



SOUTH DADE ELECTRIC BUS FACILITY PROJECT

PRESENTED BY

MIAMI-DADE COUNTY DEPARTMENT OF
TRANSPORTATION AND PUBLIC WORKS (DTPW)

MAY 8, 2023

Opening Remarks



Josenrique Cueto, P.E.
Miami-Dade County DTPW
Deputy Director & Chief Project
Delivery Officer

Introduction

DTPW

- **Javier Bustamante**, Assistant Director Transit Project Management & Support Services
- **Isabel Padrón**, Chief Design and Engineering Division
- **Ahmed Rasheed**, Project Manager
- **Alejandro Barrios**, Assistant Director Construction
- **Alfredo Muñoz**, Division Chief of Capital Improvements and Contract Services.








Project Team

- **Angel Chavarria**, WSP Project Manager
- **Mark Probst**, WSP Equipment & Facilities Manager
- **Luis Ferreras**, WSP Project Coordinator
- **Danny Perez**, Perez & Perez Architects Planners
- **Ben Melendez**, Perez & Perez Architects Planners
- **Yvette Holt**, Holt Communications Public Information Officer

SBD

- **Laurie Johnson**, Section Chief, Internal Services Department, Small Business Development

Agenda

-  Participation Guidelines
-  Project Information
-  Project Schedule
-  Procurement Information
-  Small Business Development (SBD) Information
-  Question and Answer Session
-  Individual Questions and Networking

Participation Guidelines

- 🚌 To maintain a professional and orderly meeting, we ask that everyone abide by the following guidelines.
 - All Zoom participants' microphones will remain muted, unless it is their turn to speak
 - Raise hand to ask a question - if dialing in, press *9
 - Please introduce yourself by providing your name and your company name
 - When speaking, be mindful of background noises
- 🚌 In person attendees will ask questions from the microphone in the center aisle.
- 🚌 Everyone is asked to please be as brief as possible to allow time for others.
- 🚌 **Pay for parking at ticket machines before you return to your vehicle.**

Project Overview

- 🚌 First All Electric World-Class Bus Facility
- 🚌 Located in the emerging South-Dade Community
 - ❖ County owned Land located at SW 288th Biscayne Drive @ SW 127th Avenue
 - ❖ Across from the Homestead Air Reserve Base
 - ❖ 3 Miles to Transitway & 2 Miles To Florida's Turnpike
- EBF will be Designed and Constructed to Operate, Maintain, Service, & Energize a Fleet of 100 60-FT Articulated Battery Electric Buses
- History: For more than 20 years the Department has identified a need to build a Bus Facility in South-Dade.



Facility Program

Approximately 393,000 SF of building
Infrastructure including:

- 🚐 Bldg #1 – Maintenance & Operations
- 🚐 Bldg #1A – Chiller & Generator
- 🚐 Bldg #2 – Parking garage
- 🚐 Bldg #2A – Vehicle access ramps
- 🚐 Bldg #3 – Wash & Service
- 🚐 Bldg #3A – Pedestrian bridge
- 🚐 Bldg #4 – Employee & visitor security gate
- 🚐 Bldg #4A – FPL vault & switchgear room
- 🚐 BLDG #5 – Main security gate & pull vault
- 🚐 BLDG #6 – Gate arm maintenance



