

Design Quality Standards and Construction Manual

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I. Introduction

All projects must be designed and constructed in accordance with the following Building Codes and Accessibility Requirements.

A. Building Codes.

All Projects must be designed and constructed in accordance with current locally adopted International Building Code or International Residential Code at the time construction is permitted along with any more restrictive local building codes or ordinances, and any local disaster mitigation standards.

1. In the absence of a local building department, design and construction must be in accordance with the IBC or IRC dating no farther back than 2009.
2. Regardless of locally adopted codes, all new construction projects are subject to the 2021 IECC with no exceptions except as stipulated within the code. Additionally, buildings 4 stories or more in height must also meet ASHRAE 90.1-2019.
3. Any new construction that is accessory to the rehabilitation of existing buildings is subject to the International Energy Conservation Code of Alabama (IECCA).

B. Accessibility Standards.

All Projects must be designed and constructed in accordance with the applicable requirements of the Fair Housing ACT³, Section 504 of the Rehabilitation Act⁴, 2010 ADA Standards for Accessible Design, and IBC Chapter 11 and code referenced ICC ANSI A117.1.

C. Special Accommodations.

Projects may opt to exceed building codes and design quality standards to provide customized and other special accommodations, as applicable, for persons with disabilities, specifically when using National Housing Trust (HTF) or HOME-ARP funding sources.

Any deviations from these standards must have the written approval of AHFA prior to applying for funding during the Competitive or Non-Competitive Application Cycles. The request for approval, with all supporting documentation, must be submitted to AHFA at least 30 days prior to submitting a final application for funding. Once the project begins construction and through the end of construction of project, any deviation must have written approval before any work commences or any deviation is made on the construction site. Any deviation requested and approved will be charged the appropriate fee. A complete list of fees is located at www.ahfa.com.

II. Requirements for All Approved Projects

A. Site Specific Criteria.

1. No portion of any HOME proposed sites can be located within a 100-year flood plain or contain any wetlands, streams, lakes, or other water bodies (which also includes waters of the United States) including any integral offsite development areas (e.g., offsite areas required for ingress, egress, or parking). Under certain conditions, portions of Housing Credit proposed sites can be located within a 100-year flood plain or contain wetlands, streams, lakes, or other water bodies (which also includes waters of the United States) New Construction projects in all zones will require radon resistant new construction practices in all buildings pursuant to the radon requirements in the most

recent version of HUD's Multifamily Accelerated Processing (MAP) Guide ("HUD MAP Guide").¹ All new construction and rehabilitation projects must comply with all requirements of the most recent version of HUD's MAP Guide, including, but not limited to, the requirements regarding Radon Professionals and testing protocols, post-construction testing for all new construction and substantial rehabilitation projects, mitigation for new construction or substantial rehabilitation projects where post-construction testing indicates radon levels in excess of the acceptable levels, and mitigation for substantial rehabilitation projects where early testing is not feasible.

2. New Construction Rental Units. All new construction developments must submit a complete site-specific soils report, not more than one year old at the time of submission of final plans and specifications, bound within the project specifications. The soils report must reflect the results of laboratory tests conducted on a minimum of 1 soil boring per planned building location and a minimum of 2 soil borings at the planned paved areas of the development. A registered professional engineer or a certified testing agency with a current license to practice in the State of Alabama must prepare the report.
3. New Construction Single-Family Rental Homes. All developments must submit a complete site-specific soils report, not more than one year old at the time of submission of final plans and specifications, bound within the project specifications. The soils report must reflect the results of laboratory tests conducted on a minimum of 1 soil boring for every 2 single family buildings and a minimum of 2 soil borings at the planned paved areas of the development. A registered professional engineer or a certified testing agency with a current license to practice in the State of Alabama must prepare the report.
4. Rehabilitation of an Existing Building. Projects adding any new building foundations must submit a foundation specific soils report. The soils report must reflect the results of laboratory tests conducted on a minimum of one soil boring per planned building location and a minimum of 2 soil borings at the planned paved areas of the development. A registered professional engineer or a certified testing agency with a current license to practice in the State of Alabama must prepare the report.

