



Federal Infrastructure Investment and Jobs Act (IIJA)
Surface Transportation Block Grant Program - Direct Attributable/
Transportation Alternatives Set Aside/ Carbon Reduction Funding Request
Form

Date: September 15, 2023

Project Information:

Project Name: St. Joseph Street and Lewis Drive Multimodal Improvements
Project Location: St. Joseph St from US 421 (N. Lake Park Blvd) to Lewis Dr and Lewis Dr to Access Rd
TIP ID: EB-6039 Total Project Cost: \$1,876,513 Requested Funding: \$1,465,950 FY 2024
Existing Project? Yes
Primary Applicant: Town of Carolina Beach
Secondary Applicant:
Contact Person: Jeremy Hardison - Jeremy.hardison@carolinabeach.org

Instructions: Please use the following pages to assist your project proposal. If you wish, a separate document may be provided as the narrative in addition to the form.

Project Description (add pages if necessary):

The St. Joseph Street and Lewis Drive Multimodal improvement project consists of detailed design, engineering, and environmental permitting of approximately 1.0 miles of new location multiuse path along St. Joseph Street and Lewis Drive to Otter Road and sharrows along Lewis Drive from Otter Road to Access Road. Constructing this path will connect residents adjacent to the trail with the downtown boardwalk, the Snows Cut Marina, and the Carolina Beach Greenway. The construction of the St. Joseph Street and Lewis Drive Multimodal Improvements is a milestone the Town of Carolina Beach has been working towards for many years. Not only does it serve as an increased in the overall system, but it will nearly complete a connection from one side of N. Lake Park Boulevard and the historic boardwalk and downtown. Once complete, this project will link residents along St. Joseph Street and Lewis Drive with restaurants, parks, and other destinations within the town along a dedicated facility, offering those currently walking and riding with traffic a safer alternative. As envisioned the new multiuse trail will be a premier facility – not only drawing recreational use, but also general mobility use. Completing this project in an accelerated manner is crucial for the Town to utilize the funding from the Federal Highway Administration (FHWA) that is being administered by the North Carolina Department of Transportation (NCDOT).

To improve overall operations of the N. Lake Park Boulevard and to address recorded and near miss crashes observed at the intersection with St. Joseph Street, the Town of Carolina Beach is proposing to restrict movements at the intersection to right in/right out only operations. As shown to the right, the intersection is currently at a skew of approximately 75 degrees. As such visibility at the intersection is restricted due to the skew of the intersection and alignment of buildings and signs in the sight line which requires drivers to physically turn their body to see oncoming traffic from the north for a left turn out. Furthermore, the channelizing island placement and configuration can be confusing for drivers who are not familiar with the intersection.

Restricting the movements to RIRO will allow for the removal of the slip lane from US 421 (N. Lake Park Boulevard) which will in-turn allow from the reallocation of the former lane to extend the multi-use trail/wider sidewalk with a buffer an additional +/- 350 feet.

A copy of the proposed share use plan is attached for reference.



In summary, the project will create the following:

- 5,100 linear feet of separated shared use path for bikes and pedestrians
- Two (2) delineated crosswalks
- Improved US 421 (N. Lake Park Boulevard) and St. Joseph Street intersection
- An alternative for residents and visitors to access the historic boardwalk safely without using their car
- A reduction in emissions and VMT

Allocation of Points (100 points total):

In the following six (6) sections, you are to identify which points apply to your proposed project. In the event your project contains elements that are not listed, but for which you wish to obtain points, please submit a written justification. For example, upgrading the technology applied to an existing traffic control device or service could be a safety improvement (Section 1), or Capacity improvement (Section 2), or Multi-modal (Section 3) depending upon the application. Feel free to contact the WMPO prior to finalizing your application for further discussion.

1. Safety (25 Points)

Please identify which points below apply to the project. You may request a list of reported crashes from the appropriate jurisdiction, in addition to consulting the WMPO records. Provide any crash data and/or reports may be requested as supporting documentation (if requested).

