B MinimumDesign Quality Standards

The purpose of the Mississippi Home Corp Architectural Review is to determine if a development meets the Agency's recommended architectural standards. The design standards for 4% (noncompetitive) tax credits will remain consistent with the design standards for the 9% (competitive) tax credits. When the final plans and specifications are submitted, the Architect shall include a statement that the development has met the minimum criteria. Plans must be submitted as ¼ scale. At the completion of construction, the Architect shall certify that the development has complied with all the minimum requirements. FAILURE TO COMPLY WITH THE MINIMUM STANDARDS WILL RESULT IN A LOSS OF CREDITS.

SINGLE FAMILY HOMES

The following is required for all new construction of single family homes:

1. The minimum heated/cooled area for a single family detached two bedroom/two bath home will be 1,100 square feet (2 bedroom 2 bath units are limited to no more than 25% of the total unit mix). The minimum heated/cooled area for a single family detached three bedroom/two bath home will be 1,300 square feet. The minimum heated/cooled area for a single family detached four bedroom/two bath home will be 1,700 square feet. (One (1) bedroom single family units are prohibited.)
2. Average lot sizes of no less than 7,500 square feet (single family detached) or determined by the local municipality of the proposed site.
3. At least eighty percent (80%) of the home's exterior being brick or equivalent surface, i.e. Hardiboard or similar cement composite board.
4. Master bedrooms should be at least 12'x14' (13'x15' is preferred)
5. Secondary bedrooms should be at least 10'x10' (11'x12' is preferred).
6. All single family type construction (single family detached houses, town homes, duplexes, and 4-plex units) must have, at a minimum, a two car garage for each unit. The minimum dimensions for two cars should be 20'x21' (inside face of stud to face of stud). A minimum of 50 sq. ft. of enclosed storage is required.
7. Owner shall provide a maintenance schedule of items to be replaced prior to the purchase of the units by the Tenant.
8. Paved driveways.
9. Entrance Appeal. Provide adequate entrance signage with landscaping clearly illustrated in the plans.
10. Side by side, opposite wall units, or stackable washer and dryer connections.
11. Landscape Plan and Maintenance (Applicants shall maintain lawns and landscaping throughout the required compliance period.)
12. Architectural Shingles or Solar Reflectance Index (SRI) metal roofing (if appropriate to the area and development).
13. Development note: provide curb & gutter with sidewalks (4' min width) and underground utilities in new communities. Scattered lot developments should conform to existing standards of surrounding development.
14. Along with the primary "street" or front elevation, provide (2) additional elevations for each plan as well as mirror image of each. These elevations should be spread throughout the development to create variation in the street scene as well as future value.
15. SFLP developments must have a minimum of two (2) elevations per plan with no more than fifteen percent (15%) of the total units having the same elevations. The elevations cannot be located side by side and there must be at least three (3) different elevations between them. The different elevations must be staggered throughout the development to create variation in the street scene.
16. Wiring or wireless connections for cable television and internet access must be confirmed by letter from the architect/engineer.
17. All SFLP developments, including townhome developments must build the required ADA minimum number of handicapped accessible units. If the development is a planned traditional townhome unit with all bedrooms being on the second floor, the developer will be required to construct the appropriate number of accessible units with the accommodating bedroom(s) on the first floor.
18. Furnished Clubhouse or Community Building for all new construction. (see page 63)

19. Ceiling fans standard in living room/great room and all bedrooms.
20. The Owner/Management Entity must establish and implement a written policy prohibiting smoking in all units and common areas of the Development. A non-smoking clause must be included in the lease agreement that specifies the non-smoking policy and states the penalties for violating the policy. Signage must be posted throughout the development indicating that smoking will not be allowed in the units or common areas. Also, any designated smoking area(s) must be identified in the written policy and lease agreement. The Owner/Management Entity must make educational materials on tobacco treatment programs, including the phone number for the statewide Mississippi Tobacco Quitline, available to all tenants. A copy of the written policy as well as a sample copy of the lease agreement that specifies the non-smoking policy and penalties for violating the policy must be included in the application.

SINGLE FAMILY HOMES AND MULTIFAMILY APARTMENTS

The following is required for all new construction and rehabilitation developments:

UNIT LIVABILITY

The long-term marketability of apartment units is affected not only by their sizes but also by the livability of the units. One important functional component of livability is the ability of the space to accommodate the potential number of occupants and the basic pieces of common furniture necessary for daily activities. A well thought-out furniture plan may resolve conflicts in the unit layout, providing improved functionality and livability.

