

## SUN VALLEY PLAN REVIEW CHECKLIST

All engineers and architects involved in the design of the structure are to seal the related sheets of plans, details and calculations in accordance with the rules of the State Board.

Provide two (2) hard copies and one (1) electronic copy of all applicable drawings. All corrections and revisions shall be made on original tracings or finished reproducible set (do not cloud or provide revision numbers on plans that have not been issued a permit yet). Pen or pencil corrections on final prints will not be acceptable. The Building Official may grant exceptions to this for special circumstances.

### GENERAL:

- Code reference: 2008 NEC, 2009 IRC, IECC, IPMC, IMC, Idaho Plumbing Code, 2012 IBC, IEBC.
- Neat, organized, and legible (min. 1/8" lettering).
- Specify each scale used
- Floor plan scale: min. 1/4" = 1'
- Detail scale: 1/2" to 3/4" = 1'
- Provide consecutive sheet numbers on each construction drawing.
- Completely dimension both architectural and structural plans. (Gridlines are appreciated but not required)

### GENERAL ARCHITECTURAL:

- Provide cover sheet showing site location, legal address, street address, building size, owner, design professionals and contractors. Date issued and revisions.
- Indicate posting of address, 6" letters, 4' above grade, contrasting background and visible from street.
- Buildings over 6000 sq. ft. require automatic sprinkler systems including townhomes. Fire walls do not constitute separate buildings for this requirement.
- Delineate fire and smoke walls, barriers and partitions on both plan and elevations and specify approved assemblies, i.e. UL XXXX or GA 600 #XXX and provide details.
- Provide list of deferred submittals and expected submittal dates.

### GENERAL STRUCTURAL:

- Provide all design criteria including: Seismic, wind, snow, soils, component and cladding, roof and floor loading, importance factors, etc.
- Provide specific special inspections required, continuous or periodic and standards of inspection.
- All braced wall lines, shall be identified on the *construction documents* and all pertinent information including, but not limited to, bracing methods, location and length of braced wall panels, foundation requirements of braced wall panels at top and bottom shown on plans.

### SITE PLAN:

- Show location of all utility lines and meters from property line to building.
- Dimensions of all structures on site, distances from property lines to structures, square footage calculations, and locate any unique topographical areas.
- Show driveway width, slope and turnarounds if required.
- Location of right of way, address monuments and encroachments.
- Show grading and site drainage.

### FLOOR PLANS:

- Label all rooms and spaces. Show floor plan for all rooms and adjoining additions.
- Provide natural light (8%) into all habitable rooms, R303.1.
- Provide natural ventilation for adjacent rooms (4%), or approved mechanical ventilation. R303.1
- Identify ceiling heights in all areas. Note average height at sloped ceiling areas, R305.1.
- Show the location of attic access min. 22"x30", R807.1.
- Show fireplace location, hearth size and materials, R1001 or R1004. Provide fireplace cut sheets or note the requirement for deferred submittal approval prior to installation.

- Water closet location: not less than 30" wide and 24" in front, UPC 407.6.
- Tub/shower enclosures require nonabsorbent wall surface min. 6' above the floor and fiber-cement board backing, R307.2, R702.4.2.

#### **Doors and Windows**

- Show location and size of all doors and windows.
- Provide all window types, and designate the operable portion of windows.
- Provide egress from bedrooms, R310
  - Max sill height = 44",
  - Min. clear opening = 24"H x 20"W @ 5.7sq. ft net (5 sq. ft 1st floor)
- Location of tempered glass, R308.4.
  - Within: 18" of the floor, 24" of doorways, less than 60" above tub/shower floors
  - Adjacent to stairways and landings (36" of a walking surface, less than 60" above)
- One exit door shall be side hinged not less than 3' wide, R311.2.
- Show locations of skylights (dashed lines) on floor plan.

#### **Garage**

- Door from a garage: 20-minute self-closing, self-latching.
- Openings from a garage directly into sleeping rooms are not permitted, R309.1.
- Garages beneath or adjacent to habitable rooms shall be separated by not less than 5/8" type X gypsum board or equivalent, attached 6" o.c. to ceiling and 12" o.c. for walls, R309.2.
- Show the direction of slope for the garage floor, R309.3.
- Gas appliances installed in garages shall be mounted on platforms at least 18" above the floor and protected from impact, M1307.3.

