Resilient SRQ – Round 2 Grant Application

Whitaker Bayou Resiliency & Stormwater Mitigation Project *(Revised August 13th, 2025)*

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1 | Applicant

Sarasota County & City of Sarasota

2 | Primary Contact

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3 | Project Title & Location

Whitaker Bayou Resiliency & Stormwater Mitigation Project
• Entire 3.6-mile reach of Whitaker Bayou (Sarasota Bay → 47th St)
• Three "hot-spot" sub-basins: **Tri-Par, 17th St / US-301, and US-41 / 10th St**

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4 | Project Description & Need

Hydrologic and water-quality analyses (2024-25) confirm that three infrastructure choke-points drive **> 80 %** of the bayou's flood LOS failures and nutrient exports.

- **Tri-Par** – chronic flooding at two confluences; high TN loading from industrial runoff.
- **17th St / US-301** – undersized culverts force backwater flooding into Forest Lakes and overtop an evacuation route.
- **US-41 / 10th St (Coastal)** – tidal backflow and untreated downtown runoff discharge directly to Sarasota Bay.

Targeted BMPs—linear treatment system plus dry retention (Tri-Par), twin 10' × 6' culverts with tide flaps (17th St), and sediment sump/BAM weirs/LID retrofit (US-41)—will lift each node to the **100-year (1 % ACE) Level-of-Service** and cut **Total Nitrogen (TN) by ~7,340 lb/yr**.

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5 | Scope of Work & Cost (2025 dollars)

Component	Cost
A. Tri-Par linear treatment + dry retention	$ 3,787,767
B. US-41 / 10th St sediment sump, BAM weirs, LID retrofit	$ 2,972,626
C. 17th St / US-301 twin 10'×6' box culverts + tide flap	$ 3,500,000
D. 1,800 LF bank stabilization & native re-vegetation	$ 1,170,000
E. Three nutrient-separating baffle boxes	$ 990,000
F. Design, permitting, utility coordination (≈ 15 %)	$ 1,900,000
G. Construction contingency (10 %)	$ 1,570,000
Total Estimated Project Cost	**$ 15,890,000**

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6 | Funding Strategy

Source	Amount	% of Total
Resilient SRQ – Round 2 (CDBG-DR)	**$ 15,890,000**	**100 %**

(City/County provide in-kind ROW, inspection, and outreach support; no local cash match.)

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7 | Expected Outcomes & Benefits

Metric	Tri-Par	17th St / US-301	US-41 / 10th St	Project Total
Structures removed from 100-yr floodplain	12	38 (est.)*	—	**≈ 50**
Roadway LOS deficiencies eliminated	1,018 LF (incl. 416 LF evac route)	≈ 500 LF evac route	—	**≈ 1,500 LF**
Annual TN removed	6,619 lb/yr	~10 lb/yr (culvert scour control)	710 lb/yr	**≈ 7,340 lb/yr**
Conveyance LOS	< 2-yr → **100-yr**	< 2-yr → **100-yr**	Tidal flooding blocked	All nodes at **100-yr**

*38 structures is the count from the 17th St backwater model used in the 2024 CCNA review memo.

Additional benefits

- Protects ≈ $ 280 M in assessed value along US-41 arts & hospitality corridor.
- Achieves <$ 30/lb TN at Tri-Par—well below Sarasota Bay Estuary Program cost-effectiveness target.
- Designs account for **1.5 ft SLR (NOAA 2050-intermediate)** to ensure long-term performance.

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8 | Cost Reasonableness & Market Validation

- Tri-Par and US-41 costs from SBEP Tidal-Stream Assessment, escalated to 2025 dollars; culvert costs match 2025 FDOT District 1 averages for twin 10'×6' boxes.
- 15 % soft-cost and 10 % contingency meet USACE Environmental Infrastructure standards.

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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 performance monitoring	through **Dec 2030**

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10 | Request

The City of Sarasota and Sarasota County respectfully request **$ 15,890,000** in **Resilient SRQ – Round 2 (CDBG-DR)** funding to construct the Whitaker Bayou Resiliency & Stormwater Mitigation Project. This fully funded effort will:

- Deliver **100-year flood protection** at three critical nodes,
- Remove **> 7,300 lb/yr of nitrogen** before it reaches Sarasota Bay,
- Eliminate evacuation-route closures and stabilize eroding banks, and
- Provide durable, equitable climate resilience for more than **18,000 residents** in Sarasota's northern neighborhoods.

Tri-Par Area

The Tri-Par Area is subject to historic flooding, located within Whitaker Bayou basin at the confluence of Whitaker Main Canal and Tributary A, as well as confluence of Tributaries A and B. The area has a history of flooding and includes significant nitrogen loading as well – which is primarily due to the age and intensity of land-use and commercial/industrial land-use types.

Figure 21 - Tri-Par Priority Management Area

17th and US-301 Area

This area has street flooding level of service deficiencies on US - 301, existing street flooding on US - 301, 17th Street and N. East Ave and Structure flooding LOS deficient for 10 commercial buildings. The area also experiences high or medium nitrogen loading throughout.

