CITY OF AUSTIN Development SERVICES DEPARTMENT

Building a Better and Safer Austin Together

Residential Technical Review Checklist

DevelopmentATX.com | Phone: 311 (or 512-974-2000 outside Austin)
For submittal and fee information, see austintexas.gov/demolition

This document is intended for internal use by reviewers, however it is being provided as a reference tool for our customers. The following are some of the basic or frequently overlooked code requirements. This list is not intended to be exhaustive of all possible requirements. The more comprehensive list is contained in the 2021 International Residential Code and City of Austin Local Amendments. Neither this checklist nor the adopted building codes may be construed to allow deed restriction violation.

GENERAL

[ ] Check for professional designer/engineer seal – engineers and architects are required to stamp documents prepared by them for regulatory approval.
[ ] Construction documents submitted for building permit approval shall be address specific with the exception of master set prototypes submitted for Volume Builder Program approval
[ ] Applicant is using the correct technical code(s)
[ ] Verify if text disclaimer will void arch plans
[ ] Application completeness (BSPA/AW/Demo)
[ ] Expired permit(s) check
[ ] Owner's Letter of Authorization
[ ] Additions and/or Interior Remodel applications with greater than 50% of exterior walls demolished shall comply with Demolition Notification requirements.

ARCHITECTURAL PLAN SET - COC Program

[ ] Certificate of Compliance Program (COC):
- [ ] Applicant is a Registered Architect or Certified Professional Building Designer (CPBD) and has signed the COC form for new construction or interior remodel and has stamped and signed the architectural plans. Structural Plans comply with the requirements for engineered design per Structural Plans checklist.
- [ ] Single-family construction: all scopes of work
- [ ] Confirm with the zoning reviewer that:
  - [ ] Application is at or below .36 FAR
  - [ ] If substandard lot, max. GFA 2,070sf

[ ] Submittal complies with all of the above?
- [ ] Yes, proceed with COC Program Checklist
- [ ] No, proceed with the rest

ARCHITECTURAL PLANS: ALL INCLUDING COC PROGRAM SUBMITTALS

SCOPE (IRC APPLICABILITY): R101.2 (local amendments);

[ ] One family dwellings, two family dwellings and townhouses/townhouse units as defined in CH2
- [ ] Townhouse units must not overlap or be vertically stacked.
- [ ] Separate means of egress: no shared internal path of egress travel to a public way or yard

[ ] Triplexes
- [ ] Intent to comply with Policy Memo PM2024-0002 (Request for Modification (AMOC form) attached)

[ ] No more than three stories above grade plane
- [ ] Basement is a story, but not above grade plane
- [ ] Enclosed interior stair serving an occupied roof not counted as a story if:
  - [ ] Use is limited to enclosed stair; utility use such as a mechanical closet is allowed.
  - [ ] Height is the min. required to comply with headroom clearance and ceiling height, wall and roof termination and drainage.
- [ ] Mezzanines per R325 are not a story (see checklist)
- [ ] Habitable attics are a story above grade plane, except where meeting all exceptions in R326 (see checklist)

Exceptions to Scope: Where a sprinkler system complying with P2904 is provided:
- [ ] Live/work units in townhouses complying with IBC 508.5
- [ ] Owner-occupied lodgings with 5 or less guestrooms
- [ ] Care facility in dwelling unit with 6 or less persons receiving custodial or medical care

MIN. SUBMITTAL REQUIREMENTS: BCM 4.4.0
[ ] Plot Plan
[ ] Floor Plans & Exterior Elevations
[ ] Structural (see structural checklist)
[ ] Prototypical designs: Orientation (L or R) of all plan matches. Options clearly selected

ACCESSIBILITY AND VISITABILITY R 320
Local Amendments to the Residential Code.
ACCESSIBILITY:

[ ] Three or more dwelling units or sleeping units in a single structure, IBC CH. 11, as required for R-3 occupancies.

Exceptions:

[ ] IBC 1108.7 Multistory Units without elevator

[ ] Live/Work Units non-residential portion shall be made accessible in accordance with IBC 508.5.9 and 508.5.11.

[ ] Structures with 4+ Live/Work units, the dwelling portion shall comply with IBC 1108.6.2.1

VISITABILITY:

[ ] New construction dwellings subject to the IRC with habitable space on the first floor

Exceptions:

[ ] Remodels and additions to existing dwellings permitted on or after February 10th, 2014 are to comply with sections R320.3 – R320.7

[ ] Remodels and additions to existing dwellings permitted on or after July 1, 2015 shall comply with Visitability sections R320.3 through R320.8.1.

[ ] Architect or Certified Building Designer (RDP)

[ ] Visitable Entrance clearly indicated

[ ] Visitable Exterior Route

[ ] Visitable Exterior Route WAIVER when applicable

[ ] Prof. Land Surveyor Survey

[ ] Reg. Design Professional Substantiation required

[ ] Slope waiver: slope greater than 10% between highest point to lowest point prior to development

[ ] Switchback waiver includes calculations from all viable points of origination (garage, driveway, sidewalk, street) demonstrating that the provision of a compliant ramp is not possible without a switchback.

