

Resilient SRQ – Round 2 Grant Application

Sarasota Stormwater Resiliency & Flood Mitigation Initiative *(Revised August 13, 2025)*

1 | Applicant

Sarasota County & City of Sarasota

2 | Primary Contact

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3 | Project Sites & Needs

Site	Basin	Cross-streets	Key Problems
Pinecraft (within the City)	Phillippi Creek headwaters	Beneva Rd / Bahia Vista St	Sediment deposition, eroding banks, and septic leachate elevate TN
Sarasota Memorial Hospital / US-41	Coastal	US-41 / Hillview St	Tidal backflow & undersized outfalls flood 5,500 LF roadway and 53 homes

4 | Project Description

Both basins experience chronic flooding and export untreated nutrients to Sarasota Bay or Phillippi Creek. Site-specific BMPs will raise each location to **100-year (1 % ACE) roadway LOS** and cut annual TN loads by ~600 lb.

- **Pinecraft** – convert a wet pond to a high-efficiency dry pond, install a denitrification wall, restore 2,000 LF of creek bank, and perform targeted sediment removal.
- **Harbor Acres / US-41** – enlarge twin outfall pipes, add check valves, and install a nutrient-separating baffle box at the bay discharge.

5 | Scope & Cost (2025 dollars)

Site / Component	2025 Cost
Pinecraft BMP package	\$ 2,080,000
Sarasota Memorial / US-41 BMP package	\$ 4,660,000
Total Project Cost	\$ 6,740,000

(Concept costs escalated to FY 25 with 15 % inflation, 20 % design & permitting, and 20 % contingency.)

6 | Funding Strategy

Source	Amount	% of Total
Resilient SRQ – Round 2 (CDBG-DR)	\$ 6,740,000	100 %

(City/County provide only in-kind ROW, inspection, and outreach support.)

7 | Expected Outcomes & Benefits

Metric	Pre-Project	Post-Project Target
Roadway LOS deficiencies eliminated	5,500 LF local streets	0 LF
Homes flooding in 100-yr storm	53 homes	≤ 12 homes
Annual TN removal	—	≈ 596 lb/yr (484 lb Pinecraft + 112 lb Harbor Acres)
Creek shoreline restored	—	2,000 LF stabilized

Additional benefits

- NOAA 2100 SLR-ready outfalls (check-valve design depth).
- Improved evacuation reliability for US-41/Siesta corridors.

8 | Cost Reasonableness & Validation

- Outfall enlargement costs benchmark 2025 FDOT District 1 drainage bids (box culvert ≈ \$1,480/ft).
- Baffle box unit price ≈ \$330 k aligns with recent SBEP installations.
- Soft-cost (≈ 20 %) and contingency (20 %) match USACE/FDOT retrofit guidance.

9 | Schedule (Key Milestones)

Milestone	Target Date
30 % design & environmental submittal	Summer 2026
Permitting & final plans complete	Late 2026
Advertise & award contract	Summer 2027
Mobilization & phased construction start	Late 2027
Substantial completion (all BMPs)	Summer 2028
Two-year post-construction monitoring	through Dec 2030

10 | Request

Approval of **\$ 6,740,000** in **Resilient SRQ – Round 2 (CDBG-DR)** funds will fully implement the Sarasota Stormwater Resiliency & Flood Mitigation Initiative for Pinecraft and Harbor Acres. The project will:

- Eliminate 5,500 LF of roadway flooding,
- Reduce 100-year structural flooding from 53 to ≤ 12 homes,
- Remove ≈ **600 lb TN per year** from local waterways, and
- Deliver durable, climate-ready benefits for more than 12,000 Sarasota residents.




Sarasota County



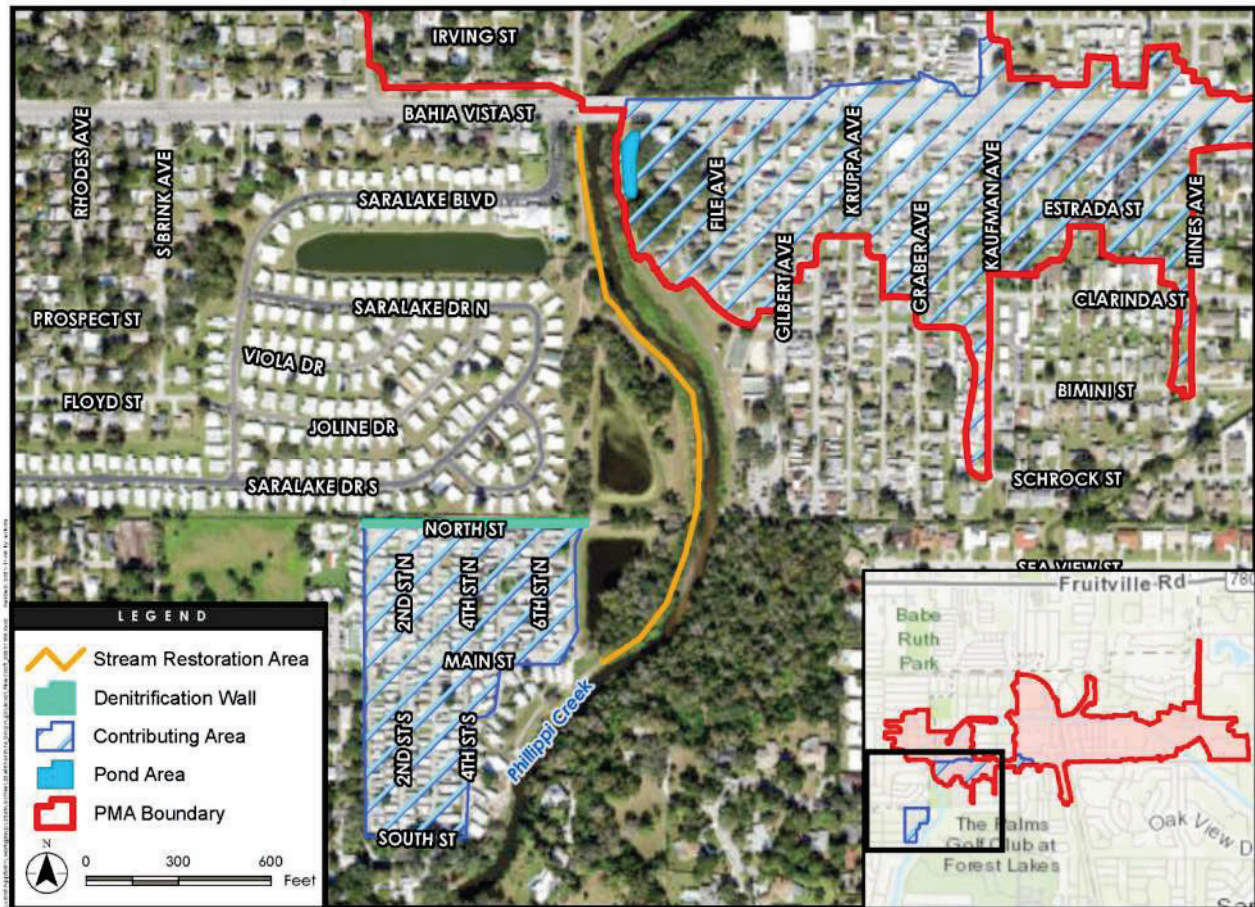
Sarasota Bay Watershed

Flood and Water Quality Improvements

FINAL REPORT



Pinecraft – Phillippi Creek



Project Management Area

This is the historic headwaters of Phillippi Creek where tidal influence becomes negligible. Significant sediment deposition occurs at Beneva Road Bridge and the Trestle Bridge. Large dense development exists along both sides of the creek with little stormwater treatment.