KITCHEN

Kitchen cabinets and appliance space required at 16 lineal feet for 2 & 3 bedroom units with the addition of a pantry for larger units(**). Utilize 16" clear counter space on one side of each appliance and fixture and a minimum of 9" on the opposite side of a range (**). Each kitchen must contain an Energy Star Rated Refrigerator/Freezer and Dishwasher.

CLOSETS

1. Minimum of 12 lineal feet of closet rod in master bedroom and 5 lineal feet in other bedrooms. Closet rods may be double hung to satisfy the lineal feet requirement.
2. Entry coat closet and linen closet in multiple bedroom units, if possible.

CEILINGS & HALLWAYS

1. Hallways must be a minimum of 3'4 in width (measured from face of stud to face of stud). This will accommodate a 2'8" door and allow for wheelchair access as well as moving furniture without damage to walls.
2. 9' Ceiling heights.

BEDROOMS

Bedrooms size should be a minimum of 96 sq. ft. plus the required closet space (**).

BATHROOMS

Secondary baths must have at least one door that is 2'8" (**). This allows for wheel chair access (Fair Housing standard).

SMOKE DETECTORS

Each unit must include at least two hard wired smoke detectors, in proper working condition, on each level of the unit.

- At least one detector must be installed within or immediately adjacent to all sleeping areas, in accordance with local code and NSPIRE standards.
- Smoke detectors must be interconnected, so that activation of one detector triggers all others within the unit.

- Battery-only detectors are not permitted unless explicitly allowed by local code for rehabilitation projects where hard-wiring is infeasible.
- Devices must be tested regularly and replaced in accordance with manufacturer specifications or at the end of their useful life, whichever comes first.

CARBON MONOXIDE DETECTOR

Each unit must include at least one hard wired carbon monoxide detector, in proper working condition, on each level near bedrooms in properties which contain a combustible appliance.

- In all LIHTC-assisted units located in properties that contain any fuel-burning appliance, fireplace, or are served by an attached garage, a minimum of one hard-wired carbon monoxide detector with battery backup must be installed and maintained in proper working condition on each level of the unit, with at least one located within 10 feet of all sleeping areas.
- Properties without any combustible appliances or attached garages are exempt from this requirement but must certify that exemption status annually.
- Combination smoke/CO detectors are acceptable only if compliant with UL 217 and UL 2034 standards and installed in accordance with manufacturer guidelines.

FIRE EXTINGUISHERS

- All properties must have one fire extinguisher in the kitchen and one on each floor of the common areas. All extinguishers must be rated ABC Dry chemical. Fire extinguishers must be inspected and serviced yearly by a certified service provider with tag noting the month and year it was serviced.
- All LIHTC properties must be equipped with properly rated and serviced fire extinguishers to meet life safety standards:
- Each residential unit must contain one ABC-rated dry chemical fire extinguisher mounted in the kitchen area and accessible to residents.
- In common areas, at least one ABC-rated fire extinguisher must be installed on each floor of all buildings, in clearly visible and accessible locations.
- All fire extinguishers must:
- Be ABC Dry Chemical rated (suitable for Class A, B, and C fires),
- Be mounted properly per fire code and manufacturer requirements,
- Be inspected and tagged annually by a licensed/certified fire extinguisher service provider, with a current tag indicating the month and year of last service.

COMMON AREAS

1. Community/Recreation facility will be a minimum of 1,200 square feet or 20 sq. ft. per unit for family; whichever is greater (**). The facility will include a community kitchen, sink, refrigerator and range or microwave (**). Management office will be no less than 100 sq ft (**).
2. Maintenance workshop and storage room that provides a workbench, sink and shelving area (**).
3. Common area laundry room when washers/dryers are not provided in the units. The common laundry room must provide 1 washer/dryer per 12 family units (**).
4. Elevators are required in developments that provide for senior housing and special needs (**).
5. Exterior trash enclosures should have enclosure protection and a nearby hose bib; for Multi-Family developments or for those developments located in areas where services are not provided by local municipalities (**).
6. Playgrounds, Community Centers and Mail Kiosks should have sufficient separation as to provide safety for the children and minimize traffic congestion for the various functions (**).

