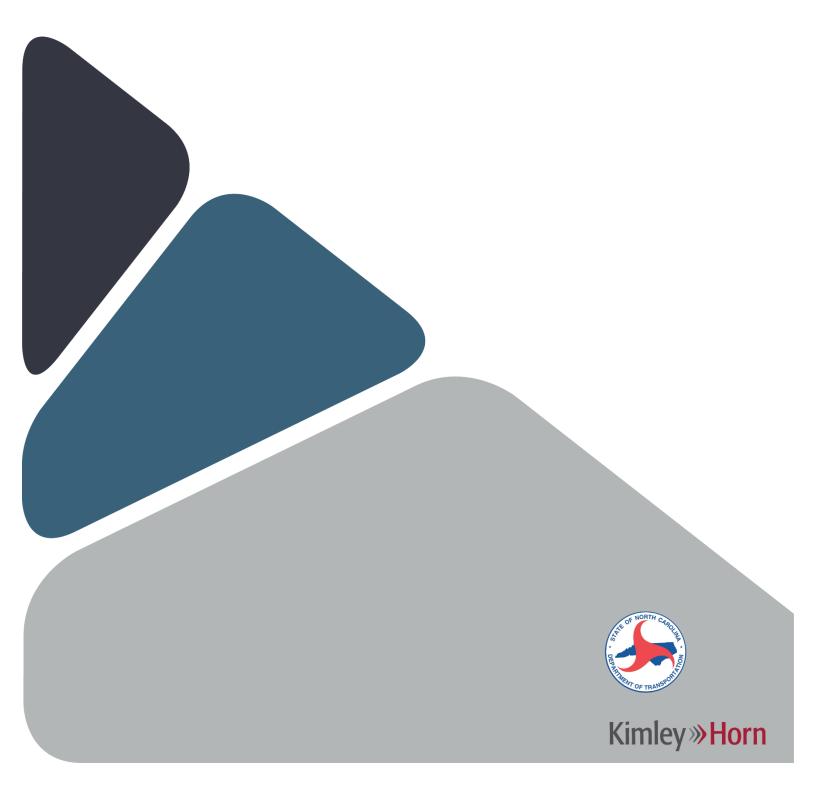
# **Appendix E:**

Corridor P

I-40/Future I-42/U.S. 70

Truck Transportation



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### **Freight Demand and Destination Data**

Freight demand and destination data was derived from three sources, detailed below.

- 1. STC activity centers NCDOT guidelines for the STC contain categories of landmarks, destinations, and major hubs identified as "activity centers." These activity centers include destinations and land uses that will likely have higher demand for trucks than other destinations, including military bases, major airports, colleges/universities, and hospitals, among others. These activity centers were identified because of their dependence on the corridor for the shipping and receiving of goods via trucks, among other things.
- 2. Stakeholder organizations The NCDOT project team developed a list of stakeholder organizations, including rail and freight representatives, economic development groups, and major employers with 500 or more employees. The stakeholder organizations that have a large facility were included as a freight destination.
- 3. Additional freight intensive land uses Other land uses that would have higher demand for truck traffic, such as factories and distribution centers, were identified along the corridor through a desktop review of satellite imagery.

Freight destinations within 25 miles of the corridor were mapped (see Figures 3A-3F) and are listed in Table E-1.

Table E-1. Freight Demand and Destination Data – Corridor P

Table E-1. Fleight Demand and Destination Data – Comdor P						
Location Name	Туре	Source				
Wake County						
Raleigh-Durham International Airport	Airport	1				
North Carolina State University	College/University	1				
Wake Technical Community College- Southern Wake Campus	College/University	1				
Wake Med Health & Hospital	Hospital/Medical Center	1				
Shaw University	College/University	2				
Coastal Credit Union Music Park at Walnut Creek	Event Center	3				
Raleigh Memorial Auditorium	Event Center	3				
Duke Energy Center for the Performing Arts	Event Center	3				
PNC Arena	Event Center	3				
White Oak Crossing	Shopping Center	3				
Martin Marietta - Garner Quarry	Quarry	3				
Martin Brower/McDonalds Distribution Center	Manufacturing/Distribution Center	3				
Wake County Transportation	Manufacturing/Distribution Center	3				
Amazon Distribution Center	Manufacturing/Distribution Center	3				
NC Department of Transportation	Industrial/Business Park	3				
Johns	on County					
Grifols Therapeutics LLC	Industrial/Business Park	2				
Johnston Community College	College/University	2				
Johnston Health: Emergency Room	Hospital/Medical Center	2				
Novo Nordisk Pharmaceutical - DFP	Manufacturing/Distribution Center	2				
Novo Nordisk DAPI	Factory	2				
Hanson Aggregates	Quarry	3				
Wayne County						
Wayne Community College	College/University	2				
Lenoir County						
MasterBrand Cabinets - Kinston Operations Facility	Manufacturing/Distribution Center	3				

Location Name	Туре	Source		
Sanderson Farms	Manufacturing/Distribution Center	2		
Kinston Smithfield Packing	Manufacturing/Distribution Center	2		
Lenoir Community College	College/University	3		
Cra	ven County			
Marine Corps Air Station Cherry Point	Military Camp	1		
Coastal Carolina Regional Airport	Airport	2		
Bosch Home Appliances	Manufacturing/Distribution Center	2		
CarolinaEast Medical Center	Hospital/Medical Center	2		
Craven Community College	College/University	2		
Marine Corps Air Station Cherry Point	Military Camp	1		
Moen Inc	Manufacturing/Distribution Center	2		
Martin Marietta - Clarks Quarry	Quarry	3		
BSH Manufacturing/Distribution Center		3		
Moen Warehouse	Moen Warehouse Manufacturing/Distribution Center			
Cart	eret County			
Morehead City Port	Manufacturing/Distribution Center	1		
Carteret Community College	College/University	2		
Carteret Health Care	Hospital/Medical Center	3		
Morehead Plaza Shopping Center	Shopping Center	3		
Veneer Technologies Inc	Manufacturing/Distribution Center	3		
New Bern Mall	Shopping Center	3		
Dur	nam County			
Research Triangle Park	Industrial/Business Park	1		
North Carolina Central University	College/University	1		
Durham Technical Community College	College/University	1		
IBM Resiliency Services Bldg 201	Industrial/Business Park	3		
Hart	nett County			
Campbell University	College/University	1		
Food Lion Distribution Center	Manufacturing/Distribution Center	3		

