Development Services

Multifamily Checklist
R-2 Occupancies

2015 IBC

Use this checklist as a general aid to prepare for pre-development services meetings and to serve as a design and review aid for multifamily buildings, as described in the 2015 International Building Code. This checklist is not intended to address all possible conditions.

Please note that there are several City of Bellevue (COB) amendments to the multifamily provisions in the International Building Code (IBC) and International Fire Code (IFC). The city has provided online read-only documents so the codes can be viewed with Washington State amendments, city amendments, deleted and replaced text, errata and points of information. These documents include both state and city amendments. Where the city replaces the administrative requirements in Chapter 1 of adopted codes, references are specifically made using Bellevue City Code (BCC) sections. These code sections are also found in the online codes. For additional requirements, refer to the Washington Cities Electrical Code (WCEC), the standards of the National Fire Protection Association (NFPA) as specifically referenced in the IFC, the currently adopted edition of the National Electrical Code (NEC), Accessible and Usable Buildings and Facilities ICC A117.1-2009 (ICC) and American Society of Civil Engineers (ASCE) 7-10.

For additional information and resources, please visit the City of Bellevue Development Services Website.

General Requirements

- ☐ **List basic code information** such as building height, number of stories and basements (IBC 504), occupancy classification (IBC 301, 401), type of construction (IBC 601), building areas (IBC 506), building address (IBC 501.2), etc.
- ☐ **High-rise.** If an occupied floor or occupied roof is more than 75 feet above the lowest level of fire department vehicle access per IBC 403.1, see High-Rise Checklist.
- ☐ **Code alternates.** Refer to BCC 23.05.080(K).
- ☐ **Construction documents** submitted for review must be complete and bear the seal and signature of the appropriate design professional per BCC 23.05.105(A).
- ☐ **Separate permit applications.** Separate permit applications and associated drawings are required for land use actions, utilities, ROW, demolition, smoke control, sprinkler systems, fire

alarms, emergency responder radio coverage, clearing & grading, shoring, building, mechanical, electrical and plumbing work.

- ☐ **Deferred submittals.** BCC 23.05.105(E); items to be submitted as deferred submittals after the permit is issued must be indicated on the plans and approved, per the Deferred Submittal Guidelines.
- ☐ **Pedestrian protection** must be provided per IBC 3306.
- ☐ **Show setback distance to property lines,** to the centerline of public ways per IBC Table 602, distance between buildings on the same lot (IBC 705.3).
- ☐ **Opening protection** for windows, doors, vent terminals, etc. per IBC Table 705.8. A full NFPA 13 sprinkler system must be provided throughout the building to get exterior wall opening area increases in Table 705.8; NFPA 13-R sprinkler systems do not qualify (see footnotes in Table 705.8).
- ☐ **Yards.** Minimum dimensions per IBC 1206.2.
- ☐ **Building enclosure.** Show compliance with RCW 64.55.005 through 64.55.090 regarding weather protection for multi-unit residential buildings.
- ☐ **Construction mitigation** is required for wood frame buildings of 80,000 SF or more when exposed to other buildings within 60 ft. Provide a plan in accordance with IFC 3308.8.3.
- ☐ **If applicable, phased occupancy plans** must be submitted for review per BCC 23.05.140(C). Refer to Inspection and Construction Guidelines for phased occupancy requirements.
- ☐ **Emergency power** (i.e. battery backup or emergency generator) is required for fire alarm systems exit signs and emergency lighting. IFC 907.6.2, IBC 1008.3.4 and 1013.6.3.

Energy Code

- ☐ **Energy code.** Submit envelope compliance forms for both residential and nonresidential portions of the building. For R-2 buildings three stories or less, use the Washington State University Energy Program forms. For R-2 buildings exceeding 3 stories and other commercial occupancies use the NEEC forms. Compliance information and details must be shown on the plans and correlate with the submitted forms. See WSEC Chapter 51-11R WAC Residential Provisions for R-2 three stories or less in height above grade plan, and WSEC Chapter 51-11C Commercial Provisions for all other commercial and R-2 occupancies exceeding 3 stories.
- ☐ **Energy code compliance.** Specify method of complying with WSEC C401.2. If utilizing total building performance per WSEC C407, all applicable mechanical, electrical and plumbing permit applications must be submitted with the building permit application.
- ☐ **Electric vehicle charging infrastructure** must be specified on the plans and comply with IBC 427.