EXTERIOR WALL PROTECTION / LOCATION

(R302, TABLES R302.1 (1) AND (2))

[ ] Refer to Table R302.1(1) or (2) for fire rating requirements and opening restrictions (unlimited, 25%, not allowed)

[ ] No fire resistance rating if ≥ 5', or ≥ 3' with sprinklers

[ ] Unprotected roof overhangs allowed with fireblocking at less than 5ft but not less than 2ft from lot line

[ ] No overhangs allowed at less than 2ft of lot line

[ ] **Exception:** detached garage accessory to a dwelling within 2ft of lot line may have a 4" max. roof eave projection

[ ] Fire rated assembly as required by tables R302.1(1)(2) with exposure on both sides shall comply with one of the following:

[ ] Approved assembly identified (1hr tested in accordance with ASTM E119 or UL 263): assembly and detail

[ ] Analytical methods in Section 703.2.2

[ ] Approved alternated methods in accordance with Section 104.11

TOWNHOUSES R302.2

[ ] Separation Requirements:

[ ] Double Walls: two 1-hr fire resistance rated assemblies tested per ASTM E119 or UL 263, or complying with IBC 721 or 722

[ ] Common Wall:

[ ] With Sprinkler System in accordance with Section P2904, 1 hr. fire resistance rated wall assembly tested per ASTM E119, UL 263, or IBC 703.2.2

[ ] If originally built w/o sprinklers complying with Sect. P2904, 2 hr. fire resistance rated wall assembly tested per ASTM E119, UL 263, or IBC 703.2.2

[ ] Rated from both sides

[ ] No plumbing, mech. equipment, ducts or vents

[ ] Extending to and tight against ext. wall sheathing or inside face of ext. wall without cavities, and underside of roof sheathing

[ ] **Exception**: common wall may extend to and tight against the inside of the ext. wall provided that two 2x wood studs are installed filling the cavity between the end of the common wall and the exterior wall sheathing.

[ ] Continuity: R302.2.3: Fire resistant rating extends full length of wall and wall extensions separating attached accessory structures

[ ] Structural Independence per R302.2.6. New exception:

[ ] Not required when a fire sprinkler system per P2904 or NFPA 13D is provided (exception 6)

[ ] Fire Rated Wall Section from foundation to roof (roof parapet) showing fire rated wall assembly is required for review.

[ ] Coordination: wall section and details reflect correct orientation of trusses in framing plans.

[ ] Critical intersections between fire rated wall assembly and floor, floor/ceiling assembly and roof/ceiling assembly must be resolved in drawings.

[ ] Fireblocking where required per R302.11

[ ] Wall section matches tested assembly or prescriptive assembly in Section 721 of the IBC as applicable.

[ ] When analytical methods described in Section 722 are used, reviewer may require calculations by the architect as needed for review.

[ ] 722.6 Wood Assemblies.

[ ] Calculated fire resistance shall be limited to 1 hour. See examples in IBC Commentary Vol. 1.

[ ] Dissimilar membranes requiring exposure from both sides: calculations shall be made from weaker side.

[ ] Fire resistance rating is equal to the sum of the time ratings assigned to:

- Membrane on the fire exposed side

- Framing members
- Additional contributions such as insulation

[ ] 30" Parapet required or exception R302.2.4
[ ] Fire Sprinkler system required by R313.1 (system complying with P2904 or NFPA 13D)

TWO-FAMILY DWELLINGS R302.3
[ ] Separation by a wall and/or floor/ceiling assembly 1-hr rating.
[ ] Continuity: fire rated floor/ceiling assemblies extend to and are tight against exterior wall and wall assemblies extend from foundation to underside of roof deck.
Exceptions:
[ ] 1/2hr rating allowed with fire sprinklers in accordance with P2904
[ ] Wall assemblies need not extend through attic where:
- Ceiling is protected by 5/8" Type-X gyp. bd.,
- Draftstopping per R302.12 along and above the fire rated wall separating dwellings,
- ½" gyp. bd. over structural framing supporting the ceiling

[ ] R302.3.1 Construction supporting a fire rated floor assembly (i.e. bearing walls) has equal or greater fire rating
[ ] Fire resistance rated wall and floor/ceiling assembly shown in section and details.
[ ] Fire resistance determined by one of the following:
[ ] Assembly tested in accordance with ASTM E119 or UL 263
[ ] Analytical methods in IBC 703.2.2
- Prescriptive fire resistance in IBC 721
- Calculated fire resistance in IBC 722

[ ] Alternate Method of Compliance (AMOC)

TRIPLEXES R302
[ ] No more than 3 stories above grade plane
[ ] Site plan exempt (LDC 25-5-2)
[ ] Automatic sprinkler system required
[ ] Accessibility in compliance with IBC ch 11 as amended by 25-12-3
[ ] Separation by a wall and/or floor/ceiling assembly 1-hr rating.
[ ] Continuity: fire rated floor/ceiling assemblies extend to and are tight against exterior wall and wall assemblies extend from foundation to underside of roof deck and all shared egress components.
Exceptions:
[ ] Wall assemblies need not extend to roof deck where:
- Draft-stopping per R302.12 along and above the fire rated wall separating dwellings

[ ] R302.3.1 Construction supporting a fire rated floor assembly (i.e. bearing walls) has equal or greater fire rating
[ ] Shared egress shall have
- 45 minute fire rated door
- Self closing and self latching devices
- Shall discharge directly to exterior or if a door is provided shall meet rqmts of R311.2

[ ] Fire resistance rated wall and floor/ceiling assembly shown in section and details.
[ ] Field Verify: Penetrations in walls or floor/ceiling assemblies to be in accordance with R302.4, except duct and air-transfer openings to be in accordance with IBC 717.6 (add condition)
[ ] Construction, projections, openings, and penetrations of exterior walls shall comply with IRC Table R302.1(2) (exterior walls – dwellings with fire sprinklers)
[ ] Fire resistance determined by one of the following:
[ ] Assembly tested in accordance with ASTM E119 or UL 263
[ ] Analytical methods in IBC 703.2.2
- Prescriptive fire resistance in IBC 721
- Calculated fire resistance in IBC 722

