

# ARCHITECTURAL MANUAL

The Architectural Manual consists of the following Architectural Standards and the below list stand alone appendices:

Appendix I – Architectural Submittal Instructions

Appendix II – Amenities Guidebook

Appendix III – Rehabilitation Guide

# **ARCHITECTURAL STANDARDS TABLE OF CONTENTS**

- I. INTRODUCTION
- II. DESIGN SUBMITTALS AND CONSTRUCTION MONITORING
  - A. Drawings and Specifications
  - B. Building Permits
  - C. Soils & Materials Testing
  - D. Construction Monitoring
- III. SITE DEVELOPMENT STANDARDS
  - A. Environmental Conditions
  - B. Parking
  - C. Vehicle Circulation
  - D. Pedestrian Circulation
  - E. Open Spaces
  - F. Landscaping
  - G. Site Lighting
  - H. Site Amenities
  - I. Trash Collection
  - J. Signage and Fixtures
  - K. Site Grading and Drainage
  - L. Security
  - M. Site Utilities
- IV. BUILDING EXTERIOR DESIGN STANDARDS
  - A. Roofing
  - B. Gutters and Downspouts
  - C. Exterior Cladding

- i. Brick
- ii. Vinyl Siding
- iii. Fiber Cement/Cementitious Siding
- iv. Other Materials

D. Exterior Doors and Windows

E. Exterior Stairs

V. BUILDING INTERIORS DESIGN STANDARDS

A. Room Configuration

B. Unit Sizes C.

Room Sizes D.

Kitchen Sizes E.

Closets

F. Ceiling Heights

G. Floor Finishes

H. Additional Finishes Requirements

I. Appliances

J. Mechanical, Electrical, Plumbing, and Indoor Air Quality

K. Electrical

L. Acoustical Isolation

M. Thermal Insulation

VI. FIRE AND LIFE SAFETY

VII. ACCESSIBILITY

## **I. INTRODUCTION**

In accordance with federal requirements established by 24 CFR 92.25 (HOME), IRC Section 42 (LIHTC), and the 1989 Georgia General Assembly Housing Trust Fund (HTF) for the Homeless, the Georgia Department of Community Affairs (DCA) has established these Architectural Standards. All projects receiving DCA resources for the construction of new and/or rehabilitation of existing rental housing, including HOME, 9% LIHTC, 4% LIHTC/Bonds, and/or Housing Trust Fund (HTF), must meet these Architectural Standards.

The Qualified Allocation Plan requires that projects funded under the Plan meet applicable Federal, State, and DCA codes, acts, and regulations. These architectural standards are not meant to replace Federal, State or local codes. These standards shall be in addition to the following that are applicable to all properties funded in the program:

- Georgia State Minimum Standard Codes (with Georgia Amendments)
  - International Building Code
  - International Energy Conservation Code
  - International Fire Code
  - International Fuel Gas Code
  - International Mechanical Code
  - International Plumbing Code
  - International Residential Code
  - National Electrical Code
- HUD Housing Quality Standards (HQS)
- HUD Minimum Property Standards (MPS)
- HUD Uniform Physical Condition Standards (UPCS).

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.

By some measures, DCA architectural and accessibility requirements will exceed the referenced state and federal requirements.

All new and rehabilitation construction work scopes must give consideration to the property marketability and residential quality of life which includes, but is not limited to, upgraded building exteriors and unit interiors, and improved site conditions and amenities. These upgrades should be reflected in the Threshold and Scoring portions of the DCA Application. Both new construction and rehabilitation projects must meet the threshold requirements (longevity, per unit cost limitations, financial feasibility and economic viability, etc.), as published in the Qualified Allocation Plan. These Architectural Standards, as well as the QAP and Rehabilitation Standards, should be read in their entirety for further information regarding materials longevity and components replacement for completed properties.

New and rehabilitation construction costs are subject to DCA regulation and per unit cost limits reflect those reasonable and necessary costs required to develop a project in the State of Georgia.

DCA may determine that projects which exceed customary and reasonable construction costs, even if they are within published per unit cost limits, represent a poor utilization of resources and may fail Threshold.

Final determination of compliance with the Architectural Standards rests solely with the mortgage lender, the credit enhancement provider, and the Georgia Department of Community Affairs.

