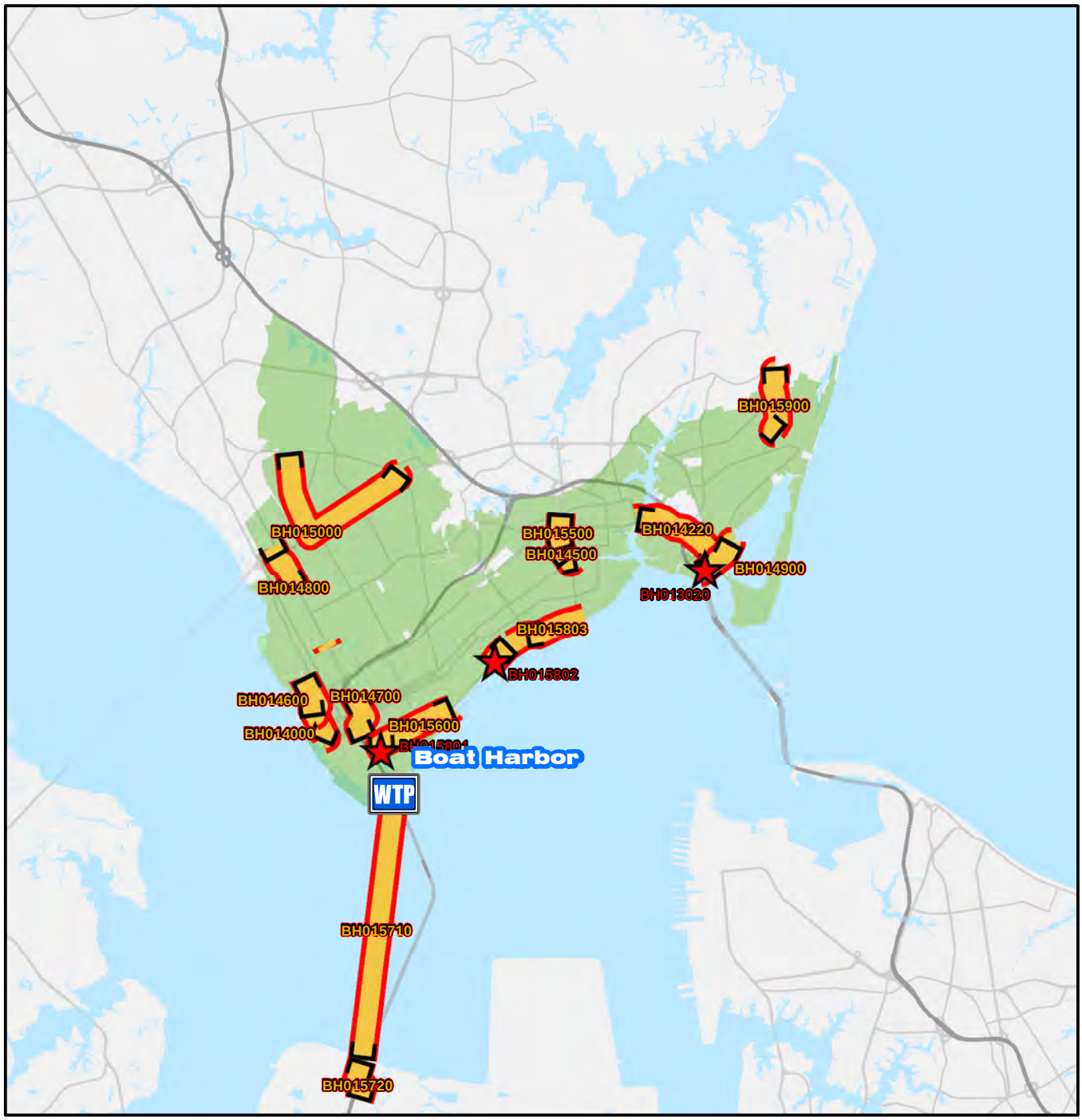
Boat Harbor Treatment Plant

Photo Credit: VDOT



Legend

- WTP — Boat Harbor Treatment Plant
- ★ CIP Interceptor Point
- ☆ CIP Pump Station Point
- CIP Interceptor Line
- CIP Abandonment
- Treatment Plant Service Area
- HRSD Interceptor Force Main
- HRSD Interceptor Gravity Main
- WTP HRSD Treatment Plant
- PRS HRSD Pressure Reducing Station
- PS HRSD Pump Station

0 3,600 7,200 14,400 21,600 28,800 Feet

Boat Harbor Treatment Plant Service Area CIP Projects

Treatment Plant Projects

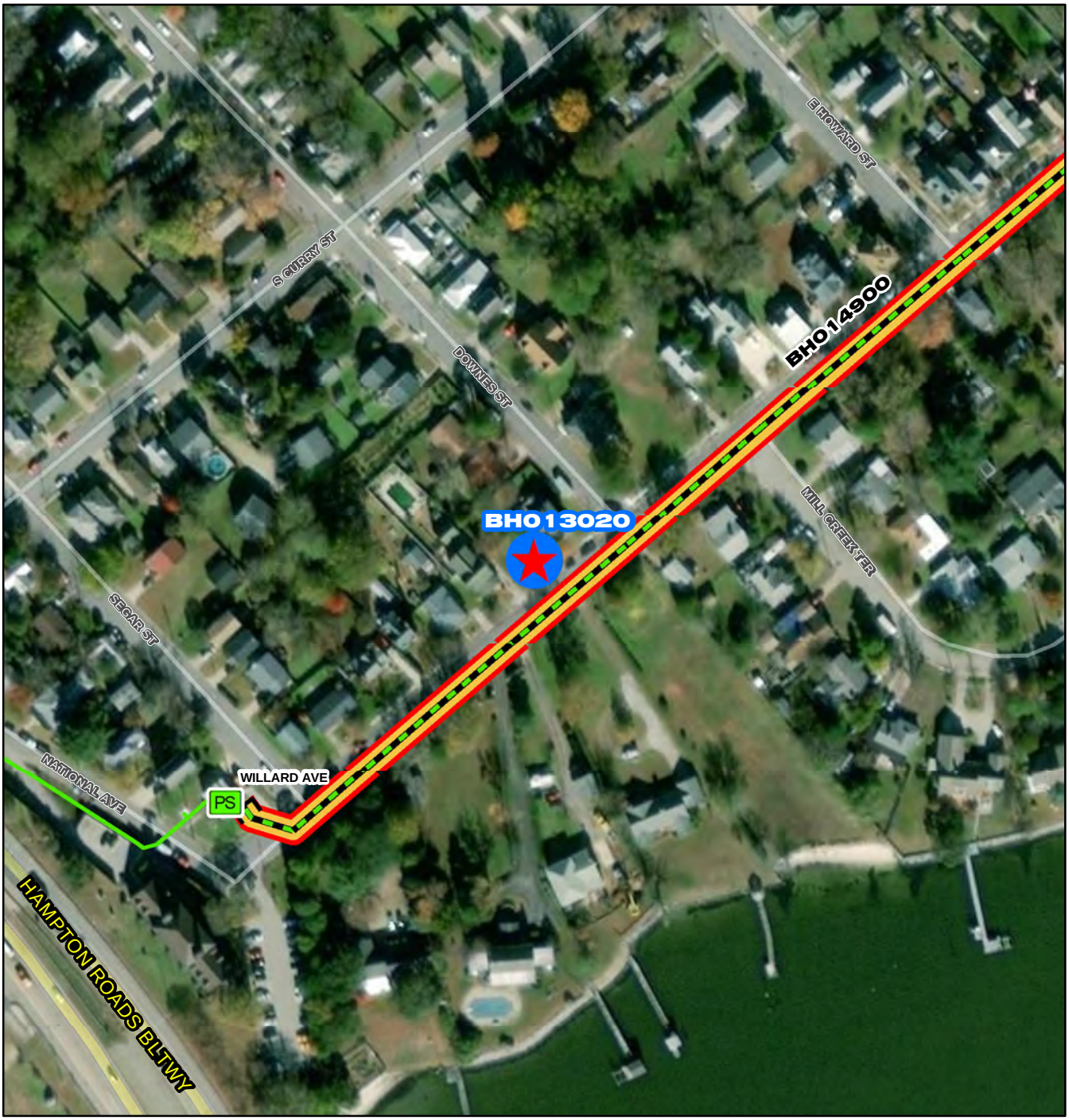
BH015300
BH015700
BH015710
BH015720

HRSD

N

CIP Location

Service Area



BH013020

- Project Interceptor Line
- Project Interceptor Point
- Project Pump Station Point
- Project Area

Legend

- CIP Interceptor Point
- CIP Pump Station Point
- CIP Interceptor Line
- CIP Abandonment
- CIP Project Area
- HRSD Interceptor Force Main
- HRSD Interceptor Gravity Main
- WTP HRSD Treatment Plant
- PRS HRSD Pressure Reducing Station
- PS HRSD Pump Station

0 55 110 220 330 440 Feet

BH013020

Willard Avenue Pump Station Replacement

HRSD

N
W E
S

CIP Location

Hampton

Willard Avenue Pump Station Replacement

PR_BH013020

System: Boat Harbor
Type: Pump Stations

Driver Category: Capacity Improvements
Project Status: Design
Regulatory: None

Prog Cost	Exp to Previous Year	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30
$9,991	$637	$3,748	$5,601	$5	$0	$0	$0	$0	$0	$0	$0

PROJECT DESCRIPTION

This project includes the replacement of the Willard Avenue Pump Station (PS) to address conditional issues. The proposed replacement will include a relocated pump station and new gravity and force main connections to the existing systems.

PROJECT JUSTIFICATION

This project will improve pump station capacity for the service area and reduce operation and maintenance demands. The existing Willard Avenue Pump Station is located at 219 National Avenue in Hampton, Virginia. The Station serves portions of Buckroe, Woodland and Phoebus including Fort Monroe and receives flow from multiple City Pump Stations and the HRSD Bay Shore Lane Pump Station. Flows can be diverted from the York River WWTP collection system to the Willard Avenue Pump Station through a valved connection at the HRSD Woodland Road Pump Station. The station discharges flows through a 30-inch force main to a gravity sewer manhole in downtown Hampton. A new force main is planned to realign the Hampton Trunk Sewer Extension Divisions I & J Phase II to remove the pipeline from the Hampton University campus. A new pump station will accommodate a wide range of wet weather flows as well as offer operational flexibility during dry weather periods. The following items are justification for completing this project: The existing pump station was constructed in 1944. At 75 years old, it is nearing the end of its anticipated useful life. The existing pump station parcel is only 0.14 acres, which does not allow for any expansion and does not meet our current parcel size standards for a new pump stations site. Furthermore, building a new pump station at this location will be challenging given the close proximity to residents. HRSD will need to acquire a new parcel in the vicinity of the existing PS to build a new one. Upon completion of the new PS, the existing PS will be demolished and the parcel transferred or sold.

FUNDING TYPE

Funding Type: Clean Water Proposed

CONTACTS

Contacts-Requesting Dept: Operations-Interceptors
Contacts-Dept Contacts: Eddie Abisaab
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	01/01/2019
PER	05/02/2019
Design Delay	10/01/2019
Design	10/02/2019
Bid Delay	08/01/2020
PreConstruction	08/01/2020
Construction	11/01/2020
Closeout	07/01/2022

COST ESTIMATE

Cost Estimate Class:	**Class 3**
PrePlanning	$2,000
PER	$102,440
Design	$536,026
PreConstruction	$5,000
Construction	$9,340,653
Closeout	$5,000
Est. Program Cost	**$9,991,119**
Contingency Budget	$1,868,131
Est. Project Costs	**$11,859,250**

BH014000

- Project Interceptor Line
- Project Interceptor Point
- Project Pump Station Point
- Project Area

Legend

- CIP Interceptor Point
- CIP Pump Station Point
- CIP Interceptor Line
- CIP Abandonment
- CIP Project Area
- HRSD Interceptor Force Main
- HRSD Interceptor Gravity Main
- WTP HRSD Treatment Plant
- PRS HRSD Pressure Reducing Station
- PS HRSD Pump Station

0 180 360 720 1,080 1,440 Feet

BH014000

West Avenue and 35th Street Interceptor Force Main Replacement

HRSD

N
W E
S

CIP Location

Newport News

West Avenue and 35th Street Interceptor Force Main Replacement

PR_BH014000

System: Boat Harbor
Type: Pipelines

Driver Category: I&I Abatement-Rehabilitation Plan
Project Status: Proposed
Regulatory: Rehab Plan Phase Two

Prog Cost	Exp to Previous Year	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30
$3,665	$38	$265	$1,108	$2,252	$3	$0	$0	$0	$0	$0	$0

PROJECT DESCRIPTION

This project will replace approximately 3,750 linear feet (LF) of cast iron force main, primarily along West Avenue and 35th Street in the City of Newport News. Approximately 1,000 ft of the force main is 20-inch, 250 ft is 18-inch, and 2,500 ft is 12-inch pipe.

PROJECT JUSTIFICATION

North Shore Operations has experienced six breaks on this line. Two occurred in the late 1990's, one occurred in 2008, two occurred in late 2010, and the most recent break was in early 2013. The breaks have occurred due to a variety of reasons, the two in 2010 occurred due to multiple stress fractures along the crown and a circumferential crack, respectively. The most recent break (2013) was also a stress fracture that occurred between the spring line and crown of the pipe.

