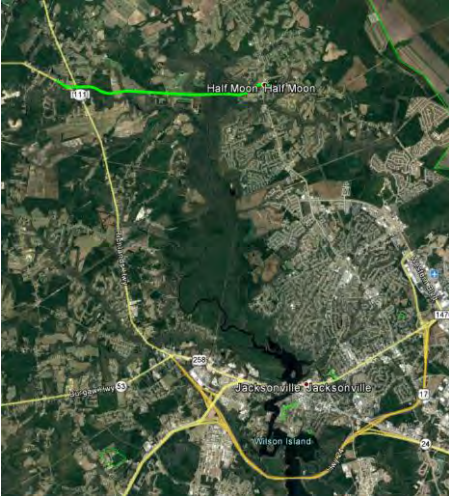


PROJECT SCOPING REPORT - SUMMARY

SPOT ID: 140365 STIP#: U-5733	FACILITY: Alt A: 4 Lanes Median Divided w/ Paved Shldr Alt B: 2 Lane Undivided	DIVISION: 3	FIRM: ACCELERATE ENGINEERING, PLLC
	EXISTING FACILITY CHARACTERISTICS:	PROPOSED FACILITY CHARACTERISTICS:	
	Existing No. of Lanes: 2 Existing Median: No Existing control of access: ☒ No Control ☐ Partial Control ☐ Limited Control ☐ Full Control 2016 AADT: NC 111: 9,400 US 258 / NC 24: 18,000~24,000 SR 1308: 20,000 SR 1324: 4,900 Structures: ☐ Culvert(s) NA ☐ Bridge(s) N/A	Proposed No. of Lanes: Alt A – 4 Lanes Alt B – 2 Lanes Addition of Median(s): Alt A – Yes Alt B – No Proposed control of access: ☒ No Control ☐ Partial Control ☐ Limited Control ☐ Full Control ADT: TBD Structures: Alt B structures are shown blow. Alt A requires dual structures. ☒ Culvert(s) Double 12x8 RCBC, ☒ Bridge(s) 36' Wide Structures 36'Wx240'L, 36'Wx3,590'L	
PROJECT DESCRIPTION: <i>(Include project scope and location, including Municipality and County. Refer to the attached project location map and photos.)</i> Project U-5733 (S03001) will extend NC 111 (Catherine Lake Rd) along a new route from US 258 / NC 24 (Richlands Hwy) to SR 1308 (Gum Branch Rd) at SR 1324 (Ramsey Rd) in Onslow County. The NC 111 Extension is expected to be constructed as a two-lane facility initially within a right-of-way sufficient to accommodate a four-lane divided roadway in the future. Both a four-lane divided section (Alt A) and the two-lane undivided section (Alt B) were evaluated in the Express Design Feasibility Study. See conceptual design for more details.			
PRELIMINARY PURPOSE AND NEED: <i>Is there preliminary information on the purpose and need for the project included in a CTP, LRTP, or other study? If yes, summarize.</i> Need: A. Compliance with NCDOT's STIP and JUMPO's 2040 LRTP. B. Additional roadway capacity to accommodate area growth. C. Safety Improvements. The NC 111 and US 258 / NC 24 intersection is ranked one of the top crash locations in JUMPO, based on crash data from January 2011 through December 2013. Purpose: A. Consistence with JUMPO's 2040 LRTP, and improve transportation network connectivity. B. Improve mobility and safety performance.			

COST ESTIMATES:

Right of Way: \$6,500,000

Utilities: \$400,000

Construction: \$58,300,000

FINDINGS AND RECOMMENDATIONS:

Note recommended document type and summarize findings from Screening Checklist.

Based on the preliminary environmental screening, there may be endangered and threatened species along the proposed project corridor which may require a formal consultation with U.S Fish and Wildlife Service (USFWS). There is an approximately 30-acre North Carolina Swine Buyout Easement (653 Briarneck Rd) located north of the proposed New River crossing on the west side of the river. This managed area is located within the New River floodway.

The proposed NC 111 extension will have two bridge crossings over New River (3,590') and Ash Branch (240'), and a culvert over a Gravelly Run Branch tributary. The four-lane Alternative A will require dual-structures at these river/stream crossings, while the two-lane Alternative B will only have a single structure at each crossing. The stream/river crossings will impact approximately 19.5 acres of wetlands, and will also impact the New River floodway and floodplain.

Both Alternative A and Alternative B are assumed to have the same right-of-way, approximately 90 acres for the ultimate four-lane divided section. It is estimated that this project may require one commercial displacement, five residential displacements, and parking reduction at a retail store (Family Dollar). Near the western project limit, the NC 111 realignment will shift its intersection with US 258 / NC 24 approximately 750' to the north/west. With the proposed cul-de-sac, residents in the vicinity of the existing intersection will not have direct access to NC 111. Near the eastern project limit, the proposed NC 111 may require over 16 acres of right-of-way from the Swingin' Things & Fletcher's Landing Golf Course. It is expected that a realigned golf cart path underneath the proposed bridge(s) will help to mitigate the property impact and maintain access to the golf course on the north side.

An alternative New River crossing location further north (near Bridlewood Drive, similar to the JUMPO conceptual alignment A) may reduce the structure needs, but will likely cause more residential displacements. Additional design and analysis efforts may be considered to evaluate its environmental and property impacts.

Due to the project scope, the anticipated environmental, property and regional traffic impacts, public involvement will play a critical part in the project. A robust public involvement plan is recommended.

ATTACHMENTS:

Project Scoping Report – Technical Report

Project Scoping Report - Screening Checklist

Conceptual Design(s)

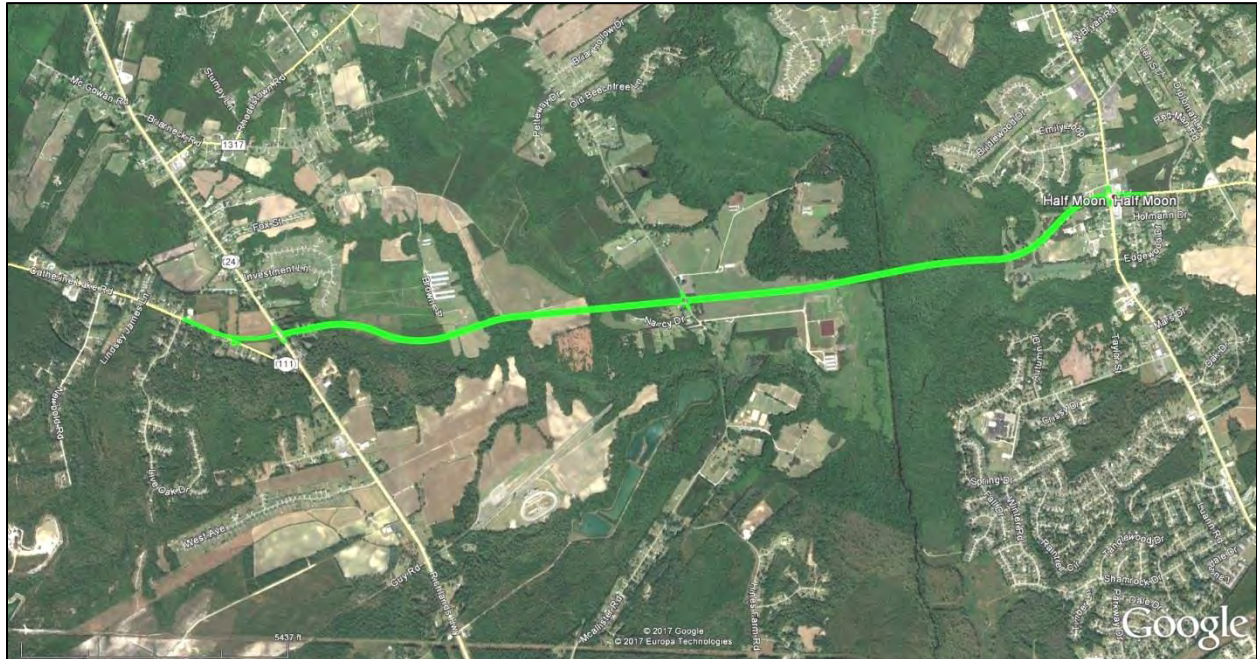
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Introduction

