

ARCHITECTURAL MANUAL

The Architectural Manual contains the following documents:

1. Architectural Standards
2. Amenities Guidebook
3. Amenities Guidebook Photos
4. Architectural Submittal Instructions
5. Rehabilitation Guide

ARCHITECTURAL STANDARDS

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I. INTRODUCTION

In accordance with federal requirements established by 24 CFR 92.251 for the proper operation of the HOME program, IRC Section 42 for the proper operation of the Low Income Housing Tax Credit (LIHTC) program, and the 1989 Georgia General Assembly for the proper operation of the State Housing Trust Fund (HTF) for the Homeless, the Georgia Department of Community Affairs (DCA) has established these Architectural Standards. All projects receiving DCA resources including HOME funds, 9% and 4% Bonds, LIHTC, and HTF for the purpose of building new rental housing and rehabilitating existing rental housing must meet or exceed these Architectural Standards. The level of construction to be performed on all properties requires incorporation of these minimum standards into all work scopes. These standards have incorporated all state and local building codes, state energy codes and the HUD Housing Quality Standards (HQS). In many cases DCA requirements exceed the referenced state and federal requirements. Compliance with these Architectural Standards, upon project completion, will result in properties that pass the local codes and HQS standards (except for those HQS standards, which vary by occupant household size). The marketability of rental property and the appraisal requirements of all properties may result in a higher level of construction required in certain areas.

The Qualified Allocation Plan requires that all projects funded under the Plan meet all applicable federal and state accessibility standards as well as all DCA accessibility requirements. For further information on the accessibility laws and requirements that are applicable to projects funded under the Plan, refer to the DCA Accessibility Manual.

These Architectural Standards **do not** have the effect of replacing local codes or minimum property standards. All properties must meet or exceed applicable local codes and property standards. For properties receiving DCA loans (including HOME funds), LIHTC & HTF funding, with the exception of offsite development costs, the measures required to address local codes and property standards are eligible construction costs.

These Architectural Standards are applicable to **new and rehabilitation** construction. New and rehabilitation construction is governed by all local and state building codes and requirements. New construction is defined as projects having construction costs exceeding 90% of the replacement cost of the completed property (as defined by Section 504 regulations).

Building Permits are required for all work to be funded under DCA programs.

Proof of inspections and approvals by local officials including Certificates of Occupancy are required for final allocation of Low Income Housing Tax Credits (LIHTC). See Submittal Instructions for specific information and verify all requirements with LIHTC and HOME underwriters.

Final determination as to compliance with the Architectural Standards rests solely with DCA, the mortgage lender and the credit enhancement provider. The highest standards will prevail.

All construction work scopes (including rehabilitation) must give consideration to the marketability of the property including the upgrading of the exterior appearance of the buildings, the interior of the units and the site conditions. DCA requires upgrades to the property that will improve the marketability and quality of life for the residents. These upgrades should be reflected in the Threshold and Scoring portions of the DCA Application.

The per unit cost limits are intended to reflect those costs reasonable and necessary to develop a project in the State of Georgia. DCA will not accept requests for cost unit waivers.

All projects presented for rehabilitation must meet all threshold requirements as published in the Qualified Allocation Plan, including longevity, per unit cost limitations, financial feasibility and economic viability. These Architectural Standards, as well as the QAP and Rehabilitation Standards, should be read in their entirety for further information on the DCA replacement and longevity requirements of all materials and components for the completed rehabilitation on the property.

II. DESIGN SUBMITTALS AND CONSTRUCTION MONITORING

A. Drawings and Specifications:

The architectural drawings and specifications must be in compliance with the Livability Standards found in HUD's Minimum Property Standards for Housing HUD Handbook 4910.1, issued July 29, 1994. These are the minimum standards. Where DCA or local standards are higher, the higher standards will prevail. All federal, state and local codes must be met, including all applicable state minimum standard codes, applicable federal

and state accessibility laws and requirements, and any other applicable requirements. In every case the most restrictive requirement shall prevail.