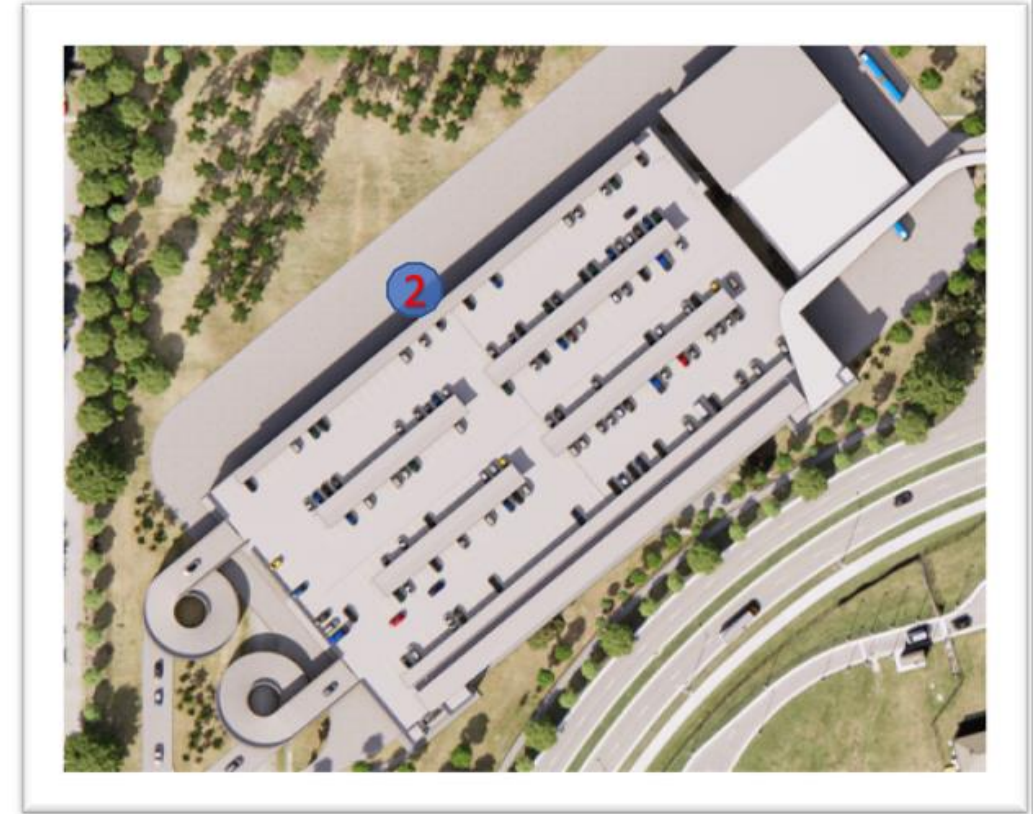
Bldg. #1 – Maintenance & Operations Facility

- 🚐 Ground level – 60,350 SF (Maintenance and shop areas)
- 🚐 Second level – 28,850 SF (Operations)
- 🚐 Prefabricated wall panels & masonry
- 🚐 Spread footings & structural slab on grade
- 🚐 Steel framing with composite slabs and diagonal bracing
- 🚐 (11) Total bays including
 - (4) Running repair bays with retractable maintenance platforms
 - (1) Tire repair bay
 - (1) Body repair bay
 - (1) Paint booth bay



Bldg. #2 – Parking Garage & Access Ramps

- 🚌 Ground level – 129,500 SF (Bus parking spaces & charging operations)
- 🚌 Second level – 118,000 SF (230 Employee & visitor parking – 20% EV ready)
- 🚌 Second level – 10,400 SF (Charging yard)
- 🚌 Augercast pile foundations
- 🚌 Precast columns
- 🚌 CIP deck with precast prestressed beam & precast joists
- 🚌 (2) 25-FT wide circular ramps with ramps (retaining wall section)



Bldg. #3 – Wash & Service Facility

- 🚌 Ground level – 22,000 SF
- 🚌 Prefabricated wall panels & masonry
- 🚌 Spread footings & structural slab on grade
- 🚌 Steel framing with composite slabs and diagonal bracing
- 🚌 (7) Detail clean positions
- 🚌 (2) Automated bus wash with water reclamation system
- 🚌 (1) Pressure wash



Bldg. #3A – Pedestrian Bridge

- 🚌 Connects parking garage 2nd level with operations building
- 🚌 Prefabricated steel truss bridge (315-FT long)
- 🚌 Supported on piles caps with auger cast piles
- 🚌 Fire protection system



