

E. MECHANICAL Cont.:

- "B" vent max horizontal length 75% of vertical length G2427.6.9.2
- "B" vents terminate 8' horizontal from vertical side wall & min 12" above roof if less than 12" dia. Figure G2427.6.4
- Single wall "B" vents attached with sheet metal screws to appliance collar and joints G2427.10.6 (1)
- Primary furnace condensate trapped & vented; slopes 1/8" per foot; supported 48" O.C. max & terminates in readily accessible location M1411.3
- Attic furnaces/ air handlers shall have a drain pan installed with slope to secondary drain outlet or water level detection/ equipment shut-off device M1411.3.1
- Secondary condensate line sloped 1/8" per foot & terminates in a conspicuous location M1411.3.1(1)
- A/C refrigerant lines insulated to R-4 M1411.6 & IECC 403.3
- All HVAC supply & return ducts sized per plans & installed per mfr specs M1601.1.1& M1602.1.2
- Metal HVAC duct insulated to R-8 in unconditioned attic space M1601.4.6; IECC403.2
- Max ½" per foot sag in flex duct supported at 4' O.C. per mfr specs, SMACNA or M1601.4.4
- All HVAC flex supply & return duct connections to rigid collars have band connectors, sealed & properly taped M1601.3, M1601.4 & IECC 403.2.2
- Metal HVAC duct supported 10' O.C. with 18 gauge 1/2" wide straps, installed per mfr specs M1601.4.3
- (1) thermostat for each separate HVAC system IECC403.1

F. PLUMBING:

- Gas line min, 10 PSI air test for 10 minutes G2417.4
- Gas piping sized per plans M2413.4(1); Table M2413.4(17)
- Black iron gas piping supports: ½"=6' O.C.; ¾" or 1"=8' O.C.; 1-1/4" or larger=10 O.C.; Table G2424.1
- Gas S.O.V. outside each building G2420.3
- Gas S.O.V. within 6' of appliances G2420.5
- Electrical wiring/ cable isolated from gas piping
- Elevate appliance ignition source 18" above floor in garages M1307.3 & G2408.2
- Protection from motor vehicle impact for garage appliances G2408.3
- Water heater T & P drain installed & sloped min 1/8" per foot to exterior P2804.6.1
- Protection of water & drainage pipes at wall studs & top & sill plates < 1-1/2" P2603.2.1
- Piping secured & supported to ensure alignment & prevent sagging P2605.1; Table P2605.1
- Horizontal drain & waste lines 2.5" & less sloped a min ¼" per foot; 1/8" per foot for 3" & larger P3005.3
- Max trap arm length & size P3201.6; Table P3105.1 & P3201.7
- Proper sweep of fittings for drainage P3005.1
- No vents offset horizontally below a point 6" above flood level rim P3104.4 & 3104.5
- Island vent height P3112.2
- All hose bibs have vacuum breakers P2902.4.3
- All concrete floor opening for P-traps grouted

G. ELECTRICAL:

- Install grounding electrode conductor per E3608.1.2
- Min. #4 copper or #2 aluminum water piping bond for (200 amp service) E3609; Table E3603.1.4
- Gas bonding per E3609.7; Table E3908.12
- SES mounted securely & identified with mfr label E3404.8 & E3404.11
- SE & NM cable supported 4.5' O.C. vertically & secured within 8" of NM box Table E3802.1
- SE & NM cable protected from damage E3802.3.2
- No unprotected SE or NM cable located within 6' of attic access E3802.2.1
- Min (2) 20 amp small appliance circuits a kitchen & dining E3901.3
- No other room receptacles or lighting on small appliance circuits E3901.3.1
- Kitchen counter receptacles max space 48" O.C. & within 24" of ends of counter-tops E3901.4
- Floor boxes listed for intended application E3905.7
- Arc-fault protection required in bedrooms E3902.16
- All boxes secured, no over-fill, no pancake boxes less than 6 cubic inches E3906.8 & E3905.12
- Min 6" of conductors within boxes E3406.11.3
- Min ¼" of NM sheathing within boxes E3905.3.1
- Boxes for ranges & ovens have proper knock-outs & sized for conductors E3905.4.2
- Proper sized conductors for A/C, ranges, cooktops, water heaters & dryers Table 3705.1
- Min (1) 20 amp circuit for laundry E3703.3
- Min (1) 20 amp circuit for bathroom receptacles E3703.4
- General receptacle spacing at 12' O.C. & within 6' of all openings & at wall greater than 24" wide E 3901.2
- GFCI receptacle locations E3902.1
- Inter-connected smoke alarms required at bedrooms/ rooms with closets, within the immediate vicinity outside of bedrooms, each story including basements & habitable attics R314
- Attic furnaces:
 1. light switch at attic access E3903.4
 2. Disconnect for hardwired equipment E4101.5
 3. Service outlet for at same level & within 25' of equipment E3901.12