Construction documents are required for both and new construction and proposed rehabilitation projects. The architectural drawings should be complete, clear and consistent, graphically depicting the design, location and dimensions of the elements of the project. This is to minimize construction problems, schedule delays, discrepancies in documentation and cost overruns, all of which affect the overall construction process. Refer to the Architectural Submittal Instructions for document format and submittal requirements.

B. Soils and Materials Testing:

The soils testing, construction methods, and materials inspections (including related written documentation and reports) must meet or exceed applicable industry standards. A state licensed/ state certified /accredited testing lab must approve all soils under foundations, slabs and paving. Concrete must be tested to ensure it meets specifications. Soils testing is required for new construction only.

C. Construction Monitoring:

DCA will conduct periodic construction inspections of all properties to ensure construction quality standards and completion dates are met. For projects assisted with DCA loans, a consultant will be assigned to each property to monthly reports and review pay requests. For other funding programs, the consultant will perform 2-4 inspections during construction. The consultant will be engaged by DCA and/or the mortgage lender (when agreed on, the same consultant may serve both lenders). The construction reports, in addition to reviewing construction draw requests, shall address methods of construction, percentage of completion, progress and budget analysis, and adherence to codes and acceptable building practices.

DCA requires that all properties under construction submit all draw requests and any additional construction inspection reports generated by construction managers, architects, and/or engineers to DCA on a monthly basis, regardless of funding sources.

III. SITE DEVELOPMENT STANDARDS

A. Environmental Conditions:

The environmental conditions surrounding the immediate area and the neighborhood must be carefully evaluated in order to determine the appropriate access to the property. Any negative adjoining situations (such as ditches, canals, railroad tracks, expressways, noise sources, etc.) should be mitigated with screening, building orientation, and other measures. Site design should take into account the views, prevailing wind patterns and solar orientation of the property location.

Refer to Environmental Phase I Site Assessment standards published in the DCA Environmental Manual for the environmental documentation and review process. All applications are required to submit a Phase I Environmental Site Assessment and a Phase II investigation if recommended in the Phase I report.

B. Parking:

The number of parking spaces on a site shall meet all local zoning requirements. However, in cases where there are no local zoning requirements, DCA requires that there shall be no less than 1.5 spaces per unit. DCA may consider a waiver for an existing site layout that cannot meet this requirement. All access roads, parking areas and walking paths shall be either concrete or asphalt paving. DCA may approve a waiver for alternate paving materials that are appropriate for local conditions.

The relationship and distance of parking areas from building entrances is paramount to the safety and security of the property and tenants. The path traversed from parking to the building entrance should be as direct as possible and other safety measures such as apartment windows overlooking the parking areas should be considered.

All handicapped parking spaces must meet the requirements of the federal and state accessibility laws and requirements, whichever is most restrictive. Ramps and no-step access must be provided as applicable. (See the DCA Accessibility Manual for more information on the applicability of federal and state accessibility requirements.)

C. Vehicle Circulation:

Vehicle circulation should allow for road patterns that are economically laid out. Roads should impact as little as possible on the buildings, and should use as little of the site as

possible. All roadways shall be paved and have curbs as appropriate to the neighboring community.

D. Pedestrian Circulation:

Pedestrian circulation should incorporate paved walks to expected destinations. Access requiring walking on streets, grass or gravel/sand surfaces is not acceptable. Security considerations, such as adjoining landscaping and site lighting, are to be taken into account in (re) designing pedestrian walkway layouts and landscaping.

E. Open Spaces:

The relationship between buildings should take advantage of open landscaped spaces as much as possible. Open spaces should be located where they are overlooked by adjacent buildings to enhance the safety of the residents using the areas.

F. Landscaping:

Landscaping must be adequate and aesthetically appealing. The design and materials should convey a residential image and should carefully consider the requirements of future maintenance. Landscaping is an important marketing tool. Landscaping design should take appearance, low maintenance plant materials and security considerations into account.

1. All shrubs must be a minimum size of 2 gallons.
2. Trees at streetscape must be at least 2 ½” caliper. Canopy trees for general landscaping must be at least 2” caliper. (Flowering trees such as crape myrtles may be 1” caliper)

In some instances DCA may require additional landscaping to be included in the work scope to ensure adequacy and aesthetic appeal for the completed property. For appropriate landscape options, please refer to *Landscape Plants for Georgia*, published by the Cooperative Extension Service, The University of Georgia College of Agricultural and Environmental Sciences.