South Dade Electric Bus Facility Project Scope



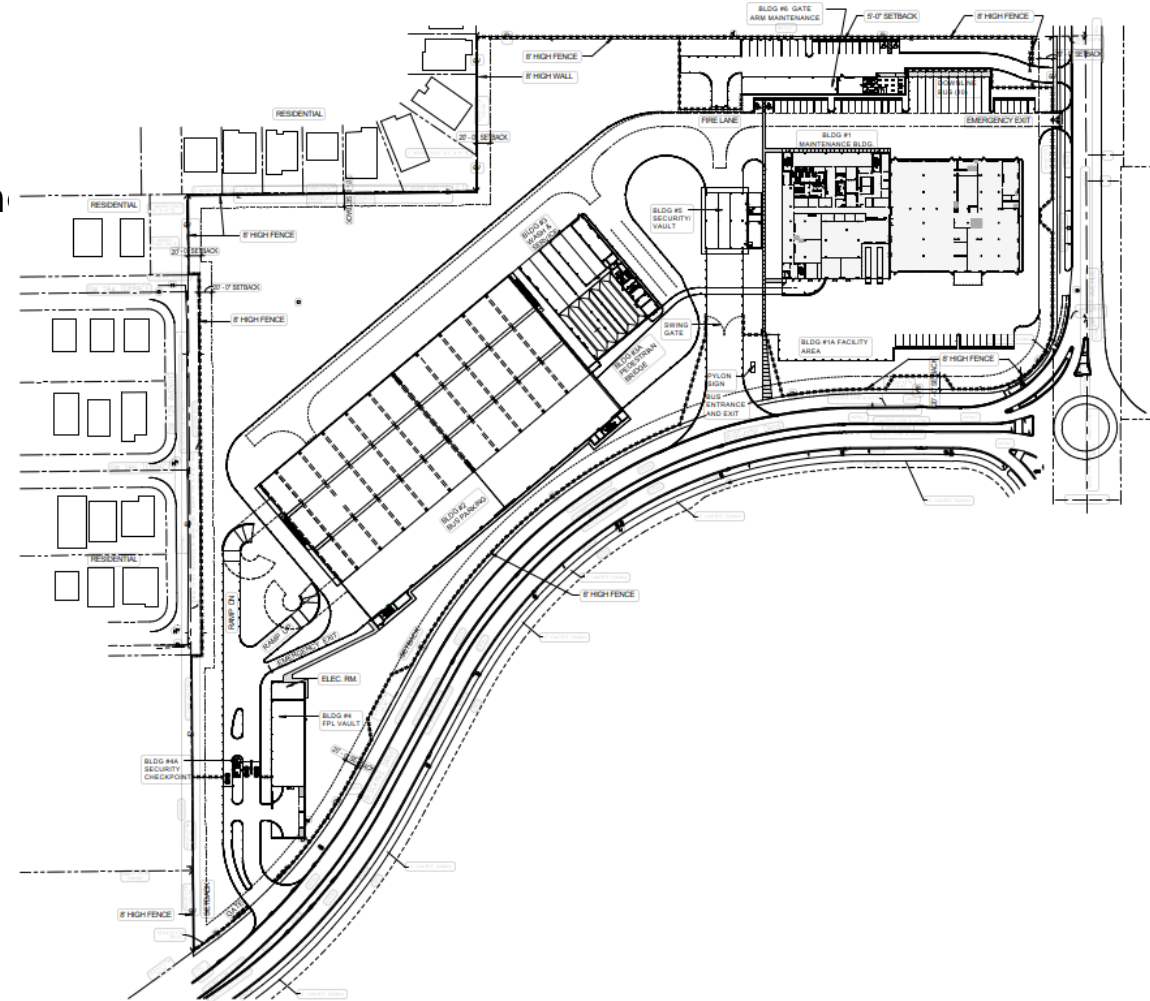
Civil

- Removal of existing water/sanitary/storm/fire hydrant infrastructure (asbestos)
- Installation of water, sewer (sanitary & storm), exfiltration trench
- SW 127th Avenue 16" WM extension
- Perimeter fence (non-scalable)
- Rigid pavement concrete
- Earthwork (+/- 97,000 CCY, fill)



Roadway

- SW 127th Avenue improvements (lighting/drainage/SUP)
- SW 129th Avenue improvements (roadway widening/drainage/landscaping)
- Biscayne Drive improvements (drainage/driveway connections/signage)



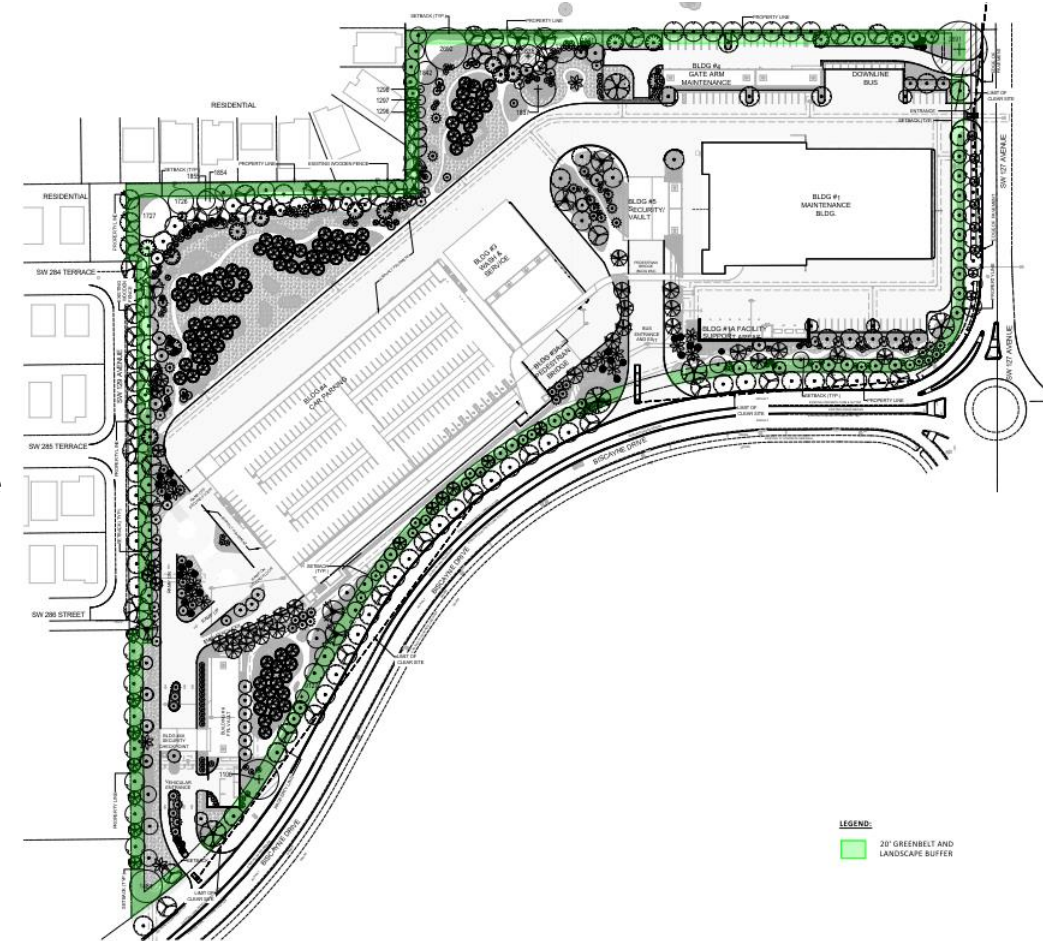
South Dade Electric Bus Facility Project Scope