In addition to the poor track record that North Shore Operations has on this pipe, it should be noted that this force main is a cast iron (CI) pipe that was installed in the 1940's. CI is a brittle material that is susceptible to soil settlement and local loading that sometimes leads to localized longitudinal factures.

FUNDING TYPE

Funding Type: Revenue Bond

CONTACTS

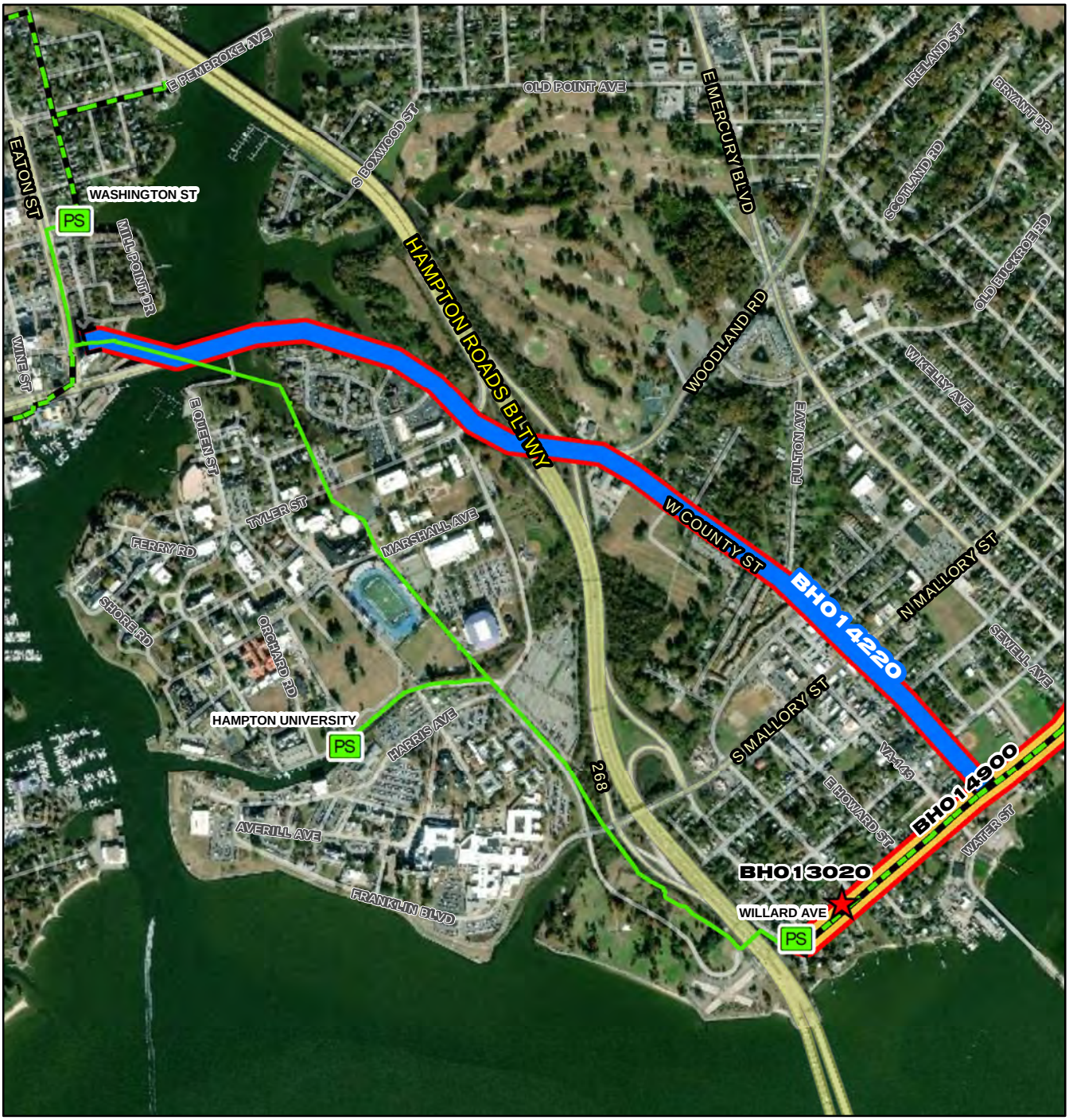
Contacts-Requesting Dept: Operations-Interceptors
Contacts-Dept Contacts: Sam McAdoo
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	01/01/2020
PER	04/01/2020
Design Delay	11/01/2020
Design	11/01/2020
Bid Delay	10/01/2021
PreConstruction	10/01/2021
Construction	02/01/2022
Closeout	06/01/2023

COST ESTIMATE

Cost Estimate Class:	**Class 5**
PrePlanning	$0
PER	$88,346
Design	$294,430
PreConstruction	$5,000
Construction	$3,272,017
Closeout	$5,000
Est. Program Cost	**$3,664,793**
Contingency Budget	$818,005
Est. Project Costs	**$4,482,798**



BH014220

- Project Interceptor Line
- Project Interceptor Point
- Project Pump Station Point
- Project Area

Legend

- CIP Interceptor Point
- CIP Pump Station Point
- CIP Interceptor Line
- CIP Abandonment
- CIP Project Area
- HRSD Interceptor Force Main
- HRSD Interceptor Gravity Main
- WTP HRSD Treatment Plant
- PRS HRSD Pressure Reducing Station
- PS HRSD Pump Station

0 395 790 1,580 2,370 3,160 Feet

BH014220

Hampton Trunk Sewer Extension
Divisions I and J Relocation Phase II

HRSD

N
W E
S

CIP Location

Hampton

Hampton Trunk Sewer Extension Divisions I and J Relocation Phase II

PR_BH014220

System: Boat Harbor
Type: Pipelines

Driver Category: Relocation
Project Status: Design
Regulatory: None

Prog Cost	Exp to Previous Year	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30
$15,540	$1,048	$6,300	$7,548	$644	$0	$0	$0	$0	$0	$0	$0

PROJECT DESCRIPTION

This project includes the replacement of 7,500 linear feet (LF) of 30-inch force main (FM) from the new Willard Avenue Pump Station (PS) with 6,800 LF of new 24-inch FM. The new force main will originate from the new Willard Ave PS to the connection at E. Queen Street and Eaton Street. The location of the new Willard Ave PS is still pending and may impact the alignment of the FM. The following ancillary work will be required as part of this project:
A 600 LF extension of the 10-inch FM from City of Hampton PS 003.
A 1000 LF relocation of the 4-inch FM from the privately owned Hampton Harbor PS.
Conveyance of Hampton University PS (Sta. #211) to Hampton University or the Veteran Affairs Medical Center.

PROJECT JUSTIFICATION

In combination with CIP BH014210, this project will address critical areas within the City of Hampton with significant wet weather capacity issues as identified in the Hampton Study completed by Brown and Caldwell (BC). The Hampton Study was a collaborative effort between BC, the City of Hampton and HRSD to identify, evaluate, and select the preferred alternatives to address the identified capacity issues. The existing Willard Avenue PS 30-inch discharge FM was originally installed in the 1945-46 timeframe, with a portion of the main relocated in 1956 as part of the Interstate-64 (I-64) project. Given the age of this line, the documented failure near the I-64 sound wall, limited diversion options, its depth in the vicinity of the interstate off ramp, and Hampton University's request for HRSD to abandon this pipe, replacement is necessary.

FUNDING TYPE

Funding Type: Revenue Bond

CONTACTS

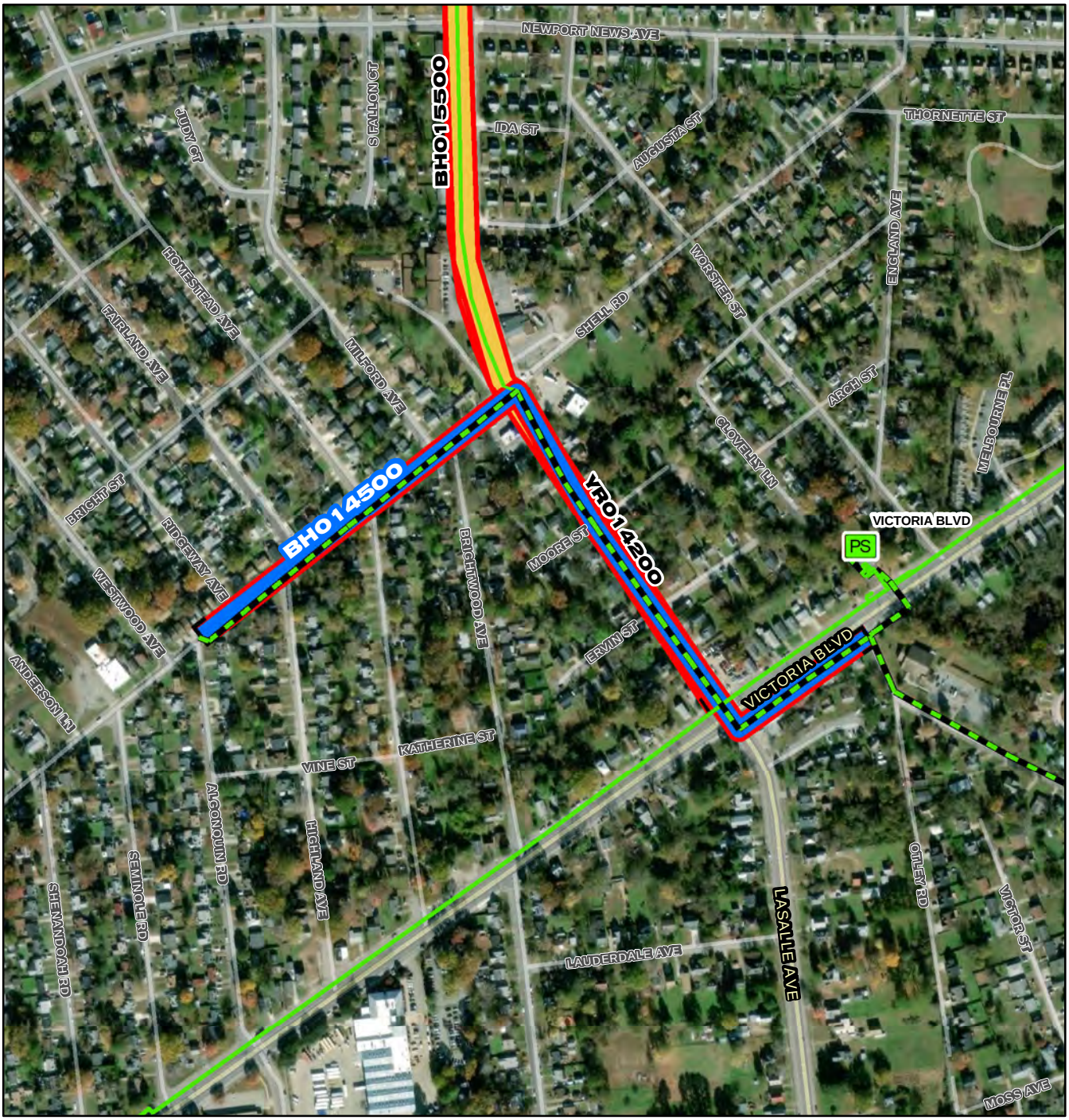
Contacts-Requesting Dept: Operations-Interceptors
Contacts-Dept Contacts: Eddie Abisaab
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	05/01/2015
PER	01/01/2016
Design Delay	07/01/2016
Design	07/01/2018
Bid Delay	06/01/2020
PreConstruction	06/01/2020
Construction	09/01/2020
Closeout	08/01/2022

COST ESTIMATE

Cost Estimate Class:	**Class 2**
PrePlanning	$1,462
PER	$85,020
Design	$956,800
PreConstruction	$15,000
Construction	$14,466,926
Closeout	$15,000
Est. Program Cost	**$15,540,208**
Contingency Budget	$2,893,385
Est. Project Costs	**$18,433,593**



BH014500

- Project Interceptor Line
- Project Interceptor Point
- Project Pump Station Point
- Project Area

Legend

- CIP Interceptor Point
- CIP Pump Station Point
- CIP Interceptor Line
- CIP Abandonment
- CIP Project Area
- HRSD Interceptor Force Main
- HRSD Interceptor Gravity Main
- WTP HRSD Treatment Plant
- PRS HRSD Pressure Reducing Station
- PS HRSD Pump Station

0 155 310 620 930 1,240 Feet

BH014500

Ivy Home-Shell Road Sewer Extension Division I Replacement

HRSD

N
W E
S

CIP Location

Hampton

Ivy Home-Shell Road Sewer Extension Division I Replacement

PR_BH014500

System: Boat Harbor
Type: Pipelines

Driver Category: I&I Abatement-Rehabilitation Plan
Project Status: PER
Regulatory: Rehab Plan Phase Two

Prog Cost	Exp to Previous Year	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30
$2,088	$74	$16	$585	$1,414	$0	$0	$0	$0	$0	$0	$0

PROJECT DESCRIPTION

This project will involve diversion of the LaSalle Avenue Sanitary Sewer Force Main (NF-085) in the City of Hampton from the current discharge manhole at the intersection of LaSalle Avenue to Shell Road to an alternative downstream manhole at the intersection of Victoria Boulevard and Ivy Home Road. This diversion would significantly reduce the hydraulic grade line (HGL) in the HRSD gravity sewer and address the capacity concern identified in the regional hydraulic model. The Preliminary Engineering Report (PER) for this project found that abandonment and replacement of the existing HRSD gravity sewer was not feasible due to conflicts with storm sewers and other utilities along the replacement corridor. This project should be coordinated with the Regional Wet Weather Master Plan. Manholes in the Ivy Home-Shell Road area that were identified for rehabilitation under Phase 2 of the rehab plan were removed from the scope of this project and included in GN012130.

