HAMPTON ROADS TRANSIT

Transportation District Commission of Hampton Roads
Strategic Work Session
Hampton – 2nd floor Boardroom
(3400 Victoria Blvd)

September 28, 2023
12:00pm – 1:00pm

Agenda

1. Call to Order   The Honorable Dr. Patricia Woodbury, *Chair*

2. Agenda   William Harrell, *President & CEO*

    Focus Topics:

    - Facilities and Electrification   Sibyl Pappas, *Chief Engineering and Facilities Officer*

    - Technology   Michael Price, *Chief Information Officer / Chief Technology Officer*

3. Wrap Up   William Harrell

TDCHR Work Session
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Facilities and Engineering

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Facilities

- BEB transition requires significant facility investments.

- Facilities are our customers' first point of interaction with the system.

- Facilities carry ongoing state-of-good repair needs.

- Major facility investments to support RTS.

Facilities Capital Projects by the Numbers

26
facilities projects

$336.5 million
in capital needs (current year dollars) from FY2025 to FY2034

Unconstrained Projects List

UID	Project Name	Cost ($ thousands)
EF01	3400 Victoria Boulevard Renovation: Phase 2	$9,806
EF02	New Southside Operating and Maintenance Division	$50,393
EF03	RTS Bus Stop Amenity Program	$8,066
EF05	Newport News Transit Center Interior Renovations	$1,120
EF06	Hampton Transit Center Interior Renovations	$888
EF07	Wards Corner Restroom and Paving Renovation	$149
EF10	Evelyn T Butts Transfer Center Replacement	$4,000
EF11	Silverleaf Transfer Center Upgrades	$1,594
EF13	Robert Hall Transfer Center Replacement	$7,750
EF20	Hampton Facility Electrification	$179,414
EF21	18th Street Facility Electrification	$92,394
EF22	Hampton Facility Non-Revenue Electric Charging Pilot	$510
EF24	DNTC Restrooms and Operator Lounge Spaces	$103
EF26	Parks Avenue Re-Use	$160
EF27	Concrete Repair Program	$325
EF30	Bus Stop Amenity Program	$3,590
EF31	HRT Facilities Signage	$475
EF32	HRT Systemwide Signage	$355
EF36	Orcutt Transfer Center	$500
EF38	Transit Stop Support Equipment	$150
EF39	18th Street Facility Parking Structure	$2,125
EF40	18th Street Facility Plumbing Redesign and Construction	$375
EF42	Newtown Road Bus Transfer ADA Improvements	$250
EF44	Ferry Dock Passenger Amenities	$615
EF45	18th Street Bus Wash Rehabilitation	$900
EF46	3400 Victoria Boulevard Parking Lot Safety Improvements	$515
	Total	$336,522

September 2023 *Draft; capital project information subject to change.*

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Electrification Projects Timeline
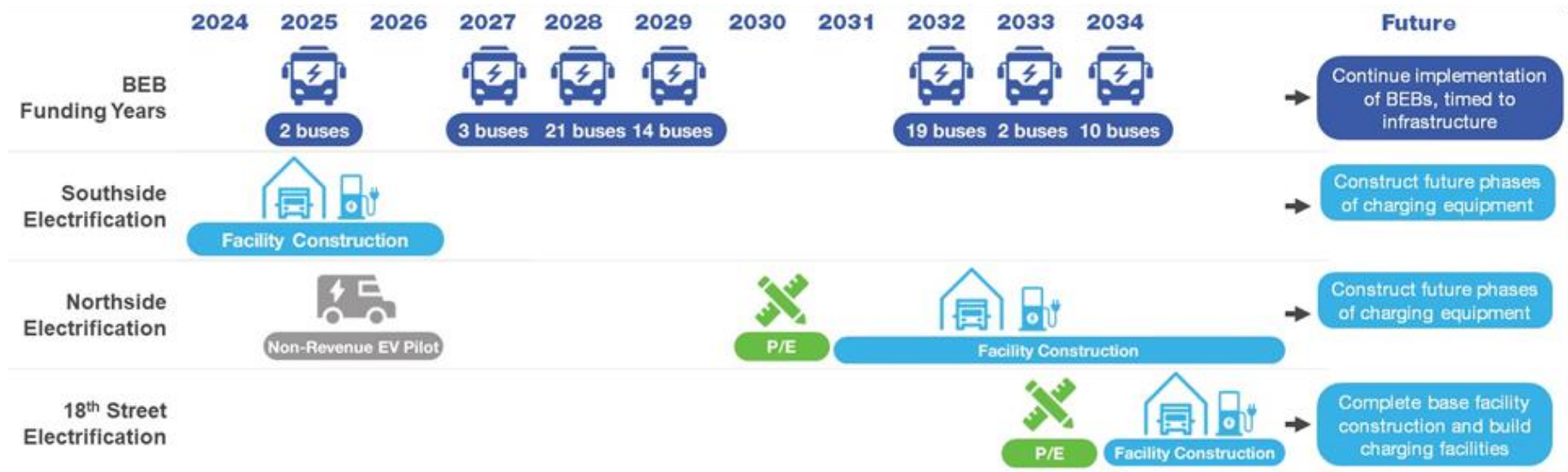
New Southside Operating and Maintenance Division