B. Site Located Outside Municipal City Limits.

1. A proposed new construction site or existing project may be located outside a municipality's city limit but must be within the local police or sheriff jurisdiction.
2. A proposed site or existing project that is in the police jurisdiction of a local municipality must comply with applicable Zoning restrictions as if located within that municipality's city limit.
3. Domestic water and fire water service must be provided to the development by the local utility service provider.

C. Project Standards.

1. Clubhouse/Community Building Standards. The eligible square footage of the project's clubhouse/community building, or space(s) is 3,000 square feet heated and cooled (inclusive of the office area, community laundry, community meeting room, restrooms, kitchens, etc.). The clubhouse/community building, or space(s) may exceed 3,000 square feet heated and cooled but any square footage exceeding this amount will not be included in the Eligible Basis used to calculate

¹ https://www.hud.gov/program_offices/administration/hudclips/guidebooks/hsg-gb4430

the Housing Credit. The clubhouse/community building, or space(s) is required to meet all applicable accessibility standards.

2. Elderly Project Standards. All 100% Elderly projects must be one-story structures. Exception: Projects may have more than one story, provided elevators are to be installed to service all upper-

level apartments. Design exceptions, or deviations, must be reviewed by AHFA on an individual basis.

3. Required Unit Amenities. All projects are required to have the following unit amenities for all units:
 - Range
 - Refrigerator with Ice Maker
 - Dishwasher
 - Microwave
 - Washer and Dryer Connections
 - Heater
 - Air Conditioner
 - Ceiling Fans

All units must include an exterior storage closet with a minimum area of sixteen (16) square feet and either a single coated wire shelf that spans the length of the closet or a grouping of smaller coated wire shelves. Developments designed with all interior unit access must provide the additional required exterior storage for each unit in the interior of the building(s). It may be located inside the unit, on the tenants' floor, or in a common area. All exterior and interior storage must be lockable.

4. Modular Construction. Modular units are constructed in component sections and assembled by a manufacturer in a controlled environment. The component sections are assembled on a conventional permanent foundation at the project site. Finish work is completed on site. Modular units must be constructed to meet applicable building codes, AHFA's specifications and Design Quality Standards stated herein. A modular home manufacturer's warranty must be provided.
5. Drawing Submission Criteria. The following documents must be prepared by a registered architect, surveyor, or engineer licensed to practice in the State of Alabama.
6. Site Plan. (The following items must be shown):
 - Scale: 1 inch = 50 feet or larger.
 - North arrow.
 - Locations of existing buildings, utilities, roadways, parking areas if applicable.
 - Existing site/Zoning restrictions including setbacks, rights of ways, boundary lines, wetlands, and flood plain.
 - All proposed changes and proposed buildings, parking, utilities, and landscaping.
 - Existing and proposed topography of site.
 - Finished floor height elevations and all new paving dimensions and elevations.
 - Identification of all specialty apartment units, including, but not limited to, designated handicapped accessible and sensory impaired apartment units.
 - Provide an accessible route site plan with applicable details.

7. Floor Plans.
 - Scale: 1/4 inch = 1 foot or larger for typical units.
 - Show room/space layout, identifying each room/space with name and indicate finished space

size of all rooms on unit plans.

- Indicate the total gross square foot size, and the net square foot size for each typical unit.

8. Elevations.

- Scale: 1/8 inch = 1 foot or larger. (3/32 inch will be acceptable for buildings that 1/8 inch would require the buildings to be drawn with match lines.)
- Identify all materials to be used on building exteriors and foundations.

9. Title Sheet. Indicate Building Codes and Accessibility Standards that are applicable for the project.

10. Building Energy Efficiency Standards. The building or dwelling unit shall meet the following *Energy Efficiency Standards*:

New Construction. All building or dwelling units shall meet the 2021 International Energy Conservation Code (IECC). No State or Local exceptions are permitted. Code compliance must be achieved using one of the listed methods.

- Prescriptive Compliance Option
- Total Building Performance Option
- Energy Rating Index Option
- A Qualified Rater must certify code compliance regardless of method used.
- All buildings four (4) or more stories in height shall meet the 2021 IECC and ASHRAE 90.1-2019.

Rehabilitation of an Existing Building.