ENERGY EFFICIENCY (2006 IECC):

- R-values for Zone 4: Ceilings R-38(markers affixed to trusses at combo inspection); wood framed walls R13; mass walls R-5; floors R-19; basement & crawl space wall R-10/13; concrete slab R10, 2 feet; IECC 402.1; Table 402.1.1
- (1) layer grade D felt paper over framing & sheathing R703.2
- House wrap taped, sealed & installed per mfr specs IECC402.4
- Window & door flanges flashed/sealed & insulated between frame & jamb IECC402.4.1
- 0.3 cfm max window, skylight & Sliding Glass Door air-infiltration; 0.5 cfm max door air-infiltration IECC402.4.2
- Recessed can lights IC-rated & labeled or in airtight sealed box IECC402.4.3

EXTERIOR STUCCO:

- 3-1/2" weep screed flange R703.7.2.1
- 4" weep screed clearance to finished grade; 2" to concrete slabs R703.7.2.1
- Stucco: (2) layers grade D felt vapor barrier at OSB, plywood & AIS sheathing R703.6.3
- House wrap installed per mfr specs
- 1-1/2 lb. density foam W/ES report number at walls
- 2x blocking at foam butt joints
- T & G joints for foam taped & installed per mfr specs
- Wire lath fastened at 6" O.C. max R703.7.1
- All pop-outs & corner aid installed, fastened 6" O.C.
- All exterior wall penetrations (piping, boxes, etc.) sealed
- All foam butt joints & windows caulked for gaps greater than 1/4"
- 1-coat, synthetic stucco systems applied per mfr specs

FINAL INSPECTION:**A. GARAGE:**

- Floor slopes to a drain or vehicle door R309.1
- GFCI receptacles or single devices for dedicated use E3902.2
- All appliances installed have vehicle impact protection (steel bollard or out of path) M1307.3.1
- Appliances with ignition sources elevated 18" M1307.3
- Upper & lower combustion air vents installed as required G2407
- Gas appliance single wall vent connectors sloped a min 1/4" per foot & all joints fastened with (3) sheet metal screws G2427.10.6 & G2427.10.7
- Metal ceiling fire-stop installed at "B" vent penetration per mfr specs
- Water & gas lines #6 AWG copper (200 amp) or #3 AWG copper (400amp) bond wire clamped at an accessible location E3609.7; Table E3908.12
- Water heater T & P discharge pipe completed per P2803.6.1
- Water heaters elevated 18" P2801.7
- Over-flow pan required at water heater installed where leakage can cause damage to interior surface P2801.6
- Occupancy separation between house & garage R302.5.1
 1. 1-3/8" solid core or rated/ labeled 20 minutes
 2. Weather-stripped gaskets & tight fitting
 3. Self-closing & self-latching

B. ATTIC AREA:

- Finished access opening 22" x 30" at 30+ sf & greater than 30" high R807
- Light & switch for equipment platform E3903.4
- Primary & secondary condensate drains installed, tapped & vented per mfr specs M1411.3 & M1411.3.1
- Furnaces & air-handlers connected to supply circuit disconnect switch within sight or lockout device E4101.5; Table 4101.5
- Combustion air ducts installed & clear G2407.11
- Ridge, dormer & soffit vent openings clear & installed per attic ventilation calcs R806.2

GYPSUM WALLBOARD:

- 1/2" under stairs where accessible R302.7
- Shear fastener type & spacing per shear schedule
- Horizontal blocking & nailing per shear schedule
- Min. 1-3/8" nails at 7" O.C. at 1/2" gypsum ceilings; 8" O.C. walls Table R702.3.5
- Water resistant Gypsum board used at all tub & showers enclosure walls to 72" above drain R702.3.7 & R 307.2
- Exterior soffit, entry & patio cover ceilings protected & rated for type of use
- 5/8" Type X required at garage ceiling with livable above R302.6; Table R302.6
- Cement, fiber-cement or glass mat gypsum backing at showers R702.4.2; Table R702.4.2

C. LAUNDRY:

- Operable window or mechanical ventilation required R303
- Wall switched controlled lighting outlet required E3903.2
- Min. (1) outlet (20 amp circuit) to serve laundry appliances E3901.8 & E3703.3
- Dryer vent terminates outside & 3' from openings M1502.3
- Floor drains to maintain a liquid seal or trap primer P3201.2

D. HALLWAYS:

- 36" minimum clear R311.6
- Smoke alarm(s) and carbon monoxide detectors required within the immediate vicinity of bedrooms R314 & R315
- Min. (1) outlet required if greater than 10' in length E3901.10
- Wall switch controlled lighting outlet required E3903.3

E. STAIRS:

- 36" minimum clear R311.7.1
- Landings 36" min depth X width of stairs R311.7.6
- Min 10" tread depth; max 7-3/4" rise; +/- 3/8" deviation R311.7.5.2
- 6' 8" min head clearance R311.7.2
- Handrails required @ four or more risers R311.7.8
- Handrails 34" – 38" above nose of tread R311.7.8.1
- Handrails have 1-1/2" clearance to wall R311.7.8.3
- Handrail 1-1/4" – 2" cross-dimension R311.7.8.5
- Handrails extend to top & bottom risers with returns to wall or newel post R311.7.8.4
- Safety glazing within 3' of walking surface or <60" A.F.F. or within 5' horizontally of the bottom tread in any direction & <60" A.F.F. R308.4.6 & R308.4.7
- Min 36" high guardrail that does not allow passage of a 4" sphere between openings R 312.1.3
- Wall switch controlled lighting outlet required E3903.3.1

F. BEDROOMS & DENS (w/ closet):

- Egress window min 5.7 sf except 5.0 sf at grade level R310.2.1
- Min egress opening 24" height; min 20" width R310.1.2 & R310.2.1
- Window sill height max 44" measured from the finished floor R310.2.2
- Min 24" sill height if > 72" above exterior grade R312.2.1
- Basement window well min 9 sf total area R310.2.3
- Window well ladder required if height >44" R310.2.3.1
- Bars, grills, covers & screens operable without special tools or knowledge R310.4
- Natural light 8% floor area R303.1
- Natural ventilation 4% of floor area or mechanical ventilation R303.1
- Smoke alarm in each bedroom/ sleeping room; all interconnected & install per mfr. installation instructions R314
- Light fixtures installed in clothes closets measured horizontally min 12" or depth of shelf; 6" min if fluorescent R4003.12

G. BATHROOMS:

- Min 50 cfm exhaust fans installed in eater closet rooms & bathrooms or natural ventilation of 1.5 sf min R303.3 & Table M1505.4.4
- Water closet 1.6 GPF required ARS45-312; Table P2903.2
- Min 30" clear width at water closet Fig.R307.1 & P2705.1(5)
- 15" min from wall to center of water closet Figure R307.1
- Water closet based sealed to floor
- 21" min clear space at front of water closet Figure R307.1
- Shower compartment min head height 6' 8" R305.1(2)
- Safety glazing at all windows <60" above floor R308.4.5
- Safety glazing required at shower doors R308.4
- Non-absorbent surface at bathtubs & showers min 6' above floor R307.2
- Max 2.5 GPM shower heads ARS 45.312; Table P2903.2

H. KITCHEN / DINING:

- Natural light 8% floor area R303.1
- Natural ventilation 4% of floor area or mechanical ventilation R303.1
- Min (2) 20 amp circuits at kitchen, dining, pantry, & breakfast E3703.2
- GFCI protected receptacles at kitchen counter max space 48" O.C. & within 24" of ends of counter-tops E3901.4.1 & E3902.6
- Kitchen sink, drain, disposal & faucet installed; max 2.2 GPM aerator ARS 45-312; Table P2903.2
- Clean-out installed for sink & foot vent
- Sink trap arm offset max 90 degrees
- Dishwasher drain connected with air gap or integral backflow preventer P2717.1
- Dishwasher receptacle installed within 6" of appliance E3901.5
- Permanent cooking appliances wired, plumbed, vented, installed per mfr specs if present