G. Site Lighting:

One foot-candle is a generally acceptable minimum standard for site lighting in parking lots and along pedestrian walks. The site lighting should be designed so that a warm, attractive residential atmosphere is created. All parking and site lighting should be directed down to the areas to be lit and to diminish nuisance to adjacent residential units. There should be no dark spots particularly at building entrances and parking lots.

Lighting must be directed to areas of community use, such as mail pick up areas, building entries, etc. Each unit must have an exterior light at entry doors, controlled from inside the apartment unit, in addition to other building/site lighting.

H. Site Amenities:

Site amenities such as community buildings, playgrounds and other recreational facilities are important marketing features. The location of these features must be taken into account, with the amenities such as playground being in close visual proximity to the buildings. However, the areas that may create noise or disturbance may be located more remotely on the property. All amenities areas must meet the requirements of all applicable federal and state accessibility laws and DCA requirements and any other local requirements. See DCA Accessibility Manual for further guidance. This shall include no-step access from an adjacent walk or parking lot to an amenity, and provision of a seating area appropriate to the type of amenity. Protection from the elements as appropriate is an important design consideration and will enhance the appearance and use of these amenities.

The selected site amenities of the Property, (i.e. community spaces, gathering areas, playgrounds, and other recreational areas) must be completely reflected in the construction documents and budget and must be suitable for the market being served. All amenities indicated in the application package must be reflected in the final construction documentation and be part of the completed Property.

Minimum standards for site amenities are defined the Amenities Guidebook portion of the Architectural Manual. DCA reserves the right to determine the adequacy of the amenities on the completed property and to determine whether or not they meet DCA requirements.

I. Trash Collection

All trash collection areas must be screened from the residential and community areas and be located no closer than 40 feet from any building face. Trash collection areas must be accessible to disabled persons and convenient to tenants and service vehicles. All dumpsters must be placed on concrete slabs with concrete approach aprons at least 10'-0" in depth.

J. Signage and Fixtures:

The design, location and materials for signage, free standing mailboxes, site lighting fixtures, benches etc, should be compatible with the overall site design and materials used. Illumination for the property entrance signage should be provided.

K. Site Grading and Drainage:

All portions of the site should drain positively away from all buildings and other site amenities, to eliminate standing water, ponding or any other undesirable drainage patterns. The site surface drainage should rely on existing drainage patterns as much as possible. Grading must meet requirements for pedestrian access and handicapped access where applicable. All design for drainage must meet local requirements, and retention ponds on the site must be well maintained.

All drainage retention and detention areas (ponds), that hold water on the property, must be fenced to protect the residents. The fencing may be designed with a gate access for maintenance of the areas, but there should be a mechanism to secure the gate. Any large inlet or outlet drainage ways must also be screened or gated to prevent resident entry.

Seamless gutters and downspouts are required on all buildings, with adequate grading to ensure positive drainage away from the buildings, pedestrian entrances and walkways. Basement and foundation walls must be designed to prevent free access to, or the entrance of, water, moisture, insects, or rodents into the basement or crawl space areas. Access and ventilation of basement and crawl spaces must be in accordance with all codes and must be secured from the exterior as appropriate. Waterproofing under newly constructed slabs must be at least 6 mil polyethylene film.

L. Site Entry:

Entry image is the impression created on entering the site. The entry image should work to enhance a favorable impression of the development. Landscaping, lighting, signage, lighting, paving and open spaces all contribute to the entry image.

M. Residential Image:

The residential image is composed of the facade treatments, the relationships of the buildings, roadway and pedestrian walk layout, landscaping and all the other visual elements present on the site. The residential image should convey an informal, warm, humanly scaled design, using site treatments generally applied and accepted in residential

design. The end product should be an attractive marketable product as well as environmentally responsible.

