

SUBMISSION GUIDE FOR ARCHITECTS

CONTENTS

SECTION 4 – SUBMISSION REQUIREMENTS FOR LIHTC DEVELOPMENTS

NOT RECEIVING OR ASSUMING A PHFA LOAN

	Page
CONTENTS.....	106
4.01 LIHTC Submission Requirements	107
4.02 LIHTC Minimum Design Standards Checklist	108
<i>For Specifications Format - See Section 2.01, page 57</i>	
<i>For the Development Submission Checklist – See Section 2.02</i>	
<i>For the Loan Closing Construction Cost Breakdown - See Section 2.13</i>	
<i>For the PHFA Supplemental General Conditions – See Section 5.05 (developments with PHARE/CMF funding)</i>	
For PHFA Addendums – See Section 5 (Developments with PHARE/CMF funding)	
For Closing Requirements - See Section 6	
For the Architects Certification of Compliance with Design Requirements for Accessible Housing – See Section 6.05	

4.01 LIHTC SUBMISSION REQUIREMENTS FOR DEVELOPMENTS

NOT RECEIVING OR ASSUMING AN AGENCY LOAN

SUBMISSION PROCESS

At least **90** days prior to the construction closing, all LIHTC developments that are not receiving or assuming PHFA loan funds shall submit 2 sets of drawings and specifications for review by the Technical Services Division of PHFA (Exception – only one copy of the Phase I Environmental Site Assessment is required). Civil engineering, architectural, structural, HVAC, plumbing and electrical drawings and specifications shall be submitted, as applicable. The level of completion must be sufficient (**100%**). Hard copies of all documents shall be submitted, except for the Phase I Environmental Site Assessment, which must be submitted in PDF format on a CD. Drawings shall be to scale and a minimum size of 24" x 36" and a maximum of 30" x 42". Dwelling unit plans must be drawn at ¼" scale and must include room dimensions for all spaces and shall include furniture layouts. *Specifications must be prepared in accordance with the CSI 50-Division MasterFormat 2004 Edition. Masterspec version or similar templates may be used. Outline specifications template may not be used.*

Submission of the required documents within this timeframe does **NOT** guarantee a review will be completed in 60 days. If PHFA's review of the submitted documents finds conditions that are not in compliance with these requirements, written comments will be forwarded to the Owner identifying the deficiencies. Revised documents addressing these comments, along with a written response, *on the Architect's letterhead*, to the comments must be submitted to PHFA.

CRITERIA REQUIRING REVIEW

The documents submitted should be the level of completeness as stated above so that the following items can be reviewed, as applicable:

1. All Threshold Criteria & Selection Criteria certified to in the application (must be included on the drawings).
2. Accessibility, Adaptability & Visitability features and clearances (clearances at doors, fixtures and appliances shall be indicated on the drawings).
3. All Unit, Common area rooms/spaces and Commercial/Condo spaces (if applicable), along with the associated gross and net square feet of each (must be included on a table on the drawings).
4. Tabular Schedule – See Section 2 (include on the drawings).
5. Energy Efficiency Requirements: Insulations levels, Energy Star labeled equipment and products, Preliminary HERs index, REScheck/COMcheck certifications, Window efficiency and Air sealing requirements.
6. Renewable energy documentation, if applicable.
7. Green building/sustainability documentation, as applicable.
8. Mechanical equipment and systems (locations of ductwork and piping must be clearly identified).
9. Availability of utilities.
10. Full Phase I Environmental Site Assessment report.
11. Minimum development standards checklist (found in this section).

4.02 LIHTC MINIMUM DESIGN STANDARDS CHECKLIST

Development Name: _____ PHFA No.: _____

The undersigned certifies that all items have been provided in the drawings and/or the specifications.

Design Architect (Print or type): _____

Design Architect (Signature): _____

Date: _____

Check the appropriate box if the development conforms to the requirement. Check **A** if it is applicable or **NA** if it is not applicable. The Architect must submit a written request to PHFA for any waiver of the PHFA Design Requirements or for any items that are neither checked nor indicated as not applicable. This checklist must be submitted with the drawing/specification submission.

MINIMUM DEVELOPMENT STANDARDS

Minimum Development Standards are applicable to New Construction and Rehabilitation Developments (Preservation developments shall comply to the greatest extent possible).