PROJECT JUSTIFICATION

This project will address critical areas within the City of Hampton with significant wet weather capacity issues as identified in the Hampton Study completed by Brown and Caldwell (BC). This project should be coordinated with the Regional Wet Weather Master Plan. The Hampton Study was a collaborative effort between BC, the City of Hampton and HRSD to identify, evaluate and select the preferred alternatives to address the identified capacity issues. The gravity reroute to 001-PS was identified as the preferred alternative (Alternative 1B) for the Ivy Home Road/Chesapeake Avenue area. This alternative includes increasing the size of the main gravity pipe discharging into the Victoria Boulevard Pump Station (PS), thus, increasing sewer capacity for that service area. The increased capacity of this line, combined with the modifications rerouting flow from the Ivy Home Road sewer to the Victoria Boulevard PS, will facilitate capacity improvements to the Chesapeake Avenue gravity sewer (Alternative 2A - Pump Station and Force Main).

FUNDING TYPE

Funding Type: Revenue Bond

CONTACTS

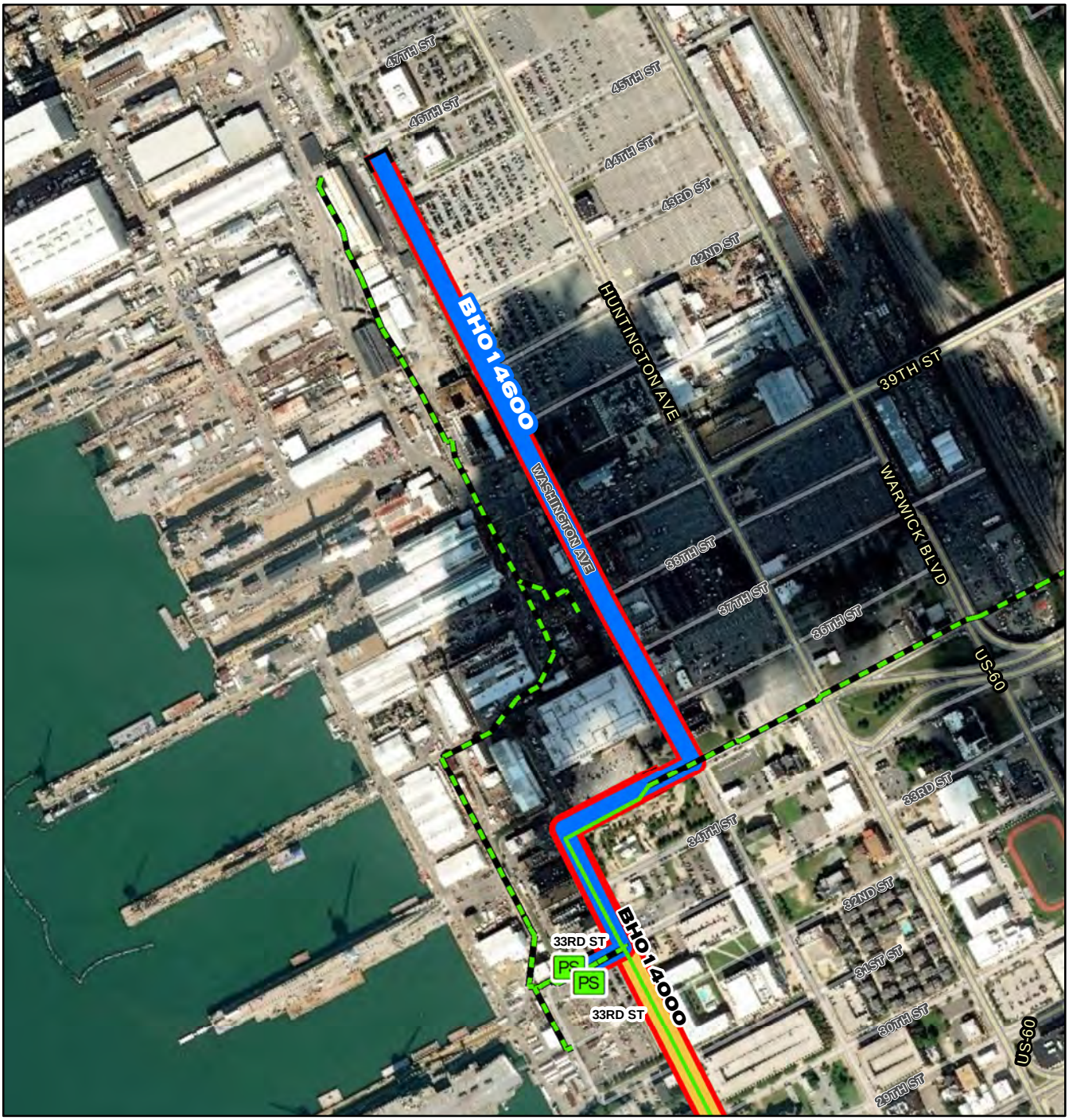
Contacts-Requesting Dept: Operations-Interceptors
Contacts-Dept Contacts: Phil Hughes
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	05/01/2015
PER	01/01/2016
Design Delay	06/01/2016
Design	06/01/2021
Bid Delay	02/01/2022
PreConstruction	02/01/2022
Construction	04/01/2022
Closeout	04/01/2023

COST ESTIMATE

Cost Estimate Class:	**Class 5**
PrePlanning	$689
PER	$73,329
Design	$125,775
PreConstruction	$5,000
Construction	$1,878,240
Closeout	$5,000
Est. Program Cost	**$2,088,033**
Contingency Budget	$155,856
Est. Project Costs	**$2,243,889**



BH014600

- Project Interceptor Line
- Project Interceptor Point
- Project Pump Station Point
- Project Area

Legend

- CIP Interceptor Point
- CIP Pump Station Point
- CIP Interceptor Line
- CIP Abandonment
- CIP Project Area
- HRSD Interceptor Force Main
- HRSD Interceptor Gravity Main
- WTP HRSD Treatment Plant
- PRS HRSD Pressure Reducing Station
- PS HRSD Pump Station

0 210 420 840 1,260 1,680 Feet

BH014600

46th Street Diversion Sewer Rehabilitation Replacement

HRSD

N
W E
S

CIP Location

Hampton

46th Street Diversion Sewer Rehabilitation/Replacement

PR_BH014600

System: Boat Harbor
Type: Pipelines

Driver Category: I&I Abatement-Rehabilitation Plan
Project Status: Design
Regulatory: Rehab Plan Phase Two

Prog Cost	Exp to Previous Year	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30
$11,791	$1,044	$3,111	$7,039	$597	$0	$0	$0	$0	$0	$0	$0

PROJECT DESCRIPTION

This project will involve the rehabilitation and/or replacement of the main sanitary sewer trunk line on Newport News Shipbuilding property. The timing of these infrastructure improvements will need to be sequenced with the Newport News Shipyard (NNS) in accordance with an agreement to be drafted and executed prior to the construction phase. This project will include the installation of a new main sanitary sewer trunk line in the City right-of-way outside of NNS property, which will divert public flow from the sewer trunk line on NNS property.

PROJECT JUSTIFICATION

This project will address long standing conditional, access, encroachment, and jurisdictional issues related to the James River Diversion Sewer - 46th Street constructed in 1945 under the Federal Works Agency, Docket No. VA 44-264. Responsibility for maintenance and operation was assigned to HRSD in 1950 with an expiration of responsibilities in 1979 according to the easement granted to the United States of America by the City of Newport News and subsequently assigned to HRSD. Upon expiration of the easement in 1979, responsibility for maintenance and operation of the gravity line has been in question. Prior to a complete Condition Assessment report prepared by Whitman, Requardt and Associates (WRA) in June 2011, several studies of the existing system have been prepared by consultants hired by Newport News Shipyard, all detailing limited system capacity, numerous deficiencies and missing infrastructure related to building/storage area construction.

FUNDING TYPE

Funding Type: Clean Water Proposed

CONTACTS

Contacts-Requesting Dept: Operations-Interceptors
Contacts-Dept Contacts: Eddie Abisaab
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	01/01/2017
PER	01/01/2018
Design Delay	03/01/2019
Design	03/01/2019
Bid Delay	09/01/2020
PreConstruction	09/01/2020
Construction	02/01/2021
Closeout	08/01/2022

COST ESTIMATE

Cost Estimate Class:	**Class 4**
PrePlanning	$1,626
PER	$278,752
Design	$932,560
PreConstruction	$10,000
Construction	$10,558,500
Closeout	$10,000
Est. Program Cost	**$11,791,438**
Contingency Budget	$2,111,700
Est. Project Costs	**$13,903,138**

BH014700

- Project Interceptor Line
- Project Interceptor Point
- Project Pump Station Point
- Project Area

Legend

- CIP Interceptor Point
- CIP Pump Station Point
- CIP Interceptor Line
- CIP Abandonment
- CIP Project Area
- HRSD Interceptor Force Main
- HRSD Interceptor Gravity Main
- WTP HRSD Treatment Plant
- PRS HRSD Pressure Reducing Station
- PS HRSD Pump Station

0 230 460 920 1,380 1,840 Feet

BH014700

Boat Harbor Outlet Sewer Improvements

HRSD

N
W E
S

CIP Location

Newport News

Boat Harbor Outlet Sewer Improvements

PR_BH014700

System: Boat Harbor
Type: Pipelines

Driver Category: I&I Abatement-Rehabilitation Plan
Project Status: Construction
Regulatory: Rehab Plan Phase One

Prog Cost	Exp to Previous Year	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30
$6,000	$2,518	$3,483	$0	$0	$0	$0	$0	$0	$0	$0	$0

PROJECT DESCRIPTION

This project will rehabilitate or replace approximately 3,500 linear feet of gravity pipeline and associated manholes. Pipe diameters range from 48 to 54-inches. Project extends from MH-NG-169-852 to MH-NG-169-1395 and from MH-NG-169-3984 to MH-NG-124-5328. Rehabilitation work includes the 26th Street siphons and the associated chambers. The 25th Street siphons and associated chambers were rehabilitated under a prompt repair contract.

PROJECT JUSTIFICATION

Condition assessment activities indicate that these assets present a material risk of failure due to physical condition defects.

FUNDING TYPE

Funding Type: Revenue Bond

CONTACTS

Contacts-Requesting Dept: Operations-Interceptors
Contacts-Dept Contacts: Phil Hughes
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	02/01/2017
PER	01/01/2018
Design Delay	06/01/2018
Design	06/01/2018
Bid Delay	04/01/2019
PreConstruction	08/01/2019
Construction	12/01/2019
Closeout	03/01/2021

COST ESTIMATE

Cost Estimate Class:	**Class 1**
PrePlanning	$1,496
PER	$87,700
Design	$241,035
PreConstruction	$13,340
Construction	$5,651,879
Closeout	$5,000
Est. Program Cost	**$6,000,450**
Contingency Budget	$524,461
Est. Project Costs	**$6,524,911**

BH014800

- Project Interceptor Line
- Project Interceptor Point
- Project Pump Station Point
- Project Area

Legend

- CIP Interceptor Point
- CIP Pump Station Point
- CIP Interceptor Line
- CIP Abandonment
- CIP Project Area
- HRSD Interceptor Force Main
- HRSD Interceptor Gravity Main
- WTP HRSD Treatment Plant
- PRS HRSD Pressure Reducing Station
- PS HRSD Pump Station

0 460 920 1,840 2,760 3,680 Feet

BH014800

Jefferson Avenue Extension Gravity Improvements

HRSD

N
W E
S

CIP Location

Newport News

Jefferson Avenue Extension Gravity Improvements

PR_BH014800

System: Boat Harbor
Type: Pipelines

Driver Category: I&I Abatement-Rehabilitation Plan
Project Status: Construction
Regulatory: Rehab Plan Phase One

Prog Cost	Exp to Previous Year	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30
$2,872	$2,431	$441	$0	$0	$0	$0	$0	$0	$0	$0	$0

PROJECT DESCRIPTION

This project is to rehabilitate and/or replace 4800 linear feet of gravity pipeline and associated manholes. Pipe diameters range from 27 to 36-inches. Project extends from MH-NG-103-2020 to MH-NG-106-8070 and from MH-NG-108-2800 to MH-NG-108-2340. Manholes MH-NG-108-719 and MH-NG-112-12636 are also included.

PROJECT JUSTIFICATION

Condition assessment activities indicate that these assets present a material risk of failure due to I/I.

