

## AAC NARRATIVE

Broward County Transportation, Copans Transit Operations Facility

Major Site Plan Improvements, Existing Building Renovations and New Buildings

3201 W. Copans Road, Pompano Beach FL 33069

### • INTRODUCTION

The proposed redevelopment of the Copans Transit Operations Facility for Broward County Transportation (BCT) will accommodate an electric bus fleet of 342 buses on-site to replace the existing diesel fleet. The proposed design will enhance their current operations and introduce new and renovated buildings, bus charging and maintenance stations, solar panels, outdoor green spaces, pedestrian walkways, and two retention pond water features. The design concept celebrates South Florida's natural coastal beauty and transcends the more traditional utilitarian design typical of most transit maintenance and operations facilities. The project will stand as a distinct iconic example of innovative design that showcases the facility's emphasis on cutting edge technology and sustainability. The project entails extensive site work, renovation of one existing building, and the construction of two new buildings. The principal use classification is Industrial as established by the City of Pompano Beach during the DRC review process. We believe this project has been thoughtfully designed in a way that will have a positive impact on the community.

### • NARRATIVE

#### 1. BUILDING LOCATION AND ORIENTATION

- The front primary entrance of all buildings face a plaza. The site proposes a large access plaza between the existing Building-4 and future Building-5, designed with all the necessary elements to promote its utilization. This plaza seamlessly extends to the main entrance of the new Maintenance Building-1, facilitating a fluent circulation between each building's main entrance. This extension maintains consistency by incorporating similar types of seating areas, landscaping, and lighting; creating a cohesive and unified plaza.

#### 2. ACCESS AND CIRCULATION

- The plaza serves a connector node to various amenities such as the fitness trail, seating areas surrounding the retainage pond water feature, bike trail, and sidewalks leading to the main access point on West Copans Road. The high quality of these outdoor spaces not only enhance the site's aesthetic quality, but also promote wellbeing by encouraging BCT employees to walk, bike, and engage in fitness activities within the proposed circuit surrounding the new water features. The visibility of back of house operations are hidden from public view by a tall concrete barrier wall along the majority of the site's perimeter.



PARTIAL VIEW OF ENTRANCE PLAZA



**MAIN PLAZA CONNECTING THE 3 MAIN ENTRANCES, AND THE PEDESTRIAN FITNESS TRAIL.**



**MAIN PLAZA**

### 3. IMAGE AND DESIGN

- Guardhouses are strategically located at existing entrances along both Blount Road and West Copans Road. The guardhouses have an entrance canopy that compliments the modern design aesthetic of the new maintenance building.



**GUARDHOUSE FACING BLOUNT RD.**



**GUARDHOUSE FACING W. COPANS RD.**





**SOUTH WEST CORNER**



**EAST BUILDING ELEVATION FACING BLOUNT RD.**

- The primary design concept of the Maintenance Building Introduces two distinct volumes. One volume represents a substantial solid mass that accommodates the interior functions related to maintenance activities, while the other volume, characterized by transparency, serves to connect administrative and employee services such as breakrooms, offices and fitness areas to outdoor views while maximizing daylighting. These two volumes feature varying predominant materials, proportions, and heights.
- The drivers' support and admin area volume has overhangs over all of the exterior doors and the main entrance. The large glazing areas have integrated horizontal blade shading devices attached to the aluminum and glass curtain walls.
- The two primary volumes exhibit a unique design language characterized by consistency in shape, colors, and materials across all facades; reinforcing the cohesive and unified aesthetic of the structure. Each facade elegantly integrates a blend of both volumes, ensuring a harmonious visual composition throughout the building.

#### 4. MATERIALS

- **155.5603(G):** *The use of aluminum siding, vinyl siding, corrugated metal siding, or other metal cladding other than decorative or ornamental metal siding is prohibited on any facade visible from a street right-of-way. Nothing shall limit the use of high-quality, decorative metal (e.g., brass, copper, steel) as a building accent material, or in a manner subject to the discretion of the Development Services Director.*
- The selection of perforated metal panels with different graphic treatments is integral to the exterior design of the building, contributing significantly to the articulation of the facades. This material is strategically utilized to enhance the visual appeal and texture of the building's exterior.



MAIN VOLUMETRY: MAINTENANCE AREA & DRIVERS SUPPORT + ADMIN AREA



MAINTENANCE BUILDING MAIN ENTRANCE OVERHANG & OVERHANG OVER DOORS

- All predominant materials (decorative perforated metal panels, metal panels, precast panels, and decorative concrete panels) are treated as volumes rather than large expanses of flat cladding. Large glazing areas wrap the Northwest and Southwest corners of the administrative volume, complete with an integrated shading system for a seamless and modern design aesthetic.

