

CLIMATE CHANGE, ENERGY AND ENVIRONMENT COMMISSION

c/o Department of Environmental Services
2100 Clarendon Blvd., Suite 705
Arlington, VA 22201

December 18, 2023

Honorable Christian Dorsey, Chair
Arlington County Board
2100 Clarendon Blvd., Suite 300
Arlington, VA 22201

Re: Red Lion (1501 Arlington Blvd)

Dear Chair Dorsey:

The Climate Change, Energy and Environment Commission (C2E2) has reviewed the application for Red Lion. The project is participating in the Green Building Incentive Program to receive bonus density and a final FAR 4.59, but the project still falls short of what is necessary to address the climate crisis and Arlington's own climate goals. **Overall, we score this project's contribution to meeting Arlington County's Community Energy Plan (CEP) targets at 69%, indicating the project falls below what is required to achieve the County's carbon neutrality and other sustainability goals.**

The success of Arlington's CEP depends, in large measure, on the County's resolve in ensuring that all buildings are at least zero carbon-ready. In practical terms, that means four things for every new and renovated building: make it highly efficient; make it electric; make the electricity renewable; and minimize its total carbon footprint through selection of low carbon materials and responsible management of construction debris. In this case, Orr Partners' application falls short in meeting these criteria, though their team has been responsive and made several sustainability improvements.

Green Building Certification and Carbon Reduction:

The project is targeting a LEED V.4 Gold rating, but to achieve the County's stated CEP targets, **C2E2 recommends that developers be required to explore options to achieve Zero Carbon Certification.** A Zero Carbon Feasibility study could identify a pathway to zero carbon emissions in operations and reduce embodied carbon in materials and resources used. We recommend that the Applicant seek out expertise from organizations such as the Building Decarbonization Coalition, the International Future Living Institute, or the New Building Institute to explore how to achieve these goals.

Energy Efficiency:

The LEED scorecard for this project indicates a commitment to meet the GBI minimum improvement in energy efficiency of 20 percent over the ASHRAE baseline and to achieve an Energy Star rating of 86. Electricity will be sub-metered at the unit level. In-unit water heating will be electrical resistance heaters. **C2E2 recommends more efficient heat pump water heaters**, which will save energy and reduce residents' utility bills.

Electrification of Systems:

This project plans to utilize fossil gas for heating of the corridors while relying on electric heat pumps for individual units. The Applicant's sustainability documentation notes that using heat pumps with electrical resistance auxiliary for the dedicated outside air system will be 37% more efficient than a gas-fired system. **C2E2 strongly encourages the Applicant to explore options to make this building 100 percent electric.** Once Arlington achieves its goal of renewable sources for electricity use by 2035, an all-electric building would operate with zero GHG emissions. In addition, the Applicant appears to only use 12% of roof area for on-site solar PV. The Applicant should consider installing additional rooftop solar PV where feasible.

Electric Vehicle Charging:

The Applicant has indicated that the project will have EV chargers installed in 4% of parking spots with another 10% of parking spots ready for future EV chargers. **The C2E2 strongly recommends that all projects that come to the SPRC for consideration strive for 50% of parking spots to be EV-ready.** This will help meet future demand for a full transition to electric vehicles and avoid the need for much more expensive retrofitting later. The Applicant should consider "smart charging" technology to maximize the number of vehicles that can be charged while reducing demands on the electrical capacity available at the site.

C2E2 commends the Applicant for incorporating the existing garage into the design, which preserves the embodied carbon and eliminates carbon emissions associated with demolition and reconstruction.

Biophilia:

The Applicant commits to preserving some existing landscaping, include larger trees. The Applicant also incorporates a limited green roof design. **C2E2 appreciates the Applicant's revised setback along south-facing façade to allow two rows of trees and landscaping, providing continuous shade along the sidewalk.** The Applicant should use all native species in landscaping, including common milkweed to support monarch butterfly populations, in the observation deck, courtyards, and streetscapes.

The latest report released in March 2023 by the Intergovernmental Panel on Climate Change (IPCC) emphasizes the dire need for action to save our planet. At the climate change Conference of Parties in December 2023, all countries agreed on the need to transition away from fossil fuels. The world is facing a catastrophic climate crisis that requires immediate action by individuals, governments, and businesses to avoid the worst consequences, and all future development needs to align with these goals. **We urge the County to ask the Applicant to move into the forefront with this project by offering an all-electric building.**

Sincerely,



Joan McIntyre

Chair, Climate Change, Energy and Environment Commission

CC: Devanshi Patel, Chair, Planning Commission

Nia Bagley, SPRC Co- Chair
Eric Berkey, SPRC Co- Chair
Anthony Fusarelli, CPHD Director
Adam Watson, CPHD Staff

C2E2 SPRC CHECKLIST

PROJECT NAME: Red Lion MF 1501 Arlington Blvd
COMMISSIONER REVIEWING: Rob Sandoli