1. Dwelling Unit Size Requirements

The following matrix establishes the minimum and maximum allowable **net** square footage area for units. **Net** square footage shall be measured from the inside face of the exterior walls to the inside face of interior demising walls. **Gross** square footage shall be measured from the outside face of exterior walls to the centerline of interior demising walls. Rehabilitation developments may vary from the minimums and maximums by 10%, with an acceptable furnishing plan. Accessible units may vary from the maximums as required to provide an accessible route and accessibility maneuvering clearances. An Efficiency Dwelling Unit is defined as having a single habitable room without demising wall/doors separating the Living, dining, Kitchen and Sleeping areas.

			<u>Flats</u>	<u>Multi-Floor Units</u>
A <input type="checkbox"/>	NA <input type="checkbox"/>	SRO	90 to 200	
A <input type="checkbox"/>	NA <input type="checkbox"/>	EFF	400 to 600	
A <input type="checkbox"/>	NA <input type="checkbox"/>	1 BR	550 to 850	650 to 950
A <input type="checkbox"/>	NA <input type="checkbox"/>	2 BR	700 to 1,100	850 to 1,300
A <input type="checkbox"/>	NA <input type="checkbox"/>	3 BR	950 to 1,350	1,000 to 1,550
A <input type="checkbox"/>	NA <input type="checkbox"/>	4 BR	1,100 to 1,550	1,200 to 1,750
A <input type="checkbox"/>	NA <input type="checkbox"/>	5 BR	1,300 to 1,750	1,400 to 2,000

2. Minimum room areas and dimensions:

Bedrooms:

A NA Primary bedroom – 120 SF (least dimension 10'-0").

A NA Additional bedrooms – 90 SF (least dimension 9'-0").

Living Room:

A NA Living Room – 150 SF (least dimension 11'-0" with the dining area being in addition to this area if a combination living/dining room is proposed).

- A** **NA** Ceiling Height: 7'-6" minimum, except that 7'-0" ceiling height is allowable in bathrooms, storage rooms, mechanical rooms, corridors and closets. A maximum of 15% of any other room may have a ceiling height if 7'-0" to allow for soffits and bulkheads.

Dining Room:

The dining area shall be in addition to the living room space and must be appropriately sized. An eat-in kitchen may be substituted for a dining room as long as the kitchen and dining area are appropriately sized. Island/bar seating is not permitted as the only dining area in General Occupancy developments.

All dining areas should accommodate the following:

- A** **NA** 1 BR Units – Table w/2 chairs.
A **NA** 2 BR Units – Table w/4 chairs.
A **NA** 3 BR Units – Table w/6 chairs.
A **NA** 4 or more BR Units – Table w/8 chairs.

Efficiency Unit - Living Room/Sleeping Combination:

- A** **NA** Living/Sleeping – 200 SF min. (least dimension 11'-0").

Note: Minimum room areas do not include unusable alcove space at doors. Accessible rooms may require additional area in order to provide an accessible route and maneuverability clearances. Waivers may be granted for room sizes and minimum dimensions in rehabilitation developments based on the submission of acceptable furnishability plans.

- 3. A** **NA** **Community Room Space** – All developments, except scattered sites, should be designed with adequate community space to accommodate functions and services offered at the facility. Developments should provide a public restroom. Community rooms must be a single room sized to provide at least 15 SF per unit, for developments with up to 50 units. Community rooms in developments with more than 50 units shall be a minimum of 750 SF in size. Community rooms should not include unusable alcove space as part of the minimum requirement. A kitchen or kitchenette must be provided in or adjacent to the community room in Elderly developments and shall not be included in the required square footage. The kitchen shall include a sink, full height refrigerator and 30" range.
- 4. A** **NA** **Management Office** – An onsite management office must be provided for all developments except scattered site developments. Developments that are a continuation of a phased development with a total of more than 11 units must provide a management office in one of the phases.
- 5. A** **NA** **VisitAbilitycm*** – In new construction and new additions, all units are expected to be visitable, unless a waiver was granted during the loan application review. In rehabilitation developments, PHFA has adopted the goal of providing visitability to as many as possible for the purpose of allowing persons with disabilities the ability to visit neighbors and friends. Please refer to our VisitAbilitycm Guidelines, Section 1.08.
- 6. Closets and Storage – (Typical for all unit types, except SRO units):**
- A. A** **NA** All closets must have doors that fully conceal the contents of the closet.
- B. A** **NA** Closet door widths shall be sized to offer maximum access to the closet interior. The closet interior shall extend no more than 12" on each side of the door opening.
- C. A** **NA** Primary bedroom: 5 linear feet minimum x 24" minimum depth.
- D. A** **NA** Additional bedrooms: 3 linear feet minimum x 24" minimum depth.

