Transportation District Commission of Hampton Roads Work Session Hampton Boardroom (3400 Victoria Boulevard)

September 26, 2024 11:30 – 1:00pm

Agenda

• Call to Order The Honorable Don Carey, *Chair*

• Agenda William Harrell, *President & CEO*

• Connecting Chesapeake: A Study of High-Capacity Transit

Sherri Dawson, Director of Transit Development

• State MERIT Program – Operating Assistance

Dan Sonenklar, DRPT, Statewide Transit Planning Manager

- CIP Focus Topics
 - Facilities and Engineering
 - Light Rail

Sibyl Pappas, Chief Engineering and Facilities Officer

Ben Simms, Chief Transit Operations Officer

• Wrap Up William Harrell





A STUDY OF HIGH-CAPACITY TRANSIT

Connecting Chesapeake

A Study of High-Capacity Transit

TDCHR Work Session September 26, 2024







- Study Overview
- Purpose and Need
- Evaluation Process
- Public Engagement
- Tier 1 Alternatives Evaluation
- Tier 2 Alternatives
- Tier 2 Evaluation and Next Steps















Study Overview



Connecting Chesapeake



Hampton Roads Transit is collaborating with the City of Chesapeake to explore high-capacity transit options that enhance the City's economy, align with future growth plans and improve connectivity to the regional transportation network.



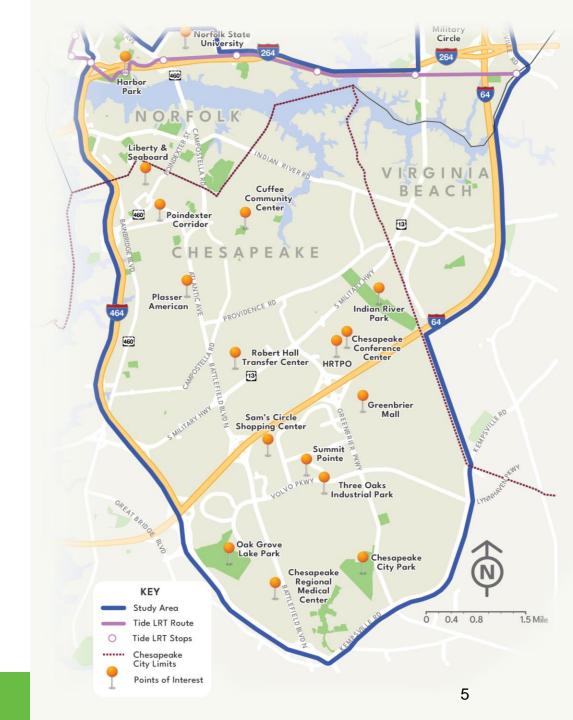
Study Area











Density Requirements



Density requirement for light rail:

Population: 28-60 people per acre

Density requirement for Bus Rapid Transit or

Express Bus:

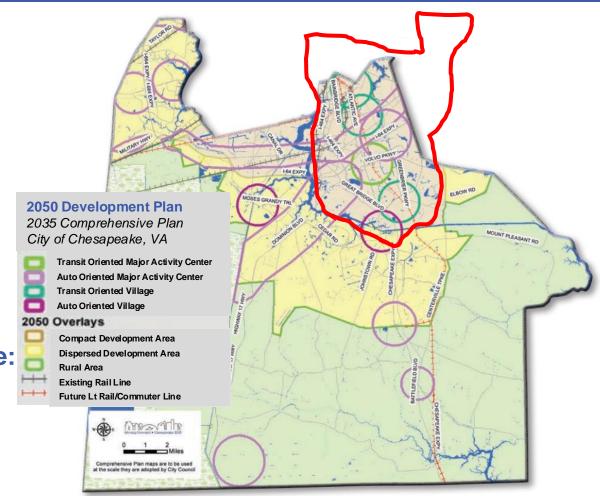
Residential: exceeding 15 to 20 homes per acre

Employment Areas: exceeding 50 jobs per acre

Density requirement for local fixed route bus service:

Residential: exceeding 7 or 8 homes per acre

Household: exceeding 10 to 20 persons per acre



Study Overview







- Define the purpose & need for high-capacity transit
- Identify, screen, and evaluate the feasibility of alignment and technology alternatives
- Refine concepts for most cost-effective alternatives and select an alternative that can be carried forward for further study