N. Personal Safety and Security:

Any aspect of the site design that might affect personal safety and security must be closely examined and mitigated (e.g., dark, poorly lighted parking areas or long walkways, corners that have the potential for concealment of a person, or objects that might present a hazard to a resident). Steep grades, retention ponds, etc., must be fenced or otherwise guarded to prevent danger to the residents.

O. Underground Utilities:

The underground utilities should be efficiently laid out. The electrical distribution system should be underground where possible. Utilities should be given to the local authorities after construction to avoid future utility maintenance needs. **All projects must have access to and be connected to the existing public water and sewer systems.** (For further information refer to the Qualified Allocation Plan, Appendix I, Threshold Criteria)

IV. BUILDING EXTERIOR DESIGN STANDARDS

The designs and materials of building exteriors should create a residential image. The designs and uses of the materials should fall within the range of locally held perceptions of quality residential developments. All construction materials must be appropriate for lifecycle cost and ease of maintenance. The cost of materials may be greater 'up front', as compared to other alternatives at the time of construction, but the integrity of the property over the long run will be maintained. All materials are to be installed according to manufacturer specifications using acceptable methods and materials that will result in the issuance of a manufacturer's guarantee. All materials must bear the label of an industry accepted testing or certification agency. Preference must be given to materials that represent low maintenance and longevity over the life span of the property.

A. Roofing:

DCA requires all pitched roofs possess, at a minimum, a 20 year warranty to be verified by the manufacturer. Flat roofs are not encouraged. However, DCA will allow flexibility in roof design if the design is a part of a green building component for energy conservation or for a roof design that mimics existing contextual surroundings.

Applicants must seek pre-approval from DCA before using one of these alternatives. **Seamless gutters and downspouts are mandatory for all construction and on all buildings.**

B. Vinyl Siding:

DCA requires commercial grade siding with a minimum thickness of .044 and with a 15 year warranty to be verified by the manufacturer.

C. Manufactured Siding:

Siding must be 7/16" nominal thickness with a 20 year warranty or an equivalent product with a 20 year warranty, which must be approved by DCA. Warranty must be verified by the manufacturer.

D. Wood Siding:

Cedar or redwood in random lengths of 4'-0" or greater is acceptable; other wood siding product must be approved by DCA. All wood siding must have a protective finish.

E. Exterior Insulation and Finish Systems (EIFS):

The installation of EIFS (e.g. Dryvit or similar products) must include protection of finish in high traffic areas and **must be approved by DCA.**

F. Stucco:

Hard-coat stucco may be used in some instances, but must be approved by DCA.

G. Soffits & Fascias:

Consideration should be given to pre-finished, or low maintenance finishes to all fascias and soffits. **Seamless gutters and downspouts are mandatory for all construction and on all buildings.**

H. Exterior Doors and Windows:

- Exterior doors must be 1 ¾" metal insulated or solid core wood, 20 minute rated door.
- Windows and door glazing must be in accordance with the Building Sustainability Threshold section of the 2011 QAP.
- All window locations, sizes and operable panels must meet the requirements of the Georgia state minimum standard codes for light, ventilation and egress. Window

- Skylights must meet all applicable codes for light, ventilation and egress.

I. Exterior Stairs:

All exterior stairs are to be covered and protected from the elements in both new and the rehabilitation of existing buildings.

V. BUILDING INTERIORS DESIGN STANDARDS

A. Individual Tenant Security:

Individual tenant security (e.g. security systems and intercoms) is equally important as overall property security. Measures that will enhance security should, to the maximum extent possible, be incorporated into the architectural design. All entry doors to units shall be equipped with a viewer and bell or buzzer. (See the DCA Accessibility Manual in the Application Manual for further guidance.) All exterior doors and windows must be equipped with locks to prevent access from the outside.

B. Room Configuration:

The overall configuration of the rooms should make functional sense. For example, the primary bathroom must be accessed from a common area such as a hall.

The kitchen should be conveniently accessed from the entry and the coat closet should be located in close proximity to the entry door. Bathrooms must not open from areas of food preparation, or be used as a sole passageway to a habitable room, hall, basement or to the exterior. No habitable rooms are permitted in basement or cellar spaces unless egress is provided according to applicable fire codes.

