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Create and execute continuing, cooperative and comprehensive regional long-range planning efforts that pro-actively drive transportation decisions to improve safety, connectivity, economic development and quality of life in the Wilmington region.

Board Work Session
Cape Fear Crossing
Wilmington Urban Area MPO
320 Chestnut Street, 6th Floor Conference Room
Wilmington, NC
April 26, 2017
1:30 pm

1. Call to Order
2. Review of Merger Process
3. History of the Cape Fear Crossing Project
4. Review Cape Fear Crossing 12 Detailed Study Alternatives
5. Review of Detailed Study Alternatives Impacts Table
6. Discussion of Alternatives the Board could support for Removal
7. Adjourn

Attachments:

- MPO Board Meeting Presentation- March 29, 2017
- Cape Fear Crossing Detailed Study Alternatives Map
- Cape Fear Crossing Detailed Study Alternatives Impact Table

NORTH CAROLINA
Department of Transportation

Cape Fear Crossing
Brunswick and New Hanover Counties, NC
STIP Project No. U-4738

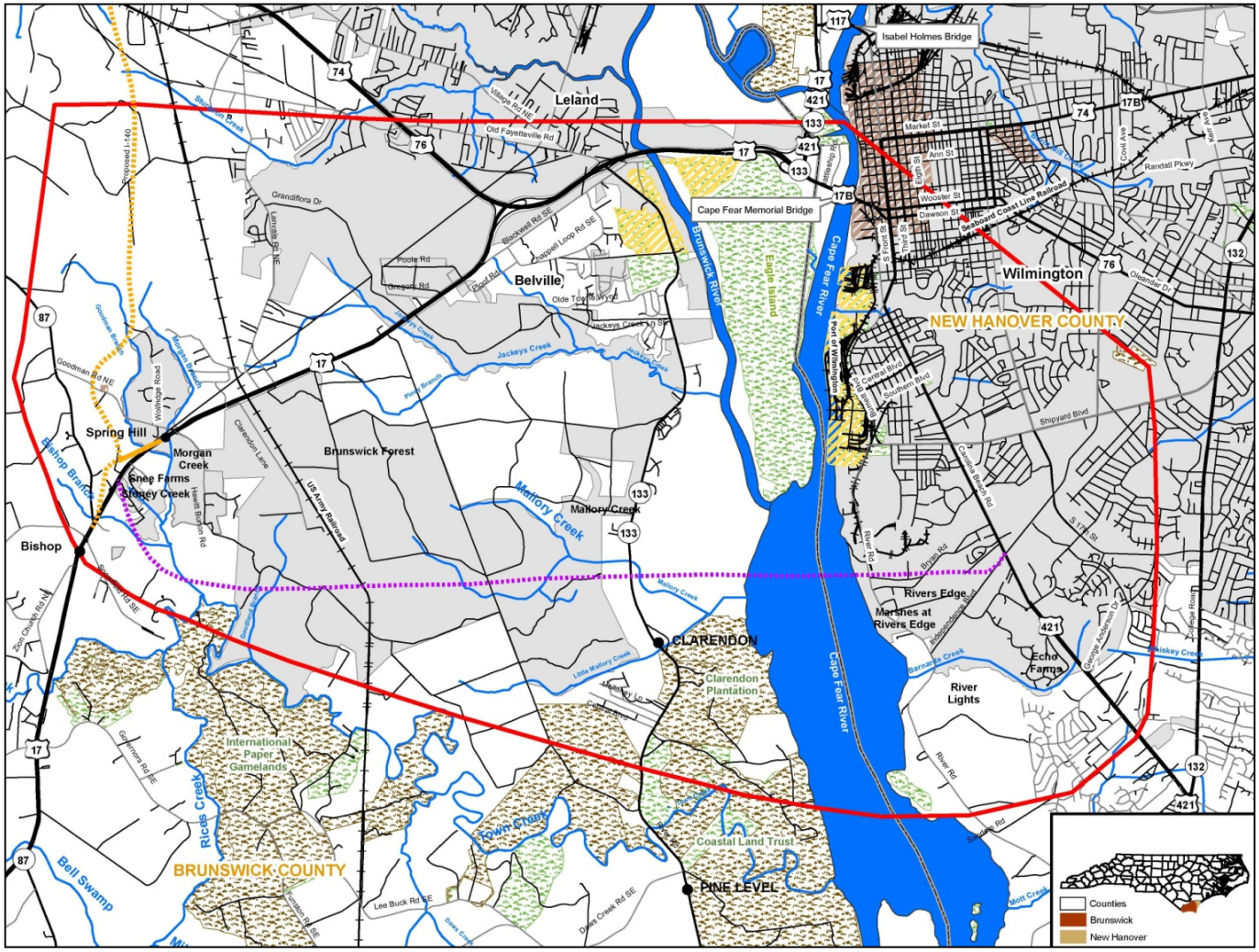
WMPO TAC Meeting

March 29, 2017

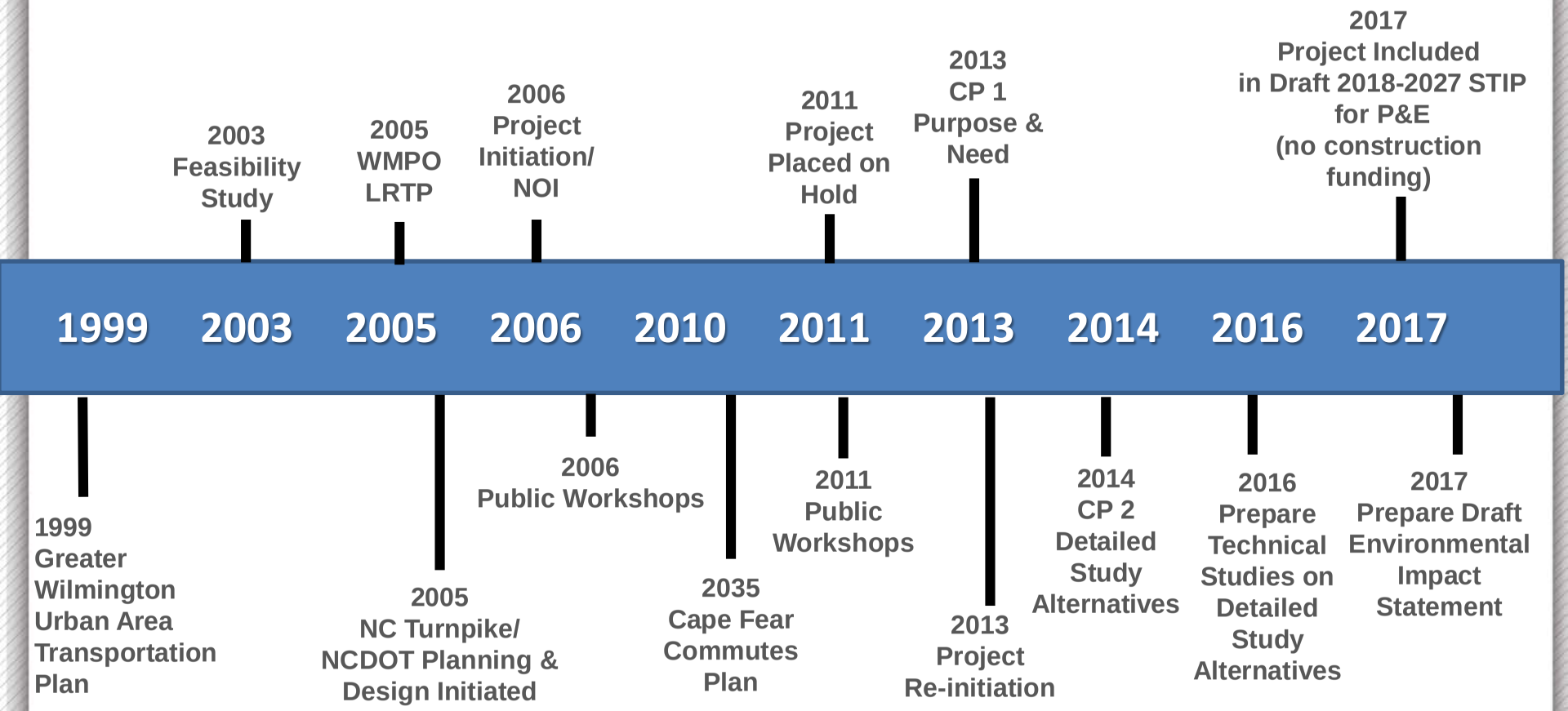
Agenda

- Project History
- NEPA and Merger Process Overview
- Project Status
- Potential Impacts
- Next Steps
- Questions/Discussion