Fire-Resistance Rated Construction

- ☐ **Fire-resistive assemblies** need to be specifically identified on the drawings by type (i.e., fire barrier, fire partition) by hourly rating, testing agency, and listed assembly number. All materials, components as well as connection information not deviating from the listed assembly needs to be called out on the drawings for each assembly used.
- ☐ **Fire-resistant joint systems**. Protection needs to be provided at joints between rated walls, floors, and roofs per IBC 715.1 and at the void created at the intersection of a floor/ceiling assembly and an exterior curtain wall assembly per IBC 715.4. Specific approved assemblies should be referenced on the drawings unless specifically listed as a deferred submittal.
- ☐ **Clearances for maintaining fire-resistance ratings at post-tensioned (PT) slabs** must be maintained to achieve the required fire-resistance ratings for the type of construction per IBC Table 601 & IBC Table 721.1(1) for rated protection of structural parts. Attention needs to be paid to clearances at PT tendons for both restrained and unrestrained conditions.
- ☐ **Projections.** Cornices, eave overhangs, balconies, etc., shall comply with IBC 705.2.
- ☐ **Parapets.** Show parapet location, dimensions and construction as required per 705.11.
- ☐ **Separation walls** between dwelling units and other occupancies required per IBC 420.2, shall be constructed in accordance with IBC 708.
- ☐ **Horizontal separation** between dwelling units and other occupancies required per IBC 420.3, shall be constructed in accordance with IBC 711.
- ☐ **Special provisions** of IBC 510 may be used to create a separate building above a 3-hour fire-resistance rated horizontal assembly.

Interior Environment

- ☐ **Operable windows.** Window sills located more than 72 inches above the finished grade must comply with one of the options listed in IBC 1015.8 or the sill must be a minimum of 36 inches above the finished floor per IBC 1015.8.
- ☐ **Carbon Monoxide detection.** Show location and power source per IBC 915.
- ☐ **Smoke Alarms or Detectors.** Show location and power source per IBC 420.6 and 907.2.11.2.
- ☐ **Attic spaces**. Show ventilation calculations, size and location of vents, including cross ventilation for enclosed attics, enclosed rafters and roof deck spaces per IBC 1203.2. Protect openings into attics per IBC 1203.2.1. Show attic access size and location on floor plans and framing plans per IBC 1209.2. Show location and details including materials and assembly for unvented attics per IBC 1203.3.

- ☐ **Crawl spaces.** Show ventilation calculations, size and location of vents, including vents within 3 feet of each corner and vapor barriers per IBC 1203.4. Show crawl space access size and location on floor plans and framing plans per IBC 1209.
- ☐ **Interior Ventilation (natural)** is required per IBC 1203.5 and the IMC. If exceptions are used, indicate compliance method on the plans.
- ☐ **Ventilation systems (mechanical)** must be clearly described on the drawings, and all source-specific and whole house systems identified on the plans in accordance with IMC 403.8.
- ☐ **Lighting** is required per IBC 1205. Natural light per IBC 1205.2. Stairway illumination and controls per IBC 1205.4. Emergency egress lighting per IBC 1205.5 and 1008.1.
- ☐ **Heating** is required for interior spaces intended for human occupancy per IBC 1204.
- ☐ **Sound transmission** per IBC 1207. Interior walls between dwelling units or between dwelling units and adjacent public areas as well as floor/ceiling assemblies must have an STC of not less than 50 (45 if field tested). Floor/ceiling assemblies must have an IIC rating of not less than 50 (45 if field tested).
- ☐ **Interior space dimensions.** Minimum room widths shall be 7' per IBC 1208.1, minimum ceiling heights shall be 7' 6" per IBC 1208, and the minimum room area shall be 120 SF per IBC 1208.3.
- ☐ **Efficiency dwelling units** shall comply with IBC 1208.4.
- ☐ **Mechanical appliance access and location.** Access to mechanical appliances installed in under-floor areas, in attic spaces and on roofs or elevated structures shall be in accordance with the IMC per IBC 1209.3.
- ☐ **Toilet and Bathroom Finish Material.** Finish materials for walls, floors and showers shall comply with IBC 1210.2.