## **II. DESIGN SUBMITTALS AND CONSTRUCTION MONITORING**

### **A. Drawings and Specifications:**

Construction documents, including architectural drawings and specifications, are required for both new construction and rehabilitation projects. To minimize construction problems, unnecessary change orders, discrepancies in documentation and cost overruns, architectural drawings and specifications must meet industry standards, being clear and consistent while faithfully depicting the design, location, and dimensions of project elements. Refer to the Architectural Submittal Instructions for document format and submittal requirements.

### **B. Building Permits:**

**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 Architectural Submittal Instructions and contact DCA LIHTC and HOME underwriters for specific information.

### **C. Soils and Materials Testing:**

All new soils and structural concrete must be tested to ensure compliance with engineered specifications. Additional materials should be tested as dictated by industry standards. A licensed and state accredited testing lab, using standardized testing procedures, must conduct the tests.

### **D. Construction Monitoring:**

DCA, through reliance reports and other sources, will monitor construction to ensure quality standards and completion dates are met. A consultant may be engaged by DCA and/or the mortgage lender. Reports will address methods of construction, construction draw requests, percentages of completion, progress and budget analysis, and adherence to codes and standard building practices.

DCA reserves the right to inspect all properties prior to issuance of Final LIHTC Allocation. Non-compliance with building codes, accessibility codes and/or DCA requirements must be corrected prior to issuance of Final LIHTC Allocation. Refer to the QAP for further DCA and IRS requirements.

Periodically, DCA may require Owners to submit additional construction inspection reports generated by construction managers, architects, and/or engineers.

### **III. SITE DEVELOPMENT STANDARDS**

#### **A. Environmental Conditions:**

Surrounding environmental conditions must be carefully evaluated. Negative environmental conditions (i.e., ditches, canals, railroad tracks, expressways, noise sources, flood prone areas, etc.) must be corrected or alleviated through approved mitigation measures. Refer to the 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:**

Parking spaces shall meet local zoning requirements. In the absence of any other requirements, there shall be no less than 1.5 spaces per unit for family tenancy projects and 1 space per unit for senior tenancy projects. All handicapped parking spaces must meet federal and state accessibility requirements. Please refer to the DCA Accessibility Manual for more information. Parking areas shall be either concrete or asphalt paving and have curbs.

#### **C. Vehicle Circulation:**

For tenants, guests, and emergency services providers, vehicle circulation routes should be designed to provide safe ingress and egress to and from all buildings and amenities. Roads shall be either concrete or asphalt paving and have curbs.

#### **D. Pedestrian Circulation:**

Pedestrian circulation should provide paved accessible routes to parking, buildings, and amenities. Streets (excepting crossing routes), grass and gravel/sand surfaces are not acceptable pedestrian circulation routes. Accessible ramps and no-step access must be provided as applicable.

#### **E. Open Spaces:**

Open landscaped spaces or green belts should be included in the overall site design.

#### **F. Landscaping:**

Landscaping should be appropriate for the climate zone, appealing, and convey a residential image. Low maintenance plant materials are preferred. 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 the general standard for site lighting. All parking, building, amenity, and site lighting should be sufficient for its purpose (i.e. evening mail collection, etc.), and be directed down to diminish nuisance light. Additionally, units should have exterior entry and porch door lights controlled from within the unit.

#### **H. Site Amenities:**

Required and selected amenities must meet applicable federal, state, and DCA accessibility requirements, provide seating appropriate to the amenity, and if proper, should be protected from the elements. Amenities such as the playground should be in visual proximity to the buildings while other noise prone amenities may be appropriately sited on the property.

Required and selected site amenities identified in the application submission must be in the final construction documents and budget. DCA reserves the right to determine the adequacy of amenities and whether or not they meet DCA requirements. Minimum standards for site amenities are outlined in the Amenities Guidebook and the Accessibility Manual.

#### **I. Trash Collection:**

Trash collection sites must be screened from residential and community areas and placed at such a distance from the tenant dwelling units and amenities so as to eliminate objectionable sights and odors. The collection areas must be accessible to disabled persons while convenient to tenants and service vehicles. Dumpsters must be placed on concrete slabs with concrete approach aprons at least 10'-0" in depth.