- Air and Duct Leakage Testing Requirements:
- Units are required to achieve a 20% improvement over existing conditions based upon pre-rehabilitation duct leakage and dwelling unit air filtration rates or meet the code required duct and envelope leakage rates. All projects must complete pre-rehab duct leakage and dwelling air infiltration test to determine a baseline. To arrive at the pre-rehabilitation leakage rates, a sampling of units (that includes at least one of each unit type in its various configurations within the property but not less than 25% of all units) must have pre-rehabilitation duct leakage and dwelling unit air infiltration performance testing, utilizing RESNET- approved performance testing methodologies, conducted upon them prior to the rehabilitation of the property.
- All Community Buildings that are part of a rehabilitation project are to receive the same energy improvements as those applied to the dwelling units.

11. Exterior Building Standards. Exterior Finishing Materials.

Exterior building coverings. very low maintenance materials are required. Acceptable materials include:

- Brick.
- High quality vinyl siding with a minimum thickness of .044 and a lifetime non-prorated limited warranty (50 year) transferable.
- Cementitious siding and trim material; or engineered composite siding and trim material.
- All siding materials listed above are required to be 12 inches above the finished floor elevation of the building ground floor, except for concrete patio and covered breezeway areas. Brick, decorative block or cultured stone must be used as an apron material.
- Fascia and soffit: Must be prefinished vinyl, prefinished aluminum, cementitious trim or

- engineered composite trim. Material used for soffits must be perforated or vented.
- Window frames and sashes are to be constructed of vinyl-clad wood, solid extruded vinyl, fiberglass, or aluminum and all windows are required to have screens.
- Materials for entry doors are to be metal-clad wood, fiberglass, or metal insulated construction. “Peepholes” and deadbolt locks are required in entry doors. Dead bolt locks on entry doors must have “thumb latch” on interior side. Double keyed dead bolt locks are prohibited. Minimum clear width of all exterior doors must be 34 inches.
- All attics shall be vented.

12. Other Exterior Standards.

- Address numbers are to be clearly visible.
- Metal flashing or 20 mil polyethylene when used in conjunction with a self-adhering polyethylene laminate flashing, must be installed above all exterior door and window units.
- A lighted project sign including the Fair Housing logo is required. Depending on the placement as it relates to the access of the property from the public road, the project’s sign may require the project’s name and Fair Housing logo on both sides of the sign.
- Continuous asphalt or concrete paved access road must be provided to the entrance of the development.
- Mailboxes, playground, and all exterior project amenities must meet the accessibility requirements of the applicable accessibility standards. All exterior project amenities that have exposed components used as part of the structure must be constructed so that no wood is exposed. Concealment shall be with materials such as aluminum or vinyl siding or cementitious materials. Decorative rails and/or guard rail systems used shall be code compliant systems of vinyl, fiberglass, or metal. Wood railings are not allowed. Gazebos and picnic shelters shall have table(s) with attached bench seating.
- No above ground propane tanks allowed on the site.
- Storm Water retention basins (existing, shared and/or newly constructed) must be located within the property and include fencing around the entire perimeter with a lockable maintenance gate. The retention area will be maintained and managed in a manner to provide safety to the tenants. Including preventing vermin, insect and reptile infestation, vegetation overgrowth, and must be kept free of all trash and debris.

13. Interior Building and Space Standards.

Kitchen spaces:

- A minimum 6 1/2-inch-deep double bowl stainless steel sink is required in each unit. For Handicapped accessible units, a 5-inch-deep sink with offset drains shall be used.
- Each unit must be equipped with a 2.5 lb. ABC rated dry chemical fire extinguisher readily accessible in the kitchen and mounted to accommodate handicapped accessible height in accessible units. Each unit must also contain either fire protection canisters above the cooktop surface or temperature limiting plates on the cooktop surface.
- New cabinets must have dual sidetrack drawers and no laminate or particleboard fronts for doors or drawer fronts. Cabinets must meet the ANSI/KCMA A161.1 performance and construction standard for kitchen and vanity cabinets. Cabinets must bear the certification seal of KCMA (Kitchen Cabinet Manufacturers Association).
- An energy efficient light fixture (4-foot-long fluorescent fixture or an equivalent LED light fixture(s) is required.
- The following appliances, where provided, must be Energy Star rated: Refrigerator, Dishwasher, Washer, and Dryer.
- A grease shield is required behind ranges on the wall, unless a full hard tile splash is provided.

