



Meeting Notes / Memorandum

Final Version

Meeting Date: April 16, 2014

Subject: Meeting Notes for NEPA/404 Merger Team Concurrence Point 4A
TIP Project B-4929 (Topsail Island Bridge Replacement)

Location: NCDOT Structure Design Conference Room, Century Center

Attendees:

Merger Team (MT)

Present:

Brad Shaver, USACE
Ron Lucas, FHWA
Gary Jordan USFWS
Cynthia Van Der Wiele, USEPA
Fritz Rohde, NOAA Fisheries
Steve Sollod, NCDOT
Mason Herndon, NCDWQ
Travis Wilson, NCRWC

Via Conference Call:

Jessi O'Neal Baker, NCDMF
Chris Militscher, USEPA
Renee Gledhill-Earley, DCR-SHPO

Project Team (PT)

Present from NCDOT:

Rob Hanson, PDEA
Charles Cox, PDEA
Michele James, PDEA
Phil Harris, NES
Chris Rivenbark, NES
Tyler Stanton, NES
Brett Feulner, NES
Jackson Provost, Division 3
Mark Staley, Roadside Environmental
Kevin Fischer, Structures Management
Paul Atkinson, Hydraulics
Steve Trexler, Utilities
Tony Houser, Roadway Design
Lee Moore, Roadway Design

Present from RS&H Consultant Team:

Chad Critcher, RS&H
Radha Krishna Swayampakala, RS&H
Jennifer Farino, RS&H
Richard Bollinger, RS&H
Rick DeCola, RS&H
Meredith Van Duyn, RS&H

A NEPA/404 Merger Team meeting for the subject project was held on April 16, 2014 in NCDOT's Structure Design Conference Room. The purpose of this meeting was to reach agreement on Concurrence Point (CP) 4A (Avoidance and Minimization).

Introductions: Mr. Brad Shaver opened the meeting and welcomed everyone. Attendees introduced themselves.

Presentation: Mr. Critcher presented a PowerPoint presentation, attached herein, that summarized information found in the packets, including the items outlined below:

- Introduction/project background
- Merger Process history
- Public involvement summary

- Steering Committee
- Resource impacts – minimization efforts
- Project schedule
- CP 4A concurrence

Since the previous Concurrence Meeting, a Steering Committee comprised of local residents and business owners was formed at the request of local officials. Mr. Critcher summarized the three Steering Committee meetings held (all in 2013) and the options presented for mainland and island tie-in points for Alternative 17. The Steering Committee chose roundabouts at each location, and the Town of Surf City supports the roundabouts (Mainland Option #2 and Island Option #4). The Project Team is working on the design to minimize impacts to businesses and other resources. Roundabout design considerations for nearby businesses include parking, delivery access, one-way vs two-way traffic operations on adjacent streets, and pedestrian access.

The recommended bridge typical section includes a 10-foot multi-use path on the north side of the bridge, separated from the travel lanes by a concrete barrier, a 7.5-foot bicycle lane in each direction, and a 12-foot travel lane in each direction. The 39-foot roadway width carrying the bicycle and travel lanes allows for an alternate hurricane evacuation configuration (i.e. two lanes off the island, one lane onto the island) if needed.

Major avoidance and minimization measures include:

Island Side

- Extended the structure by approximately 100 feet
- Recommended one span of 100 feet with a shallower girder to reduce structure depth
- Raised the roundabout profile by approximately 1.5 feet
- Included retaining wall (to build up bridge approach)

Mainland Side

- Added retaining walls to prevent fill in wetlands

At the time of the CP 3 meeting, it was estimated that Alternative 17 would impact approximately 0.4 acre of CAMA wetlands. The total potential CAMA wetland impact after incorporating avoidance and minimization measures is 0.07 acre.

NCDOT completed a survey for Submerged Aquatic Vegetation (SAV) habitat in 2013. In coordination with NMFS and NCDMF, NCDOT committed to span at least 120 feet of SAV habitat and perform additional surveys to monitor potential shading impacts.

Upcoming milestones on the project schedule include:

- Design Public Hearing – Summer 2014
- FONSI – Fall 2014
- Right-of-Way Acquisition – 2015
- Construction – 2017

Merger Team (MT) Questions and Project Team (PT) comments were discussed as follows:

MT Question: *Does the roundabout on the mainland side result in any additional impacts compared to a traditional (signalized) intersection?*

PT Response: It does not.

MT Question: *If the SAV habitat expands in the year prior to construction, how will NCDOT respond? Will the pier locations be changed to continue avoiding direct impacts to SAV habitat?*

PT Response: While the SAV habitat is somewhat of a transient area and may change with subsequent surveys, NES staff does not expect it to expand substantially. Another survey will be completed in the summer prior to construction, and any additional findings will be presented to the Merger Team at the next Concurrence Meeting. While NCDOT will continue efforts to avoid direct impacts to SAV habitat, it should be noted that the timing of surveys and design process will be critical. After a certain point during the design phase, the structure design (and pier locations) cannot be changed. After that time, if SAV habitat is found to be transitioned and anticipated to have direct impacts from pier locations, NCDOT will discuss potential mitigation strategies with the Merger Team. This information will be coordinated with the Structure Design Unit so that the construction date is not jeopardized.

MT Question: *Should a buffer area be incorporated around SAV habitat when designing the pier locations?*

PT Response: The current commitment is to span up to 120 feet SAV habitat. Depending on the structure type chosen for this location (example - traditional vs. segmental), NCDOT may be able to increase this span length. Additional structure design information will be presented to the Merger Team at subsequent Concurrence Meetings.

MT Question: *Is a different survey methodology needed for the next SAV survey?*

PT Response: PDEA/NES will coordinate with NCDMF at a later time to discuss the methodology.

MT Question: *Should language be added to the Concurrence form about the additional SAV surveys?*

PT Response: The FONSI's Project Commitment Sheet (Green Sheet) will include this commitment. It is not necessary to include it in the Concurrence form.

MT Question: *Will the old bridge, which is eligible for listing on the National Register of Historic Places, be reused?*

PT Response: NCDOT has coordinated with local towns and Pender County on the possibility of local ownership and maintenance of the bridge. To date, none of the local governments have expressed interest because it is cost-prohibitive.