Conceptual BMP

- Convert existing wet pond to dry pond with media for higher pollutant removal
- Denitrification wall to intercept groundwater impacted by septic systems in Aloha Mobile Home Park
- Stream restoration along Phillippi Creek
- Sediment removal along creek system

Score 105

Cost \$1,094,958

Benefits

- Annual TN Removal 484 lb/yr
- \$113/lb TN removed annually assuming 20 year project life expectancy
- 2000 linear feet of shoreline restoration at a cost of \$350 / LF
- Stabilized creek banks will reduce erosion to create more natural system
- Resilient in NOAA 2100 future condition

PROJECT MANAGEMENT AREA: PINECRAFT				
CONCEPTUAL PLAN COST ESTIMATE - CONVERT EXISTING WET POND TO DRY POND				
DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
Embankment	CY	500	\$ 9	\$ 4,500
Regular Excavation	CY	250	\$ 7	\$ 1,750
Storm Structure - Junction Box	EA	1	\$ 5,100	\$ 5,100
Storm Pipe - 18" RCP	LF	80	\$ 90	\$ 7,200
Biosorption Activated Media	CY	610	\$ 200	\$ 122,000
Sod	SY	1,800	\$ 2	\$ 3,600
Rip Rap	TN	10	\$ 120	\$ 1,200
Silt Fence	LF	680	\$ 2	\$ 1,360
Floating Turbidity Barrier	LF	100	\$ 9	\$ 900
Materials Subtotal				\$ 147,610
Temporary Traffic Control (2.5%)				\$ 3,690
Staging Area (5%)				\$ 7,381
Mobilization (10%)				\$ 14,761
Contingency (30%)				\$ 44,283
Construction Total				\$ 217,725
Design and Permitting				\$ 50,000
Annual Operations & Maintenance Cost				\$ 1,000
CONCEPTUAL PLAN COST				\$ 268,725
CONCEPTUAL PLAN COST ESTIMATE - DENITRIFICATION TRENCH - ALOHA MOBILE HOME PARK				
DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
Regular Excavation	CY	400	\$ 7	\$ 2,800
Biosorption Activated Media	CY	220	\$ 200	\$ 44,000
Silt Fence	LF	1400	\$ 2	\$ 2,800
Floating Turbidity Barrier	LF	40	\$ 9	\$ 360
Sod	SY	300	\$ 2	\$ 600
Materials Subtotal				\$ 50,560
Temporary Traffic Control (5%)				\$ 2,528
Staging Area (5%)				\$ 2,528
Mobilization (10%)				\$ 5,056
Contingency (30%)				\$ 15,168
Construction Total				\$ 75,840
Design and Permitting				\$ 50,000
Annual Operations & Maintenance Cost				\$ 1,000
CONCEPTUAL PLAN COST				\$ 126,840
CONCEPTUAL PLAN COST ESTIMATE - STREAM RESTORATION				
DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
Regular Excavation	CY	3,548	\$ 7	\$ 24,836
Clearing and Grubbing	AC	1	\$ 18,800	\$ 18,800
Channel Excavation	CY	2027	\$ 46	\$ 93,242
Headwater Channel Construction	LF	320	\$ 120	\$ 38,400
Wetland plantings	AC	0	\$ 6,000	\$ 0
Wood Toe Protection with Soil Lifts	LF	279	\$ 200	\$ 55,800
Riparian Revegetation	AC	3.8	\$ 5,000	\$ 19,000
Invasive Vegetation Removal	AC	4	\$ 3,000	\$ 12,000
Access Trail	LF	5,000	\$ 30	\$ 150,000
Floating Turbidity Barrier	LF	600	\$ 9	\$ 5,400
Silt Fence	LF	4700	\$ 2	\$ 9,400
Materials Subtotal				\$ 384,262
Temporary Traffic Control (5%)				\$ 19,213
Staging Area (5%)				\$ 19,213
Mobilization (10%)				\$ 38,426
Contingency (30%)				\$ 115,279
Construction Total				\$ 576,393
Design and Permitting				\$ 125,000
Annual Operations & Maintenance Cost				\$ 5,000
CONCEPTUAL PLAN COST				\$ 706,393
Note: Percentages based on Materials Subtotal				

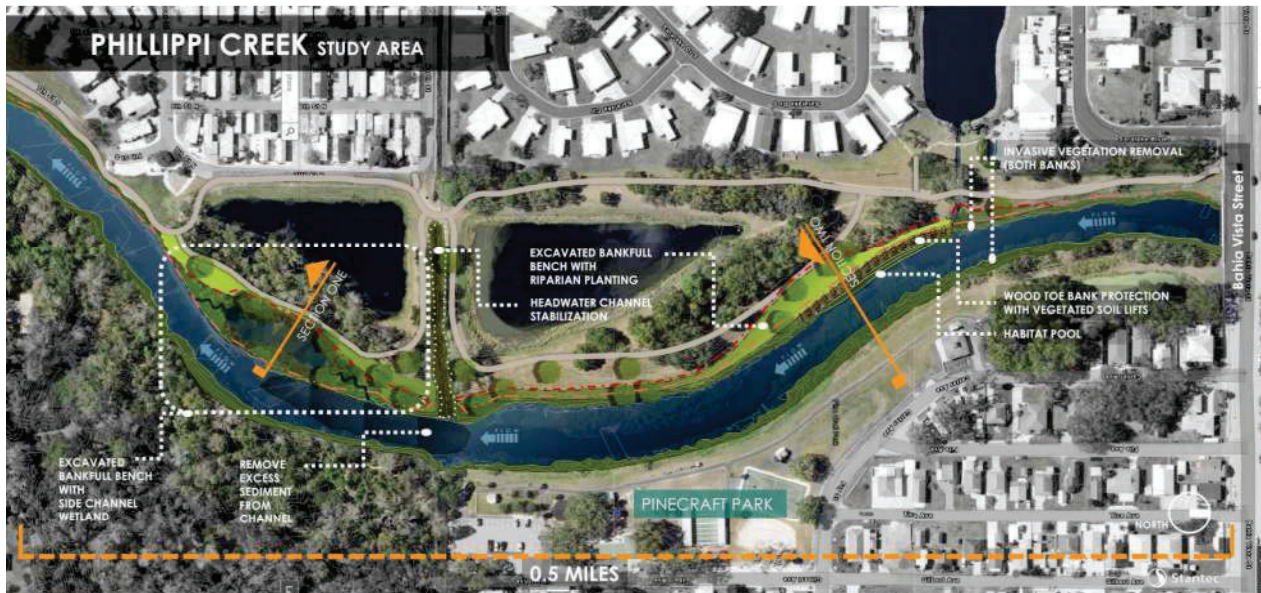
Pinecraft – Phillippi Creek Concept Stream Restoration Plan

The segment of Phillippi Creek downstream of the Bahia Vista Street bridge and extending to approximately 600 feet downstream of the Pinecraft Park presents the opportunity to implement stream restoration techniques aimed at improving water quality, enhancing a variety of habitat functions, and improving accessibility to the public. This reach is located at the interface between riverine and tidal influences and exhibits indicators of channel instability and aquatic habitat impairment typical of riverine responses to urban development within the watershed, encroachment of adjacent developments, and historic channelization activities. This segment of creek is characterized as an entrenched, single stage channel without adequate floodplain connectivity, and steep unstable banks dominated by shallow rooted non-native grasses and invasive vegetation. Visual observations noted signs of mass wasting and toe erosion that contribute to decreases in aquatic habitat diversity and elevated sediment loading to the downstream channel and ultimately Sarasota Bay.








