

PROJECT SCOPING REPORT

SCREENING CHECKLIST

SPOT ID: H185357	FACILITY: CAPE FEAR MEMORIAL BRIDGE, NEW HANOVER & BRUNSWICK COUNTIES	DIVISION: 3	FIRM: HDR
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1	Does the project require formal consultation with U.S. Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS)?																																																																																																				
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	The Bald eagle is listed for both New Hanover and Brunswick counties.																																																																																																				
3	Does the project generate substantial controversy or public opposition, for any reason, following appropriate public involvement?																																																																																																				
	None uncovered during preliminary analysis.																																																																																																				
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	<p>Observations based on aerial photography indicate that the area surrounding the project within a 0.5 mile radius is mostly urban residential, with commercial and industrial land uses in New Hanover County and wetlands or vacant land in Brunswick County.</p> <p>Census data indicated that there is a notable presence of minority and low income populations in the City of Wilmington portion of the project on the New Hanover County side of the river.</p>																																																																																																				

Minority

Geography	Total Population	White, Non-Hispanic		Minority Population*		Meets Thresholds	
		#	%	#	%	50%	10% over County
CT 202.02, BG 1	6,535	5,898	90.3%	637	9.7%	No	No
CT 201.04, BG 2	3,008	1,861	61.9%	1,147	38.1%	No	Yes
CT 111, BG 1	800	202	25.3%	598	74.8%	Yes	Yes
CT 115, BG 2	2,038	879	43.1%	1,159	56.9%	Yes	Yes
CT 111, BG 2	1,924	116	6.0%	1,808	94.0%	Yes	Yes
CT 113, BG 2	881	510	57.9%	371	42.1%	No	Yes
CT 112, BG 3	874	210	24.0%	664	76.0%	Yes	Yes
CT 112, BG 2	1,177	603	51.2%	574	48.8%	No	Yes
CT 113, BG 1	935	795	85.0%	140	15.0%	No	No
DSA	18,172	11,074	60.9%	7,098	39.1%	No	N/A
Brunswick County	126,860	103,713	81.8%	23,147	18.2%		
New Hanover County	224,231	172,855	77.1%	51,376	22.9%		
North Carolina	10,155,624	6,433,039	63.3%	3,722,585	36.7%		

* Minority population includes all races that are Non-White and Hispanic populations that are also White.

Source: US Census Bureau, American Community Survey 5-year Estimates (2014-2018), Table B03002, "Hispanic or Latino Origin by Race."

Poverty

Geography	Population for whom Poverty Status is Determined	Below Poverty Level		Under 50% of Poverty Level		Between 100% and 149% of Poverty Level		Meets Thresholds	
		#	%	#	%	#	%	25%	5% over County
CT 202.02, BG 1	6,376	165	2.6%	109	1.7%	525	8.2%	No	No
CT 201.04, BG 2	2,971	964	32.4%	316	10.6%	344	11.6%	Yes	Yes
CT 111, BG 1	800	95	11.9%	55	6.9%	187	23.4%	No	Yes
CT 115, BG 2	2,033	424	20.9%	100	4.9%	446	21.9%	No	Yes
CT 111, BG 2	1,924	1,290	67.0%	657	34.1%	264	13.7%	Yes	Yes
CT 113, BG 2	881	358	40.6%	152	17.3%	58	6.6%	Yes	Yes
CT 112, BG 3	800	347	43.4%	196	24.5%	118	14.8%	Yes	Yes
CT 112, BG 2	1,165	498	42.7%	471	40.4%	32	2.7%	Yes	Yes
CT 113, BG 1	915	178	19.5%	74	8.1%	145	15.8%	No	Yes
DSA	17,865	4,319	24.2%	2,130	11.9%	2,119	11.9%	No	N/A
Brunswick County	125,787	16,201	12.9%	6,994	5.6%	9,710	7.7%		
New Hanover County	217,333	37,602	17.3%	19,670	9.1%	18,272	8.4%		
North Carolina	9,881,292	1,523,949	15.4%	663,550	6.7%	1,002,739	10.1%		

Source: US Census Bureau, American Community Survey 5-year Estimates (2014-2018), Table C17002, "Ratio of Income to Poverty Level in the Past 12 Months."

- 5 Does the project involve a residential or commercial displacement, or a substantial amount of right of way acquisition?

Parcels identified below are expected to have some degree of right of way impacts.