- E. A NA Coat closet: 2 linear feet minimum x 24" minimum depth.
- F. A NA Miscellaneous: 6 SF minimum.
- G. A NA Pantry storage must be provided (2 linear feet minimum x 18" minimum depth closet or an 18" minimum width pantry cabinet is acceptable).
- H. A NA Linen storage must be provided (2 linear feet minimum x 18" minimum depth closet, separate from a bedroom or coat closet or an 18" minimum width linen cabinet is acceptable).

Note: The space (SF) created by closets deeper than 24" but less than 48" will not count towards the required minimum square feet if the closet has full height hanging space or shelves.

Note: Stackable type storage, located in common storage facilities, is not permitted in Elderly (55+ or 62+) developments.

7. Bathrooms:

- A. A NA Efficiencies, 1 bedroom and 2 bedroom units shall have a minimum of 1 bathroom; 3 bedroom units shall have a minimum of 1 ½ bathrooms and 4 or more bedroom units shall have a minimum of 2 bathrooms.
- B. A NA Floor finish in bathrooms shall be sheet vinyl or ceramic tile. Luxury Vinyl Tile (LVT) is permitted in bathrooms only if manufacturer's documentation, which specifically indicates the product is permitted in bathrooms, is provided.
- C. A NA Accessories: Vanity bases must be provided in all bathrooms and powder rooms, *unless an additional storage cabinet or closet is provided.* Removable fronts are recommended in adaptable units. All bathrooms must have a minimum of (2) 24" towel bars, a toilet paper holder, a shower rod, a medicine cabinet with a mirror and a light fixture located over the mirror. *Powder rooms must have a minimum of (1) 12" towel bar or towel ring, toilet paper holder and a mirror with a light fixture located over the mirror.*
- D. A NA Blocking: Solid blocking must be provided behind all wall mounted accessories. Blocking for installed or future grab bars shall be continuous behind the bar location. Where small grab bars are installed for Visitability or Fair Housing Act conformance, the blocking shall be sized to accommodate the grab bars required by ANSI 117.1-2009.

8. *Laundry Facilities: Combination washers and dryers are only acceptable in accessible Units in Preservation developments, where space constraints warrant. In developments with shared facilities, the laundry shall be located in a separate room and not be shared with a Community Room or other common area.*

- A. A NA *Central laundry facilities must be provided unless individual washers and dryers are provided in each unit. For developments consisting of numerous buildings, several small facilities may be provided in lieu of one facility.*
- B. A NA *If central facilities are provided, at least one washer and one dryer must be provided for every 12 units in general occupancy developments or every 20 units in elderly developments, with a minimum of 2 washers and 2 dryers required in each facility.*
- C. A NA *A minimum of 1 front loading washer and dryer must be provided in each common laundry facility and in accessible units with laundry facilities.*

- D. A NA** *Washer and dryer areas located within a unit must be concealed unless located in a basement.*
- E. A NA** *Stackable washers and dryers may be used in units with 2 or less bedrooms. Large capacity side by side washers and dryers must be provided in units with 3 or more bedrooms. Stackable washers and dryers will not be allowed in accessible units.*
- F. A NA** *A drain pan located beneath the washing machine and piped through a trap to a waste line is required where in-Unit laundry closets/rooms are provided.*
- G. A NA** *The equipment may be coin operated type leased from a concessionaire.*
- 9. A NA** **Natural Light and Ventilation** - Must be provided in all living rooms and bedrooms. Skylights are not acceptable as the only source of light and ventilation in a room.
- 10. A NA** **Below Grade Units** – The maximum distance a floor level in any dwelling unit may be below finish grade elevation outside the unit is 4’-0”. Finish grade must slope away from the building. Area wells/window wells are permitted only in Rehab Developments with PHFA approval.

11. Sound Transmission:

	<u>Location</u>	<u>IIC*</u>	<u>STC**</u>
A <input type="checkbox"/> NA <input type="checkbox"/>	Partitions	NA	50(55)***
A <input type="checkbox"/> NA <input type="checkbox"/>	Floor/Ceiling	50(55)***	50(55)***

* **Impact Isolation Class** for floor/ceiling assemblies separating living units from other living units and from public spaces and service areas with moderate noise levels.

** **Sound Transmission Class** for partitions separating living units from other living units and from public spaces and service areas with moderate noise levels.

*** **(55)** represents the IIC and STC Class for separations between living units and high noise areas (e.g. mechanical, emergency generator and trash compactor rooms, elevator, trash chases and chutes, laundry and maintenance areas, etc.).

