



TO: South Carolina State Housing Finance and Development Authority

DATE: August 26th 2022

RE: 2023 DRAFT QUALIFIED ALLOCATION PLAN – Recommendations

Dear Kim Wilbourne. SC Housing,

On behalf of Southface Institute (Southface), we are pleased to submit these comments regarding the South Carolina State Housing Finance and Development Authority 2023 Draft QAP. Southface, a nonprofit 501(c)(3) organization, is leading the way toward a sustainable, equitable and healthy built environment for all. For more than 40 years, Southface has been a leader in the research, design and implementation of a regenerative economy, one that gives back more than it uses. We appreciate SC Housing's collaborative and inclusive approach and respectfully offer the following comments.

Within Appendix B. Design Criteria

I. Regarding Landscaping

A. Current Language: page B-3, item 9.

1. *g. There must be 20' minimum of sod extending out from each exterior building wall. A lesser amount will be permitted if sod extends from building wall to property line or road.*

B. Recommendation

1. Re-phrase sod requirement as a percentage of landscape area. "Sod shall cover no more than 40% of total landscape area."

C. Rationale

1. Sod is extremely demanding on water resources and maintenance costs. Replacing sod with trees, shrubs, and groundcovers can lower the irrigation demand to conserve water and lower utility bills.¹

II. Regarding Irrigation

A. Current Language: page B-3, item 9

1. *h. An Irrigation/sprinkler system serving all landscaped areas.*

B. Recommendation

1. Include new specifications to install high efficiency drip irrigation where appropriate (at trees and shrubs) and WaterSense labeled irrigation controllers.

C. Rationale

1. Inefficient irrigation can cause overwatering and wastes as much as 50 percent of landscape irrigation water.² Only sod requires spray irrigation.

III. Regarding Laundry Facilities

A. Current Language: page B-9, item 3.

B. Recommendation

1. Include a minimum standard that Energy Star Certified Washers and Dryers are installed when the appliances are provided by the developer.

¹<https://www.epa.gov/system/files/documents/2021-12/ws-outdoor-water-smart-landscapes.pdf>

² <https://www.epa.gov/watersense/watersense-labeled-controllers>

C. Rationale

1. Clothes washers that have earned the ENERGY STAR are about 25% more efficient and use about 45% less water than standard models.³ In addition, requiring all appliances to have Energy Star rating would bring more consistency to the design criteria, which currently requires Energy Star rated refrigerator/freezers and dishwashers.

IV. Regarding Roofing

A. Current Language: page B- 13, item G.

B. Recommendation

1. Establish a minimum Solar Reflectance Index (SRI) for roof materials based on slope. It is suggested to use the best practices defined by the LEED rating system.
 - a) Low-sloped roof have an initial SRI value of 82 (aged SRI value 64), and steep sloped roofs have an initial SRI value of 39 (aged SRI value 32).

C. Rationale

1. Roofs with high SRI reduce energy bills by decreasing air conditioning needs and decrease roof operating temperature, which may extend roof service life.⁴

V. Regarding Lighting

A. In Kitchen, Current Language: page B- 17, item 13.

1. *Fluorescent lighting or LED lighting is required in the kitchen which must provide 30 footcandle minimum on all counter tops.*

2. Recommendation

- a) Remove the option for fluorescent lighting

3. Rationale

- a) LED lighting has longer life spans and saves the resident more money on utility bills.

B. In site, Current Language: page B- 11, item D. 6.

1. *Site lighting is required for all parking, sidewalks, buildings and site amenities and should be directed down to diminish nuisance light in residential units. Lighting plans to be completed using photometrics software reflecting an average footcandle of 1.5 for all development parking, sidewalks, and exterior common areas.*

2. Recommendation

- a) Require LED lamps in all site lighting.

3. Rationale

- a) High-use lighting areas will benefit from operating savings of LEDs

C. In community room, site amenities & facilities, Current Language: page B- 7, item C.

1. *Development lighting is required for all amenities.*

2. Recommendation

- a) Require LED lamps in all amenity areas.

3. Rationale

³ https://www.energystar.gov/products/commercial_clothes_washers

⁴ <https://www.energy.gov/sites/prod/files/2013/10/f3/coolroofguide.pdf>



- a) High-use lighting areas will benefit from operating savings of LEDs
- VI. Regarding the mandatory rehabilitation criteria
 - A. Heating and Air, Current Language: page B-23
 - 1. Recommendation:
 - a) Add minimum duct air sealing requirements for existing HVAC distribution systems to achieve a minimum 30% improvement in performance for all HVAC systems.
 - b) Require pre-renovation duct leakage testing on a sample of systems, such as 15% or more, to determine a baseline of existing leakage in HVAC systems
 - 2. Rationale
 - a) Existing HVAC distribution systems can have significant air leakage areas in both the supply and return ductwork. Performing air sealing improves both the overall efficiency of the HVAC equipment and overall indoor air quality by removing air leakage pathways to unconditioned spaces.
 - B. Miscellaneous, Current Language: page B-24
 - 1. Recommendation:
 - a) Add a requirement for minimum reduction of building envelope infiltration. Set a goal to achieve a minimum of 30% improvement in air tightness in all residential units.
 - b) Require pre-renovation building envelope infiltration testing on a sample of residential units, such as 15% or more, to determine a baseline of existing leakage rates
 - 2. Rationale
 - a) Existing building envelope leakage contributes to high utility bills and poor indoor air quality. Requiring air sealing in all units ensures that finished renovations deliver more efficient, healthy and comfortable living spaces.

We applaud your leadership in this space and continued service to SC Housing residents. Thank you for your time and consideration of the above comments. For questions or comments, please contact Alyson Laura at alaura@southface.org.

Kind Regards,

Alyson Laura

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Southface*