There are three anticipated business displacements or relocations and one residential relocation. The potential relocations are identified in Bold in the table. Potential right of way impacts on the remaining parcels are on vacant/unimproved land. Parcels impacts by the temporary alignment are italicized and identified first. Total parcel acreage is included in the table. If the proposed project moves forward with detailed analysis the impacts will be calculated in the next planning phase.

The first five parcels in Brunswick County listed in the table below are vacant with wetlands. Three of the parcels would be impacted with a temporary alignment. Government-owned parcels [New Hanover Soil and Water Conservation District parcel and United States of America (USACE) parcel] are located on Eagle Island in addition to privately-owned parcels.

Design Options 1, 3 and 4 primarily have the same footprint, therefore, the parcels below will be impacted equally by these designs. Option 4, which includes a railroad track spur option along Front Street, does not impact additional parcels for the proposed Cape Fear Memorial Bridge project, other than those listed in the table below. Option 2 extends further east along Dawson and Wooster streets to accommodate the 135-foot clearance. Under this option, the proposed edge of travel along Dawson and Wooster streets generally remains within the existing right of way. If Option 2 is selected for detailed analysis, right of way along Dawson and Wooster streets could be impacted with structural supports. Additionally, resources along these two streets are in a historic district, however, properties are identified as Surveyed Only. Two properties identified with twin asterisks appear to be properties surveyed as a part of the National Register of Historic Places, however the structures no longer remain. The Option 2 design also includes reconstruction of the US 17/US 74/US 421 interchange west of the bridge. This Option would impact parcels in Brunswick County with the construction of a temporary alignment needed to reconstruct the interchange, however the parcels are currently vacant/undeveloped with many owned by NCDOT.

Parcel Owner	Description	Property Address	Property Record ID	County	Land Type/ Zoning	Parcel Acres
Temporary Condition						
<i>Holdings of TCM Inc.</i>	<i>Township 02 Neighborhood: 2001/ South Leland</i>	<i>None</i>	<i>Parcel 03900011</i>	<i>Brunswick</i>	<i>Marsh/ Industrial</i>	<i>11.95</i>
<i>Wilmington Unique Places LLC</i>	<i>Township 02 Neighborhood: 2001/ South Leland</i>	<i>None</i>	<i>Parcel 03900009</i>	<i>Brunswick</i>	<i>Marsh/ Industrial</i>	<i>5.19</i>
<i>Wilmington Unique Places LLC</i>	<i>Township 02 Neighborhood: 2001/ South Leland</i>	<i>None</i>	<i>Parcel 03900007</i>	<i>Brunswick</i>	<i>Marsh/ Industrial</i>	<i>34.89</i>
Permanent Condition						
Orrell Family LLC	380 Battleship Road NE	None	Parcel 03900017	Brunswick	Marsh/ Industrial	125.74
New Hanover Soil & Water Conservation District	Township 02 Neighborhood: 2001/ South Leland	None	Parcel 03900014	Brunswick	Marsh/ Industrial	5.52
Floyd M Hufham	Township 02 Neighborhood: C201/ Blackwell/Ploof	235 Battleship Road	Parcel 03900013	Brunswick	Marsh/ Industrial	4.90
United States of America	Township 02 Neighborhood: C201/ Blackwell/Ploof	232 Battleship Road	Parcel 03900015	Brunswick	Industrial	2.40
Alan E Rusher	Township 02 Neighborhood: C201/ Blackwell/Ploof	262 Battleship Road	Parcel 03900016	Brunswick	Industrial	2.70
Riverman LLC	Lots 4, 5 ,6 Block 71	610 Surry Street	R05312-004-001-000	New Hanover	Industrial	0.79

Riverman LLC	Lots 1, 2, Part of 4 and Queen Street Block 57	712 Surry Street	R05312-005-004-000	New Hanover	Industrial	4.27
Riverman LLC	Lots 5 & 6 Block 57	732 Surry Street	R05312-005-003-000	New Hanover	Industrial	2.0
William L Seale II	Part Lots 5-6 Block 57	728 Surry Street	R05312-005-002-000	New Hanover	Urban Mixed Use	0.34
FMO Real Estate LLC**	58 NW 3	711 Surry Street	R05312-006-001-000	New Hanover	Commercial (Vacant)	0.06
FMO Real Estate LLC**	Part SW 3 Block 58	715 Surry Street	R05312-006-002-000	New Hanover	Commercial (Vacant)	0.06
William A Robinson Jr and Elizabeth V Robinson	Part Lots 3-6 Block 58	721 Surry Street	R05312-006-003-000	New Hanover	Commercial (Waterline Brewing Company)	0.93
Colonial Carolina Inc.	Part ½ 1 Part 2 Block 44	801 Surry Street	R05312-006-004-000	New Hanover	Industrial	1.39
Scott Lynette Anderson	M 1 Block 31	108 Dawson Street	R05409-031-006-000	New Hanover	Residential (Vacant)	0.05
Marie Galloway Heirs	Part EM 1 Block 31	110 Dawson Street	R05409-031-005-000	New Hanover	Residential	0.05
Le Dome Holdings LLC	Part Lots 1-6 Block 31	910 S 2 nd Street	R05413-002-002-000	New Hanover	Commercial	2.60