Landscaping

- Tree removal, protection & relocation under guidance of ISA certified arborist
- Landscape installation & temporary irrigation during establishment period
- Roadway trees along SW 127TH Avenue, SW 129TH Avenue & Biscayne Dr
- Landscape buffer along residential neighborhood, SW 129th Ave

Environmental

- Soil contamination to be removed before construction NTP
- Groundwater sampling during construction by others



South Dade Electric Bus Facility Project Scope

Power Distribution

- Secondary metering (~15MW load)
- FPL providing transformers & three feeds
- Switchgear equipment
- Duct bank (4-ft x 6-ft)

Fire Protection

- Engineered (non-prescriptive) fire suppression system at all BEB parking, charging & maintenance locations
- Building fire protect varies (clean agent, pre-action, deluge, and wet sprinkler systems)

Permits (dry-run) to be provided

Art in Public Places (AIPP)

Public Involvement by Others



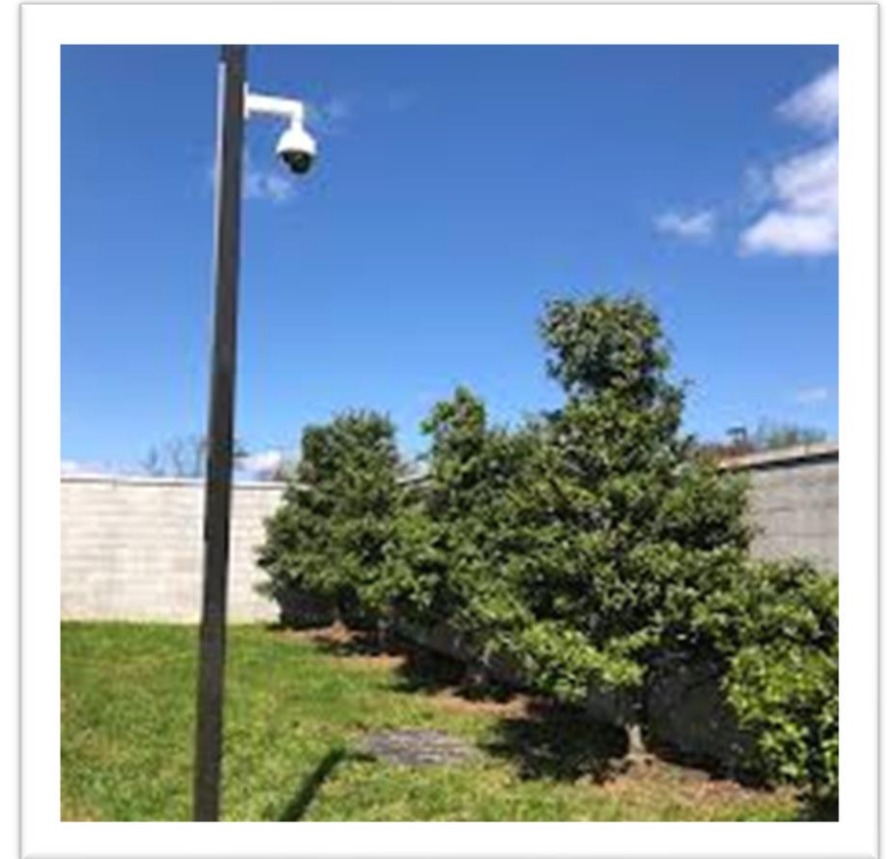
Communications, Systems & ITS

Access control system (Devices, cabling)