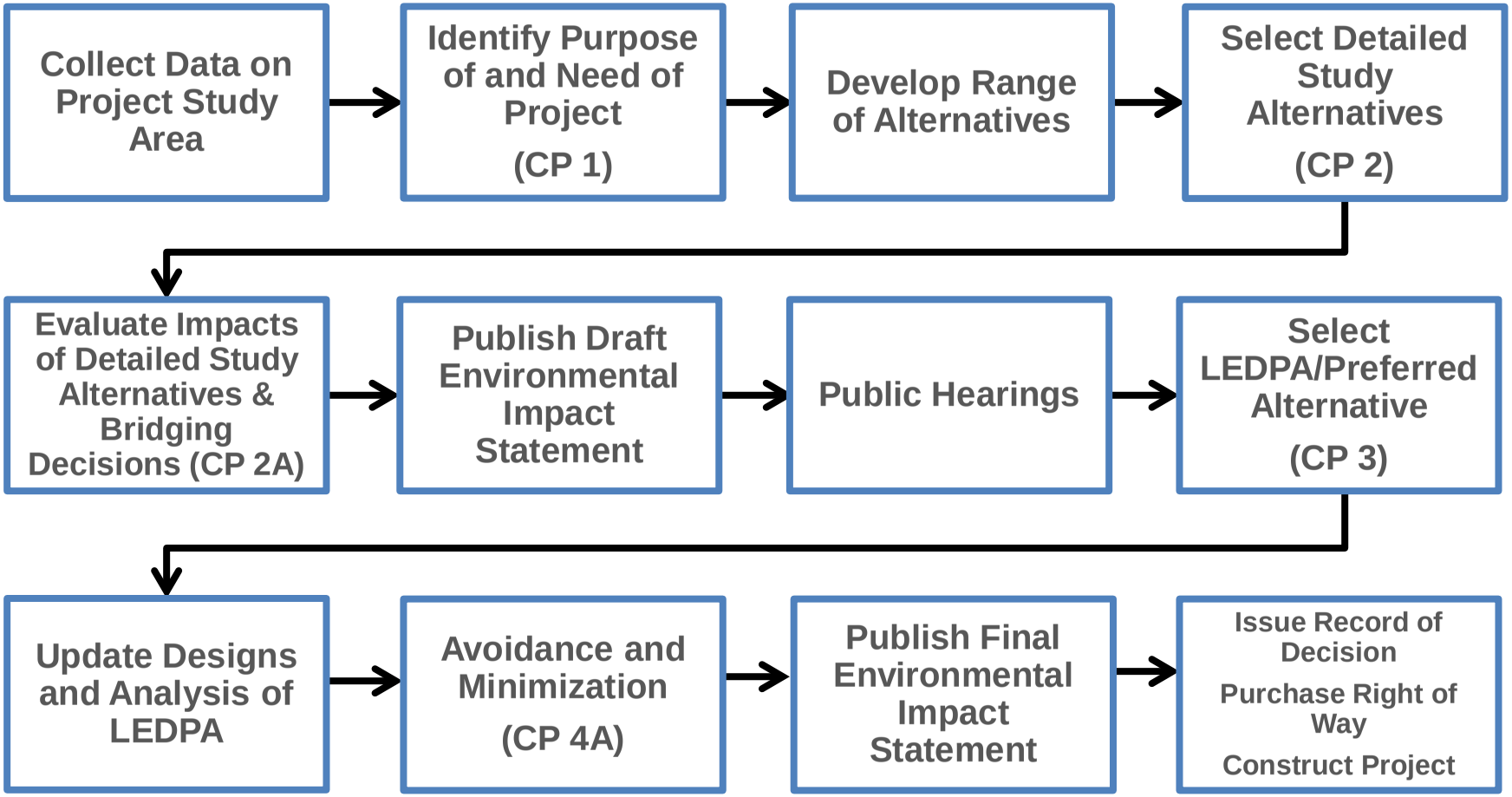
Project Study Area



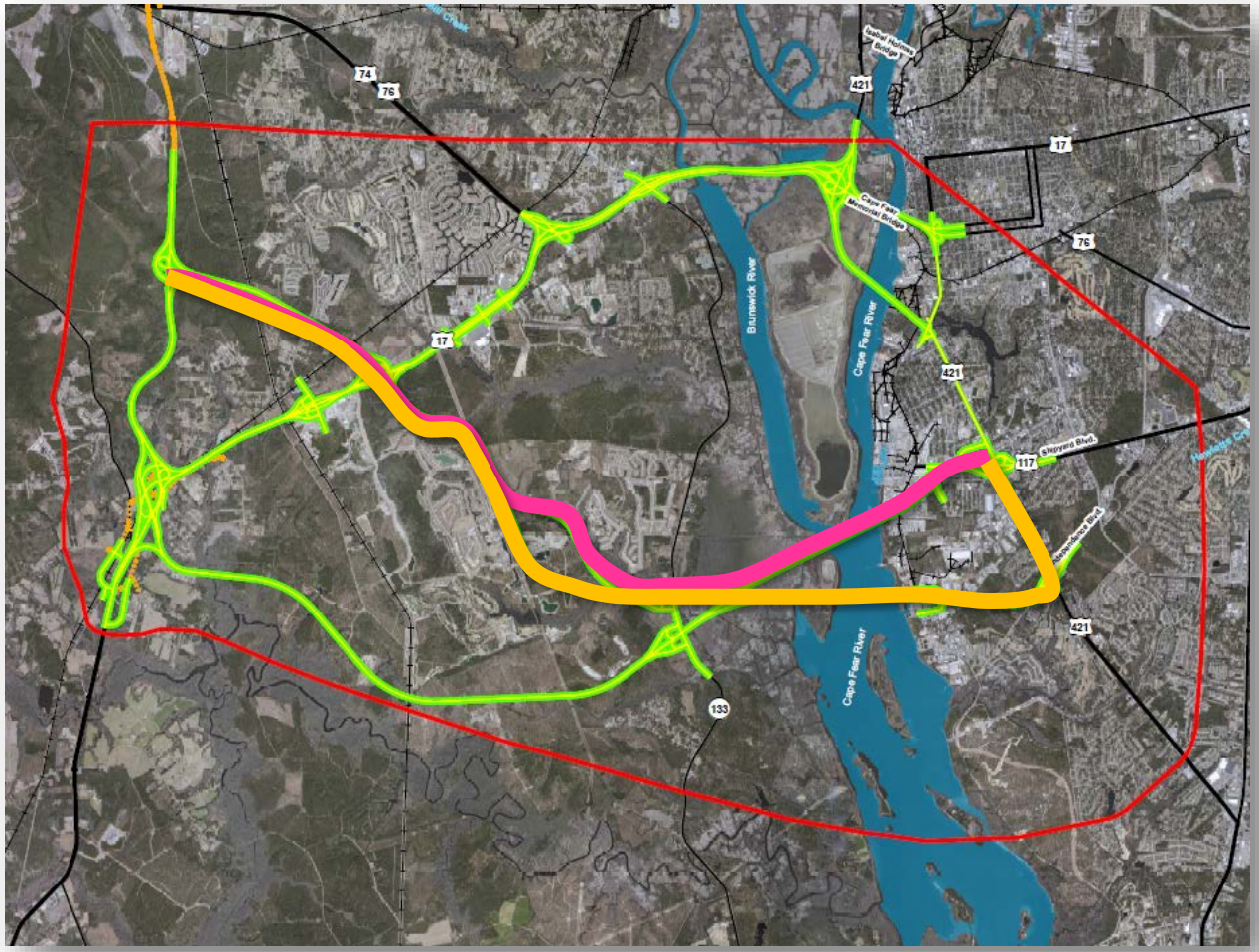
Project Planning to Date