[ ] Alternate Method of Compliance (AMOC)

MEZZANINES R325
[ ] Definition: Intermediate level between floor and ceiling of any story. A mezzanine complying with the requirements below is NOT a story.
[ ] Ceiling Height: ≥ 7 ft.
[ ] Area limitation: ≤ 1/3 of room size in which it is located.
[ ] **Exception:** area ≤ ½ of room provided the requirements below are met:
[ ] Sprinkler complying with P2904
[ ] Open to the room below except for closets and bathrooms
[ ] Opening to room is unobstructed except for walls not more than 42" height, columns and posts
[ ] **Exceptions to R325.5:** openness are NOT applied

[ ] Egress: Compliance with R311 egress requirements
[ ] Openness: Shall open to room below without obstructions except for walls not more than 36", columns and posts. **Exceptions**:
[ ] 10% or less can be enclosed;
[ ] Openness not required if ≤ 2 stories above *grade plane* and sprinklers throughout are provided in accordance with R313

HABITABLE ATTICS R326
[ ] Definition: A finished or unfinished *habitable space* within an attic
[ ] Minimum dimensions: Shall have a floor area in accordance with Section R304 and ceiling height in accordance with Section R305
[ ] Story above grade plane: A habitable attic shall be considered a story above grade plane:
Exception requirements to not be considered a story above grade plane (must meet all):

[ ] Aggregate area of habitable attic is either of the following
[ ] ≤ 1/3 floor area of story below
[ ] ≤ ½ floor area of story below equipped with a sprinkler system
[ ] Occupiable space is enclosed by roof assembly above, knee walls, if applicable, on sides and floor-ceiling assembly below
[ ] Floor does not extend beyond exterior walls
[ ] Where habitable attic is located above a 3rd story, dwelling unit, or townhouse unit, shall be equipped with sprinkler system in accordance with P2904

[ ] Egress: Compliance with R311 egress requirements

ARCHITECTURAL NOT SEALED BY ARCH. / CBD

GARAGE SEPARATIONS R302.5 and R302.6
[ ] No openings to rooms used for sleeping purpose
[ ] Solid wood door 1-3/8" min. thickness, solid or honeycomb core steel door 1-3/8"min. thickness or 20 minute fire-rated door
[ ] Doors shall be self-latching & equipped with a self-closing device on garage to home door
[ ] Walls and ceilings with attic space above: 1/2" gypsum board
[ ] Ceilings with habitable rooms above: 5/8" Type-X gypsum board
[ ] Garages less than 3' from dwelling unit on same lot: min 1/2" gypsum board on interior side of exterior walls within the area

FIRE PROTECTION OF FLOORS R302.13
[ ] Floor assemblies not required to be rated shall have 1/2" gypsum board, 5/8" wood structural panel, or equivalent on underside of floor framing members.
Exceptions:
[ ] Space below is equipped w/ sprinklers per NFPA 13D or P2094
[ ] Crawl space below not used for storage or with fuel or electric heating appliances
[ ] Unprotected portions allowed if aggregate unprotected area doesn't exceed 80 SF per story and fireblocking compliant with R302.11.1 is applied around all unprotected portions
[ ] Wood floor assemblies using dimension lumber or structural composite lumber with min. dim. 2x10 or other approved assemblies with equivalent fire performance

LIGHT, VENTILATION R303
[ ] Aggregate glazing area: 8% of floor area
[ ] Natural Ventilation: 4% of floor area
Exception:
[ ] For habitable rooms other than kitchens, glazed area need not be openable where not required by R310 and whole house mechanical ventilation system is installed in compliance with M1505 or mechanical system produces 0.35 air changes/hour
[ ] For kitchens, glazed area need not be openable where not required by R310 and local exhaust installed per M1505
[ ] **Exception to glazing:** no glazed area required in rooms when not required to be openable and artificial light producing avg. 6 fc over the room at 30" above floor is provided
[ ] Sunroom and patio covers allowed for ventilation if over 40% of exterior sunroom walls are open or enclosed only by insect screens
[ ] Bathroom glazing: min. 3 sq. ft., one-half openable
[ ] **Exception:** Artificial light and local exhaust system provided in compliance with M1505

MINIMUM ROOM AREAS R304
[ ] Habitable rooms ≥ 70 sq. ft. **Exception:** Kitchens
[ ] Habitable room walls ≥ 7' **Exception:** Kitchens
[ ] Sloping ceiling < 5' or furred < 7' AFF shall not contribute to habitable area

CEILING HEIGHT R305
[ ] Habitable spaces including hallways and habitable basements: Min. height 7'. Bathrooms and laundry rooms: Min. height 6'-8."
Exceptions:
[ ] Sloped ceilings: req. floor area has ceiling height ≥5'. 50% of req. area has a ceiling height ≥7'
[ ] Habitable basements: beams, girders, ducts and similar obstructions allowed to project 6'-4" AFF
[ ] Beams and girders spaced apart min. 36" are allowed to project 6'-6" AFF
[ ] Basements w/o habitable space: min. 6'-8"
[ ] Ceiling obstructions like beams and ducts in basements: 6'-4" AFF