This report reviews the likely impacts and costs of extending NC 111 (Catherine Lake Rd) along a new route from US 258 / NC 24 (Richlands Hwy) to SR 1308 (Gum Branch Rd) at SR 1324 (Ramsey Rd) in Onslow County. Two alternatives were evaluated for the NC 111 extension – a four-lane divided section (Alt A) and two-lane undivided section (Alt B). Figure 1 below shows the project limits and potential alignment.

Figure 1: Project Limits for Express Feasibility Study



General Description

The proposed NC 111 Extension will provide a new east-west connector crossing New River north of Jacksonville, NC. It is expected that this new connector will alleviate traffic congestion on US 17 and US 17 Bus (Marine Blvd), the two main river crossings in the Jacksonville area.

The road improvements include widening and realigning NC 111 west of US 258/ NC 24, NC 111 extension on a new alignment between US 258/ NC 24 and SR 1328, and turn-lane improvements on SR 1324 at its intersection with SR 1328. The proposed NC 111 Extension will be constructed mostly on vacant and agricultural land, but will require residential and/or commercial displacements near both ends. This project will also impact wetlands, streams and floodplains, due to the proposed crossings over New River and its tributaries.

The NC 111 Extension is expected to be constructed as a two-lane facility initially within a right-of-way sufficient to accommodate a four-lane divided roadway in the future. Therefore both the two-lane and four-lane alternatives were evaluated in the Express Design Feasibility Study.

Background

Due to the area growth and the limited New River crossings, there is increasing traffic congestion along US 17 and US 17 Bus (Marine Blvd) through the City of Jacksonville. The Jacksonville Urban Area MPO (JUMPO)'s 20410 Long Range Transportation Plan (LRTP) dated April 2015 recommended constructing the proposed NC 111 extension with a two-lane section and bicycle accommodations for the 2016-2025 cost band.

Purpose and Need

- Need:
- A. Compliance with NCDOT's STIP and JUMPO's 2040 LRTP.
 - B. Additional roadway capacity to accommodate area growth.
 - C. Safety Improvements. The NC 111 and US 258 / NC 24 intersection is ranked one of the top crash locations in JUMPO, based on crash data from January 2011 through December 2013.
- Purpose:
- A. Consistence with JUMPO's 2040 LRTP, and improve transportation network connectivity.
 - B. Improve mobility and safety performance.

Disclaimer: It should be noted that a Project Scoping Report is a preliminary document that is the initial step in the planning and design process for a candidate project and not the product of exhaustive environmental or design investigations. The purpose of this Project Scoping Report is to describe the proposed project, including cost, and identify potential issues/problems that may require consideration in the planning and design phases.

If a candidate project is identified for funding in the State Transportation Improvement Program (STIP), the Project Scoping Report is followed by a rigorous planning and design process that meets the appropriate requirements of the National Environmental Policy Act (NEPA) and/or State Environmental Policy Act (SEPA).

Existing Conditions

Due to the lack of river crossings north of Jacksonville, the US 17 and US 17 Bus (Marine Blvd) bridges over New River collectively carry over 72,000 vehicles per day near Jacksonville, based on the 2016 AADT data. The JUMPO's 2040 LRTP indicates that several sections along these river-crossing routes had volume/capacity (V/C) ratio exceeding 0.84 in the 2010 traffic analysis. In addition, a 2012 American Community Survey showed that the populations living between NC 111 and NC 53 had one of the longest average commute in the JUMPO study area.

NC 111 is a two-lane Minor Arterial in the state highway functional classification. The 2016 AADT on NC 111 was 9,400 vehicles per day (vpd) west of US 258/NC 24. US 258/ NC 24 is a five-lane Principal Arterial running in the north-south direction. The 2016 AADT was 24,000 vpd south of NC 111. NC 111 currently terminates at US 258/ NC 24 at a skewed angle. The intersection of NC 111 and US 258/ NC 24 is included in the North Carolina

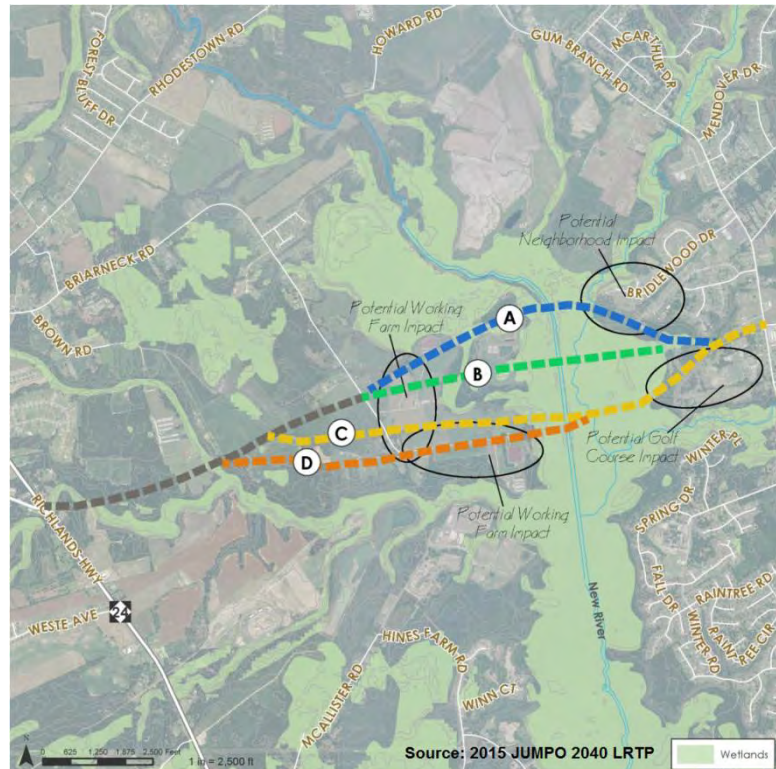
Highway Safety Improvement Program (NCHSIP) as a potentially hazardous intersection with a 2017 ranking of 35 in the state (92 crashes). It was also identified in the 2015 JUMPO 2040 LRTP as the second highest crash location within the MPO area.