Note: The source number corresponds to the following types of freight destinations:

- 1. STC Activity Centers
- 2. Stakeholder organizations
- 3. Additional freight intensive uses

### **Truck Parking Data**

Truck drivers are required to have a 30-minute break every 8 hours and to stop driving after 14 consecutive hours due to federal hours of service (HOS) requirements. While helping to improve safety, these requirements often result in drivers searching for parking at predictable time intervals, typically at night. This puts a strain on key freight corridors that have insufficient truck parking relative to demand. When drivers can't find spaces at designated truck parking areas, they are faced with the following options:

- Parking in unauthorized and unsafe locations, such as abandoned parking lots or on freeway shoulders, that put personal safety of the driver at risk, or
- Continuing driving and run the risk of getting a citation for driving past the maximum allowable hours of service or driving while fatigued and getting into a harmful accident.

**Table E-2** shows truck parking supply and availability along the corridor. Data was gathered as part of the North Carolina Truck Parking Study (January 2017). The table includes the name of the truck parking facility, the County, whether it is publicly or privately owned, and the number of spaces at the facility. For each facility, truck parking utilization is shown in **Figures 3A-3F** and in the table below. Truck parking facilities with "full utilization" are those that are fully occupied at least Monday through Friday.

Table E-2. Truck Parking Facility Data - Corridor P

Location Name	Address	Facility Type	Number of Spaces	Utilization <sup>1</sup>			
Wake County							
County Mart	4787 NC-11, Bethel, NC 27812	Private	38	Available Spaces			
Fuel Doc Travel Center	2403 N Memorial Dr, Greenville, NC 27834	Private	32	Full Utilization			
Wal-Mart	4431 New Bern Ave, Raleigh, NC 27610	Wal-Mart	0	No Utilization Information			
	Johns	ton County					
Big Boy's Truck Stop	595 Bagley Rd, Kenly, NC 27542	Private	100	Available Spaces			
Flying J	1800 Princeton Kenly Rd, Kenly, NC 27542	Private	145	Available Spaces			
Petro Kenty	923 Johnston Pkwy, Kenly, NC 27542	Private	350	Full Utilization			
Wal-Mart	1299 N Brightleaf Blvd, Smithfield, NC 27577	Wal-Mart	0	No Utilization Information			
Wal-Mart	5141 NC-42 W, Garner, NC 27529	Wal-Mart	0	No Utilization Information			
Rest Area: Johnson County I-95 NB	I-95, Selma, NC 27576	Public	7	Full Utilization			
Rest Area: Johnson County I-95 SB	I-95, Selma, NC 27576	Public	7	Full Utilization			
Pilot	1000 Truckstop Rd, Kenly, NC 27542	Private	125	Available Spaces			

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<sup>&</sup>lt;sup>1</sup> Based on 2017 Truck Parking Study

Location Name	Address	Facility Type	Number of Spaces	Utilization <sup>1</sup>		
Rest Area: Johnston County I-40 WB	210 N Walden Pond Rd, Benson, NC 27504	Public	15	Full Utilization		
Rest Area: Johnston County I-40 EB	1 Medical Dr, Benson, NC 27504	Public	15	Full Utilization		
	Wayr	ne County				
Downeast Truck Stop	2600 US-117, Goldsboro, NC 27530	Private	30	Available Spaces		
Kangaroo Express	1908, Goldsboro, NC 27530	I Privata I 17		Full Utilization		
	Leno	ir County				
Kangaroo Express	509 E New Bern Rd, Kinston, NC 28504	Private	20	Full Utilization		
	Crave	en County				
Rest Area: Craven County US 70	800 Clarks Rd, New Bern, NC 28562	Public	10	Full Utilization		
Carteret County						
Kangaroo Express	5230 US-70, Morehead City, NC 28557	Private	6	Available Spaces		

### **Truck Percentage Data**

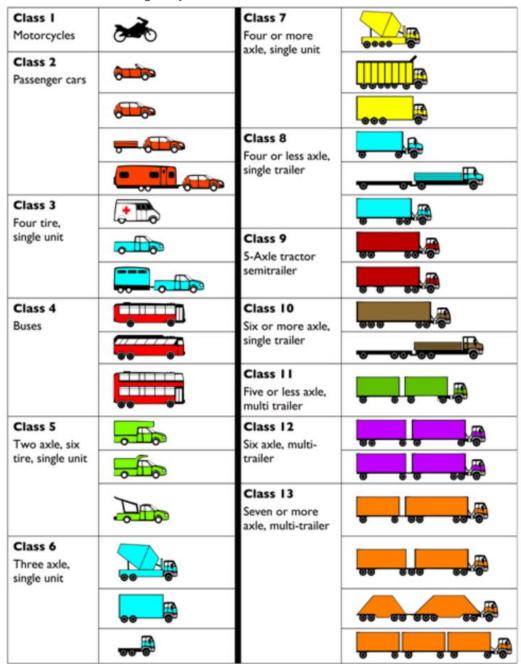
This appendix presents 2015 and 2019 truck percentage data for Corridor P of the North Carolina STC. Truck percentage data in **Table E-3** is presented using the Annual Average Daily Traffic (AADT) GIS data the from NCDOT and is organized numerically by Route ID within each county. Route IDs correspond to individual segments of the roadway and are used by NCDOT to collect and organize traffic data; the Route IDs used for this report are based on the 2019 Route IDs and milepost segment limits. 2015 AADT and truck percentage data is included for the corresponding 2019 Route ID where it is available. The AADT data represent all vehicles counted for each Route ID, and the total truck percentages include both Single Unit trucks (FHWA Class 4-7) and Multi Unit Trucks (FHWA Class 8-13) (see **Table E-4** for examples of each vehicle class). Truck data is only collected on segments of routes included in the National Highway System (NHS) and the North Carolina Truck Network. Truck percentage data on parallel corridors is included for locations where AADT data is not available on the STC corridor. Truck percentages (based on 2019 data) are shown in **Figures 3A-3F**.

