

APPENDIX B

Design Quality Standards and Requirements

The terms of this Appendix B are the minimum requirements for any project awarded tax credits in 2012. Required documents must be prepared by an engineer or architect licensed to do business in North Carolina.

Once final plans and specifications have been completed, owners must submit them to the Agency and receive written approval before commencing sitework or construction.

At all times after award the owner is responsible for promptly informing the Agency of any changes or alterations which deviate from the final plans and specifications approved by the Agency. In particular owners must not take action on any material change in the site layout, floor plan, elevations or amenities without written authorization from the Agency. This includes changes required by local governments to receive building permits.

I. DESIGN DOCUMENT STANDARDS

All required documents must be prepared by an engineer or architect licensed to do business in North Carolina. All drawings should be to scale, using the minimum required scale as detailed below.

A. PRELIMINARY APPLICATION PLAN REQUIREMENTS

Plans must be 11" x 17" and indicate the following:

1. Street name(s) where site access is made, site acreage, planned parking areas, layout of building(s) on site to scale, any flood plains that will prohibit development on site, retaining walls where needed, and adjacent properties with descriptions.
2. Front, rear and side elevations of **ALL** building types and identify all materials to be used on building exteriors.
3. Use a 1/8" or 1/16" scale for each building.

B. FULL APPLICATION PLAN REQUIREMENTS

Site and floor plans must be on a CD in .PDF format and 24" x 36" paper only and indicate the following:

1. Location of, and any proposed changes to, existing buildings, roadways, and parking areas.
2. All existing site and zoning restrictions including setbacks, right of ways, boundary lines, wetlands and any flood plains.
3. Existing topography of site and any proposed changes including retaining walls.
4. Front, rear and side elevations of **ALL** building types and identify all materials to be used on building exteriors.
5. Landscaping and planting areas (a plant list is not necessary). If existing site timber or natural areas are to remain throughout construction, the area must be marked as such on the site plans.
6. Locations of site features such as playground(s), gazebos, walking trails, refuse collection areas, postal facilities, and site entrance signage.
7. The location of units, common use areas and other spaces using a minimum scale of 1/16" = 1' for each building.
8. Dimensioned floor plans for all unit types using a minimum scale of 1/4" = 1'.

9. Net building square footage and heated square footage. See “Definitions” in this Appendix.
10. For projects involving renovation and/or demolition of existing structures, proposed changes to building components and design and also describe removal and new construction methods.
11. For projects involving removal of asbestos and/or lead based paint removal, general notes identifying location and procedures for removal.

II. BUILDING AND UNIT DESIGN PROVISIONS

A. EXTERIOR DESIGN AND MATERIALS

1. Building design must use different roof planes and contours to “break” up roof lines. Wide window and door trim must be used to better accent siding. If horizontal banding is used between floor levels, use separate color tones for upper and lower levels. If possible, use horizontal and vertical siding applications to add detail to dormers, gables, and extended front facade areas.
2. The use of no or very low maintenance materials is required for exterior building coverings on all new construction projects. These include high quality vinyl siding, brick, or fiber cement siding. The use of metal siding is prohibited. Vinyl siding must have a .044” thickness or greater and a limited lifetime warranty. Where band boards attach to and are part of the vinyl siding application, z-flashing must be installed behind, on top of, and below bands.
3. All exterior trim, including fascia and soffits, window and door trim, gable vents, etc, must also be constructed of no or very low maintenance materials.
4. All buildings must include seamless gutters and aluminum drip edge on all gable rakes and fascia boards. Drip edge must extend 2 inches minimum under the shingles.
5. All building foundations must have a minimum of 12 inches exposed brick veneer above finished grade level (after landscaping).
6. Breezeway and stairwell ceilings must be constructed of materials rated for exterior exposure.
7. Buildings and units must be identified using clearly visible signage and numbers. Building and unit identification signage must be well lit from dusk till dawn.
8. Exterior stairs must have a minimum clear width of 40 inches between handrails and be completely under roof cover.
9. Exterior railings must be made of vinyl, aluminum, or steel (no wood).
10. Anti-fungal dimensional shingles with a minimum 25-year warranty are required for all shingle roof applications.
11. Covered drop-offs must have a minimum 13 foot vehicle headroom clearance.
12. In vinyl siding applications, all exterior lights, GFIs, HVAC sub panels, hose bibs, telephone boxes, and cable boxes must be installed in plastic J-boxes.
13. When gang mailboxes are provided on a site or within a building, the number of mail box compartments must be equal or greater to those apartment units that are Type A or Type B units and not be installed higher than 48 inches above finished floor.