Study Purpose





Improving connections between Chesapeake and the greater Hampton Roads area



Providing transit service that offers an alternative to SOV



Improving Chesapeake's transportation network to enhance the City's economy



Providing a sustainable transportation alternative

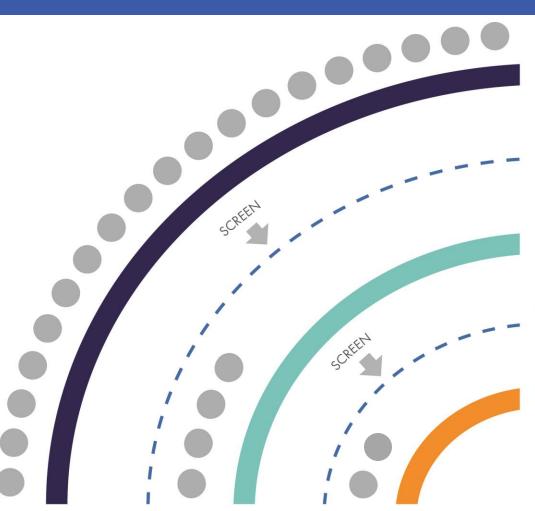


Reducing auto-dependency

Methodology

Evaluation of Alternatives





TIER 1 ALTERNATIVES

Develop multiple conceptual alignment alternatives connecting Greenbrier Town Center Area to the wider Hampton Roads Service area.

TIER 1 SCREENING

Evaluate whether the Tier 1 alternatives meets the Purpose and Need of the project. This qualitative analysis will identify the most viable Tier 2 alternatives.

TIER 2 ALTERNATIVES

Develop the most viable Tier 2 alternatives by completing ridership forecasting, right-of-way analysis, traffic analysis, and corridor/street modification analysis.

TIER 2 SCREENING

Evaluate the performance of the Tier 2 alternatives by based on the criteria developed by stakeholders.

RECOMMENDED ALTERNATIVES

Recommend an alternative that can be further developed in the next phase of the FTA CIG program.





Study Schedule

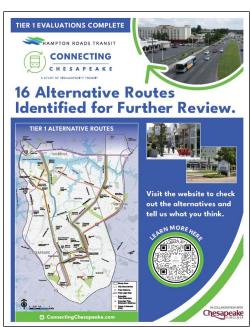




Public Engagement

- Website and Social Media
- Round 1: October 2023 (Community Awareness)
 - Public Meetings and Pop-Up Event
- Public Survey: December January 2024
- Round 2: April July 2024 (Tier 1 Alternatives)
 - Community Outreach: Pop-Ups & City Events
- Small Group Meetings: On-Going
 - City Departments
 - Community Groups and Civic Leagues
 - Major Employers











Public Engagement

Survey: Dec. 15 - Jan. 16
What We Heard...