FUNDING TYPE

Funding Type: Revenue Bond

CONTACTS

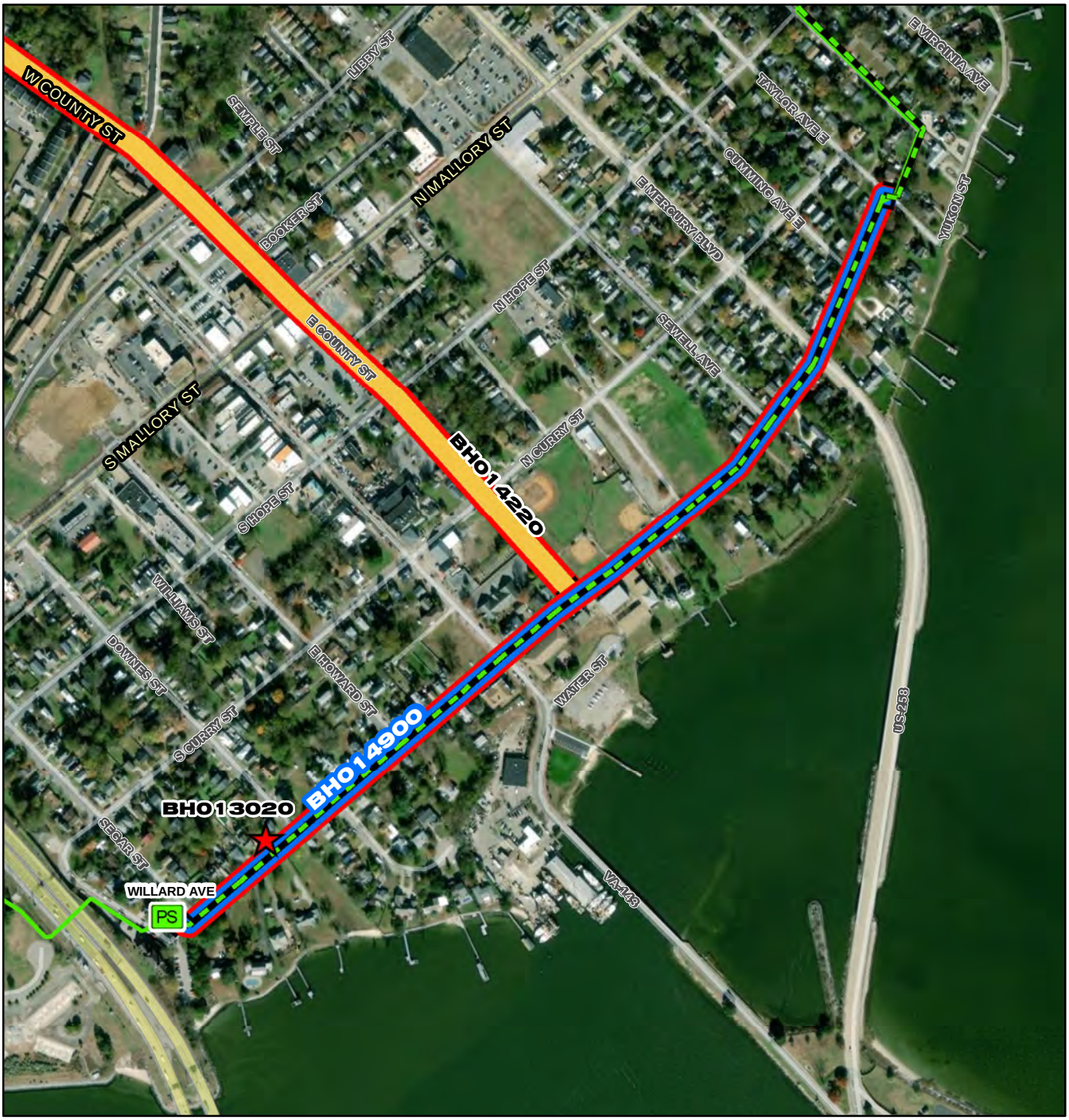
Contacts-Requesting Dept: Operations-Interceptors
Contacts-Dept Contacts: Phil Hughes
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	05/01/2016
PER	02/01/2017
Design Delay	06/01/2017
Design	07/01/2017
Bid Delay	12/01/2018
PreConstruction	12/01/2018
Construction	09/01/2019
Closeout	08/01/2020

COST ESTIMATE

Cost Estimate Class:	**Class 1**
PrePlanning	$0
PER	$52,467
Design	$189,969
PreConstruction	$10,727
Construction	$2,613,674
Closeout	$5,000
Est. Program Cost	**$2,871,836**
Contingency Budget	$522,734
Est. Project Costs	**$3,394,571**



BH014900

- Project Interceptor Line
- Project Interceptor Point
- Project Pump Station Point
- Project Area

Legend

- CIP Interceptor Point
- CIP Pump Station Point
- CIP Interceptor Line
- CIP Abandonment
- CIP Project Area
- HRSD Interceptor Force Main
- HRSD Interceptor Gravity Main
- WTP HRSD Treatment Plant
- PRS HRSD Pressure Reducing Station
- PS HRSD Pump Station

0 180 360 720 1,080 1,440 Feet

N
W E
S

CIP Location

Hampton

BH014900

Hampton Trunk Sewer Extension
Division K Gravity Improvements

HRSD

Hampton Trunk Sewer Extension Division K Gravity Improvements

PR_BH014900

System: Boat Harbor
Type: Pipelines

Driver Category: I&I Abatement-Rehabilitation Plan
Project Status: PER
Regulatory: Rehab Plan Phase Two

Prog Cost	Exp to Previous Year	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30
$4,498	$172	$748	$3,573	$5	$0	$0	$0	$0	$0	$0	$0

PROJECT DESCRIPTION

This project is to rehabilitate and/or replace 3700 linear feet of gravity pipeline with associated manholes. Pipe diameter is 30-inches.
Project extends from MH-NG-160-25773 to NS-PS-225-1. There is also a point repair required between MH-NG-160-26350 and MH-NG-160-26040.

PROJECT JUSTIFICATION

Condition assessment activities indicate that these assets present a material risk of failure due to I/I.

FUNDING TYPE

Funding Type: Revenue Bond

CONTACTS

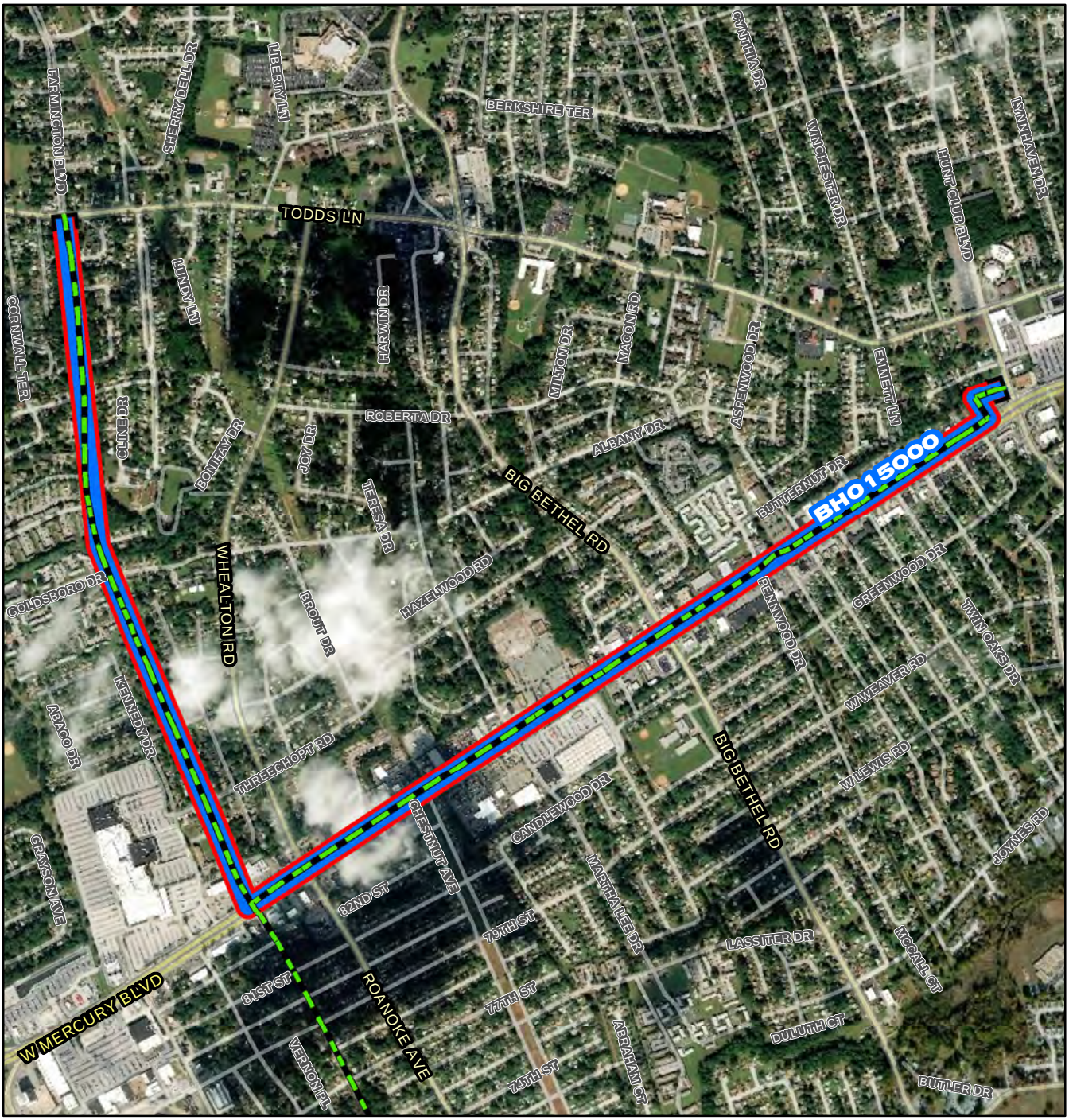
Contacts-Requesting Dept: Operations-Interceptors
Contacts-Dept Contacts: Eddie Abisaab
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	08/01/2019
PER	09/01/2019
Design Delay	04/01/2020
Design	04/01/2020
Bid Delay	02/01/2021
PreConstruction	02/01/2021
Construction	05/01/2021
Closeout	07/01/2022

COST ESTIMATE

Cost Estimate Class:	**Class 4**
PrePlanning	$0
PER	$108,706
Design	$210,860
PreConstruction	$5,000
Construction	$4,168,100
Closeout	$5,000
Est. Program Cost	**$4,497,666**
Contingency Budget	$833,620
Est. Project Costs	**$5,331,286**



BH015000

- Project Interceptor Line
- Project Interceptor Point
- Project Pump Station Point
- Project Area

Legend

- CIP Interceptor Point
- CIP Pump Station Point
- CIP Interceptor Line
- CIP Abandonment
- CIP Project Area
- HRSD Interceptor Force Main
- HRSD Interceptor Gravity Main
- WTP HRSD Treatment Plant
- PRS HRSD Pressure Reducing Station
- PS HRSD Pump Station

0 500 1,000 2,000 3,000 4,000 Feet

BH015000

Orcutt Avenue and Mercury Blvd Gravity Sewer Improvements

HRSD

N
W E
S

CIP Location

Newport News

Orcutt Avenue and Mercury Blvd Gravity Sewer Improvements

PR_BH015000

System: Boat Harbor
Type: Pipelines

Driver Category: I&I Abatement-Rehabilitation Plan
Project Status: Construction
Regulatory: Rehab Plan Phase One

Prog Cost	Exp to Previous Year	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30
$8,963	$8,959	$4	$0	$0	$0	$0	$0	$0	$0	$0	$0

PROJECT DESCRIPTION

- Orcutt Avenue Section A Gravity Sewer Rehabilitation - 7,220 linear feet (LF) of gravity pipeline and 42 manholes are referred for action. Pipe diameters range from 15 to 18-inches. Project extents are from MH-NG-051-6116 to MH-NG-127-3791. Upsizing the Mercury Boulevard/Orcutt Avenue crossing from a 24-inch to a 36-inch. Upsizing roughly 300 LF of pipe on Mercury Blvd from an 18-inch to a 30-inch.
- Mercury Boulevard Gravity Sewer Rehabilitation - 9,400 LF of gravity pipeline and 39 manholes are referred for action. Pipe diameters range from 15 to 18-inches. Project extents are from MH-NG-057-6293 to MH-NG-127-3791. City of Hampton sanitary sewer infrastructure rehabilitation work will also be included in this project. A Cost Sharing Agreement was executed to cover the cost of this work.

PROJECT JUSTIFICATION

Condition assessment activities indicate that these assets present a material risk of failure due to I/I and physical condition defects.

FUNDING TYPE

Funding Type: Clean Water Approved

CONTACTS

Contacts-Requesting Dept: Compliance Assurance
Contacts-Dept Contacts: Eddie Abisaab
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	02/01/2013
PER	12/02/2013
Design Delay	04/01/2014
Design	04/01/2014
Bid Delay	03/01/2016
PreConstruction	04/01/2018
Construction	08/01/2018
Closeout	04/01/2020

COST ESTIMATE

Cost Estimate Class:	**Class 1**
PrePlanning	$0
PER	$68,124
Design	$581,596
PreConstruction	$8,439
Construction	$8,289,554
Closeout	$15,000
Est. Program Cost	**$8,962,713**
Contingency Budget	$414,478
Est. Project Costs	**$9,377,191**

BH015300

- Project Interceptor Line
- Project Interceptor Point
- Project Pump Station Point
- Project Area

Legend

- CIP Interceptor Point
- CIP Pump Station Point
- CIP Interceptor Line
- CIP Abandonment
- CIP Project Area
- HRSD Interceptor Force Main
- HRSD Interceptor Gravity Main
- WTP HRSD Treatment Plant
- PRS HRSD Pressure Reducing Station
- PS HRSD Pump Station

0 60 120 240 360 480 Feet

BH015300

Boat Harbor Treatment Plant Switchgear and Controls Replacements

HRSD

N
W E
S

CIP Location

Hampton

Boat Harbor Treatment Plant Switchgear and Controls Replacements

PR_BH015300

System: Boat Harbor
Type: Electrical

Driver Category: Aging Infrastructure/Rehabilitation
Project Status: Construction
Regulatory: None

Prog Cost	Exp to Previous Year	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30
$8,954	$7,231	$1,723	$0	$0	$0	$0	$0	$0	$0	$0	$0

PROJECT DESCRIPTION

This project is to design and construct needed replacement of the treatment plant main switchgear, generator switchgear, controls and appurtenances. The replacement of the main plant switchgear will require the construction of new building. The work also includes flood mitigation for sub-station 1 & 2.