This preliminary concept focuses on utilizing available adjacent land within the limited channel right-of-way to improve floodplain connectivity, implementation of bioengineered stabilization to promote long term and resilient bank protection, and replacement of exotic vegetation with native plantings. The proposed laying back of the channel side slopes and creating a bankfull bench will provide increase in flood flow conveyance capacity while improving water quality by reducing erosion potential, providing in-line treatment, and depositional areas for sediment/entrained pollutants. The bankfull benches will be revegetated with appropriate native plants which improve shear strength of the creek bank soils by establishment of deep root masses.

The wood toe protection structure utilizes locally salvaged woody debris that serves to provide long term bank stabilization, acts as a hydraulic energy dissipater, and supports biological habitat and carbon sources. Typical historic maintenance operations generally focused on removal of woody debris as they were seen as potentially threats to infrastructure. However, absence of woody debris in channels results in the lack of the naturally occurring aquatic habitats critical to a healthy ecosystem. The process of utilizing woody debris in a manner that is embedded into the creek bed or bank such that the wood stays submerged beneath the low water elevation can help to address both the maintenance concerns and habitat improvement goals of restoration projects. The new channel bank above the wood toe will be stabilized with bioengineered soil wraps vegetated with live cuttings (also known as Vegetation Reinforced Soil Slope – VRSS). The use of native live cuttings provides resilient slope stability that gets stronger with time as the root masses mature.

The Headwater channel stabilization structure is a naturalized way to utilize on-site woody debris that would otherwise require haul-off and disposal in a method that provides effective channel grade and bank protection in steep and/or incised channels. The structure can be incredibly effective in channels dominated by sand and/or fine-grained creek beds that have experienced erosion or downcutting due to changes in hydrology or lowering of baselevel. The creek bed and banks are reconstructed using a mixture of various size classes of woody debris mixed with native soil, which emulates the naturally occurring subbase in natural channels. The matrix of wood in the subbase provides a “rebar” like effect in improve subsurface soil structure resistant to erosion and scour, which providing improved aquatic habitat.

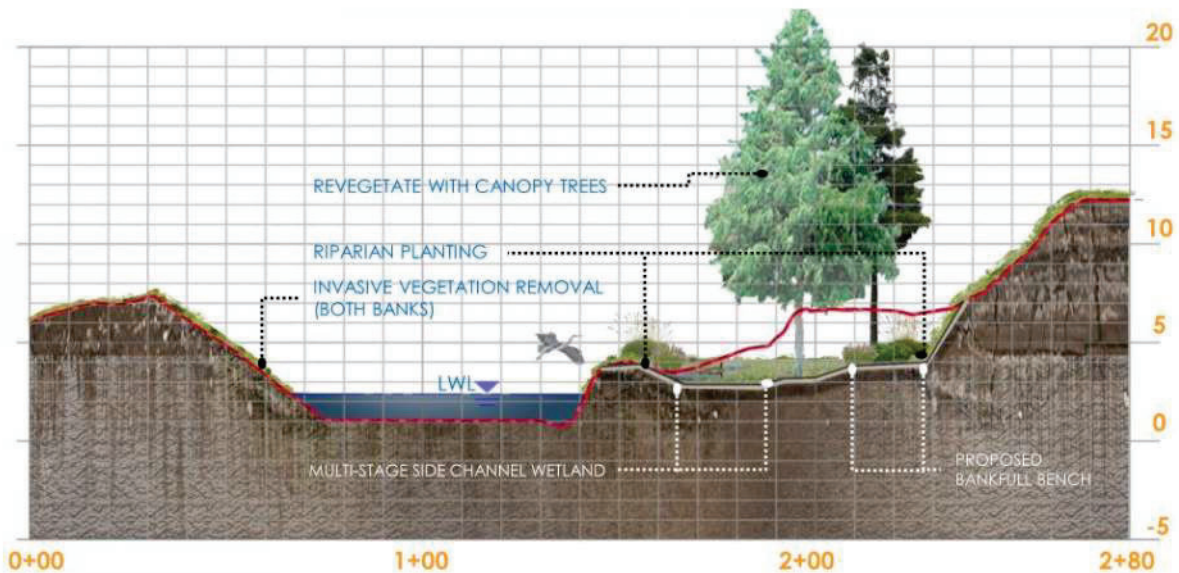


LEGEND

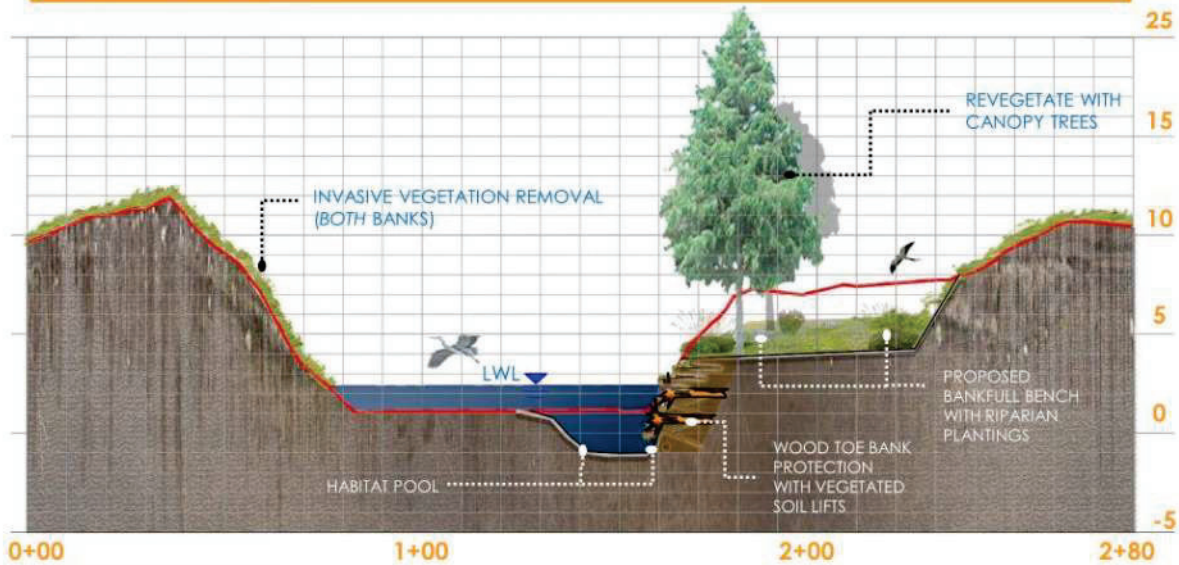
-  EXISTING BANKFULL LIMITS
-  PROPOSED EXCAVATED BANKFULL BENCH LIMITS
-  EXCESS SEDIMENT REMOVAL AREA
-  REVEGETATED AREA
-  HEADWATER CHANNEL STABILIZATION
-  PROPOSED TREES
-  MULTI-USE PATHWAYS