Existing Land Use

The existing land uses along the proposed route are mostly agricultural, low-density residential uses and undeveloped land. There are significantly more residential and commercial uses near both the western and eastern ends of this project.

Previous Studies

The 2015 JUMPO's 2040 LRTP indicated that "four conceptual alignments were identified based on a high level review of the social and environmental features in this area. The four alignments are unified on their western end but deviate as they approach the wetlands associated with the New River". These conceptual alternatives, as shown here, have varying levels of wetland and property impacts. No detailed design or construction and right-of-way cost assessment appear to be available for these alternatives.



Adjacent Projects

The eastern end of the proposed NC 111 Extension ties to STIP project U-4906 which will widen SR 1308 (Gum Branch Rd) to three lanes from west of SR 1313 (Mills Fields Rd) to SR 1324 (Ramsey Rd). Construction of this project is scheduled to start in 2019, according to the NCDOT 2018-2027 STIP.

In addition, the 2015 JUMPO's 2040 LRTP lists several nearby roadway improvement projects:

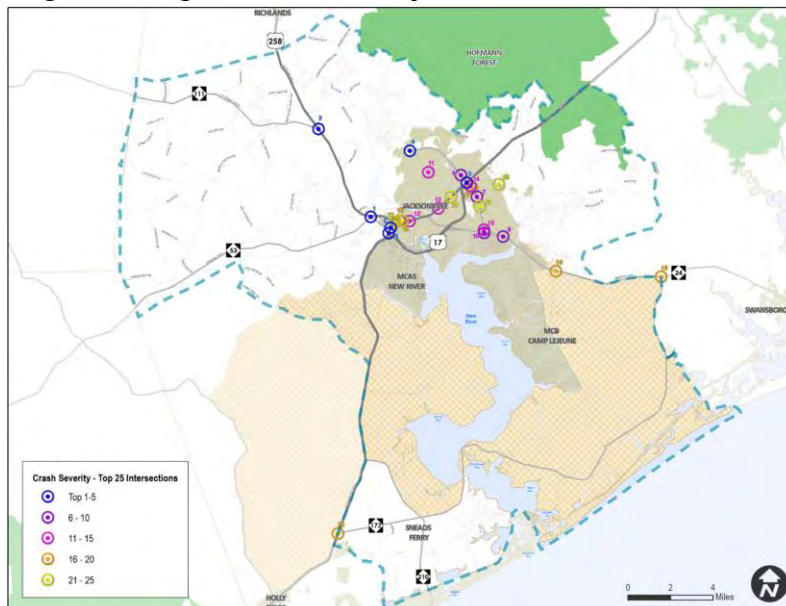
- H140357: Widen NC 111 to three lanes from US 258 to Airport Rd (2026-2030 cost band)
- Project C-3: Access management/superstreet on US 258 (Richlands Highway) from NC 111 to Pony Farm Road
- U-5739: Construct superstreet on US 258 (Richlands Highway) from Pony Farm Road to NC 53 (Burgaw Highway)

Crash Analysis

As the proposed NC 111 Extension will be constructed mostly along a new route, preliminary crash analysis was performed for the two existing intersections at the western and eastern termini. During the five-year period from 12/01/2012 to 11/30/2017, approximately 70 crashes were identified near the intersection of US 258/NC 24 (Richlands Hwy) and NC 111. These crashes include 29 Injury accidents and 41 property damage only accidents. The top three crash types are rear end (32 crashes), left turn (24 crashes), and right turn (4 crashes). This intersection is also included in the North Carolina Highway Safety Improvement Program (NCHSIP) as a potentially hazardous intersection with a 2017 ranking of 35 in the state (92 crashes). During the same five-year periods, there were approximately 35 crashes near the intersection of SR 1308 Gum Branch Rd and SR 1324 Ramsey Rd. These crashes include 15 injury accidents and 20 property damage only accidents. The top three crash types are rear end (18 crashes), left turn (11 crashes), and right turn (3 crashes). This intersection is also included in the NCHSIP as a potentially hazardous intersection with a 2017 ranking of 1,565 in the state (35 crashes).

The 2015 JUMPO 2040 LRTP identified the US 258/NC 24 (Richlands Highway) and NC 111 intersection as the second highest crash location within the MPO area, based on Equivalent Property Damage Only (EPDO) rate, a safety performance measure that takes into account the number of crashes and the severity of injuries. From January 2011 through December 2013, there were a total of 101 crashes at this intersection. 74% of all crashes were rear-end crashes. Safety improvement measures were also discussed in the 2040 LRTP, including “realigning NC 111 to create a 90 degree angle with US 258/NC 24 and mounting the signal heads on mast arms”. It was suggested that these improvements “could be made either independently or as part of the recommended NC 111 extension”. Figure 2 below shows the high crash severity locations in JUMPO.

Figure 2: High Crash Severity Locations



Source: 2015 JUMPO 2040 LRTP.

Alternatives

The NC 111 Extension is expected to be constructed as a two-lane facility initially within a right-of-way sufficient to accommodate a four-lane divided roadway in the future. Therefore both the two-lane and four-lane build alternatives were evaluated.

Build Alternatives

Alternative A includes the ultimate four-lane divided section with 46' depressed median and paved shoulders. Alternative B includes a two-lane undivided facility with paved shoulders. Alternative B follows the same westbound alignment in Alternative A (the northern half of the ultimate four-lane section), except for the intersection transition areas.

The roadway improvements are divided into three sections for this study:

Section 1

Realign NC 111 and provide a three-lane section with paved shoulders between SR 2155 (Live Oak Dr) and US 258 / NC 24. Terminate the existing section of NC 111 in a new cul-de-sac west of US 258 / NC 24.

Section 2

NC 111 Extension from US 258/ NC 24 to the intersection of SR 1308 and SR 1324.

Section 3

SR 1324 turn lane improvements at its intersection with SR 1308 and the proposed NC 111.

Traffic Volumes

2016 historical AADT traffic volumes on nearby roadways were obtained from NCDOT Traffic Survey Group, and summarized in Table 1 below.

Table 1: 2016 Historical AADT

Location	Volumes (vpd)
NC 111 (Catherine Lake Rd) W. of US 258 / NC 24 (Richlands Hwy)	9,400
US 258 / NC 24 (Richlands Hwy) N. of NC 111 (Catherine Lake Rd)	18,000
US 258 / NC 24 (Richlands Hwy) S. of NC 111 (Catherine Lake Rd)	24,000
SR 1308 (Gum Branch Rd) N. of SR 1324 (Ramsey Rd)	20,000
SR 1308 (Gum Branch Rd) N. of SR 1324 (Ramsey Rd)	20,000
SR 1324 (Ramsey Rd) E. of SR 1308 (Gum Branch Rd)	4,900

Build Alternative Impacts and Cost Estimates

Impacts

Both Alternative A and Alternative B are assumed to have the same right-of-way, the one required for the ultimate four-lane divided section. Overall approximately 90 acres of right-of-way acquisition likely will be required, including approximately 19.5 acres of wetlands.