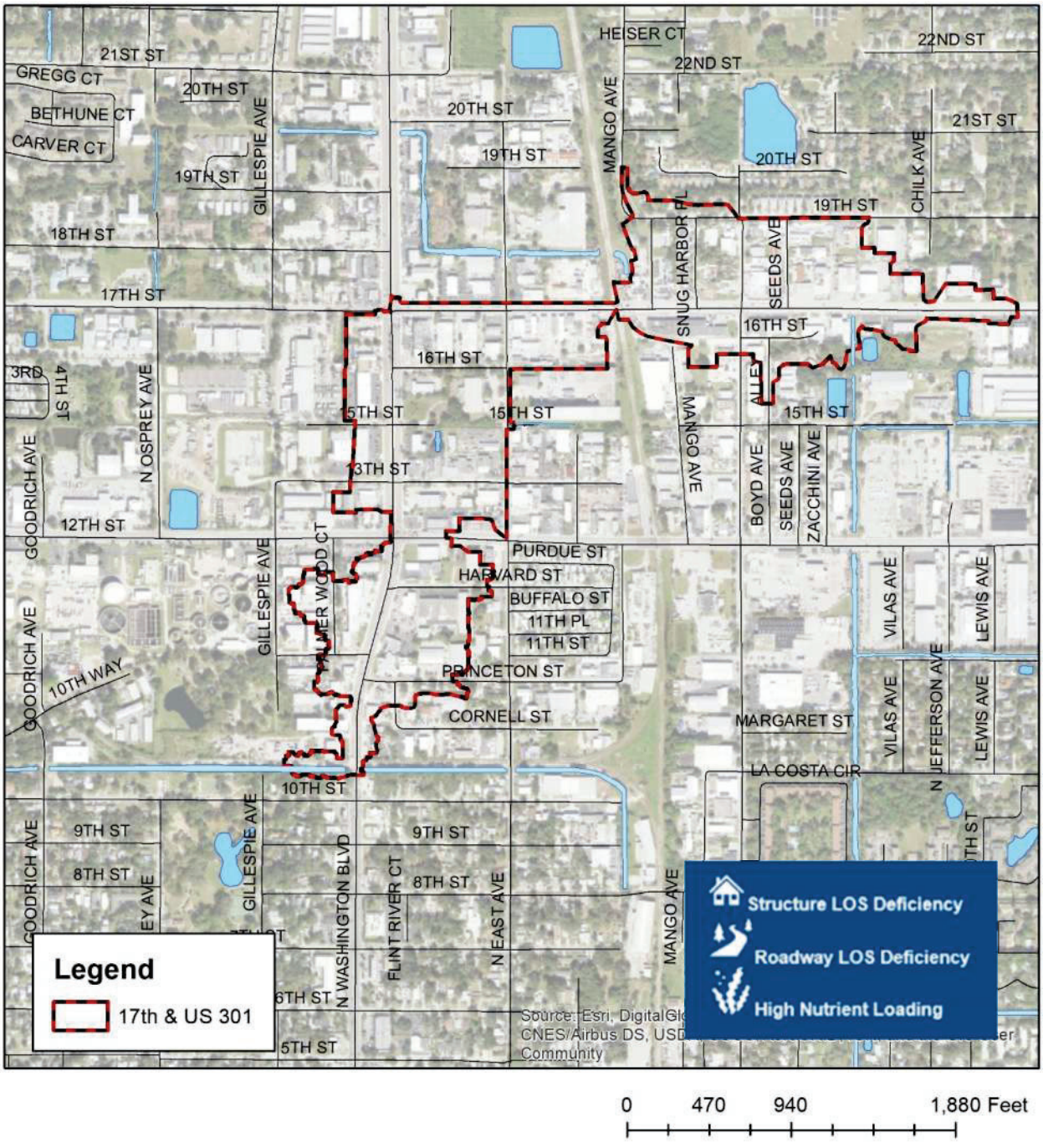


Figure 25 - 17th & US301 Priority Management Area

US-41 and 10th Street Area

There is a roadway LOS deficiency on US-41 with high or medium nutrient loading. Intense urban development upstream of the 10th Street boat basin contributes to the direct discharge of stormwater run-off into Sarasota Bay. The boat basin has been maintained throughout the years and a sediment removal project was completed in 2018. SWFWMD cooperatively funded project No. W606 to install a nutrient separating baffle box on 10th St. just east of Florida Ave. The Bay Partnership is redeveloping the City owned bayfront into a more highly used public space and is interested in partnering on improvements.