#### **Stairs**

- The walls and soffit of the enclosed space under stairs shall be protected on the enclosed side with 5/8" gypsum board, City Code.
- Provide details and dimensions for stairways. (36" width min, 10" min. tread depth with nosing, 11" without, 7 3/4" max. riser heights, R3117.4.
- Provide a handrail for stairways of four or more risers, R311.7.7.
- Provide guards on open sides of stairs, balconies or walkways more than 30" from grade, R312.

#### **Fire separation**

- Exterior walls with a fire separation distance less than 3 feet shall have not less than a one-hour fire-resistive rating with exposure from both sides. Projections shall not extend to a point closer than 2 feet from the line used to determine the fire separation distance.
- Projections extending into the fire separation distance shall have not less than one-hour fire-resistive construction on the underside, R302.1.
- Individual dwelling units in duplexes must be separated by a 1-hour firewall from floor to bottom of roof sheathing, R302.3.
- Townhouses shall be separated by two one hour walls or one two hour wall with not penetrations extending from the foundation to the bottom of roof sheathing and extending through all projections, R302.2.
- Townhouse parapets shall have the same fire-resistance rating as that required for the supporting walls with a height not less than 30" above the roof, R302.2.2.

#### **FOUNDATION PLANS:**

- Note grade away from foundations shall fall min 6" within the first 10', R401.3.
- Note soil bearing pressure used in the design of the footings, Table R401.4.1
- Note top of foundation to be min. 6" above grade.
- Cross-reference all details to the foundation plans.
- Landing or floor surface required at all exterior doors, R311.3.
- Specify thickness of slabs and reinforcement, vapor barrier and perimeter insulation.
- Location and dimensions for all footings:
  - Fireplaces
  - Sunken or raised areas

- Stair pads
  - Girder truss / Posts or columns
  - Interior bearing walls
- Specify and locate all foundation hold-downs.
  - Note on the drawing that pre-stressed or post-tensioned slabs shall be permanently labeled on the slab at the center of the garage door opening as well as with a metal tag indicating 'POST TENSIONED SLAB' permanently attached to the main water shut off valve.
  - Show location of underground supply and return air ducts.

#### **STRUCTURAL/FRAMING PLANS:**

- Specify design criteria on plans. Provide values for floor/roof dead and live loads.
- Specify lumber grade/species, or manufacturer and series for glue-lams and "I" joists, R802.1.
- Show size, spacing and span of all framing members.
  - Trusses, joists, rafters, ledgers
  - Beams, Glue-lams, Lintels, Headers
  - Posts, columns, trimmers and king studs
- Provide a header schedule consistent with Table 502.5(1) or specify size of steel lintels.
- Provide sufficient nailing for each framing member, Table R602.3(1).
- Provide a complete braced wall panel layout including hold-downs and showing panels at the ends (within 12.5') of all wall lines and additional panels centered at least every 25' between, Table R602.10.1. All exterior wall lines shall be braced and parallel interior wall lines shall be braced at intervals not exceeding 35' from exterior wall lines, R403.1.6, R602.10.1.1, R602.10.8.
- Specify materials, and provide a nailing schedule for braced wall panels R602.10.6.
- Provide a continuous load path from the roof sheathing to the foundation, R602.10.8.
- Continuous structural panel sheathing shall comply with Table R602.10.5. All parallel interior wall lines shall be braced at intervals not exceeding 35' from exterior wall lines, R602.10.1.1.
- Provide an engineer's calculation, design, and seal for partition and screen walls exceeding 6' in height above grade on either side, and retaining walls exceeding 4' in height measured from the bottom of the footing to the top of the wall.
- When the roof pitch is less than 3:12, design structural members that support rafters and joists as beams (such as ridges, hips, and valleys), R802.3.
- Truss calculations must be signed, dated and wet-sealed by an engineer who is registered in Idaho. Truss calculations shall be cross-referenced to the floor plans. The engineer of record shall review and stamp the truss drawings.
- Specify gable-end bracing with connections to the structure, R802.10.3.
- Specify eave/overhang length and detail outrigger support.
- Location and size of roof drains/scuppers, UPC chapter 11.