MT Question: *Have shading impacts to CAMA wetlands been considered in the impact estimates?*

PT Response: The estimated 0.07 acre is in reference to potential direct impacts to CAMA wetlands. NCDOT is encouraged to use longer bridge spans when practicable. Since the proposed bridge is north-south in orientation and is a high-rise (allowing sunlight underneath for most of the spans), shading impacts are anticipated to be much less than the previously considered lower-rise alternatives.

MT Question: *What are the anticipated impacts to non-riparian wetlands?*

PT Response: Impacts to non-riparian wetlands are estimated to be 0.8 acre for Alternative 17 (no change from prior Concurrence Meeting).

MT Question: *How will NCDOT treat stormwater on the bridge?*

PT Response: NCDOT will collect stormwater from a portion of the bridge end and treat using BMPs. Remaining stormwater from bridge will be released directly into the waterway.

MT Question: *For other projects such as the Sunset Beach bridge, it was designed such that stormwater from the entire bridge is collected and treated at the ends. Why is this bridge being proposed in a different way?*

PT Response: This will be discussed at future Concurrence Meetings.

MT Question: *What is the height of the bridge on the island side in the vicinity of CAMA wetlands?*

PT Response: The bridge will be at least four feet above the wetlands (needed for NCDOT Bridge Maintenance access), rising to a total height of 65 feet (above the Intracoastal Waterway channel).

MT Question: *How will NCDOT proceed regarding business relocations and the additional potential impacts to Soundside Park?*

PT Response: NCDOT is finalizing designs that consider minimization of impacts to businesses / Soundside Park. Final impacts have not been determined at this time. NCDOT will coordinate with the Town of Surf City and FHWA and present the discussions to the Merger Team via email as needed.

MT Comment: *In addition to concurrence with CP 4A, NOAA reserves the right to make formal recommendations on the potential impacts to resources in coastal waters.*

Following this discussion, the Merger Team and NCDOT revised the content of Concurrence Point 4A form to the following:

Avoidance and Minimization: Based on the current project development and design information, impacts to jurisdictional resources have been avoided and minimized to the maximum extent practicable. The following avoidance and minimization measures have been incorporated and will be continued into the final design phase also:

- CAMA Wetlands: Revised design to reduce impacts to 0.1 acre or less
- SAV Habitat: Designed bent locations so that at least 120' wide SAV habitat could be spanned. NCDOT will consider wider spans during final design, based on additional SAV surveys which will be completed using methodologies recommended by NC DCM.

All Merger Team attendees were in concurrence with the CP 4A form. Merger Team members in attendance signed the Concurrence Point 4A form, and NCDOT will email a PDF copy to those who joined via conference call.

If any recipient of the meeting notes would like to add comments or feels a comment is erroneous or needs to be expanded, please feel free to contact Michele James at (919) 707-6027 or by email at mjames@ncdot.gov.

Copies to:

- Meeting Attendees
- USCG
- RPO

Attachments:

- Concurrence Form 4A
- PowerPoint Presentation



ORIGINAL

APRIL 16, 2014

CONCURRENCE POINT 4A
AVOIDANCE AND MINIMIZATION

CONCURRENCE POINT 4A

SECTION 404/NEPA MERGER TEAM MEETING AGREEMENT

Concurrence Point 4A: Avoidance and Minimization

Project Name/Description: Bridge No. 16 - Topsail Island Bridge Replacement, Pender County

TIP Project No.: B-4929

Federal Aid Project No.: BRSTP-50 (10)

WBS No.: 40233.1.1

Avoidance and Minimization: Based on the current project development and design information, impacts to jurisdictional resources have been avoided and minimized to the maximum extent practicable. The following avoidance and minimization measures have been incorporated and will be continued into the final design phase also:

- CAMA Wetlands: Revised design to reduce impacts to 0.1 acre or less
- SAV Habitat: Designed bent locations so that at least 120' wide SAV habitat could be spanned. NCDOT will consider wider spans during final design, based on additional SAV surveys which will be completed using methodologies recommended by NC DCM.

The Project Team met and concurred on this date of April 16, 2014:

USACE	<u>Brad E. Shaw</u>	NCDOT	<u>Michelle L. James</u>
USEPA	<u>Cynthia VanDerWiele, Ph.D.</u>	USFWS	<u>Gary Jordan</u>
NCDCR	<u>Renee Weddell-Early</u>	NCDWR	<u>Mark Hendrick</u>
FHWA	<u>Robert G. ...</u>	NCWRC	<u>...</u>
USCG	_____	NCDCM	<u>...</u>
NCDMF	_____	NMFS	<u>Fritz Rohde</u>
RPO	_____		



TOPSAIL ISLAND BRIDGE REPLACEMENT

SURF CITY, NORTH CAROLINA



Concurrence Point 4A April 16, 2014



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TOPSAIL ISLAND
BRIDGE REPLACEMENT
SURF CITY, NORTH CAROLINA

BRIDGE
AHEAD

MEETING AGENDA

- Introduction
- Merger Process history
- Public Involvement
- Steering Committee – design revisions
- Resource impacts – minimization efforts
- Project schedule
- CP 4A concurrence