B. DOORS AND WINDOWS

1. All primary unit entries must either be within a breezeway or have a minimum roof covering of 3 feet deep by 5 feet wide, including a corresponding porch or concrete pad.

2. High durability, insulated doors (such as steel and fiberglass) are required at all exterior locations. Single lever deadbolts and eye viewers are required on all main entry doors to residential units.
3. Exterior doors for fully accessible units (“Type A”) must include spring hinges.
4. Insulated, double pane, vinyl windows with a U-factor of 0.32 or below and a SHGC of 0.40 or below are required for new construction.
5. Windows must not be located over tub or shower units.
6. Install a continuous bead of silicone caulk behind all nail fins before installing new vinyl windows per manufacturer’s specifications.
7. In “Type A” accessible units, an audible alarm and strobe light must be installed above the entry door.

C. INTERIOR DESIGN AND MATERIALS

1. All residential units must meet minimum unit size requirements. The square footage measurements below will be for heated square feet only, measured interior wall to interior wall, and do not include exterior wall square footage. Unheated areas such as patios, decks, porches, stoops, or storage rooms cannot be included.

Single Room Occupancy (“SRO”)	250 square feet
Studio	375 square feet
Efficiency	450 square feet
1 Bedroom	660 square feet
2 Bedroom	900 square feet
3 Bedroom	1,100 square feet
4 Bedroom	1,250 square feet

For additional requirements see the “Definitions” section at the end of this Appendix.

2. All units must have a separate dining area, except for SRO, Studio and Efficiency units (see “Definitions” for description).
3. Newly constructed residential units containing two (2) or more bedrooms must have an exterior storage closet with a minimum of 16 unobstructed square feet. The square footage utilized by a water heater in the exterior storage closet may not be included in the 16 square foot calculation.
4. Carpet and pad must meet FHA minimum standards.
5. Kitchens, dining areas, and entrance areas must have vinyl, VCT or other non-carpet flooring.
6. The minimum width of interior hallways in residential units is 40 inches.
7. For new construction, interior doors must be constructed of six panel hardboard, solid core birch or solid core lauan. Hollow core, flat-panel wood doors are prohibited.
8. Bi-fold and by-pass doors are prohibited. Pocket doors are not allowed in elderly properties or “Type A” accessible units.
9. Fireplaces are prohibited in residential units.
10. Residential floors and common tenant walls must have sound insulation batts.
11. All bedroom closets, interior storage rooms/coat closets and laundry rooms/closets must have a 4 inch tall by 8 inch wide minimum pass-thru grille above doors for air circulation in those areas that do not get conditioned.
12. There must be a minimum of ¾ inch air space under all interior doors measured from finished

floor for air circulation.

13. All interior and exterior mechanical and storage closets must have finished floor coverings. Interior closets must have either carpet, sheet vinyl or VCT flooring. Exterior storage closets may have sealed, painted concrete floors.
14. Signage for designated common areas and “Type A” accessible units must be in Braille.

D. BEDROOMS

1. The primary bedroom must have at least 130 square feet, excluding the closet(s).
2. Secondary bedrooms must have at least 110 square feet, excluding the closet(s).
3. Every bedroom must have a closet with a shelf, closet rod and door. The average size of all bedroom closets in each unit type must be at least 7 linear feet.
4. In “Type A” accessible units, an emergency pull station is required in all master bedrooms.

E. BATHROOMS

1. A recessed medicine cabinet must be installed in every full bathroom in each residential unit.
2. Exclusive of fully accessible units, the average size of all vanities in each unit type must be at least 36 inches.
3. Mirrors in bathrooms must be low enough to reach the counter backsplashes.
4. All full bathrooms must have an overhead ceiling light and exhaust fan on the same switch. Vanity lights (if provided) must be on a separate switch.
5. All bathrooms must include an Energy Star rated exhaust fan rated at 70 CFM (minimum) vented to the exterior of the building using hard ductwork along the shortest run possible.
6. For ceramic tile applications, tile should be applied over cement backer board rather than directly to drywall.
7. All new construction and adaptive re-use projects must comply with QAP Section IV(F)(3) and Appendix B Section VIII(D) regarding additional fully accessible bathrooms, including roll-in showers. All roll-in showers must have a collapsible water dam or beveled threshold that meets code. All roll-in showers must be 36 inches wide and have an adjustable shower rod and weighted curtain installed before occupancy.
8. Approaches to roll-in showers must be level, not sloped.
9. All bathroom ceilings and walls must utilize mold and water-resistant wall board.
10. All domestic water line cut off valves must have metal handles, not plastic.
11. In all “Type A” accessible units, the grab bars must be installed per ANSI A117.1 specifications around toilets and in the tubs/showers.. In roll-in showers the shower head with wand must be installed on a sliding bar.
12. In “Type A” accessible units, an emergency pull station is required in all bathrooms.
13. Offset toilet flanges are prohibited.