- Vehicle gates with Intercoms and CCTV
- Perimeter intrusion detection
- Controlled access doors for high-value areas (IT/Electrical/Mechanical/Security vault/Management areas)
- Alarm monitoring, local and SPCC (downtown)

CCTV system (Devices, Cabling)

- Vehicle gates
- Parking & charging areas
- Delivery dock & part storage
- Stairwells
- Dispatch, supervisor & parts window
- Maintenance, bus servicing bays, bus operating drive lanes
- Common areas
- Video monitoring, local and SPCC (downtown)
- Extension of existing MDC GENETEC video management system



Communications, Systems & ITS

Passive structured cabling system (Fiber, copper)

- Underground duct bank connecting all building IT rooms
- Fiber optic distribution to all building IT rooms
- Wireless access points at interior & exterior areas
- Telecom outlets throughout all buildings
- CAT 6A cabling to all telecom outlets
- Equipment rack/patch panels/cable termination, testing, and documentation
- Cable TV outlets and distribution throughout all buildings
- Active network components, PC workstations and telephone handsets to be furnished & installed by MDC ITD.

Distributed Antenna System (DAS)

- Emergency responders
- Cellular providers

Public Address System

- Complete coverage of interior & exterior areas
- Integration of VOIP telephone system

Bus traffic signal pre-emption test station (Opticom)

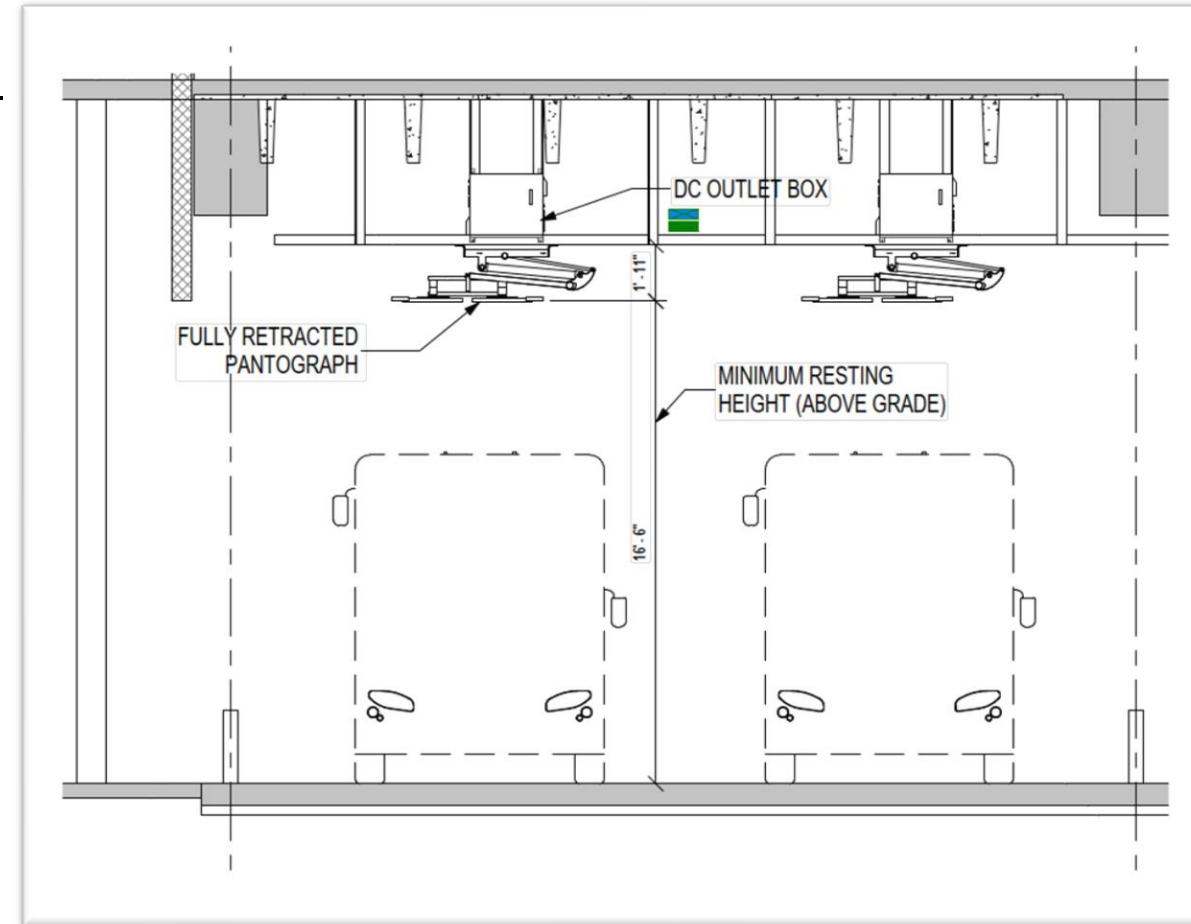
- Signal testing of Opticom device on Bus prior to route departure