C. Circulation Patterns:

The circulation pattern should be efficient, with a minimum amount of space devoted to hallways. At the same time, circulation through the habitable rooms should be kept to a minimum (e.g., access to the primary bathroom only through a bedroom is not desirable).

D. Unit Sizes:

The minimum unit size permissible for funding under DCA programs for all construction types is for a Single Room Occupancy (SRO) unit and shall not be less than 250 square

feet of floor space. SRO Housing is defined as a residential property that includes multiple single room dwelling units for occupancy by a single eligible individual.

DCA defines unit amenities within existing SRO developments as those existing community kitchens and bathrooms constructed for the purpose of serving the SRO tenants. Kitchens and bathrooms must be located within the same building that contains the SRO units. Threshold criteria and Scoring criteria will be determined based on this definition of SRO unit amenities. Applicants may elect to modify the unit configuration to include a food preparation area and a bathroom within the rehabilitated SRO unit. All modifications must comply with the design criteria as stipulated in the Architectural Standards. Proposed new construction SRO units must include a food preparation area and bathroom within the unit and must comply with the design criteria as stipulated in the Architectural Standards.

MINIMUM UNIT SIZES			
DWELLING TYPE	SQUARE FOOTAGE REQUIRED	KITCHEN REQUIREMENT	BATHROOMS REQUIRED
Single Room Occupancy (SRO) REHABILITATION	250	None required	None required
Single Room Occupancy (SRO) NEW	250	Cooking area	1
Studio	375	Cooking area	1
Efficiency	450	Full kitchen	1
1 bedroom	650	Full kitchen	1
2 bedroom	850	Full kitchen	1
3 bedroom	1,100	Full kitchen	2
4 bedroom	1,250	Full kitchen	2

E. Room Sizes:

Rooms should be sized so they can contain, at a minimum, the required functionally arranged furniture. Room sizes can be larger as long as the budget does not exceed the per unit cost limitation.

MINIMUM ROOM SIZES			
	MINIMUM DIMENSION	MINIMUM SQUARE FOOTAGE (s.f.)	ROOM REQUIRED TO FIT THE FOLLOWING FURNITURE:
Living room	11'-6"	150-200 s.f.	<ul style="list-style-type: none"> • at least 2 furnishable walls and as a minimum, comfortably contain: <ul style="list-style-type: none"> ○ 1- couch, 6'-10" x 3'-0" ○ 2- easy chairs, 2'-6" x 2'-6" ○ 1- desk or table, 2'-0" x 3'-6" ○ 1- television, 2'-8" x 2'-0"
Living/Dining room	11'-6"	180-220 s.f.	<ul style="list-style-type: none"> • at least 1 furnishable wall and as a minimum, comfortably contain: <ul style="list-style-type: none"> ○ 1- table with 2'-0" of frontage per person seated, based on 2 people per bedroom. The table is to be 2'-6" wide for 1 bedroom units, and 3'-0" wide for 2 or more bedroom units. ○ appropriate size of dining chairs, 1'-6" x 1'-6" • circulation space around furniture should allow for reasonable clearances
Primary bedroom	11'-0"	130-160 s.f.	<ul style="list-style-type: none"> • at least 2 furnishable walls and as a minimum, comfortably contain: <ul style="list-style-type: none"> ○ 1- full sized bed, 5'-6" x 7'-10" (min) ○ 2- night stands, 1'-6" sq. ○ 1- dresser, 3'-6" x 2'-0"
Secondary bedroom	9'-6"	120-140 s.f.	<ul style="list-style-type: none"> • at least 2 furnishable walls and adequately accommodate a full sized bed, or two twin beds, or a single twin bed in addition to nightstands and a dresser.
Kitchen	7'-6" wide		<ul style="list-style-type: none"> • minimum clear countertop frontages, excluding sinks and appliances: <ul style="list-style-type: none"> ○ 1- Bedroom unit, 6'-9", with a minimum of 16-18 lf. of cabinets ○ 2- Bedroom unit, 7'-9", with a minimum of 18-20 lf. of cabinets. ○ 3- Bedroom unit, 8'-9", with a minimum of 20-22 lf. of cabinets.