Table E-3. Truck Percentage – 2019 and 2015 Annual Average Daily Traffic

Table E 0. 110		ornago z		.0107111114417	tvorage Baily	Traine		
Route ID	Route	Begin Milepost	End Milepost	2015 Annual Average Daily Traffic (AADT)	2015 Total Truck Percentage	2019 Annual Average Daily Traffic (AADT)	2019 Total Truck Percentage	Change in Truck Percentage from 2015 to 2019
				Wake Co	unty			
10000040092	US-40	18.478	20.907	109000	5.21%	115000	7.06%	1.85%
10000040092	US-40	20.907	22.988	105000	5.21%	112000	7.06%	1.85%
10000040092	US-40	22.988	26.461	84000	5.21%	93500	7.06%	1.85%
20000070092	US-40	26.469	27.564	28000	10.00%	15000	7.50%	-2.50%
				Johnston (	County			
20000070051	US-70	0.000	2.994	28000	10.00%	32500	7.50%	-2.50%
20000070051	US-70	2.994	5.805	32000	10.52%	31000	6.39%	-4.13%
20000070051	US-70	5.805	8.946	26000	10.52%	33500	6.39%	-4.13%
20000070051	US-70	8.946	11.108	23000	10.97%	28500	13.64%	2.67%
20000070051	US-70	11.108	12.098	26000	10.97%	27000	13.64%	2.67%
20000070051	US-70	12.098	13.243	25000	10.97%	25500	13.64%	2.67%
20000070051	US-70	13.243	15.996	25000	10.97%	31500	13.64%	2.67%
20000070051	US-70	15.996	16.588	26000	10.97%	32500	13.64%	2.67%
20000070051	US-70	19.573	20.727	20000	10.56%	24000	15.95%	5.39%
20000070051	US-70	20.727	21.302	30000	11.85%	31000	12.39%	0.54%
20000070051	US-70	21.302	22.965	23000	11.85%	28000	12.39%	0.54%
20000070051	US-70	22.965	26.381	21000	11.85%	27500	12.39%	0.54%
20000070051	US-70	26.381	27.013	26000	15.96%	27500	12.77%	-3.19%
20000070051	US-70	27.013	27.703	24000	15.96%	25000	12.77%	-3.19%
20000070051	US-70	27.703	29.222	23000	15.96%	28000	12.77%	-3.19%
20000070051	US-70	29.222	29.408	25000	15.96%	29500	12.77%	-3.19%
22000070051	US-70	0.000	2.900	16000	11.86%	18500	11.52%	-0.34%
				Wayne Co	ounty			
20000070016	US-70	0.000	1.423	24000	4.86%	26500	4.68%	-0.18%
20000070096	US-70	0.000	1.350	25000	15.96%	29500	12.77%	-3.19%
20000070096	US-70	1.350	2.989	24000	15.96%	27500	12.77%	-3.19%
20000070096	US-70	2.989	4.511	23000	15.96%	12500	0.00%	-15.96%
				Lenoir Co	ounty			
20000070054	US-70	0.430	2.588	18000	12.56%	23500	11.48%	-1.08%
20000070054	US-70	2.588	4.108	19000	9.43%	23500	12.70%	3.27%
20000070054	US-70	4.108	4.388	21000	9.43%	29000	12.70%	3.27%
20000070054	US-70	4.388	5.832	18000	9.43%	25000	12.70%	3.27%
20000070054	US-70	5.832	9.682	22000	9.43%	24500	12.70%	3.27%
20000070054	US-70	9.682	11.350	22000	10.09%	24500	10.23%	0.14%
20000070054	US-70	11.350	11.733	34000	10.09%	31000	10.23%	0.14%
20000070054	US-70	11.733	12.226	40000	7.12%	40500	7.01%	-0.11%
20000070054	US-70	12.226	13.431	27000	8.43%	31000	10.27%	1.84%
20000070054	US-70	13.431	14.221	28000	8.43%	30500	10.27%	1.84%
20000070054	US-70	14.221	15.417	20000	11.63%	20000	14.13%	2.50%
20000070054	US-70	15.417	15.793	25000	7.22%	27000	10.50%	3.28%
20000070054	US-70	15.793	16.254	24000	7.22%	25500	10.50%	3.28%
20000070054	US-70	16.254	17.405	16000	13.34%	17000	15.12%	1.78%