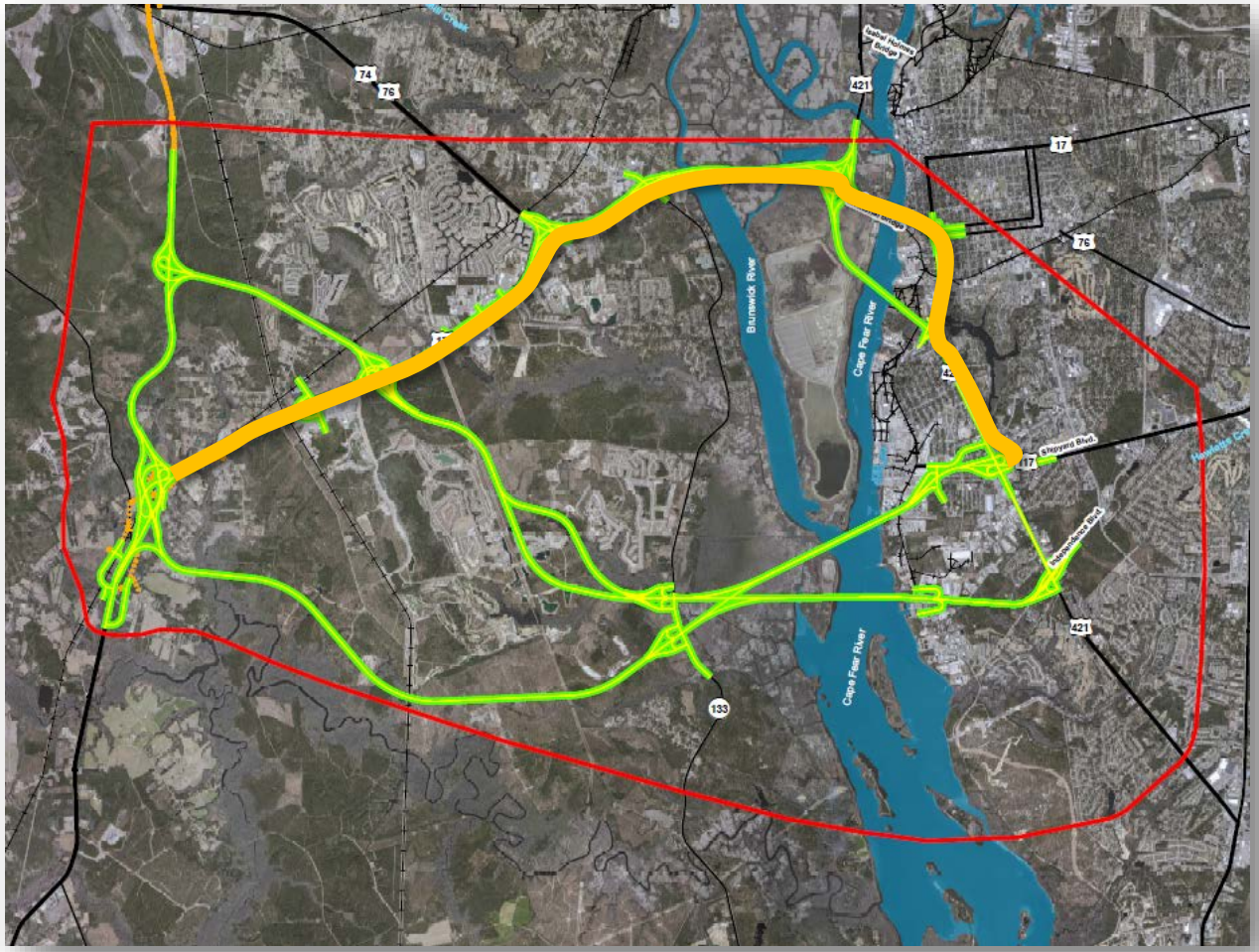
NEPA & Merger Process Overview



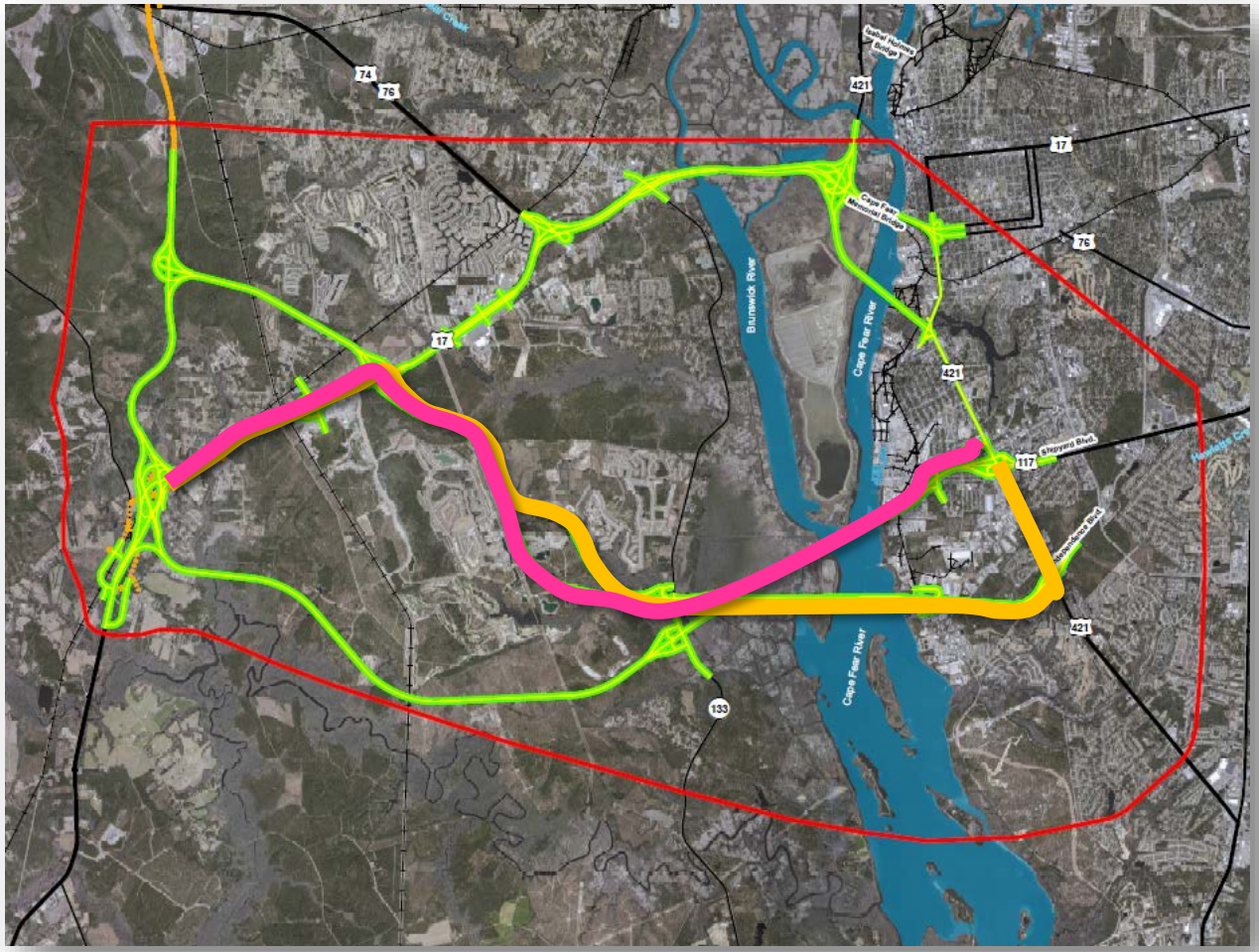