#### **ELEVATIONS:**

- Specify height above grade for finished floors, windows/doors, exterior walls, rooflines, porches, chimneys, etc.
- Provide complete drawings of all patio covers, decks, fireplaces and bay windows.
- Indicate all materials used; stucco, concrete block, glass block, roofing system, siding, veneer, etc. and attachment.
- Provide an attic space ventilation calculation and note the size and location of all attic vents needed to comply, R806.2.
- For thin-coat stucco systems, indicate the ICC #, system name, and vapor barrier, R703.6.
- Specify roof slope and roofing type, underlayment for ice damming, grade of materials, flashings and method of installation, R905.

#### **SECTIONS - DETAILS:**

- Cross-reference all cross-sections to the floor plan and framing plans.
- Detail footing width, height, and depth (min. 24" below grade on undisturbed soil, R403.1.4), Table R403.1.
- Footings under braced walls, R602.10.6.
- Stem walls, Table R404.1.1 (1-4).

- Sill plates that rest on concrete are required to be decay-resistant, and corrosion resistant fasteners, R319.1(2).
- 6" separation of untreated posts or columns above finished grade and 1" above concrete, R319.1.4.
- 6" clearance above grade to untreated exterior wood siding, sheathing and exposed wall framing, R319.1 (5).
- Anchor-bolt spacing, R403.1.6:
- Minimum ½" diameter / Minimum 7" embedment
- Maximum 6' o/c and within 12" of each end
- Quarter-points of alternate braced wall panels, R602.10.6.1
- 6" minimum foundation height above finished grade (4" with veneer), R404.1.6.
- Specify water-resistive barrier over wall framing, R703.6.3.
- Siding: Specify material, type of fasteners and spacing and type of vapor barrier, R301.1, R703.6.3.
- Stucco: Show weep screeds with a min. clearance 4" above grade or 2" above paved areas, R703.6.2.1.
- Veneer: Specify anchoring method, backing, vapor barrier and support (ties spaced max 24" o/c horizontally & vertically, and supporting not more than 2.67sq. ft.), R703.2 & R703.7.
- Show 1" air space between sheathing and veneer R703.7.4.2.
- Completely detail all connections:
- Double joists parallel to bearing partitions
- Double joists and trimmer joists at framed openings (roof and floor)
- Blocking at floor joist ends and bearing walls
- Trusses to top plate (slotted ties for scissor trusses)
- Beam to post, post to slab
- Ledgers to masonry or framing
- Joist to ledger
- Continuous load path for shear transfer (roof sheathing to foundation)
- Stair stringers to wall
- Welded connections require special inspections.
- Specify all hardware used by type, size and required attachment to framing members (Straps, clips, anchors, hangers, post caps and bases)
- Provide draft-stopping at concealed spaces (walls, partitions, furred spaces, ceiling and floor levels, around vents, chimneys/fireplaces, stairs, etc.) R602.8.
- Show the required joist/rafter bearing contact to supporting members, R502.6 & R802.6.
- Detail non-bearing interior wall conditions (floor and rafter/joist connections & gaps).
- Detail all over-framing connections for intersecting pitched roof assemblies. Provide a minimum opening of 22" by 30" for access and ventilation between over-framed assemblies (>30 S.F.), R807.
- Specify wall and ceiling covering. Note: Ceiling gypsum board must be either 5/8" or ½" sag resistant when applied to ceilings framed at 24" o/c, IRC table R702.3.5 footnote d.
- Eave vents require min. 1" clearance between ceiling insulation and roof sheathing, R806.3.