MINIMUM CLOSET SIZES	
Entry closet	3'-0" wide x 2'-0" deep
Primary bedroom	7'-0" wide x 2'-0" deep
Secondary bedrooms (one closet per each bedroom)	4'-0" wide x 2'-0" deep
Linen closet	2'-0" wide x 1'-6" deep
Broom closet/Pantry	1'-6" x 1'-6" deep
Equipment	16 s.f., or as appropriate for HVAC etc.

Closets:

- To accommodate livability and marketing considerations, wherever possible, storage spaces should be larger than the above shown minimum spaces. All closets designed to contain clothes must be a minimum of 2'-0" deep.
- All closets and defined storage areas are in addition to the minimum room sizes and must not be included in the room area computations.

Ceiling Height Requirements:

- Flat ceilings must be a minimum of 7'-6" above finished floor.
- Sloped ceilings must not be less than 5'-0" for the purposes of computing floor areas.
- Ceilings less than 7'-6" high must not exceed 50% of the floor area.

F. Floor Finishes:

The floor finishes should be suitable to the market in conjunction with maintenance considerations. Living rooms and bedrooms must be carpeted. If resilient flooring is used in the bathrooms, it should be sheet material rather than tile. All materials are to be installed according to manufacturer's specifications using acceptable methods and materials that will result in the issuance of a manufacturer's guarantee. DCA may consider alternative flooring materials that clearly demonstrate and upgrade in maintenance, durability, safety and/or indoor air quality for the tenants. Manufacturer's support documentation including warranties must be submitted. **All materials must be low-VOC rated.**

- Unit carpeting must be at least cutpile 24oz or level loop 24oz. DCA may approve alternate carpeting materials and installation methods in units intended for the elderly or disabled.
- Community areas carpeting must be at least cutpile 30oz or level loop 24oz., 100% nylon with 5-year warranty.
- Carpet pad must be installed under all carpeting for which it is intended and should comply with HUD's Use of Materials Bulletin No. 72a.
- Sheet vinyl must be a minimum of 3/32" thick.
- VCT must be at least .080 gauge thickness.

G. Additional Finishes Requirements:

- Medicine cabinets: bathrooms must have built in medicine cabinets. (Do not place the medicine cabinets in party walls unless fire separation is continuous behind and around the cabinet installation.)
- Kitchen cabinets: must be provided above and below the counter. Cabinets shall be constructed with wood or wood/plastic veneer styles, doors & drawer fronts.
- Paint: **Low VOC paints and other interior finishing components are required on all properties.**
- Blinds: All windows should have horizontal mini-blinds installed in white or other neutral color. All glass doors should have either horizontal mini-blinds or vertical slat blinds as appropriate.
- Cable Outlets: Cable outlet must be provided in the main living area and in at least one of the bedrooms.

H. Water Heaters:

Water Heaters: Must be at least 40 gallons minimum in all unit sizes. Water heaters efficiency ratings must in accordance with the Building Sustainability Threshold section of the 2011 QAP.. Water heaters in units must be equipped with a drip pan or floor drain as required by state and local building codes or in all locations above the first floor.

I. Appliances:

Kitchen appliances must include refrigerators, ranges, and dishwashers. Minimum refrigerator sizes are as follows: one and two bedroom units—14 cu.ft.; three bedroom units—16 cu.ft. The size of other kitchen appliances size must be appropriate to the unit size and number of tenants. **All appliances must be Energy Star rated under the US**

EPA's Energy Star program (consult the EnergyStar website at <http://www.energystar.gov/> for more information on the types of appliances covered under the program). Washers in units must be equipped with a drip pan or floor drain as required by state and local building codes or in all locations above the first floor. All washers furnished by Owners in dwelling units and all washers in the community laundry shall be front-loading, and EnergyStar rated.

J. Heating, Ventilating, Air Conditioning, Plumbing and Indoor Air Quality:

All properties must meet the requirements of the Georgia State Minimum Standard Energy Code, as well as the Air Conditioning Contractors of America (ACCA) Manual J with regard to equipment sizing, heat loss and gain, proper duct sealing measures, insulation, and infiltration controls including, but not limited to, sealing the sole and top plate, windows, plumbing, wiring and other penetrations into unconditioned spaces.