Systems commissioning

- Building Contractor to provide system start-up, testing, demonstration and training

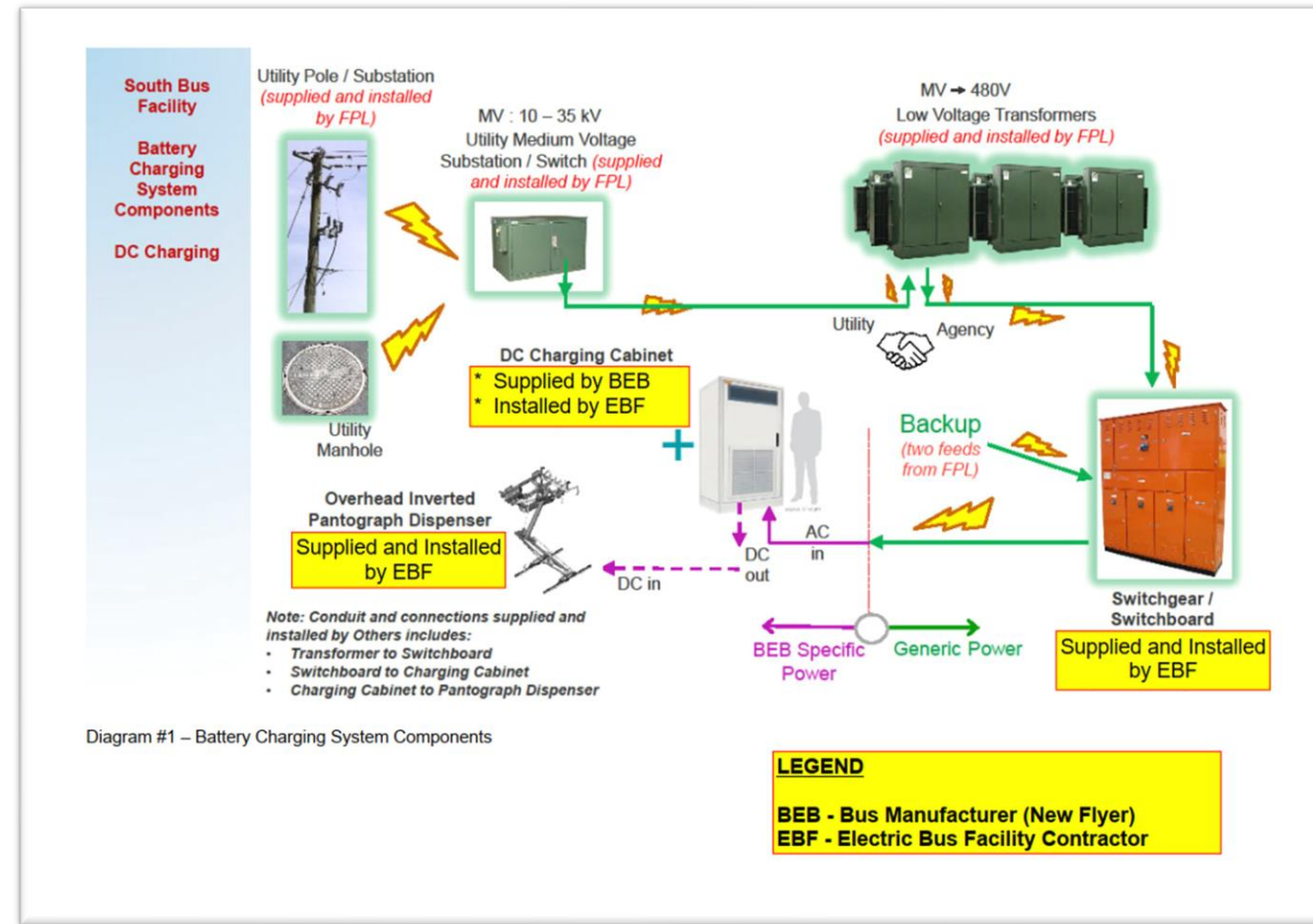
BEB Charging Infrastructure

- ❏ F&I all structural framework to support switchgear, chargers, pantographs, and plug-in
- ❏ F&I all switchgear, switchboards to power 50 DC charging cabinets
- ❏ F&I all conduit and wiring/cabling between transformers and switchgear
- ❏ Install fifty (50) depot DC charging cabinets
- ❏ F&I all conduit and wiring/cabling between switchgear and charging cabinets
- ❏ Install charging infrastructure including charging stations, charging equipment, charging interface and all conduit and wire/cable