TOILET, BATH AND SHOWER SPACES R307
[ ] Space required in accordance with fig R307.1.
[ ] WC, lavatory or bidet: 15" cl of fixture to wall
[ ] WC, lavatory or bidet: 21" in front to any wall, fixture or door
[ ] Shower compartments per 2021 UPC 408.6
[ ] min. finished int. area 1024 sq. in.
[ ] encompass a 30" dia. circle
[ ] maintained 70" above shower drain; projections allowed for shower head, soap dishes, shelves and grab bars
[ ] fold down seats in accessible showers allowed to protrude into 30" circle
[ ] **Exceptions:**
[ ] Shower complying with ANSI 117.1
[ ] 30" X 60" showers

HAZARDOUS GLAZING R308
[ ] Glazing in doors
Exceptions:

[ ] Openings through which a 3” sphere can’t pass
[ ] decorative glazing

[ ] Glazing adjacent to doors when < 60” above floor or walking surface *and*:
[ ] Glazing is within 24” of door in the same plane of the door in closed position OR
[ ] Glazing on a wall less than 180 degrees from the plane of the door in a closed position and within 24” of the hinge side of an in-swinging door
[ ] **Exceptions:**
[ ] Decorative glazing
[ ] Intervening wall or other permanent barrier between door and glazing
[ ] Where access through door is to a closet/storage 3’ or less in depth, glazing shall comply with the glazing requirements for windows
[ ] Glazing adjacent to the fixed panel of a patio door

[ ] Glazing in windows when *all* below is met:
[ ] Pane in excess of 9 sf
[ ] bottom edge less than 18”above floor
[ ] top edge more than 36”above floor
[ ] walking surface within 36” horizontally
[ ] **Exceptions:**
[ ] Decorative glazing
[ ] Re: glazing adj. to a walking surface where a horizontal rail is installed 34”-38” above walking surface. Field verify: load requirements: 50#/lf. Cross sectional height 1.5”

[ ] Glazing in guards and railings
[ ] Glazing surrounding wet surfaces: within 60” horizontally in all directions under 60” vertically
[ ] Adjacent to stairs and ramps with bottom less than 36” from walking surface
[ ] Adjacent to bottom of stair landing when lower than 36” and within a 60” horizontal *arc*. (Fig. R308.4.7)
[ ] Site built windows: comply with IBC 2404
[ ] Skylights, roofs, and sloped glazing
[ ] Materials: laminated glass (see R308.6.2 for details), fully tempered glass, heat-strengthened glass, wired glass, approved rigid plastics
[ ] Screens with fully tempered or heat strengthened glass as required by R308.6.3-308.6.7 (may be field verified)
[ ] Curbs where required by R308.6.8 (may be field verified)

EMERGENCY ESCAPE AND RESCUE OPENINGS (EERO) R310

[ ] Basements, habitable attics and every sleeping room **Exceptions**:
[ ] Storm shelters and basements not over 200sf used for mechanical equipment
[ ] Basement sleeping units in dwellings with sprinklers complying with P2904, provided that basement has:
[ ] One Means of Egress (MOE) per R311 and one EERO, *OR*
[ ] Two MOE per R311

[ ] EERO opens to public way, *yard,* or court with min. width of 36”.
[ ] **Exception:** Yard not required to open to public way where yard opens to an unobstructed 36” wide path from yard to public way

[ ] Bottom of clear opening max. height: 44” AFF
[ ] Min net clear opening 5.7sf (821 sq. in.)
[ ] **Exception:** *Grade floor EERO* min. net clear opening 5sf (720 sq. in.)
[ ] Min opening height 24”
[ ] Min opening width 20”
(typical: 2650 @ *Grade floor openings*; 3050 everywhere else)

[ ] EERO under decks, porches and cantilevers
[ ] fully openable
[ ] travel path min. 36” high and 36” wide to a yard or court

[ ] Area wells: req. where bottom of EERO is below grade
[ ] min. 36” x 36” and as req. to allow EERO to fully open
[ ] **Exception:** ladder or steps may encroach area by 6”
[ ] Ladder or steps req. with vertical depth above 44”
[ ] Ladders and rungs: 12” min. inside width, project no less than 3” from wall, 18” max. spacing (field verify)
[ ] Steps: 12” min. inside width, 5” min. tread depth, 18” max. riser
[ ] Full height of area well
[ ] Drainage as required by R310.4.3: Field verify

[ ] Replacement Window for EERO: Exempted from R310.2 & R310.4.4, provided that
[ ] Manufacturer’s largest standard size that fits within existing frame or rough opening
[ ] Replacement window is NOT part of a change of occupancy

[ ] Dwelling additions, see R310.6
[ ] Alterations or repairs of existing basements, see R310.7

MEANS OF EGRESS (MOE) R311

[ ] Continuous, and unobstructed vertical and horizontal path from all portions of dwelling to required egress door without requiring travel through garage
[ ] Exit door side hinged, min clear width 32” and clear height 78” (3’0” x 6’8”) opening to public way, yard or court
[ ] Min width of hallway 36”
[ ] Egress door landings:
[ ] Width: width of door min
[ ] Depth: 36” min. in direction of travel
[ ] Interior side ≤ 1 ½” drop from threshold
[ ] Exterior side ≤ 7 ¾” drop from threshold
[ ] 2% max slope
[ ] Exterior landing is anchored to structure or self-supported. No nails or toe-nails

[ ] Other exterior doors: top landing not required for stairway of no more than 2 risers on ext. side of door provided door doesn't swing over the stairway
[ ] Storm and screen doors are allowed to swing over exterior stairs and landings