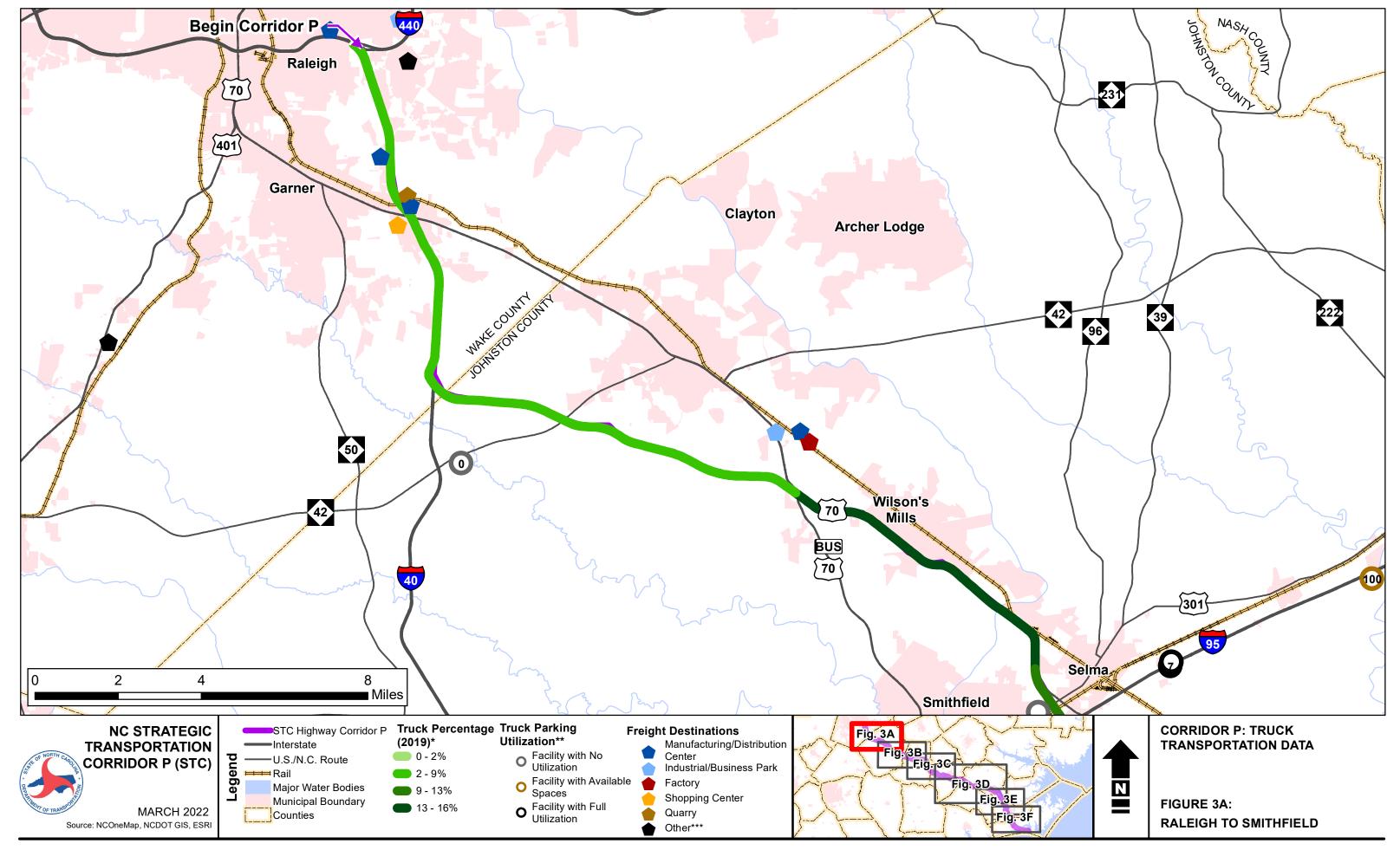
Route ID	Route	Begin Milepost	End Milepost	2015 Annual Average Daily Traffic (AADT)	2015 Total Truck Percentage	2019 Annual Average Daily Traffic (AADT)	2019 Total Truck Percentage	Change in Truck Percentage from 2015 to 2019
20000070054	US-70	17.405	19.539	14000	13.34%	15000	15.12%	1.78%
				Jones Co	ounty			
20000070052	US-70	0.000	0.556	13000	13.34%	14000	15.12%	1.78%
20000070052	US-70	0.556	2.444	12000	13.34%	13500	15.12%	1.78%
20000070052	US-70	2.444	3.903	12000	13.34%	14500	15.12%	1.78%
20000070052	US-70	3.903	11.899	7200	13.34%	13000	15.12%	1.78%
				Craven C	ounty			
20000017025	US-17	5.011	5.761	17000	0.00%	20000	8.81%	8.81%
20000017025	US-17	5.761	8.053	21000	9.41%	23500	9.54%	0.13%
20000017025	US-17	8.053	9.003	28000	9.41%	31000	9.54%	0.13%
20000017025	US-17	9.003	10.560	45000	4.71%	48000	6.78%	2.07%
20000017025	US-17	10.560	11.233	53000	4.71%	57000	6.78%	2.07%
20000070025	US-17	17.395	18.008	53000	4.71%	57000	6.78%	2.07%
20000070025	US-70	0.000	0.500	7200	13.34%	13000	15.12%	1.78%
20000070025	US-70	0.500	7.080	11000	10.89%	13000	11.99%	1.10%
20000070025	US-70	7.080	9.918	12000	10.89%	14000	11.99%	1.10%
20000070025	US-70	9.918	10.841	17000	10.89%	19000	11.99%	1.10%
20000070025	US-70	10.841	11.173	17000	0.00%	20000	8.81%	8.81%
20000070025	US-70	18.008	18.887	48000	6.48%	50500	6.26%	-0.22%
20000070025	US-70	18.887	20.807	38000	6.48%	39500	6.26%	-0.22%
20000070025	US-70	20.807	24.377	28000	6.48%	29500	6.26%	-0.22%
20000070025	US-70	24.377	27.483	29000	6.48%	29500	6.26%	-0.22%
20000070025	US-70	27.483	32.213	29000	6.48%	32000	6.26%	-0.22%
20000070025	US-70	32.213	33.573	26000	6.48%	27500	6.26%	-0.22%
20000070025	US-70	33.573	34.227	29000	6.48%	31000	6.26%	-0.22%
20000070025	US-70	34.227	34.665	31000	6.48%	32500	6.26%	-0.22%
20000070025	US-70	34.665	35.105	23000	4.86%	24000	4.68%	-0.18%
20000070025	US-70	35.105	36.756	28000	4.86%	30000	4.68%	-0.18%
20000070025	US-70	36.756	37.771	24000	4.86%	26500	4.68%	-0.18%
				Carteret C	ounty			
20000070016	US-70	1.423	2.410	21000	4.86%	25500	4.68%	-0.18%
20000070016	US-70	2.410	3.970	26000	4.86%	25500	4.68%	-0.18%
20000070016	US-70	3.970	5.460	29000	4.86%	28500	4.68%	-0.18%
20000070016	US-70	5.460	6.460	21000	4.86%	25000	4.68%	-0.18%
20000070016	US-70	6.460	7.520	27000	4.86%	32000	4.68%	-0.18%
20000070016	US-70	7.520	9.000	29000	4.86%	33500	4.68%	-0.18%
20000070016	US-70	9.000	10.207	31000	4.86%	36000	4.68%	-0.18%
20000070016	US-70	10.207	11.822	29000	4.40%	34500	2.43%	-1.97%
20000070016	US-70	11.822	12.342	29000	4.40%	32000	2.43%	-1.97%
20000070016	US-70	12.342	12.742	29000	4.40%	32000	2.43%	-1.97%
20000070016	US-70	12.742	13.862	27000	4.40%	32000	2.43%	-1.97%
20000070016	US-70	13.862	14.112	24000	4.40%	24500	2.43%	-1.97%
20000070016	US-70	14.112	15.166	23000	4.40%	25500	2.43%	-1.97%