** Surveyed Only parcels for the National Register; currently vacant land.

6 Does the project require an Individual Section 4(f) approval?

No. Dram Tree Park is located on the east side of the river north of the current bridge location. While not in the proposed footprint or right of way, construction activities may temporarily impact access to the municipal park or boat launch area but are not considered a use.

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)?

Site Name	ID	Status	Acres
USS North Carolina (NHL)	NH0004	National Register	4
Wilmington Historic District	NH0003	National Register	2,032

No. The proposed project will not impact the parcel or USS North Carolina resource. This World War II battleship is a National Historic Landmark listed in the National Register. The historic resource is located on Eagle Island, in the Cape Fear River, north of the existing bridge. Option 2 is proposed for construction south of the existing bridge, and therefore, will not impact this resource.

Wilmington has seven districts listed on the National Register of Historic Places (NR). Relative to the proposed project, the Wilmington Historic and Archaeological District (NH0003) extends west of Battleship Road on Eagle Island, south between Wright Street and Meares Street, and east along Eighth Street and between Third and Fourth Streets. Preferred Option 2 is located within the extent of this National Register district.

Within the NR district boundary, two historic resources are found south of US 17 Business North and west of the cloverleaf interchange with S. Front Street. The resources are identified in the NC State Historic Preservation Office GIS Web site as NH 2239 and NH 2237, respectively. These resources are on the east and west sides of Surry Street, north and across from Waterline Brewing Company. These resources are identified as Surveyed Only. On-line research using street-view mapping indicates no structures at these two sites.

The local Wilmington Historic District is roughly bounded on the north by Red Cross Street; on the east by Fifth and Eighth streets; on the south by Castle Street and west by Water Street. Historic properties in the local historic district are not anticipated to have direct impacts from the proposed project as the district is located north of the existing bridge. Additionally, the downtown business district of the City of Wilmington is not expected to have direct impacts from construction activities or from the Option 2 project alignment as this area is also located

	<p>north of the existing bridge. The Option 2 footprint along Wooster and Dawson Streets is expected to have visual impacts within the historic district due to the length of the approach for the 135-foot vertical height structure.</p> <p>Archaeological resources in the Cape Fear River are not anticipated to have direct impacts. Surveyed archaeological resources are located north of the existing bridge. Minor indirect impacts may occur due to turbidity of the water during construction activities.</p> <p>The Cape Fear Memorial Bridge, constructed in 1969, is over 50 years old and, as such, eligible for listing in the National Register. The bridge's eligibility will be determined during project development in coordination with the State Historic Preservation Office.</p> <p>Based on the current express designs, Listed NR resources are not anticipated to be impacted. If the Cape Fear Memorial Bridge is determined eligible for listing in the NR, this resource will be impacted if it is removed from its current location. As the project design is refined if historic districts or archaeological resources are determined to be impacted, the impacts will be minimized as much as possible.</p>								
8	<p>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)?</p> <p>See Question #1 above</p>								
9	<p>Is the project located in anadromous fish spawning waters?</p> <p>Yes. The project is located in fish spawning waters regulated by the Marine Fisheries Commission (MFC) and the Wildlife Resource Commission (WRC).</p>								
10	<p>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)?</p> <table border="1" data-bbox="203 1024 1500 1245"> <thead> <tr> <th>Surface Water Name</th> <th>Classification</th> </tr> </thead> <tbody> <tr> <td>Cape Fear River</td> <td>SC</td> </tr> <tr> <td>Northeast Cape Fear River</td> <td>SC; SW</td> </tr> <tr> <td>Alligator Creek</td> <td>SC; SW</td> </tr> </tbody> </table> <p>SC= Tidal Salt Water, SW= Swamp Water</p> <p>The project does not impact ORW, HQW, or Water Supply Watershed Critical Areas. Within the project area, the Cape Fear River is identified in the 2018 303(d) list of impaired water as “Exceeding Criteria”. The Cape Fear River is not subject to buffer rules. SAV is not identified within the project area on the Division 3 Resource Map.</p>	Surface Water Name	Classification	Cape Fear River	SC	Northeast Cape Fear River	SC; SW	Alligator Creek	SC; SW
Surface Water Name	Classification								
Cape Fear River	SC								
Northeast Cape Fear River	SC; SW								
Alligator Creek	SC; SW								
11	<p>Does the project impact waters of the United States in any of the designated mountain trout streams?</p> <p>No.</p>								
12	<p>Does the project require a U.S. Army Corps of Engineers (USACE) Individual Section 404 Permit?</p> <p>Based on a preliminary review of NWI mapping, NCDEQ’s online mapping for streams, and conceptual ROW limits conducted on April 7, 2020, the project would impact approximately 16 acres of wetlands with approximately 6 acres of that being the Cape Fear River.</p>								
13	<p>Will the project require an easement from a Federal Energy Regulatory Commission (FERC) licensed facility?</p> <p>No.</p>								
14	<p>Does the project include a Section 106 of the NHPA effects determination other than a no effect, including archaeological remains?</p> <p>Based on the NC Historic Preservation Office’s HPOWEB GIS program, the National Register district extends to Eagle Island and includes both sides of the Cape Fear River north and south of the existing bridge. Identified</p>								