- a. **Reported Crashes over past three (3) years (up to 5 points): 2**
 - i. **One (1) to five (5) – 2 points**
 - ii. Six (6) to ten (10) – 4 points
 - iii. More than ten (10+) – 5 points
 - iv. Other circumstances or incidents (provide narrative)

- b. **Crash pattern analysis (up to 7 points): 3**
 - i. Any pedestrian crashes? – If yes, 5 points
 - ii. Percent vehicles only (100% - 3 points)
 - iii. Percent vehicle/pedestrian-cyclist, if >0%, add 2 points
 - iv. Percent other, if >0%, add 2 points
 - v. Other circumstances (provide narrative)

- c. **Mode separation (proposed) – up to 5 points: 5**
 - i. **No physical barrier (e.g. buffer space) – 5 points to correct**
 - ii. No vertical barrier (e.g. curb & gutter, fencing) – 5 points to correct
 - iii. Time of day restrictions (e.g. peak hour No Left Turn)– 3 points
 - iv. Turn/access restrictions (No Thru movements) – 3 points
 - v. Road closures (partial or full) – 3 points
 - vi. Other circumstances (provide narrative)

- d. **Upgrading physical infrastructure – up to 5 points: 2**
 - i. **Narrow width sidewalks – 2 points to correct**
 - ii. Narrow width bicycle lanes – 2 points to correct
 - iii. Installing transit shelters – 2 points
 - iv. Other – up to 1 point (provide narrative)

- e. Designating and installing dedicated routes (up to 3 points): 2
 - i. Part of existing Safe Routes To School – 3 points
 - ii. Identified pedestrian crossings – 2 points
 - iii. Bicycle crossings – 2 points
 - iv. Closing gaps between facilities – 2 points
 - v. Other circumstances (provide narrative)

2. Congestion Management/Capacity Improvements (25 points): 3

Please identify which points below apply to the project. You may use prior analyses, studies or technical recommendations to support the proposal. If this project includes more than one location, or proposes a system wide improvement (as opposed to a single intersection), please provide a narrative to assist the review.

- a. Adding thru capacity – up to 10 points
 - i. Dedicated turn lane – 5 points per direction, 10 points maximum
- b. Adding turn lanes at intersections – up to 5 points
 - i. Conversion of dedicated lane to shared thru/turn lane – 3 points
 - ii. Dedicated turn lane – 5 points
- c. Restricting access - up to 5 points
 - i. Limiting left turn movements – 3 points
 - ii. Limiting thru movements – 5 points
- d. Revising traffic controls to improve thru capacity – up to 5 points
 - i. Upgrading traffic signal operations – 3 points
 - ii. Upgrading intersection geometry – 5 points
- e. Other capacity improvements (provide narrative)

3. Multi modal elements (20 points): _____

Please identify which points below apply to the project. We suggest your proposal reference any recommended practices, previously approved studies or technical recommendations. If this project includes more than one location, or proposes a system wide improvement (as opposed to a single intersection), please discuss this in the narrative to assist the review.

- a. Adding non-automotive capacity to existing roadways – up to 4 points
 - i. Installing sidewalk – 2 points
 - ii. Installing bicycle lane(s) – 2 points
- b. Extending bicycle lanes – up to 4 points
 - i. Extension < ½ mile – 2 points
 - ii. Extension ≥ ½ mile – 4 points
- c. Adding recreational trails – up to 4 points
 - i. New shared use path (SUP) 10 feet wide < ½ mile length – 2 points
 - ii. New SUP 10 feet wide ≥ ½ mile length – 4 points

- d. **Upgrading transit infrastructure – up to 4 points**
 - i. **Installing new transit stops (sign posts) – 2 points**
 - ii. **Installing shelters at new/existing transit stops – 4 points**
- e. **Reducing vehicle miles traveled (VMT) – up to 4 points (provide narrative)**
- f. **Other multi-modal proposals (provide narrative)**

4. Accessibility (15 points)

Please identify which points below apply to the project. Please provide assessments of existing conditions in the field, or documented deficiencies. Reference any and all recommended practices, design guides and/or standards in support of the proposal.