PROJECT JUSTIFICATION

This project will replace 35 year old switchgear, which are nearing the end of their useful life. The main and generator switchgear is starting to become unreliable. The breaker racking and closing mechanisms have alignment issues and breakers as well as switches have failed to open and/or close due to fatigue of parts. Replacement parts are becoming difficult to obtain. New buildings (main switchgear and emergency switchgear) are required to house the switchgear due to the limited available space on the plant site and the need to maintain plant operations during construction.

FUNDING TYPE

Funding Type: Clean Water Approved

CONTACTS

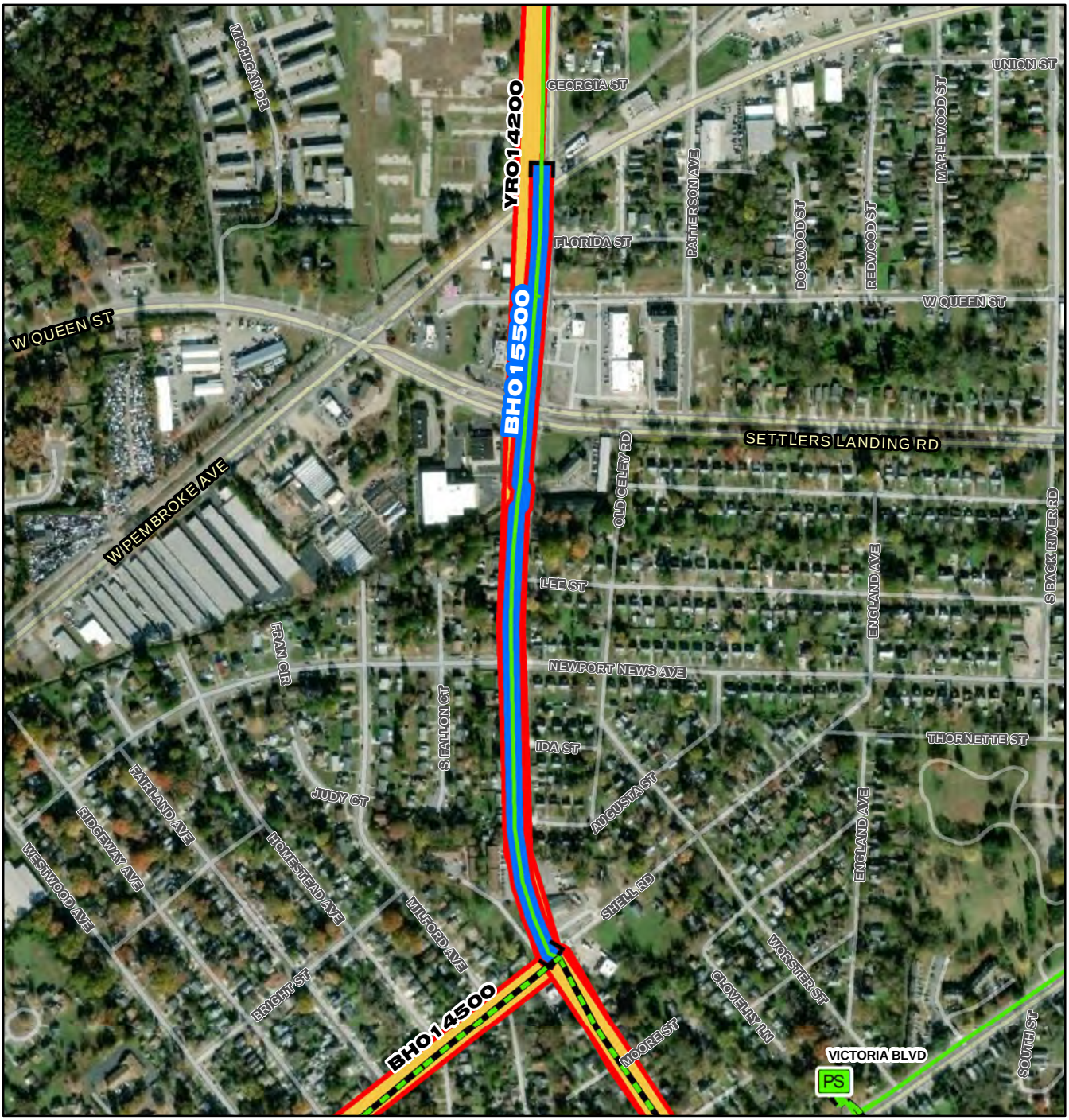
Contacts-Requesting Dept: Operations-Treatment
Contacts-Dept Contacts: Eddie Abisaab
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	09/01/2013
PER	09/01/2013
Design Delay	03/01/2014
Design	09/01/2014
Bid Delay	10/01/2015
PreConstruction	06/01/2018
Construction	04/01/2019
Closeout	10/01/2020

COST ESTIMATE

Cost Estimate Class:	**Class 1**
PrePlanning	$0
PER	$79,465
Design	$929,136
PreConstruction	$17,905
Construction	$7,912,192
Closeout	$15,000
Est. Program Cost	**$8,953,698**
Contingency Budget	$689,306
Est. Project Costs	**$9,643,004**



BHO15500

- Project Interceptor Line
- Project Interceptor Point
- Project Pump Station Point
- Project Area

Legend

- CIP Interceptor Point
- CIP Pump Station Point
- CIP Interceptor Line
- CIP Abandonment
- CIP Project Area
- HRSD Interceptor Force Main
- HRSD Interceptor Gravity Main
- WTP HRSD Treatment Plant
- PRS HRSD Pressure Reducing Station
- PS HRSD Pump Station

0 195 390 780 1,170 1,560 Feet

BHO15500

LaSalle Avenue Interceptor Force Main Replacement

N
W E
S

CIP Location

Hampton

LaSalle Avenue IFM Replacement

PR_BH015500

System: Boat Harbor
Type: Pipelines

Driver Category: Aging Infrastructure/Rehabilitation
Project Status: Proposed
Regulatory: None

Prog Cost	Exp to Previous Year	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30
$1,920	$0	$0	$0	$0	$83	$1,144	$692	$0	$0	$0	$0

PROJECT DESCRIPTION

This project involves the replacement of approximately 3,250 linear feet of 14-inch Cast Iron (CI) pipe from the C&O Railroad tracks and Pembroke Avenue to HRSD's terminal manhole, MH-142-4110, at the intersection of LaSalle Avenue and Shell Road.

PROJECT JUSTIFICATION

This project will replace the existing 14-inch CI force main from approximately station 120+00 to station 152+50. The original LaSalle Avenue Sanitary Sewer Force Main was installed in 1957 as 14-inch CI pipe. This force main extends from the east side of I-64 from the newly constructed Freeman Drive Pump Station and travels southward down LaSalle Avenue to its terminus at HRSD's MH-142-4110 at the intersection of LaSalle Avenue and Shell Road in Hampton. During the installation of new natural gas service lines to residents along LaSalle Avenue, Virginia Natural Gas' contractor exposed HRSD's 14-inch CI line to verify clearance. Upon excavation and uncovering HRSD's force main, it was observed that this line was corroded to the point of failure. As HRSD's crews worked to repair this line, further holes in the force main developed due to extremely frail pipe wall conditions. The hydraulic conditions of this force main are such that severe internal hydrogen sulfide (H2S) corrosion is likely. There are no air vents on pipe between stations 134+50 and 152+50 and the profile of this line dictate that it does not run full. As such, it is anticipated that vast majority of this line from station 134+50 to station 152+50, is in similar deteriorated condition as experienced during the emergency repair of our line. Similarly, there is another unvented high spot at station 122+50, between the C&O Railroad tracks and Pembroke Avenue. The complete replacement of this section of pipe is warranted due to conditional threats.

FUNDING TYPE

Funding Type: Revenue Bond

CONTACTS

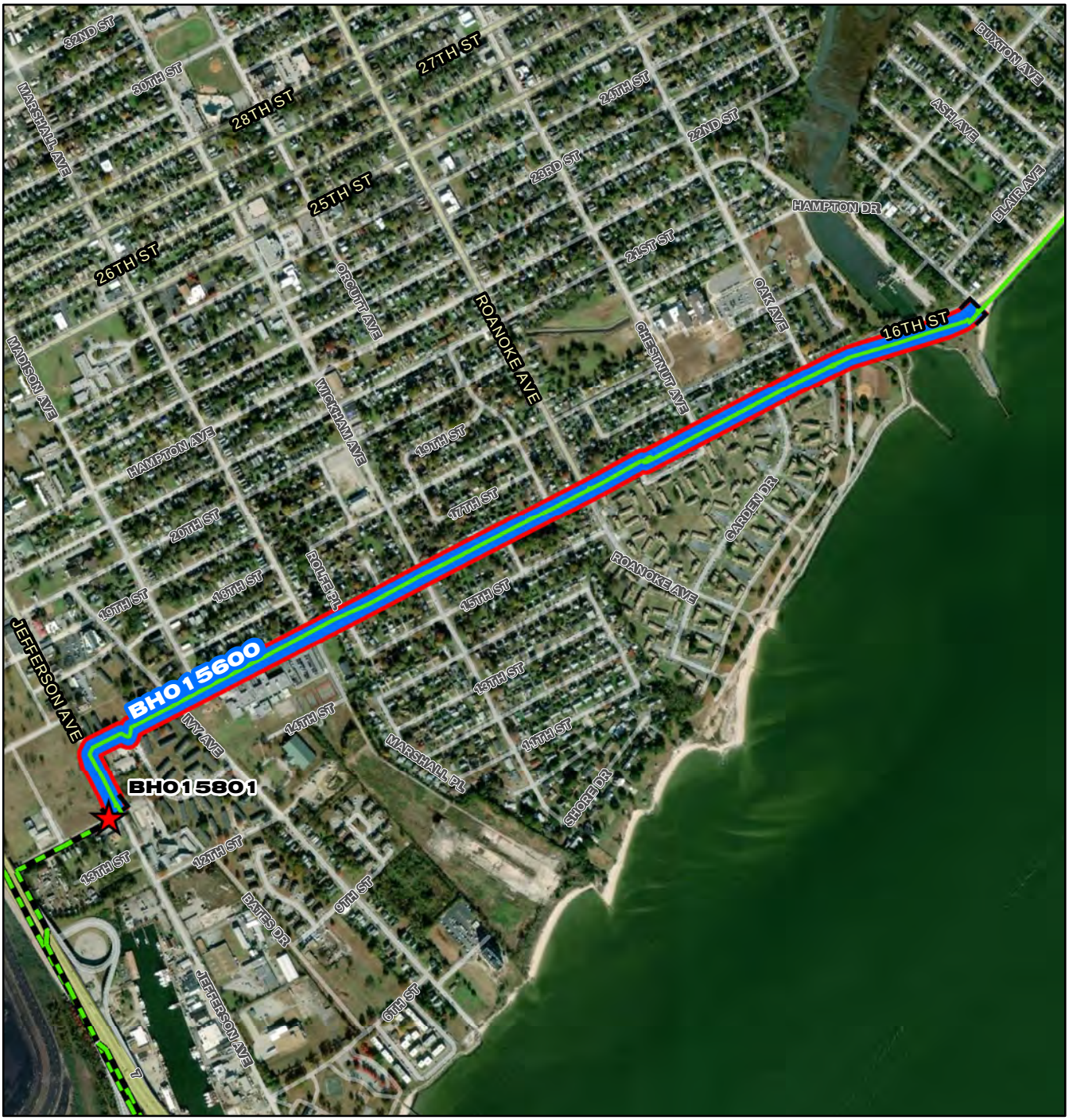
Contacts-Requesting Dept: Operations-Interceptors
Contacts-Dept Contacts: Sam McAdoo
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	01/01/2024
PER	02/01/2024
Design Delay	06/01/2024
Design	06/01/2024
Bid Delay	12/01/2024
PreConstruction	12/01/2024
Construction	01/01/2025
Closeout	11/01/2025

COST ESTIMATE

Cost Estimate Class:	**Class 5**
PrePlanning	$0
PER	$61,759
Design	$130,115
PreConstruction	$5,000
Construction	$1,717,953
Closeout	$5,000
Est. Program Cost	**$1,919,827**
Contingency Budget	$429,488
Est. Project Costs	**$2,349,315**



BH015600

- Project Interceptor Line
- Project Interceptor Point
- Project Pump Station Point
- Project Area

Legend

- CIP Interceptor Point
- CIP Pump Station Point
- CIP Interceptor Line
- CIP Abandonment
- CIP Project Area
- HRSD Interceptor Force Main
- HRSD Interceptor Gravity Main
- WTP HRSD Treatment Plant
- PRS HRSD Pressure Reducing Station
- PS HRSD Pump Station

0 360 720 1,440 2,160 2,880 Feet

BH015600

Hampton Trunk A and B Replacement-Jefferson Avenue to Walnut Avenue

HRSD

N
W E
S

CIP Location

Hampton

Hampton Trunk A and B Replacement - Jefferson Avenue to Walnut Avenue

PR_BH015600

System: Boat Harbor
Type: Pipelines

Driver Category: Aging Infrastructure/Rehabilitation
Project Status: Design
Regulatory: None

Prog Cost	Exp to Previous Year	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30
$16,803	$1,682	$10,667	$4,454	$0	$0	$0	$0	$0	$0	$0	$0

PROJECT DESCRIPTION

This project involves the replacement of approximately 5,000 linear feet (LF) of 36-inch Ductile Iron (DI) and 4,800 LF of 36-inch/34-inch Reinforced Concrete Pressure (RCP) pipe from just north of the intersection of 14th Street and Jefferson Avenue to the intersection of 16th Street and Walnut Avenue. This project will replace the existing force main from the upstream terminus of the Hampton Trunk 'A' Replacement project to the downstream terminus of the Hampton Trunk 'B' – Claremont FM project.