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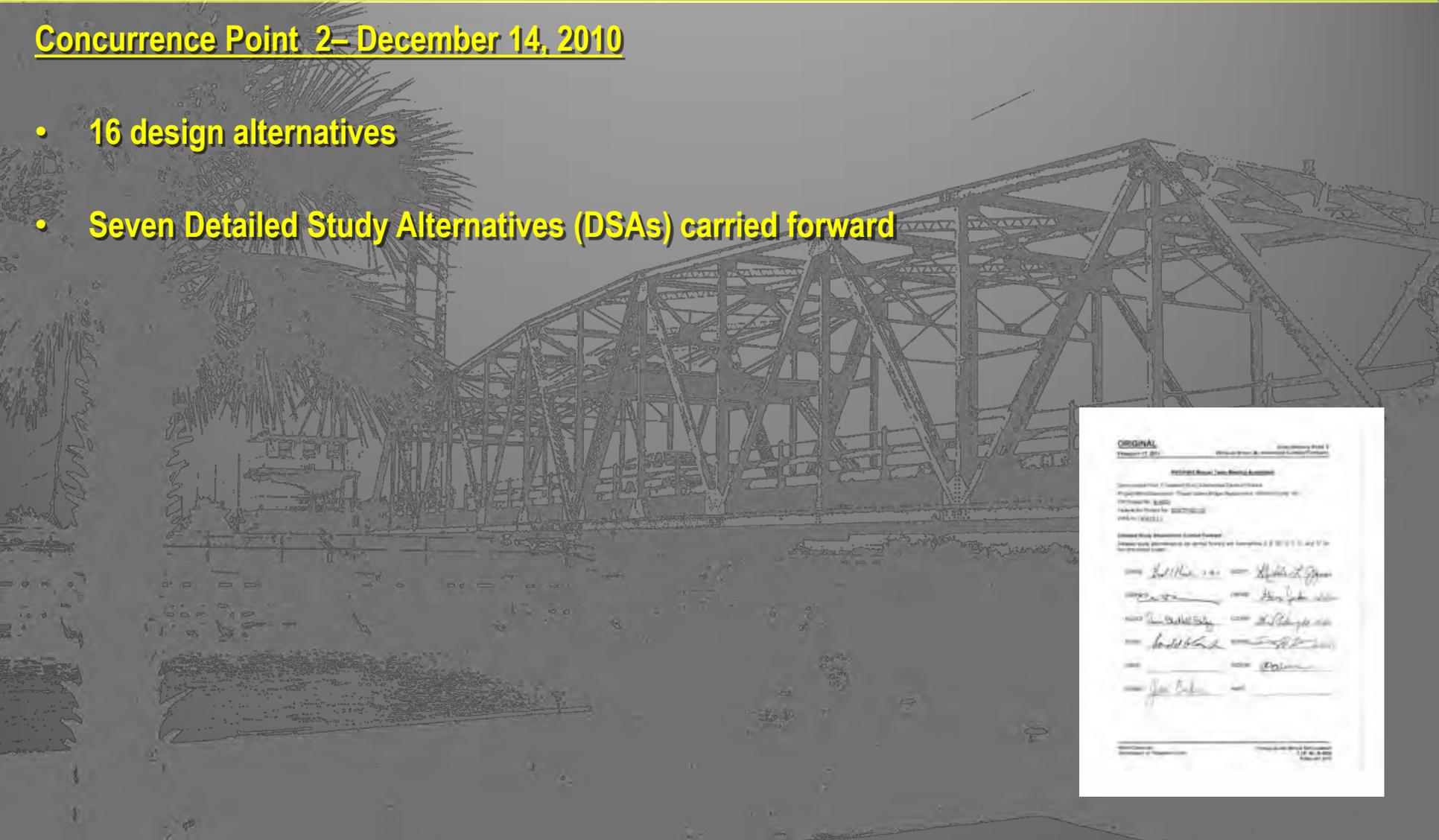
INTRODUCTION – PROJECT VICINITY



MERGER HISTORY – CP 2

Concurrence Point 2– December 14, 2010

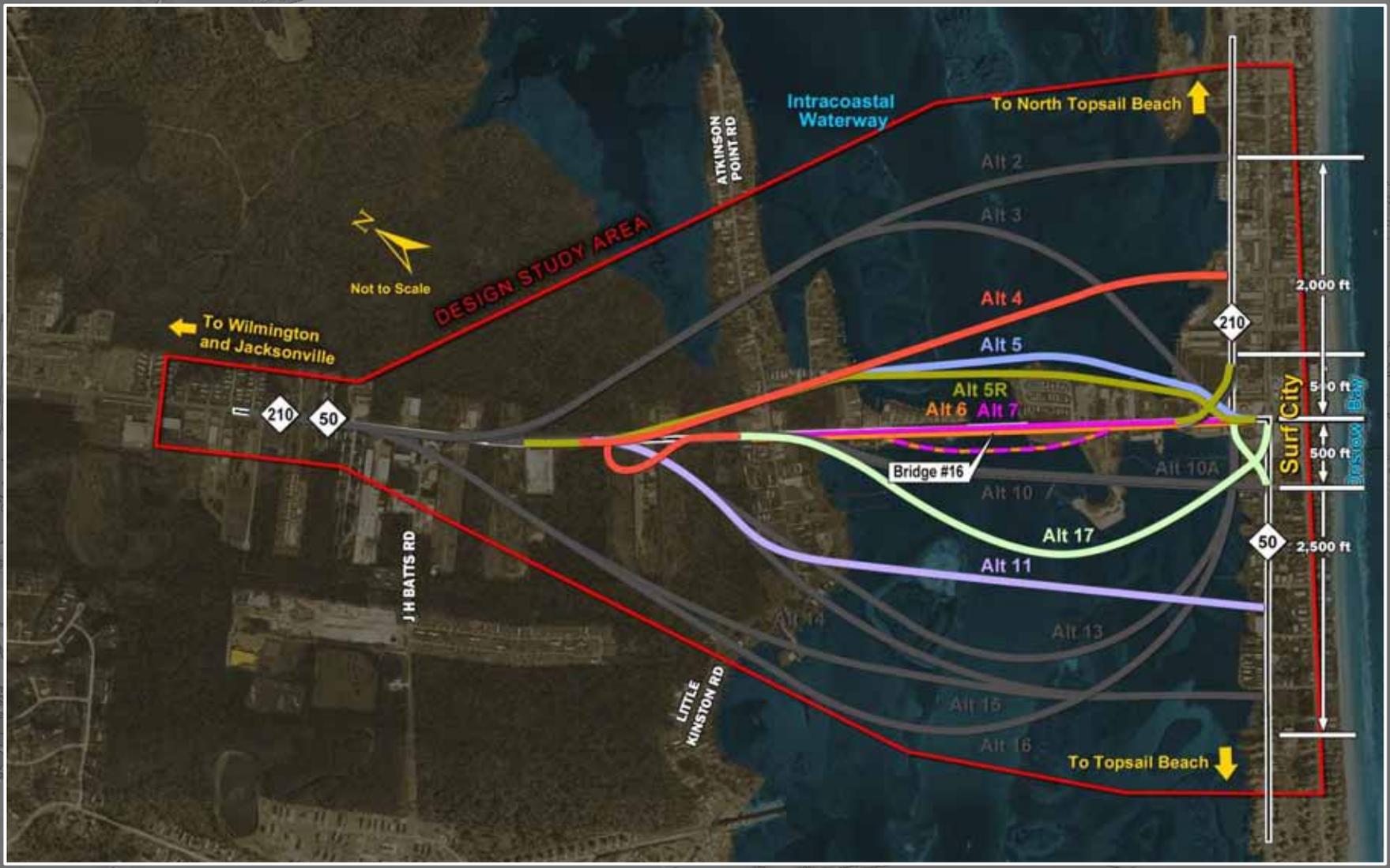
- 16 design alternatives
- Seven Detailed Study Alternatives (DSAs) carried forward