Bathroom Spaces:

- Tub/shower units must have minimum dimensions of 30-inch width by 60- inch length and be equipped with anti-scald valves. Integral wood blocking in walls as per Fair Housing guidelines is required unless integral factory reinforcement is provided. All tubs in designated handicap accessible units must come complete with “factory-installed grab bars” where the tub surrounds are reinforced. If the tub surrounds are not factory reinforced fiberglass, hard tile, cultured marble or composite materials; solid wood blocking must be installed to meet Fair Housing guidelines.
- Water closets must be installed to comply with applicable accessibility guidelines.
- Mirror length must extend to top of vanity backsplash with top of mirror a minimum of 6’-0” above finish floor. Framed decorative mirrors or medicine cabinets with mirrors are allowed with a minimum size of 14” x 24”.
- Vanity cabinets with drawers or a vanity cabinet without drawers and a linen cabinet with drawers. All cabinets in designated handicap accessible units must be installed in compliance with applicable accessibility guidelines.

Other Living Spaces:

- Hallways must have a minimum clear width of 36 inches or greater as per applicable accessibility standards.
- Separately switched overhead lighting is required in each room. Energy Star Ceiling fans with light kits are required in the living room and each bedroom. Where the ceilings are 9’ or greater, the fan must be Energy Star rated. For Handicapped Units, a separate wall switch that operates the light independently from the fan speed control must be provided. Light kits for all ceiling fans must be furnished with Energy Star LED lamps.
- Window treatments are required for all windows.
- Sliding glass doors are prohibited in residential units.
- All smoke detectors must be hard-wired with battery back-up. The number of smoke detectors installed must meet the applicable building code based on the project and unit design. Units with an attached garage must have a combo smoke/carbon monoxide detector installed.
- Buildings and/or units with gas mechanical systems or appliances must install carbon monoxide detectors. The number of carbon monoxide detectors installed must meet the applicable building code based on the project and unit design.

Plumbing and Mechanical Equipment:

- Water heaters must be placed in drain pans with drain piping plumbed to the outside or to an indirect drain connected to the sanitary sewer system. Water heater T&P relief valve discharge must meet applicable building code requirements.
- Electric water heaters must be high efficiency with a minimum 0.93 Uniform Energy Factor (UEF) for a 30-gallon tank or minimum .92 UEF for a 40-gallon tank.
- Gas water heaters must be high efficiency with a minimum 0.60 Uniform Energy Factor (UEF) for a 30-gallon tank or minimum .58 UEF for a 40-gallon tank.
- Through-wall HVAC units are not permitted in residential units except in efficiency units.
- CPVC supply piping is not allowed for interior space in-wall or overhead services.
- HVAC units and water heaters are not permitted in attic spaces. HVAC units must be installed in Mechanical Closets with insulated walls located within the living unit. Water heaters are to be located within the living unit.
- HVAC refrigeration lines must be insulated.
- HVAC Equipment must meet or exceed current DOE Standards for the Southeastern Region.

III. Attached New Construction Rental Units

The following outline of minimum standards must be used in designing Housing Credit, HOME Funds and HTF projects of twelve or more attached units.

A. Minimum Building Standards.

1. Minimum Apartment Unit Net Area Square Foot Requirements. Net area is measured from the **interior finished face** of the exterior wall to the **interior finished face** of the common or tenant separation wall. Minimum Bedroom Net Area is measured from the interior faces of all walls surrounding each bedroom, excluding closets, mechanical rooms, and storage rooms.

Unit Type	# of Bathrooms	Unit Net Area*	Bedroom Net Area**
1 Bedroom	1	725	120
2 Bedroom	1	900	120
2 Bedroom	1.5	925	120
2 Bedroom	2	975	120
4 Bedroom	2	1,455	120

* Home areas do not include outside storage, covered porches, patios, balconies, etc.

** Bedroom Net Area is measured from the interior faces of all walls surrounding each bedroom, excluding closets, mechanical rooms, and storage rooms.

