



# City of Virginia Beach

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(757) 385-4242  
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MUNICIPAL CENTER  
BUILDING 1, ROOM 234  
2401 COURTHOUSE DRIVE  
VIRGINIA BEACH, VA 23456-9001

March 9, 2018

The Honorable William D. Sessoms, Jr., Mayor  
Members of City Council

**Subject: Shore Drive Corridor: Past, Present, & Future**

Dear Mayor and Members of City Council:

Attached is a memorandum from the Interim Director of Public Works regarding the Shore Drive Corridor.

If you have any questions or need additional information, please contact Deputy City Manager Tom Leahy.

Respectfully,

David L. Hansen  
City Manager

DLH/slc

Attachment

cc: Thomas M. Leahy, Deputy City Manager  
Mark A. Johnson, P.E., Interim Director of Public Works  
Phillip D. Pullen, P.E., Acting City Engineer, Public Works/Engineering  
David S. Jarman, P.E., Transportation Project Management Supervisor, PW/Engineering



# City of Virginia Beach


PUBLIC WORKS  
DIRECTOR'S OFFICE  
(757)-385-8760  
FAX (757) 385-8387  
TTY: 711


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MUNICIPAL CENTER  
BUILDING NUMBER 2  
2504 COURTHOUSE DRIVE  
VIRGINIA BEACH, VA 23456

## INTER-OFFICE MEMORANDUM

**DATE:** March 8, 2018

**TO:** David L. Hansen, City Manager 

**VIA:** Thomas M. Leahy, Deputy City Manager 

**FROM:**  Mark A. Johnson, P.E., Interim Director of Public Works

**SUBJECT:** Shore Drive Corridor: Past, Present, & Future

As requested, City staff has prepared an informational briefing regarding significant projects within the Shore Drive Corridor. This presentation covers completed projects, ongoing projects, and future projects. General details have been included regarding scope, schedule, and budget.

If you have any questions or need any further information, please feel free to contact me.

MAJ/DSJ/wej

Attachment

cc: Phillip D. Pullen, P.E., Acting City Engineer, Public Works/Engineering  
David S. Jarman, P.E., Transportation Project Management Supervisor, PW/Engineering



# SHORE DRIVE CORRIDOR: PAST, PRESENT, & FUTURE

MARCH 13, 2018

# OVERVIEW

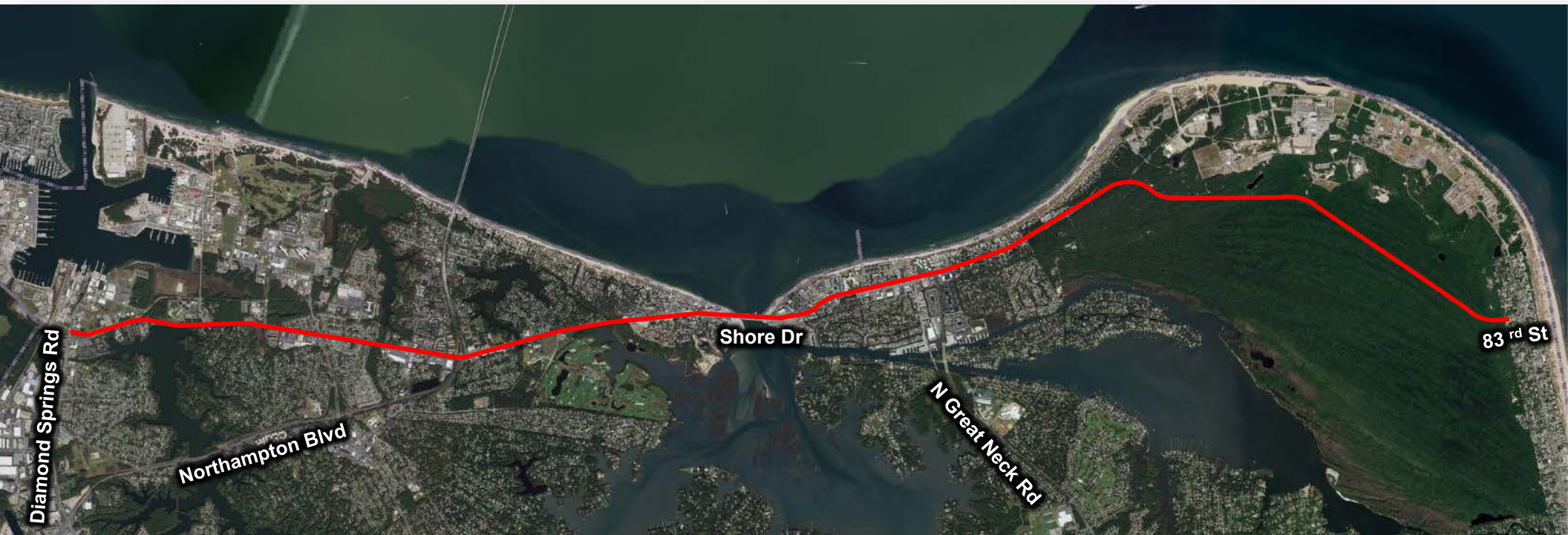
- I. Shore Drive Corridor Overview
- II. Shore Drive Corridor History
- III. Completed Projects
- IV. Current Projects
- V. Future Projects