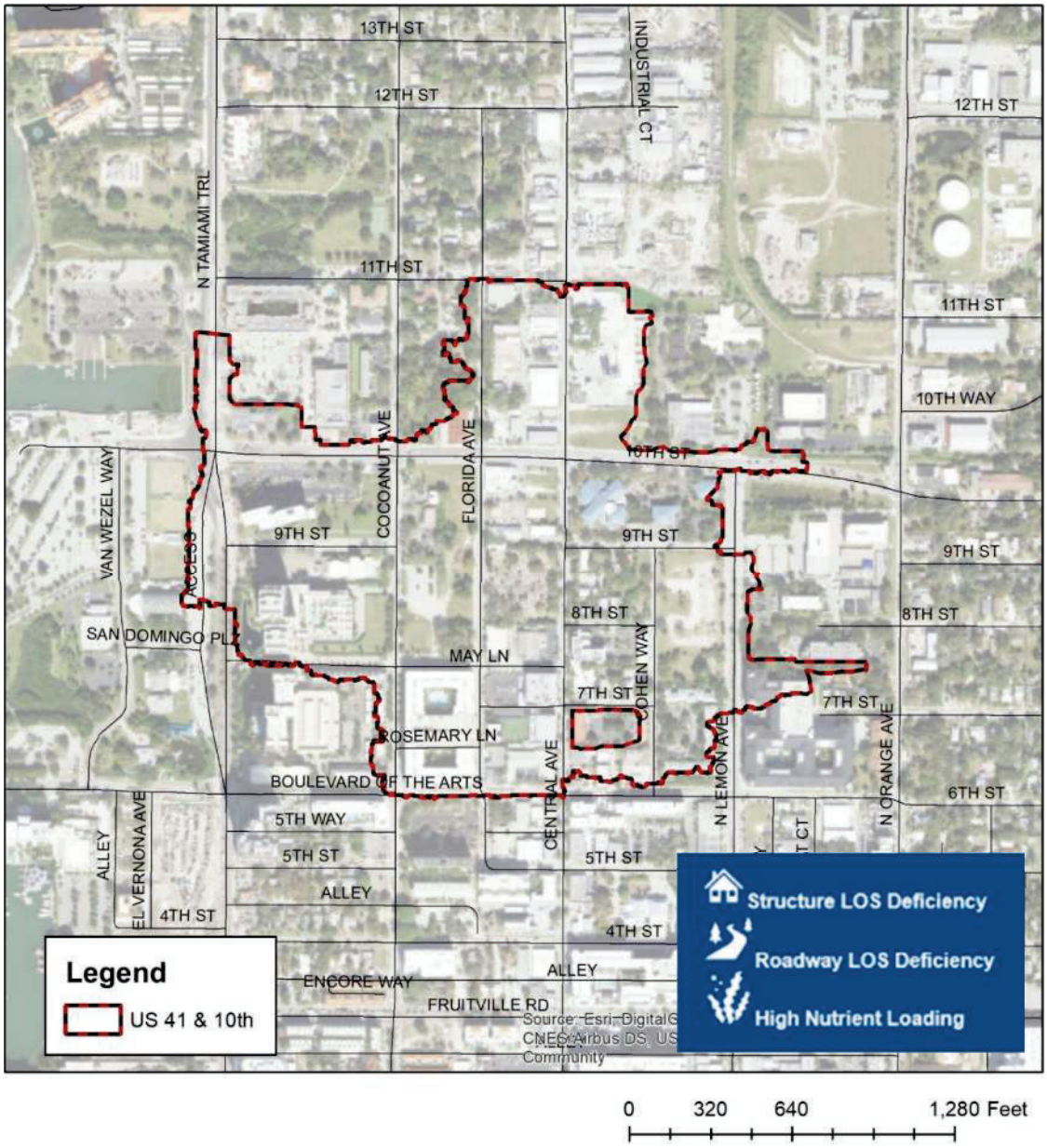
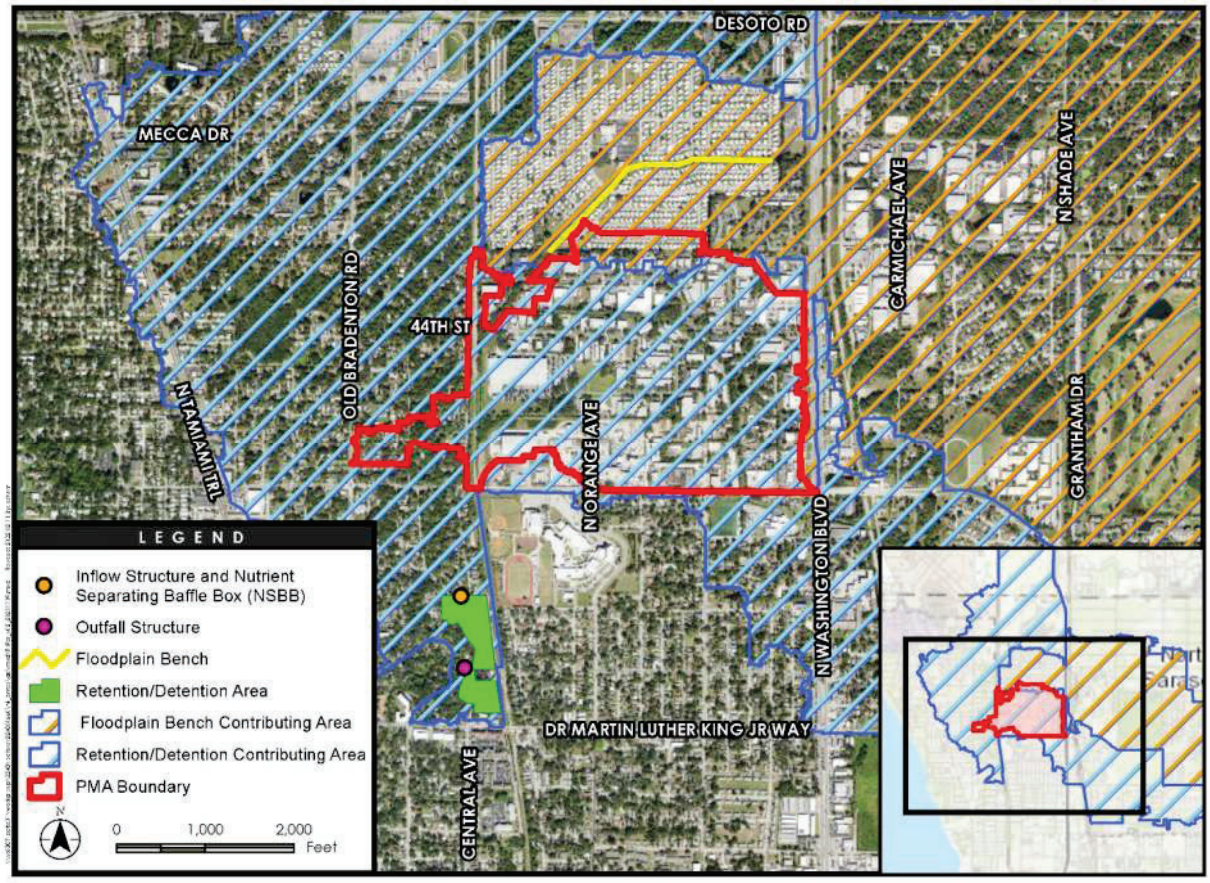


Figure 26 - US 41 & 10th Street Priority Management Area

Tri-Par – Whitaker Bayou



Project Management Area

The Tri-Par Area has historic long-standing flooding located within Whitaker Bayou basin at two main confluences (Canal/Trib A and Trib A/B) The area includes high nutrient loading due to the age and intensity of land-use (commercial/industrial).