The proposed NC 111 extension will have two bridge crossings over New River (3,590') and Ash Branch (240'), and a culvert over a Gravelly Run Branch tributary. The four-lane Alternative A will require dual-structures at these river/stream crossings, while the two-lane Alternative B will only have a single structure at each crossing.

It is estimated that this project may require one commercial displacement, five residential displacements, and parking reduction at a retail store (Family Dollar). Near the western project limit, the NC 111 realignment will shift its intersection with US 258 / NC 24 approximately 750' to the north/west. With the proposed cul-de-sac, residents in the vicinity of the existing intersection will not have direct access to NC 111. Near the eastern project limit, the proposed roadway may require over 16 acres of right-of-way from the Swingin' Things & Fletcher's Landing Golf Course. It is expected that a realigned golf cart path underneath the proposed bridge(s) will help to mitigate the property impact and maintain access to the golf course on the north side of the proposed NC 111 Extension.

Because this Project Scoping Report is not the product of an exhaustive environmental or design effort, but rather an initial step to this process, the environmental impacts are based on a screening of readily available GIS data. It is assumed that a more detailed impacts analysis would be performed during the NEPA/SEPA phase.

Cost Estimates

Preliminary cost estimates were developed for the alternative based on conceptual level roadway designs.

The total cost for construction is estimated to be:

Alternative 1

Right of Way -	\$6,500,000
Utility Relocation -	\$400,000
Construction -	\$58,300,000
Total -	\$65,200,000

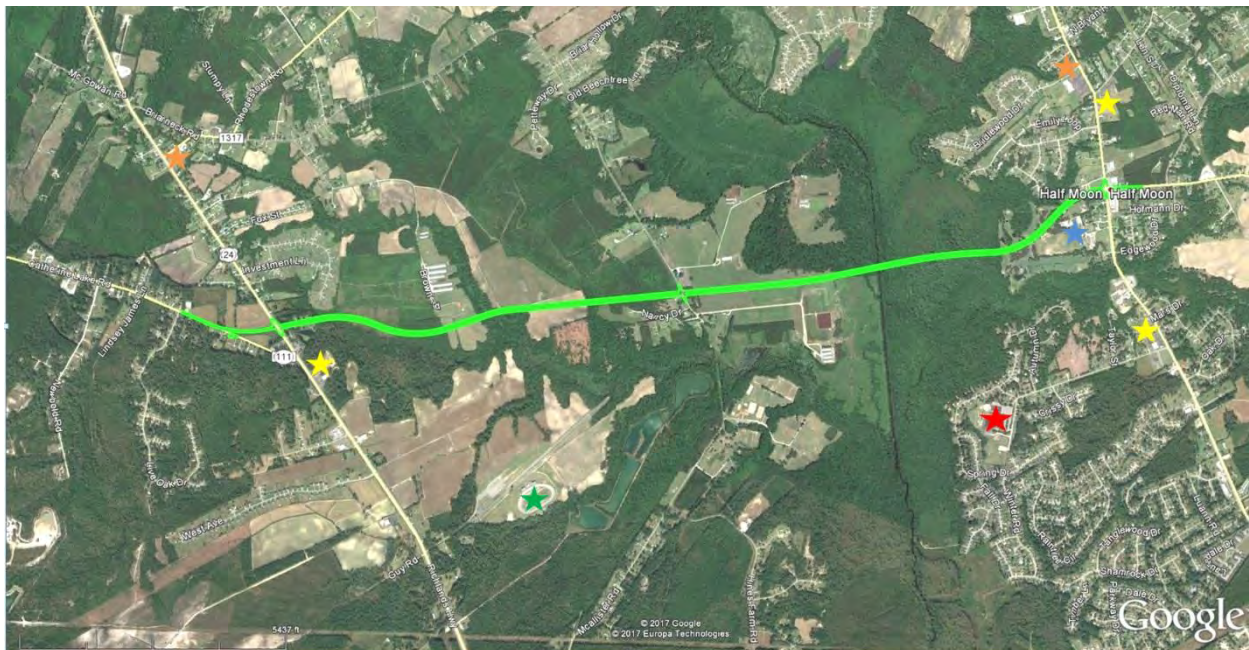
Alternative 2

Right of Way -	\$6,500,000
Utility Relocation -	\$400,000
Construction -	\$33,500,000
Total -	\$40,400,000

Community Resources

A detailed community resource study was not conducted for this Project Scoping Report. GIS level research and a preliminary site review were completed. Figure 3 shows the locations of documented community resources near the project corridor.

Figure 3: Community Resources



Long Range Plans (CTP)

The 2015 JUMPO 2040 LRTP, as referenced above, recommended constructing the proposed NC 111 extension with a two-lane section and bicycle accommodations for the 2016-2025 cost band.

Community Facilities

Community Church – yellow star

- Union Missionary Baptist Church on US 258 / NC 24
- Bethlehem Baptist Church on Gum Branch Rd
- Victory In The Word Worship Center on Gum Branch Rd

School – red star

- Summersill Elementary School on Summersill School Rd

Fire Department – orange star (see below for details)

Swingin' Things & Fletcher's Landing Golf Course – blue star

Coastal Plains Dragway – green star

Emergency Management Services

The Rhodestown Volunteer Fire Department is located in the SE quadrant of the US 258 / NC 24 and Rhodestown Fire Dept Rd intersection, approximately 0.9 mile north of the NC 111 and US 258/ NC 24 intersection.