Table E-4. Federal Highway Administration Vehicle Classification Definitions



Source: "FHWA Traffic Monitoring Guide. Appendix C: Vehicle Types" (2014)

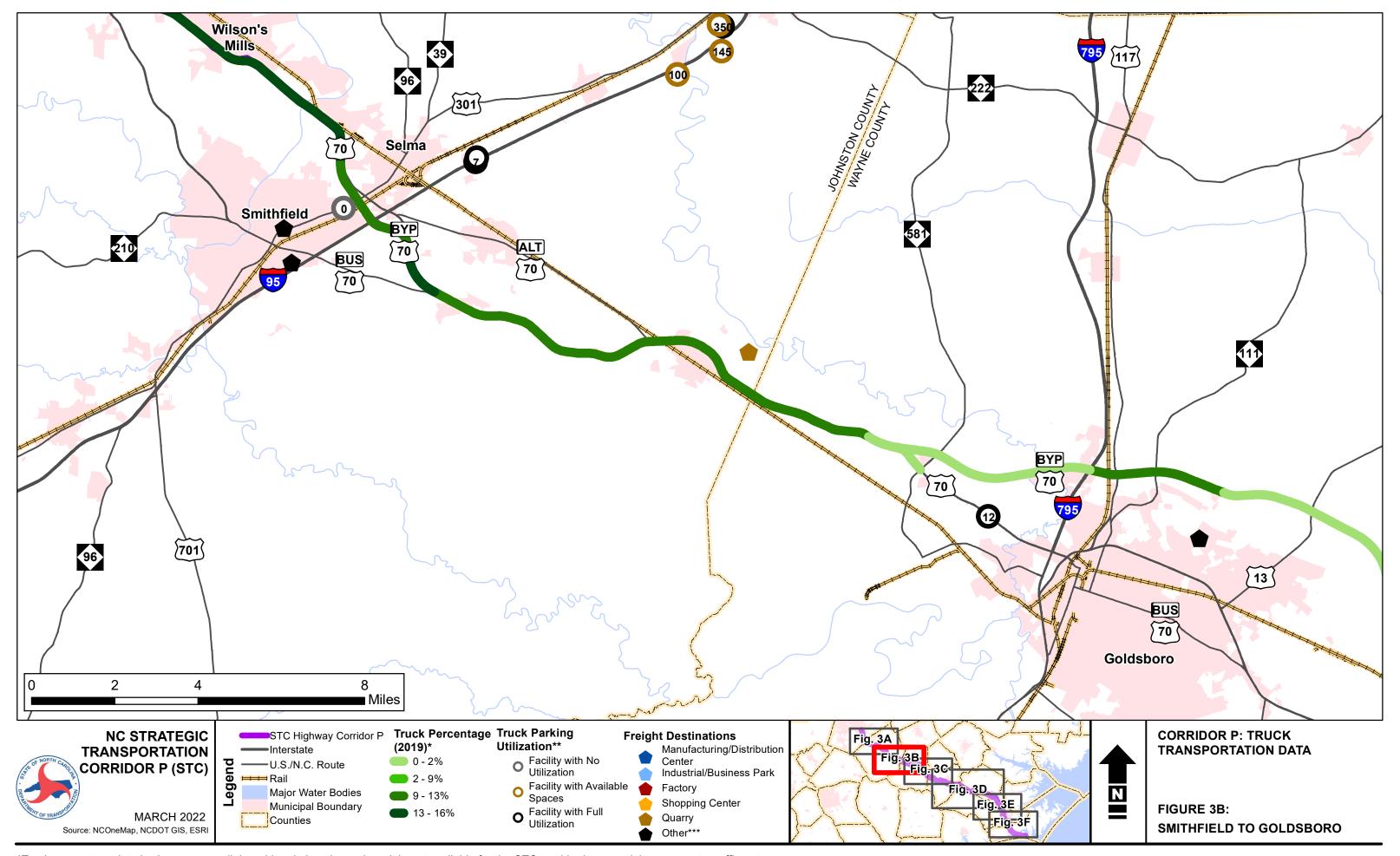
Figures 3A-3F: Truck Transportation Data Map	
 and the DUM-set 10000	E 40   Dage