Conceptual BMP

- Linear treatment system channel retrofit with floodplain bench and weirs for storage and pollutant removal.
- Large dry retention area to provide floodplain storage
- Nutrient separating baffle box at retention area inflow will capture sediment, vegetation, and trash

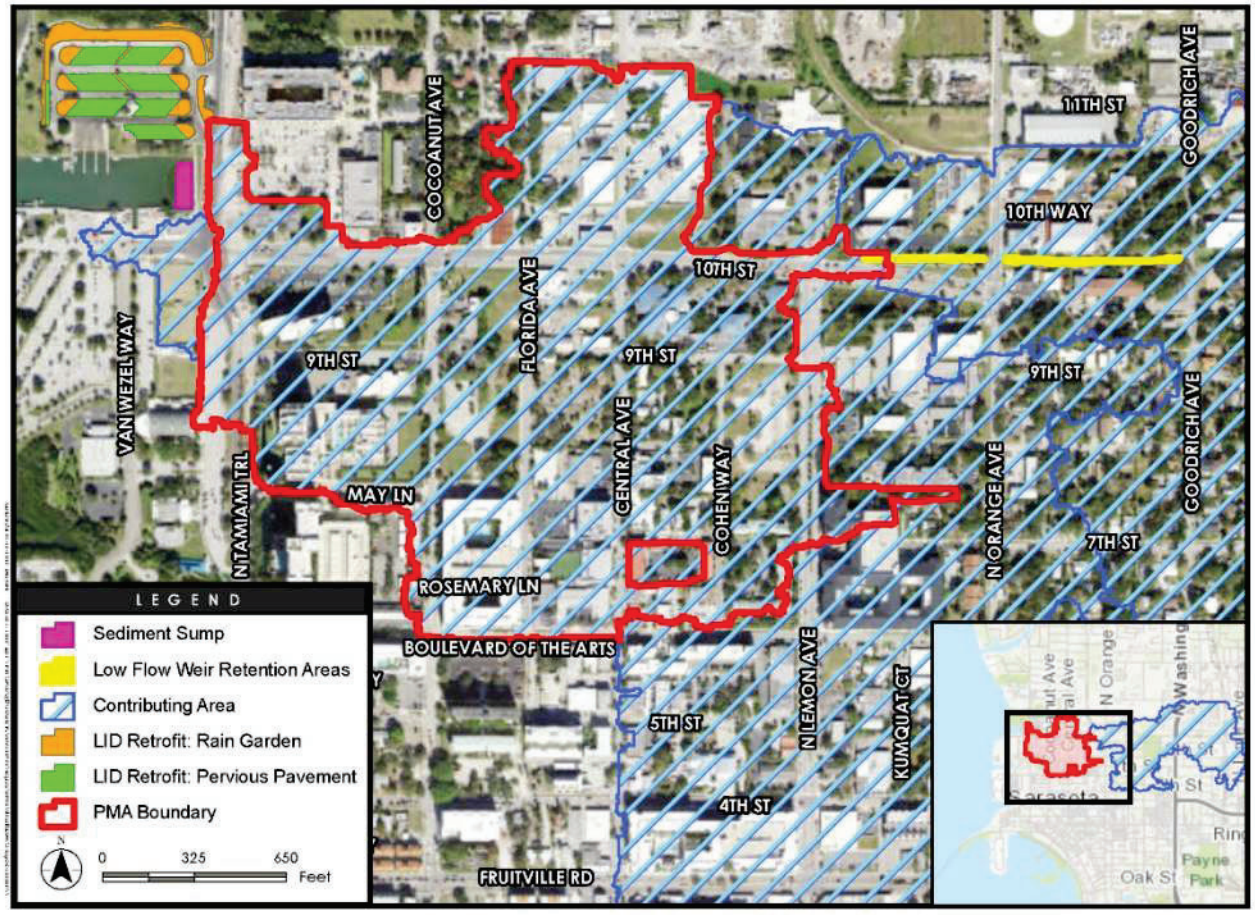
Score 100 **Cost** $3,787,767

Benefits

- Annual TN removal 6,619 lbs
- $28/lb TN removed over 20 year life expectancy of BMP
- 12 structures removed from 100yr storm risk
- 1018 linear feet of roadway removed from LOS Deficiency including 416 feet of evacuation route
- Flood Cost-Benefit Ratio = 1.08
- Resilient in NOAA 2100 future condition