Community Outreach











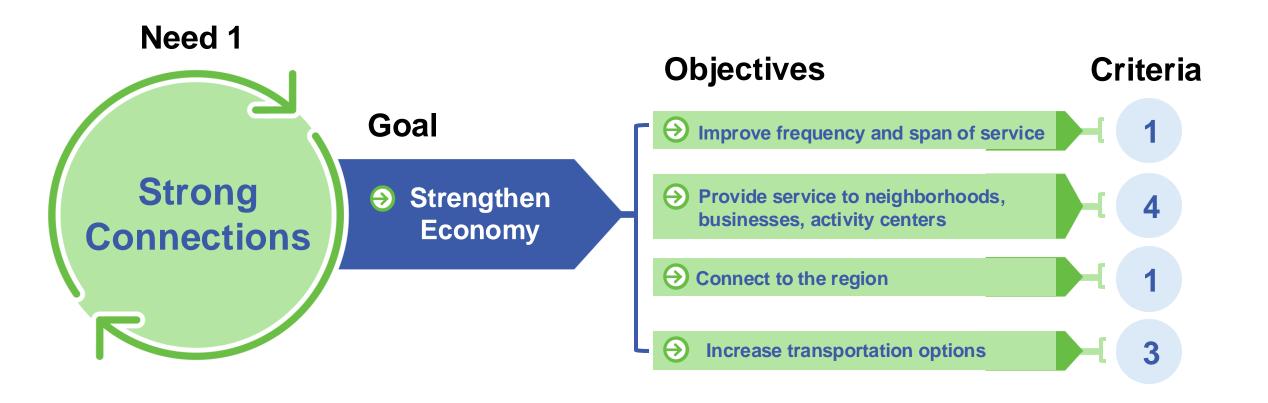






Purpose and Need

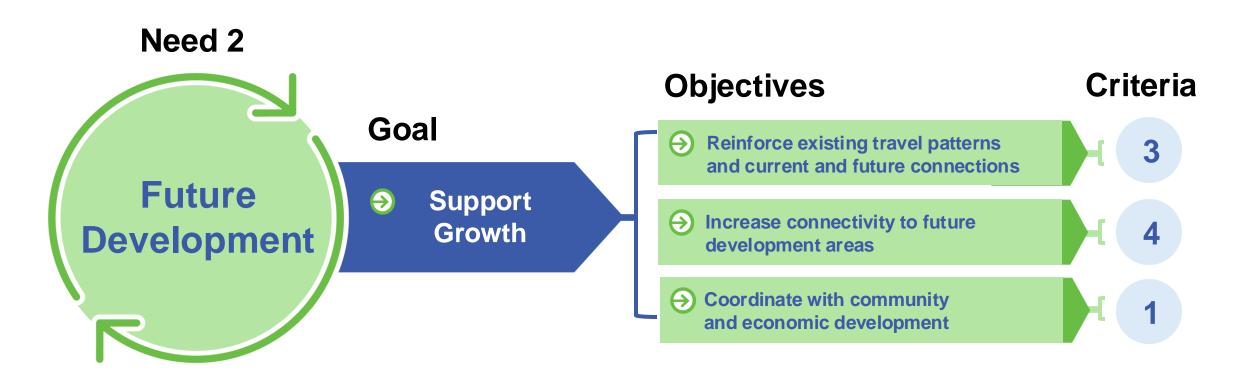






Purpose and Need

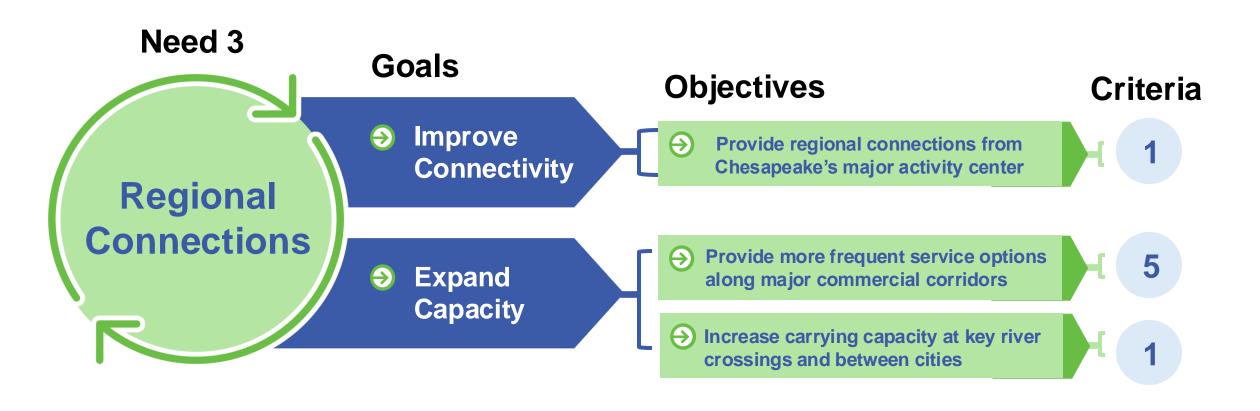






Purpose and Need







Evaluation Process



- Measures of Effectiveness Criteria
 - Objectives
 - Goals
 - Needs





Tier 1 Alternatives

| Medical Center - Downtown Norfolk | MC-DN - 1 MC-DN - 2 MC-DN - 3 MC-DN - 4 MC-DN - 5 | | | | | |
|---|---|--|--|--|--|--|
| | MC-DN – 6 MC-MH – 1 | | | | | |
| Medical Center - Military Highway Station | MC-MH – 2 MC-MH – 3 | | | | | |
| | | | | | | |
| Summit Pointe - Downtown Norfolk | SP-DN – 1 SP-DN – 2 | | | | | |
| Summit Pointe - Newtown Road | SP-NR – 1 | | | | | |
| Chesapeake City Park - Military Hwy Station | CP-MH – 1 | | | | | |
| Greenbrier Mall - Downtown Norfolk | GM-DN – 1 | | | | | |
| Summit Pointe - Military Highway Station | SP-MH – 1 SP-MH – 2 | | | | | |