MERGER HISTORY – CP 2



MERGER HISTORY – CP 2



MERGER HISTORY – CP 2A & 3

Concurrence Points 2A and 3 – August 16, 2012

- Seven Detailed Study Alternatives (DSAs) carried forward
- Eliminated two DSAs at CP 2A
- Selected the Preferred Alternative/LEDPA
 - Alternative 17

ORIGINAL
August 16, 2012
CONCURRENCE POINT 2A
BRIDGING DECISIONS AND ALIGNMENT REVIEW

Section 44(h)(6) Water Team Meeting Agreement

Concurrence Point 2A: Bridging Decisions and Alignment Review
 Project Name/Descriptor: Topsail Island Bridge Replacement, Pender County, NC
 TIP Project No. B-4922
 Federal Aid Project No. 99BSTR-90-130
 WBS No. 49223.1.1

Bridging Decisions and Alignment Review
 The Project Team has reviewed the bridging and alignments of the seven Detailed Study Alternatives (DSA) and agreed to carry five of the seven DSAs forward into the Concurrence Point 3. Alternatives 8 and 9 have been eliminated due to their adverse impacts to Sandcastle Park, a Section 4(f) resource, as well as their limited off-site detour options, constructability concerns and higher overall costs compared with other five DSAs. Alternatives 4, 5, 9R, 11, and 17 will be carried forward to Concurrence Point 3. Tables below show the begin and end stations and associated minimum roadway/hydraulic bridge lengths for each DSA.

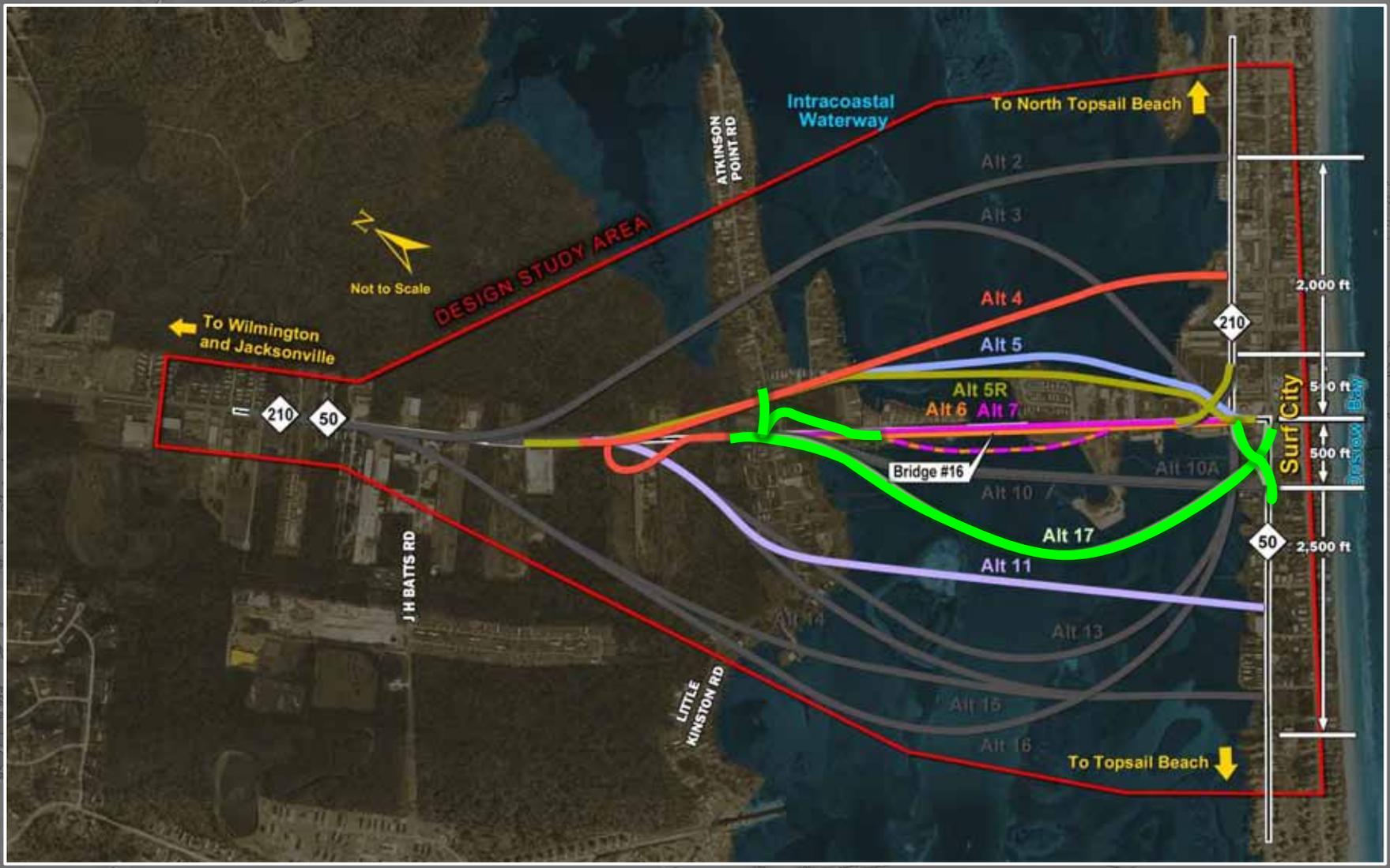
Detailed Study Alternative No.	Begin Station	End Station	Minimum Roadway/Hydraulic Bridge Length (feet)
Alt 4	310+00	353+00	3,700
Alt 5	310+00	353+00	3,700
Alt 5R	310+00	353+00	3,900
Alt 9	310+00	353+00	3,900
Alt 9 - Center	310+00	353+00	3,900
Alt 11	310+00	353+00	3,900
Alt 17 - Option 1	310+00	353+00	3,900
Alt 17	310+00	353+00	3,900

The Project Team met and concurred on this date of August 16, 2012.