PROJECT MANAGEMENT AREA: TRI-PAR				
CONCEPTUAL PLAN COST ESTIMATE - DRY RETENTION AREA; NUTRIENT SEPARATING BAFFLE BOX				
DESCRIPTION	**UNIT**	**QUANTITY**	**UNIT COST**	**TOTAL COST**
Nutrient Separating Baffle Box - 48" Pipe	EA	1	126000	126000
Storm Pipe - 48" RCP	LF	80	$ 230	$ 18,400
Concrete weir - form and pour in place	CY	104	$ 900	$ 93,600
Regular Excavation	CY	19360	$ 7	$ 135,520
Subsoil Excavation	CY	48,400	$ 6	$ 290,400
Sod	SY	13,300	$ 2	$ 26,600
Silt Fence	LF	3,800	$ 2	$ 7,600
Floating Turbidity Barrier	LF	300	$ 9	$ 2,700
Materials Subtotal				**$ 700,820**
Temporary Traffic Control (5%)				$ 35,041
Staging Area (5%)				$ 35,041
Mobilization (10%)				$ 70,082
Contingency (30%)				$ 210,246
Construction Total				**$ 1,051,230**
Property Acquisition				**$ 2,012,580**
Design and Permitting				**$ 90,000**
Annual Operations & Maintenance Cost				**$ 5,500**
CONCEPTUAL PLAN COST - DRY RETENTION AREA; NSBB				**$ 3,159,310**
CONCEPTUAL PLAN COST ESTIMATE - LINEAR TREATMENT AREA / FLOODPLAIN BENCH				
DESCRIPTION	**UNIT**	**QUANTITY**	**UNIT COST**	**TOTAL COST**
Storm Pipe - 18" RCP	LF	120	$ 90	$ 10,800
Storm Structure - MES - 18"	EA	6	$ 1,810	$ 10,860
Concrete weir - form and pour in place	CY	22	$ 900	$ 19,800
Regular Excavation	CY	6,000	$ 7	$ 42,000
Subsoil Excavation	CY	45,000	$ 6	$ 270,000
Sod	SY	6,900	$ 2	$ 13,800
Silt Fence	LF	6600	$ 2	$ 13,200
Floating Turbidity Barrier	LF	2	$ 9	$ 18
Wetland plantings	AC	0.36	$ 6,000	$ 2,160
Materials Subtotal				**$ 382,638**
Temporary Traffic Control (5%)				$ 19,132
Staging Area (5%)				$ 19,132
Mobilization (10%)				$ 38,264
Contingency (30%)				$ 114,791
Construction Total				**$ 573,957**
Design and Permitting				**$ 60,000**
Annual Operations & Maintenance Cost				**$ 2,000**
CONCEPTUAL PLAN COST - LINEAR TREATMENT AREA / FLOODPLAIN BENCH				**$ 635,957**
Note: Percentages based on Materials Subtotal				

US-41 and 10th Street – Coastal



Project Management Area

A large part of the intensely urbanized downtown core drains directly into the bay at the 10th St. boat ramp. Largely untreated stormwater with a few BMPs is found in this area. There are flood LOS deficiencies in part of the roadways.

Conceptual BMP

- A sediment sump (pink) will capture sediment and nutrients prior to discharge into the Bay.
- Existing open conveyance will be improved with low flow weirs and side-bank BAM filter
- LID retrofit of existing impervious parking area

Score 80 **Cost** $2,972,626

Benefits

- Annual TN Removal = 710 lb/yr
- $209/lb TN over 20 year expected life of the three combined BMPs
- Resilient in NOAA 2100 future condition
- No feasible flood protection project was identified for this area due to lack of available land.

PROJECT MANAGEMENT AREA: US 41 & 10TH STREET				
CONCEPTUAL PLAN COST ESTIMATE - CONVERT EXISTING PARKING SPOTS TO PERVIOUS PAVEMENT				
DESCRIPTION	**UNIT**	**QUANTITY**	**UNIT COST**	**TOTAL COST**
Clearing and Grubbing	AC	2	$ 18,800	$ 30,080
Pervious Concrete - 6" layer	SY	7744	$ 75	$ 580,800
Bedding Stone	TN	2,672	$ 130	$ 347,360
Silt Fence	LF	1,500	$ 2	$ 3,000
Inlet Protection	EA	18	$ 140	$ 2,520
Materials Subtotal				**$ 963,760**
Temporary Traffic Control (5%)				$ 48,188
Staging Area (5%)				$ 48,188
Mobilization (10%)				$ 96,376
Contingency (30%)				$ 289,128
Construction Total				**$ 1,445,640**
Design and Permitting				**$ 40,000**
Annual Operations & Maintenance Cost				**$ 2,500**
CONCEPTUAL PLAN COST				**$ 1,488,140**
CONCEPTUAL PLAN COST ESTIMATE - LOW FLOW WEIRS WITH SIDE-BANK FILTRATION				
DESCRIPTION	**UNIT**	**QUANTITY**	**UNIT COST**	**TOTAL COST**
Regular Excavation	CY	1,620	$ 7	$ 11,340
Embankment	CY	310	$ 9	$ 2,790
Underdrain-6"	LF	2,080	$ 90	$ 187,200
Bedding Stone	TN	310	$ 130	$ 40,300
Biosorption Activated Media	CY	1000	$ 200	$ 200,000
Concrete weir - form and pour in place	CY	20	$ 900	$ 18,000
Rip Rap	TN	43	$ 120	$ 5,186
Sod	SY	1850	$ 2	$ 3,700
Silt Fence	LF	2,400	$ 2	$ 4,800
Floating Turbidity Barrier	LF	120	$ 9	$ 1,080
Materials Subtotal				**$ 463,056**
Temporary Traffic Control (5%)				$ 23,153
Staging Area (5%)				$ 23,153
Mobilization (10%)				$ 46,306
Contingency (30%)				$ 138,917
Construction Total				**$ 694,584**
Design and Permitting				**$ 55,000**
Annual Operations & Maintenance Cost				**$ 2,500**
CONCEPTUAL PLAN COST				**$ 1,215,140**
CONCEPTUAL PLAN COST ESTIMATE - SEDIMENT SUMP				
DESCRIPTION	**UNIT**	**QUANTITY**	**UNIT COST**	**TOTAL COST**
Sheet Pile	LF	194	$ 800	$ 155,200
Rip-Rap	TN	16	$ 120	$ 1,920
Subsoil Excavation	CY	767	$ 6	$ 4,602
floating turbidity barrier	LF	500	$ 9	$ 4,500
Materials Subtotal				**$ 166,222**
Temporary Traffic Control (5%)				$ 3,324
Staging Area (5%)				$ 8,311
Mobilization (10%)				$ 16,622
Contingency (30%)				$ 49,867
Construction Total				**$ 244,346**
Design and Permitting				**$ 30,000**
Annual Operations & Maintenance Cost				**$ 1,750**
CONCEPTUAL PLAN COST				**$ 276,096**
Note: Percentages based on Materials Subtotal				