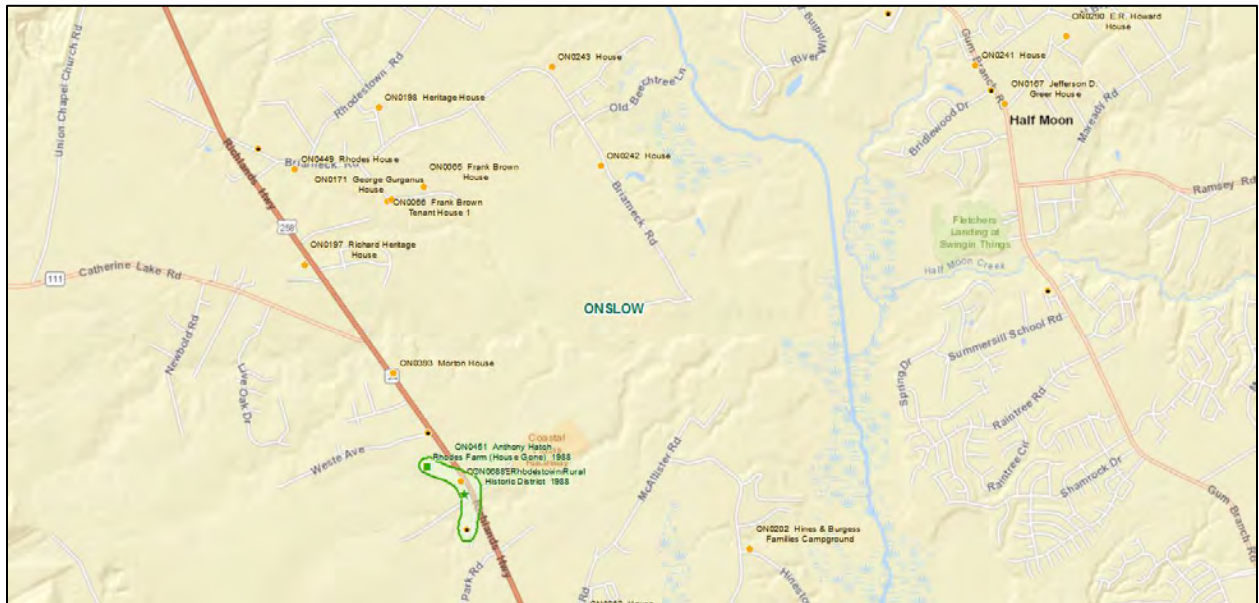
The Half Moon Volunteer Fire Department is located on Gum Branch Rd approximately 0.5 mile north of Ramsey Rd.

Both fire departments are shown as orange stars in the Community Resources figure.

Historic Resources

The preliminary environmental screening did not identify any historic properties or districts along the proposed route, based on the North Carolina State Historic Preservation Office (NCSHPO) GIS Web Service. Approximately 1,200' south of the US 258/NC 24 and NC 111 intersection, the "Surveyed Only" Morton House (ON0393) is located on the east side of US 258/ NC 24. There are several other "Survey Only" properties near the general study area but further away from the project corridor. Figure 4 shows the locations of documented historic sites near the study area.

Figure 4: Historic Sites



Archeological Resources

There are no known archeological sites along the project corridor.

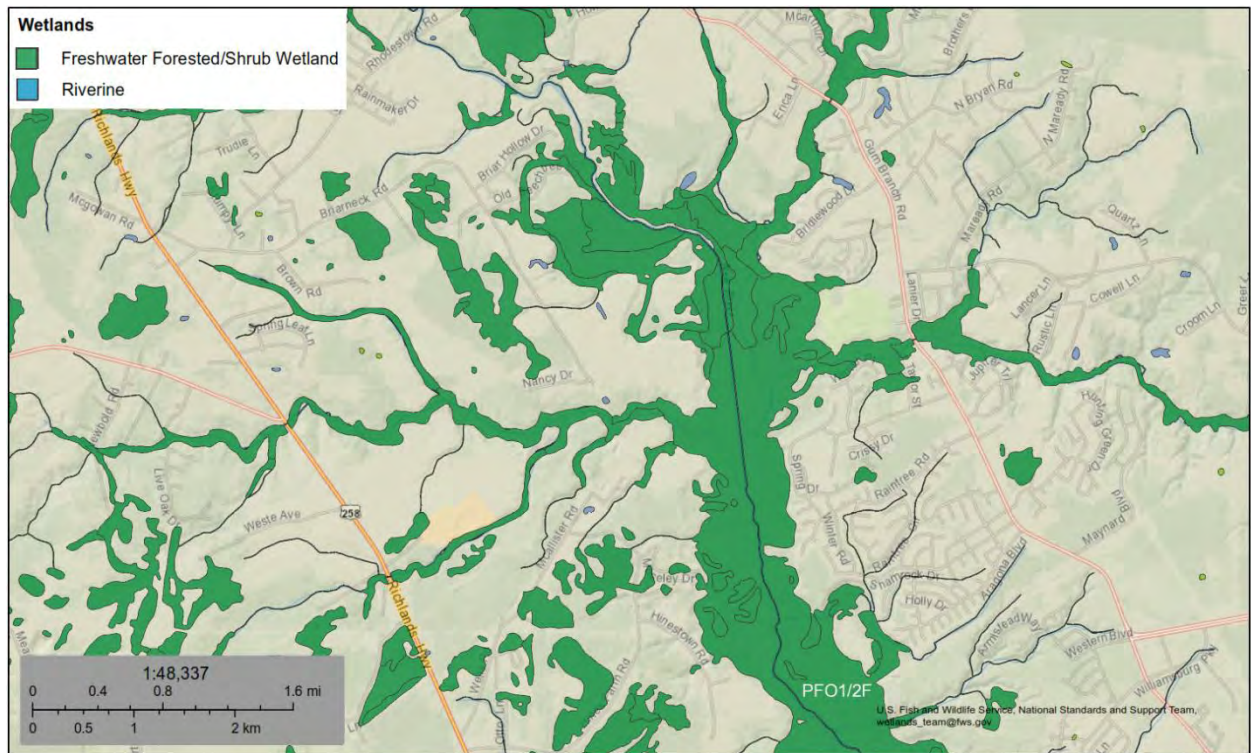
Natural Environment

A detailed environmental study was not conducted for this Project Scoping Report. GIS level research and a preliminary site review were completed.

Wetlands

Figure 5 shows the wetland features from the National Wetland Inventory (NWI) Mapper provided by the US Fish and Wildlife Service. The wetlands near the project corridor mainly consist of freshwater forested/shrub wetland and riverine (New River and its tributaries).

Figure 5: Wetland Features



Water Quality Resources

The New River, Bachelors Delight Swamp and Half Moon Creek are all Class C and Nutrient Sensitive Waters (NSW). They are part of the White Oak river basin.

Jurisdictional Features

The proposed route includes a number of stream/river crossings and impact area wetlands. These features include (are not limited to) New River, Ash Branch, Gravelly Run Branch, and Bachelors Delight Swamp. The Half Moon Creek is also located near the proposed New River crossing.

Floodways and Floodplains

The proposed NC 111 Extension includes a new crossing of the New River. The new bridge(s) will span over the New River floodway and floodplains. In addition, the proposed roadway also includes new bridge(s) crossing over Ash Branch floodplain, and culvert(s) over a tributary of Gravelly Run Branch.

Protected Species

The protected species for Onslow County are listed in Table 2 below, based on information from the US Fish and Wildlife Service.