- a. **Closing sidewalk gaps – up to 6 points**
 - i. **Gap is < ¼ mile in total length – 2 points**
 - ii. **Gap is > ¼ mile in total length – 4 points**
 - iii. **Gap connects transit, school and/or trail – 6 points**
- b. **New ADA infrastructure (ramps, pedestrian signals, markings) – up to 5 points**
 - i. **Installing/replacing ADA ramps at intersection – 2 points**
 - ii. **Installing ADA ramps and pavement markings (crosswalks) – 3 points**
 - iii. **Installing pedestrian traffic signal equipment – 5 points**
- c. **Removing/addressing barriers – up to 4 points**
 - i. **New accessible roadway crossing – 2 points**
 - ii. **New accessible roadway crossing w/documented crashes – 4 points**

5. Project Status (10 points)

Please identify the stage of the proposal to determine which points below apply to the project. If this is an existing project, please list the previous award(s) and amounts in the narrative.

- a. **Design/Planning – 5 points**
- b. **Right-of-Way acquisition – 8 points**
- c. **Construction – 10 points**

6. Administration (5 points)

If this project was awarded STBGP funds previously, please identify the award year, amount, project manager, and the initial project schedule.

- a. **Prior project – 5 points**

You may submit any questions or inquiries ahead of the August 11th pre-submittal review deadline in order to reserve adequate time to complete your submittal. Final submittals should be digital format (file transfer) with two (2) hard copies for review.

Town of Carolina Beach

Municipal Resolution of Support

Resolution Authorizing the Town of Carolina Beach to submit and application to the Wilmington Urban Area Metropolitan Planning Organization in the Amount of \$1,465,950 for Surface Transportation Block Grant Program – Direct Attributable Funds for Transportation Alternative Set Aside – Direct Attributable for St. Joseph Street Multiuse Path.

LEGISLATIVE INTENT/PURPOSE:

WHEREAS, on Friday, July 7th, 2023, the Wilmington Urban Area Metropolitan Planning Organization (WMPO) issued a request for projects to agencies in its planning jurisdictional bounds for Surface Transportation Block Grant Program – Direct Attributable Funding (STBGP -DA). A total of \$4,081,088 is available for award to communities within the planning jurisdiction for the WMPO. STBGP-DA is comprised of a collection of discretionary programs including the planned multi-use path for St. Joseph Street and Lewis Drive that is currently in design through the North Carolina Department of Transportation (NCDOT) and the Town of Carolina Beach. The funding through these programs requires a 20% local match.

WHEREAS, the St. Joseph Street and Lewis Drive Multimodal improvement project consists of detailed design, engineering, and environmental permitting of approximately 1.0 miles of new location multiuse path along St. Joseph Street and Lewis Drive to Otter Road and sharrows along Lewis Drive from Otter Road to Access Road. Constructing this path will connect residents adjacent to the trail with the downtown boardwalk, the Snows Cut Marina, and the Carolina Beach Greenway. The construction of the St. Joseph Street and Lewis Drive Multimodal Improvements is a milestone the Town of Carolina Beach has been working towards for many years. Not only does it serve as an increased in the overall system, but it will nearly complete a connection from one side of N. Lake Park Boulevard and the historic boardwalk and downtown. Once complete, this project will link residents along St. Joseph Street and Lewis Drive with restaurants, parks, and other destinations within the town along a dedicated facility, offering those currently walking and riding with traffic a safer alternative. As envisioned the new multiuse trail will be a premier facility – not only drawing recreational use, but also general mobility use. Completing this project in an accelerated manner is crucial for the Town to utilize the funding from the Federal Highway Administration (FHWA) that is being administered by the North Carolina Department of Transportation (NCDOT).

