construction (sizes and spacing of joists) and R-value of insulation.

Show roof structure (sizes and spacing of joists, rafters, 890 and R-value of insulation. Show insulation baffles.

Enclosed accessible space under stairs shall have walls, under stair surface and any soffits protected on the enclosed side with ½" gypsum wallboard – CRC Sec. R302.7.

Provide full height section through stairways. Show riser and tread framing materials; riser height, tread width; handrail/guard height above tread nosing; and clearance to ceiling above the stairs measured from a line drawn at and parallel to tread nosings per CRC Sec. R311.7.2.

Stairways shall be 36" wide above the handrail which may project no more than 4½" into the stairway. CRC R311.7.1

Illumination required for all stairways – CRC R303.7.

Balconies, porches or raised floor surfaces more than 30" above the floor or grade below shall have guards no less than 36" in height. The open sides of stairs with a total rise of more than 30" above the floor or grade below shall have guards not less than 34" in height measured vertically from the nosing of the treads – CRC Sec. R312.1. The guards shall have intermediate rails or an ornamental pattern such that a sphere 4 inches in diameter cannot pass through per CRC Sec. R312.2. See exception for guard on stairs – CRC Sections R312.3 1 and 2.

Provide window fall protection in accordance with CRC Sec. R312.2.

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## **ROOF PLAN (As Applicable) Requirements**

(1/4" or 1/8" scale)

See CRC Chapter 8 – Roof-Ceiling Construction

Show roof drainage per CRC Section R801.3 where required.

Show sizes, directions of run, spans, and spacing of framing members of all framing members.

Cutting and notching shall comply with CRC Sec. R802.7.

If using trusses, provide engineer stamped truss drawings and cross-referenced lay-out sheet.

Show truss to truss connections on plans.

Show truss to beam connections on plans.

Show truss to wall connections on plans.

Show truss to top plate connection on plan.

Show compliance with ventilation requirements for attic space per CRC Sec. R806.

Detail roof construction including sheathing, underlayment, and roofing material.

Indicate roof pitches.

Show attic access opening in attic areas that exceed 30 square feet and have a vertical height of 30" in buildings with combustible ceiling or roof construction – CRC Sec. R807.

You can obtain proper forms and detailed instructions at: <https://www.energy.ca.gov/title24/2016standards/>

Show compliance with the ventilation requirements of CRC Chapter 5.

## **ENERGY / VENTILATION Requirements**

The plans shall show in sufficient detail all pertinent data and features of the building and the equipment and systems including, but not limited to: design criteria, exterior envelope component materials, U-factors of the envelope systems, R-values of insulating materials, size and type of apparatus and equipment, and equipment controls. Energy code forms should be incorporated into the construction drawings.