2. Exterior Building Standards.

Exterior Finishing Materials:

- Roofing materials: Anti-fungal shingles or metal roof with 30- year warranty or better must be used. (Single-Ply roofing membrane systems with a 30-year product warranty may be acceptable with approval by AHFA).
- Roof gable vents must be made of aluminum or vinyl materials.
- All attics shall be vented.
- All primary entries must be within a breezeway or have a minimum roof covering of 3-feet deep by 5-feet wide and must be designed to divert water away from the entry door. Entry pads measuring 4 feet by 4 feet and made of impervious material with a slope that meets Fair Housing and ADA standards are required at each exterior entry.
- All breezeways must be constructed of concrete floor/decking material.
- Exterior shutters are required on all 100% brick or vinyl siding buildings. The shutters must be on the front of the buildings visible from the parking areas.
- Stairway components, such as stringers, treads, and risers must be constructed from steel or concrete. All project steps must include a kick plate in between each step beginning at the first step nearest to the ground and ending at the nearest step at the balcony or landing. Handrails and pickets must be constructed from steel or aluminum.
- Patio and porch/balcony components used as part of the building must have concrete slabs or decks and must be constructed so that no wood is exposed. Concealment must be with materials such as aluminum, vinyl, cementitious materials trim or engineered composite trim. Structural wood columns must be at a minimum 6" x 6" pressure treated columns concealed as noted above or properly sized columns of steel, fiberglass, high density urethane or aluminum. Decorative rails and/or guard rail systems used at porches and patios must be code compliant systems of vinyl, fiberglass, steel, or aluminum. Wooden support posts must be installed to prevent degradation (rotting) to ends of posts and to provide for structural and anchoring of post

to slab. Wood railings are not allowed.

Other Exterior Standards:

- Adequate exterior lighting is required in all covered exterior breezeways/walkways. Exterior lighting fixtures are required at all entry doors. The fixtures must be controlled from the interior of the unit. Exterior light fixtures at apartment unit entry doors in apartment buildings with enclosed, heated, and cooled corridors are not required when the corridor lighting remains on all the time.
- One and one-half parking spaces per living unit required for family units, one space per unit for elderly units, two parking spaces for single family homes, and two parking spaces for each duplex, unless local code dictates otherwise, and no designated street parking allowed.
- A landscaping plan must be submitted indicating areas to be sodded and landscaped. Landscaping plan(s) must follow any applicable municipal landscape ordinance. At a minimum, 20 feet of solid sod must be provided (if ground space allows) from all sides of every building and between all buildings and paved areas. All disturbed areas must be seeded. Landscaping around and between the buildings is allowed. At a minimum, provide one 2" caliper tree per unit (minimum height (6') for qualifying multi-trunk trees) and 6 1-gallon shrubs per unit.
- Concrete curbing is required along all paved areas throughout the development site, including parking areas. (Valley curbs are not allowed)
- Sidewalk access to all parking spaces must be provided. Where the accessible route on the site crosses a vehicular roadway, crosswalk lines are required. They shall not be less than 6 inches or greater than 24 inches in width.
- A minimum of one trash dumpster or compactor enclosed on a minimum of 3 sides is required. All exposed components used as part of the structure must be constructed so that no wood is exposed. Concealment shall be with materials such as aluminum or vinyl siding or cementitious materials. The trash dumpster/compactor enclosure must meet applicable accessibility standards and have a concrete apron. If the dumpster itself is not accessible, trashcans must be placed within the enclosure for use by handicap tenants.
- All parking must be asphalt or concrete. An asphalt or concrete paving recommendation letter must be provided with the reservation items by a geotechnical engineer.
- All sidewalks and walkways must be concrete and at least 36 inches wide. All public buildings, clubhouse/community building, and amenities must be connected to the dwelling units by a sidewalk or walkway.
- Mailboxes, playground, and all exterior project amenities must meet the accessibility requirements of the applicable accessibility standards. All exterior project amenities that have exposed components used as part of the structure must be constructed so that no wood is exposed. Concealment shall be with materials such as aluminum or vinyl siding or cementitious materials. Decorative rails and/or guard rail systems used shall be code compliant systems of vinyl, fiberglass, or metal. Wood railings are not allowed. Gazebos and picnic shelters shall have table(s) with attached bench seating.
- All utilities located on site must be underground.

3. Interior Building and Space Standards.

Wall Framing:

- Walls may be framed using metal studs in lieu of wood.
- Sound proofing or sound batt insulation is required between the stud framing in tenant separation walls. A sound rating of Sound Transmission Class (STC) 54 is required.
- Sound proofing between floors is required to achieve a rating of (STC) of not less than 50 and an Impact Insulation Class (IIC) of not less than 50.