USACE: *[Signature]* NCDOT: *[Signature]*
 USEPA: *[Signature]* USFWS: *[Signature]*
 NCCDH: *[Signature]* NCDWR: *[Signature]*
 FHWA: *[Signature]* NCDWM: *[Signature]*
 USCO: *[Signature]* NCDCM: *[Signature]*
 NCDMP: *[Signature]* NMPF: *[Signature]*
 RFD: *[Signature]*



MERGER HISTORY – CP 2A & 3

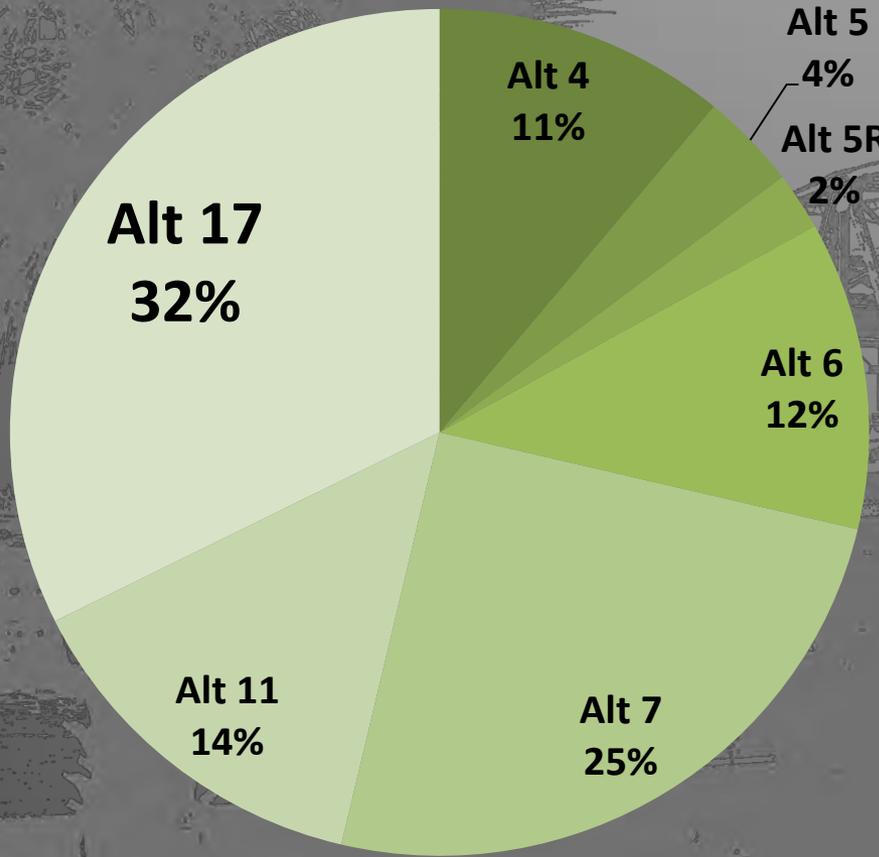


MERGER HISTORY - LEDPA

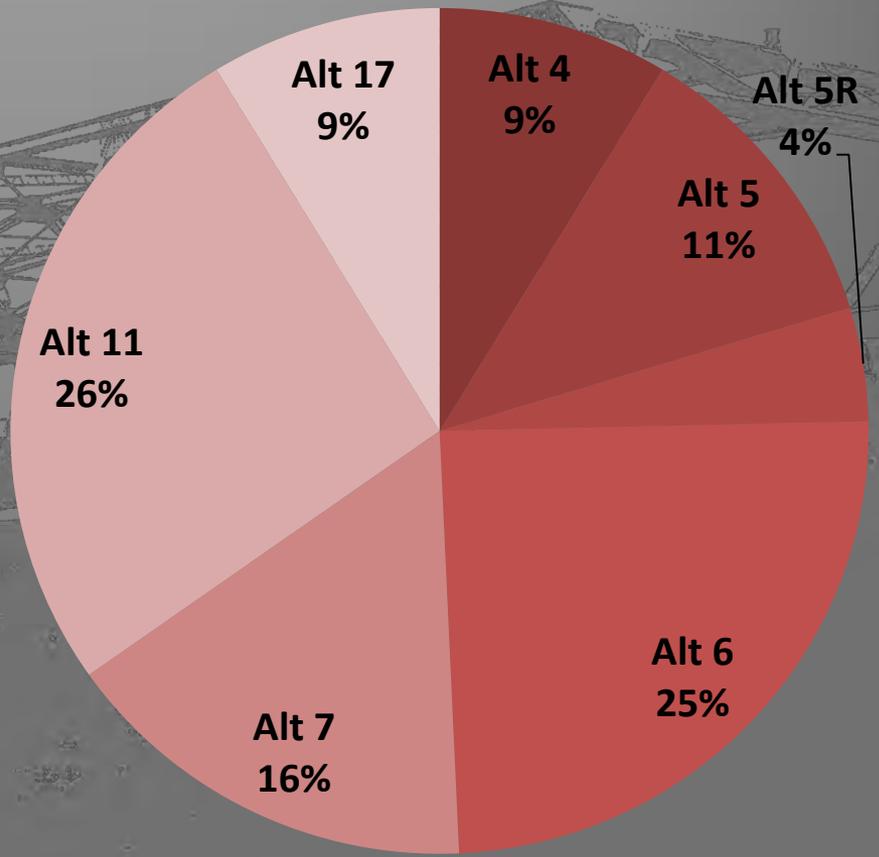


MERGER HISTORY - LEDPA

Which alternative is your First Preference? (136 responses)



Which alternative is your Seventh (least) Preference? (69 responses)