Alternatives B and C (new location)



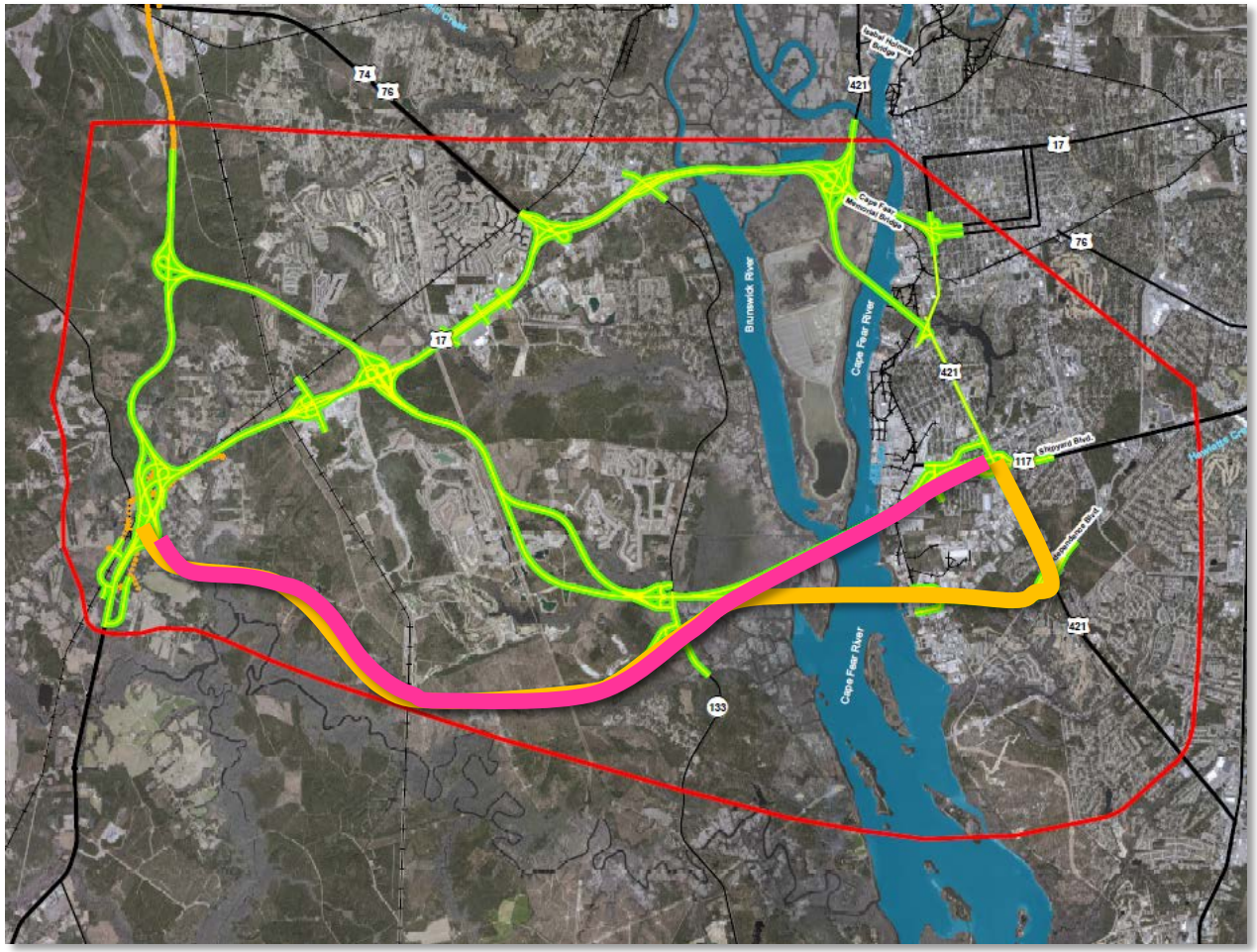
Alternatives F and P (Upgrade Existing)