Insulation Requirements. Insulation R-Values are to be determined by the applicable Energy Code Requirements and climate zones by county but in no case are to be less than:

- R-13 for exterior walls in accordance with the IECCA
- R-30 for attics in accordance with the IECCA
- Vapor retarders must be installed if recommended by project architect.

Kitchen Spaces:

- A pantry closet or pantry cabinet is required in each unit. The pantry must be 1'6" x 1'6" deep and/or pre-manufactured millwork pantry cabinets that are 1'x 2'-6" deep with a minimum five shelves, located in or adjacent to the kitchen.
- All interior doors to habitable spaces in all units not subject to a Fair Housing accessibility standard must have a minimum clear width of 30 inches.

Floor Finishes:

- Carpet materials must meet FHA minimum standards.
- Low Volatile Organic Compounds (VOC) flooring finishes (maximum VOC levels of 100 grams/liter).
- Resilient flooring materials must meet FHA minimum standards.

Other Spaces:

- All units must be pre-wired for cable television/internet in the living room and 1 per bedroom.
- Low Volatile Organic Compounds (VOC) wall finishes (maximum VOC levels of 50 grams/liter).

IV. New Construction Single Family Rental Homes

The following outline of minimum standards must be used in designing Housing Credit and HOME Program projects of twelve or more units and consist of single-family. All single-family homes must be new construction.

A. Minimum Building Standards.

1. Minimum Home Net Area Square Footage Requirements:

Unit Type	# of Bathrooms	Unit Net Area*	Bedroom Net Area**
3 Bedroom	2	1,200	120
4 Bedroom	2	1,455	120

** Home areas do not include outside storage, covered porches, patios, balconies, etc.*

*** Bedroom Net Area is measured from the interior faces of all walls surrounding each bedroom, excluding closets, mechanical rooms, and storage rooms.*

2. All single-family rental homes must have a minimum of 30 feet of building facing the front street. These 30 feet must be the sum of all front-facing dimensions adjacent to conditioned space and can include the "common" wall which is part of a front-facing garage as long as this wall is front-facing and conditioned on one side.
3. All single-family rental homes must have a minimum of 30 feet front yard building set-back from the curb. Each home must have a minimum of 10-foot side yards. (Minimum width of lot shall be fifty (50) feet.) Both lot width and side yard setbacks can be modified with the following exception:
A 10-foot side yard setback on one lot side and a "zero lot line" setback on the other (thus, a forty

(40) foot minimum lot width) will be allowed with a front-facing garage.

4. All single-family rental homes must have a minimum of 3 different front and rear elevation designs. No identical front elevations may be built next to each other.
5. All single-family rental homes must have a minimum of 3 different color schemes.

B. Exterior Building Standards.

1. Exterior Finishing Materials.

- Roofing materials: Anti-fungal shingles or metal roof with 30-year warranty or better must be used.
- Roof gable vents must be made of aluminum or vinyl materials. All roof penetrations must be located on the rear most section of the roofline.
- Exterior shutters are required at the front elevation on all single-family homes.
- Units where a conventional wood frame foundation system is used, a non- wood “maintenance-free” composite decking material may be used at porches above a pressure treated wood framing system.

2. Other Exterior Standards.

- Exterior lighting is required at entry doors.
- Address numbers are to be clearly visible.
- 2 parking spaces for each home.
- A landscaping plan must be submitted indicating areas to be sodded and landscaped. Landscaping plan(s) must follow any applicable landscape municipal ordinance. At a minimum, 20 feet of solid sod must be provided (if ground space allows) from all sides of every home and between all homes and paved areas. All disturbed areas must be seeded. At a minimum, provide one 2” caliper tree per unit (minimum height (6’) for qualifying multi-trunk trees) and 6 1-gallon shrubs per unit.
- Concrete curbing is required along all paved areas throughout the development site, including parking areas. 6 inch raised curbs and gutter design is required. No valley curbs allowed.
- Sidewalk access to the front door and the driveway must be provided.
- A minimum of 1 trash dumpster or compactor enclosed on a minimum of 3 sides is required. All exposed components used as part of the structure must be constructed so that no wood is exposed. Concealment shall be with materials such as aluminum or vinyl siding or cementitious materials. The trash dumpster/compactor enclosure must meet applicable accessibility standards and have a concrete apron. If the dumpster itself is not accessible, trashcans must be placed within the enclosure for use by handicap tenants. Individual trash receptacle at each home may be provided instead of a single trash dumpster. If individual trash receptacles are used, provide a concrete pad for receptacle to sit on. At HC Units the individual trash receptacle must be placed on an accessible route away from the front door.
- All community parking must be asphalt or concrete. An asphalt or concrete paving recommendation letter must be provided with the reservation items by a geotechnical engineer.
- All sidewalks and walkways must be concrete and at least 36 inches wide. All public buildings, community building, and amenities must be connected to the dwelling units by a sidewalk or walkway on one side of the street throughout the development.
- All driveways must be concrete.
- All onsite utilities must be underground.