H. KITCHEN / DINING, Cont.:

- Nameplate rating of cooking appliances match conductor sizing & over current protection E3702.9
- Electric wire/ cable within cabinets protected from damage w/ metallic flex conduit & metal boxes installed E3802.3.2
- All gas lines have shut-off valves G2420.1
- Max 6' listed/labeled connector G2422.1.2.1

I. OTHER HABITABLE ROOMS:

- Natural light 8% floor area R303.1
- Natural ventilation 4% of floor area or mechanical ventilation R303.1
- Min (1) Exit door 32" wide X 6' 8" high & side hinged R311.2
- Safety glazing at windows R308.4:
 1. Manufactures label etched into glazing R308.1
 2. Within 24" of arc of door R308.4.2(1)
 3. Fixed & sliding panels of door assemblies R308.4.2
 4. All glazing < 18" AFF with the top edge > 36" AFF with individual Panes > 9 sf & within 36" of a walking surface R308.4.3
- Fireplace installation complete:
 1. Factory-built gas fireplaces installed per listing R1004.1 & R106.1.2
 2. All gas lines have shut-off valves G2420.1
 3. Max 6' listed/labeled connector G2422.1.2.1
 4. Approved for wood burning only by EPA & installed per mfr installation instructions & masonry per R1001.1 & R1003.1

J. EXTERIOR:

- Address numbers plainly visible & legible from front street R319.1
- Exterior door landings within 1-1/2" of threshold R311.3.1
- Roofing complete with approved roof covering R903.1
- Fireplace spark arrester installed, min 2' above any roof within 10' horizontal R1003.9.2
- ABS vents extend min 6" above roof P3103.1.1
- "B" vents min 12" above roof; not within 48" of window or other openings; min 8' from vertical wall G2427.6.4

- Roof vents installed per attic ventilation calcs R806.2
- HVAC equipment have proper fuse size per mfr label E3702.11
- HVAC equipment have disconnects within sight; E4101.5 & Table E4101.5
- Disconnects have min 30" x 36" working clearance E3405.2
- Ground mounted HVAC units have 3" high pad M1305.1.3.1
- All roof flashing installed per R903.2
- Exterior GFCI receptacles installed E3902.3
- Exterior light fixtures installed at exit doors & stairs E3903.3
- Exterior boxes, conduits & fittings listed for wet locations & have W/P covers E3905.11
- A/C condensate drains(s) installed to exterior w/90 Degree elbows M1411.3
- All hose bibs have vacuum breakers P2902.4.3
- Grade away from foundation 6" min within 10' R401.3
- Sewer back water valve installed; extension arm required if over 18" P3008.1

J. EXTERIOR Cont.:

- Electric Panel board complete:
 1. #4 copper UFER, E3608.1.2
 2. Proper size/type circuit breakers E3404.3
 3. Min (2) 20 amp small appliance circuits E3703.2
 4. Min (1) 20 amp bathroom circuit E3703.4
 5. All circuits permanently labeled with indelible ink or equal E3706.2
 6. No damaged conductors
 7. Min 36" deep x 30" wide working clearance at front of enclosures E3405.2
 8. Lugs not over-filled E3406.10
 9. Same size conductors under same lug per mfr specs
 10. Oxide inhibitor installed at aluminum conductor termination at lugs/breakers E3406.8
 11. Rear bushing installed for home runs E3803.7
 12. Dead front installed E3404.9
 13. No unused opening (knock-outs) E3404.6, E3906.4 & E3907.5
 14. ¼" air space behind panel; E3907.3
 15. Panels securely mounted to wall with solid wood, plywood, metal brackets & be weather resistant R703.1 & E3404.8

K. MISCELLANEOUS:

- Verify all inspections have been approved & permit is still valid; not expired
- Drainage & grading cert submitted & recorded prior to final inspection
- Verify that all building certifications are received; stucco, insulation, etc
- Verify that all post tension cable & tensioning reports are received

All items on this check list are based upon the
2018 INTERNATIONAL RESIDENTIAL CODE