PROJECT JUSTIFICATION

The original Hampton Trunk 'A' and 'B' sections were installed in 1944 as part of the Federal Works Agency projects. This infrastructure was originally installed as 48-inch, 36-inch, and 34-inch RCP gravity pipe and force main pipe from Claremont Avenue Pump Station to Boat Harbor Treatment Plant. In 1991, the 48-inch RCP gravity sewer and a portion of the 36-inch RCP force main was replaced with 42-inch Ductile Iron Pipe (DIP) gravity and 36-inch DIP force main. During the recent Hampton Trunk 'A' Replacement project, the joints of the removed 36-inch DIP force main were found to be severely corroded. An analysis was performed and determined that the interior lining delaminated and failed, resulting in severe hydrogen sulfide (H2S) corrosion of the ductile iron pipe. Additionally, visual inspection of the connection point found delaminated interior lining at the joint requiring Ultrasonic Thickness (UST) testing to determine an adequate point of connection. Hydraulic analysis performed on Hampton Trunk 'A' and 'B' indicate that the system operates at less than full flow during dry weather. Smart Ball inspection performed for the Condition Assessment Program also revealed the presence of gasses and/or air. The dry weather hydraulic conditions in this part of the system dictate that a significant tail water condition is present and reaches a great distance upstream from where the force main discharges to gravity. This head space condition in the force main significantly increases the potential for H2S corrosion. These system flow characteristics and delaminated joints significantly increase the potential for additional future failures.

FUNDING TYPE

Funding Type: Clean Water Proposed

CONTACTS

Contacts-Requesting Dept: Operations-Interceptors
Contacts-Dept Contacts: Matt Poe
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	02/01/2018
PER	07/01/2018
Design Delay	03/01/2019
Design	03/01/2019
Bid Delay	03/01/2020
PreConstruction	03/01/2020
Construction	06/01/2020
Closeout	12/01/2021

COST ESTIMATE

Cost Estimate Class:	**Class 1**
PrePlanning	$1,509
PER	$181,699
Design	$600,000
PreConstruction	$10,000
Construction	$16,000,000
Closeout	$10,000
Est. Program Cost	**$16,803,208**
Contingency Budget	$2,400,000
Est. Project Costs	**$19,203,208**

BH015700

- Project Interceptor Line
- Project Interceptor Point
- Project Pump Station Point
- Project Area

Legend

- CIP Interceptor Point
- CIP Pump Station Point
- CIP Interceptor Line
- CIP Abandonment
- CIP Project Area
- HRSD Interceptor Force Main
- HRSD Interceptor Gravity Main
- WTP HRSD Treatment Plant
- PRS HRSD Pressure Reducing Station
- PS HRSD Pump Station

0 55 110 220 330 440 Feet

BH015700

Boat Harbor Treatment Plant Pump Station Conversion

HRSD

N
W E
S

CIP Location

Newport News

Boat Harbor Treatment Plant Pump Station Conversion

PR_BH015700

System: Boat Harbor
Type: SWIFT

Driver Category: Nutrient Reduction
Project Status: Proposed
Regulatory: Integrated Plan-SWIFT

Prog Cost	Exp to Previous Year	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30
$62,266	$155	$926	$2,241	$556	$18,760	$38,778	$850	$0	$0	$0	$0

PROJECT DESCRIPTION

The Boat Harbor Treatment Plant will be converted to a pumping station, including equalization and headworks facilities while remaining in operation for wastewater treatment during conversion. The new infrastructure will be designed to meet HRSD's resiliency standards and consider remote operation and access in future conditions including sea level rise.

PROJECT JUSTIFICATION

The James River Waste Load Allocation (WLA) requires HRSD to continue reducing the mass of nutrients discharged from associated treatment plant outfalls. The planned reduction of nutrients is largely completed through implementation of the SWIFT program. The SWIFT master planning effort has determined that advanced water treatment and injection at Boat Harbor has significant physical limitations including site availability and resiliency to sea level rise. In addition, a financial analysis indicates there is significant long term cost savings associated with consolidating wastewater treatment and SWIFT facilities at Nansemond Treatment Plant. This project will allow HRSD to further reduce the amount of nutrients contributed to the James River basin. Upgrades to Nansemond Treatment Plant to accommodate the additional flow will be completed under a separate capital project.

FUNDING TYPE

Funding Type: WIFIA

CONTACTS

Contacts-Requesting Dept: Engineering
Contacts-Dept Contacts: Lauren Zuravnsky
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	07/01/2021
PER	11/01/2021
Design Delay	07/01/2022
Design	09/01/2021
Bid Delay	07/01/2022
PreConstruction	01/01/2022
Construction	07/01/2022
Closeout	01/01/2025

COST ESTIMATE

Cost Estimate Class:	**Class 5**
PrePlanning	$0
PER	$1,069,856
Design	$2,747,871
PreConstruction	$61,135
Construction	$58,386,771
Closeout	$0
Est. Program Cost	**$62,265,633**
Contingency Budget	$12,453,127
Est. Project Costs	**$74,718,760**

BH015710

- Project Interceptor Line
- Project Interceptor Point
- Project Pump Station Point
- Project Area

Legend

- CIP Interceptor Point
- CIP Pump Station Point
- CIP Interceptor Line
- CIP Abandonment
- CIP Project Area
- HRSD Interceptor Force Main
- HRSD Interceptor Gravity Main
- WTP HRSD Treatment Plant
- PRS HRSD Pressure Reducing Station
- PS HRSD Pump Station

0 1,050 2,100 4,200 6,300 8,400 Feet

BH015710

Boat Harbor Treatment Plant Transmission Force Main Section 1 (Subaqueous)

HRSD

N
W E
S

CIP Location

Hampton

Boat Harbor Treatment Plant Transmission Force Main Section 1 (Subaqueous)

PR_BH015710

System: Boat Harbor
Type: SWIFT

Driver Category: Nutrient Reduction
Project Status: Proposed
Regulatory: Integrated Plan-SWIFT

Prog Cost	Exp to Previous Year	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30
$65,649	$0	$947	$594	$4,094	$30,196	$29,818	$0	$0	$0	$0	$0

PROJECT DESCRIPTION

The project consists of the subaqueous crossing of the James River to convey flow to the Nansemond Treatment Plant. This project is anticipated to be delivered by the design-build procurement method due to the unique construction techniques required and coordination of construction schedule and permit requirements.

PROJECT JUSTIFICATION

The James River Waste Load Allocation (WLA) requires HRSD to continue reducing the mass of nutrients discharged from associated treatment plant outfalls. The planned reduction of nutrients is largely completed through implementation of the SWIFT program. The SWIFT master planning effort has determined that advanced water treatment and injection at Boat Harbor has significant physical limitations including site availability and resiliency to sea level rise. In addition, a financial analysis indicates there is significant long term cost savings associated with consolidating wastewater treatment and SWIFT facilities at Nansemond Treatment Plant. This project will allow HRSD to further reduce the amount of nutrients contributed to the James River basin. Upgrades to Nansemond Treatment Plant to accommodate the additional flow will be completed under a separate capital project.

FUNDING TYPE

Funding Type: WIFIA

CONTACTS

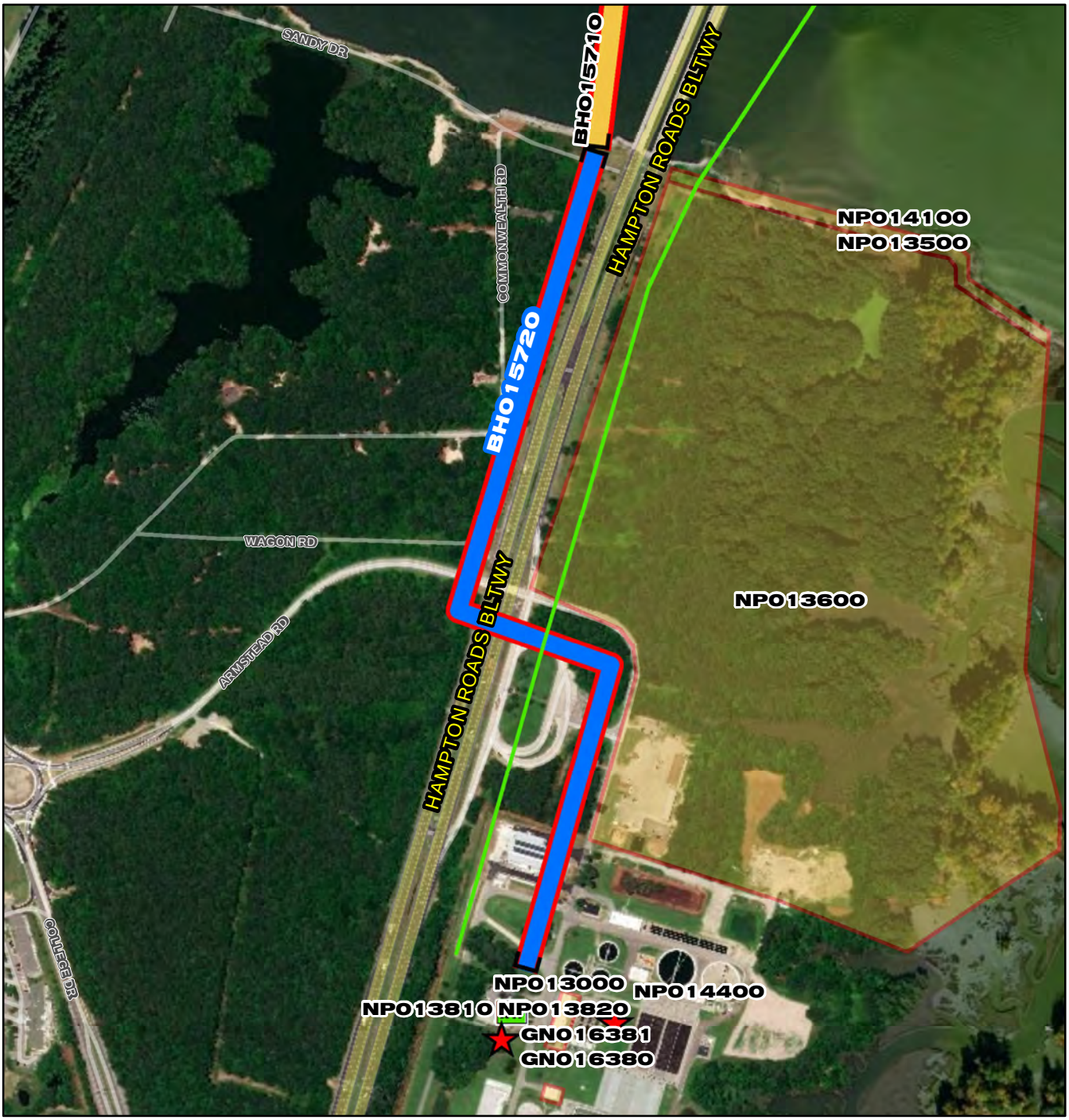
Contacts-Requesting Dept: Engineering
Contacts-Dept Contacts: Lauren Zuravnsky
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	02/01/2020
PER	02/01/2020
Design Delay	02/01/2021
Design	06/01/2020
Bid Delay	02/01/2021
PreConstruction	08/01/2020
Construction	04/01/2021
Closeout	06/01/2023

COST ESTIMATE

Cost Estimate Class:	**Class 5**
PrePlanning	$0
PER	$1,127,990
Design	$4,774,560
PreConstruction	$64,457
Construction	$59,681,992
Closeout	$0
Est. Program Cost	**$65,648,999**
Contingency Budget	$13,129,800
Est. Project Costs	**$78,778,799**



BH015720

Project Interceptor Line
Project Interceptor Point
Project Pump Station Point
Project Area

Legend

CIP Interceptor Point
CIP Pump Station Point
CIP Interceptor Line
CIP Abandonment
CIP Project Area
HRSD Interceptor Force Main
HRSD Interceptor Gravity Main
WTP HRSD Treatment Plant
PRS HRSD Pressure Reducing Station
PS HRSD Pump Station

0 212.5 425 850 1,275 1,700 Feet

BH015720

Boat Harbor Treatment Plant Transmission Force Main Section 2 (Land)

HRSD

N
W E
S

CIP Location

Hampton

Boat Harbor Treatment Plant Transmission Force Main Section 2 (Land)

PR_BH015720

System: Boat Harbor
Type: SWIFT

Driver Category: Nutrient Reduction
Project Status: Proposed
Regulatory: Integrated Plan-SWIFT

Prog Cost	Exp to Previous Year	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30
$16,412	$0	$282	$1,060	$150	$3,656	$11,264	$0	$0	$0	$0	$0

PROJECT DESCRIPTION

The project consists of the on-land connection of Section 1 to the Nansemond Treatment Plant. This project is generally a standard Interceptor Force Main (IFM) utilizing open cut and a Horizontal Direction Drill (HDD) crossing of I-664. This project is anticipated to be delivered by the design-bid-build procurement method due to the standard construction methods required. HRSD desires to construct this section of the IFM soon to accommodate development of the Tidewater Community College (TCC) property.