Tier 1 Alternatives Evaluation



| ALTERNATIVES | SP-DN-1 | SP-DN-2 | MC-DN-5 | MC-MH-2 | SP-NR-1 | MC-DN-1 | MC-DN-2 | MC-DN-3 | MC-DN-4 | MC-DN-5 | MC-DN-6 | MC-MH-1 | MC-MH-2 | MC-MH-3 | GM-DN-1 | CP-MH-1 |
|--------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Strong Connections | | | | | | | | | | | | | | | | |
| Strengthen Economy | | • | 0 | 0 | 0 | • | • | • | | | | | • | • | • | 0 |
| Future Development | | | | | | | | | | | | | | | | |
| ♦ Support Growth | • | | • | • | 0 | • | • | | | | | | 0 | • | | |
| Regional Connections | | | | | | | | | | | | | | | | |
| Improve Connectivity | | | | | | | \circ | | | | | | | | | |
| S Expand Capacity | | | • | | | | | | | | | | | | | |
| TIER 1 SUMMARY | | | • | • | 0 | | • | | • | 0 | • | • | • | • | • | 0 |





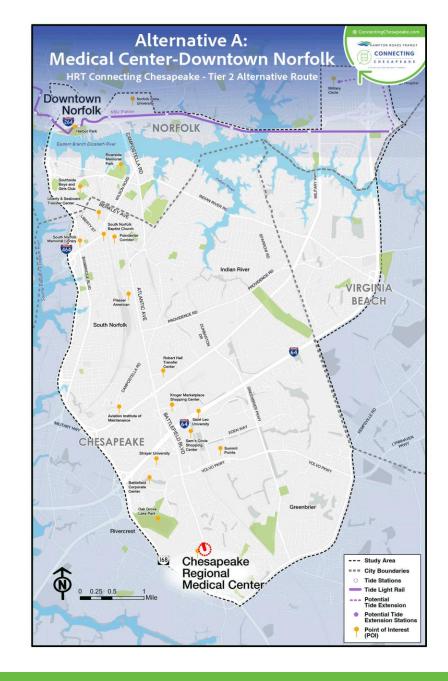
Tier 2 Alternatives

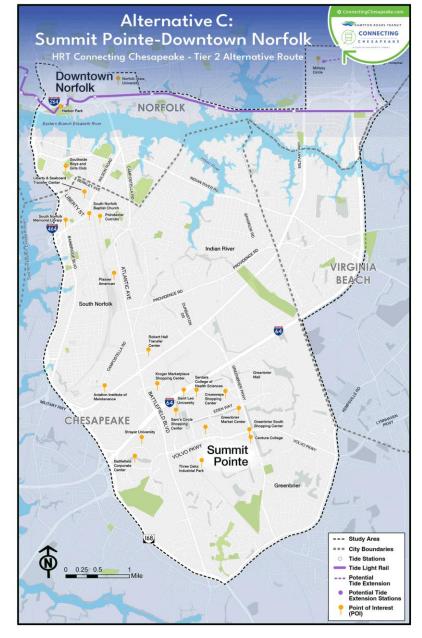
Alternative A:

Medical Center –

Downtown Norfolk

Alternative C:
Summit Pointe –
Downtown Norfolk







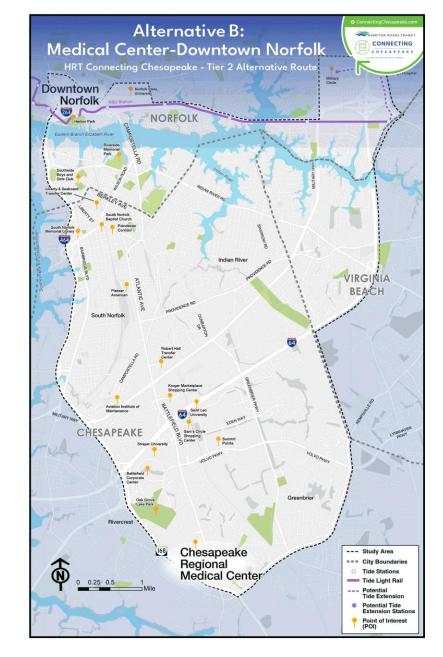
Tier 2 Alternatives

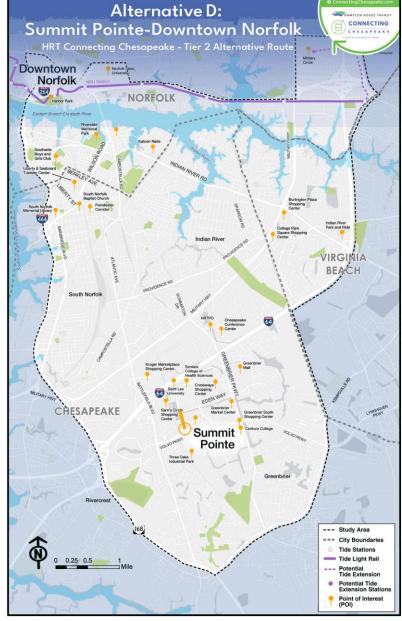
Alternative B:

Medical Center –

Downtown Norfolk

Alternative D:
Summit Point –
Downtown Norfolk









Tier 2 Evaluation and Next Steps

- High-level Environmental Review Memorandum
- Ridership Forecasting Report
- Vehicle Storage and Maintenance Requirements
- Traffic and Transportation Technical Reports
- Technical Memorandum on Flooding and Resiliency
- Technical Memorandum on Constructability, Physical Fit and Operational Impacts









Thank You!





VISIT THE WEBSITE

ConnectingChesapeake.com

SEND US AN EMAIL

ConnectingChesapeake@hrtransit.org



HRT Point of Contact





Sherri Dawson, AICP

HRT Project Manager

HRT Director of Transit Development

Email: sdawson@hrtransit.org



Engineering and Facilities

gohrt.com

Engineering & Facilities

- Facilities are our customers' first point of interaction with the system.
- Facilities carry ongoing stateof-good repair needs.
- Major facility investments to support RTS.
- BEB transition requires significant facility investments





Engineering & Facilities Unconstrained Project List

| UID | Project Name | Cost (\$ thousands)* |
|------|---|----------------------|
| EF01 | 3400 Victoria Boulevard Renovation: Phase 2 | \$4,756 |
| EF02 | New Southside Operating and Maintenance Division | \$18,341 |
| EF03 | RTS Bus Stop Amenity Program | \$5,313 |
| EF05 | Newport News Transit Center Interior Renovations | \$2,457 |
| EF06 | Hampton Transit Center Interior Renovations | \$2,316 |
| EF07 | Wards Corner Restroom and Paving Renovation | \$412 |
| EF10 | Evelyn T Butts Transfer Center Replacement | \$2,060 |
| EF11 | Silverleaf Transfer Center Upgrades | \$1,594 |
| EF13 | Robert Hall Transfer Center Replacement | \$7,468 |
| EF20 | Hampton Facility Electrification | \$1,125 |
| EF21 | 18th Street Facility Electrification | \$985 |
| EF26 | Parks Avenue Re-Use | \$170 |
| EF27 | Concrete Repair Program | \$175 |
| EF30 | Bus Stop Amenity Program | \$2,039 |
| EF31 | HRT Facilities Signage | \$704 |
| EF32 | HRT Systemwide Signage | \$594 |
| EF40 | 18th Street Facility Plumbing Redesign and Construction | \$212 |
| EF42 | Newtown Road Bus Transfer ADA Improvements | \$428 |
| EF46 | 3400 Victoria Boulevard Parking Lot Safety Improvements | \$1,078 |
| EF50 | ADA Access Enhancements at HRT Facilities | \$258 |
| EF51 | GFI Vault Replacement at Fuel Island Norfolk | \$773 |
| EF52 | HRT/WATA - Joint Study for Transfer Center at Lee Hall | \$103 |
| EF53 | Patrick Henry Mall Transfer Center Pavement Repair | \$927 |
| EF55 | Veeder Root Upgrade Project | \$257 |
| EF56 | Study of Air Conditioning at HRT Maintenance Shops | \$103 |
| EF57 | Tidewater Community College Virginia Beach Transfer Area | \$1,700 |
| EF58 | Operator Lounge Furniture Rehab at the Norfolk and Hampton HRT Facilities | \$103 |
| | Total | \$56,451 |





SOUTHSIDE FACILITY VIRGINIA BEACH

Overview



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HRT | SOUTHSIDE FACILITY VIRGINIA BEACH | 2024