STAIRWAYS R311.7
[ ] Minimum width ≥ 36"
[ ] Handrails do not project more than 4-1/2"
[ ] Headroom: 6'-8"
[ ] Minimum landing width: stair width
[ ] Minimum landing depth: 36"
[ ] Max rise 7 ¾", variation no more than 3/8" within flight
[ ] Tread depth ≥ 10"
    [ ] Winder tread 10" min. at intersections with walkline (walkline of winder treads shall be concentric to the turn and parallel to the direction of travel, and 12" from the inside of the turn)
    [ ] Winder tread min. 6" at any point
[ ] Landings at top and bottom
    [ ] Straight run stairs: landing must be 36" deep in the direction of travel
    [ ] width not less than the width of the flight
    [ ] non rectangular shapes: depth at walk line and total area shall not be less than a quarter circle with radius equal to the required landing width
    [ ] top landing not required at interior flight of stairs including garage stair provided a door doesn't swing over stair
[ ] Vertical rise for a flight of stairs ≤ 12'-7"
[ ] Open risers over 30" from floor or grade, max. 4" openings

HANDRAILS R311.7.8
[ ] Height not < 34" or > 38"
[ ] Required for stairs with 4 or more risers
[ ] Required on one side
[ ] Continuous for full length of flight

SPIRAL STAIRS R311.7.10.1
[ ] Clear width 26"
[ ] Walkline radius 24-1/2"
[ ] Tread depth min. 6-3/4" at walkline
[ ] Identical treads
[ ] Risers identical and 9-1/2" max.
[ ] Headroom 6'-6" min.
[ ] No opening limitation on risers

ALTERNATING TREAD DEVICES AND SHIPS LADDERS
[ ] Alternating Tread devices and Ship Ladders not used as a means of egress
Exceptions:
    [ ] May be used as an element of the MOE for lofts, mezzanines and similar if area does not exceed 200 gross sf and do not provide exclusive access to a kitchen or bathroom
[ ] Refer to R311.7.11 for Alternating Tread Devices requirements
[ ] Refer to R311.7.12 for Ships Ladders requirements

GUARDRAILS R312.1
[ ] Porches, balconies, ramps, raised floor surfaces 30" above floor or grade at any point within 36" horizontally
[ ] Height ≥ 36". On open side of stairs ≥ 34"
[ ] When serving as handrails height is 34"-38"
[ ] Height measured from adjacent walking surfaces (adj. fixed seating excluded)
[ ] Openings shall not allow the passage of a 4" sphere
Exceptions:
    [ ] Triangular openings between the bottom rail of a guard and stair steps shall not allow the passage of a 6" sphere
    [ ] Guards on the open side of stairs shall not allow the passage of a 4-3/8" sphere

SMOKE ALARMS R314
[ ] Listing requirements. Smoke alarms: UL 217 Combination smoke alarms: UL 217 and UL 2034
[ ] Hard-wired, interconnected, battery backup (Battery powered allowed at remodels). Listed wireless smoke alarms allowed when one triggers the others
[ ] Where required:
    [ ] In each sleeping room
    [ ] Outside each sleeping area in immediate vicinity
    [ ] On each additional story within the dwelling unit including basements, habitable attics
[ ] Min. distance 3' from door to a bathroom with tub/shower unless this prevents the installation of a smoke alarm where required
[ ] In hallway and room open to hallway where the ceiling height of a room open to hallway serving bedrooms exceed that of a hallway by 24" or more
[ ] Installation near cooking appliances per R314.3.1 (field verify)
[ ] Fire alarm systems in lieu of smoke alarms, see R314.7
[ ] Alterations, repairs and additions: same as required for new dwellings
Exceptions:
    [ ] Work involving exterior surfaces of dwellings such as roofing, siding, window or door addition/replacement, porches and decks
    [ ] plumbing or mechanical work

CO ALARMS R315
[ ] Listing requirements. CO alarms: UL 2034 Combination alarms: UL 217 and UL 2034
[ ] Hard-wired, interconnected, battery backup when more than one is required. Physical interconnection not required with listed wireless CO Alarms when all alarms sound upon activation of one
    [ ] **Exception:** Alterations or repairs that do not require removal of interior finishes that expose the

structure, unless there is an attic, crawl space or basement that provides access for interconnection without removal of interior finishes

[ ] Battery powered at remodels and buildings without commercial power

[ ] Where required:

[ ] Dwelling unit with attached garage with an opening communicating to the dwelling

[ ] Dwelling unit with fuel-fired appliances

[ ] Locations: immediate vicinity of sleeping areas

[ ] Inside bedroom where fuel-burning appliance is located in bedroom or attached bathroom

[ ] Alterations Repairs and Additions: as required for new dwellings.

Exceptions:

[ ] Work involving exterior surfaces of dwellings such as roofing, siding, window or door addition/replacement, porches and decks

[ ] plumbing work

[ ] mechanical work on mechanical systems that are not fuel fired

ROOF VENTILATION R806

[ ] Required for enclosed attics and enclosed rafter spaces formed where ceilings are applied directly to the rafters

[ ] Min. net free ventilation area (NFA) - 1/150th of total area (1/16”-1/4” min. and max. openings)

Exceptions:

[ ] Reduction to 1/300 allowed where 40%-50% of ventilation is located in the upper portion of attic or rafter space. Upper ventilators shall be located no more than 3’ from ridge or highest point of space measured vertically. Where conflicts with framing members do not allow 3’ or less distance from ridge or highest point, then more than 3’ may be allowed

[ ] Unvented attics and unvented enclosed rafter spaces shall be permitted with conditions as required by R806.5

ATTICS R807.1

[ ] Min access 22”x30” rough opening

[ ] Live loads limit check (Table R301.5)