Table 2: Threatened and Endangered Species Listed for Onslow County

Common Name	Scientific name	Federal Status	Record Status
Vertebrate:			
American alligator	<i>Alligator mississippiensis</i>	T (S/A)	Current
American eel	<i>Anguilla rostrata</i>	FSC	Current
Bachman's sparrow	<i>Aimophila aestivalis</i>	FSC	Current
Bald eagle	<i>Haliaeetus leucocephalus</i>	BGPA	Current
Black rail	<i>Laterallus jamaicensis</i>	FSC	Current
Carolina gopher frog	<i>Rana capito</i>	FSC	Current
Eastern Henslow's sparrow	<i>Ammodramus henslowii susurrans</i>	FSC	Current
Eastern painted bunting	<i>Passerina ciris</i>	FSC	Current
Green sea turtle	<i>Chelonia mydas</i>	T	Current
Hawksbill (=carey) sea turtle	<i>Eretmochelys imbricata</i>	E	Historic
Kemp's (=Atlantic) ridley sea turtle	<i>Lepidochelys kempii</i>	E	Current
Leatherback sea turtle	<i>Dermochelys coriacea</i>	E	Current
Loggerhead sea turtle	<i>Caretta</i>	T	Current
Mimic glass lizard	<i>Ophisaurus mimicus</i>	FSC	Current
Piping plover	<i>Charadrius melodus</i>	T	Current
Red-cockaded woodpecker	<i>Picoides borealis</i>	E	Current
Red knot	<i>Calidris canutus rufa</i>	T	Current
Southern hognose snake	<i>Heterodon simus</i>	FSC	Current
West Indian manatee	<i>Trichechus manatus</i>	E	Current
Invertebrate:			
Buchholz's dart moth	<i>Agrotis buchholzi</i>	FSC	Obscure
a skipper	<i>Atrytonopsis sp. 1</i>	FSC	Current
Vascular Plant:			
Awed meadowbeauty	<i>Rhexia aristosa</i>	FSC	Current
Boykin's lobelia	<i>Lobelia boykinii</i>	FSC	Current
Carolina grass-of-parnassus	<i>Parnassia caroliniana</i>	FSC	Current
Carolina trillium	<i>Trillium pusillum var. pusillum</i>	FSC	Historic
Coastal beaksedge	<i>Rhynchospora pleiantha</i>	FSC	Current
Coastal goldenrod	<i>Solidago villosicarpa</i>	FSC	Current
Cooley's meadowrue	<i>Thalictrum cooleyi</i>	E	Current
Golden sedge	<i>Carex lutea</i>	E	Current
Grassleaf arrowhead	<i>Sagittaria weatherbiana</i>	FSC	Current

Hirst's panic grass	<i>Dichanthelium hirstii</i>	C	Current
Loose watermilfoil	<i>Myriophyllum laxum</i>	FSC	Current
Many-flowered grass-pink	<i>Calopogon multiflorus</i>	FSC	Current
Pineland plantain	<i>Plantago sparsiflora</i>	FSC	Current
Pondberry	<i>Lindera melissifolia</i>	E	Current
Pondspice	<i>Litsea aestivalis</i>	FSC	Current
Rough-leaved loosestrife	<i>Lysimachia asperulaefolia</i>	E	Current
Savanna onion	<i>Allium sp. 1</i>	FSC	Current
Seabeach amaranth	<i>Amaranthus pumilus</i>	T	Current
Smooth-seeded hairy nutrush	<i>Scleria sp. 1</i>	FSC	Current
Spring-flowering goldenrod	<i>Solidago verna</i>	FSC	Current
Swamp forest beakrush	<i>Rhynchospora decurrens</i>	FSC	Current
Thorne's beakrush	<i>Rhynchospora thornei</i>	FSC	Current
Venus' fly-trap	<i>Dionaea muscipula</i>	FSC	Current
Wagner's spleenwort	<i>Asplenium heteroresiliens</i>	FSC	Historic
a quillwort	<i>Isoetes microvela</i>	FSC	Current

BGPA =Bald and Golden Eagle Protection Act

C = Candidate.

E = Endangered.

FSC = Federal Species of Concern

T = Threatened

T(S/A) = threatened due to similarity of appearance.

Existing NCDOT Mitigation Sites

There are no NCDOT mitigation sites near the project corridor.

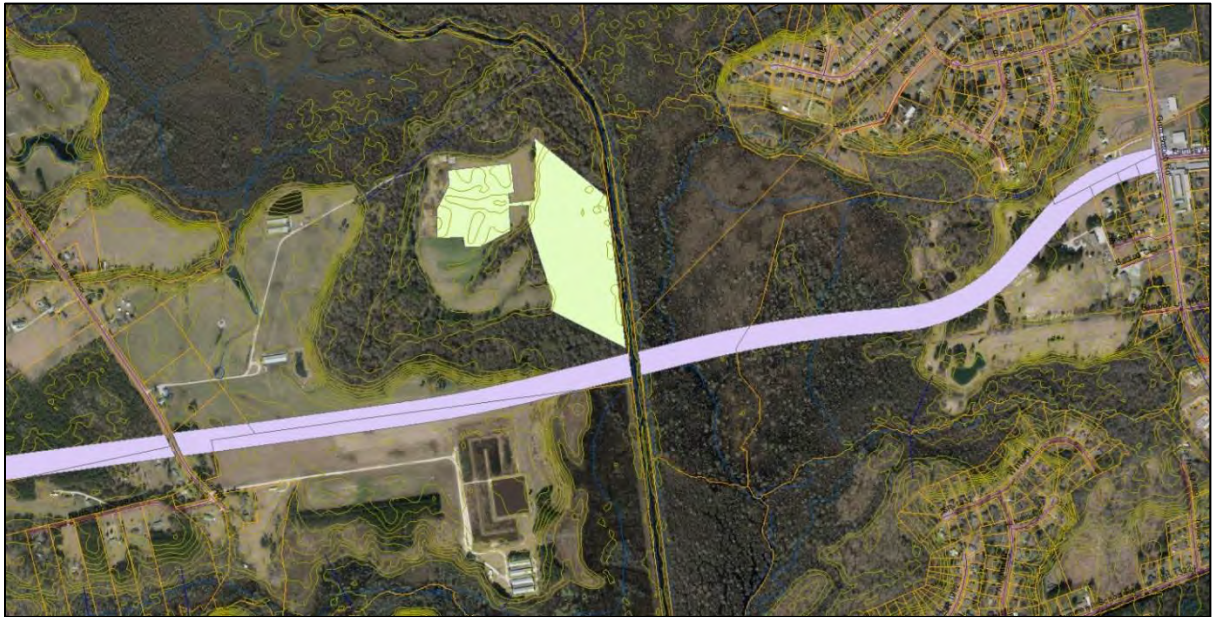
FEMA Hazard Mitigation Grant Program Properties

There are no FEMA Hazard Mitigation Grant Program Properties in the project area.

NCDEQ, Division of Energy, Mineral, and Land Resources (DEMLR)

The New River, Bachelors Delight Swamp and Half Moon Creek are all Class C and Nutrient Sensitive Waters (NSW). This project also impacts Ash Branch and a Gravelly Run Branch tributary.

There is an approximately 30-acre North Carolina Swine Buyout Easement (653 Briarneck Rd, highlighted in yellow below) located north of the proposed New River crossing on the west side of the river. This managed area is located within the New River floodway.



Recommendations

The Express Design Feasibility Study only analyzed one alignment which was designed to minimize the New River floodway crossing distance and property impacts. The current alignment will have significant impact to the Swingin' Things & Fletcher's Landing Golf Course. Should the project become funded and enter the project development phase, additional alignments should be evaluated.