- Replace existing Parks Avenue bus storage and maintenance facility
  - The new facility will have capacity for 100 buses and 16 trolleys
  - Initially EV charging for 40+ buses
  - Additional chargers will be phased in over time to align with fleet transition needs.
- Save 91,000 miles per year of deadhead costs (approx. $652,000 per year) thus reducing operating and maintenance costs
- Opens new territory on the Southside
- Reduces burden on Northside and Southside existing facilities

Bus Stop Amenity Program

- Upgrade over 620 bus stops across the regional transit system (RTS)
- Additional funding for upgrading non-RTS bus stops
- ADA Accessibility
- New shelters, lighting, benches, trash cans and signage
- Enhanced cleaning

Evelyn T. Butts Transit Center Replacement

- Site Identified
- Anticipate Engineering in FY 24
- Construction in FY 25

Engineering Projects

- Workspace Renovation and Reconfiguration
- Military Circle Mall Bus Transfer Area
- Virginia Beach TCC Campus Transfer Area
- DNTC Parking Area Study
- JEB Little Creek Transfer Area Study
- Engineering Support for Norfolk Flood Wall
- Engineering Design Support for Norfolk Casino

- Light Rail Aerial Structures
- Light Rail Facilities – SGR
- Light Rail Cab Signaling Study
- Light Rail Station Upgrades
- Passenger Facility & Grade Crossing Lighting Improvements
- NSU Platform and Stairs Rehabilitation

Technology

Introduction

- **Transit is increasingly a technology-driven industry**
  - Technology is essential to HRT's customer-facing and back-end operations.
  - Technology investments allow the agency to be more responsive to our customers and more efficient in our operations.
  - Outdated systems reduce efficiency and cause security and safety vulnerabilities
- **Technology assets need frequent updates and replacement.**
- **HRT is constantly investing in new systems to keep up with changing needs. Many of HRT's critical systems did not exist 10 or 15 years ago.**
- **New investment allows HRT to keep up with technology change:**
  - Widespread adoption of mobile ticketing and trip planning tools
  - Transition toward battery-electric buses
  - Emergence of autonomous vehicles

Technology Capital Projects by the Numbers

20
technology projects (excludes safety technology projects)

$62.5 million
in capital needs (current year dollars) from FY2025 to FY2034

Unconstrained Projects List

UID	Project Name	Cost ($ thousands)
IT01	HASTUS	$4,500
IT03	Large Technology Infrastructure	$11,058
IT05	Client Technology Systems State of Good Repair	$2,787
IT06	Bus Facility Passenger Information Displays SGR	$295
IT07	Passenger Information Displays - Light Rail	$9,549
IT12	Onboard Network Infrastructure State of Good Repair	$1,719
IT16	Financial Software System (FSS) Implementation	$521
IT17	HRMS Replacement	$6,147
IT18	Fixed Side CAD/AVL System	$3,942
IT22	EAM System State-of-Good-Repair	$9,366
IT29	Light Rail APC System Fixed Side Hardware Software	$229
IT32	Technology Enhanced Safety Solutions	$1,906
IT36	Internal Digital Signage System	$131
IT37	ICS Cyber Security	$1,332
IT42	IT Security Systems Upgrade	$1,907
IT43	Contract and Vendor Management Software Replacement	$660
IT45	Replace the Onboard Passenger Information System	$1,500
IT46	Yard Management System	$3,000
IT47	Enterprise Data Integration	$350
IT48	Farebox Replacement Project	$1,587
	Total	$62,486

Fixed Side CAD/AVL System

- This project will upgrade HRT's fixed-side CAD/AVL systems five years after initial implementation to maintain a state of good repair.

- Includes software and hardware necessary to maintain communication with on-board CAD/AVL systems.

- Maintaining systems ensures critical functions like real-time information on bus fleet movements are operational.
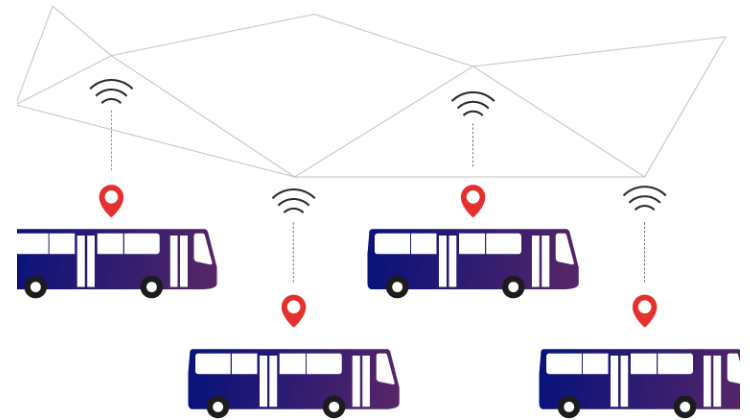
Large Technology Infrastructure

- HRT manages millions of dollars worth of IT infrastructure such as fiber optic connections, wireless networks, firewalls, and power delivery systems.

- Ongoing maintenance and upgrades necessary to maintain operations.