PROJECT JUSTIFICATION

The James River Waste Load Allocation (WLA) requires HRSD to continue reducing the mass of nutrients discharged from associated treatment plant outfalls. The planned reduction of nutrients is largely completed through implementation of the SWIFT program. The SWIFT master planning effort has determined that advanced water treatment and injection at Boat Harbor has significant physical limitations including site availability and resiliency to sea level rise. In addition, a financial analysis indicates there is significant long term cost savings associated with consolidating wastewater treatment and SWIFT facilities at Nansemond Treatment Plant. This project will allow HRSD to further reduce the amount of nutrients contributed to the James River basin. Upgrades to Nansemond Treatment Plant to accommodate the additional flow will be completed under a separate capital project.

FUNDING TYPE

Funding Type: WIFIA

CONTACTS

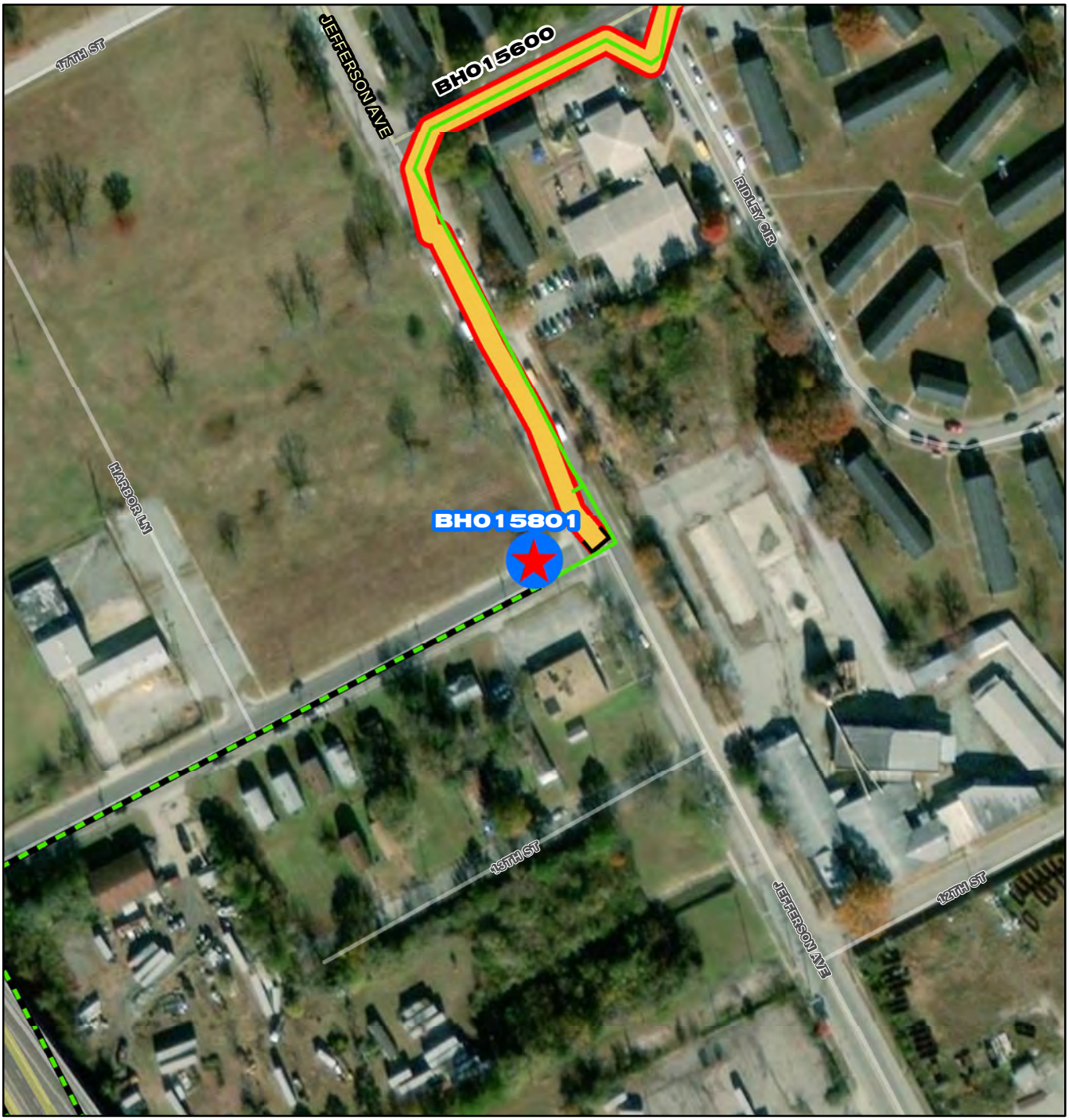
Contacts-Requesting Dept: Engineering
Contacts-Dept Contacts: Lauren Zuravnsky
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	02/01/2020
PER	02/01/2020
Design Delay	02/01/2021
Design	06/01/2020
Bid Delay	02/01/2021
PreConstruction	08/01/2020
Construction	04/01/2021
Closeout	06/01/2023

COST ESTIMATE

Cost Estimate Class:	**Class 5**
PrePlanning	$0
PER	$281,997
Design	$1,193,640
PreConstruction	$16,114
Construction	$14,920,498
Closeout	$0
Est. Program Cost	**$16,412,249**
Contingency Budget	$3,282,450
Est. Project Costs	**$19,694,699**



BH015801

- Project Interceptor Line
- Project Interceptor Point
- Project Pump Station Point
- Project Area

Legend

- CIP Interceptor Point
- CIP Pump Station Point
- CIP Interceptor Line
- CIP Abandonment
- CIP Project Area
- HRSD Interceptor Force Main
- HRSD Interceptor Gravity Main
- WTP HRSD Treatment Plant
- PRS HRSD Pressure Reducing Station
- PS HRSD Pump Station

0 55 110 220 330 440 Feet

BH015801

14th Street Offline Storage (BH-HPP-01A)

HRSD

N
W E
S

CIP Location

Newport News

14th Street Offline Storage (BH-HPP-01A)

PR_BH015801

System: Boat Harbor
Type: Offline Storage

Driver Category: I&I Abatement-IP/RWWMP
Project Status: Proposed
Regulatory: Integrated Plan-HPP

Prog Cost	Exp to Previous Year	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30
$14,828	$0	$0	$0	$868	$822	$8,260	$4,878	$0	$0	$0	$0

PROJECT DESCRIPTION

This project will install a new 4.3 million gallon (MG) storage tank. A detailed project description can be found in Appendix S of the Regional Wet Weather Management Plan (RWWMP) Framework.

PROJECT JUSTIFICATION

As part of HRSD's Integrated Plan, a program of High Priority RWWMP Projects (HPP) will be constructed through 2030. These projects were selected based on their ability to provide the greatest environmental and human health benefits. Further, this $200+ million investment will significantly reduce sanitary sewer overflow (SSO) volume at the 5-year level of service by 47 percent.

FUNDING TYPE

Funding Type: Clean Water Proposed

CONTACTS

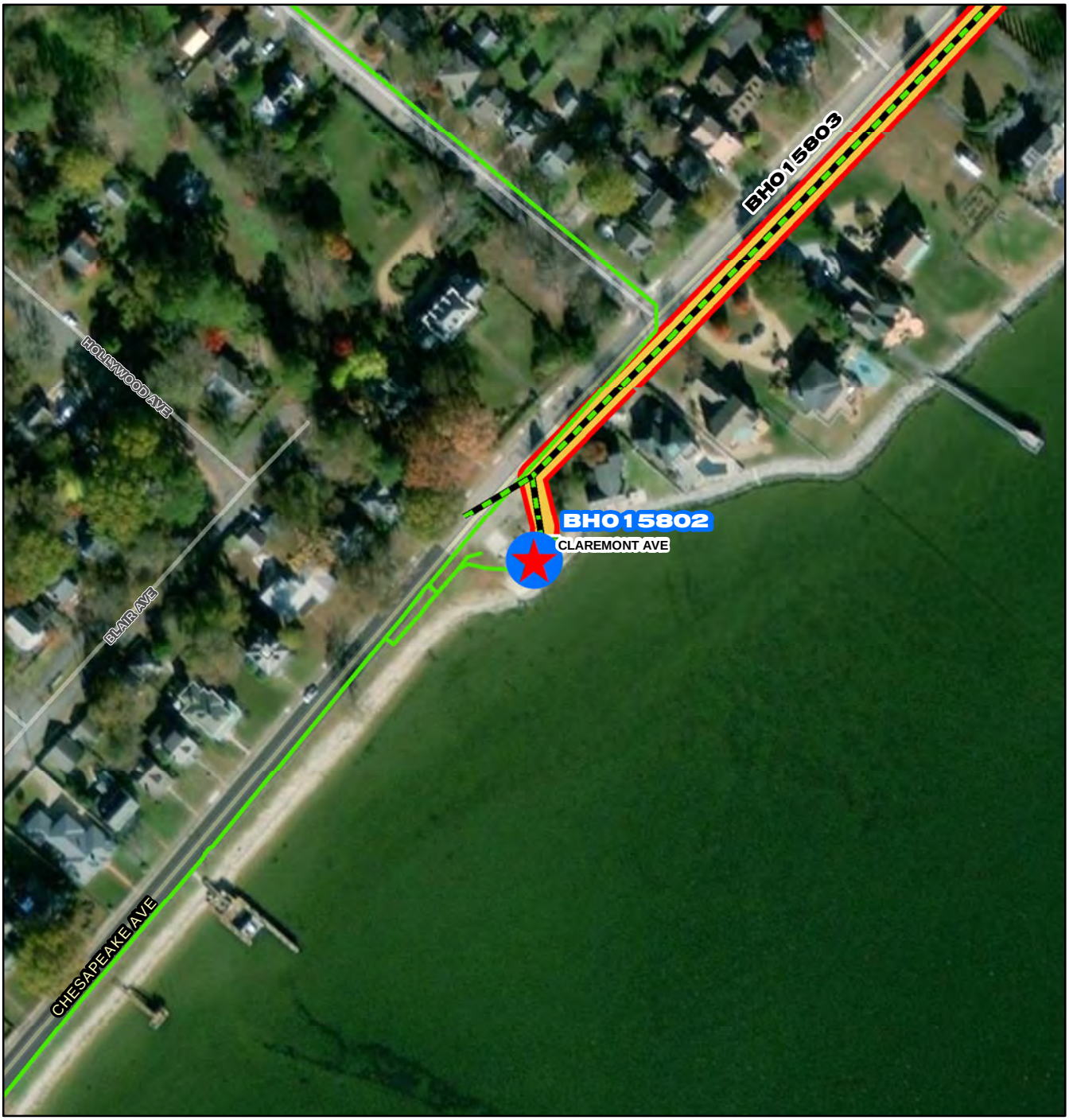
Contacts-Requesting Dept: Operations-Interceptors
Contacts-Dept Contacts: Sam McAdoo
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	07/01/2022
PER	07/01/2022
Design Delay	01/01/2023
Design	01/01/2023
Bid Delay	06/01/2024
PreConstruction	06/01/2024
Construction	09/01/2024
Closeout	01/01/2026

COST ESTIMATE

Cost Estimate Class:	**Class 5**
PrePlanning	$0
PER	$455,046
Design	$1,170,089
PreConstruction	$195,049
Construction	$13,007,597
Closeout	$0
Est. Program Cost	**$14,827,781**
Contingency Budget	$3,251,899
Est. Project Costs	**$18,079,680**



BH015802

- Project Interceptor Line
- Project Interceptor Point
- Project Pump Station Point
- Project Area

Legend

- CIP Interceptor Point
- CIP Pump Station Point
- CIP Interceptor Line
- CIP Abandonment
- CIP Project Area
- HRSD Interceptor Force Main
- HRSD Interceptor Gravity Main
- WTP HRSD Treatment Plant
- PRS HRSD Pressure Reducing Station
- PS HRSD Pump Station

0 55 110 220 330 440 Feet

BH015802

Claremont Pump Station Upgrade (BH-HPP-01B)

HRSD

N
W E
S

CIP Location

Hampton

Claremont Pump Station Upgrade (BH-HPP-01B)

PR_BH015802

System: Boat Harbor
Type: Pump Stations

Driver Category: I&I Abatement-IP/RWWMP
Project Status: Proposed
Regulatory: Integrated Plan-HPP

Prog Cost	Exp to Previous Year	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30
$10,938	$0	$0	$0	$0	$535	$751	$6,265	$3,387	$0	$0	$0

PROJECT DESCRIPTION

Claremont Pump Station Upgrade (NS-PS-208). A detailed project description can be found in Appendix S of the Regional Wet Weather Management Plan (RWWMP) Framework.