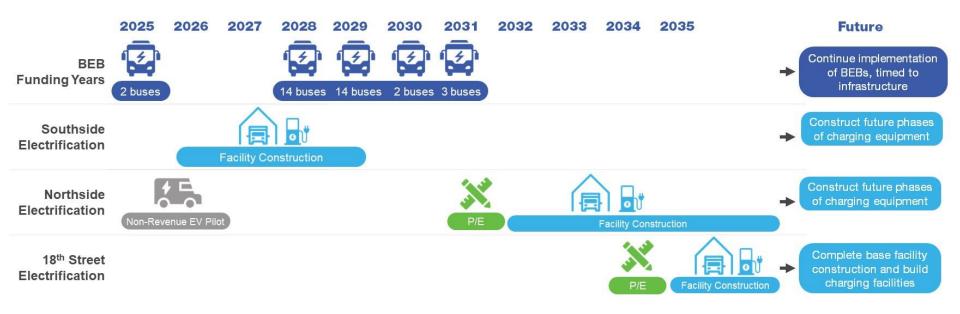
At a Glance

SOUTHSIDE FACILITY VIRGINIA BEACH

- Enhances 757 Express (60 Minutes ➤ 15 Minutes)
- Capacity for 100 buses and 16 seasonal trolleys
- Charging infrastructure for electric buses in Run
- Operating cost savings of \$650,000 per year
- Estimated more than 6,700 new weekday riders
- Estimated more than 7,000 new weekend riders
- Creates 125 new highly skilled jobs in Virginia Beach
- State of the art Net Zero Energy ready
- \$130M project Funded through Federal/State/Local