The heating and air conditioning systems are mandatory, and should be suitable for the marketplace and climate. DCA requires self-contained heating and air conditioning systems for each apartment unit.

HVAC systems shall be designed to achieve a HERS rating of 85 or less. A certified HERS rater must verify that the worst case unit has a pre-construction index of 85 or less. Written verification of compliant energy modeling must be provided with Step II design documents submittal. The HERS Index is a scoring system established by the Residential Energy Services Network (RESNET) in which energy modeling software compares a proposed home design to a home built to 2006 International Energy Conservation Code specifications. The lower a home's HERS Index, the more energy efficient it is in comparison to the code model. DCA may consider requests to achieve a less stringent target for rehabilitation and historic preservation projects.

A certified HERS rater must verify that the ductwork and building envelope infiltration rate meets or exceeds the EnergyStar BOP (Builder Option Package) requirements for the appropriate project specific climate zone (the duct leakage rate for all climate zones in Georgia is < 4 cfm/100 square feet; dwelling unit air infiltration rate for climate zone 2 is an ACH 50 of 7 and for climate zones 3 and 4 is an ACH 50 of 6). Verification testing must follow the EnergyStar testing protocol. Test reports verifying compliance must be submitted at either the LIHTC final certification or final DCA loan disbursement,

whichever comes first. Projects that plan to utilize Packaged Terminal Air Conditioners (PTAC's) or mini-splits for all units are exempt from this requirement.

The following minimum standards also apply:

1. Exhaust Fans:
 - All baths must have a mechanical exhaust fan that is either ducted to the exterior or recirculating. The exhaust fan must be of sufficient size to adequately exhaust all humidity in an efficient manner with a maximum allowable sound level of 2.0 sones, minimum 80 cfm, and minimum efficiency level of 1.4 cfm/watt.
 - Kitchens are to be equipped with range vent hoods, preferably vented to the exterior.
 - All exhaust fans are to be installed in accordance with applicable codes, and cannot be exhausted into wall or attic spaces under any circumstances.
2. Plumbing fixtures in all units must not exceed the following flow rates: shower heads <2.0 gpm; bathroom faucets < 2.0 gpm.

K. Electrical

The minimum sized breaker for individual unit electrical system is 100 amps, or per code. **All** electrical switches, outlets, phone or television jacks and controls, such as thermostats to be installed no higher than 48" and no lower than 15" above the finished floor. All penetrations for electrical installations must meet current fire codes as administered by the local authorities. Fluorescent lighting must comprise at least 80% (by fixture count) of the required indoor lighting.

L. Acoustical Isolation:

Thermal and acoustical isolation should meet or exceed minimum standards of practice as defined in the Georgia State Minimum Standard Energy Code. Acoustical isolation is essential in providing a comfortable living environment for tenants, and, if ineffective, is one of the greatest sources of tenant complaints. Increasing acoustical isolation above required minimums will increase tenant livability significantly.

DCA requires that the noise levels for all developments (regardless of funding source) must meet the DCA and HUD noise limitations of 65 db exterior and 45 db interior. In areas where there are suspected or identified noise levels above these limitations, documentation of the construction methods and site mitigation must accompany the application for funding.

The following minimum standards apply:

1. Between units: 1 hr. rated UL assembly with a layer 5/8" GWB on each side (minimum or per local fire requirements if greater) w/two sets of staggered 2x4 studs (or metal stud equivalent), sound-insulated with blanket material to STC rating of 52. All wall edges must be caulked;
2. Within unit: one layer 1/2" GWB on each side 2x4 studs (or metal stud equivalent); and
3. Floor to floor: 1 hr. rated UL assembly with a minimum STC rating 52. A minimum of 1" lightweight concrete or 3/4" gypcrete topping over wood sub floor (optional floor construction may be considered for the rehabilitation of existing residential units).

M. Thermal Insulation:

Thermal insulation must meet or exceed minimum standards of practice as defined in the Georgia State Minimum Standard Energy Code and must be meet the R-values specified in the Building Sustainability Threshold section of the 2011 QAP. All plumbing in exterior walls must be insulated on the cold side of the wall to prevent freezing.