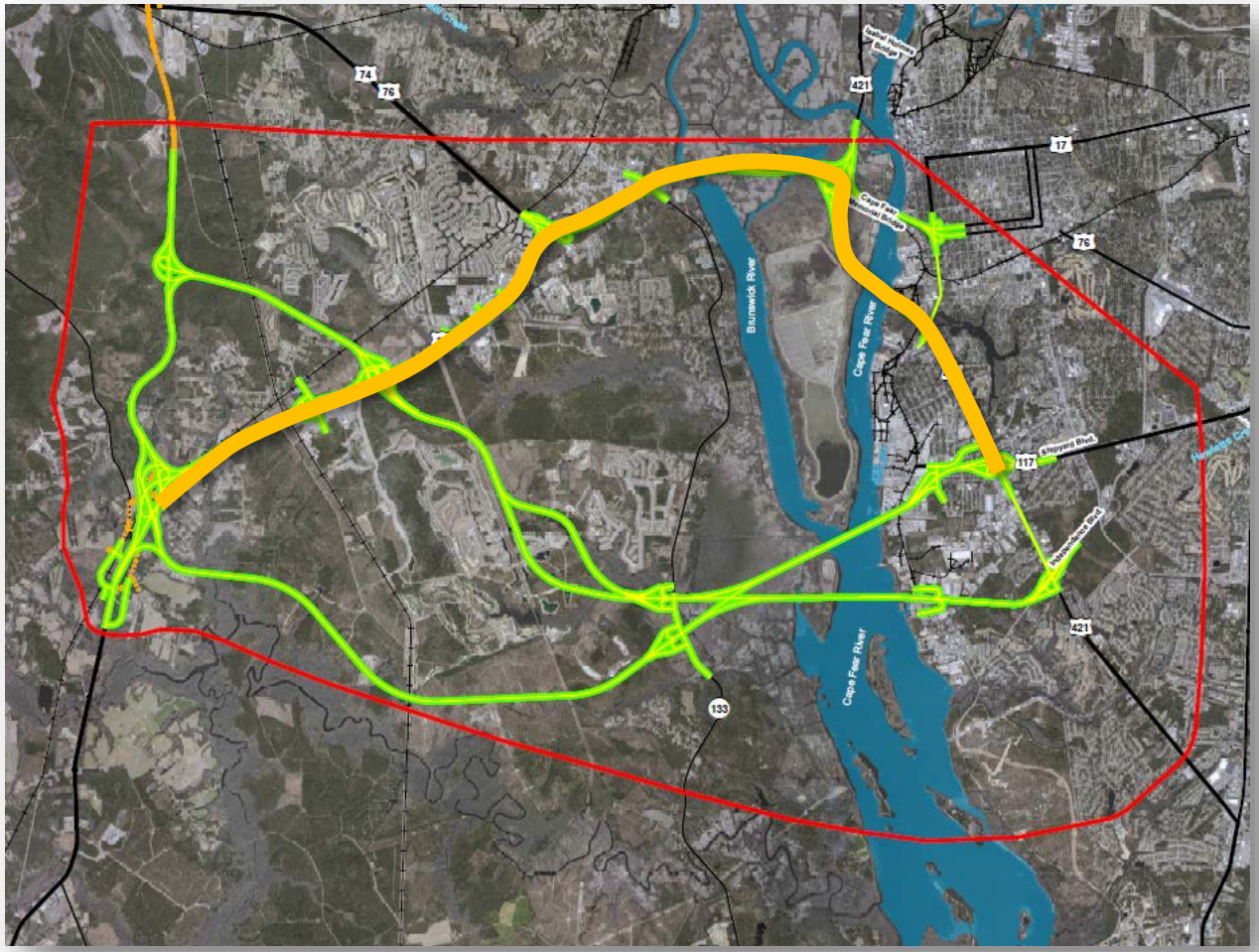
Alternatives G/Q and J/T (Hybrids)



Alternatives M Avoidance and N Avoidance



Alternative V (Freeway and Arterial Widening)



Project Alternatives, cont.