Sarasota County

HUD Block-Grant Planning App

17th St and US-301

Enter a Census Tract number into the search. From the Search Results drop panel, selet 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 %	74.57

2015 Census Block Group	5
LMI %	75.47

Layers

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

Search by Tract Number or Address

St
24th St
Maple Ave
22nd St
000300-2
89.7%
21st St
Gregg Ct
Carver Ct
Gillespie Ave
N Washington Blvd
20th St
19th St
N East Ave
18th St
17th St
16th St
15th St
N Osprey Ave
000200-1
72.3%
13th St
12th St
11th St
10th Way
Original Gillespie Park
Purdue St
Buffalo St
11th Pl
Princeton St
Cornell St
10th St
Mango Ave
EMMA E BOOKER ELEMENTARY SCHOOL
23rd St
LIME LAKE PARK
N Lime Ave
Waterloo Ave
Chilk Ave
Booker Ave
25th St
091102-1
78%
Boyd Ave
Seeds Ave
Zacchini Ave
Vilas Ave
N Jefferson Ave
000401-2
Lewis Ave
Snead Ave

500 ft

Enter a Census Tract number into the search. From the Search Results drop panel, selet 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 4

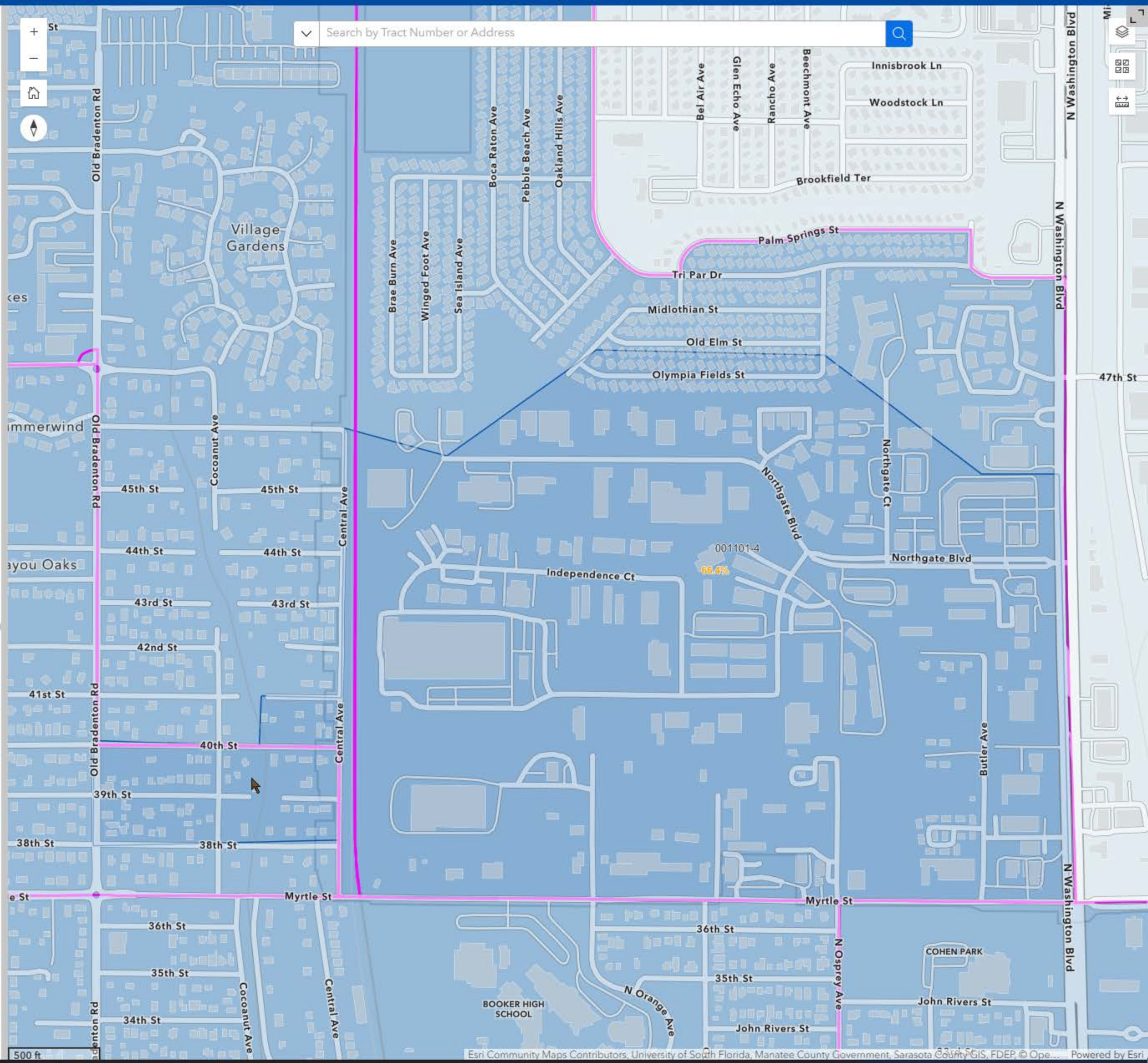
LMI % 70.64

2015 Census Block Group 4

LMI % 64.5

Layers

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



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0 Feet

2020 Census Block Group 4

LMI % 55.86

2015 Census Block Group 4

LMI % 47.08

Layers

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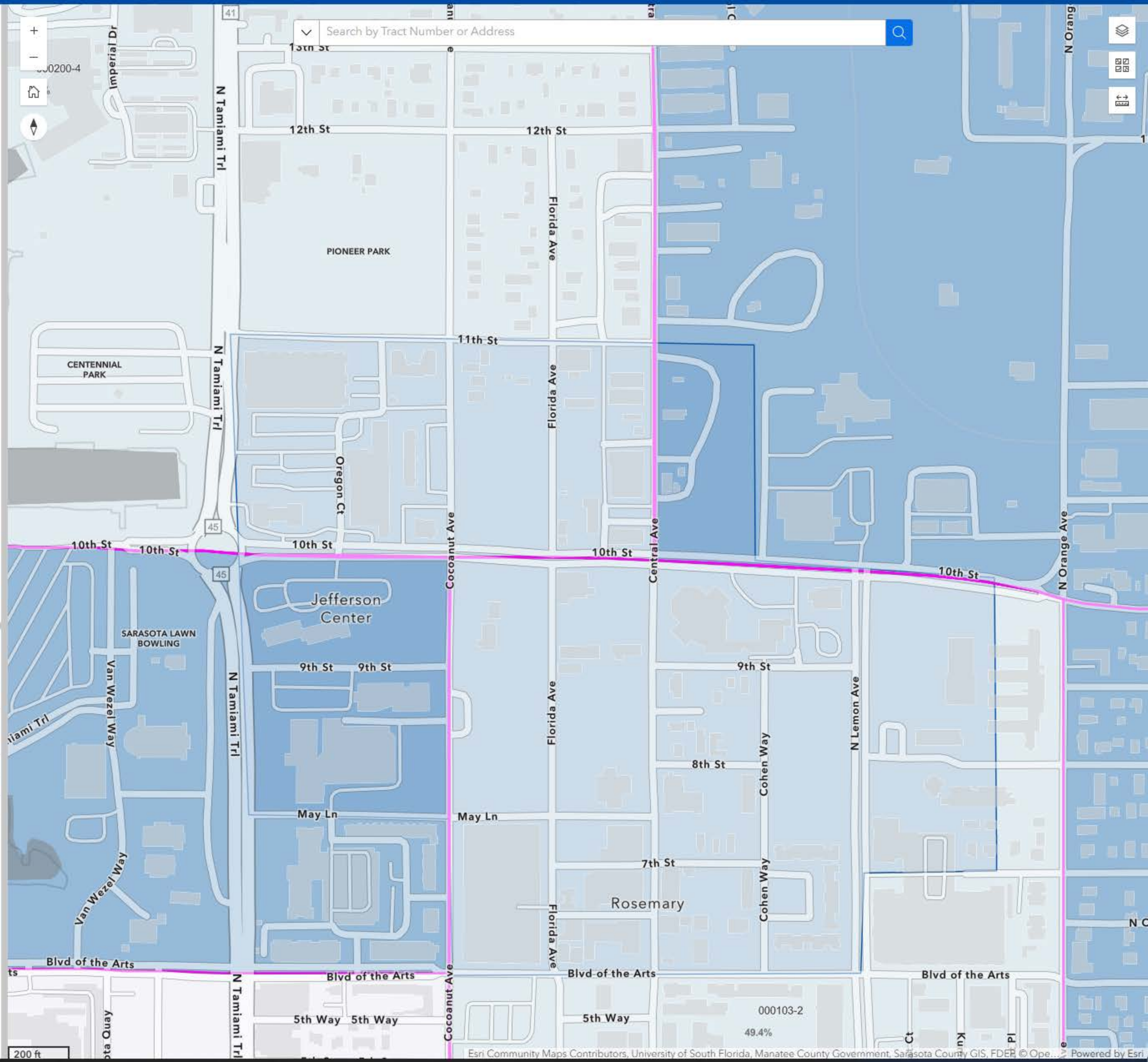

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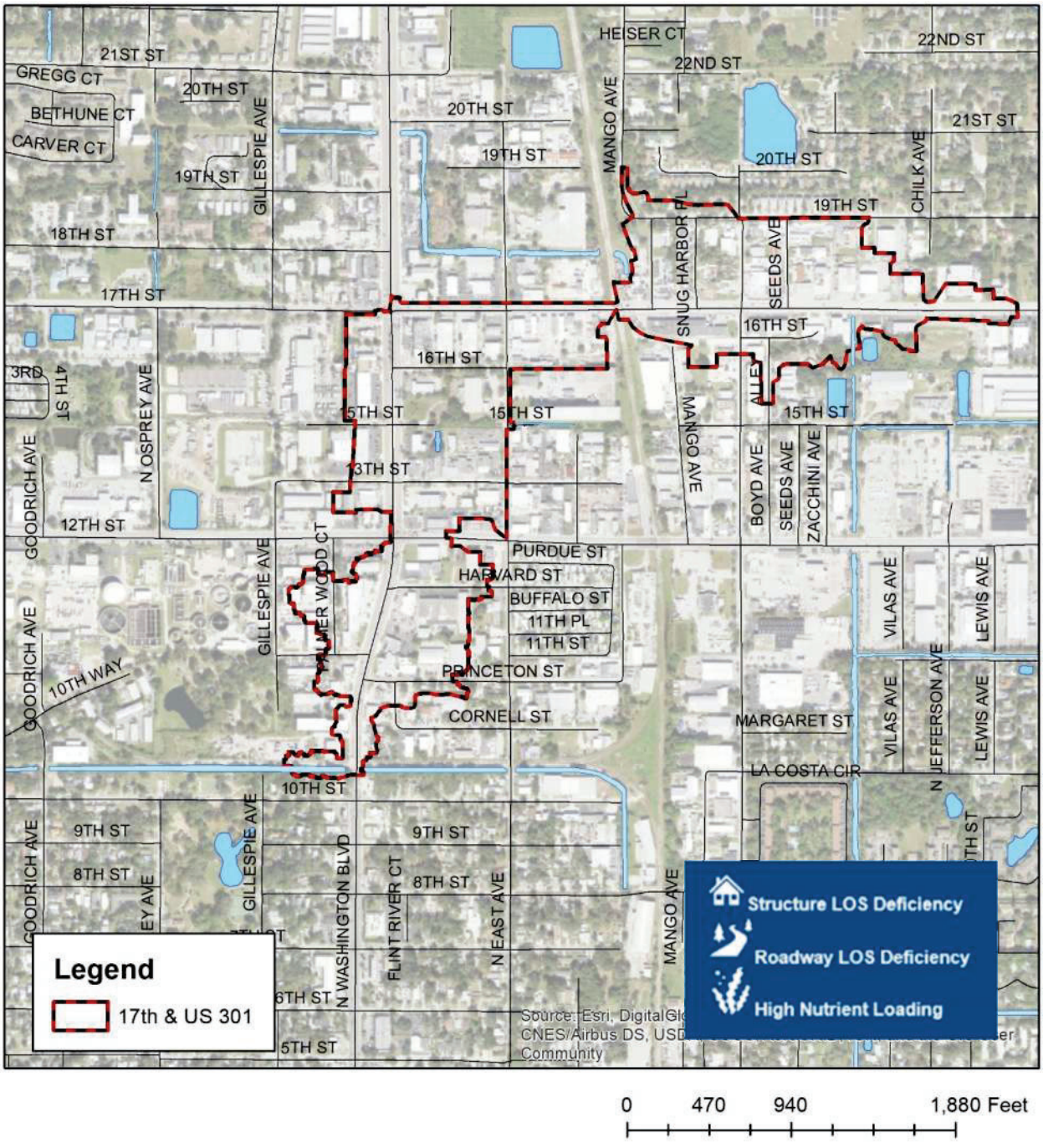