Story Increase – Type VA Buildings

- ☐ **Story increase.** The State amendment to IBC 504.4.1 allows Group R-1 and R-2 occupancies of Type VA Construction to increase the number of stories by one. Identify pressurized stair enclosures and the extent of each on the drawings. When a pressurized stair leads through an exit passageway before reaching the exterior of the building, it must also be pressurized or separated from the stairway with a fire barrier in accordance with 1023.3.1 and, per IBC 1023.11.1, no openings are permitted into the exit passageway.
- ☐ **Separate permit**. A separate smoke control permit (FH) is required for shaft pressurization systems. Fire fighter's smoke control panel must be located adjacent to the fire alarm control panel and must be approved by the fire code official. Refer to IBC 909 and Bellevue Fire Department Smoke Control Guidelines.

☐ **Fire-resistance rating for protection of smoke-control system**. Shaft pressurization equipment, control wiring, power wiring, and ductwork for stair and elevator shaft pressurization must be separated from the remainder of the building and other equipment with a 2-hour fire barrier per IBC 909.20.6.1 and IBC 23.10.909.21.

☐ **Legally required standby power** shall be provided for buildings constructed in compliance with this section and be connected to stairway shaft pressurization equipment, elevators and lifts used for accessible means of egress, hoistway pressurization equipment (if provided) and other life safety equipment as determined by the authority having jurisdiction. IBC 504.4.1.

Egress

☐ **Emergency escape and rescue openings are required** in single exit Group R-2 occupancies in accordance with IBC Tables 1006.3.2(1) and 1006.3.2(2). Show location, size and sill heights when required by IBC 1030.

☐ **Egress plan**. An egress plan showing compliance with IBC chapter 10 is required and must include: location and number of exits, separation of exits or exit-access doorways, travel distance calculations, common path of travel, corridors, interior exit stairways, exit passageways, floor areas and occupant load per room, area, floor, etc.

☐ **Exit width** must be calculated per IBC 1005.3.

☐ **Exit signs** must be provided per IBC 1013.1. Tactile exit signs are also required to be provided per IBC 1013.4 in conformance with ICC A117.1.

☐ **Corridors** serving an occupant load of greater than 10 must have a fire-resistance rating of at least 0.5 hour, per IBC Table 1020.1. Doors must have a 1/3-hour rating per IBC Table 716.5 and be provided with smoke and draft control assemblies per IBC 716.5.3.

☐ **Exit passageway ventilation** system shall be independent of other building ventilation systems and separated from the remainder of the building by construction conforming to shaft requirements, per IBC 1024.7.

☐ **Stairway to roof**. In buildings with 4 or more stories above grade plane, one stairway must extend to the roof per IBC 1011.12 unless the roof slope is steeper than 4:12. If the roof is not occupied, access to the roof can be by an alternating tread device, a ships ladder or a permanent ladder. Stairways required to extend to the roof must be provided with access through a penthouse, or a hatch if the roof is unoccupied per IBC 1011.12.2.

☐ **Roof hatches** must be a minimum of 16 square feet with a minimum dimension of three feet to meet COB Fire Department requirements and IBC 1011.12.2. Where a roof hatch is located within 10 feet of the roof edge, a guard must be installed, per IBC 1011.13.

☐ **Special doors** or doors with controlled access must be identified on the drawings and complete hardware information provided on the drawings. Refer to IBC 1010.1.4.