C. Interior Building and Space Standards

1. Wall Framing. Walls may be framed using metal studs in lieu of wood.
2. Insulation Requirements.

Insulation R-Values are to be determined by the applicable Energy Code Requirements and climate zones by county but in no case are to be less than.

- R-13 for exterior walls in accordance with the IECCA
- R-30 for attics in accordance with the IECCA
- Vapor retarders must be installed if recommended by project architect.

3. Kitchen spaces.

- A pantry closet or pantry cabinet is required in each unit. The pantry must be 1'6" x 1'6" deep with a minimum five shelves, located in or adjacent to the kitchen.
- Vanity cabinets with drawers or a vanity cabinet without drawers and a linen cabinet with drawers must be installed in all units. All cabinets in designated handicap accessible units must be installed in compliance with applicable accessibility guidelines.

4. Floor Finishes.

- Carpet materials must meet FHA minimum standards.
- Low VOC flooring finishes (maximum VOC levels of 100 grams/liter).
- Resilient flooring materials must meet FHA minimum standards.

5. Other Interior Standards.

- All interior doors to habitable spaces in unit(s) subject to Fair Housing Guidelines must have a minimum clear width in compliance with the applicable Fair Housing design standards. All interior doors to habitable spaces in designated handicap accessible units must have a minimum width of 36 inches. All interior doors to habitable spaces in all other units must have a minimum clear width of 30 inches.
- Low Volatile Organic Compounds (VOC) wall finishes (maximum VOC levels of 50 grams/liter).

6. Plumbing and Mechanical Equipment.

- Electric water heaters must be high efficiency with a minimum 0.93 Uniform Energy Factor (UEF) for a 30-gallon tank or minimum .92 UEF for a 40-gallon tank.
- Gas water heaters must be high efficiency with a minimum 0.60 Uniform Energy Factor (UEF) for a 30-gallon tank or minimum .58 UEF for a 40-gallon tank.
- Through-wall HVAC units are not permitted in single-family homes.
- CPVC supply piping is not allowed for interior space in-wall or overhead services.
- HVAC refrigeration lines must be insulated.
- HVAC equipment must be placed so that their operation does not interfere with the comfort of the adjacent dwellings. HVAC equipment must meet or exceed current DOE Standards for the Southeastern Region.

V. For Attached Rehabilitation of an Existing Building

The following outline of minimum standards must be used in designing Housing Credit (not applicable to projects with HOME Funds) projects of twelve or more units.

A. Minimum Building Standards

Minimum Apartment Unit Net Square Footage Area Requirements.

Net area is measured from the interior finished face of the exterior wall to the interior finished face of the common or tenant separation wall.

1 Bedroom Unit	600
2 Bedroom Unit	775
3 Bedroom Unit	1,000

No units may contain a bedroom of less than 90 square foot. Minimum Bedroom Net Area is measured from the interior faces of all walls surrounding each bedroom, excluding closets, mechanical rooms, and storage rooms.