An alternative New River crossing location further north (near Bridlewood Drive, similar to the JUMPO conceptual alignment A) may reduce the structure needs, but will likely cause more residential displacements. Additional design and analysis efforts may be considered to evaluate its environmental and property impacts.

Due to the project scope, the anticipated environmental, property and regional traffic impacts, public involvement will play a critical part in the project. A robust public involvement plan is recommended.

References

Jacksonville Urban MPO 2040 Long Range Transportation Plan (April 2015)

<http://jumpo-nc.org/plans/>

NCDOT 2018-2027 STIP

<https://www.ncdot.gov/strategictransportationinvestments/2018-2027.html>

The North Carolina State Historic Preservation Office GIS Web Service

<http://gis.ncdcr.gov/hpoweb/>

Flood Risk Information System - Flood Plain Map

<http://fris.nc.gov/fris/Home.aspx?ST=NC>

US Fish and Wildlife Service, Endangered Species Onslow County

<https://www.fws.gov/raleigh/species/cntylist/onslow.html>

US Fish and Wildlife Service, National Wetland Inventory

<https://www.fws.gov/wetlands/data/mapper.html>

North Carolina Natural Heritage Program

<http://ncnhde.natureserve.org/content/map>

NCDOT Mitigation Site Map

<http://www.arcgis.com/home/item.html?id=d560dfef1ea443b299ca7fc68b2506b4>

North Carolina Highway Safety Improvement Program

<https://connect.ncdot.gov/resources/safety/Pages/NC-Highway-Safety-Program-and-Projects.aspx>

PROJECT SCOPING REPORT

SCREENING CHECKLIST

SPOT ID: U-5733	FACILITY: Alt A: 4 Lanes Median Divided w/ Paved Shldr Alt B: 2 Lane Undivided	DIVISION: 3	FIRM: ACCELERATE ENGINEERING, PLLC
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INSTRUCTIONS: The following questions are based on the CE Checklists for TYPE I and II projects. Answer each question in the space provided based on available data. Include qualitative discussion as appropriate.

1	Does the project require formal consultation with U.S. Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS)? <i>A Natural Resources Technical Report (NRTR) must be prepared during project development before this question can be fully answered. Review the current USFWS Endangered and Threatened Species and Species of Concern by County for North Carolina and note species or designated critical habitat listed in the county(s).</i> This project may require formal consultation. The USFWS lists several dozens of endangered and threatened species and species of concern in Onslow County, North Carolina. Refer to "Protected Species" section in the scoping report for details.
2	Does the project result in impacts subject to the conditions of the Bald and Golden Eagle Protection Act (BGPA)? <i>A NRTR must be prepared during project development before this question can be fully answered. Review the current USFWS Endangered and Threatened Species and Species of Concern by County for North Carolina and note if BGPA species are listed in the county(s).</i> The Bald Eagle is listed as a protected species in Onslow County, North Carolina.
3	Does the project generate substantial controversy or public opposition, for any reason, following appropriate public involvement? <i>Review the appropriate CTP for documentation of public involvement in the CTP development and any comments related to the project.</i> No public involvement information on this project is identified at this time.
4	Does the project cause disproportionately high and adverse impacts relative to low-income and/or minority populations? <i>This question will require additional evaluation during project development. Using the NCDOT Demographic Tool, note the total population, as well as minority and low-income populations for the county and each Census Block Group in which the project is located. Also note any observations based on review of aerial photography.</i> T.B.D
5	Does the project involve a residential or commercial displacement, or a substantial amount of right of way acquisition? <i>Provide a count of potential residential and commercial displacements.</i> This project may require one commercial displacement, five residential displacements, parking reduction at a retail store (Family Dollar), and a substantial amount of right of way acquisition.
6	Does the project require an Individual Section 4(f) approval? <i>This question will require additional evaluation during project development. At this time, note the presence of properties that may be subject to Section 4(f), including historic resources, parks, and wildlife/waterfowl refuges. Note those within the proposed right of way, as well as within 1,000' of the project.</i> The preliminary environmental screening did not identify any historic properties or districts along the proposed route. There are several "Surveyed Only" sites, but all of them are located over 1,000' from the project corridor. There is an approximately 30-acre North Carolina Swine Buyout Easement (653 Briarneck Rd) located north of the proposed New River crossing on the west side of the river. This managed area is located within the New River floodway.

7	Does the project include adverse effects that cannot be resolved with a Memorandum of Agreement (MOA) under Section 106 of the National Historic Preservation Act (NHPA) or have an adverse effect on a National Historic Landmark (NHL)? <i>This question will require additional evaluation during project development. Review NC State Historic Preservation Office GIS data and note the presence of historic properties within the proposed right of way, as well as within 1,000' of the project. Note: this site does not include archaeological resources.</i> See #6 above.
8	Does the project result in a finding of “may affect not likely to adversely affect” for listed species, or designated critical habitat under Section 7 of the Endangered Species Act (ESA)? <i>A NRTTR must be prepared during project development before this question can be fully answered. Refer to Question #1 above.</i> See #1 above.
9	Is the project located in anadromous fish spawning waters? <i>Review the anadromous fish spawning areas maps to determine if the project is within 1,000' of these areas.</i> This project includes a new crossing over New River which is an anadromous fish spawning area.
10	Does the project impact waters classified as Outstanding Resource Water (ORW), High Quality Water (HQW), Water Supply Watershed Critical Areas, 303(d) listed impaired water bodies, buffer rules, or Submerged Aquatic Vegetation (SAV)? <i>Determine the NCDEQ Surface Water Classification of any waters within 1,000' of the project, and note if any have a “WS” (Water Supply) classification or supplemental classification of ORW or HQW. Check the current 303(d) list for 303(d) listed waters within 1,000 feet of the project. Review the Division Resource Map to determine if the project is within a watershed subject to buffer rules.</i> The New River is a Class C and Nutrient Sensitive Waters (NSW), and is part of the White Oak river basin. Bachelors Delight Swamp and Half Moon Creek in the vicinity of the proposed New River crossing are also Class C and NSW.
11	Does the project impact waters of the United States in any of the designated mountain trout streams? <i>Trout counties are identified on the PDEA Agency Merger Contact Map, and trout waters are identified by “Tr” classification in their NCDEQ Surface Water Classification (see Question #10 above). Determine if project is within 1000' of a trout stream.</i> No trout stream are identified near the project area.
12	Does the project require a U.S. Army Corps of Engineers (USACE) Individual Section 404 Permit? <i>This question will require additional evaluation during project development. Using express conceptual design right of way limits and National Wetland Inventory (NWI) mapping, calculate potential impacts to waters of the U.S. Note impacts to wetlands to the nearest 0.1 acre and to streams to the nearest 10 feet.</i> The project impact on streams and wetlands are estimated to include: New River/Bachelors Delight Swamp/Half Moon Creek: 3,590' across floodplain, 210' along river Ash Branch: 240' across floodplain, 220' along stream Gravelly Run Branch tributary: 150' across floodplain, 230' along stream Wetlands: 19.5 Acres
13	Will the project require an easement from a Federal Energy Regulatory Commission (FERC) licensed facility? <i>Review the Division Resource Map to determine if the project is within 1,000' of a FERC licensed facility.</i> This project is not located within 1000' of a FERC licensed facility.
14	Does the project include a Section 106 of the NHPA effects determination other than a no effect, including archaeological remains? <i>This question will require additional evaluation during project development. Refer to Question #7 above.</i> See #6 above.
15	Does the project involve hazardous materials and/or landfills? <i>Note any potential hazardous properties based on review of aerial photography or from NC OneMap data.</i> There is a waste lagoon on the south side of the proposed route near the western end of the New River crossing. In the same general area and on the north side of the proposed route, there is an approximately 30-