- ☐ **Door schedule.** A complete door schedule must be provided which includes detailed hardware information to address special egress-control devices, closers, smoke protection, fire-resistance ratings, etc.
- ☐ **Means of egress illumination.** Egress pathway lighting must have a minimum of 1 foot-candle (11 lux) at the walking surface in the means of egress pathway, including down each drive aisle in a garage leading to each exit per IBC 1008.2.1
- ☐ **Headroom heights** need to be clearly shown on the drawings in compliance with IBC 1003.2 along the means of egress. A clear headroom height of 7 feet must be provided in garages per IBC 406.3.2. An overall building section should show headroom heights and include consideration of clearance at sprinkler piping, structural beams, drain pipes, exit signs, etc.
- ☐ **Stairways must** show rise, run, width, handrails and landings, per IBC 1011.
- ☐ **Ramps must** show slope, width, handrails and landings, per IBC 1012.

Occupied Roofs

- ☐ **Occupied roofs.** Per IBC 503.1.4, a roof level or portion thereof shall be permitted to be used as an occupied roof provided the occupancy of the roof is an occupancy that is permitted by Table 504.4 for the story immediately below the roof. The area of the occupied roof shall not be included in the building area regulated by IBC 506.
- ☐ **Occupied roofs** shall be classified in the group that the occupancy most nearly resembles according to the fire safety and relative hazard involved (IBC 301) and shall comply with Section 503.1.4.
- ☐ **Egress from stories or occupied roofs.** Per IBC 1006.3, the means of egress system serving any story or occupied roof shall be provided with the number of exits or access to exits based on the aggregate occupant load served in accordance with this section.
- ☐ **Accessible route.** An accessible route of travel shall be provided to the occupied roof. This will typically be via an elevator. IBC Section 1101.2.
- ☐ **Restrooms and drinking fountains.** Access to public restrooms and drinking fountains shall be provided per IBC Chapter 29.
- ☐ **Locking devices on egress doors serving occupied exterior areas.** Egress doors serving outdoor areas where occupants must egress back through the building shall not be locked unless the design is in conformance with the City of Bellevue policy on Locked Egress Doors from Occupied Exterior Areas.

Atriums

- ☐ **Automatic sprinkler protection.** An approved automatic sprinkler system shall be installed throughout the entire building per IBC 404.3.
- ☐ **Smoke control** is required for atriums that connect more than 2 floors, per IBC 404.5. Refer to the High-Rise Checklist for more information on smoke-control requirements. A separate smoke control permit (FH) is required.
- ☐ **Identify all required separations** from adjacent spaces by 1-hour fire barrier walls or horizontal assemblies, per IBC 404.6.
- ☐ **Standby power.** Show that the equipment required to provide smoke control will be provided with standby power in accordance with Section 909.11 and 2702.
- ☐ **Interior finish.** Specify the class of the interior finish of walls and ceilings of atriums. IBC 404.8 indicates that not less than a Class B interior finish is required with no reduction in class for sprinkler protection.
- ☐ **Travel distance.** Specify travel distances within the atrium on an egress plan. In other than the lowest level of the atrium, where the required means of egress is through the atrium space, the portion of exit access travel distance within the atrium space shall not exceed 200 feet, per IBC 404.9.

Sprinkler System and Standpipes

- ☐ **Automatic Sprinklers** shall be installed in group R occupancies in accordance with IBC 903.2.8.
- ☐ **Quick response or residential sprinklers** shall be installed in accordance with IBC 903.3.2.
- ☐ **Seismic bracing** at sprinkler piping hangars must be designed per ASCE Ch. 13 or NFPA 13.
- ☐ **Standpipes** are required in buildings where the floor level of the highest story is located more than 30 feet above the lowest level of fire department access, per IFC 905.3.1. Each required standpipe must include roof outlets if the roof slope is less than 4:12 except as allowed in IFC 905.4 as amended in BCC 23.11.905.4.
- ☐ **Hose connections** are required to be provided on every intermediate floor level landing in every required stairway and elsewhere as required by NFPA 14 and IFC 905.4 as amended in BCC 23.11.905.4.
- ☐ **Standpipe systems during construction** shall be provided per IBC 3311 and IFC Chapter 14.
- ☐ **Hose reach requirements.** Per IFC 905.4, Item 6, and BCC 23.11.905.4, the most remote portion of a sprinklered floor or story shall be within 200 feet travel distance to a vertical exit enclosure or protected, accessible hose connection. Travel distances in parking garages may

be increased to 240 feet, subject to the approval of the fire code official, and routing cannot be between vehicle stalls. To qualify, the stall must remain open and be marked as NO PARKING.