6

Electrification Funding Timeline



Non-Revenue Vehicle Pilot





Bus Stop Amenity Program





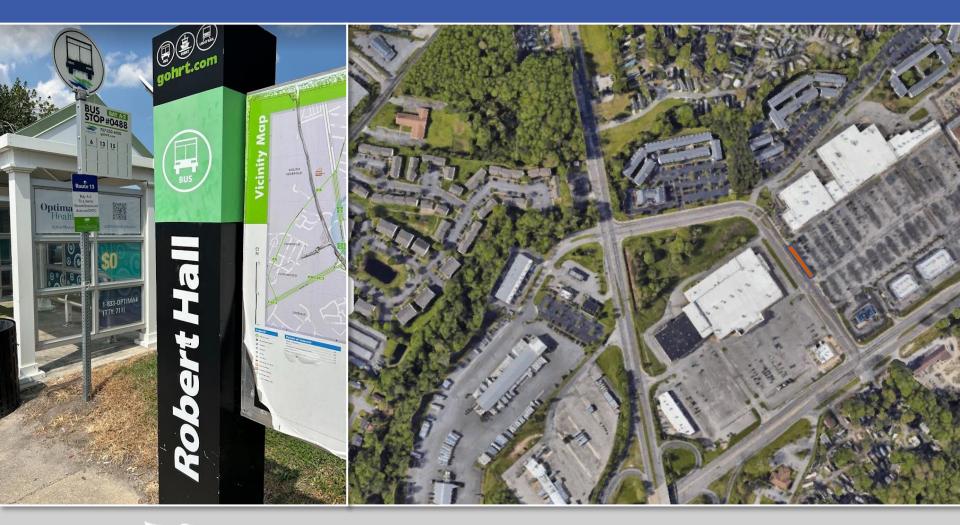


Evelyn T Butts Transit Center Replacement

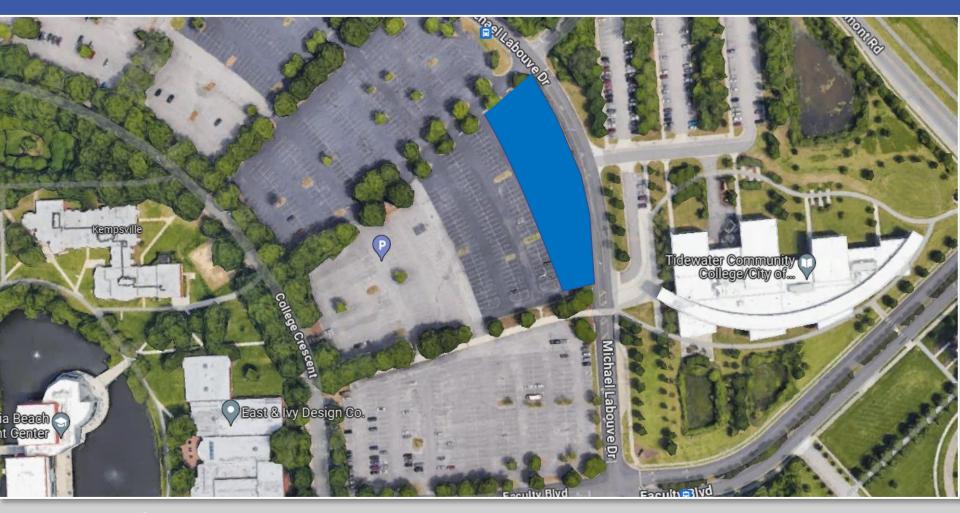




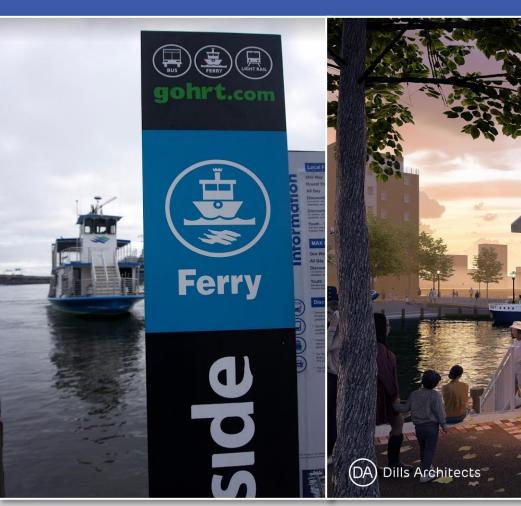
Robert Hall Transfer Area



Tidewater Community College Transfer Area

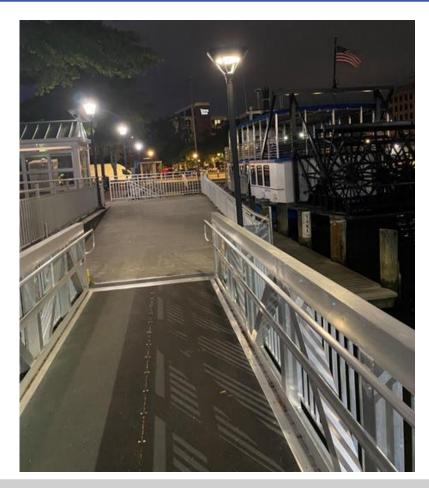


Ferry Docks Amenities



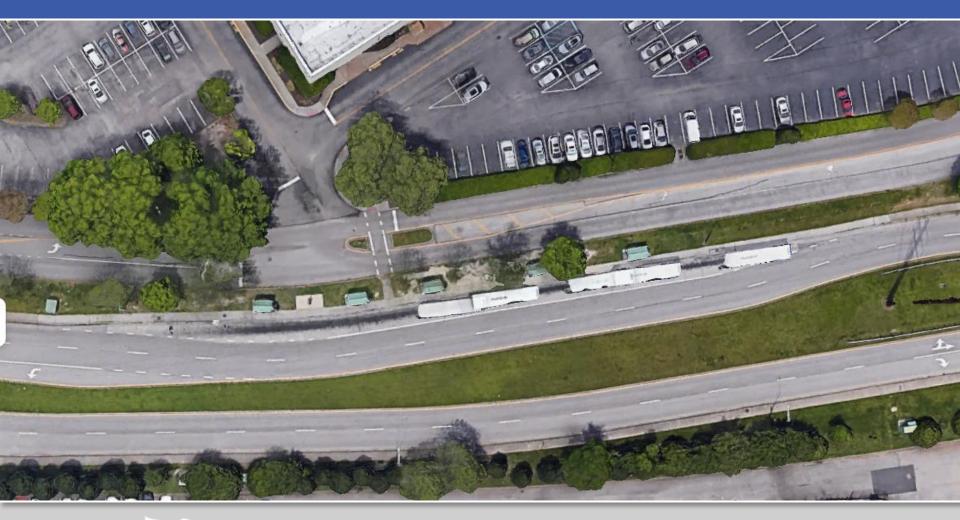


Ferry Docks Amenities





Patrick Henry Mall Transfer Area Concrete Repairs





Light Rail

gohrt.com

Introduction

- The Tide Light Rail is HRT's second-most ridden mode.
- HRT maintains and manages 7 miles of rail guideway, 11 stations, and 9 LRT cars.
- HRT updated its 30-year LRT state-ofgood repair plan during the last CIP cycle

 updated figures are represented in this year's CIP.