[ ] Habitable Attic: Egress, stairs, SD, CO

FOR STRUCTURAL REVIEW CHECKLIST SEE NEXT PAGE

STRUCTURAL CHECKLIST – SEALED DRAWINGS

[ ] Check for engineer seal on foundation plans
[ ] Check for architect or engineer seal on framing and bracing plans
[ ] Foundation plan matches orientation and outline of floor plan
[ ] Foundation details including anchorage to foundation
[ ] Floor framing plans
[ ] Roof framing plans
[ ] Truss layout (direction and spacing)
[ ] Truss support structure (headers, beams, walls, columns)
[ ] Typical framing details (wall-to-floor, wall-to-roof)
[ ] Braced wall plan with braced wall lines (Ref. IRC R106.1.3, R602.10.1 and BCM 4.4.4.3)
[ ] Bracing information (Ref. R106.1.3):
    [ ] methods used (fasteners/nail pattern, specific bracing method details, portal frame details)
    [ ] location and length of braced wall panels are indicated
    [ ] foundation requirements of braced wall panels at top and bottom
[ ] Structural verification report in lieu of structural drawings where allowed per BCM 4.4.4.6

STRUCTURAL CHECKLIST – UNSEALED DRAWINGS: BELOW AND RIGHT

ENGINEER SEAL REQUIRED
Engineer stamp required for the following (BCM 4.4.4.4):
[ ] Foundation Plans and Details on expansive soils
[ ] Unsupported spans greater than 24 feet
[ ] Pre-engineered systems and components

ENGINEER OR ARCHITECT SEAL REQUIRED
[ ] Framing plans and details, the layout of pre-engineered systems, wall bracing plans and details for buildings that are:
    [ ] More than one story
    [ ] Do not meet prescriptive requirements in the IRC
    [ ] Designed as per IBC or ASCE 7
    [ ] Decks over 4 feet in height measured vertically at any point within 36” horizontally

FOOTINGS R403
[ ] Footing material depth and dimensions (depth below surface min 12”)
[ ] Footing locations/dimensions
[ ] Footing details
[ ] Connection details

PIERS IN AND SLABS ON EXPANSIVE SOILS SHALL BE DESIGNED BY A TEXAS REGISTERED ENGINEER

WOOD FRAMED WALLS R602
[ ] Stud height, spacing, wood grade: R602.2, R602.3
[ ] Headers: size, span, material: R602.7
[ ] Typical wall details
[ ] Foundation, floor, ceiling connection details
[ ] Foundation anchorage: R403.1.6

WOOD FRAMED FLOORS R502
[ ] Live loads supported: Table R301.5
[ ] Joist size, spacing, wood grade – R502.3
[ ] Girders: R502.5
[ ] Floor sheathing: R503
[ ] Framing layout: Figure R502.2

WOOD FRAMED ROOFS
[ ] Live load supported: Table R301.6
[ ] Ceiling joist size, spacing and grade: R802.5
[ ] Rafter size, spacing and grade: R802.4.1
[ ] Roof sheathing: R803
[ ] Rafter Ties and Collar Ties: R802.4.6
[ ] Purlins: R802.4.5

WALL BRACING R602.10
[ ] Braced wall lines layout: Fig. R602.10.1.1
[ ] Braced wall methods used: Table R602.10.4
[ ] Braced wall panel locations: R602.10.2
[ ] Minimum length of braced wall panels: R602.10.5
[ ] End requirements for continuous sheathing: R602.10.7
[ ] Sheathing attachment: Table R602.3(3)
[ ] Details for portal frames: Fig. R602.10.6.2/3/4

WOOD DECKS R507
[ ] Min. uniform live load 40psf
[ ] Architect or Engineer required: Decks with a concentrated load, over 4 ft. in height, outside of the limitations of the IRC Tables, or not following prescriptive requirements shall require an engineered design per R301.1.3
[ ] Submittal requirements:
    [ ] Architectural plan and elevation(s), section(s) showing general dimensions, drop from door threshold, guards, and stairs. Enough information to show compliance with requirements for stairs and guards
    [ ] Structural plans showing footing locations, details and notes, framing plan, framing details showing connections of post to footing, beam to post, joist to beams, ledger attachment, hold downs where required, and any other information necessary to demonstrate compliance with code
[ ] Min. no. 2 grade lumber. Preservative treated where required by R317 – Field verify
[ ] Fasteners and connectors per R507.2.3
[ ] Flashing at deck attachment per R507.2.4
[ ] Footings per R507.3: Architect or Engineer registered in the State of Texas required for decks over 4 ft. in

height per the BCM. Engineer required for footing designs that are not prescriptive.

[ ] Min. depth 12”

[ ] Min. sizes per table R507.3.1 based on tributary area and soil bearing capacity. If soil bearing capacity is unknown, lowest bearing capacity shall be assumed

Exceptions:

[ ] Footings shall not be required for free-standing decks consisting of joists directly supported on grade over their entire length

[ ] Footings shall not be required for free standing decks meeting *all* of the following:

[ ] Joists bear directly on precast concrete pier blocks at grade w/o support by beams or posts

[ ] Deck area does not exceed 200 sq. ft.