- ☐ **Garage sprinkler systems** must be zoned (floor by floor). Proper clearances must be maintained between sprinkler heads and insulation. See NFPA 13, 8.5.4.1. Use of dry standpipes is not allowed without prior approval by the fire code official per IFC 905.8 as amended in BCC 23.11.905.8.
- ☐ **Fire department connections** must be located not more than 100 feet from the nearest fire hydrant and not more than 40 feet away from the building.

Fire Alarm and Detection Systems

- ☐ **Specific provisions for occupancy types** need to be addressed per IFC 907.2.1 through 907.2.9.
- ☐ **Audible notification** for sleeping rooms of R occupancies must produce a low frequency tone of 520 Hz ± 10 percent NFPA 72, 18.4.5.3.
- ☐ **Smoke alarms and detectors.** Show locations of all smoke alarms per IBC 907.2.9.
- ☐ **Carbon monoxide alarms and detectors**. Show locations of all devices per IBC 915.4.
- ☐ **Elevator lobbies** on garage levels must have smoke detection. If elevator lobbies are not provided, other automatic fire detection shall be provided per NFPA 72, Section 21.3.9.
- ☐ **Fire extinguishers** must be provided per IFC 906.

Elevators

- ☐ **Separate elevator permit.** This is required by the Washington State Department of Labor & Industries.
- ☐ **Specify rating of shafts and opening protectives** per IBC 707 and IBC 713. Elevator doors must meet the testing criteria specified in IBC 716.5.
- ☐ **Hoistway opening protection.** Elevator hoistway openings shall be protected in accordance with IBC 3006.3. Note: To avoid a one-hour rated elevator lobby or an additional door over the hoistway opening, hoistways may be pressurized per 3006.3, #4 and 909. A smoke control permit is required for hoistway pressurization smoke control.
- ☐ **Number of elevator cars in a hoistway.** Not more than four elevator cars shall be in any single hoistway enclosure per IBC 3002.2.

- ☐ **Emergency signs**. Per IBC 3002.3, an approved pictorial sign of a standardized design shall be posted adjacent to each elevator call station on all floors instructing occupants to use the exit stairways and not to use the elevators in case of fire, unless the elevator in question is a part of an accessible means of egress.
- ☐ **Elevator car to accommodate ambulance stretcher.** Where elevators are provided, at least one elevator shall be provided for fire department emergency access to all floors. The elevator car shall be of such a size and arrangement to accommodate an ambulance stretcher. Note: The State of Washington amends IBC 3002.4 to apply stretcher requirements to all R & I Occupancies regardless of the number of stories of the building.
- ☐ **Machine Room Venting.** Specify the location of all elevator machine rooms and provide each with an independent ventilation or air-conditioning system to protect against the overheating of the electrical equipment per IBC 3005.2. Natural or mechanical means may be used for buildings four stories and less in height per the parameters of the exception.
- ☐ **Machine rooms and machinery spaces.** Per IBC 3005.4, elevator machine rooms and machinery spaces must be enclosed with fire barriers or horizontal assemblies having a fire-resistance rating not less than the required rating of the hoistway enclosure served by the machinery. Openings must be protected with assemblies having a fire-resistance rating not less than that required for the hoistway enclosure doors. Machine rooms cannot open directly into vertical exit enclosures or exit passageways, per IBC 1023.4 and 1024.5.
- ☐ **Hoistway venting** shall comply with IBC 3009.1.