# I. SHORE DRIVE CORRIDOR LIMITS OVERVIEW



# SHORE DRIVE CORRIDOR OVERVIEW

- Diamond Springs Road to 83<sup>rd</sup> Street
- 9 miles of 4-lane roadway



## II. SHORE DRIVE CORRIDOR HISTORY

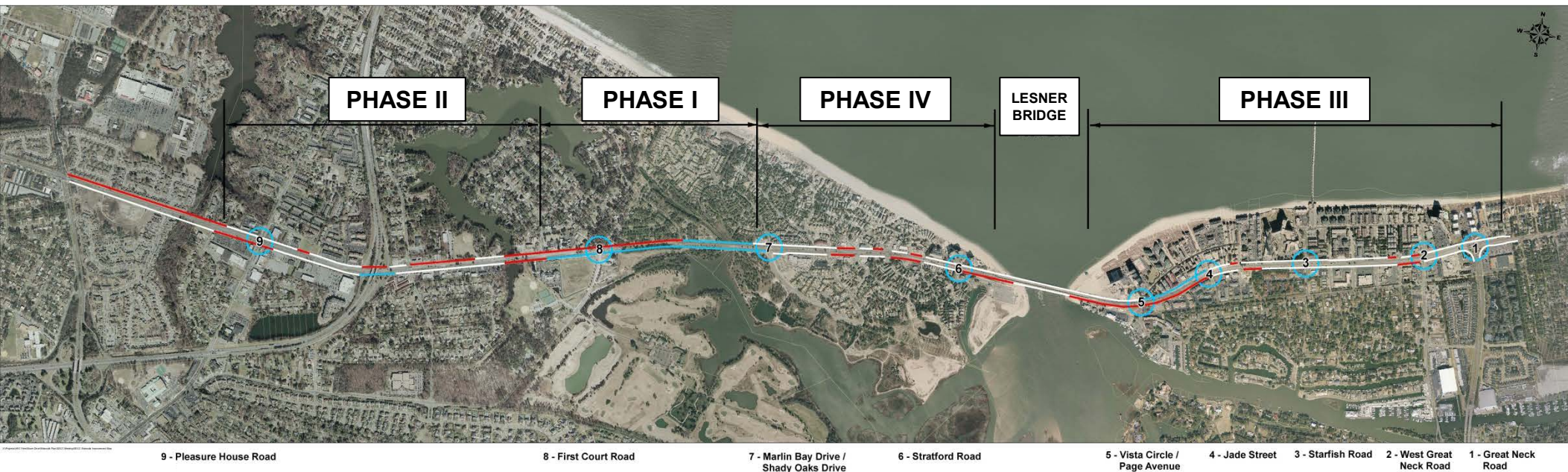
# SHORE DRIVE HISTORY

- **Oct 1997:** Bayfront Study (Shore Drive Corridor Study) performed
- **Feb 1998:** Shore Drive Advisory Committee (SDAC) created
- **Aug 2000:** Shore Drive Transportation Study initiated
- **Jan 2002:** Shore Drive Transportation Study presented to Council
- **Jan 2003:** Shore Drive Demonstration Project design begins
- **Dec 2005:** Council establishes the Shore Drive Safety Task Force
- **May 2006:** Council approves \$1M funding for interim improvements
- **Sep 2006:** Construction begins on the Demonstration Project
- **Nov 2006:** SDAC renamed to Bayfront Advisory Committee (BAC)
- **Jan 2007:** Shore Drive Phase II, III, & IV Projects established by Council
- **Apr 2008:** Construction is completed on the Demonstration Project
- **Dec 2008:** Phase II, III, & IV plans advanced to 30%
- **Jul 2010:** Shore Drive Phase IV Funding transferred to Phase III
- **Jan 2015:** Bayfront Advisory “Committee” changed to “Commission”



# SHORE DRIVE HISTORY CONT'D

- Phases Developed from the 2002 Shore Drive Transportation Study:
  - Phase I (Demonstration Project): Treasure Island Dr to Marlin Bay Dr
  - Phase II: S. Oliver Drive to Treasure Island Drive
  - Phase III: Vista Circle to N. Great Neck Road
  - Phase IV: Marlin Bay Drive to East Stratford Road
  - Lesner Bridge Replacement