B. Exterior Building Standards.

1. Exterior Finishing Materials.

- No Mansard Roofs are allowed. Roofing materials: Anti-fungal shingles or metal roof with 30-year warranty or better must be used.
- Exterior shutters are required on all 100% brick or vinyl siding buildings. The shutters must be on the front of the buildings visible from the parking areas.
- Handrails and pickets must be constructed from steel or aluminum.
- Patio and porch/balcony components used as part of the building must have concrete slabs or decks and must be constructed so that no wood is exposed. Concealment must be with materials such as aluminum, vinyl, cementitious materials trim or engineered composite trim. Structural wood columns must be at a minimum 6" x 6 pressure treated columns concealed as noted above or properly sized columns of fiberglass, steel, high density urethane or aluminum. Decorative rails and/or guard rail systems used at porches and patios must be code compliant systems of vinyl, fiberglass, steel or aluminum. Wooden support posts must be installed to prevent degradation (rotting) to ends of posts and to provide for structural and anchoring of post to slab. Wood railings are not allowed.

2. Other Exterior Standards.

- Adequate exterior lighting is required in all covered exterior breezeways/walkways. Exterior lighting fixtures are required at all entry doors. The fixtures must be controlled from the interior of the unit. Exterior light fixtures at apartment unit entry doors in apartment buildings with enclosed, heated, and cooled corridors are not required when the corridor lighting remains on all the time.
- A landscaping plan must be submitted indicating areas to be sodded and landscaped. Landscaping plan(s) must follow any applicable landscape municipal ordinance. At a minimum, 20 feet of solid sod must be provided (if ground space allows) from all sides of every building and between all buildings and paved areas. All disturbed areas must be seeded. If bare spots or erosion exist in current landscaping, the area must be sodded. Landscaping around and between the buildings is allowed. At a minimum, provide one 2" caliper tree per unit (minimum height (6') for qualifying multi-trunk trees) and 6 1-gallon shrubs per unit.
- Sidewalk access to all parking spaces must be provided. Where the accessible route on the site crosses a vehicular roadway, crosswalk lines are required. They shall not be less than 6 inches or greater than 24 inches in width.

- A minimum of 1 enclosed on a minimum of 3 sides trash dumpster or compactor is required that is enclosed. All exposed components used as part of the structure must be constructed so that no wood is exposed. Concealment shall be with materials such as aluminum or vinyl siding or cementitious materials. The trash dumpster/compactor enclosure must be ADA accessible and have a concrete apron. If the dumpster itself is not accessible, trashcans must be placed within the enclosure for use by handicap tenants.
- All parking must be asphalt or concrete. An asphalt or concrete paving recommendation letter must be provided by a geotechnical engineer.
- All sidewalks and walkways must be concrete and at least 36 inches wide. All public building, community buildings and amenities must be connected to the dwelling units by a sidewalk or walkway.

3. Interior Building and Space Standards.

Insulation Requirements.

- Insulation R-Value is to be determined by the applicable Energy Code Requirements and climate zones by county but in no case is it to be less than R-30 for attics in accordance with the IECCA.

Kitchen spaces.

- A pantry closet or pantry cabinet is required in each unit. The pantry must be 1'6" x 1'6" deep with a minimum five shelves, located in or adjacent to the kitchen.

All interior doors to habitable spaces in unit(s) subject to Fair Housing Guidelines must have a minimum clear width in compliance with the applicable Fair Housing design standards. All interior doors to habitable spaces in designated handicap accessible units must have a minimum clear width of 36 inches. All interior doors to habitable spaces in all other units must have a minimum clear width of 30 inches.

Floor Finishes all flooring must be replaced.

- Carpet materials must meet FHA minimum standards.
- Low VOC flooring finishes (maximum VOC levels of 100 grams/liter)
- Resilient flooring materials must meet FHA minimum standards.

Other Spaces.

- All units pre-wired for cable/internet television hook-ups in the living room and 1 per bedroom.
- Units with existing washer/dryer connections must replace and install new water supply fixtures and valves.

VI. Inspections and Reports

AHFA will engage a third-party construction consultant to review the final plans and specifications prior to construction for each approved project to ensure that it meets all applicable requirements of AHFA's Design Quality Standards and Construction Manual. The applicant/Ownership Entity, project architect and general contractor will certify that the project meets the federal Fair Housing Amendments Act, the Americans with Disabilities Act, and all additional accessibility requirements at the time of the submittal of the final plans and specifications, the completion of the project and the issuance of the IRS Form 8609. In addition to the plans and specification review, AHFA has the right to inspect the project during the following phases of development:

- A. During construction.
- B. At the completion of construction.
- C. Prior to issuance of the IRS Form 8609.

The applicant will be responsible for the actual cost of work completed by AHFA designated consultants.