F. KITCHENS

1. New cabinets must include dual side tracks on drawers. Door fronts, styles, and drawer fronts must be made with solid wood or wood/plastic veneer products. Particle board or hardboard

doors, stiles, and drawer fronts are prohibited.

2. The minimum aisle width between cabinets and/or appliances is 42 inches.
3. A pantry cabinet or closet in or near each kitchen must be provided (does not include SRO, studio or efficiency units). Pantry cabinet or closet door must be 24 inches minimum width.
4. All residential units must have either a dry chemical fire extinguisher mounted and readily visible and accessible in every kitchen, including kitchen in community building if present, or an automatic fire suppression canister mounted in each range hood.
5. Each kitchen must have at the least the following minimum linear footage of countertop, excluding the sink space (only include countertops that are at or below 36 inches in height above finished floor):

SRO	4.5 linear feet
Studio	5.0 linear feet
Efficiency	5.0 linear feet
1 Bedroom	10.0 linear feet
2 Bedroom	12.0 linear feet
3 Bedroom	13.0 linear feet
4 Bedroom	13.0 linear feet

Bar tops may be counted as long as they are 16 inches minimum width and installed no higher than 48 inches above finished floor.

6. All residential units must have a frost-free Energy Star rated refrigerator with a freezer compartment. ~~Water and/or ice dispensers (if provided) must be connected and operational.~~ For fully accessible (“Type A”) units the refrigerator must be side by side or bottom freezer type. Doors must open beyond 90 degrees to allow bin removal. The following are the minimum sizes:

0-2 Bedroom	14 cubic feet
3 Bedroom	16 cubic feet
4 Bedroom	18 cubic feet

7. All residential units must have an Energy Star rated dishwasher (excluding elderly properties).
8. In Type “A” accessible units:
 - kitchen sinks must be rear-draining and have sink bottoms insulated if bottom of sink is at or below 29” above finished floor;
 - pull-out worktops are prohibited;
 - workstations must be installed beside the range;
 - the wall cabinet mounted over the work station must be 48 inches maximum above finished floor to the top of the bottom shelf; and
 - both the range hood fan and light must have remote switches.
11. Range hoods must be 70 CFM (minimum) and vented to the outside using hard duct.
12. Anti-tip devices must be installed on all kitchen ranges and be securely fastened.

G. LAUNDRY ROOM CLOSETS

1. Laundry room closets must be 36” minimum depth measured from back wall to back of closet doors.
2. Clothes dryer vent connection must be 2” maximum above finished floor.
3. All laundry room ceilings and walls must utilize mold and water resistant wall board.

4. Washer water shutoff valves must be installed right side up with the hose connection below the shutoff handle.
5. In “Type A” accessible units, each clothes washer and dryer must be centered in a four foot clear floor space area. The washer and dryer clear floor space areas may overlap.

H. PROVISIONS FOR ALL ELDERLY HOUSING

1. All elderly residential units must be equipped with emergency pull chains in the master bedroom and full bathroom. The pull chains must be wired to an exterior warning device which consists of a strobe light and an audible alarm.
2. Provide loop or “D” shape handles on cabinet doors and drawers.
3. Exhaust vents and lighting above ranges must be wired to remote switches for both the light and fan near the range in an accessible location.
4. Provide solid blocking at all water closets and tub/shower units for grab bar installation.
5. Provide a minimum 18 inch grab bar in all tub/shower units. The grab bar will be installed centered vertically at 48” A.F.F. on the wall opposite the controls.
6. Corridors in any common areas must have a continuous suitable handrail on one side mounted 34 inches above finished floor, and be 1 ¼ inches in diameter.
7. All doors leading to habitable rooms must have a minimum 3’-0” door and include lever handle hardware.
8. Hallways must have a minimum width of 42 inches.
9. The maximum threshold height at any entry door is ½ inch.