Phillippi Creek Concept Restoration Plan

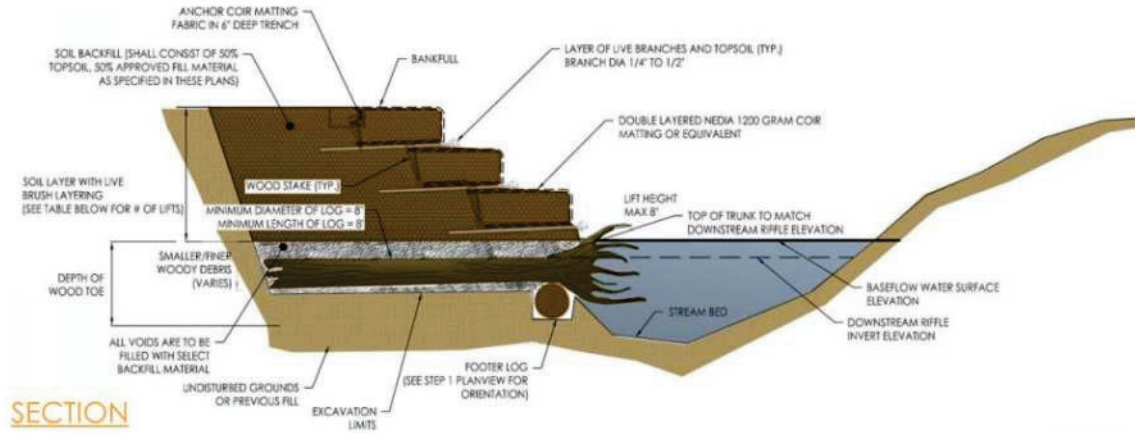
The Phillippi Creek reach downstream of the Bahia Vista Street bridge and extending to approximately 600' downstream of the Pinecraft Park presents the opportunity to implement stream restoration techniques aimed at improving water quality, enhancing a variety of habitat functions, and improving accessibility to the public. This reach is located at the interface between riverine and tidal influences and exhibits symptoms of channel instability and aquatic habitat impairment typical of riverine responses to urban development in the upstream watershed, encroachment of adjacent developments, and historic channelization activities.



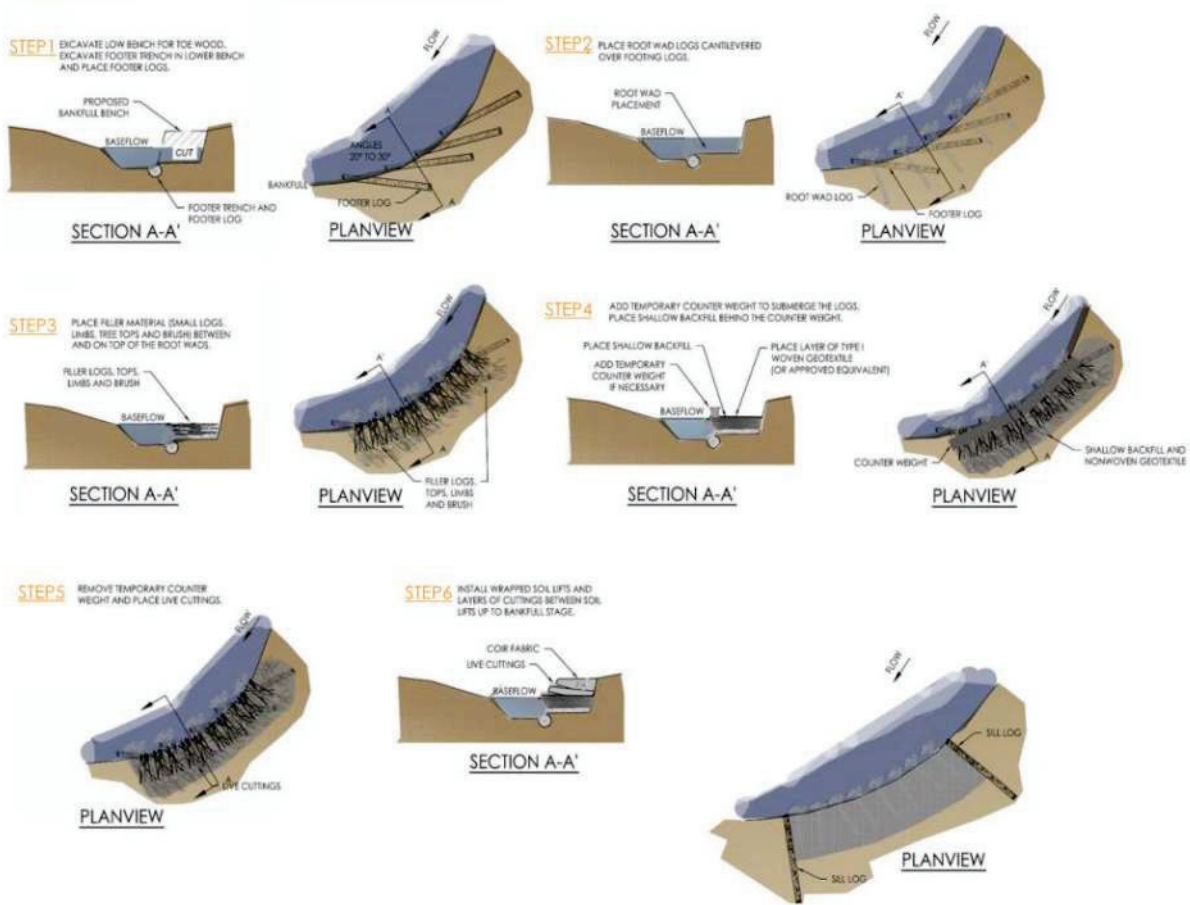
SECTION ONE: The proposed laying bank of the channel side slopes, and adjacent multi-stage wetland provides a diversity of aquatic and riparian habitat, while allowing for settling of entrained sediment and nutrients during high flow. Establishment of native vegetation will improve soil structure stability and restore a variety of terrestrial habitat.



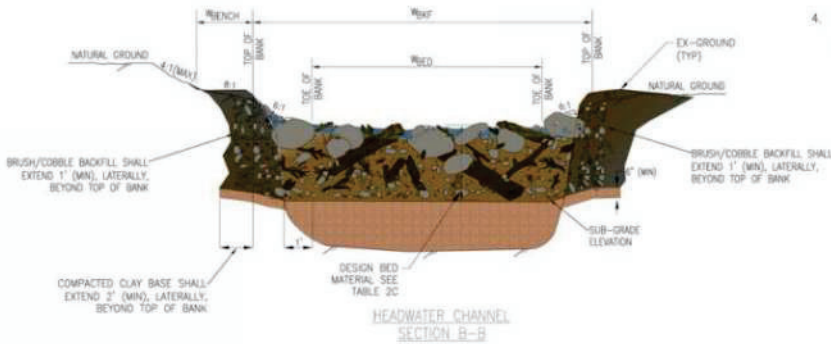
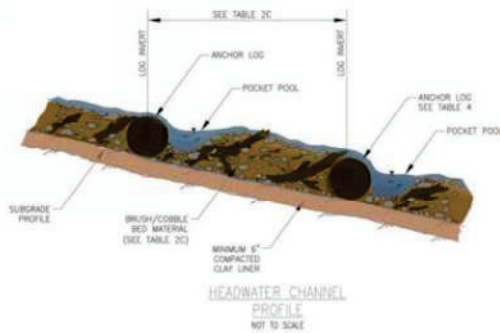
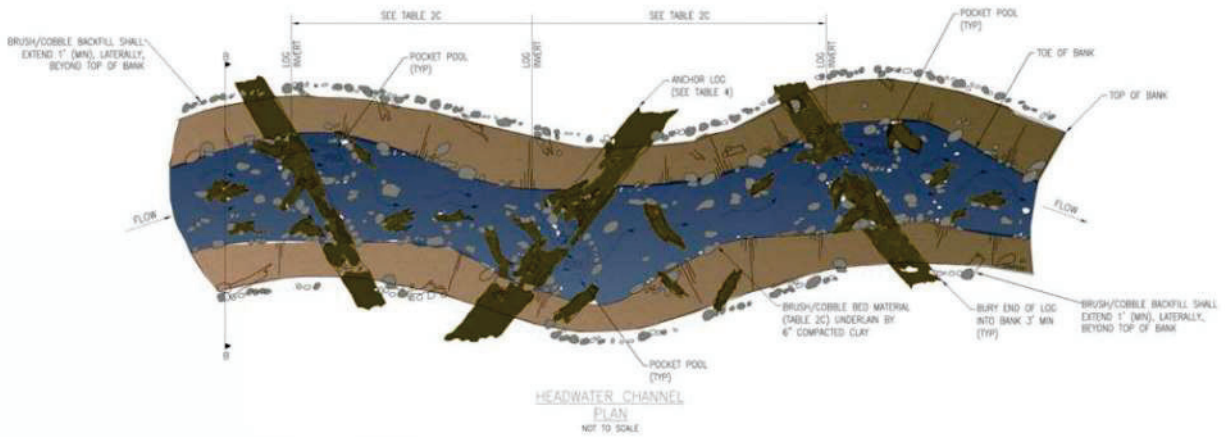
SECTION TWO: The wood toe bioengineered bank protection structure consists of locally salvaged logs and woody debris placed along the unstable right bank. The roughness of the woody debris reduces near-bank shear stress, provides aquatic habitat enhancement, and conducive subbase medium for vegetation establishment. Vegetated soil lifts create a resilient upper bank and the bankfull bench allows for increase in floodplain connectivity and support of native riparian vegetation community.