EXTERIOR

1. Structures of two or more stories must be a minimum of sixty percent (60%) brick or cementitious product (**).
2. Where vinyl siding is used, if on the allowed 40% and for soffit and facia, it must be certified through VSI's Program and be installed by a certified installer. Additional information can be obtained at http://www.vinylsiding.org/certifiedinstaller.
3. A color variation throughout the development is encouraged.
4. Housing components delivered to the site must meet MHC's "Site Delivered Housing Component Requirements" available on MHC's website www.mshomecorp.com.

(**) Includes requirement for Acquisition/Rehabilitation developments. Historic Developments may request a waiver.

PARKING

All multifamily developments must have a minimum of two (2) parking spaces per unit or 1.5 spaces per unit for elderly properties. MHC will consider a waiver of these parking requirements subject to the local jurisdiction's parking requirements. Parking waiver requests must include documentation from the local jurisdiction detailing parking requirements.

CENTRAL AIR/HEAT

Any development receiving tax credits must have central air and heat by the placed in service date. A certified letter from the development's architect or engineer must verify that the central heat and air system has the capacity to properly accommodate all of the units.

ENERGY EFFICIENCY / GREEN (SUSTAINABLE) DESIGN

1. Use of all Energy Star rated appliances.
2. Use of low or zero V.O.C. (Volatile Organic Compounds) interior paints.
3. Use of Formaldehyde-free insulation
4. Use of at least of one (1) high efficiency toilet or dual flush per unit.
5. Use of double glazed, insulated energy efficient windows, with Low-E glazing and a minimum: U factor of .55, Heat Gain Coefficient of .29 and Visibility Transfer of .52
6. Use of alternate, high efficient H.V.A.C. sources and delivery systems (14 SEER).
7. Use of water efficient landscape plants
8. Use of efficient, compact site design (when local codes allow).
9. Use of Gutters and downspouts at eaves less than 12" on 1 story and less than 24" on 2nd level. Downspouts to underground drain system or concrete splash blocks or hard surface required.
10. Use of PEX plumbing systems for domestic water.
11. Use of Day-lighting. Day-lighting includes strategies for increasing the percentage of illumination provided by natural light by optimizing building orientation and room layout.

SITE ACCESSIBILITY

1. Accessible path to the primary entry of all ground floor units
2. Identify all common area facilities on an accessible path (show walkways slope and landing dimensions at ramps, accessible parking spaces. van stall location, and trash enclosures)

Note: The development must be designed to meet ADA and HUD standards for all applicable handicapped accessibility requirements. See Section 9 of the QAP.

STANDARDS DEFINITIONS

Overall Impact

Avoid letting garages, driveways dominate the streetscape – more specifically in Traditional Neighborhoods or Compact Sites. Consider placing them at the rear or side of the site to allow a majority of dwelling units to "front

on" the street. A mix of both front loaded and rear garages provides “character” in the development. Consider planting trees and shrubs to soften the overall impact and provide shade and noise reduction.

Vehicle/Pedestrian Interaction
Design to minimize conflicts between vehicles and pedestrians. Consider separating bicycle and pedestrian paths from vehicular traffic. Consider linking open spaces so that they form an uninterrupted network of vehicle-free areas. Consider traffic calming strategies to slow down cars within the development.

Adequate Size
Ensure that private open space is large enough so that it can actually be used. Avoid spaces, particularly balconies, decks and porches that are too narrow to accommodate furniture.

Nighttime Lighting
Consider a lighting plan for shared open spaces that provides light from a variety of sources. Match lighting intensity and quality to the use for which it is intended; i.e. the lighting required for a pedestrian path is substantially different from that required to illuminate streets. Avoid lighting which shines directly into dwelling units or is overly intense and bright. Consider light fixtures which minimize overall light "pollution;" i.e. fixtures with shields which prevent lighting the nighttime sky. Consider energy efficient lighting whenever possible.

Landscaping is not a Secondary Consideration
Good landscaping is critical to the quality of any development. Consider how landscaping and planting will be handled from the very beginning of the design process. Avoid considering landscaping as an "extra" that can be added in at the end of the development or, worse, eliminated in the name of cost control.

Building Scale and Massing
Relate the size and bulk of the new structure to the prevalent scale in other buildings in the immediate neighborhood.

Building Form
Consider utilizing a variety of building forms and roof shapes rather than box-like forms with large, unvaried roofs. Consider how the building can be efficiently manipulated to create clusters of units, including variations in height, setback and roof shape. Make sure various forms and shapes work together to create a coherent whole.