I. PROVISIONS FOR SIGHT AND HEARING IMPAIRED UNITS

Applies ONLY to projects using Rental Production Program funds. Under Section 504 of the Rehabilitation Act of 1973, two percent of the total number of units constructed, or a minimum of one, must be able to be equipped for residents with sight and hearing impairments. These requirements include the following:

1. The unit(s) must be roughed in to allow for smoke alarms with strobe lights in every bedroom and living area.
2. The units must have a receptacle next to phone jacks in units for future installation of TTY devices.
3. Each overhead light fixture and receptacle must be wired to accommodate a 150 watt load.
4. The unit must also be fully accessible (“Type A”).

The requirements of this provision can be satisfied by adding the elements described above to the additional fully accessible units with roll-in showers required by QAP Section IV(F)(3) such that at least two percent (2%) of all units are properly equipped to serve persons with sight and or hearing impairments.

III. MECHANICAL, SITE AND INSULATION PROVISIONS

A. PLUMBING PROVISIONS

1. Zero to two bedroom units require at least one (1) full bathroom.

2. Three bedroom units require at least 1.75 bathrooms (including one bath with upright shower and one bath with full tub).
3. Four bedroom units require at least two (2) full bathrooms.
4. All tubs and showers must have slip resistant floors.
5. All electric water heaters must have an Energy Factor of at least 0.93. This can be achieved by using an insulated water heater jacket. All natural gas water heaters must have an Energy Factor of at least .61 efficiency.
6. In new construction and adaptive re-use projects, all water heater tanks must be placed in an overflow pan piped to the exterior of the building, regardless of location and floor level. The temperature and relief valve must also be piped to the exterior. Water heater must be placed in closets to allow for their removal and inspection by or through the closet door. Water heaters may not be installed over the clothes washer or dryer space.
7. Whirlpool baths or spas are prohibited.
8. A frost-proof exterior faucet must be installed on an exterior wall of the community/office building.
9. All tub/shower control knobs must be single lever handled and offset towards the front of the tub/shower.
10. Provide lever faucet controls for the kitchen and bathroom sinks.
11. All faucets, shower heads, and toilets must be EPA "Watersense" rated.
12. When using electric tankless water heaters the electrical panel must be rated at 200 amps or greater.
13. Domestic water lines are not allowed in unconditioned spaces.
14. In all "Type A" accessible units, the toilets, tubs and showers must have all grab bars installed. See ANSI A117.1 for mounting heights and locations.

B. ELECTRICAL PROVISIONS

1. Provide overhead lighting, a ceiling fan, telephone jack and a cable connection in every bedroom and living room. If using ceiling fans with light kits, the fan and light must have separate switches.
2. Any walk-in closets must also have a switched overhead light. A walk in closet is defined as any closet deeper than 36 inches from the back wall to the back of the closet door in the closed position.
3. Switches and thermostats must not be located more than 48 inches above finished floor height.
4. Receptacles, telephone jacks and cable jacks must not be located less than 16 inches above finished floor height.
5. Exterior lighting is required at each unit entry door.
6. Additional exterior light fixtures not specific to a unit will be wired to a "house" panel. The fixtures will be activated by a photo cell placed on the east or north side of the buildings.
7. All exterior stairways must have light fixtures wired to a "house" panel and activated by a photo cell placed on the east or north side of the buildings.
8. Projects with gas heating and/or appliances must provide a hard-wired carbon monoxide detector with a battery back-up in each residential unit.
9. All non-residential and residential spaces must have separate electrical systems.

10. Initially-installed bulbs in residential units and common areas must be compact fluorescent, LED, or pin-based lighting in 80% of all fixtures.
11. All telephone lines must be toned and tagged properly to each unit.

C. HEATING, VENTILATING AND AIR CONDITIONING PROVISIONS

1. All non-residential areas and residential units must have their own separate heating and air conditioning systems.
2. Through the wall HVAC units are prohibited in all but Studio, Efficiency and SRO units. They are allowed in laundry rooms and management offices where provided.
3. HVAC systems, including the air handler and line sets, must be rated at 13 SEER, 7.7 HSPF or greater and properly sized for the unit. All HVAC systems must use 410A refrigerant instead of R-22.
4. Connections in duct system must be sealed with mastic and fiberglass mesh.
5. All openings in duct work at registers and grills must be covered after installation to keep out debris during construction.
6. Fresh air returns must be a minimum of 12" above the floor.
7. Electric mechanical condensate pumps are not allowed.
8. Supply ducts in unconditioned attics must be insulated with an R-8 or greater value.
9. Range hoods and micro-hoods must be vented to the exterior of the building with hard duct, using the shortest possible run.
10. All hub drains serving HVAC condensate lines must be piped to the outside. Piping to the sanitary sewer is not allowed unless a primed p-trap is installed.