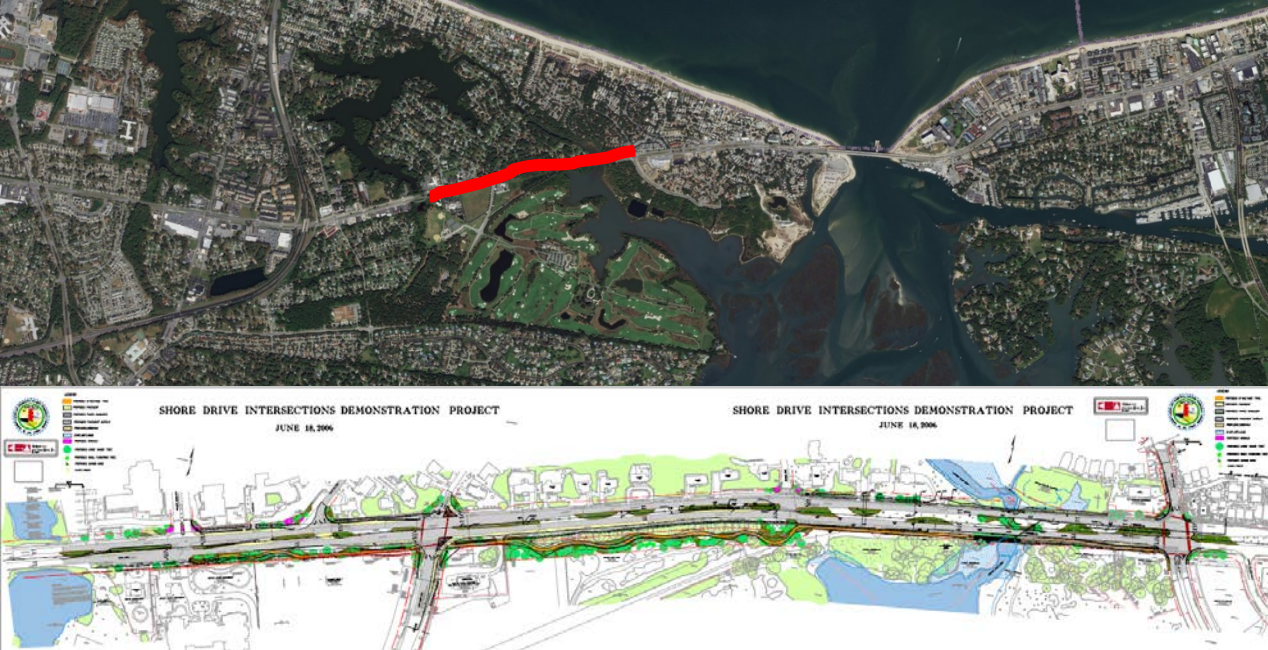
### III. COMPLETED PROJECTS

# SHORE DRIVE COMPLETED PROJECTS

Year Completed	Milestone	CIP #	Total Project Cost
2006	Shore Drive Demonstration Project (Phase I)	2-115	\$ 5,500,000
2006-2010	Shore Drive Interim Safety Improvement Projects	2-731	\$ 1,000,000
2012	Lake Joyce Crossing Project	2-731.003	\$ 520,000
2013	Shore Drive Shoulder Improvements	2-031	\$ 3,000,000
2013	Three Interim Cape Henry Canal Tide Gates	7-151	\$ 1,700,000
2016	Shore Drive Sense of Arrival Project	2-117.001	\$ 104,000
2017	Shore Drive Bike Facilities Project	2-300.101	\$ 4,400,000
2017	Greenwell Road Sidewalk Project	2-300.016	\$ 467,000
2017	Five Interim Lynnhaven Colony Backflow Preventers Installed	7-151	\$ 154,000
		<b>Total:</b>	<b>\$ 16,845,000</b>



# SHORE DRIVE DEMONSTRATION PROJECT (PHASE I) CIP 2-115



- From Treasure Island Drive to Marlin Bay Drive/Shady Oaks Drive
- Included additional turn lanes and upgraded signalization at the intersections of First Court Road and Marlin Bay Drive
- Intersections were also aesthetically enhanced to include extensive landscaping, multi-use paths and sidewalks.
- Construction Completed: 2006
- Total Project Cost: \$5.5M





# SHORE DRIVE INTERIM SAFETY IMPROVEMENTS CIP 2-731

- Safety improvements recommended by the Shore Drive Safety Task Force. Included:
  - Jade Street Right Turn Lane
  - Fatality signs removed and replaced with new community signs
  - Installed pedestrian warning signs, pedestrian countdown heads and solar powered pedestrian warning flashers
  - Installed and Repaired 2,000 LF of sidewalk
  - Refreshed crosswalk markings at all signalized intersections and removed visual obstructions
  - Installed handicap ramps and eastern crosswalk of Shore Drive at Great Neck Road
  - Intersection improvements at Great Neck Road
- Construction Completed: 2006-2010
- Total Project Cost: \$1.0M





## LAKE JOYCE CROSSING CIP 2-731.003

- 10' wide pedestrian bridge and sidewalk connection
- South side of Shore Drive at the Lake Joyce crossing located just west of Treasure Island Drive
- Extends from existing sidewalk located in front of 4357 Shore Drive to the existing sidewalk in front of 4225 Shore Drive
- Approximately 700-feet in length.
- Construction Completed: 2012
- Total Project Cost: \$520K







# SHORE DRIVE SHOULDER IMPROVEMENTS CIP 2-031

- Between Kendall Street & 83<sup>rd</sup> Street (3.5 miles)
- Installation of 4' wide paved shoulders
- Also included street widening, mill and overlay, new rumble strips, thermoplastic markings, and new reflectors
- Construction completed in two phases:
  - Eastbound: November 2011
  - Westbound: March 2013
- Total Project Cost: \$3.0M







# SHORE DRIVE SENSE OF ARRIVAL CIP 2-117.001

- Various Locations along Shore Drive
- Installation of banner flag poles at various locations along the Shore Drive corridor
- To create a "sense of arrival" for the Bayfront area
- Construction completed: May 2016
- Total Project Cost: \$104K





# SHORE DRIVE BIKE FACILITIES

## CIP 2-300.101

- Greenwell Road to Diamond Springs Road (EB & WB) – 3.5 miles
- 5 ft. paved shoulders (EB & WB)
- Included Mill and overlay of Shore Drive (EB & WB), utility relocations, stormwater improvements, traffic signal modifications, installation of guardrails, and curb & gutter.
- Helicopter Road improvements: Lengthened left turn lane (EB) by 900 ft. and right turn lane (WB) by 700ft.
- New left turn lane (WB) at Shore Drive and Jack Frost Road.
- Construction May 2016--Feb. 2017
- TAP Funding
- Total Project Cost: \$4.4M