- Additional alternative proposed by members of the WMPO TAC in 2015
  - Alternative would use design of Alternative V and re-align it to either utilize the Port of Wilmington property (Myers Street) or Burnett Boulevard
  - Would not meet the purpose and need for the project
  - Higher in cost and impact than Alternative V
  - Would require additional studies and revisiting of Concurrence Points 1 (Purpose and Need) and 2 (Detailed Study Alternatives Carried Forward)

Project Status

- Completed Tasks
  - Purpose and Need
  - Alternatives Analysis
  - Various Technical Studies

Project Status

- Current Tasks
  - Agency Coordination
  - Traffic Noise Analysis and Air Quality Analysis
  - Sea-Level Rise Analysis
  - Updates to various technical studies
  - Cost estimates (Utility, ROW, Construction)
  - Determine Effects on Cultural Resources
  - Alternative Impact Analysis

Project Status

- Upcoming Tasks
  - Coordinate with NEPA/404 Merger Team on bridging decisions (CP 2A)
  - Prepare Draft Environmental Impact Assessment
  - Hold Public Hearing(s)
  - Select Preferred Alternative/Least Environmentally Damaging Practicable Alternative (LEDPA) (CP 3)
  - Prepare Preliminary Design on LEDPA

Project Status

- Upcoming Tasks (cont.)
  - Hold CP 4A Meeting—Avoidance and Minimization
  - Endangered Species Act Consultation
  - Update Technical Studies and Complete Archaeological Investigations
  - FEIS
  - ROD

Schedule

- DEIS –Fall 2017
- Public Hearing – Winter 2018
- Select Preferred Alternative/LEDPA – Summer 2018
- FEIS – Winter 2018/2019
- ROD – Summer 2019

This schedule is dependent upon availability of funding and subject to change.

Project Impacts

- Impacts calculated for 12 DSAs using functional designs
- Right of Way or slope stake boundaries plus 40 feet used
- Resources include:
  - Length
  - Construction Cost
  - Number of Interchanges
  - Number of railroad crossings
  - Number of Power Easements
  - Business and Residential Displacements
  - Community Resources (Schools, Churches, Cemeteries, Libraries, Fire Stations)
  - Floodplains
  - Noise Receptors
  - Terrestrial Communities
  - Hazardous Waste Sites
  - Public Trust Access
  - Natural Heritage Areas
  - Section 4(f) Properties
  - Wetlands, Streams, Ponds
  - Historic Properties
  - Archaeological Sites
  - Federally-Listed Species

Alternative Impact Comparison

Impact Category	Range of Impacts	Lowest	Highest
Construction Cost	$380,000 - $779,000	Alternative P	Alternative G
Residential Relocations	31 - 145	Alternative Q	Alternative F
Business Relocations	30 - 74	Alternatives C, G, MA, Q	Alternatives B, J, NA, T
Historic Properties (Adverse Effect)	0 – 2	Alternatives B, C, G, J, MA, NA, Q, T	Alternatives F and P
Wetlands (acres)	42.5 – 161.3	Alternative T	Alternative VF
Floodplains	0.4 – 3.9	Alternatives P and VA	Alternatives G and J
Streams (#/linear feet)	8/1,560 – 23/13,050	Alternative T	Alternative MA
Forested Land (acres)	10.7 – 178.6	Alternatives P and VA	Alternative MA
Farmland Soils (acres)	151.4-551.2	Alternative VA	Alternative C

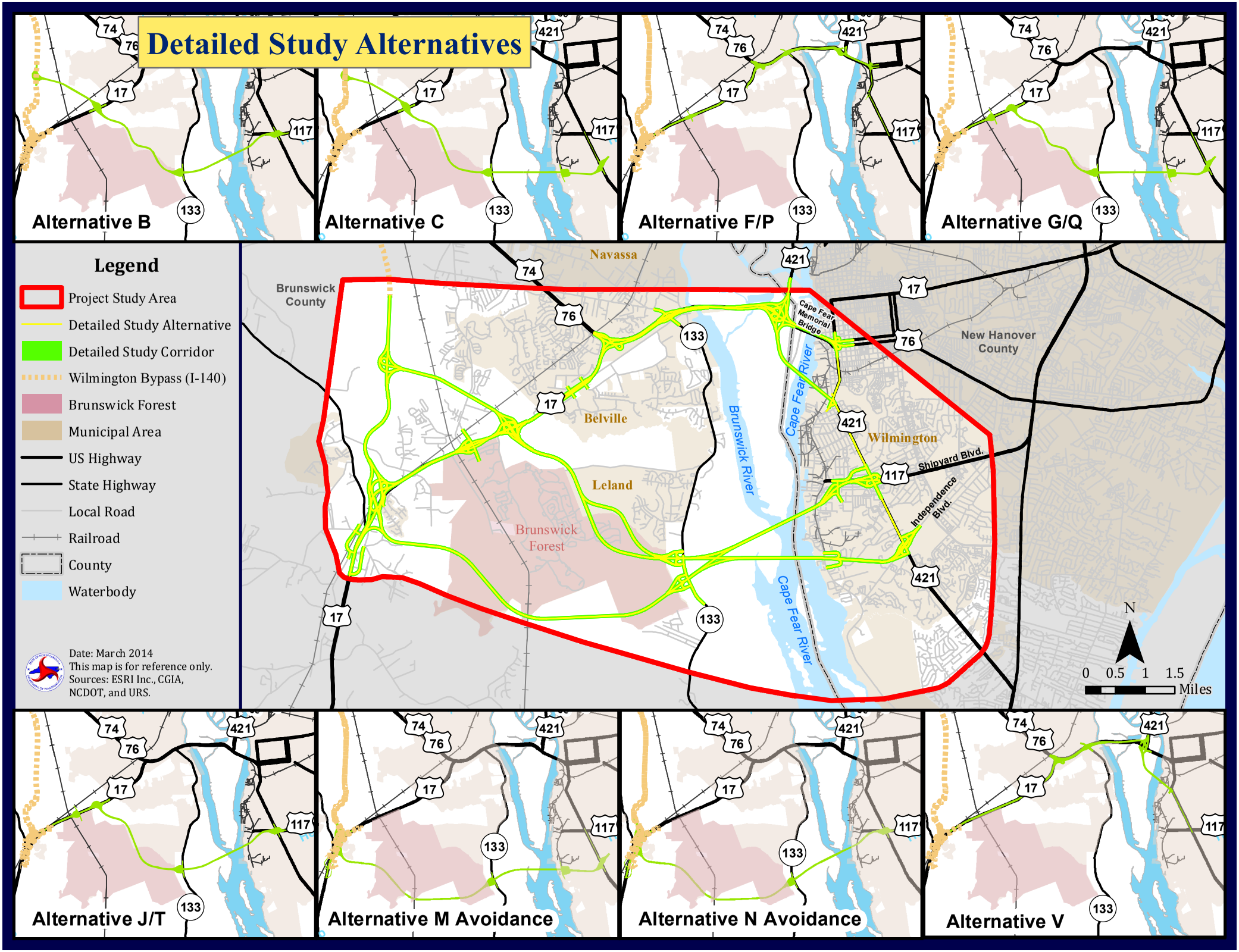
Questions?