D. BUILDING ENVELOPE AND INSULATION

1. Buildings with residential units must be wrapped with an exterior air and water infiltration barrier.
2. Framing must provide for complete building insulation including the use of insulated headers on all exterior walls, framing roofs and ceilings to allow the full depth of ceiling insulation to extend over the top plate of the exterior walls of the building, and framing all corners and wall intersections to allow for insulation.
3. Seal at doors, windows, plumbing and electrical penetrations to prevent moisture and air leakage.

E. SITWORK AND LANDSCAPING

1. Provide positive drainage at all driveways, parking areas, ramps, walkways and dumpster pads to prevent standing water.
2. Provide a non-skid finish to all walkways.
3. All water from roof and gutter system must be piped away from buildings and discharged no less than 6 feet from building foundation.
4. Lots must be graded so as to drain surface water away from foundation walls. The grade away from foundation walls must fall a minimum of 6 inches within the first 10 feet.
5. Burying construction waste on-site is prohibited.
6. No part of the disturbed site may be left uncovered or unstabilized once construction is complete.

7. Minimum landscaping budgets of \$300 per residential unit are required. This allowance is for plants and trees only and may not be used for fine grading, seeding and straw or sod.
8. Plant material must be native to the climate and area.

F. RADON VENTILATION

Passive, “stack effect” systems radon ventilation systems are required for all new construction projects in Zone 1 and 2 counties. For a list of county zones visit

<http://www.ncradon.org/zone-counties.htm>

These systems reduce soil gas entry into the buildings by venting the gases to the outdoors and must include the following components.

1. Gas Permeable Layer of Aggregate. This layer is placed beneath the slab or flooring system to allow the soil gas to move freely underneath the house and enter an exhaust pipe. In many cases, the material used is a 4-inch layer of clean gravel.
2. Plastic Sheeting/Soil Gas Retarder. This is the primary soil gas barrier and serves to support any cracks that may form after the basement slab is cured. The retarder is usually made of 6 mil polyethylene sheeting, overlapped 12 inches at the seams, fitted closely around all pipe, wire, or other penetrations, and placed over the gas permeable layer of aggregate.
3. PVC Vent Pipe. A straight (no elbows) vertical PVC vent pipe of 3 inch diameter will be connected to a vent pipe “T” which is installed below the slab in the aggregate. The straight vent pipe runs from the gas permeable layer (where the “T” is) through the apartment to the roof to safely vent radon and other soil gases above the roof. A 12 inch perforated PVC pipe must be attached to the “T” on both ends in the aggregate to allow radon gas to easily enter the piping. The straight vent pipe runs vertically through the building and terminates at least 12 inches above the roof’s surface in a location at least 10 feet from windows or other openings and adjoining or adjacent buildings. On each floor of the apartment, the pipe should be labeled as a “**Radon Reduction System**”. Sealing and caulking with polyurethane or silicone on all openings in the concrete foundation floor must be used.

Check applicable federal, state and local building codes to see if more stringent codes apply.

IV. ENERGY STAR CERTIFICATION

New construction projects must meet the standards and requirements of ENERGY STAR 2.0 as verified by an independent, third-party expert who assists with project design, verify construction quality, and tests completed units.

Additional information regarding the requirements for energy star certification can be found on the EPA website. (http://www.energystar.gov/index.cfm?c=new_homes.nh_features)

V. COMMON AREA AND SITE AMENITY PROVISIONS

All common use areas must be fully accessible to those with disabilities in compliance with all applicable State and Federal laws and regulations.

A. REQUIRED SITE AMENITIES

All projects are required to include a minimum of six (6) tenant amenities. There are three (3) amenities that are mandatory and the additional three (3) can be selected from the list below.

The required amenities vary by project type:

Family	Senior
Playground	Indoor or Outdoor Sitting Areas (min. of 3 locations)
Covered Picnic Area (150 sq. ft. with 2 tables and grill)	Multi-Purpose Room (250 sq. ft.)
Outdoor Sitting Areas with Benches (min. of 3 locations)	Tenant Storage Areas

In addition to the required amenities, projects must also include at least three (3) of the following additional amenities:

- covered drive-thru or drop-off at entry
- covered patio with seating (150 sq. ft.)
- covered picnic area with two tables and one grille (150 sq. ft.)
- exercise room (must include new equipment)
- raised bed garden plots (50 sq. ft. per plot, 24 inches deep, one plot per 10 residents, elderly projects only)
- gazebo (100 sq. ft.)
- high-speed Internet access (involves both a data connection in the living area of each unit that is separate from the cable/telephone connection and support from a project-wide network or a functional equivalent)
- resident computer center (minimum of 2 computers)
- sunroom with chairs (150 sq. ft.)
- screened porch (150 sq. ft.)
- tot lot (family projects only)
- walking trails (4 ft. wide paved continuous around property)

Dimensions listed are the minimum required. Amenities must be located on the project site.