[ ] Walking surface not more than 20 in. above grade at any point within 36 in. measured horizontally from the edge

[ ] Post sizes per Table R507.4

[ ] Post to footing per Fig. R507.3

[ ] Manufactured post connections or post embedment min. 12” into soil or concrete pier

[ ] Beam sizes per R507.5 and table R507.5(1)

[ ] Cantilevers not to exceed ¼ of beam span

[ ] Beam connections per R507.5.2 and Fig. R507.5.1(1) and (2)

[ ] Joists

[ ] Size per Table R507.6

[ ] Spacing per Table R507.7

[ ] Hanger at ledger and beam connections

[ ] Cantilevered joists: blocking over beam or other lateral restraint

[ ] Ledger

[ ] Min. 2x8 pressure preservative treated or naturally durable wood, min. no. 2 grade lumber

[ ] no concentrated load from beams or girders

[ ] not supported on stone or masonry veneer

[ ] flashing as req. to protect from water infiltration

[ ] Connections to floor framing:

[ ] band joist min. 2 in. nominal solid sawn lumber or 1 in. engineered wood rim joist

[ ] band joist shall bear fully on the structure

[ ] Fasteners shall comply with Table R507.9.1.3

[ ] Placement of lag screws and bolts to be field verified

[ ] Prescriptive lateral connections:

[ ] Figure R507.9.2(1) – two hold down devices per deck within 24” from end, each having an ASD capacity of 1500#, or

[ ] Figure R507.9.2(2) – four hold downs per deck each having an ASD capacity of 750#, one within 24” of each end of ledger

[ ] Deck guards to comply with R312: See GUARDRAILS checklist

[ ] Compliance with R507.10 – Field verify

LESS COMMON BUILDING TYPES

TINY HOUSES 2021 Appendix AQ

NOTE for the reviewer: Compliance with the 2021 IRC is required except as modified by Appendix AQ. Nothing in this appendix shall preclude compliance with the more stringent requirements of the IRC.

Max. dwelling area excluding *loft* (as defined in Appendix AQ) area:

[ ] 400sf or less: Compliance with less stringent requirements in Appendix AQ is allowed with an AMOC

[ ] AMOC provided. Reject if not provided.

[ ] Above 400sf: Compliance with less stringent requirements in Appendix AQ is NOT allowed. **Skip this checklist!**

***Lofts* definition.** Must meet **ALL** the following:

[ ] 30” AFF of main floor

[ ] Open to the main floor in one or more sides

[ ] Ceiling height less than 6’-8”

[ ] **YES to ALL of the above**: proceed with *Lofts* per Section AQ104 checklist

[ ] **NO to ANY of the above**:

[ ] Area of the raised level is NOT A LOFT and shall be added to the total dwelling area. New total dwelling area:

[ ] if total dwelling area is above 400sf, dwelling is not a Tiny Home. **Skip the Tiny House checklist!**

[ ] if total dwelling area is 400sf or less, **Skip Section AQ104 Checklist only**! All other sections apply except for provisions or exceptions written specifically for *lofts*.

Ceiling Height per Section AQ103

[ ] Habitable space and hallways shall have a ceiling height of not less than 6’-8”. Exception: *Lofts*

[ ] Bathrooms, toilets and kitchens shall have a ceiling height of not less than 6’-4”

[ ] Obstructions such as beams, girders, ducts, lighting, etc. shall not extend below min ceiling height

***Lofts* per Section AQ104**

[ ] Min. area: 35sf per AQ104.1.1

[ ] Min. horizontal dimension: 5’ per AQ104.1.2

[ ] Min. ceiling height: 3’ @ portion of loft used for min floor area per AQ104.1.3

[ ] **Exception**: Under gable roof with a min slope of 6 units vertical in 12 units horizontal (50% slope), portions of a loft w/ a sloped ceiling less than 16” from the finished floor to the finished ceiling shall not be considered as a contributing to the minimum required area for the loft.

Lofts’ Means of Egress (MOE)

[ ] Min. ceiling height where MOE meets loft: 3’ per AQ104.2

Stairways per AQ104.2.1

[ ] Min. clear width at and above handrail: 17"; below handrail: 20" per AQ104.2.1.1
[ ] Headroom: 6'-2" per AQ104.2.1.2
[ ] Risers min. 7" max. 12" per AQ104.2.1.3
[ ] Tread depth (T) and riser height (R) calculated based on one of the formulas:
[ ] T= 20" - 4/3 R
[ ] R = 15" - 3/4 T
[ ] Min. landing depth: 24" per AQ104.1.4
[ ] Landing platform not less than 20" x 20" required if ceiling height is less than 6'-2". where stairway meets loft. per AQ104.1.5
[ ] Landing platform to loft riser: 16"-18" per AQ104.1.5
[ ] Handrails per R311.7.8
[ ] Stairway guards per R312.1

Ladders, Sections AQ104.2.2.1 and AQ104.2.2.2
[ ] Rung min. width: 12" and spacing: 10"–14", per AQ104.2.2.1
[ ] Load capacity: 300-pound load on any rung per AQ104.2.2.1
[ ] Rung spacing uniform within 3/8" per AQ104.2.2.1
[ ] Incline: 70°-80° from horizontal per AQ104.2.2.2

Alternating tread devices serving *lofts*
[ ] Check Sections R311.7.11.1 and R311.7.11.2.
[ ] Min. clear width at and below handrail: 20" per AQ104.2.3

Ships ladders serving *lofts*
[ ] Check Sections R311.7.12.1 and R311.7.12.2 for requirements.
[ ] The clear width at and below handrail shall be not less than 20" Section AQ104.2.4

Loft guards per AQ104.2.5
[ ] Along open sides
[ ] Height: lesser of ½ of clear ceiling height or 36"
[ ] Shall comply with Section R312.1.3 and table R301.5 (live loads)

Emergency Escape and Rescue Openings (EERO) per AQ105

[ ] Check requirements per Section R310 for EERO
[ ] **Exception**: Egress roof access windows allowed in lofts; clear opening and sill height requirements in R310 apply