PUBLIC INVOLVEMENT - MEETINGS

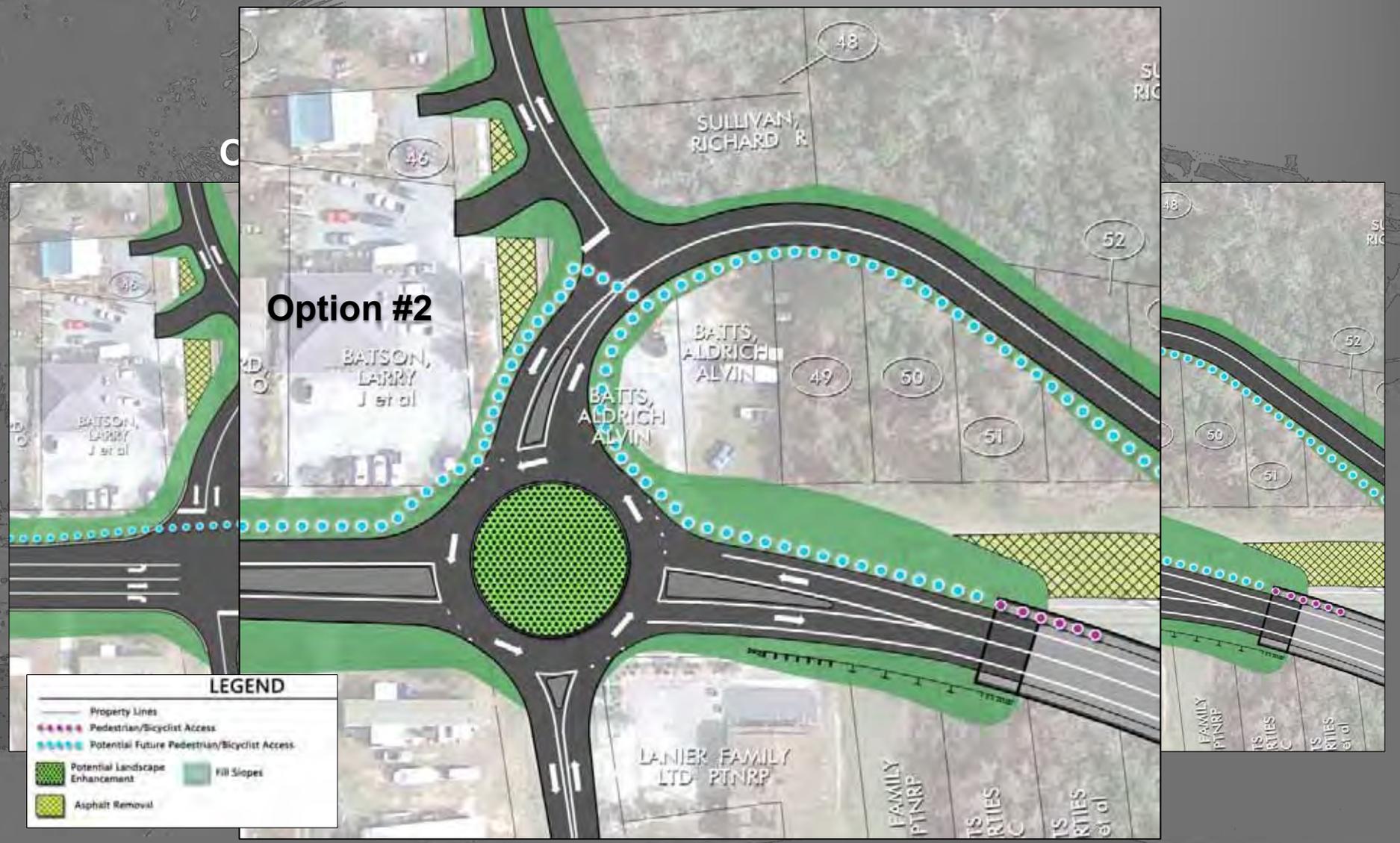
- Citizens Informational Workshop #1 (CIW #1) – June 25, 2009
- Citizens Informational Workshop #2 (CIW #2) – October 21, 2010
- Environmental Assessment (EA) – October 2011
- Corridor Public Hearing (CPH) – December 8, 2011



- **Steering Committee**
 - Formed at request of local officials and residents
 - 12 members (local residents and business owners)
 - Representation from Towns of Topsail Beach, Surf City, and North Topsail Beach
 - To provide an additional forum to understand citizens' concerns and discuss ideas for avoidance, minimization, and betterments
- **Steering Committee meetings**
 - April 24, 2013
 - June 24, 2013
 - November 12, 2013
- **Met local officials prior to each Steering Committee meeting**

STEERING COMMITTEE - MAINLAND TIE-IN

Option #2



LEGEND

- Property Lines
- Pedestrian/Bicyclist Access
- Potential Future Pedestrian/Bicyclist Access
- Potential Landscape Enhancement
- Fill Slopes
- Asphalt Removal



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STEERING COMMITTEE - ISLAND TIE-IN