B. PLAYGROUND AREAS

1. Wherever possible tot lots and playgrounds must be located away from areas of frequent automobile traffic and situated so that the play area is visible from the office and maximum number of residential units.
2. A bench must be provided at playgrounds to allow a child's supervisor to sit. The bench must be anchored permanently, weather resistant and have a back.

C. POSTAL FACILITIES

1. Postal facilities must be located adjacent to available parking and sited such that tenants will not obstruct traffic while collecting mail.
2. On-site postal facilities must have a roof covering which offers residents ample protection from the rain while gathering mail.
3. Postal facilities must include adequate lighting on from dusk to dawn.

D. LAUNDRY FACILITIES

1. Laundry facilities are required at all projects.
2. There must be a minimum of one washer and one dryer per twelve (12) residential units if washer/dryer hookups are not available in each unit. If hookups are available in each unit, there must be a minimum of one washer and one dryer per twenty (20) units.

3. Laundry facilities must be located on an accessible route.
4. The entrance must have a minimum roof covering of 20 square feet.
5. The threshold height of the entrance door to the laundry room must not exceed ½ inch above finished interior grade level.
6. A “folding” table or countertop must be installed. The working surface must be 28 to 34 inches above the floor, and must have a 29 inch high clear knee space below. The working surface must be a minimum 48 inches long, and have a 30 by 48 inch clear floor space around it.
7. The primary entrance door to the laundry must be of solid construction and include a full height tempered glassed panel to allow residents a view of the outside/inside.
8. The laundry room must be positioned on the site to allow for a high level of visibility from residential units or the community building/office.
9. The laundry room must have adequate entrance lighting that is on from dusk to dawn.
10. If the project has only one laundry facility, it must be adjacent to the community building/office (if provided) to allow easy access and provide a handicap parking space(s).
11. One washer and one dryer must be front loading and usable by residents with mobility impairments (front loading), including at least a 30 by 48 inch clear floor space in front of each.

E. COMMUNITY / OFFICE SPACES

1. All projects must have an office on site of at least 200 square feet (inclusive of handicapped toilet facility) and a maintenance room of at least 100 square feet. This includes subsequent phases of a multi-phase development.
2. Projects with twenty four (24) or more units and more than one residential building must have a separate community building.
3. The community building must contain a both a handicapped toilet facility and a kitchen area that includes a refrigerator and sink.
4. The community building/space, including toilet facilities and kitchenette but excluding maintenance room and site office, must contain a minimum of seven (7) square feet for each residential unit.
5. The office must be situated as to allow the site manager a prominent view of the residential units, playground, entrances/exits, and vehicular traffic.
6. The community building/office must be clearly marked as such by exterior signs, placed at a visible location close to the building. The signs must use contrasting colors and large letters and numbers.

F. PARKING

1. Two parking spaces per unit are required for family projects.
2. Elderly projects require a minimum of two-thirds (2/3) parking space per unit.
3. If local guidelines require less parking, the number of parking spaces required by the Agency may be reduced to meet those standards upon receiving Agency approval.
4. There must be at least one handicap parking space for each designated fully accessible apartment unit and must be the nearest available parking space to the unit.

G. REFUSE COLLECTION AREAS

1. Fencing consistent with the appearance of the residential buildings must screen the collection area. The fencing must be made of PVC or treated lumber and constructed for permanent use.
2. The pad for the refuse collection area, including the approach area, must be concrete (not asphalt).
3. The refuse collection areas may not be at the entrances or exits of the project.
4. Signs must be at all refuse collection areas to prohibit parking in front of collection facilities.
5. A concrete parking bumper, pipe bollards or 8 inch x 8 inch treated timber must be installed behind dumpsters.
6. All projects must include a pad for tenant recycling receptacles as part of the collection area and participate in a recycling program.