	acre North Carolina Swine Buyout Easement (653 Briarneck Rd).
	No underground storage tank incident sites have been identified near the proposed project corridor.
16	Does the project require work encroaching and adversely affecting a regulatory floodway or work affecting the base floodplain (100-year flood) elevations of a water course or lake, pursuant to Executive Order 11988 and 23 CFR 650 subpart A? <i>Review NC Floodmaps data to determine whether the project may encroach on any base (100-year) floodplain and/or regulatory floodway.</i>
	This project will impact the New River floodway, the floodplain of New River and nearby tributaries.
17	Is the project in a Coastal Area Management Act (CAMA) county and substantially affects the coastal zone and/or any Area of Environmental Concern (AEC)? <i>A NRTR must be prepared during project development before this question can be fully answered. Review the Division Resource Map to determine if the project is within a CAMA county.</i>
	Onslow County is a CAMA county.
18	Does the project require a U.S. Coast Guard (USCG) permit? <i>Review NCDOT's USCG Stream Coordination Map to determine if the project impacts a navigable waterway that may require coordination and permitting with the USCG.</i>
	This project will include a new crossing over New River which is listed as tidally influenced waters, but not an unobstructed water by USCG.
19	Does the project involve construction activities in, across, or adjacent to a designated Wild and Scenic River present within the project area? <i>Review the Division Resource Map to determine if the project is within 1,000' of a Wild and Scenic River.</i>
	No wild and scenic rivers are identified near the proposed route.
20	Does the project involve Coastal Barrier Resources Act (CBRA) resources? <i>Review the Division Resource Map to determine if the project is within a CBRA area.</i>
	No, this project does not involve CBRA resource.
21	Does the project impact federal lands (e.g. U.S. Forest Service (USFS), USFWS, etc.) or Tribal Lands? <i>Review the Division Resource Map to determine if the project is within federal lands.</i>
	No federal lands are identified along the proposed route.
22	Does the project involve any changes in access control? <i>Note if the project is proposing a change in control of access.</i>
	No change in access control at this time.
23	Does the project have a permanent adverse effect on local traffic patterns or community cohesiveness? <i>This question will require additional evaluation during project development. At this time, note changes in traffic patterns and any reduction in access to community resources.</i>
	This project is expected to improve the roadway network connectivity. Near the western project limit, the NC 111 realignment will shift its intersection with US 258 / NC 24 approximately 750' to the north/west. With the proposed cul-de-sac, residents in the vicinity of the existing intersection will not have direct access to NC 111.
24	Will maintenance of traffic cause substantial disruption? <i>Note if an offsite detour is recommended.</i>
	As most of the NC 111 Extension will be constructed along a new alignment over mostly vacant and agricultural land, the maintenance of traffic is not expected to cause substantial disruption.
25	Is the project inconsistent with the STIP or the Metropolitan Planning Organization's (MPO's) Transportation Improvement Program (TIP) (where applicable)? <i>This question will be evaluated during project development.</i>
	This project is included in the JUMPO's 2040 LRTP dated April 2015.
26	Does the project require the acquisition of lands under the protection of Section 6(f) of the Land and Water Conservation Act, the Federal Aid in Fish Restoration Act, the Federal Aid in Wildlife Restoration Act,

	Tennessee Valley Authority (TVA), or other unique areas or special lands that were acquired in fee or easement with public-use money and have deed restrictions or covenants on the property? <i>A list of resources using funds provide through Section 6(f) of the Land and Water Conservation Fund (LWCF) is available at http://waso-lwcf.ncrc.nps.gov/public/index.cfm. Review the Division Resource Map to determine if the project crosses a TVA area. If parcel data is available, use best available information to determine if any of these situations exist.</i> This project is not located in a TVA area.
27	Does the project involve Federal Emergency Management Agency (FEMA) buyout properties under the Hazard Mitigation Grant Program (HMGP)? <i>This question will require additional evaluation during project development. Refer to Question #16 above, and if the project is within a flood zone, review property data for locally-owned property (county or municipality) within the flood zone and note. If parcel data is available, determine if any property in the flood zone is government owned.</i> There is an approximately 30-acre North Carolina Swine Buyout Easement (653 Briarneck Rd) located north of the proposed New River crossing on the west side of the river. This managed area is located within the New River floodway.
28	Does the project include a de minimis or programmatic Section 4(f)? <i>This question will require additional evaluation during project development. Refer to Question #6 above.</i> See #6 above
29	Is the project considered a Type I under the NCDOT's Noise Policy? <i>Review NCDOT's Traffic Noise Policy (pages 2-3) to determine the level of noise analysis that may be required. Provide responses for each funding scenario noting the level of environmental documentation.</i> IF THE PROJECT IS FEDERALLY FUNDED <i>Is the project a Type I project?</i> Yes IF THE PROJECT IS STATE FUNDED <i>Is the project on an interstate or full control of access US route and does it involve adding additional through lanes? Will the project require a state EA or EIS?</i> This project likely will require a state EA or EIS.
30	Is there prime or important farmland soil impacted by this project as defined by the Farmland Protection Policy Act (FPPA)? <i>This question will be evaluated during project development.</i> T.B.D.
31	Are there other issues that may affect project decisions? <i>Note any other issues that should be considered during project development.</i> The proposed alignment is designed to minimize the New River floodway crossing distance and property impacts. An alternative New River crossing location further north (near Bridlewood Drive) may reduce the structure needs, but will likely cause more residential displacements. This alternative alignment may be considered in future study efforts.

INSTRUCTIONS: The following questions are based on the CE Checklist for TYPE III projects. Answer each question in the space provided based on available data. Include qualitative discussion as appropriate.	
7	Is a project-level analysis for direct, indirect, or cumulative effects required based on the NCDOT community studies screening tool? <i>This question will be evaluated during project development.</i> T.B. D.
8	Is a project level air quality Mobile Source Air Toxics (MSAT) analysis required? <i>Note if existing or projected traffic volumes on the project are greater than 140,000 vpd.</i> Traffic forecast data is not available at the time of express design. Based on NCDOT's historical AADT data, approximately 25,700 vpd entered the US 258/NC 24 and NC 111 intersection in 2016.