Owner Furnished Equipment

- 50 DC depot charging cabinets (each rated no less than 150 kW)
 - Contractor installed
 - Inspect, test, approve, and commission all DC charging cabinets after installation by Contractor and certify that they are fully operational
- Charge Management System
 - Inspect, test, approve, and commission Charge Management system after installation and certify fully operational
- Warranties, product data, and training (operations and maintenance) relating to charging cabinets and Charge Management system



Project Schedule

Design Phase

- August 2023 – 100% plans

Bid & Award Phase (CE&I)

- June 2023 – Advertisement
- July 2023 – Step 1 submittal
- August 2023 – Negotiations
- January 2024 – Notice To Proceed (NTP)

Bid & Award Phase (Contractor)

- July 2023 – Advertisement
- September 2023 – Bid opening
- February 2024 – Notice To Proceed (NTP)

Construction Phase

- February 2024 – Notice To Proceed (NTP)



Construction

Phase I – NTP + 300 days

- Bldg #2 – Parking garage
- Bldg #3 – Wash & Service
- Bldg #5 – Main security gate & pull vault
- Bldg #4 – FPL vault & employee/visitor security gate
- Site work

Phase II – NTP + 420 days (Substantial Completion)

- Phase I & II construction are concurrent
- Bldg #1 – Maintenance & Operations
- Bldg #6 – Gate Arm Maintenance