##### 5. Site improvements and new features:

The site focuses on innovative technological upgrades for the new battery electric buses (BEBs) fleet. These advancements have shaped the design of both the site and Maintenance Building, making it the first facility in South Florida with these distinctive features.

The site incorporates numerous sustainable strategies to promote wellness and a deep connection with the natural environment. This approach serves as a model urban intervention for the neighborhood, emphasizing a holistic sense of well-being and sensory interaction with nature.

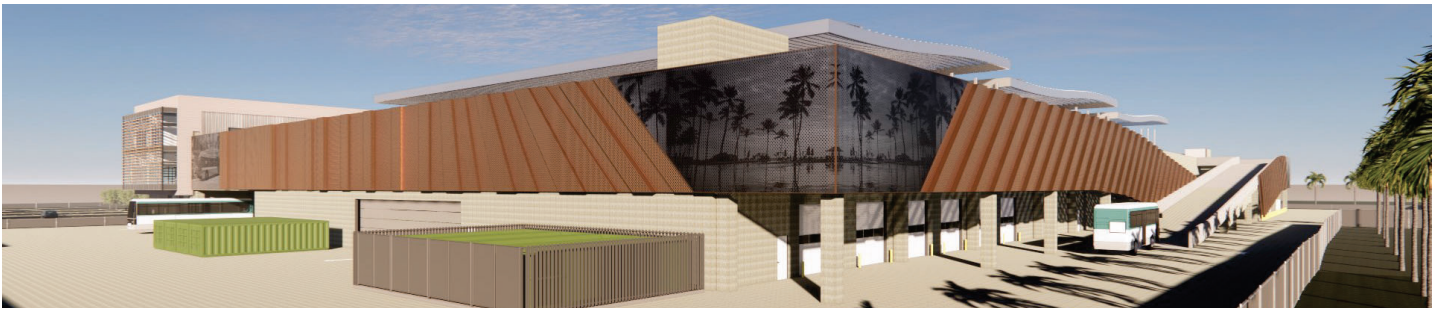




NORTHWEST CORNER



SOUTHWEST CORNER



MAINTENANCE VOLUME CORNERS ARE TREATED WITH SILVER PERFORATED METAL PANELS

The design highlights the interaction with outdoor spaces, emphasizing a holistic approach to enhance user well-being. By integrating principles of biophilia, the design fosters sensory interaction with nature, connecting outdoor green spaces with interior areas to support cognitive functions and overall wellness.

The rain gardens are seamlessly integrated to the outdoor activities and provide an innovative aesthetic feature while also improving site water runoff management strategies.

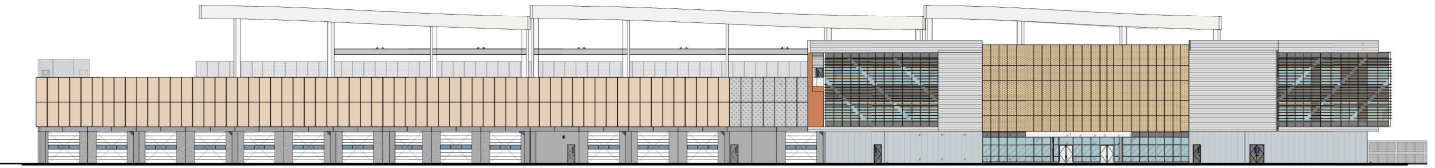
Some of the key features aligned with AAC supplemental design criteria include: a) One shared parking lot for all of the main buildings. b) Showers and lockers in the main maintenance building to support the use of bicycles. c) Aesthetic entrance canopies as initial points to access the site and included sidewalks connecting to the building's main entrances. d) A retention pond water feature on the main street front (West Copans Road) provides a natural buffer, enhancing the site's aesthetics and preserving regional biodiversity.

The site's functionality, focusing on EV bus maintenance and electric battery charging stations, will significantly enhance air quality by reducing pollution not only within the site itself but also extending these benefits to the surrounding county as the buses circulate along their routes.

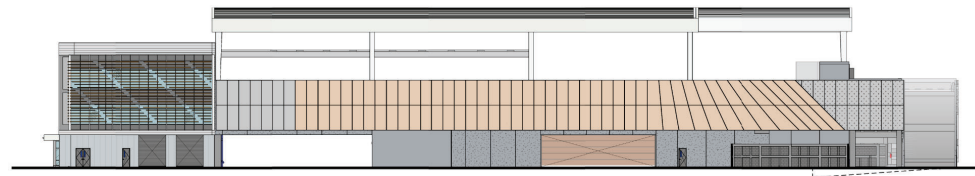
Over 100,000 square feet of photovoltaic solar panels will be installed with the dual purpose of providing shade on the roof top and giving support for the EV bus charging equipment. The solar power harvested from these panels will supplement the facility's power consumption needs.