PROJECT JUSTIFICATION

As part of HRSD's Integrated Plan, a program of High Priority RWWMP Projects (HPP) will be constructed through 2030. These projects were selected based on their ability to provide the greatest environmental and human health benefits. Further, this $200+ million investment will significantly reduce sanitary sewer overflow (SSO) volume at the 5-year level of service by 47 percent.

FUNDING TYPE

Funding Type: Revenue Bond

CONTACTS

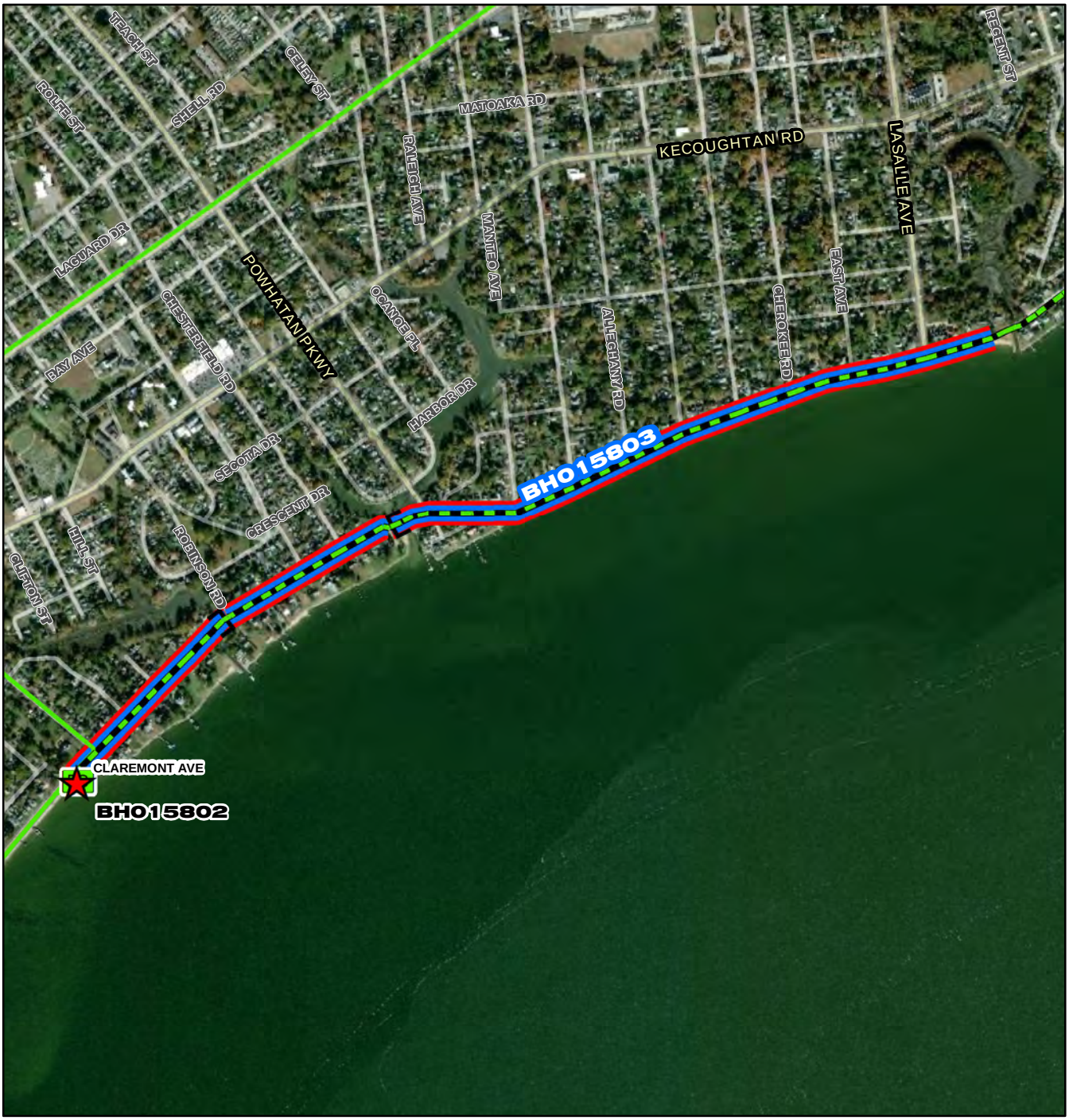
Contacts-Requesting Dept: Operations-Interceptors
Contacts-Dept Contacts: Sam McAdoo
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	10/01/2023
PER	10/01/2023
Design Delay	03/01/2024
Design	03/01/2024
Bid Delay	05/01/2025
PreConstruction	05/01/2025
Construction	08/01/2025
Closeout	01/01/2027

COST ESTIMATE

Cost Estimate Class:	**Class 5**
PrePlanning	$0
PER	$279,746
Design	$895,127
PreConstruction	$167,868
Construction	$9,595,261
Closeout	$0
Est. Program Cost	**$10,938,002**
Contingency Budget	$2,398,815
Est. Project Costs	**$13,336,817**



BH015803

- Project Interceptor Line
- Project Interceptor Point
- Project Pump Station Point
- Project Area

Legend

- CIP Interceptor Point
- CIP Pump Station Point
- CIP Interceptor Line
- CIP Abandonment
- CIP Project Area
- HRSD Interceptor Force Main
- HRSD Interceptor Gravity Main
- WTP HRSD Treatment Plant
- PRS HRSD Pressure Reducing Station
- PS HRSD Pump Station

0 425 850 1,700 2,550 3,400 Feet

BH015803

Chesapeake Avenue Interceptor Improvements (BH-HPP-01C)

HRSD

N
W E
S

CIP Location

Hampton

Chesapeake Avenue Interceptor Improvements (BH-HPP-01C)

PR_BH015803

System: Boat Harbor
Type: Pipelines

Driver Category: I&I Abatement-IP/RWWMP
Project Status: Proposed
Regulatory: Integrated Plan-HPP

Prog Cost	Exp to Previous Year	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30
$14,776	$0	$0	$0	$0	$0	$815	$2,438	$8,642	$2,881	$0	$0

PROJECT DESCRIPTION

Upgrade 6,490 linear feet (LF) to 42-inch gravity main (GM); Upgrade 2,180 LF of 24-inch GM to 36-inch GM; Upgrade 70 LF of 42-inch inverted siphon along Chesapeake Avenue upstream of NS-PS-208; Upgrade 70 LF of 42-inch inverted siphon along Chesapeake Avenue upstream of NS-PS-208. A detailed project description can be found in Appendix S of the Regional Wet Weather Management Plan (RWWMP) Framework.

PROJECT JUSTIFICATION

As part of HRSD's Integrated Plan, a program of High Priority RWWMP Projects (HPP) will be constructed through 2030. These projects were selected based on their ability to provide the greatest environmental and human health benefits. Further, this $200+ million investment will significantly reduce sanitary sewer overflow (SSO) volume at the 5-year level of service by 47 percent.

FUNDING TYPE

Funding Type: Revenue Bond

CONTACTS

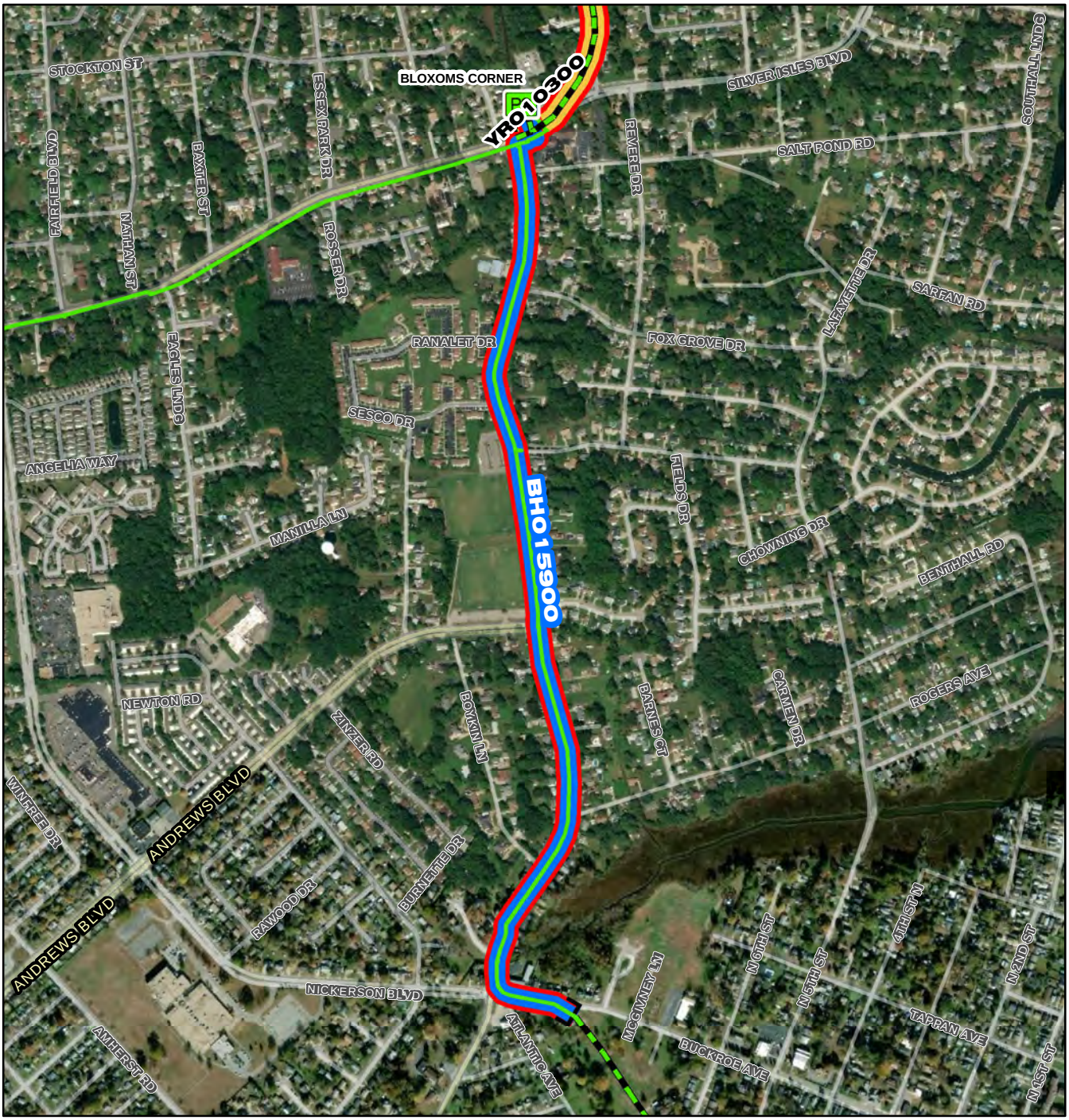
Contacts-Requesting Dept: Operations-Interceptors
Contacts-Dept Contacts: Sam McAdoo
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	07/01/2024
PER	07/01/2024
Design Delay	03/01/2025
Design	03/01/2025
Bid Delay	03/01/2026
PreConstruction	03/01/2026
Construction	05/01/2026
Closeout	11/01/2027

COST ESTIMATE

Cost Estimate Class:	**Class 5**
PrePlanning	$0
PER	$440,285
Design	$1,123,872
PreConstruction	$248,901
Construction	$12,962,805
Closeout	$0
Est. Program Cost	**$14,775,863**
Contingency Budget	$3,240,701
Est. Project Costs	**$18,016,564**



BH015900

- Project Interceptor Line
- Project Interceptor Point
- Project Pump Station Point
- Project Area

Legend

- CIP Interceptor Point
- CIP Pump Station Point
- CIP Interceptor Line
- CIP Abandonment
- CIP Project Area
- HRSD Interceptor Force Main
- HRSD Interceptor Gravity Main
- WTP HRSD Treatment Plant
- PRS HRSD Pressure Reducing Station
- PS HRSD Pump Station

0 310 620 1,240 1,860 2,480 Feet

BH015900

Bloxoms Corner Force Main Replacement

HRSD

N
W E
S

CIP Location

Hampton

Bloxoms Corner Force Main Replacement

PR_BH015900

System: Boat Harbor
Type: Pipelines

Driver Category: I&I Abatement-Rehabilitation Plan
Project Status: Proposed
Regulatory: Rehab Plan Phase Two

Prog Cost	Exp to Previous Year	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30
$2,868	$108	$182	$778	$1,800	$0	$0	$0	$0	$0	$0	$0

PROJECT DESCRIPTION

This project will address 6,100 linear feet of 8-inch Cast Iron Pipe from Bloxom's Corner Pump Station to the gravity discharge at MH-NG-094-1264.

PROJECT JUSTIFICATION

Disproportionate force main failure history indicates material risk of failure.

FUNDING TYPE

Funding Type: Revenue Bond

CONTACTS

Contacts-Requesting Dept: Operations-Interceptors
Contacts-Dept Contacts: Eddie Abisaab
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	09/01/2019
PER	05/01/2020
Design Delay	09/01/2020
Design	09/01/2020
Bid Delay	11/01/2021
PreConstruction	11/01/2021
Construction	03/01/2022
Closeout	05/01/2023

COST ESTIMATE

Cost Estimate Class:	**Class 5**
PrePlanning	$62,824
PER	$90,434
Design	$192,095
PreConstruction	$5,310
Construction	$2,511,868
Closeout	$5,310
Est. Program Cost	**$2,867,840**
Contingency Budget	$627,967
Est. Project Costs	**$3,495,808**