12. Energy Efficiency:

- A. A NA** All roof trusses with insulation located along the bottom chord shall be “energy” or “raised heel” trusses which allow for full depth (uncompressed) insulation to extend to the exterior face of the insulation.
- B. A NA** Interior wall insulation at all below grade walls shall be foil-faced rigid foam insulation board rated for an exposed installation (in storage or mechanical rooms) or rigid foam insulation board covered with a code approved material (in all finished areas). All joints in the insulation board shall be air sealed. Fiberglass or cellulose insulation will not be allowed.
- C. A NA** Rim joists that are not insulated on the exterior shall be air sealed and insulated with unfaced rigid foam insulation with edges sealed with closed cell spray foam insulation or entirely with closed cell spray foam insulation.
- D. A NA** The foundation insulation at all slab-on-grade construction shall begin at the top of the slab and extend the code required depth below grade. The top of the insulation may be beveled at 45 degree angle per the 2015 International Energy Conservation Code.

13. Pipe and Duct Locations:

- A. NA All piping and heating/cooling ductwork shall be located within the conditioned space (on the living unit side of the air barrier required on the interior side of the building envelope). No ductwork will be allowed on the roof or on the exterior of the building.
- B. NA All domestic water pipes, except for cold water PEX piping, shall be insulated.
- C. NA **Mechanical Equipment Servicing:** In mechanical rooms or closets containing multiple pieces of equipment, it must be possible to service and replace each piece of equipment without removing any other equipment.
- D. NA **Electric Resistance Heat Restriction** – Electric resistance heating is not allowed as the primary heating source.

14. Elderly (55+ or 62+) Facilities Amenities: Required physical and design accommodation features and amenities:

- A. NA Handrails on both sides of common area corridors. Handrail ends must return to the wall.
- B. NA Emergency call system with actuating devices in all bedrooms and bathrooms must be provided. The system shall register an audible and visual signal at a central supervised location which identifies the call origination; or a location directly outside the dwelling unit entrance door. The system may be hard wired or wireless, but must be provided at no cost to the Resident.

15. Supplemental Accessibility Requirements:

Note: For developments with federal funding and subject to the Uniform Federal Accessibility Standards (UFAS), HUD allows conformance with the 2010 ADA in lieu of UFAS, with a few limitations (see <http://nlihc.org/article/alternative-accessibility-standards-issued> for details).

- A. NA A minimum of 5%, but at least one, of the total dwelling units shall be accessible by persons with mobility impairments. These units must include audible and visual signaling devices for hearing/vision impaired. Accessible units shall be dispersed throughout the development and provided in a range of unit sizes comparable to those available to a non-disabled individual. An additional 2%, but at least one, of the units shall be equipped for the hearing and vision impaired. These units shall **not** be equipped for persons with mobility impairments and must include the following at a minimum:
 1. Strobic visual signal wired to the dwelling unit smoke detectors, visible in all rooms of the dwelling unit including the bathroom.
 2. Strobic visual signal wired to the central fire alarm system (if one is required by code), visible in all rooms of the dwelling unit including the bathroom. This signal must be distinguishable from that in paragraph “1” above.
 3. A doorbell at the dwelling exterior or corridor entrance door with a visual signaling device.
 4. TTY capable telephone in the unit.
 5. In buildings with a common entrance, a means for a hearing impaired individual to identify visitors without leaving his/her dwelling unit.