www.ncdot.gov/projects/capefear

capefear@ncdot.gov

1-800-233-6315

Detailed Study Alternatives



U-4738 Cape Fear Crossing - Detailed Study Alternatives Impact Comparison

3/28/2017

Resource	B	C	F	G	J	MA	NA	P	Q	T	VA	VF
Length of Corridor (Miles)	11.1	11.3	12.0	11.3	11.2	12.3	12.2	12.0	11.5	11.4	11.8	11.8
Construction Cost (Millions $)	760	768	425	779	675	774	763	380	745	733	511	553
Number of Interchanges	5	4	6	5	5	4	4	3	4	4	6	7
Number of Railroad Crossings	2	1	1	1	2	1	2	1	1	2	2	2
Number of Major Power Easment Crossings	2	2	4	3	2	1	1	4	2	2	4	4
Business Relocations	74	30	42	30	74	30	74	39	30	74	37	38
Residential Relocations	95	82	145	39	116	53	98	137	31	108	52	60
Total Relocations	169	112	187	69	190	83	172	176	61	182	89	98
Minority and/or Low-Income Populations Present	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Archaeological Sites (Number within Impact Area)	0	0	0	0	0	1	1	0	0	0	0	0
Historic Properties (Adverse Effect)	0	0	2	0	0	0	0	2	0	0	1	1
Section 4(f) Lands (Acres within Proposed Right of Way)	1.2	0.0	73.9	0.0	1.2	0.0	1.2	73.9	0.0	1.2	16.7	16.7
Wetlands (Acres within Impact Area)	108.6	111.2	80.3	65.7	57.1	72.7	67.1	60.0	50.5	42.5	141.3	161.3
Surface Waters/Ponds (Acres within Impact Area)	0.05	0.05	0.07	0.05	0.05	0.00	0.00	0.05	0.04	0.04	0.05	0.07
Floodplains (Acres within Impact Area)	16.6	15.8	135.0	50.4	46.2	44.2	42.5	119.1	34.0	29.8	218.2	234.3
Streams (Linear Feet within Impact Area)	2,650	7,950	3,630	8,250	2,280	13,050	7,440	2,330	7,510	1,560	2,340	3,720
Federally-Protected Species Habitat Present	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Potential Noise Receptors*	1167	781	2717	865	1449	552	1052	2468	779	1367	1508	1799
Lands Managed for Conservation and Open Space (Acres within Impact Area)	0.0	0.0	5.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	76.5	76.5
Community Facilities Impacted (Number within Proposed Right of Way)												
Cemeteries	1	0	0	0	1	0	1	0	0	1	0	0
Churches	3	3	4	4	4	4	4	3	3	3	4	5
Fire Stations	0	1	0	1	0	1	0	0	1	0	0	0
Section 6f (Number within Proposed Right of Way)	0	0	3	0	0	0	0	3	0	0	2	2
Forested Land (Acres within Impact Area)	110.3	123.2	44.7	141.9	121.2	178.6	161.7	10.7	106.3	84.7	10.7	44.7
Farmland soils (Acres within Proposed Right of Way)	477.5	551.2	280.6	512.9	466.7	550.1	490.1	151.6	413.3	367.0	151.4	280.8

Note: Screening factors where no impacts were found within any corridors and therefore are not included in impact table include: libraries, gamelands, VADs/EVADs, 303(d) streams (listed due to sedimentation), and SA/HQW/ORW waters

Impact area equals the slope stakes limits plus 40 feet

* Noise receptors include count within 700 feet of centerline along existing roadways and 600 feet of new location alternatives