<sup>\*</sup>Truck percentage data is shown on parallel corridors in locations where it is not available for the STC corridor because it is not open to traffic yet

<sup>\*\*</sup>The number shown within the circle refers to the total number of truck parking spaces at that parking facility

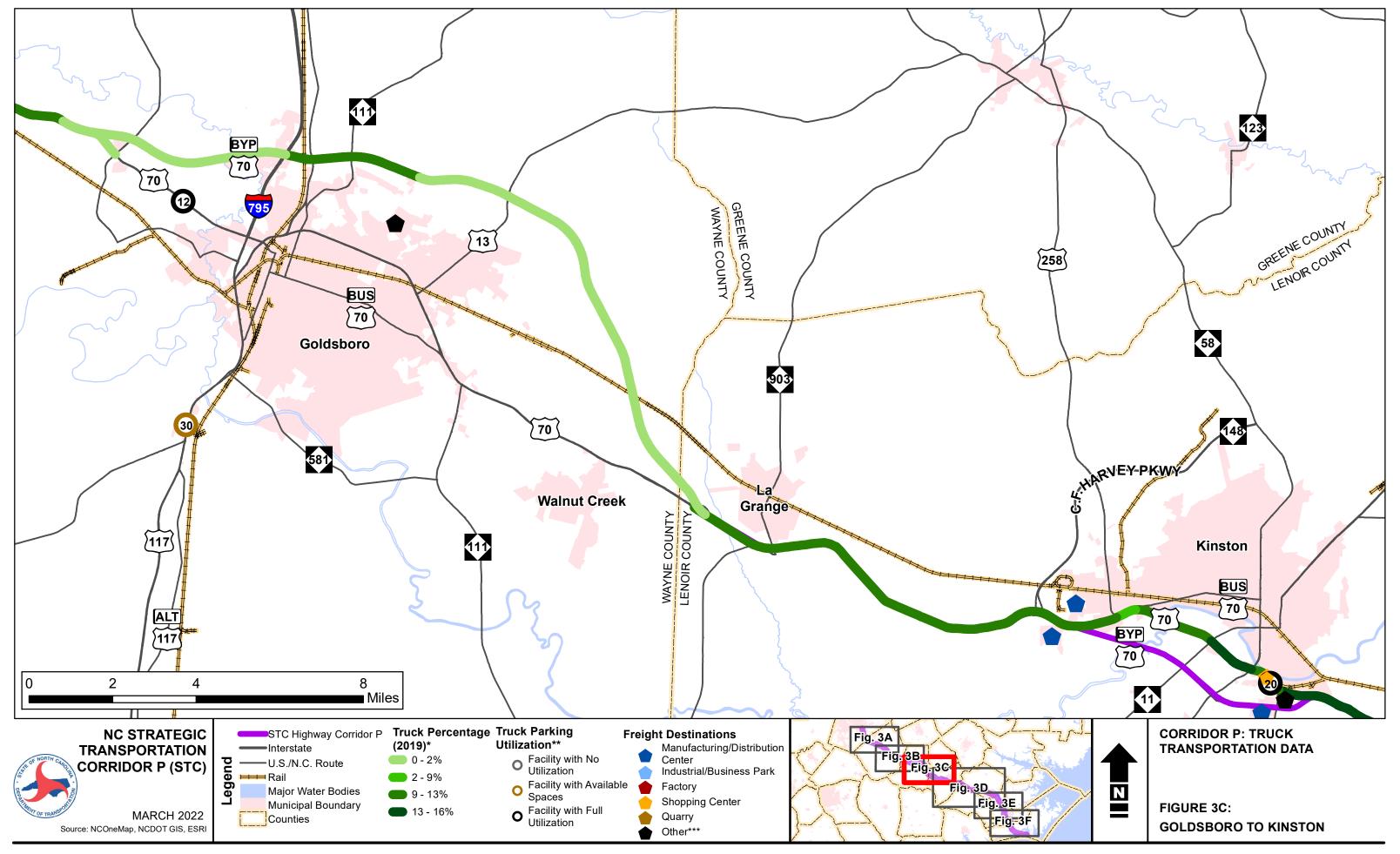
<sup>\*\*\*</sup>Other category for Activity Centers includes colleges/universities, military camps, hospitals/medical centers, event centers, and airports



<sup>\*</sup>Truck percentage data is shown on parallel corridors in locations where it is not available for the STC corridor because it is not open to traffic yet

<sup>\*\*</sup>The number shown within the circle refers to the total number of truck parking spaces at that parking facility