- B.** All accessible units shall meet the requirements of ICC/ANSI A117.1-2009 Section 1003 “Type A Units” with the following additional provisions:
- 1.** **A** **NA** Grab bars must be installed at all required locations.
 - 2.** **A** **NA** A minimum of 50% of the accessible units shall include a bathroom with an accessible shower. (Not applicable to dwelling units in General Occupancy developments with only one bathing fixture). All accessible showers shall have a maximum curb height of ½”. The remaining accessible units may have an accessible bathtub/shower. A removable seat as shown in ANSI Figure 610.2 shall be provided in all accessible tub/showers.
 - 3.** **A** **NA** Accessible showers must be provided with a folding seat firmly secured to the shower walls, shower controls and a hand held shower head within reach of the seat and a compressible dam at the shower entrance threshold.
 - 4.** **A** **NA** All bathrooms with ½” curbed showers shall have a floor drain provided in the bathroom floor outside of the shower.
 - 5.** **A** **NA** Shower heads and mirrors in accessible units shall be mounted to permit use by those with mobility impairments and those without.
 - 6.** **A** **NA** Due to the requirement for knee space beneath kitchen sink and work counter, and the minimal accessibility of wall cabinets, pantry cabinets/closets must be provided in accessible kitchens.
 - 7.** **A** **NA** Removable kitchen base cabinets may be installed at the areas requiring knee space. These cabinets must be removable without disconnection of any plumbing lines. The walls, floors and sides of adjacent cabinets must be finished and wall base installed during the initial construction.
 - 8.** **A** **NA** Protection on drain and water piping beneath kitchen sinks and bathroom lavatories must be installed even if removable cabinets are installed at these locations.
 - 9.** **A** **NA** A 30” minimum width kitchen work surface with knee space (or removable cabinet) beneath must be provided beside the oven in all accessible kitchens.
 - 10.** **A** **NA** All bedrooms in an accessible unit must be accessible. Accessible bedrooms must have a minimum 30” access aisle on both sides and the foot of the bed. The primary bedroom must accommodate a queen size bed. All other bedrooms must accommodate a twin bed. Beds and other bedroom furnishings shall be shown on the drawings.
 - 11.** **A** **NA** *A full width kick plate must be provided on both sides of all interior Unit doors that permit passage and on one side of all other interior Unit doors.*
 - 12.** **A** **NA** *Wall corner guards (textured vinyl 1 ½” x 1 ½” minimum) must be provided at all outside corners within accessible units.*
 - 13.** **A** **NA** *A full width kick plate must be provided on both sides of all exterior entrance doors, all Accessible unit entrance doors and all common area doors that permit tenant access.*
 - 14.** **A** **NA** *Wall corner guards (textured vinyl 1 ½” x 1 ½” minimum) must be provided at all outside wall corners in all common areas.*
 - 15.** **A** **NA** *The range must be a self-cleaning type range in accessible dwelling units and common area Kitchens/Kitchenettes.*

16. A NA **Radon Protection:** A passive sub-slab depressurization system, vented through the roof is required in all newly constructed buildings to reduce the levels of radon gas (see EPA publication EPA/402-K-01-002). Provisions for an in-line fan, including electrical power, or a conduit with a pull string run to a power source, shall be made in the vent pipe above the highest floor level, along with a conduit to a junction box mounted in an occupied portion of the building. All of the dwelling units on the lowest level of each portion of the building and all ground level or sub-grade level common spaces shall be tested for radon in new construction, rehabilitation and preservation developments and found to have levels below 4.0 picocuries/liter (pCi/L) prior to occupancy. If radon levels above 4 pCi/L are found, an active sub-slab depressurization system must be installed and the unit(s) or areas retested and/or the system modified until satisfactory results are obtained. Although rehabilitation developments are required to test for radon prior to submitting an application, Owners should be aware that most buildings are more air-tight after rehab than before and a building with acceptable pre-construction levels may have higher radon levels after construction. Therefore venting systems in rehab developments should be considered to avoid costly retrofit installations later if high levels of radon are found.
17. A NA **Broadband Infrastructure:** The installation of broadband infrastructure is required in all new construction and substantial rehab developments, in compliance with Federal Register Citation 81 FR 31181 “Narrowing the Digital Divide through Installation of Broadband Infrastructure”. (This provision is encouraged, but not required, in preservation developments).
18. A NA **Interior Finish:** A level 4 minimum drywall finish must be installed.
19. A NA **Reroofing** – *All reroofing applications must include the removal of the existing roofing system down to the roof deck.*
20. A NA **PHFA Green Building Criteria for New Construction and Substantial Rehabilitation Developments:**
- A. *No piping shall be located outside of the interior finish of the insulated building envelope. (Not applicable to existing piping in Preservation developments).*
 - B. *All domestic water pipes, except for PEX piping, shall be insulated. (Not applicable to existing concealed piping in Preservation developments).*
 - C. *Termite shields or borate-based wood treatment shall be provided with low VOC caulking at all floor joints and penetrations to prevent insect infestation. Borate treatment shall be applied to all wood framing and sheathing to a height of 24” above the “at grade” floor level. Chemical soil treatment or bait stations shall not be used. (Not applicable to existing buildings).*
21. A NA **Air Conditioning:**
- A. *The living areas and bedrooms of all dwelling units in new construction, substantial rehabilitation and Preservation developments must be air conditioned. Window air conditioners, provided by the development, will not be considered as meeting this criterion except on Preservation developments.*
 - B. *All common areas in new construction, substantial rehabilitation and Preservation developments must be air conditioned. (Not applicable to stair towers, mechanical and storages areas).*