## GREENWELL ROAD SIDEWALK CIP 2-300.016

- 8-ft Asphalt Path along West side of Greenwell Road from First Court Road to Delco Road
- 5-ft Sidewalk along West side of Greenwell Road from Delco Road to Shore Drive
- Approximately 0.50 miles
- Includes curb and gutter, tree removal and driveway replacement
- Start Construction: April 2017
- Complete Construction: November 2017
- Total Project Cost: \$467K

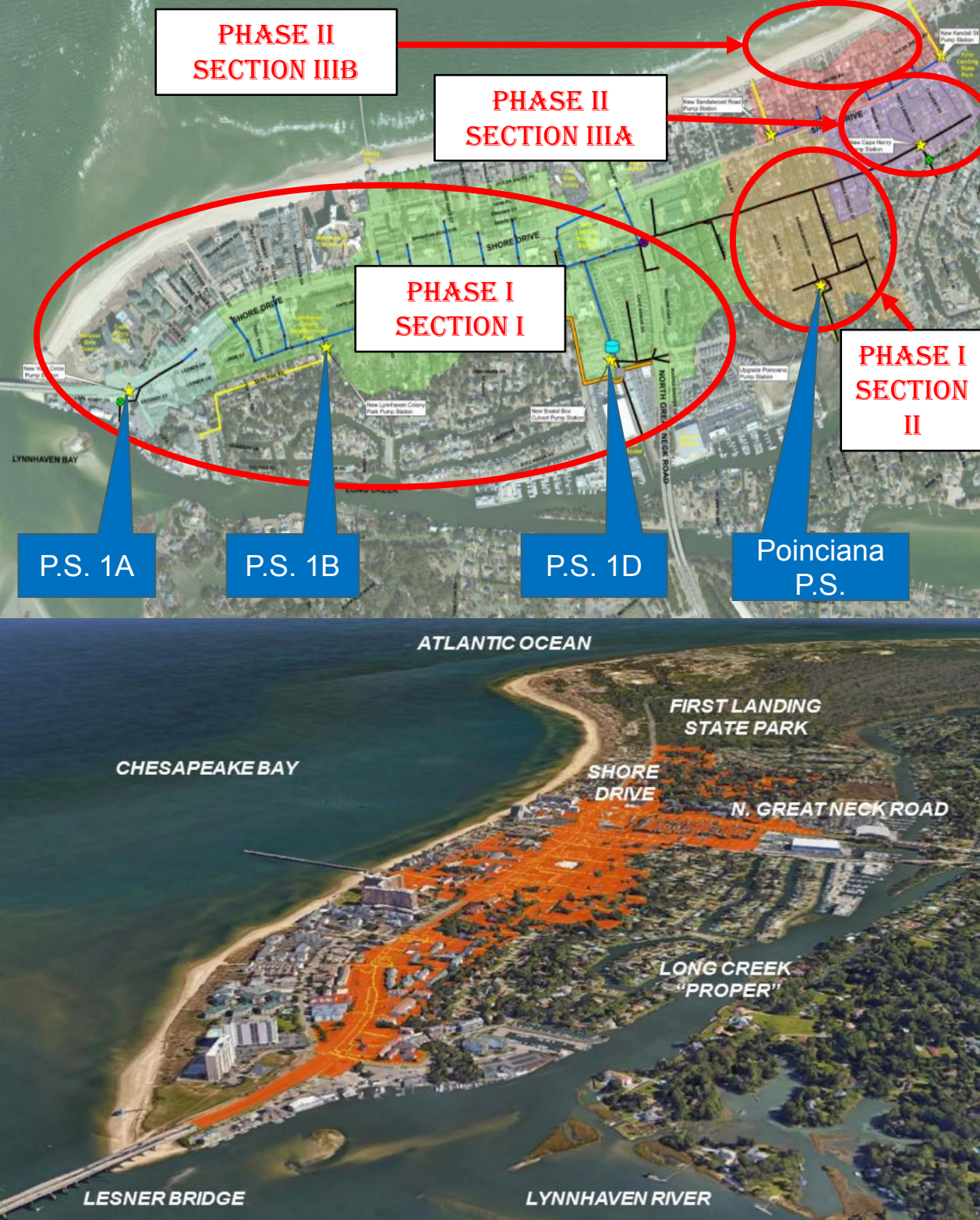


## IV. CURRENT PROJECTS

# ON-GOING PROJECTS

Project	CIP #	Construction Start	Total Project Cost
Eastern Shore Drive Drainage Projects	7-151	2013	\$ 83,200,000
Lesner Bridge Replacement	2-168	2014	\$ 115,800,000
Lesner Municipal Wharf*	2-168	2015	\$ 1,138,799
E. Stratford Rd Intersection Improvements	2-300.119	2018	\$ 600,000
Shore Drive Re-Paving		2018	\$ 300,000
Shore Drive Phase III	2-117	2019	\$ 24,418,000
<b>Total</b>			<b>\$ 225,456,799</b>

\* Pending permit revision approval



# EASTERN SHORE DRIVE DRAINAGE PROJECTS CIP 7-151

- Five Interim Lynnhaven Colony backflow preventers completed December 2013
- Three Interim Cape Henry Canal tide gates completed June 2017
- Interim Cape Henry Canal Improvement to start July 2018
- Multi-phase project
  - Phase I: Fully Funded
  - Phase II: Requested But Not Funded
- Flood control drainage improvements including stormwater collection systems & pump stations
- Total Project Cost: \$83.2M