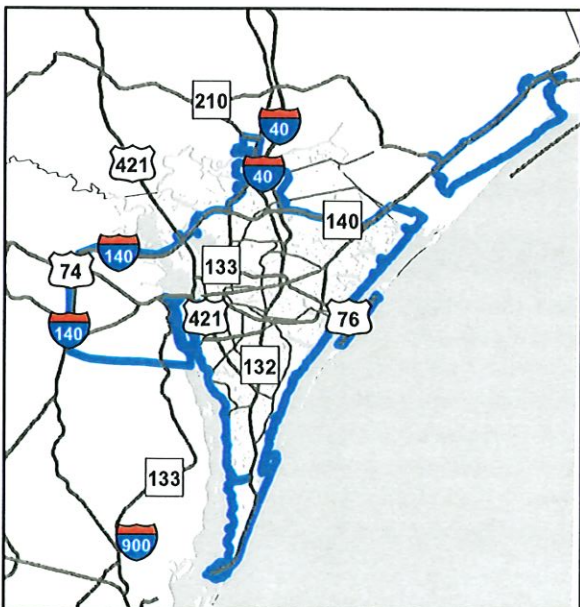
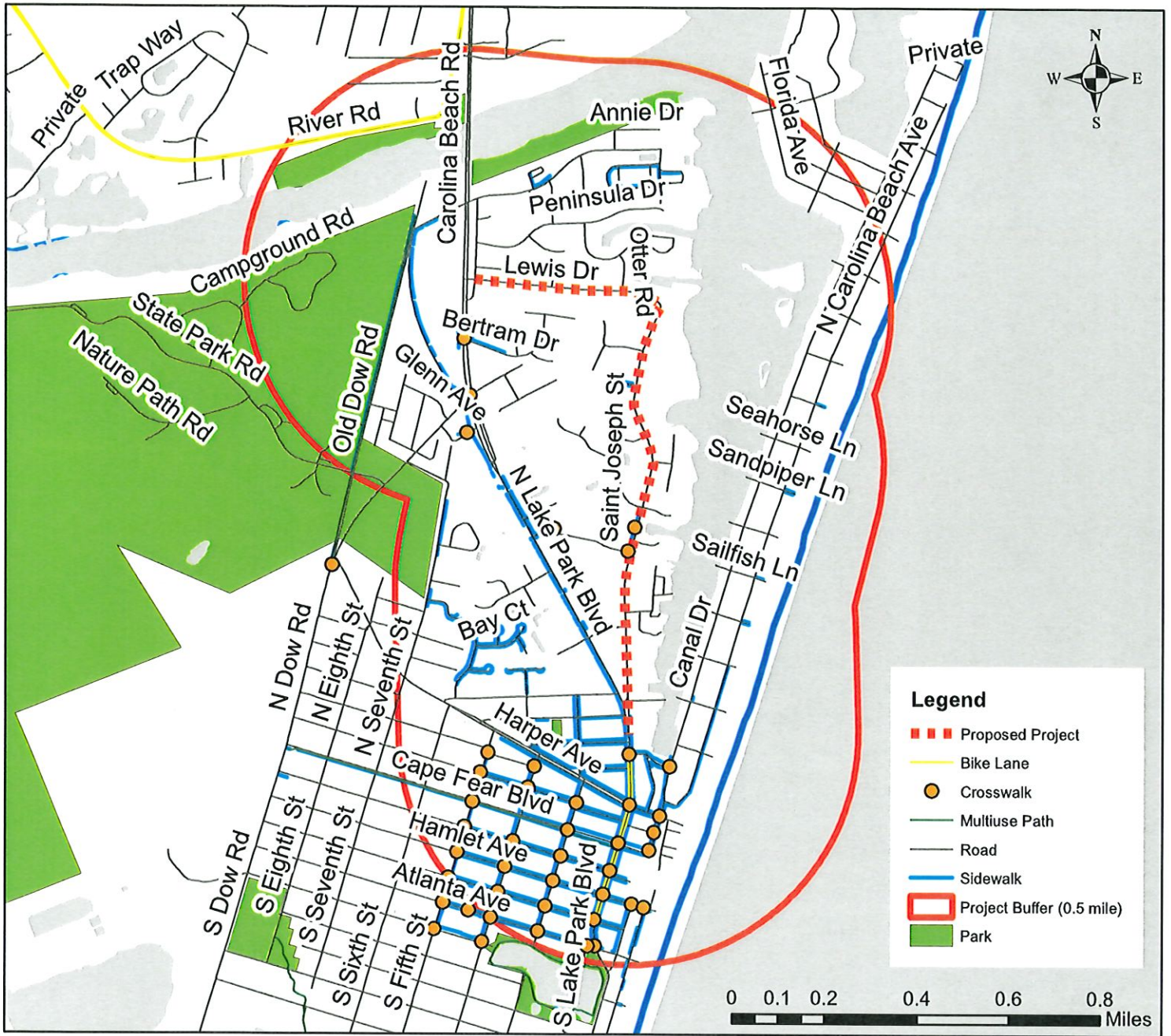
NOW, THEREFORE, BE IT RESOLVED, that the Town Council of the Town of Carolina Beach strongly supports Town staff applying to the WMPO to seek STBGP-DA funds for construction of the St. Joseph Street and Lewis Drive multimodal improvements.