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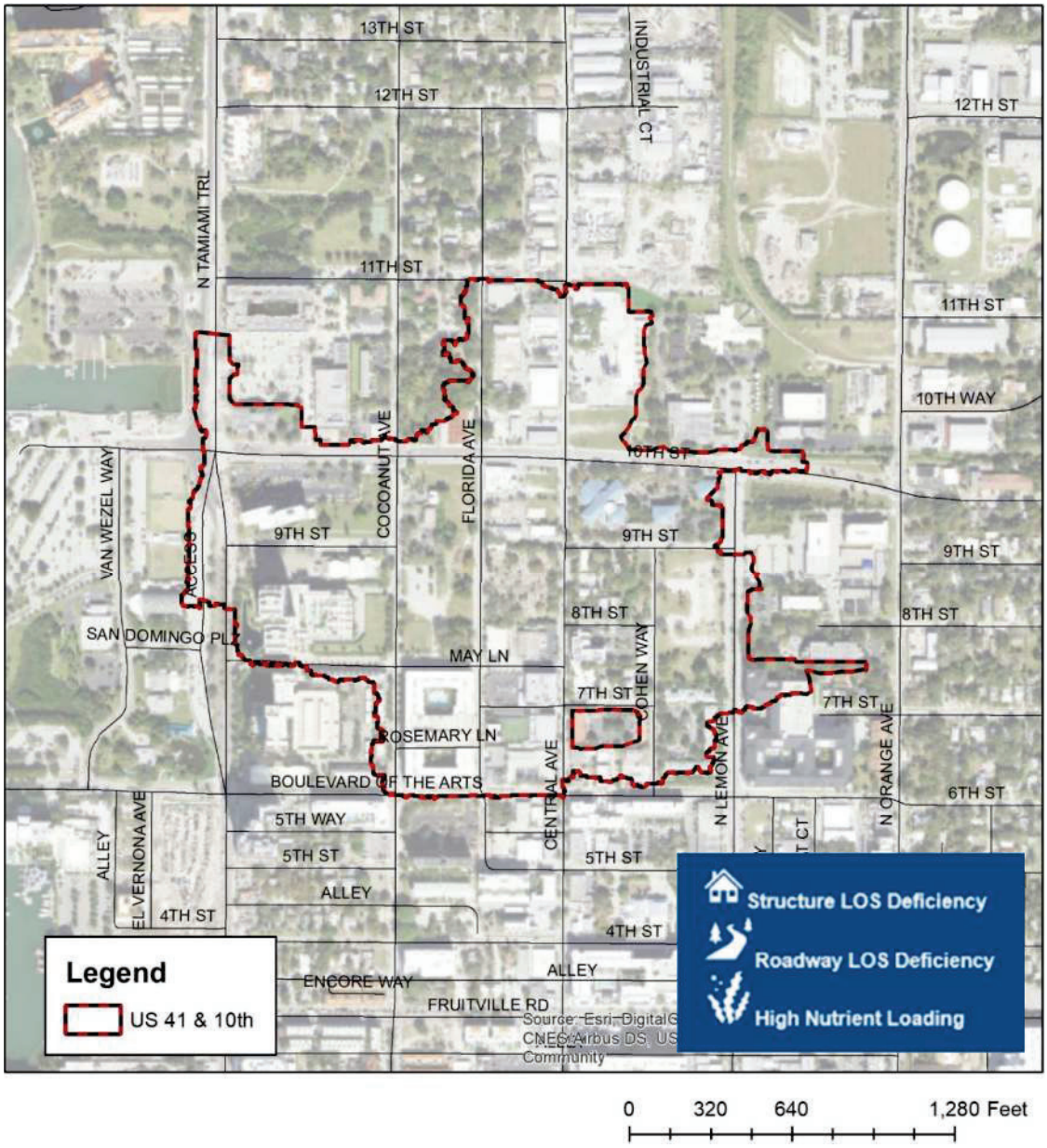

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