Figure 1-1. Project Location and Watershed (Orange Area)





Section	Description
1A	Shore Drive – Vista Circle Pump Station and Outfall
1B	Lynnhaven Colony Park Pump Station and Outfall
1C	CHC and Side Street Improvements
1D	Lynnhaven Drive Pump Station, Sluice Gate and Outfall
1E	Elevate Streets and Create Berms
1F	Side Street Improvements North of Shore Drive
1G	Drainage Improvements South of Cape Henry Drive



# EASTERN SHORE DRIVE DRAINAGE PHASE I CIP 7-151

## CURRENT STATUS:

- Cape Henry Canal Interim Improvements - Ph. I – Sect. I 1C.1
  - 15% Design
  - Begin construction in July 2018
  - Estimated Project Cost – \$4.2M
  - Provides an improved drainage outfall for Shore Drive Phase III
- ESDD Ph. I – Sect. I
  - 30% Draft Preliminary Engineering Report Review
  - Includes Sections 1A – 1G
- ESDD Ph. I –Sect. II
  - 30% Engineering Report
  - Modeling for Poinciana Pump Station
- Page Avenue Parcel
  - Being acquired for future pump station as part of the Shore Drive Phase III Roadway project
  - Appraisals are underway





# LESNER BRIDGE REPLACEMENT CIP 2-168



- Replaces existing Lesner Bridge with a Signature Bridge
- Ability to handle 6 lanes of Traffic in Future
- 10-foot shoulders
- 10-foot Multi-Use Path in each direction
- 45-foot Vertical Clearance
- 150-foot minimum Horizontal Clearance
- Started Construction: June 2014
- Currently 86% Complete
- Complete Construction: September 2018
- Total Project Cost: \$115.8M





# LESNER MUNICIPAL WHARF

- Multiple Site uses:
  - Dredged material transfer station
  - Mooring research and survey vessels
  - Bridge maintenance
  - Public Safety response
  - Facilitate oyster reef restoration
- City currently seeking permit modification to change the structure from a temporary to permanent designation to be retained for future municipal uses
- Construction Completed: 2015
- Total Project Cost: \$1.1M







## E. STRATFORD ROAD INTERSECTION IMPROVEMENTS CIP 2-300.119

- Pedestrian crosswalks and other pedestrian accommodations at the intersection of Shore Drive and E. Stratford Road near the Shore Drive Volunteer Fire Department.
- New traffic signal with pedestrian crossing signals
- Currently Under Design
- Fully Funded
- Construction Start : October 2018
- TSI Funding
- Total Project Cost: \$600K





## **Shore Dr Proposed Paving Lesner Bridge to Marlin Bay Dr**

Department of Public Works  
Operations Management



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# SHORE DR. RE-PAVING MARLIN BAY DR. TO LESNER BRIDGE

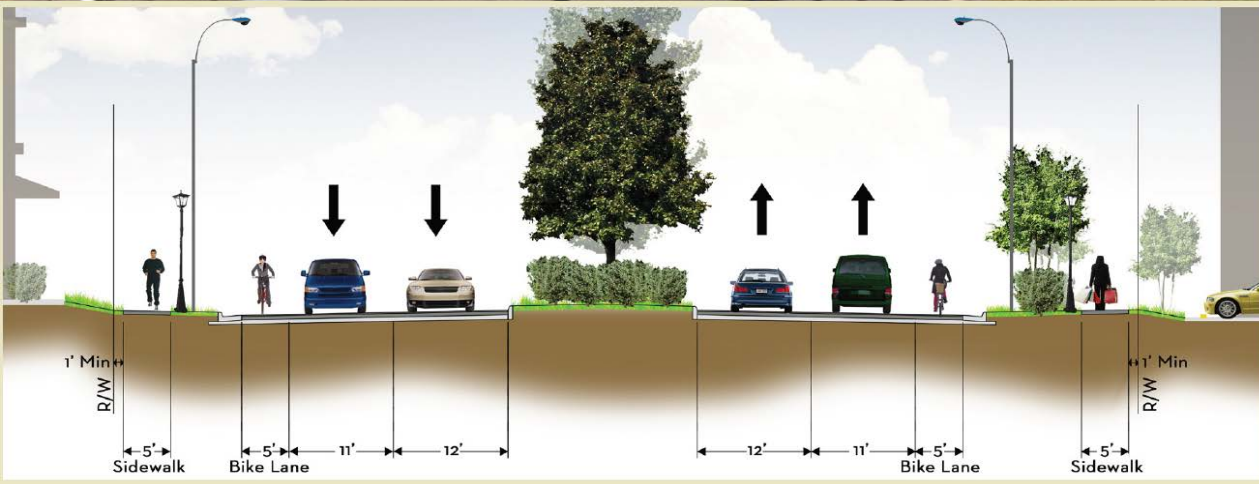
- Scope – Re-pave EB & WB lanes of Shore Dr. from Marlin Bay Dr. to Lesner Bridge
- Schedule - Proposed paving following completion of Lesner Bridge Replacement Project
- To be completed by Annual Service Contractor
- Total Project Cost: \$300K