THEREFORE, BE IT RESOLVED, the Honorable Lynn Barbee, Mayor of the Town of Carolina Beach, North Carolina is hereby authorized to submit a STBGP-DA application in the amount of \$1,465,950 and will commit \$ 293,190 as a local match for the St. Joseph Street and Lewis Drive Multiuse Path project.

ADOPTED, this 26th day of September 2023

Lynn Barbee
Mayor

Kim Ward
Town Clerk



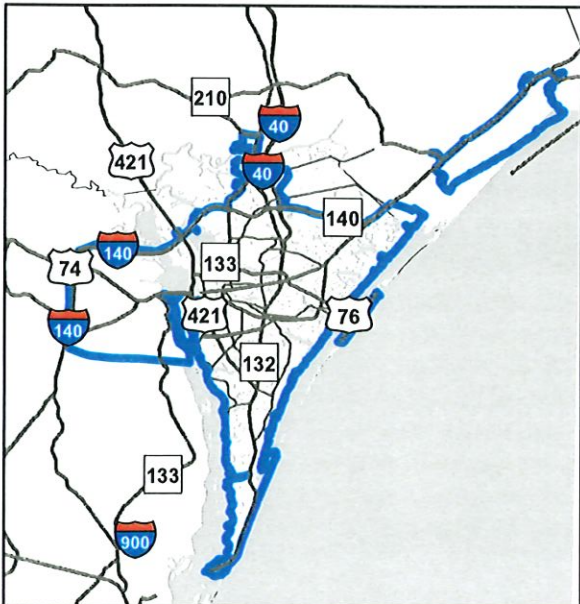
St. Joseph Street Shared Use Path

STP-DA Funding Application

Town of Carolina Beach, North Carolina

The St. Joseph Street and Lewis Drive Multimodal improvement project consists of detailed design, engineering, and environmental permitting of approximately 1.0 miles of new location multiuse path along St. Joseph Street and Lewis Drive to Otter Road and sharrows along Lewis Drive from Otter Road to Access Road. Constructing this path will connect residents adjacent to the trail with the downtown boardwalk, the Snows Cut Marina, and the Carolina Beach Greenway.

PROJECT MAP



St. Joseph Street Shared Use Path

STP-DA Funding Application
Town of Carolina Beach, North Carolina

The St. Joseph Street and Lewis Drive Multimodal improvement project consists of detailed design, engineering, and environmental permitting of approximately 1.0 miles of new location multiuse path along St. Joseph Street and Lewis Drive to Otter Road and sharrows along Lewis Drive from Otter Road to Access Road. Constructing this path will connect residents adjacent to the trail with the downtown boardwalk, the Snows Cut Marina, and the Carolina Beach Greenway.