Overall Score

69%

Building Component	GBI or C2E2 Baseline (Meets)	Requirements to Meet CEP & Sustainability Goals (Exceeds)	Red Lion MF 1501 Arlington Blvd (Evaluation)	Recommendation / Comments	Assessment
Green Building Certification and Carbon Reduction					56%
Certification	Commercial: LEED Gold Multi-family: Earthcraft also permissible	Commercial: LEED Platinum Multi-Family: Earthcraft also permissible	Yellow		Meets
Zero Carbon*	Evaluate feasibility of Zero Carbon certification (ILFI)	Zero Carbon Certification (ILFI)--(GBI .7 FAR level)	Red		Falls short
Building materials	Meet the criteria that would earn the project at least two (2) points for LEED version 4.1 MR credit Building Life Cycle Impact Reduction.	Score at least ten (10) overall for LEED vesion 4.1 Materials and Resources.	Yellow	[Not clear the self-assessment accounted for all potential points under credit 2 for environmentally preferable products? Many opportunities for points here]	Meets
Energy Efficiency					100%
Energy Optimization	Commercial: Min. 10% (20%) improvement LEED v 4.1 (v 4) Multi-Family: HERS Index of 65 also permissible	Commercial: Min. 20% improvement from LEED v4.1 Multi-family: HERS Index of 50 also permissible	Green	28.2% energy savings	Exceeds
AIRE GBI required narrative	Provide narrative on Energy Efficiency	Make available on SPRC website	Green	Energy Performance Analysis included on website	Exceeds
Energy Star Certification	Must meet Energy Star 75 within 4 years	Meet highest possible GBI standard (differs by FAR level)	Green	Energy Star score = 86 [Not clear that this score exceed for the FAR level?]	Exceeds

Energy Benchmarking	Install energy meters or monitoring devices	Meet GBI Extra on Advanced Energy Metering		submetering in each unit for 4 end uses	Exceeds
Electrification					75%
Building's Electrical Capacity	Electrical infrastructure allows for GBI baseline	Electrical infrastructure allows for 100% electrification		Dedicated Outside Air System is Gas-Fired Furnace. Claim is that heat pump size limitation is <70 tons. Needs explanation	Meets
Utilities Electrification	Electric water heating ready and narrative	Fully electric water heating (commercial and residential)		Fully electric, but not HPWH	Exceeds
	Electric HVAC ready and narrative	Fully electric HVAC (commercial and residential)		Primary dwelling unit systems are heat pumps but DOAS relies on a gas-fired furnace. The energy model indicates an all electric alternative	Falls short
	Electric cooking ready and narrative	Electric cooking; electric ready for restaurants.		Cooking range is electric but "standard", not EnergyStar?	Exceeds
Electric Vehicle Infrastructure					67%
Electric Vehicle Charging	4% of parking spots have EV charging	10% of parking spots have EV charging		Number of EV chargers not indicated but GBI requirements expected to be met	Meets
	15% of parking spots are EV-ready	50% of parking spots are EV-ready		No specific information but GBI requirements expected to be met	Meets
Electricity from Renewable Sources					50%
Renewable Energy	2W/ft ² onsite solar or equivalent	On-site and/or off-site for 50% of annual load		Meets the minimum, but only 12% coverage of rooftop?	Meets
Battery Energy Storage*	Battery Energy Storage ready	Battery Energy Storage as backup generation		No information, presume fossil fuel back up	Falls short
Environmental Sustainability					73%

Biophilia / Open Space	Provide narrative addressing listed issues	Create a sense of natural environment, habitats. Keep mature trees, tree canopy, native plants, etc		A few mature trees to be saved, and design includes all native species. But limited open space	Meets
Storm Water Management	Meet Virginia building code	Seek use of pervious materials; offset storm water with green roof, bio-retention or manufactured treatment device		Documentation indicates 85% retention on zero lot line property	Exceeds
Bird-friendly Material	Must minimize bird strikes by meeting GBI criteria	GBI criteria plus ground floor bird-friendly material		No documentation regarding ground floor bird friendly material?	Meets
Light Pollution Reduction	Meet light pollution reduction in GBI	Dark Sky-approved "Friendly Fixture" certification		Documentation indicates developer will meet GBI	Meets
Water Use	WaterSense label for all toilets, bathroom faucets, and showerheads installed in residential and hotel units	In addition to Meets, must not use potable water for irrigation.		Use of Water Sense plumbing fixtures and 30% reduction in total water use. Not clear on use of potable water for irrigation	Meets
Social Equity					67%
Diversity, Equity and Inclusion	1. One company on development team with DEI program 2. LEED Social Equity Checklist completed	1. Development team presents and discusses LEED Social Equity Checklist to SPRC and AIRE 2. Develop project specific DEI plan		Could not find documentation?	Meets

***C2E2 Baseline Requirements**