Legally Required Standby Power and Emergency Power Systems

- ☐ **Applicability.** For standby power requirements serving pressurized shafts, where used, see BCC 909.11. Legally required standby power in the form of a separate service may be used when emergency power is not required by other sections of the IBC or IFC.
- ☐ **An approved remote fueling station** is required at an approved location per IFC 3404.2.7.5.2 or IMC 1305.6.
- ☐ **Fuel storage limitations.** Refer to IFC 603.3 for limitations before an H Occupancy classification is required. See also IBC 414.2 and 414.5 for allowable locations of fuel storage in buildings.
- ☐ **Vent pipe outlets.** Shall be in accordance with IFC 5704.2.7.3 or IMC 1305.7 when complying with IFC 603.
- ☐ **Rated Separation.** If the standby system is a generator set inside a building, the standby system, including automatic transfer switch, must be in a separate room enclosed with 1-hour fire barriers or horizontal assemblies per IBC 2702.1.8.

- ☐ **Generator ventilation.** When the generator serves a smoke-control system, ventilation-directly to the outside must be provided from the generator room per IBC 2702.1.8, as amended in BCC 23.10.2702.1.8.
- ☐ **Other equipment.** NFPA 110 Section 7-2.2 prohibits the installation of any other equipment within generator rooms.
- ☐ **Generators and UPS.** NFPA 72 Section 1-5.2.7 allows the use of a generator for stand-by power, provided a UPS is installed to prevent loss of signals during the start of the generator.
- ☐ **Load Calculations.** When submitting for the electrical permit, size the generator for sequenced starting loads.
- ☐ **Sprinklers** are required in generator rooms per IBC 903.3.1.1.1. (BCC 23.10.903.3.1.1.1 deletes generator rooms from the exempt locations).
- ☐ **Smoke Control Power Systems** must comply with BCC 23.10.2702.1.9. The legally required standby power or emergency power source and its transfer switches shall be in separate rooms from the normal power transformers and switch gears. The room shall be completely enclosed in not less than 1-hour fire barriers constructed in accordance with Section 707, or 1-hour horizontal assemblies constructed in accordance with Section 711, or both, except 2-hour fire-resistance construction shall be required for high-rise and underground buildings per Sections 403 and 405 respectively. Power distribution from the two sources shall be by independent routes to the room containing the automatic transfer switch(s). Independent routes shall mean either a minimum 1-hour fire-resistance separation, or a physical distance of not less than 50 feet. Transfer to full emergency power shall be automatic and shall take place within the maximum time to energize loads. The systems shall comply with the Washington Cities Electrical Code.

Transformer Vaults

General

- ☐ **Sprinklers** are required in transformer vaults per IBC 903.3.1.1.1 (BCC 23.10.903.3.1.1.1 deletes transformer vaults from the exempt locations) unless the vault is 3-hour rated per NEC 450.42.
- ☐ **Dry transformers rated over 112.5 kVA**. One-hour fire-resistance rated construction and one-hour doors are required at the transformer room per NEC 450.21(B).

Oil-filled Transformers

- ☐ **Location.** Identify the location of all transformer vaults. Per NEC 450.41, vaults must be located where they can be ventilated to the outside air without using flues or ducts wherever such an arrangement is practicable. If not practicable, this must be approved by the building official and fire code official.
- ☐ **Construction of walls, roofs and floors.** The walls and roofs of vaults shall be constructed of materials that have adequate structural strength for the conditions with a minimum fire resistance of 3 hours per NEC 450.42. The floors of vaults in contact with the earth must be constructed with a minimum of 4-inch thick concrete. Where the vault is constructed with a vacant space or other stories below it, the floor shall have adequate structural strength for the load imposed thereon and a minimum fire resistance of 3 hours (6-inch minimum concrete). Studs and wallboard construction is not acceptable (except at shafts leading away from the vault). Refer to NEC 450.42 for additional information and for an option to use a one-hour rating when sprinklered (shafts penetrating a 2-hour floor would still require the 2-hour rating per IBC 707.4).
- ☐ **Spill control and secondary containment.** Indicate the spill capacity of vaults. Areas occupied for storage of hazardous materials must be provided with a means to control spillage and provide secondary containment of drain-off spillage and 20 minutes of fire protection water per IBC 414.5.5 & IFC 2704.2.
- ☐ **Ventilation openings.** Where required by NEC 450.9, openings for ventilation shall be provided in accordance with NEC 450.45(A) through (F). Refer to these code sections for requirements for location of ventilation openings, arrangement of openings, size of ventilation openings, covering limitations over openings, dampers and ducts. Exhaust ventilation openings are not permitted to have dampers installed.
- ☐ **Water pipes and accessories.** Any pipe or duct system foreign to the electrical installation must not enter or pass through a transformer vault per NEC 450.47. Piping or other facilities provided for vault fire protection or for transformer cooling would not be considered foreign to the electrical installation.
- ☐ **Storage in vaults.** Materials shall not be stored in transformer vaults per NEC 450.48.