#### **J. Signage and Fixtures:**

Building signage should meet the requirements of local 911 service providers. Illumination for the property entrance signage must be provided.

#### **K. Site Grading and Drainage:**

Site grading should allow storm water to positively drain away from buildings and site amenities while eliminating pooling, puddling, etc. All on-property retention and detention areas must be fenced and, for maintenance and safety purposes, a properly securable gate may be provided. Inlet or outlet drainage ways must be designed to prevent resident entry. On-property retention ponds must be well maintained. Foundation walls should prevent the entrance of water, insects, and rodents into the basement or crawl space areas. Access and ventilation of basement and crawl spaces must meet code requirements and must be secured from the exterior as appropriate.

#### **L. Security:**

Security measures should be incorporated into the architectural design. As necessary, fencing, lighting, and other security features must mitigate poorly lighted parking areas, blind corners and recesses, inappropriate landscaping, and steep grades. The Owner may wish to include security cameras, HVAC cages, and other site security features. Entry doors to units shall be equipped with a viewer and bell or buzzer. Exterior doors and windows must be equipped with locks to prevent access from the outside. All doors shall be provided with hardware that complies with ANSI/BHMA Standards.

#### **M. Site Utilities:**

All utility distribution systems should be underground where possible. **All projects must have requisite access and connectivity to the existing public utilities.** For further information refer to the Qualified Allocation Plan, Appendix I, Threshold Criteria.

## IV. BUILDING EXTERIOR DESIGN STANDARDS

Building exteriors should create a residential image appropriate to the market. DCA encourages the use of materials that provide low maintenance and longevity for the life span of the property. All materials are to be installed using standard construction methods and means, and result in the issuance of manufacturers guarantees.

### A. Roofing:

Roofing materials must possess a minimum 25 year warranty provided by the manufacturer. Flat roofs are not encouraged, but DCA will allow flexibility in roof design if it is part of an energy conservation green building component or a roof design that mimics existing contextual surroundings. Applicants must obtain DCA pre-approval before using one of these alternatives.

### B. Gutters and Downspouts:

Seamless gutters and downspouts are mandatory for all construction and on all buildings.

### C. Exterior Cladding:

- i. Brick: See *Appendix I, Threshold Criteria, BUILDING SUSTAINABILITY, Qualified Allocation Plan.*
- ii. Vinyl Siding must be commercial grade with a minimum thickness of .044 and a minimum 30 year warranty to be provided by the manufacturer.
- iii. Fiber Cement/Cementitious Siding must be 5/16" nominal thickness with a 40 year warranty to be provided by the manufacturer.
- iv. Other materials: The use of wood siding, exterior insulation and finish systems (EIFS), and stucco must be pre-approved by DCA prior to application submission.

### D. Exterior Doors and Windows:

- Exterior doors must be 1 3/4" metal insulated or solid core wood and meet the requirements of the *Georgia State Minimum Standard Codes (with Georgia Amendments)*.
- Windows and door glazing must be in accordance with *Appendix I, Threshold Criteria, BUILDING SUSTAINABILITY, Qualified Allocation Plan.*
- Skylights, windows and locations, sizes and operable panels must meet the requirements of the *Georgia State Minimum Standard Codes (with Georgia Amendments)*.

### 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. Room Configuration:**

Room configuration should be functional while providing economic use of space:

- The primary bathroom shall be accessible from a common area such as a hall. Exceptions may be considered for the rehabilitation one-bedroom units.
- The kitchen should be accessible from the entry.
- Bathrooms must not open from areas of food preparation or be used as a sole passageway to a habitable room, hall, basement, or the exterior.
- No habitable rooms are permitted in basement or cellar spaces unless egress is provided according to applicable fire codes.

### **B. Unit Sizes:**

The following criteria are the minimum requirements and submissions that appear to violate the spirit and intent of these minimums may be considered by DCA as a poor use of resources.

The minimum threshold unit size is the Single Room Occupancy (SRO). SRO Housing consists of residential properties that include multiple single room dwelling units for occupancy by single eligible individuals. Generally, amenities within existing SRO developments are community kitchens and bathrooms constructed for the purpose of serving the SRO tenants and are located within the same buildings as the units. Threshold and scoring criteria determinations are based on the preceding description of SRO unit amenities. Applicants may elect to modify the unit configuration to include food preparation areas and bathrooms within the rehabilitated SRO unit. Modifications must comply with the design criteria as stipulated in the Architectural Standards. Proposed new construction SRO properties must include food preparation areas and bathrooms within the units and must comply with the design criteria as stipulated in the Architectural Standards.

