

## SUSTAINABLE DEVELOPMENT POINTS

Broward County Transportation. Copans Transit Operation Facility.

Major Site Plan Improvements and Buildings.

3201 W. Copans road, Pompano Beach FL 33069.

### Sustainable Design implementation:

Per Pompano Beach Zoning Code all applications for approval of a Major site Plan shall incorporate sustainable design options from Table 155.5802, sustainable development options and points, to demonstrate achievement of the 12 minimum points required for the project.

The points achieved from the table 1s explained as follows:

#### 1) Points achieved per table 155.5802:

TABLE 155.5802: SUSTAINABLE DEVELOPMENT OPTIONS AND POINTS				
Green Design Feature	Feature Description	MAX POINTS	POINTS	ACHIEVED
Brownfield site redevelopment	Redevelopment of a brownfield site within a designated brownfield	6		
Efficient Cooling	All air conditioners are Energy Star qualified.	2		2
Efficient Water Heating	At least 75 percent of hot water on-premises is heated via tankless water heaters or solar water heaters.	2		2
Reuse Water	Water used for dish, shower, sink, and/or laundry purposes is reused for landscape or golf course irrigation.	2		
Green Building	The principal building meets or exceeds LEED certification for new construction. Sites with more than one principal building may be awarded for each.	LEED Certified	2	
		LEED Silver	4	
		LEED Gold	6	
		LEED Platinum	8	
Green Roof	At least 50 percent of the total surface area of the principal building is a green roof constructed in accordance with the Building Code and ASTM green building standards.	4		
Herb or Vegetable Garden	At least one-fourth of an acre on the site consists of an edible herb or vegetable garden (which may be open to the public).	2		
Hurricane Resistant Structures	The principal building is constructed to increased wind loads.	150 mph load minimum	4	4
		200 mph load minimum	8	

Infill or Mixed-Use Development	The development constitutes infill development and/or mixed-use development.	4	
Landscaped and Tree-Lined Street Median	Ingress and egress lanes of all non-service drives are separated by a landscaped median at least 5 feet wide and containing trees spaced more than 40 feet apart.	2	
Nature Path or Trail	Public pedestrian and/or bicycle access to natural elements is provided by a bike or pedestrian path or trail that is at least one-fourth mile long for every 150,000 square feet of building floor area and does not interfere with or unduly harm existing natural features.	1	
Overhangs	Overhangs are present on all south windows for energy efficiency purposes.	2	
Parking Structure	At least 75 percent of the development's total number of required street parking spaces is contained in a parking deck or garage.	2	
Parking Structure, Green	At least 75 percent of the development's total number of required street parking spaces is contained in a parking deck or garage and at least 50 percent of the total surface area of the top of the parking structure is a green roof.	4	
Permeable Parking Surfaces	Permeable surfacing materials are used on some or all of surface parking areas.	25 percent minimum	2
		59 percent minimum	4
Permeable Sidewalk Surfaces	Permeable or natural surface materials are used for all sidewalks.	2	
Permeable Path or Trail Surfaces	Permeable or natural surfacing materials are used for all bike and pedestrian paths and trails.	1	1
Rain Gardens [Bioretention System]	The development includes rain gardens where each has an area of at least 100 square feet, is sized to hold stormwater from between 5 and 10 percent of the impervious area draining to it and consists of native plants planted in a sand/soil matrix with a mulch cover layer.	1 rain garden	1
		2 rain gardens	2
		3 rain gardens	3
		4 or more rain gardens	4
Rainwater Reuse	At least 75 percent of rainwater from the roofs of structures is captured and recycled for landscape or golf course irrigation.	2	
Skylights	The primary building is constructed with skylights that provide at least 10 percent of the light necessary for daily use on the story on which the skylights are located.	1	
Solar Panels	A portion of the energy used by the primary building is generated using solar panels located onsite.	15 percent minimum	4
		30 percent minimum	8
		45 percent minimum	12
Sustainable Landscape	The development achieves the Sustainable SITES certification for site and landscape design	One Star	2
		Two Stars	4
		Three Stars	6
		Four Stars	8
White Roof	All roof surfaces are painted white.	2	

