

Emerald Isle Bridge Improvements

From NC 24 to Coast Guard Rd

Local ID: **CART30027-H**

Purpose: **Congestion**

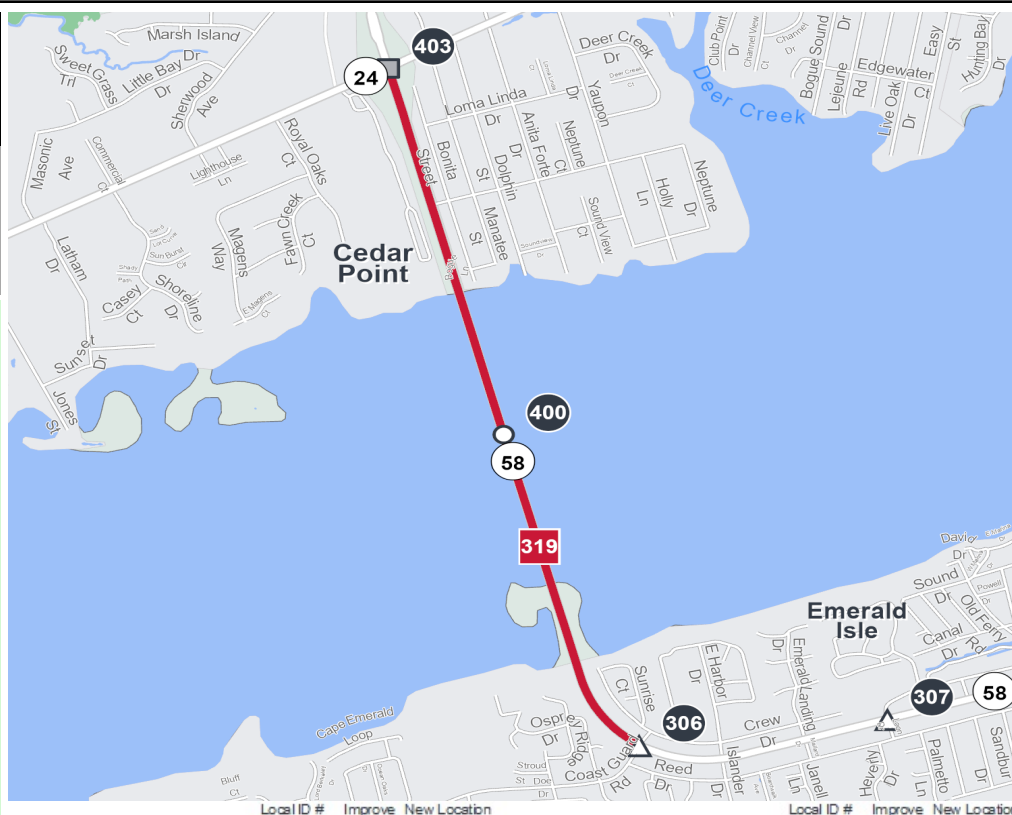
Improvement: **Improve Existing**

Identified Need

Emerald Isle Bridge is currently over capacity and projected to be over capacity in 2050. Improvements are needed to accommodate current and projected traffic volumes such that the LOS D can be achieved.

Recommendation

The recommendation is to widen the Emerald Isle Bridge to a 4-lane boulevard cross section. The steering committee suggested to model this bridge after the Surf City Bridge using a jersey barrier for bike and pedestrian accommodations.



Congestion / Mobility



Access Management / Operations



Modernization



Other



Interchange



Bridge / Overpass



Intersection



Proposal At A Glance

Highway Class	Congestion & Mobility
Facility Type	Major Thoroughfare Multi-lane
Typical Section	04 K
Section Options	-
Length (miles)	2.00
Existing ROW (feet)	200
Safety Risk Score	33

Proposal Data: 2019 Base Year 2050 Future Year

Improved Route	Existing	Without Proposal	With Proposal
Facility Type	Major Thoroughfare 2-lane	Major Thoroughfare 2-lane	Major Thoroughfare Multi-lane
Travel Lanes	2	2	4
Volume (vpd)	21000	28000	29500
Capacity (vpd)	13200	13200	38100