SECTION



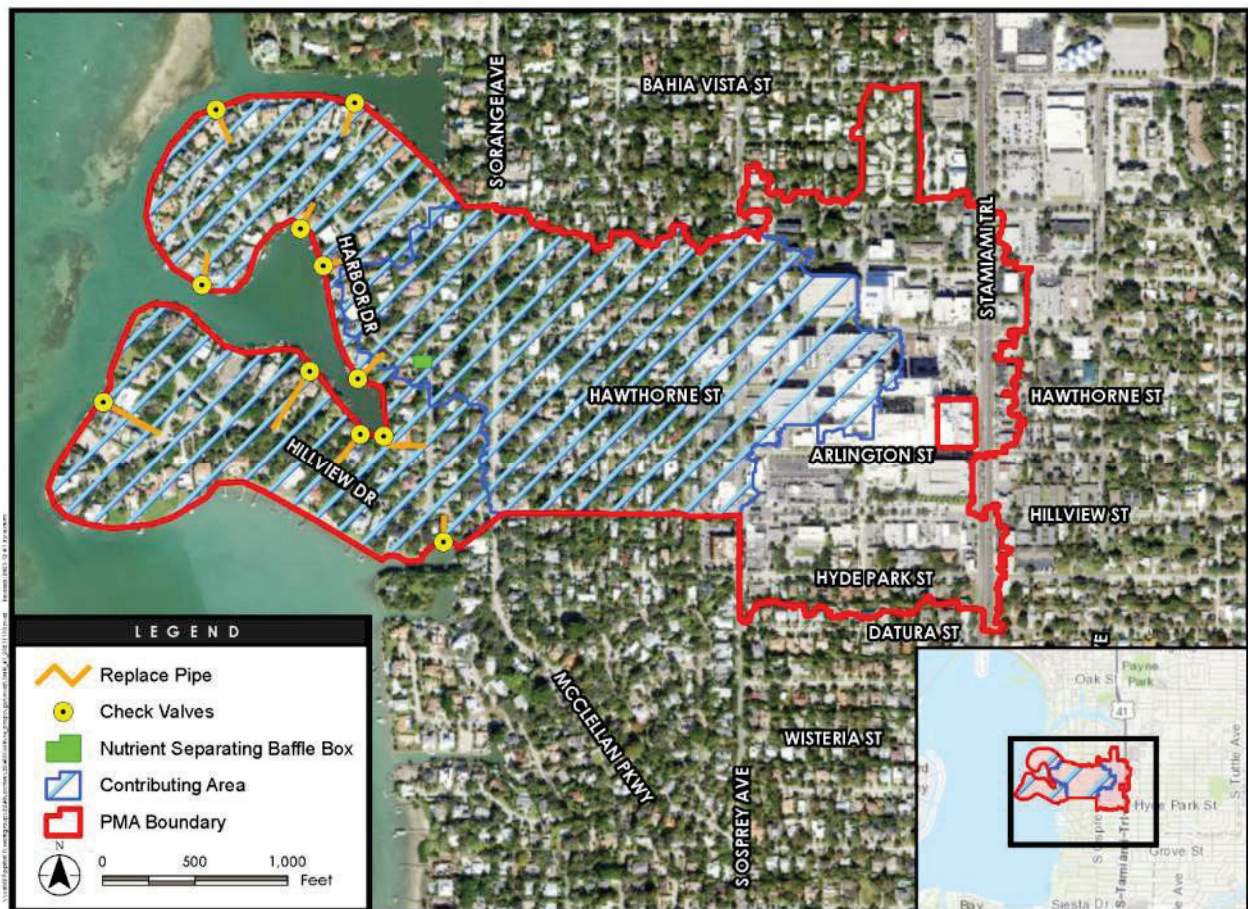
WOOD TOE PROTECTION WITH VEGETATED SOIL LIFTS DETAILS:
Phillippi Creek Concept Restoration



- NOTES:
1. HEADWATER CHANNEL IS TO OCCUR IN ALL REACHES SHOWN ON THE PLANS. THE LAYOUT SHALL FOLLOW THE PROPOSED ALIGNMENT BUT THE CONTRACTOR IS TO MAKE SPECIAL CARE NOT TO DISTURB MATURE TREES IF THEY CAN BE AVOIDED. THE FINAL ALIGNMENT NEAR SENSITIVE AREAS IS TO BE FIELD FIT TO MINIMIZE DISTURBANCE, AS DIRECTED BY THE ONSITE ENGINEER.
 2. IN LOCATIONS WHERE THE PROPOSED CHANNEL IS BEING RAISED AND RECONNECTED WITH THE ADJACENT FLOODPLAIN, THE EXISTING CHANNEL IS TO BE FILLED WITH CLAY, COMPACTED IN 6" LIFTS, UP TO PROPOSED SUBGRADE ELEVATION.
 3. IN THE EVENT WHEN AN 18" DIA LOG IS NOT AVAILABLE A COMBINATION OF TWO (2) 12" LOGS MAY BE SUBSTITUTED FOR THE LIGHT TREATMENT SPECIFIED IN TABLE 2C.
 4. INSTALL MATERIAL BASED ON DEPTHS SPECIFIED IN TABLE 2C. MATERIAL DEPTHS IN PLAN AND PROFILE SHEETS ARE FOR DISPLAY PURPOSES ONLY.

HEADWATER CHANNEL DETAILS: Phillippi Creek Concept Restoration

Sarasota Memorial Hospital and US-41 – Coastal



Project Management Area

Existing street flooding in the Harbor Acres subdivision is a function of tidal influence as well as being downstream from a dense commercial development with minimal stormwater infrastructure. The drainage within this subbasin drains from the natural ridge (US-41) to the bay through the existing neighborhoods.

Conceptual BMP Description

- Nutrient Separating Baffle Box will capture sediment, vegetation, and trash at large outfall before it enters the bay
- Outfall pipes will be enlarged resulting in reduced street flooding and removing structures from the horizontal floodplain.
- One-way check valves installed at end of outfall pipes will reduce tidal nuisance flooding.