Accessibility

- ☐ **General accessibility**. Accessibility detailing must meet the standards of ICC/ANSI A117.1-2009. Identify accessible routes of travel from the public way to the accessible building entrances, between building on the site and to all amenity spaces within the building, per IBC 1104.2. Sixty percent of all public entrances must be accessible per IBC 1105.
- ☐ **Parking**. Show locations of all accessible parking spaces, van parking spaces, passenger loading zones, if provided, and the route of travel to the accessible building entrances, per IBC 1106. Parking spaces for vans, the access aisles serving them, and vehicular routes from the

entrance to the van-accessible parking spaces must have a vertical clearance of 98 inches (8'-2") per ANSI 502.6. Vehicle pull-up spaces, access aisles serving them and a vehicular route from an entrance to a passenger loading zone must have a vertical clearance of 114 inches (9'-6") per ANSI 503.5.

☐ **Accessible means of egress**. IBC 1009.2.1 requires at least one elevator to comply with IBC 1009.4 at floors four or more stories above or below a level of exit discharge (i.e., a five-story building) unless the floor is provided with a horizontal exit or ramp. IBC 1009.4 requires emergency operation, signaling devices and standby power. For requirements on legally required standby power, refer to IBC Section 3003 and Chapter 27. Label accessible means of egress elevators in the floor plan views.

☐ **Unit designations.** The number and distribution of Type A and Type B units must comply with IBC 1107.6.2

☐ **Type A units** need to meet the requirements in ANSI 1003. IBC 1107.

- Make sure appropriate dimensions are on the drawings to show maneuvering clearances from both sides of doors in compliance with ANSI 1003.2 and 1003.5. Refer to ANSI 404.2.3. Doors must have a clear width of 32 inches per ANSI 404.2.2.
- Clearly dimension accessible routes to the accessible bedroom and bathroom, kitchen, etc., to show compliance with ANSI 1003.3. Show a dimensioned turning space in required accessible spaces, per ANSI 1003.3.2.
- Clearly show that decks are accessible per IBC 1107.3. Thresholds at exterior sliding doors can be ¾ inch maximum in height if beveled. Refer to ANSI 1003.3, 1003.4 and 1003.5.
- Basic information on operable parts should be on the drawings per ANSI 1003.9.
- Laundry equipment must comply with ANSI 1003.10 & 611. There must be a 30-inch x 48-inch clear floor space in front of each appliance positioned for parallel approach and centered on the appliance, per ANSI 611.2. Operable parts and heights must comply with ANSI 611.3 & 611.4. This restricts the use of most stackable machines.
- Reinforcement for grab bars must meet the requirements of ANSI 1003.11.1.
- Show clear floor spaces in accessible bathrooms. Refer to the Exception to ANSI 1003.11.2.4.4 for permitted overlap at lavatories.
- Lavatories must meet the requirements of ANSI 606. If providing cabinetry under lavatories, it must meet the specific requirements of ANSI 1003.11.2.
- Provide an accessible work surface in kitchens per ANSI 1003.12.3 with the appropriate knee space underneath and dimensions between opposing counters. If providing cabinetry underneath the accessible work surface or sink, it must meet the specific requirements of the Exception to ANSI 1003.12.3.1 or 1003.12.4.1. Appliances must be accessible per ANSI 1003.12.5

☐ **Type B units** need to meet the requirements of ANSI 1004.