archaeological remains in the Cape Fear River are primarily located on the west side of the river with a majority identified as being north of the existing bridge. Construction activity for the bridge supports are expected within the river, not along the river banks. Based on the current express design, archaeological remains are not expected to be impacted, however additional evaluation will be done during project development.
See Question 7 above.

15 Does the project involve hazardous materials and/or landfills?

Based on aerial photography and NC OneMap data potential hazardous materials sites include:

Inactive Hazardous Sites

Facility Name	Facility Address	Facility ID
Old ATC Refinery	801 Surry Street	NCD986186518
Wilmington Coal Gas Plant	Castle and Surry Street	NCD986188910
Southern Metals Recycling, Inc.	13 Wright Street	NCN000407584
CTI of North Carolina, Inc.	1002 South Front Street	NCD98146708

Underground Storage Tank Incidents

Facility Name	Facility Address	Facility ID
Exxon #4-3957	315 Wooster Street	#10031
Shell Minute Man Food Mart #11	901 South Third Street	#14965
Dawson Street-406	406 Dawson Street	#32881
Dash-n #8	602 Dawson Street	#17504

Aboveground Storage Tank Incidents

Facility Name	Facility Address	Facility ID
Eagle Island Engineer Yard	SR 1300, West Side Cape Fear Road	#85428
Unocal Chemicals-Carolina Terminal	1 Wooster Street	#8250
MVC-Intersection I-140 Off-ramp and Hwy 421	I-40 and Hwy 421 Intersection	#94216
Queen Street - 310	310 Queen Street	#94256
Tony Richardson Residence	808 South 7 th Street	#86016

Underground Storage Tank Active Facilities

Facility Name	Facility Address	Facility ID
Unocal Chemicals Div/Union Oil	1 Wooster Street	#00-0-0000023412
Scotchman 3325	901 South 3 rd Street	#00-0-0000021405
JLM Terminals, Inc.	1002 South Front Street	#00-0-0000022441

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?

The project area requires work encroaching in AE flood zones.