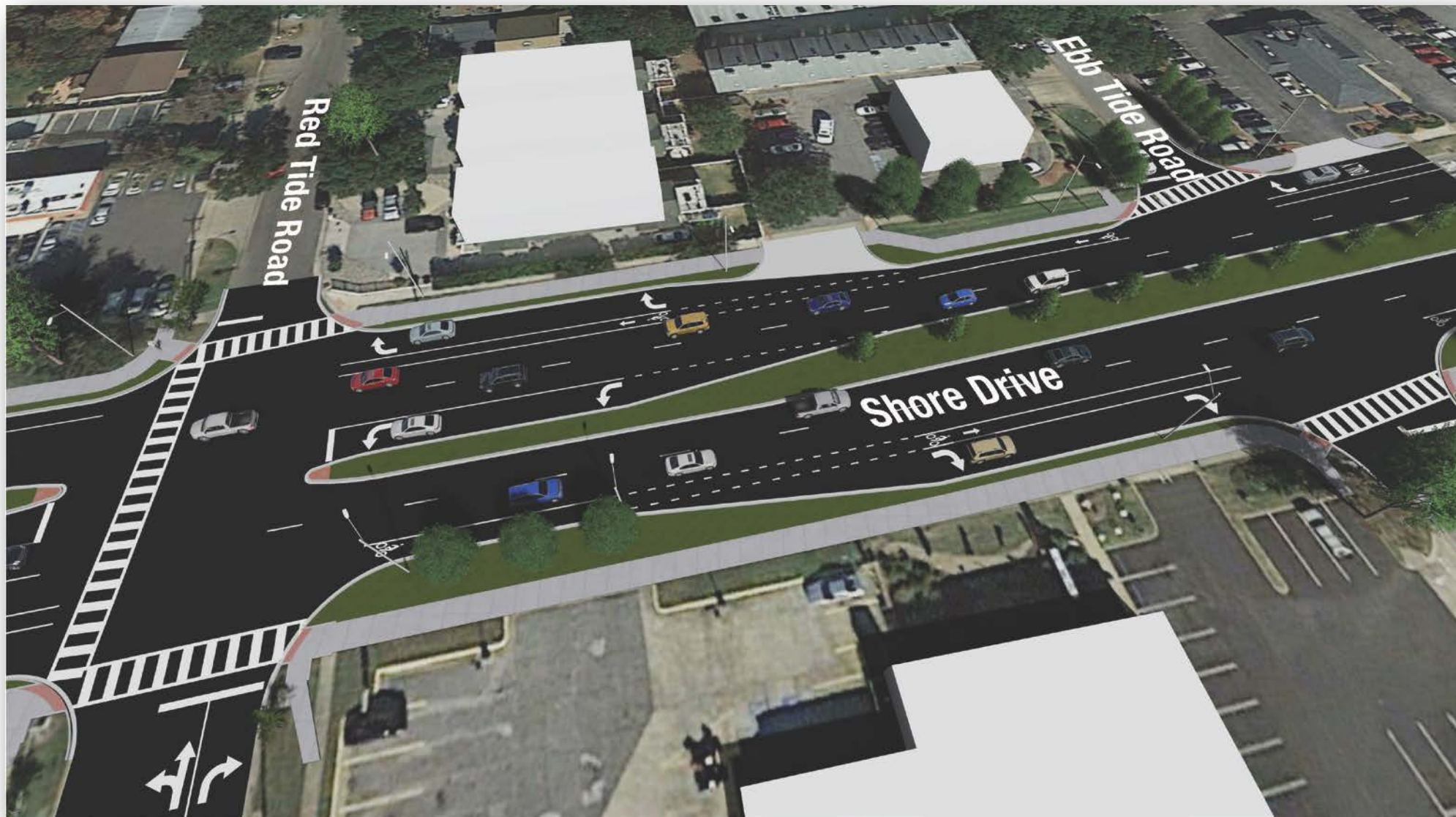
# SHORE DRIVE PHASE III IMPROVEMENTS CIP 2-117

- 1.0 mile segment from Vista Circle to N. Great Neck Road
- Retains 4-lanes—no capacity expansion
- Includes safety improvement for vehicular/ pedestrian traffic, drainage improvements, edge treatments, and multi-use path
- 90% design currently under review
- Utility Relocations – Overhead; undergrounding at signalized intersections
- Start Construction: August 2019
- Complete Construction: August 2021
- Total Project Cost: \$24.4M