- Make sure appropriate dimensions are on the drawings to show maneuvering clearances from the corridor side of the unit entry doors in compliance with ANSI 1004.2 and 1004.5.
- Clearly dimension accessible routes to connect all spaces and elements to show compliance with ANSI 1004.3. User passage doorways must have a clear opening of at least 31-3/4" per ANSI 1004.5.2.1.
- Clearly show that decks meet the threshold requirements of ANSI 1004.5.2.2. Thresholds at exterior sliding doors can be 3/4" maximum in height if beveled.
- Changes in level must comply with ANSI 303; however, impervious decks can be up to 4" maximum below the floor level of the adjacent interior space per ANSI 1004.4.2.
- Basic information on operable parts should be on the drawings per ANSI 1004.9.
- Laundry equipment must comply with ANSI 1004.10. There must be a 30"x48" clear floor space in front of each appliance positioned for parallel approach and centered on the appliance.
- Reinforcement for grab bars must meet the requirements of ANSI 1004.11.2.
- Either all toilet and bathing rooms must comply with Option A of ANSI 1004.11.3.1, or one toilet and bathing room must comply with Option B of ANSI 1004.11.3.2. Please indicate how you will be complying with the Type B accessibility requirements so that it is clear what option is intended for each unit. This will make our review easier and potentially eliminate unnecessary comments.
- Provide dimensions from opposing counters in kitchens per ANSI 1004.12.1.

☐ **Condominium unit accessibility.** A pre-sold Type A unit in a condominium building is permitted to be altered to Type B standards. Refer to Type A Condominium Unit Accessibility Interpretations & Procedures.

☐ **Alarms**. The locations of audible and visible alarms should be on the drawings per IBC 907.5.2.1, IBC 907.5.2.3., ANSI 702, 1006 and NFPA 72

☐ **Common areas.** Rooms available to the public or available for use by residents must be accessible per IBC 1107.3.

☐ **Recreational and sports facilities** must be accessible per IBC 1110.

☐ **Elevator** cars must be dimensioned to show compliance with ANSI 407.4.

☐ **Ramps** required to be accessible must meet the requirements of IBC 1012 and ANSI 405. Ramps must have landings dimensioned and handrails must be provided where the rise is greater than six inches, per ANSI 405.8.

Mechanical and Electrical

- ☐ **HVAC system.** Describe the HVAC system serving the building.
- ☐ **Pressurization.** Describe the elevator and stair pressurization system, if applicable, including location of intake, exhaust and fans. Show the location and extent of each pressurized elevator, stair and exit passageway (if applicable).
- ☐ **Supply air at corridors.** Describe any system that supplies air to or from rated corridors.
- ☐ **Hoods.** Describe the exhaust system for any Type I or II cooking hood anticipated in the project. Include fire separations and termination locations.
- ☐ **Electrical vaults.** Describe the mechanical system for any electrical vault including supply and exhaust, fire separations, and locations. Describe vault gravity vent to exterior.
- ☐ **Electrical switchgear rooms** may be required to be in a rated room per NEC 450.21(B). Additional exits or access to exits may be required per IBC 1006.2.2.6. Panic hardware and door swing are regulated by IBC 1010.1.10.3.
- ☐ **Fire and smoke dampers** are not required for shaft enclosures that conform to applicable exceptions of IBC 717.5.3. Standby power (for non-high-rise buildings) or emergency power (for high-rise buildings) shall be provided for the exhaust fan to maintain continuous upward airflow to the outside.

Parking Garages Associated with R-2

- ☐ **Occupancy classification for parking garages**. See IBC 311.3, Low-hazard storage, Group S-2.
- ☐ **Underground parking garages.** See IBC 405, exception 2.
- ☐ **Separate parking garages** from other occupancies in accordance with Section 420.2, 508.1 and 708.1 #1.
- ☐ **Clear headroom height** of seven feet must be provided in garages. This needs to be shown in section on the drawings. Clearance at sprinkler piping, drainpipes, mechanical ductwork, exit signs, etc., must be provided. Additional vertical clearance is required at van-accessible parking spaces per ICC A117.1 Section 502.6.

Check the IBC for other provisions applicable to the project scope.