### Minimum Unit Sizes

<b>DWELLING TYPE</b>	<b>MINIMUM SQUARE FOOTAGE</b>	<b>KITCHEN</b>	<b>BATHROOM</b>
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

### C. Room Sizes

<b>ROOM</b>	<b>MINIMUM DIMENSION</b>	<b>MINIMUM SQUARE FOOTAGE</b>
Living room	11'-6"	150
Living/Dining room	11'-6"	180
Primary bedroom	11'-0"	130
Secondary bedroom	9'-6"	120
Kitchen	7'-6" wide	

### E. Kitchen Requirements

<b>UNIT TYPE</b>	<b>MINIMUM CLEAR COUNTERTOP FRONTAGE</b>	<b>MINIMUM LINEAR FOOTAGE OF CABINETS</b> <b>(includes base &amp; wall cabinets, combined)</b>
1 bedroom	6'-9"	16
2 bedroom	7'-9"	18
3 bedroom	8'-9"	20

## E. Closets

- According to market demand, a suitable number of closets should be provided for each dwelling unit.
- All closets designed to contain clothes must be a minimum of 2'-0" deep.
- Closets and defined storage areas must not be included in the room area square footage computations.
- Closets and storage spaces in accessible units must meet applicable reach range requirements.

## F. Ceiling Heights

- Flat ceilings must be a minimum of 8'-0" above finished floor.
- Sloped ceilings must not be less than 5'-0" for the purposes of computing floor areas.
- Ceiling heights must meet minimum requirements established by the *Life Safety Code* and the Georgia State Fire Marshal's Office.

## G. Floor Finishes:

Floor finishes are to be suitable for market conditions and appropriate to the space considered.

- All bedrooms shall be carpeted.
- Resilient sheet flooring shall be used in bathrooms, laundries and mechanical closets.
- DCA will evaluate kitchen and living room flooring materials for appropriate marketability, durability, sound transmission, and tenant comfort.

All materials are to be installed to manufacturer's specifications using standard methods and resulting in the issuance of a manufacturer's guarantee. DCA may approve material upgrades that possess improved maintenance qualities, durability, safety and/or indoor air quality for the tenants. Manufacturer's warranties must be submitted to the Owner.

- Carpet: Unit carpeting may have a *level loop, textured loop, level cut pile, or level cut/uncut pile texture*. DCA may approve alternate carpeting materials and installation methods in units intended for the elderly or disabled. Carpeting shall comply with HUD's *Use of Materials Bulletin No. 44d*.
- 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 0.080 thickness.
- VCT must be at minimum 0.080 thickness.
- Luxury Vinyl Tile (LVT) must have a 12mil wear layer and provide a 15-year residential warranty.

#### **H. Additional Requirements:**

- Bathrooms must have adequate storage. If adequate cabinet space is not available, bathrooms must have medicine cabinets. Medicine cabinets should not be placed in party walls unless fire separation is continuous behind and around the cabinet installation.
- Kitchen cabinets must be provided above and below countertops. Cabinets shall be constructed with wood or wood/plastic veneer stiles, rails, doors and drawer fronts. All cabinets will conform to the performance and fabrication requirements of *ANSI/KCMA A161.1-2000* and bear the KCMA Certification Seal.
- Blinds: All windows should have neutral color horizontal mini-blinds. All glass doors should have either mini-blinds or vertical slat blinds.
- Cable outlets must be provided in the main living area and in at least one of the bedrooms.
- All interior finishes, especially interior paint, must be low in Volatile Organic Compounds (VOCs) as defined in the EarthCraft Multifamily program (<http://www.earthcraft.org/multifamily>).

#### **I. Appliances:**

Appliances include washers, dryers, microwaves, refrigerators, ranges, and dishwashers. Minimum refrigerator sizes for one and two bedroom units—14 cu.ft.; three bedroom units—16 cu.ft. Other kitchen appliance sizes must be appropriate for the unit and number of tenants. Appropriate appliances listed in US EPA's Energy Star program must be provided. Further information is available at <http://www.energystar.gov/>.