Wind Turbines	A portion of the energy used by the principal building is generated using wind turbines located onsite.	15 percent minimum	4	
		30 percent minimum	8	
		45 percent minimum	12	
Other	The development includes other green features that conserve energy, promote a healthy landscape, support public health and safety, or increase sustainability —points to be awarded at the discretion of the Development Service Director.		6	6
TOTAL			163	27

## 2) Implementation of points in the project:

**Efficiency Cooling: All air conditioners are Energy Star qualified. 2 points.**

The air conditioners' specifications include the following equipment as basis of design: energy star equipment (BOD Carrier systems) chiller and indoor air handlers.

**Efficient Water Heating: At least 75 percent of hot water on premises is heated via tankless water heaters or solar water heaters. 2 points.**

The water heaters tankless or solar water heaters specifications include the following equipment as basis of design:

**Hurricane Resistant Structures: The principal bldg. is constructed to meet increased wind loads. (150 mph load minimum). 4 points.**

The building structure calculation- specifications (basis of design) complies with Florida Building Code (8<sup>th</sup> Edition), Chapter 16, Section 1620: High Velocity Hurricane zones- wind loads, 1620.2:

Broward County: Risk Category II Building and Structures shall be designed and constructed to meet this requirement: 170 mph.

Where Category II complies with FBC (8<sup>th</sup> Edition), Section 1604.5: Risk Category.

(Lakdas to verify).

**Permeable Path or Trail Surfaces:** Permeable or natural surfacing materials are used for all bike and pedestrian paths and trails. **1 point.**

Trail Materials (permeable).

**Rain Gardens, bio-retention areas.** **4 points**

The project proposes 6 bioretention areas (138sf, 282sf, 231 sf, 242 sf, 337 sf and 100sf) aligned along the future Building 5. It will be a feature of the plaza, creating a different landscape area to enhance the site.

**Solar Panels.** A portion of the energy used by the primary building is generated using solar panels located onsite. 30 % minimum. **8 points.**

Solar panels will feed the Maintenance building lighting and power requirements. In addition, the buses' electric chargers on roof top.

**Sustainable Design features implementation:** The development includes other green features that conserve energy, promote a healthy landscape, support public health and safety, or increase sustainability points to be awarded at the discretion of the Development Services Director. **6 points.**

Several sustainable design strategies will be implemented that will impact positively on the quality of the site and surrounding neighborhood, following the initiative of Broward County Transportation to provide a significant reduction in pollutants emissions from the public transportation sector and the efforts of Broward County towards sustainability and resiliency.

***Wellness – quality of work environment*** **proposed 2 points**

Focusing on urban wellness, a series of pedestrian and bicycle trails with fitness stations around the northwest lake are proposed, with an additional esplanade integrated with the pedestrian circuit allowing activities for the employees and visitors.

***Outdoor comfort – interior: views and biophilia*** **proposed 1 point**

A covered canopy connects the three main buildings, providing outdoor comfort sun protection.

Building 4 and Building 5 facing north views will provide outdoor seating areas. The principles of biophilia will be applied giving to some interior spaces an integrated extension to the exterior through the views of these green spaces and proposed activities.

***Energy efficiency features***

***proposed 2 points***

Energy efficiency will be addressed with solar energy, efficient mechanical and electrical (power/lighting) systems. Solar passive features to address the solar gain like sunshades on south facades will also be implemented.

The site will have charging stations for the buses, as well as EV-ready charging stations for standard vehicles and prepared conduits for 92 future chargers' installation.

***Efficient Irrigation***

***proposed 1 point***

Landscape planting focuses on native species, drought tolerant planting type. For irrigation, a reclaimed water system will be used for water efficiently and avoid potable water for irrigation.

The design team continues to research the implementation of other sustainable strategies suitable for the site and nature of the facility.