N. Unit Amenities:

The selected unit amenities of the Property, (i.e. washers, dryers, appliances) must be completely reflected in the construction documents and budget, must be part of the completed Property, and must be suitable for the market being served.

VI. FIRE AND LIFE SAFETY

The property design shall meet or exceed all requirements to provide a safe environment for all tenants. Aspects of this design have been discussed in earlier sections, and affect the property from overall site layout to individual unit design. Strict adherence to the most recently adopted editions Georgia state minimum standard codes are required. This includes but is not limited to:

- Smoke detectors must be hard-wired and located per code for all construction rehabilitation or new. (DCA will not waive this requirement for rehabilitation proposals.)
- Fire alarms and sprinklers must meet fire department, state and local code requirements.

- Attics must be constructed or rebuilt to meet all current fire and life safety codes, **regardless of the requirements of the local building authority**. These includes draft stop walls, 1 hour rated assemblies, and rated ceiling assemblies.
- All penetrations for electrical, plumbing and HVAC installations must meet current fire codes.

VII. ACCESSIBILITY

The Property must be designed to meet all applicable federal and state laws and DCA requirements for accessibility by individuals with disabilities. This is mandatory and is to be incorporated in the basic layout and design of open spaces, building location and unit design. Refer to DCA Accessibility Manual for additional information and guidance. Please note that DCA requirements may be more stringent than federal or state requirements. **For new and rehabilitation construction, DCA requires 5% of the units (no less than one unit) be equipped for the physically disabled and an additional 2% of the units (no less than one unit) be equipped for the hearing and sight impaired. DCA does not distinguish between new construction and rehabilitation regarding accessibility requirements. This may include moving partitions to accommodate required clearances.**

Newly constructed and rehabilitated single-family and multi-family housing developments funded, all or in part, by the Georgia Department of Community Affairs (“DCA”) are subject to statutory and regulatory requirements regarding accessibility. It is the responsibility of project participants, including the Owner, Architect and Contractor, to ensure compliance with all federal, state and local laws. DCA’s direct relationship in the awarding of funds is with the Owner only. The Owner ultimately is responsible regardless as to whoever is at fault, even though he can seek restitution from the entity that caused the legal infraction. However, the Owner relies upon the Architect’s expertise to design the project to meet certain contractual and legal requirements to DCA, including accessibility, and the Owner’s contract with the Contractor legally bind the Contractor to build the project in accordance with the sealed documents from the Architect. Specifically, the Project Owner must ensure that the project meets accessibility standards; the Project Architect must ensure that the project is designed to meet all applicable standards and the Project Contractor must ensure that the project is built to meet all applicable standards. All projects funded, all or in part, by

DCA must meet the requirements of all federal, state and local accessibility laws, including, but not limited to:

1. Title II and III of the Americans with Disabilities Act (ADA) applies to all actions of state and municipal governments as well as all “public entities” (Title II) and public accommodations (Title III). The ADA requires compliance with the ADA Accessibility Guidelines (ADAAG);
2. Section 504 of the Rehabilitation Act of 1973 (Section 504) applies to all entities who receive federal funds. Section 504 requires compliance with the Uniform Federal Accessibility Standards (UFAS);
3. The Fair Housing Amendments Act of 1988 (FHA) applies to all “covered units” of multifamily development regardless of funding source FHA requires compliance with the Fair Housing Accessibility Guidelines (FHAG);
4. The Georgia Access Law (O.C.G.A. §30-3 et. seq.) and all applicable compliance standards;
5. Georgia Fair Housing Law (O.C.G.A. §8-3-200 et. seq.) and all applicable compliance standards;
6. The requirements of the DCA Qualified Allocation Plan (“QAP”), Architectural Manual and Accessibility Manual applicable to the Project; and
7. Any other accessibility laws and regulations, including local (building and accessibility) codes, applicable to the project.

Failure of a project to meet these requirements could result in federal and state noncompliance, and result in costly repairs or corrections to meet project-specific applicable accessibility requirements.