Unconstrained List of Light Rail Projects in the CIP

| UID | Project Name | Cost (\$ thousands) |
|------|---|---------------------|
| IT29 | Light Rail APC System Fixed-Side Hardware/Software | \$456 |
| LR01 | Light Rail Right-of-Way State of Good Repair | \$27,813 |
| LR02 | Light Rail Vehicle State of Good Repair | \$20,457 |
| LR04 | Light Rail Station Upgrades | \$5,874 |
| LR06 | Tide Supervisory Control and Data Acquisition (SCADA) | \$7,375 |
| LR48 | Light Rail Facilities State of Good Repair | \$1,748 |
| LR50 | Light Rail Aerial Structures | \$8,873 |
| LR52 | Passenger Facility and Grade Crossing Lighting Improvements | \$267 |
| LR53 | NSU Platform and Stairs Rehabilitation | \$ 1,152 |
| LR54 | Light Rail Crossing Repair/Replacement Design | \$1,399 |
| LR55 | Conduit Signal Upgrades | \$127 |
| LR56 | Light Rail Fare Collection State of Good Repair | \$5,248 |
| LR59 | Military Highway Park and Ride Pedestrian Access Improvements | \$796 |
| | Total | \$81,585 |

Light Rail Vehicle SGR

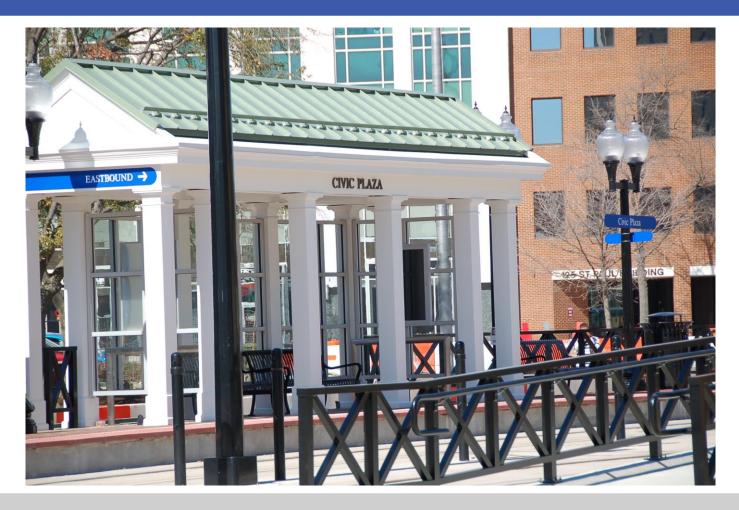




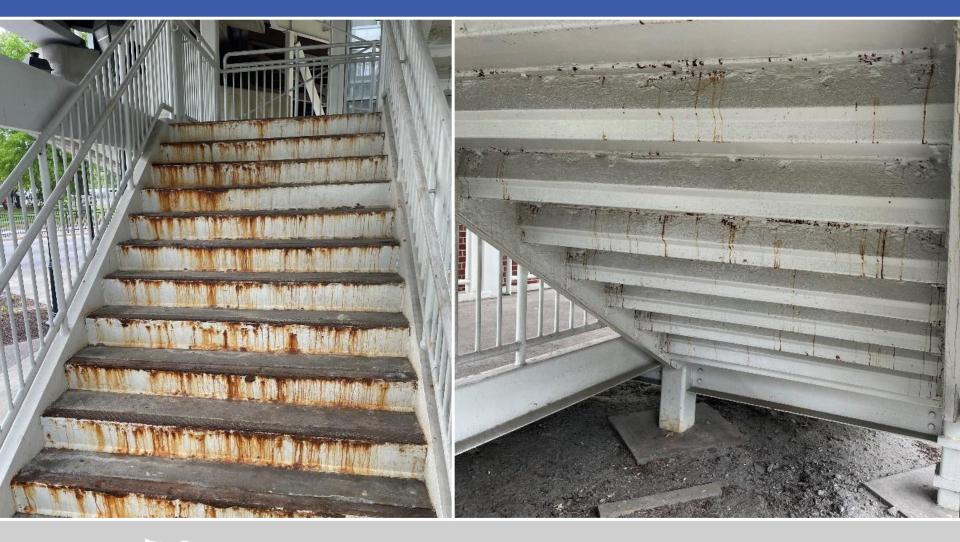
September 2024, Draft



Light Rail Station SGR



NSU Station Rehabilitation



Light Rail Aerial Structures