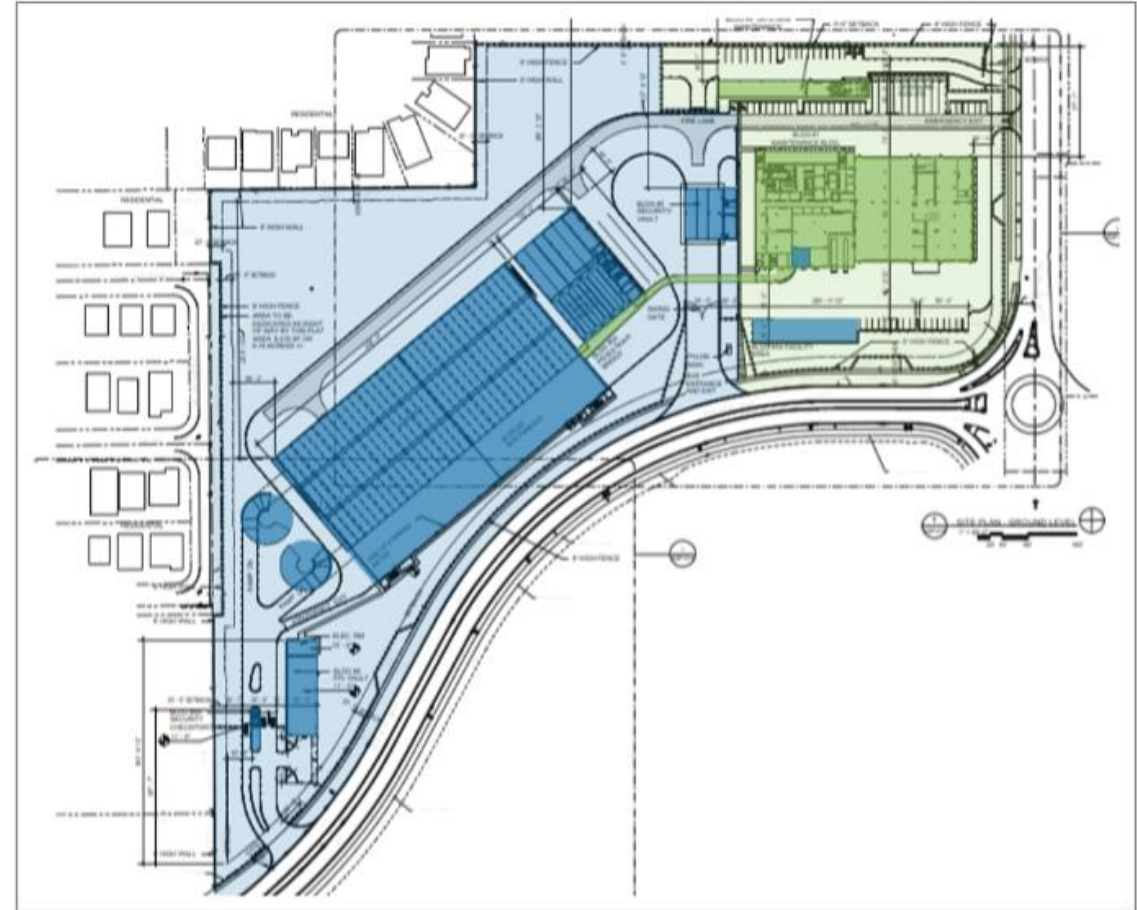
Final completion – NTP + 540 days

Estimated construction price, \$192M



Construction Engineering and Inspections (CEI)

- 🚌 Provide CE&I services throughout the duration of construction of the South Dade Electric Bus Facility (EBF)
- 🚌 Estimated contract amount, \$11M
- 🚌 Contract measures
 - 20% SBD Goal
- 🚌 Experience (Prime)
 - Preferred to have completed two (2) projects for major industrial facilities with complex systems similar to the scope for this project in the last ten (10) years
- 🚌 Prime technical certifications
 - 11.00 General Structural Engineering
 - 16.00 General Civil Engineering
 - 17.00 Engineering Construction Management



CE&I – Prime or Sub-Consultant

- 2.04 Mass Transit Systems - Mass Transit Controls, Communications, and Information Systems
- 2.06 Mass Transit Systems - Mass Transit Safety Certification for System Elements
- 3.01 Highway Systems – Site Development and Parking Lot Design
- 6.01 Water and Sanitary Sewer Systems - Water Distribution and Sanitary Sewage Collection
- 9.02 Soils, Foundations and Material Testing - Geotechnical & materials engineering services
- 9.03 Soils, Foundations and Material Testing - Concrete & asphalt testing services
- 9.04 Soils, Foundations and Material Testing - Non-Destructive testing and inspections
- 10.01 Environmental Engineering - Stormwater Drainage Design Engineering Services
- 10.05 Environmental Engineering - Contamination Assessment & Monitoring
- 12.00 General Mechanical Engineering
- 13.00 General Electrical Engineering
- 14.00 Architecture
- 15.01 Surveying & Mapping - Land Surveying
- 19.01 Value Analysis and Life-Cycle Costing -Transportation Planning
- 19.02 Value Analysis and Life-Cycle Costing - Mass Transit Systems
- 26.00 Claim Analysis Services

Procurement

Estimated construction cost, \$192M

Construction schedule (Phased construction – Phase I, II)

- Phase I – NTP + 300 days
- Phase II – NTP + 420 days (Substantial completion)
- Final completion – NTP + 540 days

License and experience requirements

- Certificate of Competency from the County's Construction Trades Qualifying Board as a General Engineering Contractor, General Building Contractor; or,
- The State of Florida General Contractor License, as required by the Florida Building Code, pursuant to the provisions of Section 489.115 of the Florida Statute.

- Contractor should be able to demonstrate competence through prior comparable project experience and is Preferred to have completed (3) Construction Projects within last 15 years of similar size and scope (such as institutional, transportation and parking) each \$75M or more in construction value. Experienced in accelerated and phased approach project delivery is highly desired.
- Contractor to self-perform 30% of the scope

Insurance requirements

Miami-Dade requirements

RFTE-Resident First Training Program.

- CWP requirements
- Employ Miami-Dade County requirements

Small Business Development (SBD)

Construction - 20% SBE goal

- Civil, Plumbing, HVAC, Concrete, Roofing, Site preparation

Good & Services – 0.25% SBE goal

- Landscaping, Janitorial, Guard & Security, Hauling, and Construction supplies

Community Work Force Program

- 10% employee force

Miami-Dade County responsible wages

- Building construction



South Dade Electric Bus Facility (EBF)

Vendors registration and Services:

<https://www.miamidade.gov/global/strategic-procurement/vendor-services.page>

Small Business Division:

<https://www.miamidade.gov/global/business/smallbusiness/home.page>

Small Business Legislation:

<https://www.miamidade.gov/global/business/smallbusiness/business-development-legislation.page>

South Dade Electric Bus Facility (EBF)



Questions & Answers

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Additional Project Information

For additional information/feedback/questions, please contact us via email at Electricbusfacility@miamidade.gov

[Miami-Dade County reserves the right to modify the contents shown on the presentation.](#)

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Project Web Page





THANK YOU