PROJECT CLOSING GAP

St. Joseph Street Multiuse Path
Engineer's Opinion of Probable Construction Cost
Construction Phase
7/20/2023

Item	Description	Quantity	Unit	Unit Cost	Amount
<i>Civil Costs</i>					
1	Mobilization	1	LS	\$ 46,000.00	\$ 46,000.00
2	Construction Testing, Inspections & Survey	1	LS	\$ 100,000.00	\$ 100,000.00
3	Clearing and Grubbing	1.5	AC	\$ 3,500.00	\$ 5,250.00
4	Grading	1	LS	\$ 250,000.00	\$ 250,000.00
5	Curb Ramps	12	EA	\$ 750.00	\$ 9,000.00
5	4" Concrete Sidewalk	180	SY	\$ 100.00	\$ 18,000.00
6	2" Type C, Asphaltic Concrete Surface Course	430	TON	\$ 125.00	\$ 53,750.00
7	Aggregate Base Course	700	TON	\$ 70.00	\$ 49,000.00
8	Drainage Improvements	1	LS	\$ 7,000.00	\$ 7,000.00
4	Erosion Control	1	LS	\$ 30,000.00	\$ 30,000.00
9	Softscape	1	LS	\$ 25,000.00	\$ 25,000.00
9	Thermoplastic Pavement Markings (24" 90 MILS)	500	LF	\$ 10.00	\$ 5,000.00
<i>Total Costs</i>					
				Subtotal (Before Contingency)	\$ 598,000.00
				25% Contingency	\$ 149,500.00
				Total	\$ 747,500.00

Notes:

Kimley-Horn has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. All provided opinions of probable costs are based on the information known to Kimley-Horn at the time and represent only Kimley-Horn's judgment as a design professional familiar with the construction industry. Kimley-Horn cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

St. Joseph Street Multiuse Path
Engineer's Opinion of Probable Construction Cost
Right of Way Phase
 7/20/2023

Item	Description	Quantity	Unit	Unit Cost	Amount
<i>Civil Costs</i>					
1	Utility Adjustments and Relocations	1	LS	\$ 250,000.00	\$ 250,000.00
2	Right of Way	21,550.00	sq ft	\$ 6.00	\$ 129,300.00
3			AC	\$ 3,500.00	\$ -
4	Grading		LS	\$ 250,000.00	\$ -
5	Curb Ramps		EA	\$ 750.00	\$ -
5	4" Concrete Sidewalk		SY	\$ 100.00	\$ -
6	2" Type C, Asphaltic Concrete Surface Course		TON	\$ 125.00	\$ -
7	Aggregate Base Course		TON	\$ 70.00	\$ -
8	Drainage Improvements		LS	\$ 7,000.00	\$ -
4	Erosion Control		LS	\$ 30,000.00	\$ -
9	Softscape		LS	\$ 25,000.00	\$ -
9	Thermoplastic Pavement Markings (24" 90 MILS)		LF	\$ 10.00	\$ -
<i>Total Costs</i>					
				Subtotal (Before Contingency)	\$ 379,300.00
				25% Contingency	\$ 94,825.00
				Total	\$ 474,125.00

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St. Joseph Street Multiuse Path
Engineer's Opinion of Probable Construction Cost
Total Cost of Project
7/20/2023

Item	Description	Amount
<i>Civil Costs</i>		
1	Design + NEPA (<i>already covered</i>)	\$ 410,563.00
2	Right of Way Phase	\$ 474,125.00
3	Construction Phase	\$ 747,500.00
<i>Total Costs</i>		
	Subtotal	\$ 1,632,188.00
	10% NCDOT Administration*	\$ 122,162.50
	10% Contingency*	\$ 122,162.50
	Total Project Cost	\$ 1,876,513.00
	Total Grant Request**	\$ 1,465,950.00