#### **Masonry construction:**

- Show wood beams with 1/2" end clearances from masonry on top, end, and sides, R319.1(4).
- Specify all beam seats.
- Note and specify the size, spacing and length of anchor bolts for top plates and ledgers, R606.11.
- Specify all ledger connections to masonry walls (3x ledger material required), Figure R606.11(1).
- Specify lateral support of masonry walls, R606.9.
- Moisture barriers required between supporting foundations and earthen walls. 30# felt, or equivalent moisture resistant barrier.
- Chimney crickets, R1003.20.
- Masonry fireplaces: dimensions, sections, and firebox plan. State the size of the flue and hearth.

#### **ELECTRICAL PLANS:**

- Show locations of smoke detectors (every sleeping room and hallways leading to). All smoke detectors must be interconnected with a power source from the building wiring, and shall be equipped with battery backup. When ceiling finish materials are not removed, existing bedrooms may be equipped with battery operated smoke detectors, R314.
- Smoke detectors are required in existing buildings when interior alterations occur, R314.3.1.

- Show locations of carbon monoxide detectors (outside each sleeping area close to bedrooms), R315.
- At least one wall switch controlled light or outlet must be provided in bathrooms, hallways, stairways, attached garages, outdoor entrances or exits, and all habitable rooms.

#### **MECHANICAL PLANS:**

- Provide a heated air source to all habitable rooms capable of maintaining a room temperature of 70 degrees at a point three feet above the floor, R303.8, 310.11.
- Provide location of return air ducts and register sizes.
- Designate the location, capacity and fuel type of the heating and air conditioning equipment. Designate the locations of each supply register, return air grill and all ductwork.
- Air intake openings shall be located a minimum of 10' from (any street or alley), or 2 feet below any vent or chimney, R303.4.
- Air inlets shall be located a minimum of 10' from vent openings or exhaust outlets unless the outlet is 3 feet above the air inlet, M1602.2.1.
- Provide an equipment specification list, M1302.1.
- Show location of access, catwalk and working platform for heating or air conditioning equipment located in the attic, M1305.1.3.
- Appliances located in a garage or carport require impact protection, M1307.3.1.
- Show dryer vent size and location for venting to exterior (max 25' w/bend reductions), M1502.2, M1502.6.
- Show exhaust fan locations for bathroom and kitchen venting to the exterior (min 50 and 100 CFM rating respectively), R303.3, M1507.
- Gas fired water heaters may not be located in a storage closet, M2005.2.
- Gas fired water heaters located in a bedroom or bathroom requires a sealed enclosure, M2005.2.
- Show a minimum 2' termination above any roof point within 10' measured horizontally and not less than 3' above the point where a chimney (metal pipe) passes through the roof, G2427.5.3.
- Mechanical draft vent systems shall terminate at least 3' above forced air inlets located within 10', G2427.8.

#### **OUTDOOR LIGHTING CODE:**

- Show compliance with City of Sun Valley Dark Sky Ordinance.
- Provide cut sheets for all FCO fixtures showing the angle of cutoff, light emissions and fixture wattage. All other fixtures are assumed to be unshielded (non-FCO style).

#### **INTERNATIONAL ENERGY CONSERVATION CODE:**

- Specify the "R" value of the insulation, as well as the "U" factor of the windows and doors or provide ResCheck. Sun Valley is in climate zone 6. The simplified prescribed energy values for glazing is U=0.35, skylights U=60, ceiling R=49, walls R=20 or 13+5, floors R=30, slabs R=10 and 2'depth and crawl space walls R=13 or R=10 continuous.
- Provide a note requiring the insulation certificate shall be posted in the electrical distribution panel before final inspection, N1101.8.
- Indicate insulation of duct work, hot water piping.
- Indicate required sealing of all plate lines, penetrations and air barriers.
  - All joints, seams and penetrations.
  - Site-built windows, doors and skylights.
  - Openings between window and door assemblies and their respective jambs and framing.
  - Utility penetrations.
  - Dropped ceilings or chases adjacent to the thermal envelope.
  - Knee walls.
  - Walls and ceilings separating the garage from *conditioned spaces*.
  - Behind tubs and showers on *exterior walls*.
  - Common walls between *dwelling units*.
  - Attic access openings.
  - Rim joists junction.
  - Other sources of infiltration
- New wood-burning fireplaces shall have gasketed doors and outdoor combustion air.