Capacity Data: Year

Facility will be Approaching Capacity (>80%)	-
Facility will be Over Capacity (>=100%)	-

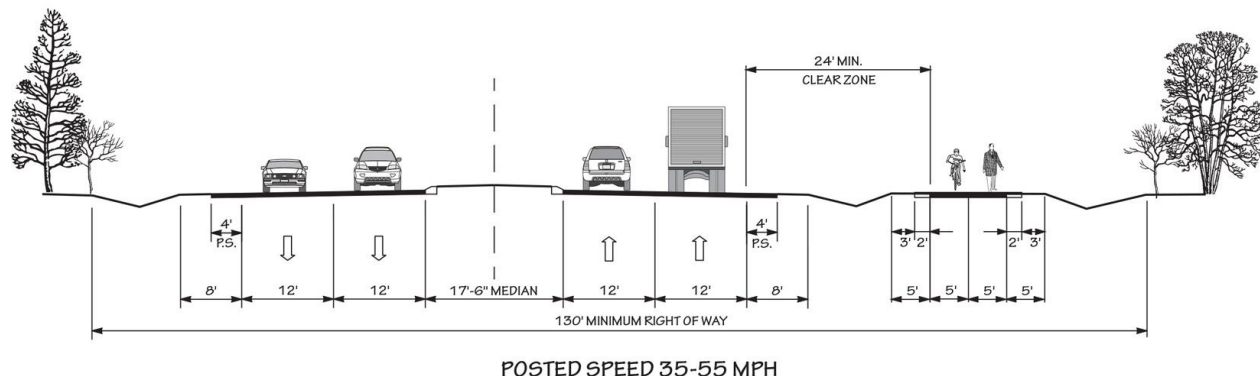


Typical Section Options:

None

TYPICAL SECTION No. 4K

4 LANE DIVIDED (17'-6" RAISED MEDIAN)
WITH PAVED SHOULDERS AND SIDEPATH

**Project History/Linkage to Other Plans****Project History**

The Emerald Isle Bridge along with the Atlantic Beach Bridge and a potential third bridge were studied and discussed extensively during the steering committee meetings.

It is important to note that in this Comprehensive Transportation Plan (CTP), everything is at a high level. The plan looks at the longterm needs of the community. The cross sections and recommendations here are not set in stone - they seek to address the traffic deficiencies and needs of the area so in the future it is easier to apply for funding and be studied in more detail.

The Emerald Isle Bridge is projected to be over capacity in 2050, and the Atlantic Beach Bridge is projected to be near capacity in 2050. A solution is needed for these areas connecting the mainland to the beach island area.

After many CTP steering committee meetings, one on one meetings with the towns of Carteret County, and model runs, the team and communities determined that the best CTP recommendation would be a 4-lane boulevard upgrade for the Emerald Isle Bridge, a 4-lane boulevard upgrade for the Atlantic Beach Bridge, and a 2-lane potential third bridge. This CTP is meant to address the needs of the area, and an exact location of this third bridge is not determined at this point in time.

These three recommendations provide a solution for the traffic concerns for Carteret County, and give an opportunity to apply for different kinds of funding and further study in the future.

Linkage to Other Plans

There is currently a project listed here on the State Transportation Improvement Program (STIP) website (B-5939). This project is listed as 'under construction' and includes concrete repairs on the substructure and

superstructure, cathodic protection of prestressed concrete items, 2-bar metal rail retrofit, and other items of work.

CTP Goal Analysis**Goals and Objectives Survey**

The vision for Carteret County is to have a safe, diverse, efficient, integrated, and environmentally sensitive and sustainable multi-modal transportation system for its residents, visitors, and businesses. The Carteret County CTP goals include: promoting a safer and more secure transportation network, creating a more efficient transportation system, providing an integrated and multimodal transportation network, supporting regional growth in the transportation network, preserving the social and environmental character of the region, extending the life of the transportation system by developing sustainable transportation solutions, and anticipating future needs of the area in terms of resiliency and flooding. The Town of Atlantic Beach Bike and Ped Plan also includes a multi-use path here.