Score 45

Cost \$2,463,173

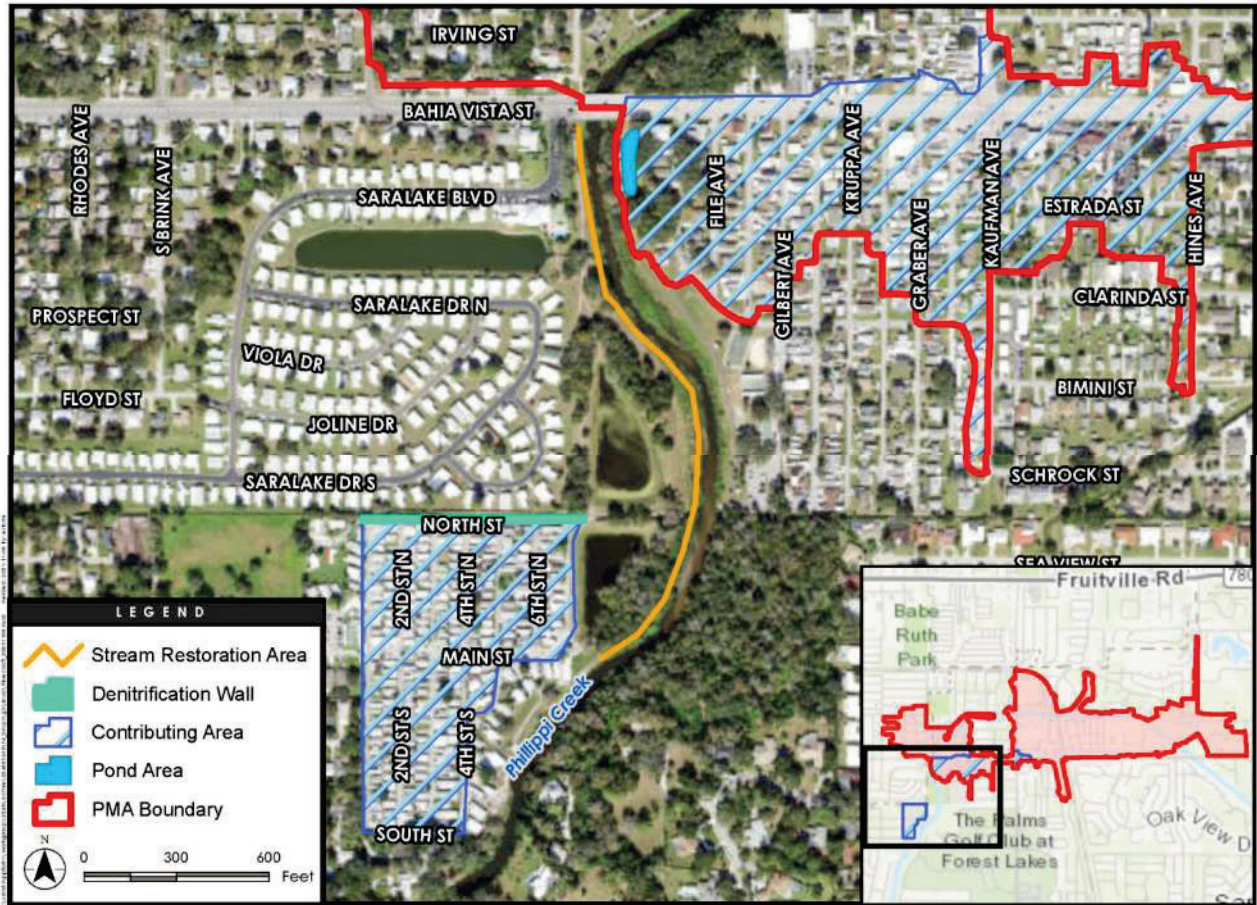
Benefits

- Annual TN Removal 111.5 lb/yr
- \$1,104/lb TN reduction estimated annually over the 20 year expected life of the project
- Elimination 5500 LF of roadway level of service deficiencies (100 year flooding 12" or less for local streets) within Harbor Acres
- Reduction of residential structure flooding from 53 flooded structures to 12 within Harbor Acres.
- Benefit-Cost Ratio 0.50
- Resilient in NOAA 2100 future condition

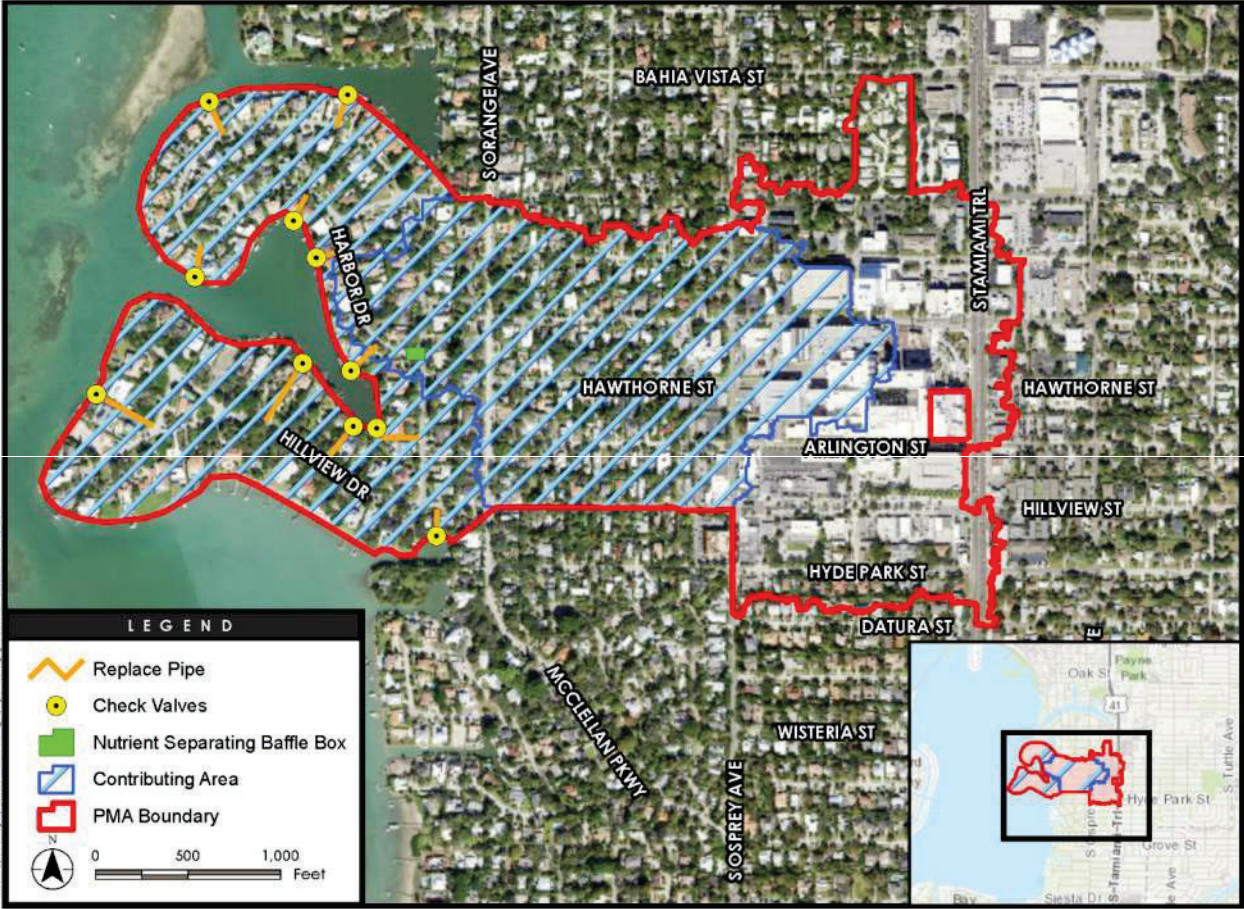
PROJECT MANAGEMENT AREA: SARASOTA MEMORIAL HOSPITAL & US 41
CONCEPTUAL PLAN COST ESTIMATE - NUTRIENT SEPARATING BAFFLE BOX; STORM PIPE & CHECK VALVES

DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
Nutrient Separating Baffle Box - 36" Pipe	EA	1	\$122,000.00	\$122,000
One-Way check valve - 12" pipe	EA	1	\$4,000.00	\$4,000
One-Way check valve - 18" pipe	EA	1	\$9,000.00	\$9,000
One-Way check valve - 24" pipe	EA	3	\$14,000.00	\$42,000
One-Way check valve - 30" pipe	EA	1	\$18,000.00	\$18,000
One-Way check valve - 36" pipe	EA	4	\$22,000.00	\$88,000
One-Way check valve - 42" pipe	EA	1	\$32,000.00	\$32,000
One-Way check valve - 54" pipe	EA	2	\$56,000.00	\$112,000
One-Way check valve - 60" pipe	EA	1	\$74,000.00	\$74,000
Storm Pipe - 12" RCP	LF	140	\$97.00	\$13,580
Storm Pipe - 14" x 23" ERCP	LF	175	\$95.00	\$16,625
Storm Pipe - 19" x 30" ERCP	LF	769	\$109.00	\$83,821
Storm Pipe - 24" x 38" ERCP	LF	517	\$157.00	\$81,169
Storm Pipe - 34" x 53" ERCP	LF	1,576	\$255.00	\$401,880
Storm Pipe - 29" x 45" ERCP	LF	220	\$184.50	\$40,590
Storm Pipe - 43" x 68" ERCP	LF	410	\$320.00	\$131,200
Storm Pipe - 48" x 76" ERCP	LF	250	\$456.00	\$114,000
Adjust Storm Structure	EA	11	\$750.00	\$8,250
Landscape/Wall/Infrastructure Replacement Allowance	EA	11	\$20,000.00	\$220,000
Silt Fence	LF	0	\$2.00	\$-
Materials Subtotal				\$1,612,115
Temporary Traffic Control (5%)				\$80,606
Staging Area (5%)				\$80,606
Contingency (30%)				\$483,635
Construction Total				\$2,418,173
Design and Permitting				\$45,000
Annual Operations & Maintenance Cost				\$5,500
CONCEPTUAL PLAN COST				\$2,468,673
Note: Percentages based on Materials Subtotal. Property acquisition costs (if needed) are not included				

Pinecraft - Phillippi Creek

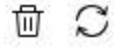


Sarasota Memorial Hospital & US41 - Coastal Basin



Enter a Census Tract number into the search. From the Search Results drop panel, select the Tract and Block number combination as input to the Income Summary tool. The tool will then summarize the LOM Income percentages for the selected and adjacent blocks.

0 Feet



2020 Census Block Group 10

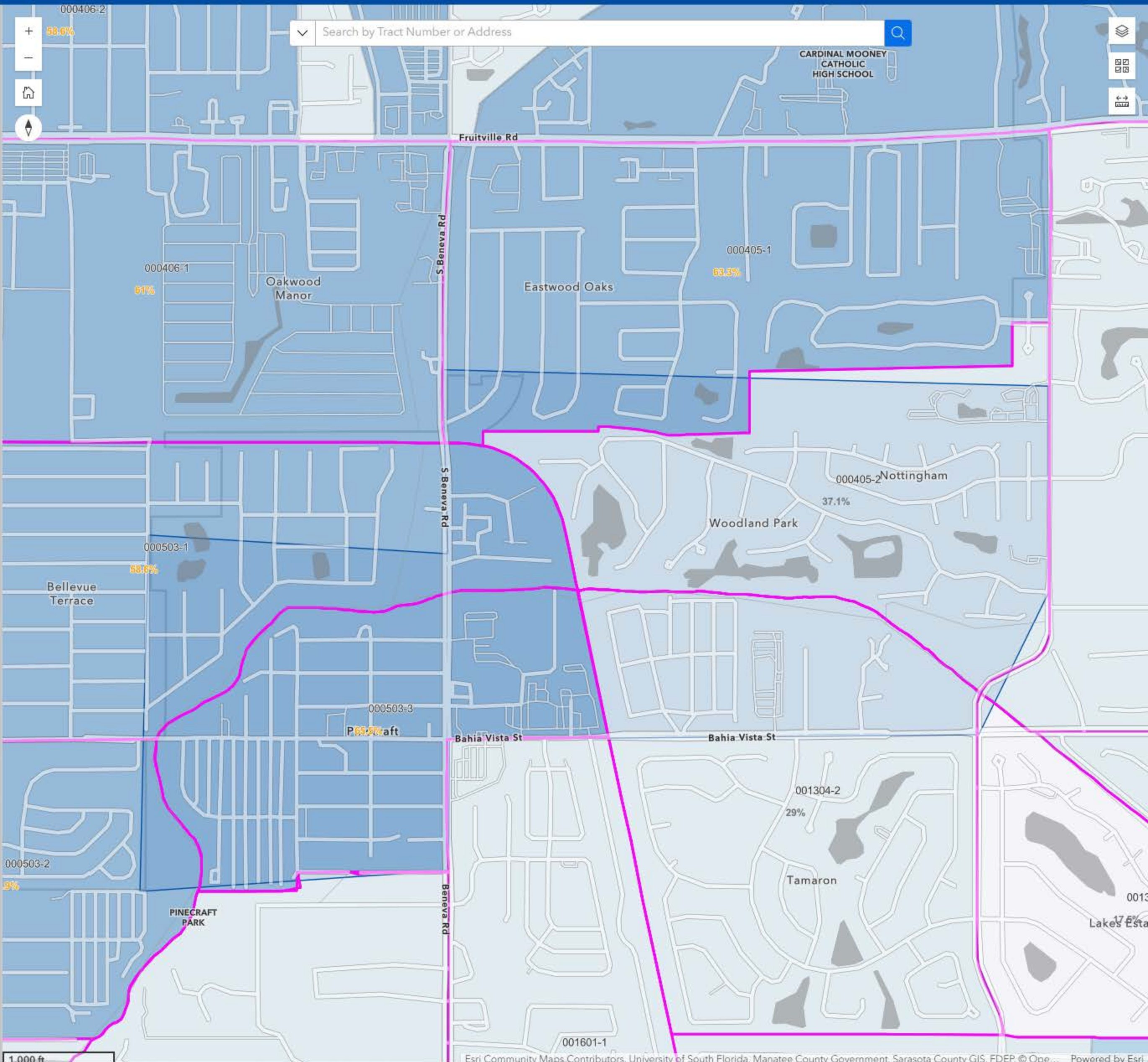
LMI % 44.4

2015 Census Block Group 10

LMI % 49.39

Layers

- > County Infrastructure Layers
- > Census Block Group Layers
- > ACS Variable Layers
- > County Boundary Layers



Search by Tract Number or Address

CARDINAL MOONEY CATHOLIC HIGH SCHOOL

Oakwood Manor

Eastwood Oaks

Nottingham

Woodland Park

Bellevue Terrace

Pinecraft

Bahia Vista St

Bahia Vista St

001304-2

Tamaron

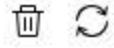
PINECRAFT PARK

Lakes Esta

1,000 ft

Enter a Census Tract number into the search. From the Search Results drop panel, select the Tract and Block number combination as input to the Income Summary tool. The tool will then summarize the LOM Income percentages for the selected and adjacent blocks.