VI. ADDITIONAL PROVISIONS FOR REHABILITATION OF EXISTING HOUSING

The following requirements apply to rehabilitation of existing units. Other than as described below, existing apartments do not need to be physically altered to meet new construction standards.

- A. Design documents must show all proposed changes to existing and proposed buildings, parking, utilities, and landscaping. An architect or engineer must prepare the design drawings.
- B. Any replacement of existing materials or components must comply with the design standards for new construction. In addition to needs identified by the Agency, the rehabilitation scope of work will include/address the following issues:
 - All mechanical and storage closets must have finished flooring.
 - All water heaters must be in an overflow pan and piped to the outside (where possible).
 - If range hoods were previously vented to the outside, the replacement hoods must be similar.
 - All bifold and accordion doors must be replaced with hinged doors.
 - All units must have individual water shut off valves in the unit.
 - All units must have looped smoke alarms.
 - Water heaters under kitchen countertops must be relocated.
 - All polybutylene (“Quest”) piping must be replaced.
 - All original cast iron p-traps must be replaced.
 - Attic insulation must meet R-30 minimum value.
 - Tub/shower valves over twenty-five years old must be replaced.
 - Hard duct all new and existing bathroom exhaust fans where possible (in attics).
 - Shoe molding must be installed in areas where glue down flooring is/was installed.
 - Existing HVAC air handlers must have a secondary condensate overflow line or cutoff switch.
- C. Applicants must submit the following:
 1. A hazardous material report that provides the results of testing for asbestos containing materials, lead based paint, Polychlorinated Biphenyls (PCBs), underground storage tanks, petroleum bulk storage tanks, Chlorofluorocarbons (CFCs), and other hazardous materials. Professionals licensed to do hazardous materials testing must perform the testing. A report written by an architect, building contractor or developer will not suffice. A plan and projected costs for removal of hazardous materials must also be included.
 2. A report assessing the structural integrity of the building(s) being renovated from an architect or

engineer.

3. A current termite inspection report.
- D. Show “reserves for replacements” adequate to maintain and replace any existing systems and conditions not being replaced or addressed during rehabilitation.

VII. ADDITIONAL PROVISIONS FOR ADAPTIVE RE-USE OF EXISTING STRUCTURES

- A. Mechanical Systems: All mechanical systems (including HVAC, plumbing, electrical, fire suppression, security system, etc.) must be completely enclosed and concealed. This may be achieved by utilizing existing spaces in walls, floors, and ceilings, constructing mechanical chases or soffits, dropping ceilings in portions of units, or other means. Where structural or other significant limitations make complete enclosure and concealment impossible, the applicant must secure approval from the Agency prior to installation of affected systems.
- B. Windows: Retain original window sashes, frames, and trim where possible. All original sashes must be repaired and otherwise upgraded to insure that all gaps and spaces are sealed so as to be weather tight. All damaged or broken window panes must be replaced. Where original window sashes cannot be retained, install replacement sashes be installed into existing frames. In all cases, windows must be finished with a complete coating of paint.
- C. Floors: All wood flooring is to be restored as closely to original condition as possible. Where repairs are necessary, flooring salvaged from other areas of the building must be utilized as fill material. If salvaged wood is not available, flooring of similar dimension and species must be used. All repairs must be made by feathering in replacement flooring so as to make the repair as discreet as possible. Cutting out and replacing square sections of flooring is prohibited. Where original flooring has gaps in excess of 1/8 inch, the gaps must be filled with an appropriate filler material prior to the application of final finish.
- D. Hazardous Materials: Submit a hazardous material report that provides the results of testing for asbestos containing materials, lead based paint, Polychlorinated Biphenyls (PCBs), underground storage tanks, petroleum bulk storage tanks, Chlorofluorocarbons (CFCs), and other hazardous materials. Professionals licensed to do hazardous materials testing must perform the testing. A report written by an architect or building contractor or developer will not suffice. A plan and projected costs for removal of hazardous materials must also be included.

VIII. APPLICABLE ACCESSIBILITY REGULATIONS

A. FAIR HOUSING AMENDMENTS ACT

All new construction projects are required by law to meet the handicap-accessibility standards outlined in the Fair Housing Laws, including the Federal Fair Housing Amendments Act of 1988 (the “Act”). The law provides that failure to design and construct certain residential dwelling units to include certain features of accessible design will be regarded as unlawful discrimination. Renovation projects may be exempt from design guidelines.

The law applies to all housing built after March 13, 1991 with four or more units. All units in buildings with four or more units must meet the requirements of the law if the buildings have one or more elevators. All ground floor units in other buildings containing four or more units must meet the requirements of the law. Certain sites with steep terrain may have some exclusions.

