

## CLIMATE CHANGE, ENERGY AND ENVIRONMENT COMMISSION

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

January 4, 2023

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

Re: Crystal Plaza 5 (2250 Crystal Drive and 223 23rd St. S)

Dear Chair Dorsey,

The Climate Change, Energy and Environment Commission (C2E2) has reviewed the application for the Crystal Plaza 5 (2250 Crystal Drive and 223 23rd St. S). Based on our review, the Commission assesses that the project meets minimum energy and sustainability criteria under Arlington's Green Building Incentive Program, but falls short of what's necessary to address the climate crisis. **Overall, we score this project's contribution to meeting Arlington County's CEP targets at 59%, indicating the project falls below what is required to achieve the County's carbon neutrality and other sustainability goals.** Please reference the Appendix for further detail on how C2E2 has assessed this project.

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. In this case, JBG Smith's application falls short in meeting these criteria. New buildings that lock in use of fossil fuels for decades undermine the County's carbon neutrality goals.

### **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 all buildings strive to achieve a LEED Platinum rating and explore options to achieve Zero Carbon Certification.** A Zero Carbon Feasibility study, which the applicant has indicated it plans to conduct, could identify a pathway to zero carbon emissions in operations and reduce embodied carbon in materials and resources used.

### **Energy Efficiency:**

Making a building highly energy efficient is the first step toward reducing the buildings' energy use and therefore its carbon emissions. The LEED scorecard for this project indicates a commitment to improve energy efficiency by 20 percent (over LEED V.4), has a presumed Energy Star rating of 75 (we've not seen the specifics), and plans to install advanced energy meters. A zero carbon assessment and energy modeling would identify additional energy efficiency gains through building envelope improvement, reduced window area, upgraded windows, and mechanical systems selections. **We would welcome additional energy savings of at least 25 percent over the baseline which could be leveraged on this**

**project, as well as further detail from the applicant on the implementation of energy efficiency measures.**

#### **Electrification of Systems:**

This project falls short on a number of critical areas regarding electrification. Fossil gas is currently planned for HVAC, water heating and possibly cooking, and the applicant has not provided its plans, if any, for ensuring that infrastructure is in place for electrification in the future. **We strongly urge the County to require the Applicant to do further and deeper diligence into the possible areas of electrification and, in areas where electrification is justifiably not currently possible, determine how building infrastructure can accommodate future electrification.**

The Applicant has indicated that the project will exceed the Green Building Incentive threshold for electric vehicle (EV) infrastructure, with EV chargers installed in 11% of parking spots and 26% 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 site.

#### **Renewable Electricity (Energy):**

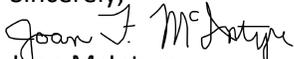
The Green Building Incentive Policy update requires onsite and offsite solar or the option to contribute to the Green Building Fund. The Applicant has stated it intends to purchase carbon offsets and Renewable Energy Credits to offset carbon emissions from the building use of natural gas, electricity, and refrigerants. **While this is a commendable step, and C2E2 encourages more projects to do this, we request that the Applicant provide further detail on the amount of RECs it will buy relative to the projected electrical consumption of the building.** Carbon offsets should be reserved for emissions that cannot be eliminated through design and operation of the building.

#### **Other Sustainability Issues**

The Project includes a number of biophilic elements for the pedestrian passageway, public open spaces, street trees, and interior designs and will include bird-friendly glass and dark sky-friendly lighting. Plans for WaterSense fixtures and other measures will achieve at least a 35 percent reduction of indoor water use and 50 percent reduction in outdoor water use, which is commendable but additional savings should be explored.

The world is facing a catastrophic climate crisis which requires immediate action by individuals, governments, and businesses to avoid the worst consequences, and all future development needs to align to these goals. We urge the County to ask the Applicant to move into the forefront by offering a climate-friendly building with this project.

Sincerely,

  
Joan McIntyre

Chair, Climate Change, Energy and Environment Commission

CC: Daniel Weir, Chair, Planning Commission  
Anthony Fusarelli, CPHD Director  
Michael Cullen, CPHD Staff

**C2E2 SPRC CHECKLIST**

**PROJECT NAME:** 2250 Crystal Dr. -- Crystal Plaza 5  
**COMMISSIONER REVIEWING:** Joan McIntyre and John Bloom

**Overall Score**

**59%**

Building Component	GBI or C2E2 Baseline (Meets)	Requirements to Meet CEP & Sustainability Goals (Exceeds)	2250 Crystal Dr. -- Crystal Plaza 5 (Evaluation)	Recommendation / Comments	Assessment
<b>Green Building Certification and Carbon Reduction</b>					<b>56%</b>
Certification	Commercial: LEED Gold Multi-family: Earthcraft also permissible	Commercial: LEED Platinum Multi-Family: Earthcraft also permissible			Meets
Zero Carbon*	Evaluate feasibility of Zero Carbon certification (ILFI)	Zero Carbon Certification (ILFI)--(GBI .7 FAR level)		Expected before County Board meeting	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.			Meets
<b>Energy Efficiency</b>					<b>67%</b>
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		Applicant commits to 15% under LEED 4, not current GBI minimum of 20%	Meets
AIRE GBI required narrative	Provide narrative on Energy Efficiency	Make available on SPRC website			Meets
Energy Star Certification	Must meet Energy Star 75 within 4 years	Meet highest possible GBI standard (differs by FAR level)		Need to confirm commitment	Meets
Energy Benchmarking	Install energy meters or monitoring devices	Meet GBI Extra on Advanced Energy Metering		Plans for energy benchmarking	Meets
<b>Electrification</b>					<b>42%</b>
Building's Electrical Capacity	Electrical infrastructure allows for GBI baseline	Electrical infrastructure allows for 100% electrification			Meets

Utilities Electrification	Electric water heating ready and narrative	Fully electric water heating (commercial and residential)		Plan for fossile gas condensing boilers	Falls short
	Electric HVAC ready and narrative	Fully electric HVAC (commercial and residential)		Fossil gas planned for HVAC system	Falls short
	Electric cooking ready and narrative	Electric cooking; electric ready for restaurants.		No information	Falls short
Electric Vehicle Infrastructure					67%
Electric Vehicle Charging	4% of parking spots have EV charging	10% of parking spots have EV charging		Plans for 11% of spaces with EV chargers, per presentation	Meets
	15% of parking spots are EV-ready	50% of parking spots are EV-ready		Planning for 26% of spaces to be EV-ready	Meets
Electricity from Renewable Sources					50%
Renewable Energy	2W/ft <sup>2</sup> onsite solar or equivalent	On-site and/or off-site for 50% of annual load		Planning for offsite Tier 2 solar	Meets
Battery Energy Storage*	Battery Energy Storage ready	Battery Energy Storage as backup generation		No information	Falls short
Environmental Sustainability					67%
Biophilia / Open Space	Provide narrative addressing listed issues	Create a sense of natural environment, habitats. Keep mature trees, tree canopy, native plants, etc		Native plants for pedestrian connectors, terraces, and public spaces and indoor biophilic elements	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			Meets
Bird-friendly Material	Must minimize bird strikes by meeting GBI criteria	GBI criteria plus ground floor bird-friendly material		Plan for bird-friendly etched glass	Meets
Light Pollution Reduction	Meet light pollution reduction in GBI	Dark Sky-approved "Friendly Fixture" certification		Planned to be Dark Skies friendly	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.		Target of 35-40% reduction of indoor water use and 50 % for outdoor use and WaterSense fixtures	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		Corporate commitment to diversity and inclusion	Meets

**\*C2E2 Baseline Requirements**