Option #1

Option #2

Option #3

Option #4

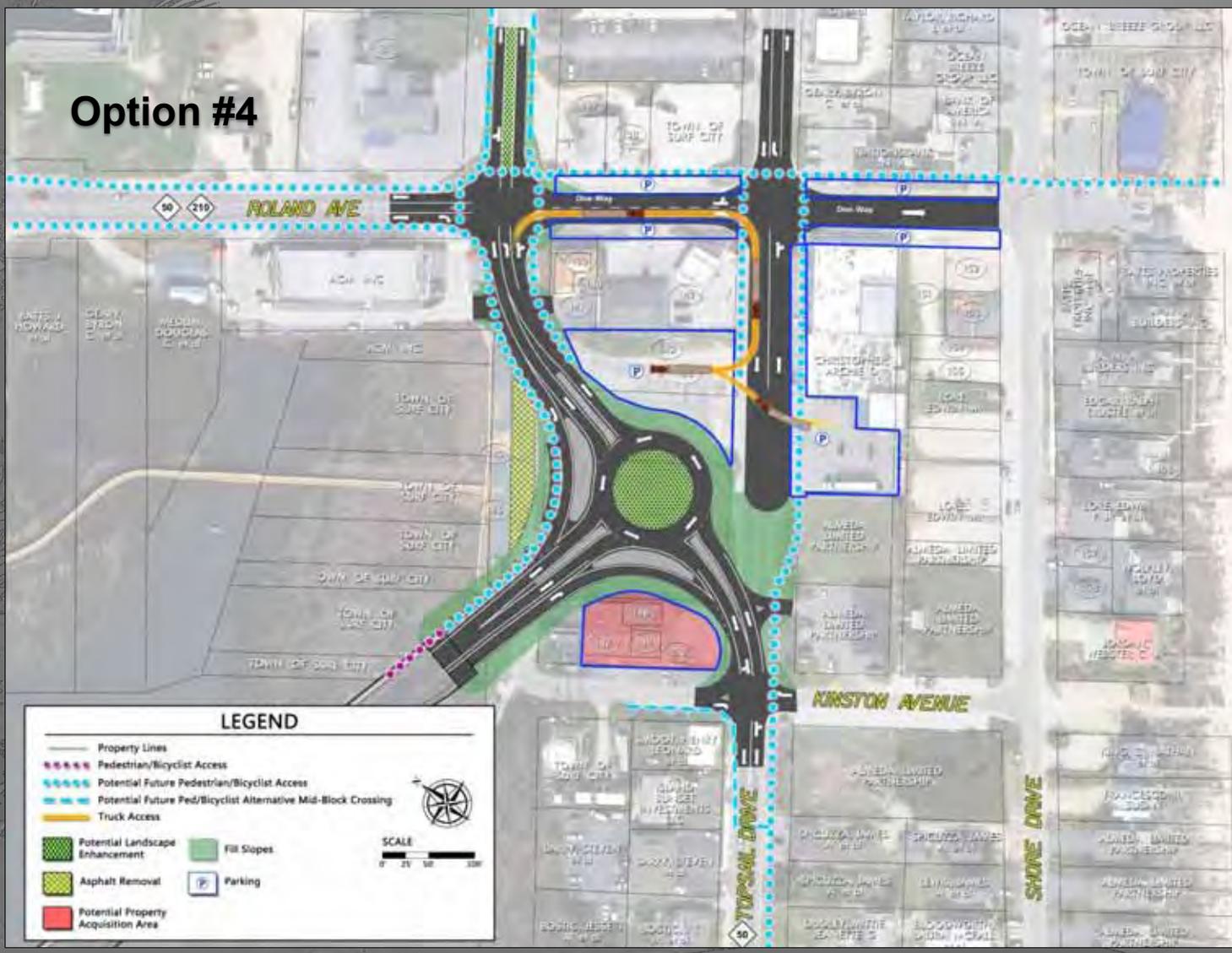


LEGEND

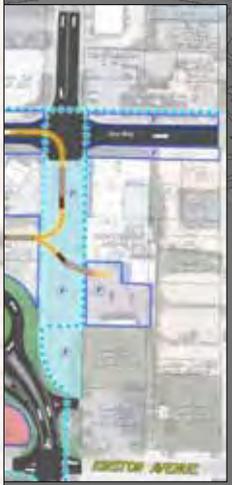
- Property Lines
- Pedestrian/Bicyclist Access
- Potential Future Pedestrian/Bicyclist Access
- Potential Future Ped/Bicyclist Alternative Mid-Block Crossing
- Truck Access
- Potential Landscape Enhancement
- Asphalt Removal
- Potential Property Acquisition Area
- Fill Slopes
- Parking