# SHORE DRIVE PHASE III RENDERING





# SHORE DRIVE PHASE III RENDERING



## V. FUTURE PROJECTS

# FUTURE PROJECTS

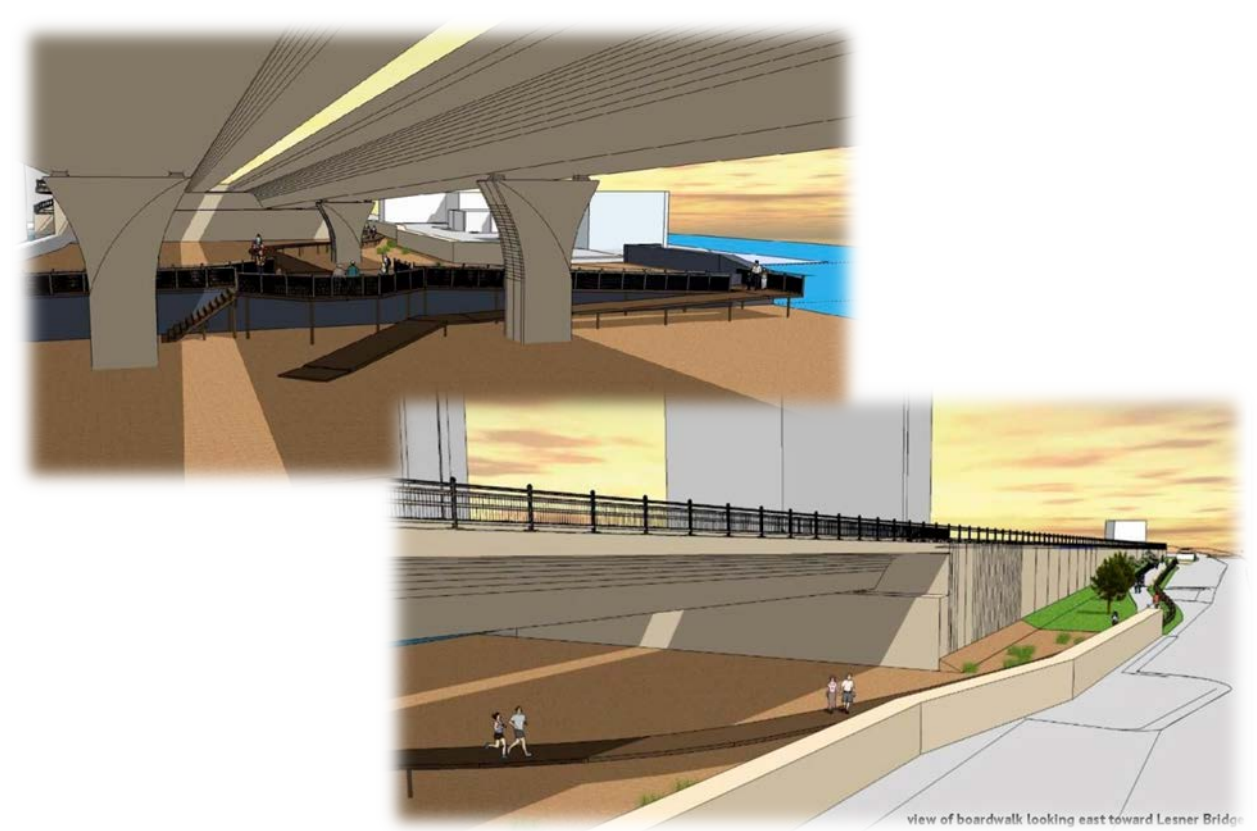
Project	CIP #	Construction Start	Total Project Cost
Waterman's Walk	2-168	2018	\$ 520,000
Pleasure House Road Improvements Ph II	2-057	2022	\$ 3,000,000
Pleasure House Road Improvements Ph I	2-056	2023	\$ 1,300,000
Shore Drive Phase IV*	2-118	2023	\$ 14,258,721
Diamond Springs Road Sidewalk	2-111.013	TBD	\$ 270,000
Shore Drive & Lake Joyce Sidewalk	2-111.019	TBD	\$ 230,000
Shore Drive Phase II	RBNF	TBD	\$ 24,288,000
<b>Total</b>			<b>\$ 43,866,721</b>