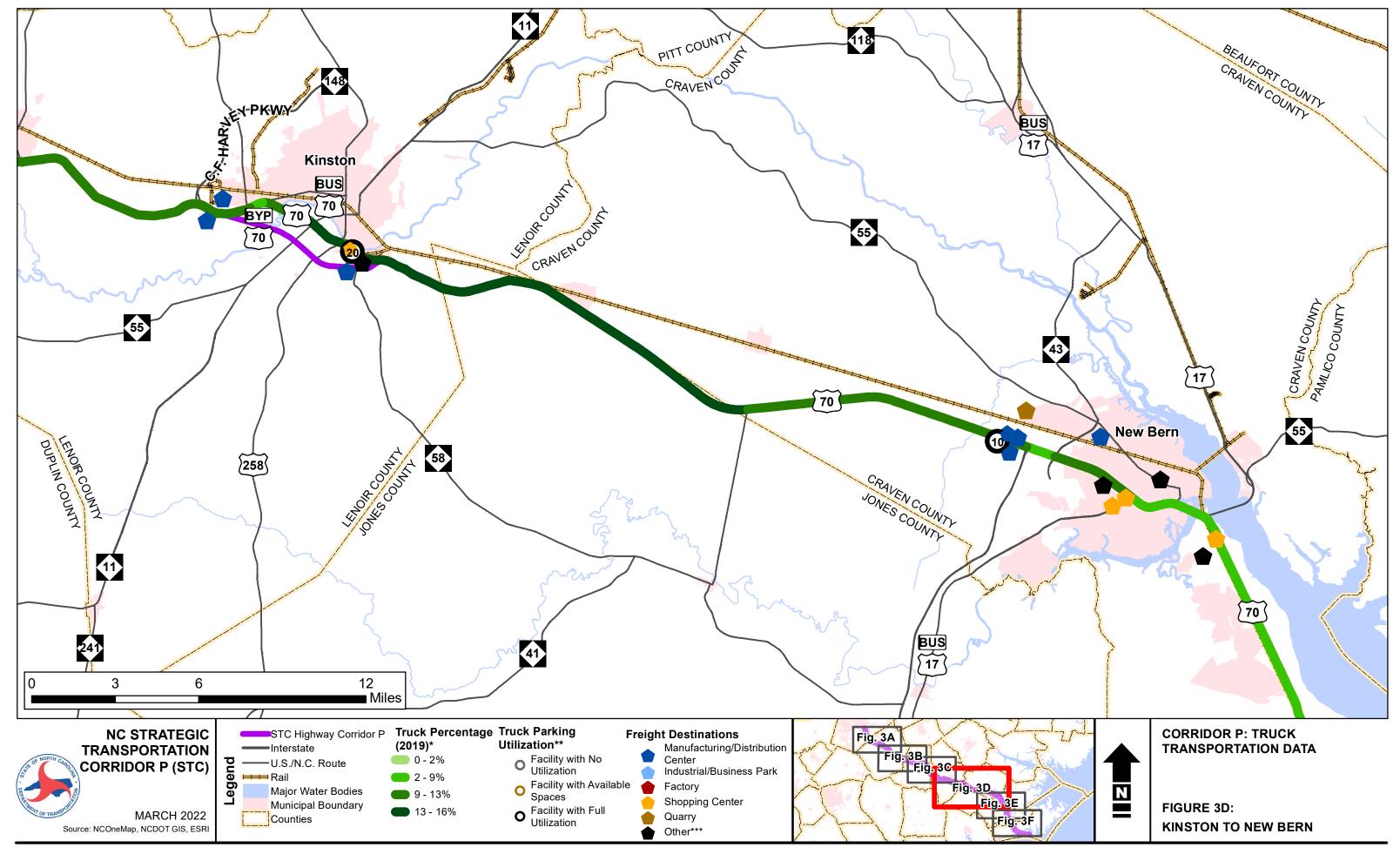
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<sup>\*</sup>Truck percentage data is shown on parallel corridors in locations where it is not available for the STC corridor because it is not open to traffic yet