B. THE AMERICANS WITH DISABILITIES ACT

All projects are required by law to meet the handicap accessibility standards outlined in the Americans With Disabilities Act (ADA). The law provides that failure to design and construct certain public accommodations to include certain features of accessible design will be regarded as unlawful discrimination.

ADA Legislation became effective on July 26, 1992. Title III deals with non-discrimination on the basis of disability by public accommodations and in commercial facilities. Public accommodations include all new construction effective January 26, 1993 and impacts any rental office, model unit, public bathroom, building entrances, or any other public or common use area. Existing public accommodations must be retrofitted or altered beginning January 26, 1992, unless a financial or administrative burden exists.

The ADA guidelines do not affect residential units, since these are covered under Fair Housing and Section 504 laws.

C. NORTH CAROLINA STATE ACCESSIBILITY CODE

All projects are required by law to meet the handicap accessibility standards as outlined in the North Carolina State Building Code, Chapter 11, and ANSI A117.1 . State and/or local building code officials enforce the design and construction guidelines. Compliance with these guidelines is mandatory in order to receive a Certificate of Occupancy for your proposed development. A main feature of the state accessibility code is the provision requiring all multifamily residential projects intended as full time residences for rent or lease that have eleven or more living units to have a minimum of five percent of the units, or a minimum of one, that meet the requirements. These fully accessible designated units must also be distributed throughout the project, and not placed all in one building or just in one area of the site.

D. QUALIFIED ALLOCATION PLAN

Five percent (5%) of all units in new construction projects must:

1. be fully accessible according to the standards set forth in Chapter 11 of the North Carolina State Building Code and ANSI A117.1, and
2. have at least one bathroom with a toilet located in a five foot by five foot clear floor space (may overlap with the five foot turning diameter described in ANSI A117.1, with no overlapping elements or fixtures; the toilet must be positioned in a corner with the centerline of the toilet bowl 16 to 18 inches from the sidewall, and
3. have at least one bathroom with a 36" x 60" roll-in shower as described in Appendix B. Such showers must also meet the requirements for accessible controls and clear floor spaces as required by ANSI A117.1.

At least one unit in each class of fully accessible units must meet the above requirements. Unit classes are measured by the number of bedrooms. THESE UNITS ARE IN ADDITION TO MOBILITY IMPAIRED UNITS REQUIRED BY FEDERAL AND STATE LAW (INCLUDING BUILDING CODES).

DEFINITIONS

Efficiency Apartment: A unit with a minimum of 450 heated square footage (assuming new construction) in which the bedroom and living area are contained in the same room. Each unit has a full bathroom (shower/bath, lavatory and water closet) and full kitchen (stove top/oven, sink, full size refrigerator) that is located in a separate room.

Heated Square Feet: The floor area of an apartment unit, measured interior wall to interior wall, not including exterior wall square footage. Interior walls are not to be deducted, and the area occupied by a staircase may only be counted once.

Net Square Feet: Total area, including exterior wall square footage, of all conditioned (heated/cooled) space, including hallways and common areas.

One Bedroom Apartment: A unit of at least 660 heated square feet (assuming new construction) containing at least four separate rooms including a living/dining room, full kitchen, a bedroom and full bathroom.

Single Room Occupancy (SRO) Unit: A single room unit with a minimum of 250 heated square feet (assuming new construction) that is the primary residence of its occupant(s). The unit must contain either food preparation or sanitary facilities. At least one component of either a full bathroom (shower, water closet, lavatory) and/or a full kitchen (refrigerator, stove top and oven, sink) is missing. There are shared common areas in each building that contain elements of food preparation and/or sanitary facilities that are missing in the individual units.

Studio Apartment: A unit with a minimum of 375 heated square feet (assuming new construction) in which the bedroom, living area and kitchenette are contained in the same room. Each unit has components of a full bathroom (shower/bath, lavatory and water closet) and full kitchen (stove top/oven, sink, refrigerator).

Three Bedroom Apartment: A unit with a minimum of 1,100 heated square feet (assuming new construction) containing at least seven separate rooms including a living/dining room, full kitchen, three bedrooms and 1.75 bathrooms, with each unit including a minimum of one bath with a full tub and one bath with an upright shower stall.

Two Bedroom Apartment: A unit with a minimum of 900 heated square feet (assuming new construction) containing at least five separate rooms including a living/dining room, full kitchen, two bedrooms and full bathroom.