(INTERMODAL) SHIPPING CONTAINTERS CHECKLIST 2021 IBC Section 3115

[ ] Engineered design required per R301.1.3
[ ] Same submittal requirements as site built homes and their accessory structures
[ ] Anchored to foundation or other structure, shown in stamped foundation or framing plans
[ ] Container Information IBC 3115.3 shall bear a data plate as required by IBC 3115.3. Provide legible image of data plate showing the required information
[ ] Joints and voids between connected or stacked containers at fire rated assemblies shall be protected by a fire resistant joint system
[ ] Detailed design procedure shall be submitted per IBC 3115.8.4, unless the simplified design detailed in IBC 3115.8.5 is used
[ ] Simplified structural design of single unit containers per IBC 3115.8.5

Limitations:
[ ] single, stand-alone detached unit supported in a foundation
[ ] no notches, cuts or removal in top and bottom rails, corner castings, columns or any portion thereof
[ ] Level and horizontal over floor structure
[ ] Linear length of openings limited to 50% of side length per Fig. 3115.8.3(1)
[ ] Min. braced wall length: 4 ft. per Fig. 3115.8.3(2)
[ ] Braced walls require new or existing boundary elements to form a continuous load path with adequate strength and stiffness, as shown in Fig. 3115.8.5.3(3)
[ ] All openings to walls framed with steel with cross section and material grade equal or greater than the material removed
[ ] Penetrations in braced walls shall be limited per IBC 3115.8.5.3, #5. Penetrations in other walls shall not be limited
[ ] End wall doors used as part of the lateral force resisting system shall be welded closed

3-D HOUSES CHECKLIST 2021 Appendix AW 3-D PRINTED BUILDING CONSTRUCTION

[ ] Architectural plans, building elevations/sections and details as required to show compliance with this code See applicable architectural review checklists for additional review requirements
[ ] Foundation Plans and details stamped by a Texas Registered Professional Engineer
[ ] Structural Plans and Details as required by R106: Construction Documents and demonstrate compliance with Section R301: Design Criteria, stamped by Texas Registered Architect or Professional Engineer
[ ] Design Organization: Structures and building elements shall be designed by an organization certified by UL3401. The UL3401 report of findings shall be submitted for review and approval
[ ] Visitability requirements apply

RELOCATIONS

[ ] From outside the CoA jurisdiction to inside the CoA jurisdiction, requirements at plan review:
[ ] Technical review required only where the scope of work includes additions and alterations.

Otherwise, if a technical review is assigned, it may be closed as “Review Not Required”
[ ] Residential New Construction and Addition permit required
[ ] Architectural plan exhibits required. See architectural review checklist
[ ] Structural verification report for the existing house
[ ] Structural plans documenting the addition. See structural review checklist
[ ] Visitability requirements DO NOT apply
[ ] Additions, alterations and repairs shall comply with this code to the extent required by R102.7.1

[ ] Relocations within the CoA jurisdiction:
[ ] Same as above
[ ] Relocation permit application required
[ ] Visitability requirements shall be maintained if the relocated house was permitted as new on or after February 10, 2014

MANUFACTURED HOMES WHERE ALLOWED IN SINGLE FAMILY LOTS AND MH SUBDIVISIONS

[ ] Manufactured homes and their building service equipment: uncovered decks, porches, ramps and stairs
[ ] Technical review not required
Exceptions:
[ ] Uncovered decks in excess of 200 sq. ft.
[ ] Uncovered decks over 48 in. above grade
[ ] Permanent additions that are not building service equipment
[ ] If a technical review is assigned but not required, it may be closed as “Review Not Required”

[ ] Submittal Requirements for Technical Review:
[ ] Residential New Construction and Addition Permit Application
[ ] Plot plan
[ ] Image of manufacturer compliance seal or label
[ ] Architectural, foundation, and framing plans, and details as required by BCM for permanent additions and decks requiring a review
[ ] Permanent additions shall be structurally separated
Exception:
[ ] Structural details design by a Texas Registered Design Professional. Calculations may be required to justify omission of structural separation
[ ] Visitability requirements DO NOT apply
[ ] Fire separation requirements must be maintained and will be field verified

[ ] Deferred submittal requirements:
[ ] Texas Department of Housing and Community Affairs (TDHCA) Notice of Installation (Form T) completed by qualified TDHCA installer – due at field inspections

RELOCATION OF A MANUFACTURED HOME

[ ] Relocation permit not required for manufactured homes
[ ] Plumbing and electrical permits are required for the capping of utilities

MANUFACTURED HOMES IN MOBILE HOME PARKS

[ ] Permits shall be obtained from The Service Center

MODULAR (INDUSTRIALIZED) HOMES

[ ] Modular Homes licensed by TDLR
[ ] Technical review will not be performed, only a completeness check. When a review is required per the exceptions listed below, additions and alterations to the approved TDLR design shall meet the City of Austin’s currently adopted residential code and local amendments
Exceptions:
[ ] Additions
[ ] Alterations beyond the scope of an Express Permit
[ ] Minimum fire separation distance complying with 2021 IRC Tables R302.1 (1) and (2) shall be maintained. Fire-resistant construction complying with 2021 IRC R302 shall be required where minimum fire separation distance cannot be maintained. Compliance required at plan review

[ ] Submittal requirements
[ ] Residential New Construction and Addition application
[ ] Plot plan
[ ] Architectural and Structural Plans and Details from manufacturer required for record set
[ ] Architectural and Structural Plans and Details for additions, alterations beyond the scope of an Express Permit and fire-resistant construction details shall be required
[ ] Permanent foundations as required for site built homes. See structural review checklist
[ ] Visitability requirements DO NOT apply