Washers in units must be equipped with a drain pan or floor drain as required by the *Georgia State Minimum Standard Codes (with Georgia Amendments)*. Owner-furnished washers in dwelling units and community laundries shall be front-loading and Energy Star rated.

#### **J. Mechanical, Electrical, Plumbing, and Indoor Air Quality:**

The minimum requirements for this section are located in *Appendix I, Threshold Criteria, BUILDING SUSTAINABILITY, Qualified Allocation Plan*.

## **K. Electrical**

Electrical distribution system minimum panel size is 100 amps, or per code. Electrical switches, outlets, thermostats, phone and television jacks and other controls are to be installed per Fair Housing Act Design Manual requirements in qualified units and per appropriate accessibility law in accessible units. All penetrations of smoke partitions and rated assemblies must comply with fire codes as administered by the local authorities.

## **L. Acoustical Isolation:**

Acoustical isolation requires a minimum STC rating of 52. Acoustical isolation surpassing the required minimums will increase unit quality. Noise levels on funded properties must meet DCA and HUD noise limitations:

- exteriors – 65 dB
- interiors – 45 dB.

In areas where daytime/nighttime noise levels are above these limitations, documentation of the construction and mitigation methods must accompany the application for funding.

The following minimum standards apply:

- Between units: 1 hr. rated UL assembly with one 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;
- Within unit: one layer 1/2" GWB on each side 2x4 studs (or metal stud equivalent);
- 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 minimum standards as defined in *Appendix I, Threshold Criteria, BUILDING SUSTAINABILITY, Qualified Allocation Plan*. To prevent freezing of supply lines, all plumbing in exterior walls must be insulated on the cold side of the wall.

## **N. Radon:**

All new construction must be built in accordance with current EPA requirements for radon resistant construction techniques, including, but not limited to, ASTM E1465 – 08a Standard Practice for Radon Control Options for the Design and Construction of New Low-Rise

Residential Buildings. Both new construction and rehabilitated buildings must be tested at the end of construction for compliance with EPA's established limits for radon levels.

## **VI. FIRE AND LIFE SAFETY**

Through strict code compliance, the property design shall provide a safe environment for all tenants. Adherence to the most recently adopted editions of the *Georgia State Minimum Standard Codes (with Georgia Amendments)* is required. This includes but is not limited to:

- Smoke detectors must be hard-wired and located per code for all construction, either 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 include draft stop walls, and rated ceiling, floor, and wall assemblies.
- All through-penetrations of smoke walls, draft stops, and rated assemblies must meet current fire codes.

## **VII. ACCESSIBILITY**

It is mandatory that the Property be designed to meet all applicable federal, state, and DCA requirements for accessibility by the disabled. The accessibility characteristics are to be incorporated in the layout and design of open spaces, building locations and unit designs. Refer to the DCA Accessibility Manual for additional information. Please note that DCA requirements may be more stringent than federal or state requirements.

**For new and rehabilitation construction, DCA requires that:**

- 1.) 5% of the units (or no less than one unit) shall be equipped for the mobility-impaired.**
- 2.) 2% of units (or no less than one unit) equipped for the mobility-impaired shall have roll-in showers.**
- 3.) An additional 2% of the units (or no less than one unit) shall be equipped for the hearing and sight impaired.**
- 4.) 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 receiving DCA funding are subject to statutory and regulatory accessibility requirements. It is the responsibility of the Owner, Architect, and Contractor, to ensure compliance with all federal, state and local laws. DCA's direct relationship to the Owner pertains only to the awarding of funds. The Owner bears final responsibility for compliance, regardless of fault, though he may seek legal restitution from the source of non-compliance.

Specifically, the Owner, Architect, and Contractor must ensure that the project is designed and built to meet applicable standards. Failure to meet these standards may result in federal and state noncompliance and costly repairs or corrections. Projects receiving DCA funding must meet 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. Georgia Single Family Accessibility (O.C.G.A. §8-3-172 et. Seq.) and all applicable compliance standards;
7. The requirements of the DCA Qualified Allocation Plan ("QAP"), Architectural Manual and Accessibility Manual applicable to the Project; and
8. Any other accessibility laws and regulations, including local (building and accessibility) codes, applicable to the project.