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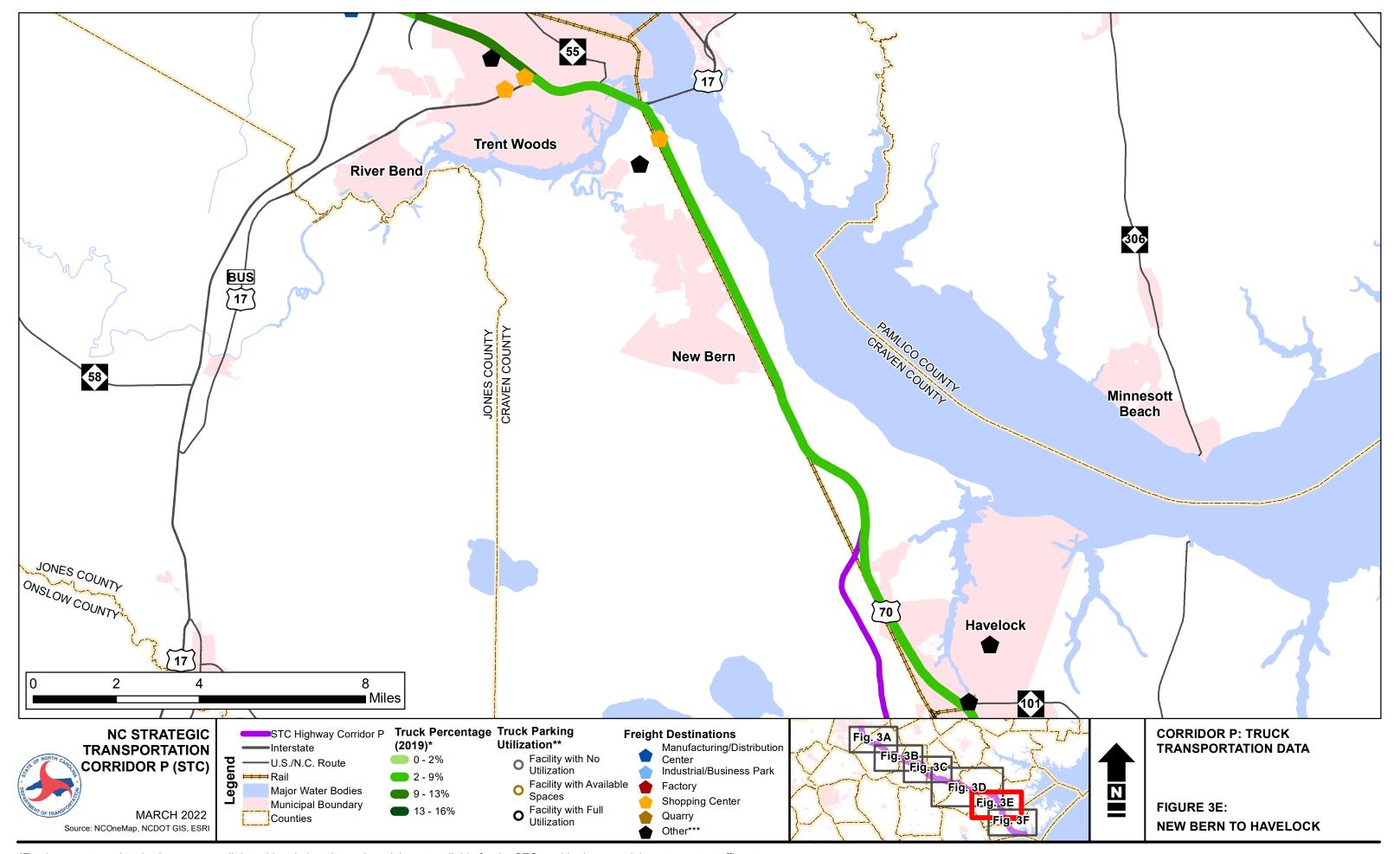
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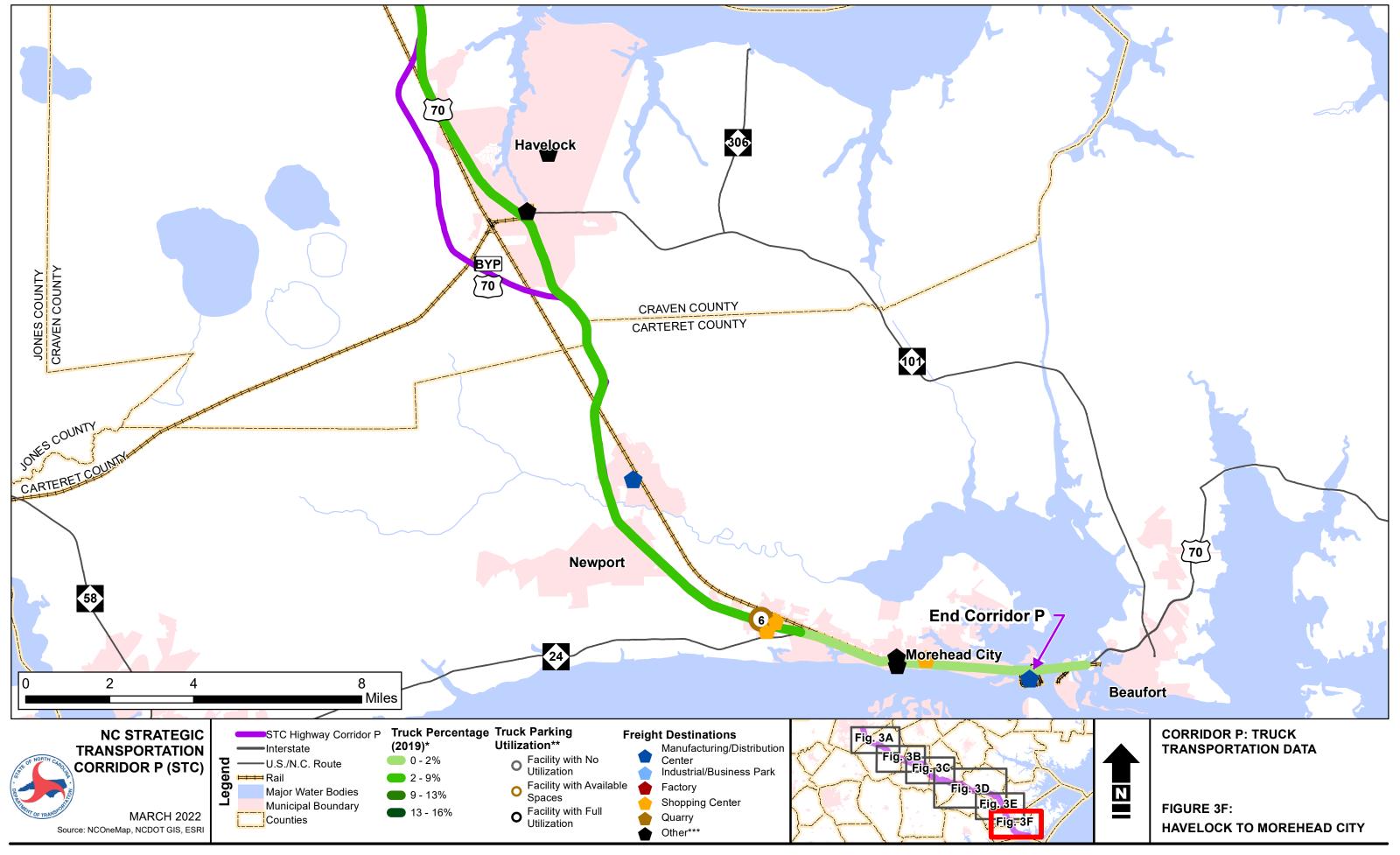
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<sup>\*\*</sup>The number shown within the circle refers to the total number of truck parking spaces at that parking facility

<sup>\*\*\*</sup>Other category for Activity Centers includes colleges/universities, military camps, hospitals/medical centers, event centers, and airports



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<sup>\*\*</sup>The number shown within the circle refers to the total number of truck parking spaces at that parking facility

<sup>\*\*\*</sup>Other category for Activity Centers includes colleges/universities, military camps, hospitals/medical centers, event centers, and airports