STEERING COMMITTEE - ISLAND TIE-IN

Option #4



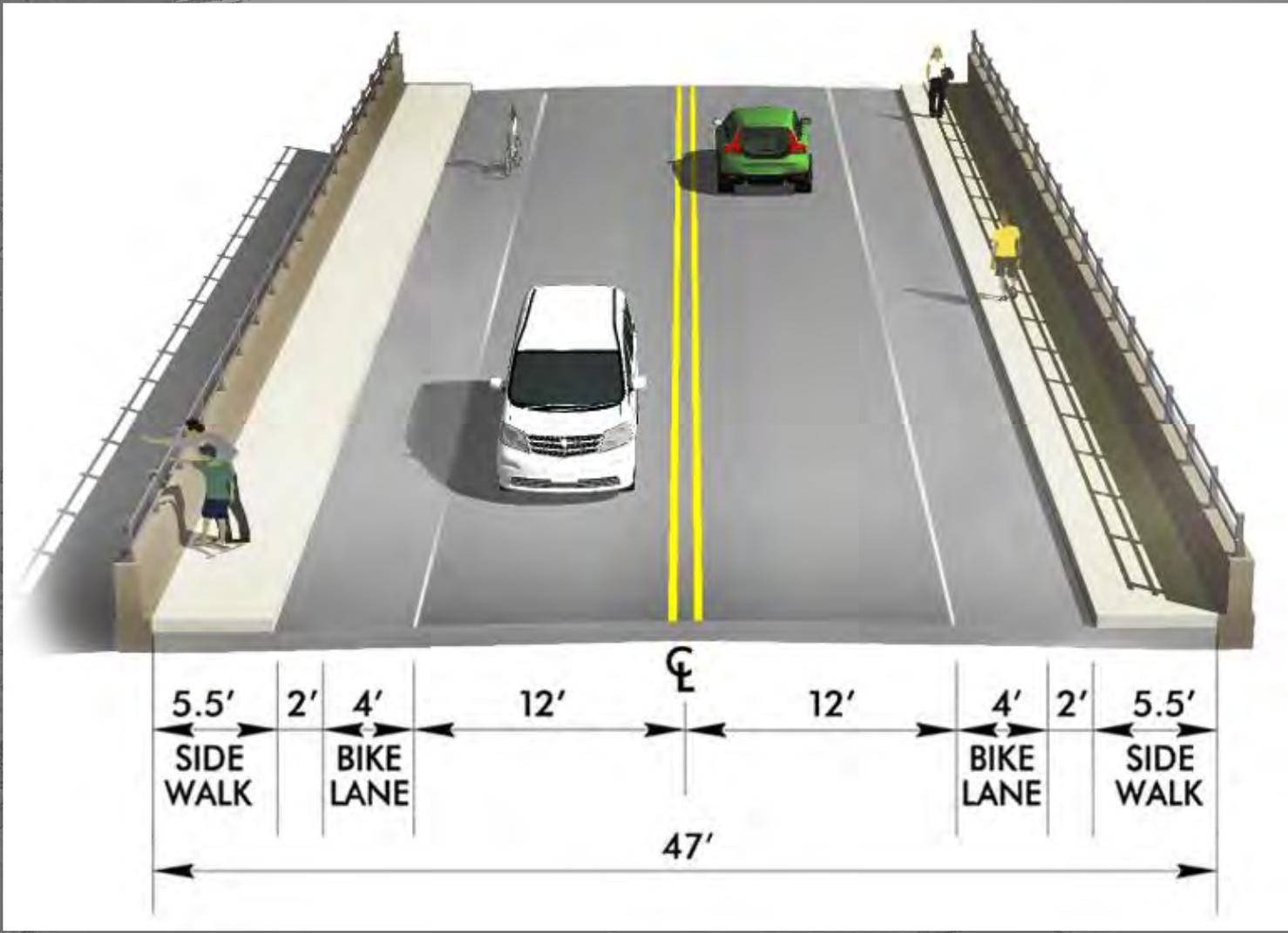
n #4



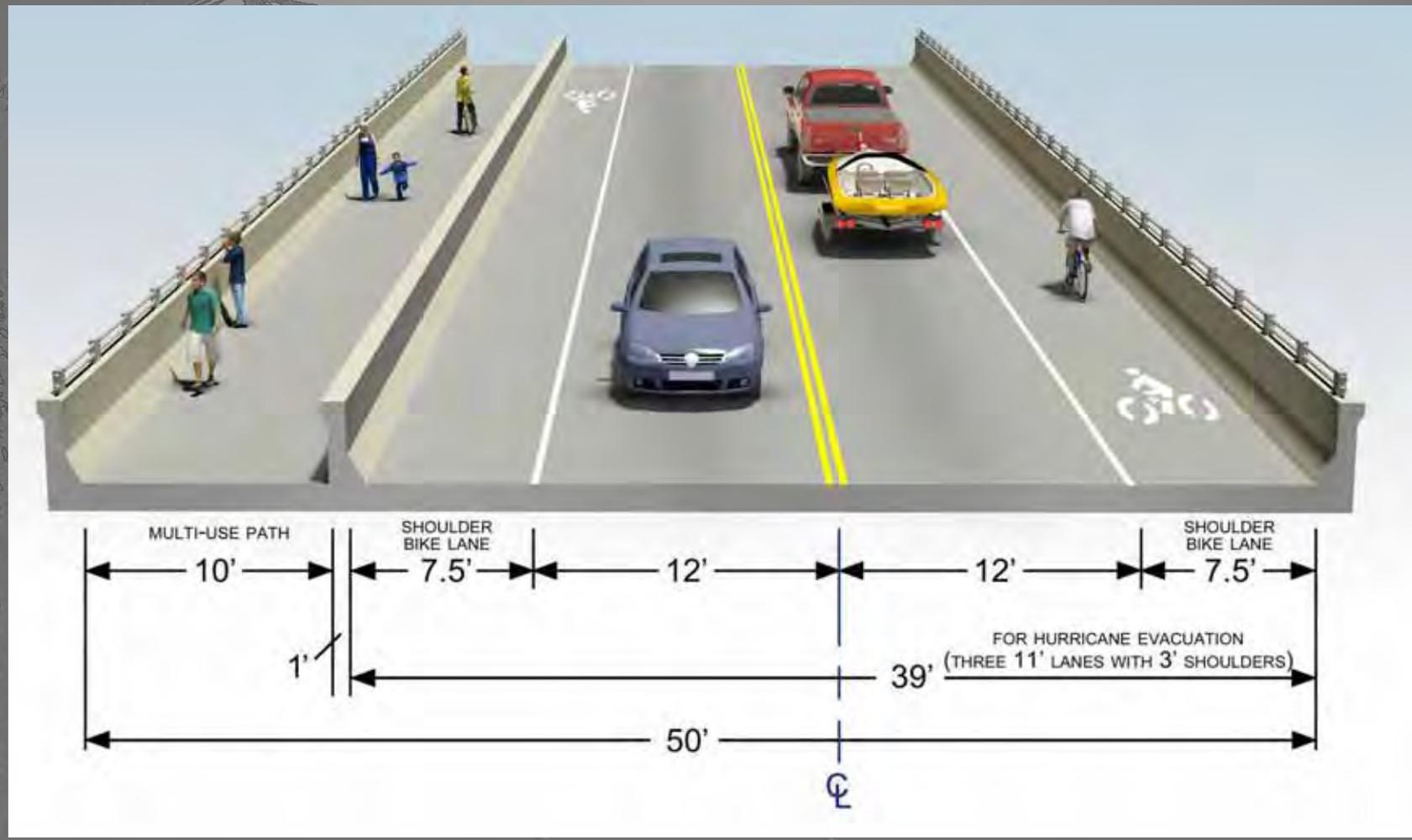
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STEERING COMMITTEE - TYPICAL SECTION



STEERING COMMITTEE - TYPICAL SECTION



STEERING COMMITTEE - EXISTING BRIDGE

- Eligible for National Register of Historic Places listing
- "Adverse Effect" to the existing bridge
- Feasible and prudent alternatives explored and rejected
 - No Build Alternative
 - Build on new location without using the old bridge
 - Repair and rehabilitate existing bridge
- Pender County officials are evaluating the possibility of taking ownership of the existing structure

- Preliminary design impacts
 - 3 Businesses & 1 Residence
- Potential to minimize impacts to businesses



CP 4A - AVOIDANCE AND MINIMIZATION EFFORTS

- CAMA wetlands
- SAV habitat

CP 4A - CAMA WETLANDS

- Island side**

- Extended the structure by approximately 100 feet
- Assumed one span of 100 feet with a shallower girder to reduce structure depth at tie-in location
- Raised roundabout profile by approximately 1.5 feet



CP 4A - CAMA WETLANDS

- **Mainland side**
 - Impacts remain similar

Potential CAMA Wetland Impacts	With 25-foot Buffer (acres)
Mainland Tie-In	0.05
Island Tie-In	0.02
Total	0.07



CP 4A - SAV HABITAT

- **2013 surveys**
 - SAV habitat is sparse, yet becoming more prominent
- **Mitigation measures**
 - Bent locations: at least 120' spanning of the SAV habitat
- **Shading impacts**
 - Future surveys: one year prior to construction and two years after construction
 - Discussions to implement any needed mitigation measures will follow



CP 4A - SUMMARY OF MINIMIZATION EFFORTS

- **CAMA wetlands:** revised design to reduce impacts to 0.1 acres or less
- **SAV habitat:** designed bent locations so that at least 120' wide SAV habitat could be spanned

CP 4A – CONCURRENCE FORM



ORIGINAL
APRIL 16, 2014

CONCURRENCE POINT 4A
AVOIDANCE AND MINIMIZATION

CONCURRENCE POINT 4A
SECTION 404/NEPA MERGER TEAM MEETING AGREEMENT

Concurrence Point 4A: Avoidance and Minimization
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The Project Team met and concurred on this date of April 16, 2014:

USACE	NCDOT
USEPA	USFWS
NCCDCR	NCDWQ
FHWA	NCWRC
USCG	NCCDM
NCDMF	NMFS
RPO	

TIP No. B-4929
TOPSAIL ISLAND BRIDGE REPLACEMENT

APRIL 2014



PROJECT SCHEDULE

- Design Hearing - Summer 2014
- FONSI - Fall 2014
- Right-of-Way - 2015
- Construction - 2017

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BRIDGE REPLACEMENT
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Thank You



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