Public Comments

This Carteret County CTP survey was open from March 1st, 2023 to April 30th, 2023 and there was an English and Spanish version of the survey. There were a total of 439 participants and 1,387 comments as pins on the map were received. This project received 45 comments as pins during the online survey. The main concerns were congestion and bike and pedestrian needs.

All environmental data in the database was considered. This Project is within 150 feet of:

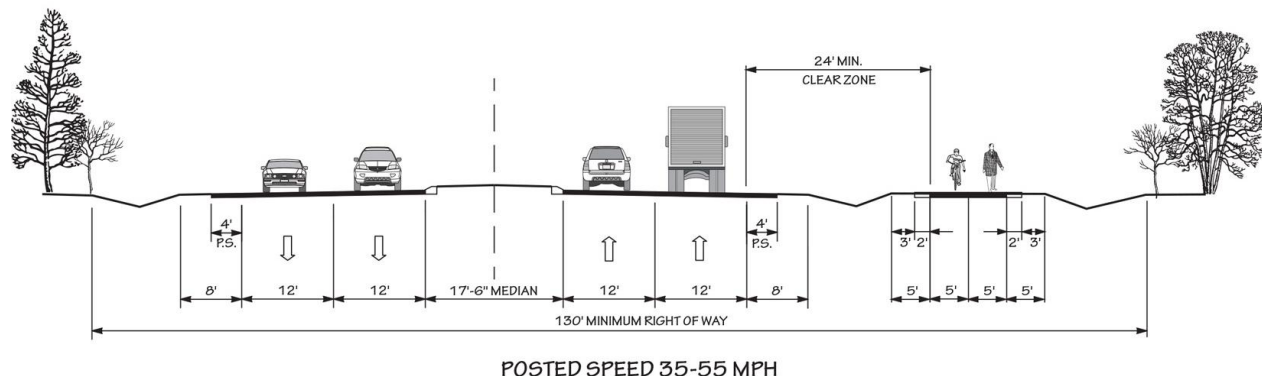
- 52 Benthic Habitat Feature(s)
- 11 Coastal Region Evaluation Of Wetland Significance Feature(s)
- 15 Flood Hazard Area Feature(s)

Typical Section Options:

None

TYPICAL SECTION No. 4K

4 LANE DIVIDED (17'-6" RAISED MEDIAN)
WITH PAVED SHOULDERS AND SIDEPATH



- 2 High Quality And Outstanding Resource Water Feature(s)
- 1 Impaired Waters Line Feature(s)
- 1 Impaired Waters Polygon Feature(s)
- 2 Landscape Habitat Indicator Guild Feature(s)
- 2 Major River Feature(s)
- 1 Managed Area Feature(s)
- 4 Natural Heritage Element Occurrence Feature(s)
- 1 Natural Heritage Natural Area Feature(s)
- 17 Wetland Feature(s)
- 7 River And Stream Feature(s)
- 4 Lake And Pond Feature(s)
- 2 Quality Monitored River And Stream Feature(s)
- 33 Submerged Aquatic Vegetation Feature(s)
- 2 Target Local Watershed Feature(s)

This recommendation passes through one or more Census Blocks with the following characteristics:

- Between 25% and 50% identify as 65+
- Between 0% and 25% identify as African American
- Between 0% and 5% identify as Asian
- Between 2.5% and 10% identify as Hawaiian or Pacific Islander
- Between 5% and 15% identify as Hispanic and Latino
- 0% identify as Over 18 with Limited English Proficiency (LEP) - Asian and Pacific Islander
- 0% identify as Over 18 with Limited English Proficiency (LEP) - Indo-European

- 0% identify as Over 18 with Limited English Proficiency (LEP) - Other
- Between 0% and 5% identify as Over 18 with Limited English Proficiency (LEP) - Spanish
- Between 5% and 15% identify as Native American
- Between 5% and 10% identify as Two of More Races
- Between 5% and 15% identify as Below Poverty Line
- Between 0% and 15% identify as Households with No Car