0 Feet



2020 Census Block Group 5

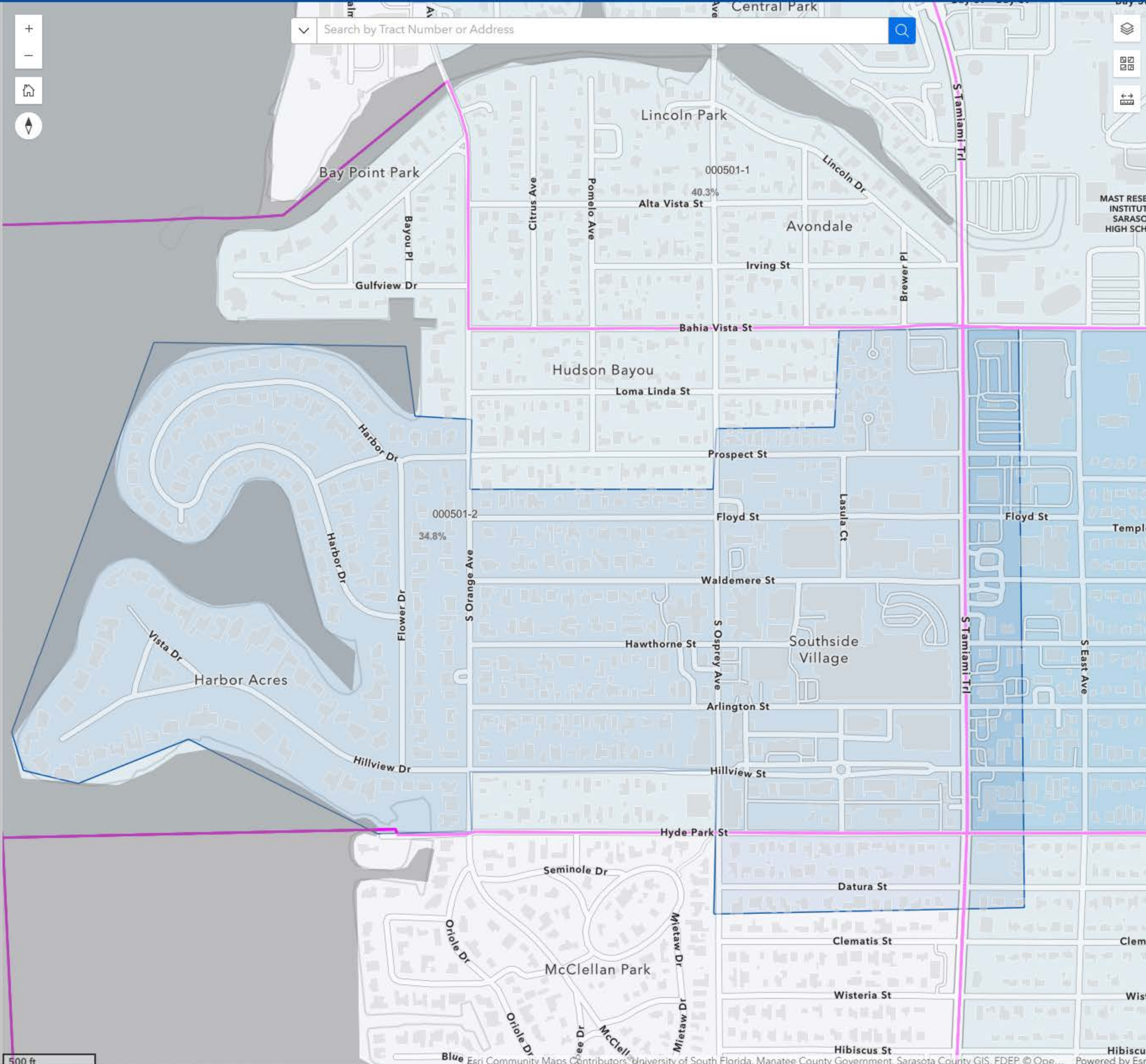
LMI % 35.01

2015 Census Block Group 5

LMI % 32.3

Layers

- > County Infrastructure Layers
- > Census Block Group Layers
- > ACS Variable Layers
- > County Boundary Layers



500 ft

Sarasota Memorial Hospital and US-41 Area

Existing street flooding on Harbor Drive, Hillview Drive and Flower Drive in the Harbor Acres subdivision is a function of tidal influence as well as being downstream from a dense commercial development with minimal BMP's. The drainage within this subbasin drains from the natural ridge along US-41 to the bay through the existing neighborhoods.

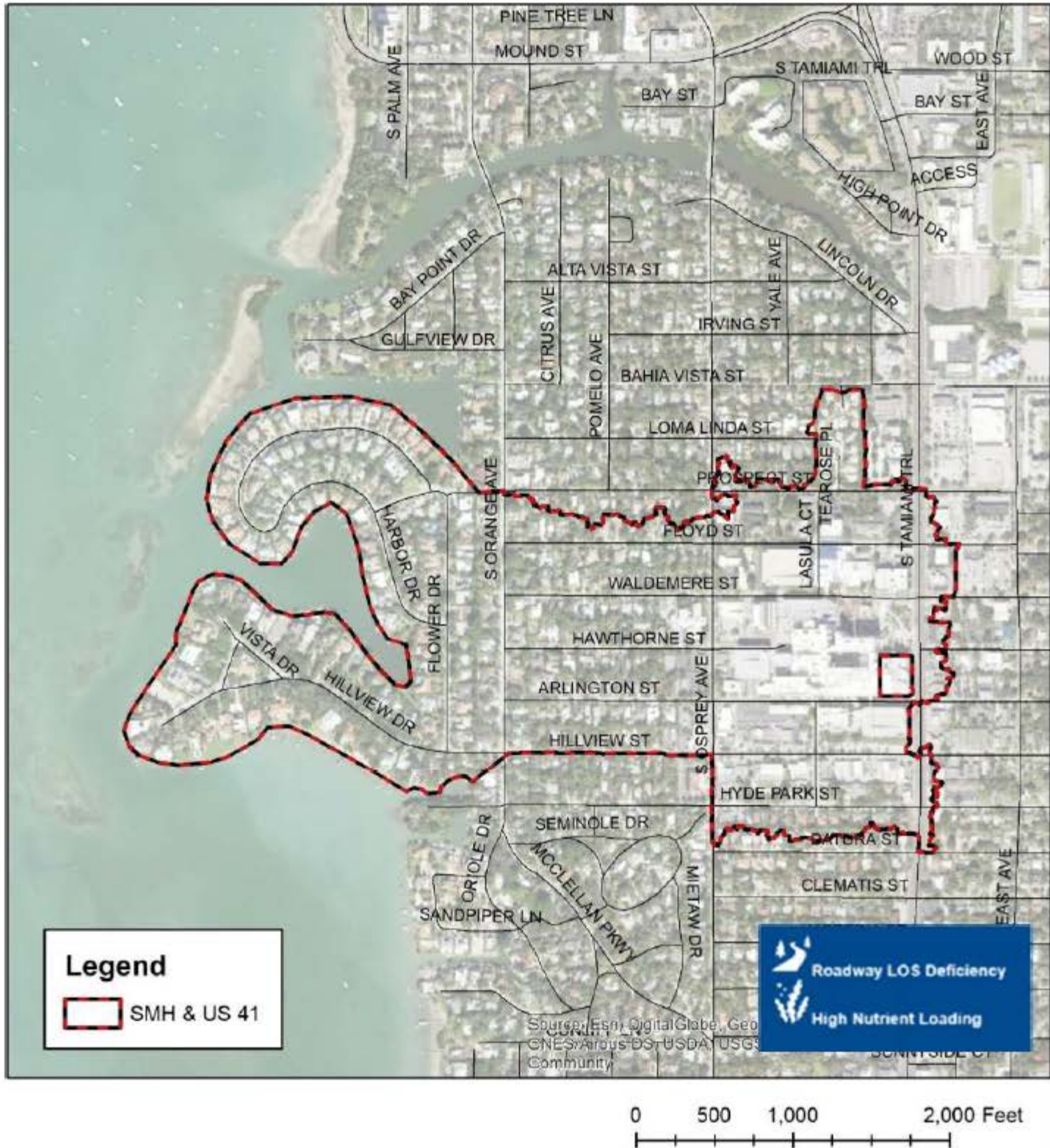


Figure 32 - Sarasota Memorial Hospital & US 41 Priority Management Area