Image
Avoid creating a building that looks strange or out of place in its neighborhood. Consider a building image that fits in with the image of good quality market rate housing in the community where the development is located.

Visual Complexity
Consider providing as much visual and architectural complexity as possible to the building's appearance while maintaining a hierarchy of scale and a unified overall form. Consider breaking a large building into smaller units or clusters. Consider variations in height, color, setback, materials, texture, trim, and roof shape. Consider variations in the shape and placement of windows and other façade elements. Consider using landscape elements to add variety and differentiate homes from each other; more specifically in Traditional Neighborhoods.

Facade
Relate the character of the new building façade to the façades of similar, good quality homes in the surrounding neighborhood or region. The minimum roof pitch will not be less than 6/12 (7/12 or greater is preferred). Horizontal buildings can be made to relate to more vertical adjacent structures by breaking the façade into smaller components that individually appear more vertical.

Trim and Details
Trim and details can provide warmth and character to a building's appearance, particularly on street facades. In general, the complexity, depth and proportion of trim should relate to that used in good quality middle-income housing in surrounding neighborhoods. Carefully consider the design of porch and stair railings, fascia boards, corners, and areas where vertical and horizontal surfaces meet - for example where a wall meets the roof. Generally put trim around windows. Consider adding simple pieces of trim to the top and bottom of porch columns. Vary the dimension from an eve (18' minimum) and a rake (4' minimum) detail.

Materials and Color
Creative use of materials and color can add variety and visual interest to any façade. In general, consider materials and colors - for the façade (including foundation walls) and for the roof - that are compatible with those in similar, good quality buildings in the surrounding neighborhood or region. Avoid introducing drastically different colors and materials than those of the surrounding area. Consider using materials and construction details that do not require repeated or expensive maintenance. Favor materials that residents can easily maintain themselves after the homes complete the compliance period. Consider using materials with high levels of recycled content or "Green" where possible.

Room Relationships
Unit layout and room organization will be partly determined by the homes, orientation and location on the site and user profile. Consider activities and behaviors in each space to allow adequate room and durable materials for these activities. Create a clear separation of the private sleeping areas from the less private living areas. Avoid excessive circulation space.

Room Design
Consider how individual rooms will be used. Test furniture arrangements, outlet, telephone, cable jack, and light fixture locations to ensure that all rooms can be reasonably furnished. Consider partly enclosing kitchen to allow flexibility in dining/living room use. At a minimum, the master bedroom should have a private bath in homes with three or more bedrooms; other bedrooms will share bathrooms. Consider how rooms can be arranged to accommodate working at home.

Daylight and Ventilation
Access to natural light in all bedrooms and the living room is essential and cross ventilation throughout the unit is encouraged. Consider layouts that allow natural light to the kitchen and allow the natural ventilation and lighting of bathrooms.

Storage Space
Provide as much interior storage space as possible (this includes access to attic storage as well). At a minimum provide an amount of bulk storage commensurate with the size of the home and the number and ages of residents it is expected to accommodate, including: coat closets in the entry area, large closets in the bedrooms, linen closets, pantry spaces in or near the kitchen, and exterior storage rooms (see #6 under Room Design). Assume two occupants per bedroom for storage purposes.

Materials
Avoid materials that require frequent maintenance, especially by specialists. Consider materials that residents can maintain themselves. Provide floor coverings appropriate to use in room - generally use resilient flooring in kitchens, bathroom, laundries, dining rooms and entries. Consider "healthy" building materials for interior finishes and materials, and when selecting carpet, resilient flooring, paint, glues, cabinets, etc... Evaluate selection of materials in terms of lifecycle and environmental cost.

Build it to Last

Inexpensive, low quality, materials can make any development look "cheap." Quality materials and finishes, on the other hand, contribute to the longevity of a development and to its ability to appreciate - not depreciate in value. They also make a development easier to maintain, potentially reducing operating costs.

"Building in" energy and environmental efficiency - through better windows, insulation and equipment - reduces operating costs over the life of the building.

While recommending doing everything possible to include high quality materials and finishes, we also recognize that affordable housing developments usually face severe cost constraints. Not every product or system can be top of the line. In these circumstances, consider favoring exterior materials and finishes over interior ones when making tradeoffs. Likewise, consider favoring products and systems which are permanent and hard to replace over those that the occupant can replace.

Ultimately, the over-riding goal is to construct the dwelling units with methods and materials in order to provide a minimum service life of 50, preferably 75 years.