#### New Maintenance Building:

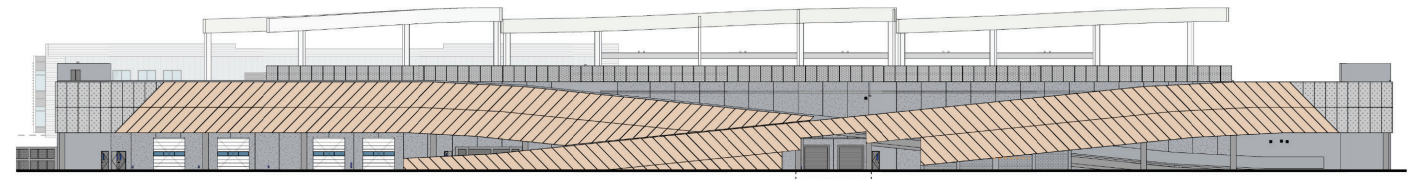
At the heart of the design, the New Maintenance Building embodies a modern contemporary design that serves the industrial function of the structure while introducing a refreshed aesthetic. With the use of distinctive volumetric forms, exterior finishes, and dynamic features.



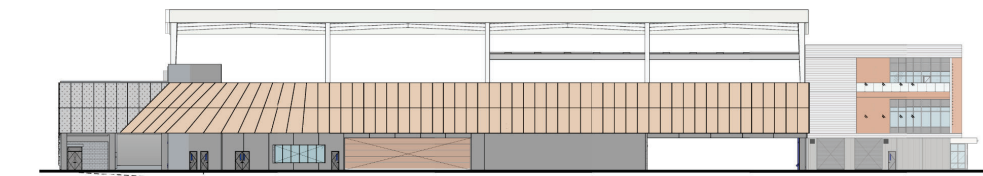
WEST FACADE



SOUTH FACADE



NORTH FACADE



EAST FACADE

The exterior finishes were carefully selected to celebrate and give tribute to the distinctive character of the region. Simple materials such as precast concrete, decorative concrete panels, glass, and perforated metal panels evoke inspiration from the vibrant colors and natural shapes of Florida while also being harmonious to the presence of the neighborhood.

The decorative perforated metal panels are imprinted with imagery that are symbolic of the area and BCT. Articulated angular panels represent the dynamic movement of sea waves, copper hued accents are reminiscent of Florida's sunset, and expansive glazing areas symbolizing the vastness of the ocean.

The design strategically utilizes the roof top bus staging area to maximize the efficiency of the facility within the existing site. Beyond just providing shade and an area to install solar panels, the canopy on the roof also provides the structure needed for the overhead pantograph electric bus charging systems. The height of the canopies is dictated by the clearances required for bus circulation and charging. The solar canopy will house the relocated of an existing 731.1kW solar photovoltaic and an additional 1,200 kw solar modules system.

Given the operational nature of this facility there are a multitude of overhead doors required on the exterior of the building. Through careful planning and strong focus on creativity, the majority of these doors will be shielded from public view by way of free standing walls, plantings, and thoughtful building features.

We feel that this project not only improves the area around it but also establishes a new benchmark for creative design in Florida's varied architectural scene.





**SOLAR PANELS CANOPY ABOVE ROOF TOP AND RAMP ON EAST FACADE**



**NORTH RETAINAGE POND WATER FEATURE**



**PEDESTRIAN TRAILS, SEATING AREAS AND FITNESS STATIONS**

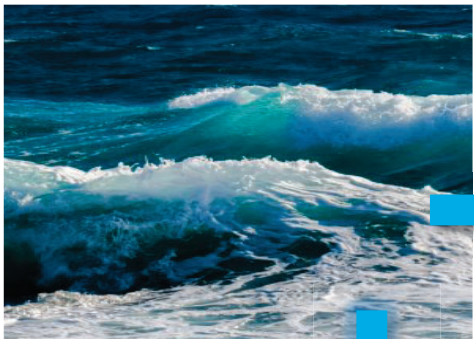


**ACCESS PLAZA—RAIN GARDENS**

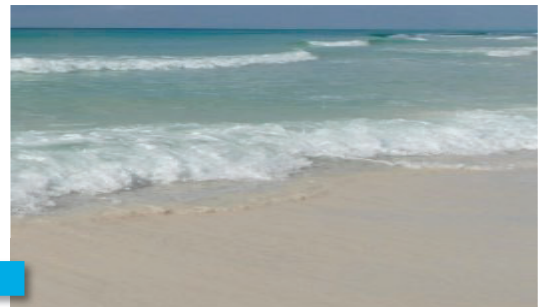




**EAST FAÇADE ANGLED EXTERIOR SKIN—AS DYNAMIC OCEAN WAVES**



**PV SOLAR PANELS CANOPY—AS OCEAN WAVES**



**SOUTH FLORIDA COLORS AND SHAPES: SEA WATER, SAND, BEACH SUNSET**