\* Pending FY 19 CIP approval

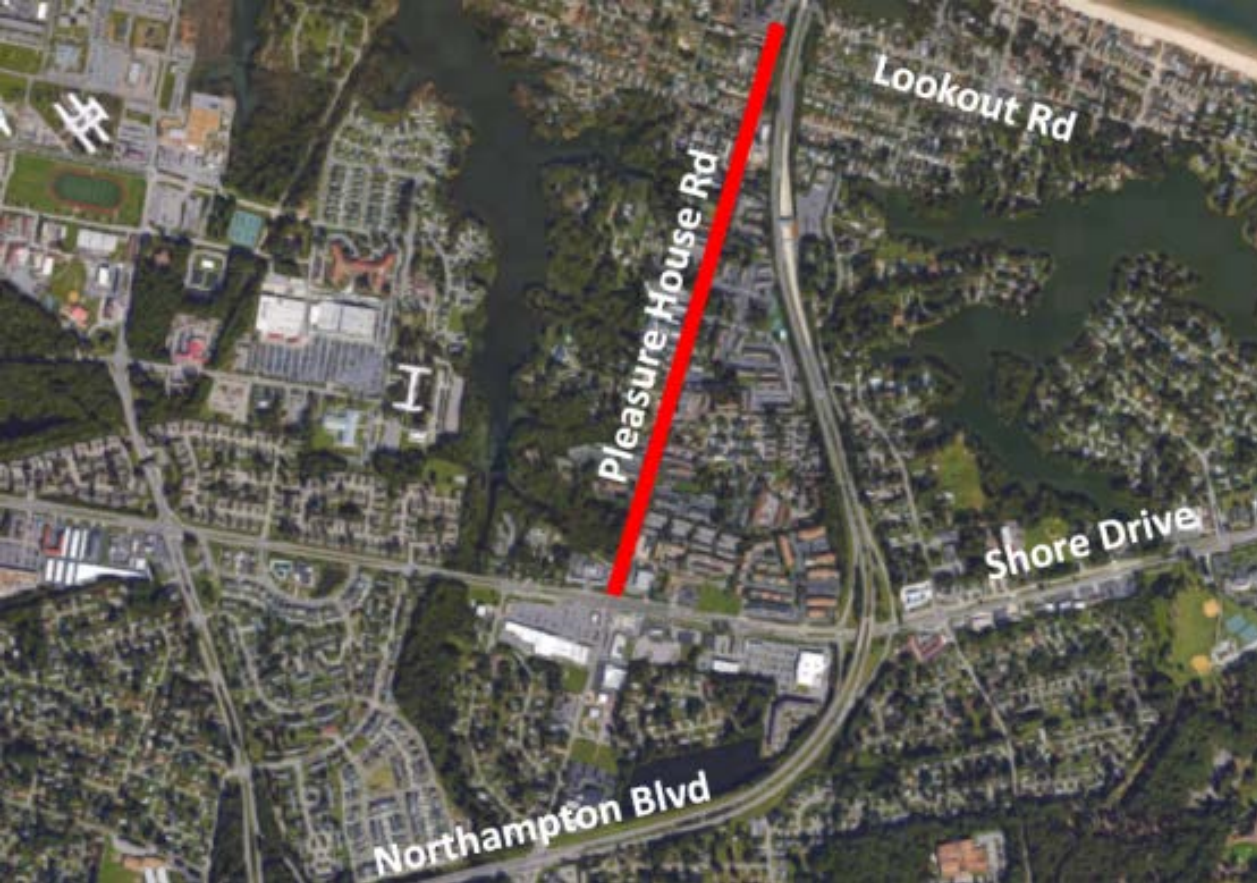


# WATERMAN'S WALK

- Concept originally developed by the Urban Land Institute as part of their concept plan for the Shore Drive Corridor in the 1990's
- Connects Vista Circle to the beach at Lynnhaven Inlet and the new Point Chesapeake development via an 8-foot wide path
- Transitions from concrete to wood path and includes observation deck
- Start Construction: Fall 2018
- Total Project Cost: \$520K







## PLEASURE HOUSE ROAD IMPROVEMENTS PHASE II CIP 2-057

- Street and Safety Improvements from Shore Drive to Lookout Road (0.9 miles)
- Pavement Rehabilitation
- Storm Drainage
- Bike Accommodations
- Concrete Sidewalk
- Start Design: July 2019
- Start Construction: July 2022
- Total Project Cost: \$3.0M



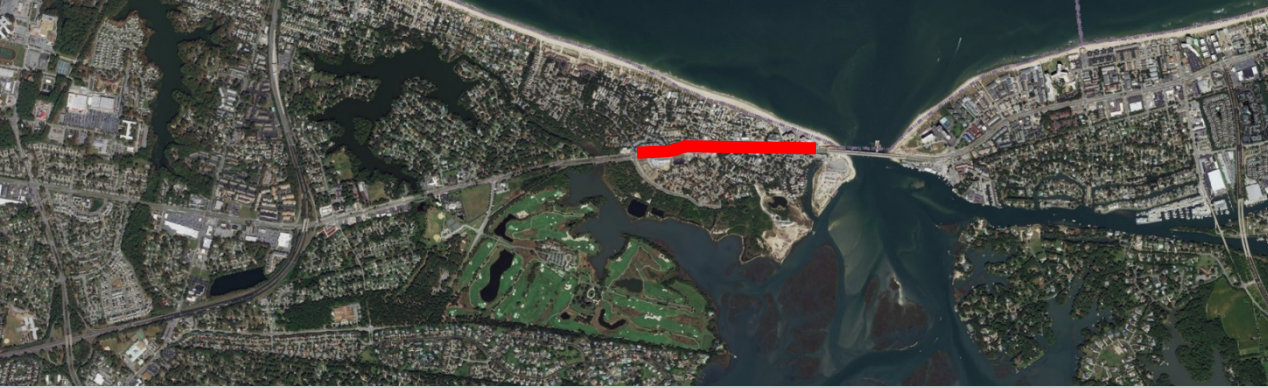




# PLEASURE HOUSE ROAD IMPROVEMENTS PHASE I CIP 2-056

- Street and Safety Improvements from Northampton Blvd to Shore Drive (0.4 miles)
- New Curb and Gutter
- Pavement Rehabilitation
- Storm Drainage
- Bike Accommodations
- Concrete Sidewalk
- Start Design: July 2020
- Start Construction: July 2023
- Total Project Cost: \$1.3M





## SHORE DRIVE PHASE IV IMPROVEMENTS CIP 2-118

- 0.6 mile segment from Marlin Bay Drive to East Stratford Road
- Retains 4-lanes—no capacity expansion
- Includes safety improvements, edge treatments, and multi-use paths
- Currently at 15% design
- Total Project Cost: \$14.2M





# DIAMOND SPRINGS ROAD SIDEWALK CIP 2-111.013

- Install 5' wide concrete sidewalk at various locations along Diamond Springs Road between Northampton Blvd and Shore Drive
- Approximate total of 1600 feet
- TSI Funding
- Currently Funded, Design Pending
- Total Project Cost: \$270K





# SHORE DRIVE & LAKE JOYCE SIDEWALK CIP 2-111.019

- Install 5' wide concrete sidewalk on North side of Shore Drive at Lake Joyce near the Leaping Lizard Restaurant
  - 150' section near Leaping Lizard (1)
  - 250' section near Lake Joyce (2)
- Provides connectivity between existing sections of sidewalk
- TSI Program
- Not Currently Funded
- Total Project Cost: \$230K





## SHORE DRIVE PHASE II IMPROVEMENTS CIP 2-116

- 1 mile segment from South Oliver Drive to Treasure Island Drive
- Improve safety and vehicular/pedestrian traffic flow
- Enhance the corridor with aesthetic elements such as landscaping, hardscape, and lighting
- Requested But Not Funded
- Total Project Cost: \$24.3M



# DISCUSSION