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)?
	Both New Hanover and Brunswick are CAMA counties.
18	Does the project require a U.S. Coast Guard (USCG) permit?
	Yes. A USCG permit is required.
19	Does the project involve construction activities in, across, or adjacent to a designated Wild and Scenic River present within the project area?
	No.
20	Does the project involve Coastal Barrier Resources Act (CBRA) resources?
	Based on the Division 3 Resource Map the project does not involve CBRA resources.
21	Does the project impact federal lands (e.g. U.S. Forest Service (USFS), USFWS, etc.) or Tribal Lands?
	Based on the Division 3 Resource Map, Federal lands (USACE property) are located on Eagle Island south of the existing bridge, in the footprint for the proposed bridge.
22	Does the project involve any changes in access control?
	<p>The proposed project would continue to have full control of access.</p> <p>Kinder Morgan, a petroleum products transporter, located north of the bridge could have a change in access due to restricting clearance to 65' fixed in Option 1. Currently, ships pass under the Cape Fear Memorial Bridge to access the Kinder Morgan terminal northeast of Downtown Wilmington. If a fixed bridge option is selected Kinder Morgan waterway access could be impacted. At this stage of feasibility, a right of way estimate to determine property impacts to the Kinder Morgan facility has not been prepared. However, cost estimates are expected to be extensive.</p>
23	Does the project have a permanent adverse effect on local traffic patterns or community cohesiveness?
	<p>Based on the proposed preliminary designs Options 1, 2, and 3 will not have a permanent adverse effect on local traffic patterns or community cohesiveness. In Wilmington, Wooster Street and Dawson Street would be realigned south of S. 3rd Street to tie into a new southern alignment of the bridge. Due to the longer footprint of Option 2 the existing traffic signal at S. 5th Street is proposed to be modified. Entrance/exit ramp loops to the bridge would be flattened by extending them further along S. Front Street. Access to community resources Dram Tree Park, located on the east side of the river north of the current bridge location, may temporarily impact the municipal park or boat launch access.</p> <p>The railroad component for Option 4 could tie into an out of service line/spur southwest of S. Front Street. If this option is selected for construction, S. Front Street would be impacted. Potential roadway impacts would be determined in future analysis if this option is selected for further development.</p> <p>In Brunswick County the temporary alignment to allow reconstruction activities to occur on the existing interchange will have a minor effect on the local travel pattern.</p>
24	Will maintenance of traffic cause substantial disruption?
	<p>Maintenance of traffic and construction sequencing would be planned and scheduled to minimize traffic delays within the project limits. A weekend loop closure may be needed to make the final ties between the temporary alignment and existing westbound and eastbound loops at the US 17/US 76/US 421 interchange. Lane closures may be required at times during construction. A traffic control plan would be prepared during the final design phase of the project, which would detail impacts to existing traffic patterns and road closures or realignments. The plan would also define detour routes, designated truck routes, and parking areas for construction equipment. Signs would be used where appropriate to provide notice of the temporary alignment and other pertinent information to the traveling public. Access to businesses and residences would be maintained to the extent practical during construction. An offsite detour is not recommended.</p>
25	Is the project inconsistent with the STIP or the Metropolitan Planning Organization's (MPO's) Transportation Improvement Program (TIP) (where applicable)?
	N/A

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?
	Based on the Division 3 Resource Map, the project does not require the acquisition of lands with deed restrictions.
27	Does the project involve Federal Emergency Management Agency (FEMA) buyout properties under the Hazard Mitigation Grant Program (HMGP)?
	No. There are not any FEMA properties under the HMGP.
28	Does the project include a de minimis or programmatic Section 4(f)?
	See #6 above
29	Is the project considered a Type I under the NCDOT's Noise Policy?
	<p>IF THE PROJECT IS FEDERALLY FUNDED</p> <p><i>Is the project a Type I project?</i> TBD. Level of noise analysis will be determined when project funding source is clarified.</p> <p>IF THE PROJECT IS STATE FUNDED</p> <p><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> TBD. Level of noise analysis will be determined when project funding source is clarified.</p>
30	Is there prime or important farmland soil impacted by this project as defined by the Farmland Protection Policy Act (FPPA)?
	N/A
31	Are there other issues that may affect project decisions?
	<p>The Cape Fear Memorial Bridge is:</p> <ul style="list-style-type: none"> • a hurricane evacuation route • a major truck route for the Port of Wilmington • a commuter and emergency route for southeastern NC • a STRATNET Corridor • intermittently raised for ships and personal boats to travel north/south on the Cape Fear River • eligible for listing on the Federal Register of Historic Places • The Cape Fear River is identified as tidally influenced waters with the entire project area in a tidally influenced zone.
32	Is a project-level analysis for direct, indirect, or cumulative effects required based on the NCDOT community studies screening tool?
	N/A
33	Is a project level air quality Mobile Source Air Toxics (MSAT) analysis required?
	No. The 2019 base year traffic is 60,900 Average Annual Daily Traffic (AADT). Projected 2045 Future Year AADT is 81,900 vehicles. Traffic counts, forecasts and truck traffic will be updated when the project goes into project development and final design. However, the volume is not expected to be greater than 140,000 vehicles per day. The proposed project does not add substantial new capacity or expected to change the vehicle mix.