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* Administration and Contingency is not applied to the Design phase which has already been procured

** Grant Total consists of items 2 and 3, NCDOT Administration and Contingency

CRASH SEVERITY

The KABCO scale was developed by the National Safety Council (NSC) and is frequently used by law enforcement for classifying injuries:

- K** 0 **Fatality**
- A** 0 **Incapacitating Injury Non-incapacitating Injury**
- B** 3 **incapacitating Injury**
- C** 2 **Possible Injury**
- O** 0 **No Injury**

5
crashes
recorded

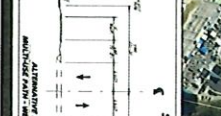
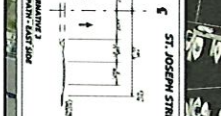
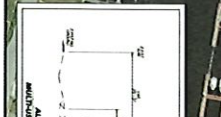
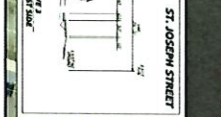


Points	Class Density Ratio		Severity Index ²		Critical Crash Rate Ratio ³	
	range	range	range	range	range	range
100	---	1.15	76.30	4.55	---	0.80
55-7	1.15	0.55	4.55	2.85	0.80<	0.45
33-3	0.55	0.20	2.85	1.20	0.45	0.20
0	0.20	0.00	1.20	1.00	0.20	0.00



LEGEND

- EXISTING BUILDING
- EXISTING WETLAND
- EXISTING RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED EXISTING DRIVEWAY, CONSTRUCTION AND UTILITY
- EXISTING ROADWAY
- EXISTING ROADWAY TO BE REMOVED
- EXISTING STRUCTURE, ISLAND CURB OR RETAINING WALL AND SUBGRADE TO BE REMOVED
- PROPOSED MULTILANE PAH
- PROPOSED MULTILANE PAH
- PROPOSED SIGNAL
- PROPERTY LINES



LEGEND

- EXISTING BUILDING
- EXISTING WETLAND
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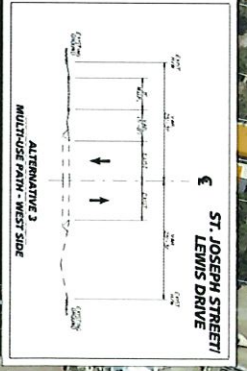
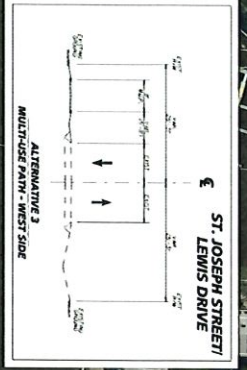
TOWN OF CAROLINA BEACH

ST. JOSEPH STREET & LEWIS DRIVE
MULTIMODAL IMPROVEMENTS
 FROM LAKE PARK BOULEVARD TO ACCESS DRIVE
 ALTERNATIVE 3 - ROLL 2 OF 2
 MANUAL DATED 2009











LEGEND

-  EXISTING BUILDING
-  EXISTING RIGHT OF WAY
-  EXISTING WETLANDS
-  PROPOSED RIGHT-OF-WAY
-  PROPOSED EASEMENTS (DRAINAGE, CONSTRUCTION AND UTILITY)
-  EXISTING ROADWAY
-  EXISTING ROADWAY TO BE REMOVED
-  EXISTING STRUCTURES, ISLAND CURB AND CUTTER, AND SIDEWALK TO BE RETAINED
-  PROPOSED MULTI-USE PATH
-  PROPOSED SIDEWALK
-  PROPERTY LINES



LEGEND

-  EXISTING BUILDING
-  EXISTING RIGHT OF WAY
-  EXISTING WETLANDS
-  PROPOSED RIGHT-OF-WAY
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