

**STIP # U-4434 New Hanover
County**



NCDOT

**Community Impact
Assessment**

Narrative Report

July 2019



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Executive Summary

PLANNER, FIRM: Todd McAulliffe, AECOM		DIVISION: 3	EXISTING NO. OF LANES: 2	EXISTING MEDIAN: No
NCDOT PROJECT MANAGER: Krista Kimmel		WBS: 37764.1.1	PROPOSED NO. OF LANES 4-6	ADDITION OF MEDIAN(S): Yes
DOCUMENT TYPE: NEPA EIS	PROJECT TYPE: <input checked="" type="checkbox"/> DIVISION <input type="checkbox"/> CENTRAL <input type="checkbox"/> LOCALLY-ADMIN. PROGRAM PROJECT (LAPP)	EXISTING CONTROL OF ACCESS: No Control	PROPOSED CONTROL OF ACCESS: Full Control	
CS PROJECT REVIEWER : Herman Huang, Ph.D, AICP				
<p>PROJECT DESCRIPTION: The North Carolina Department of Transportation (NCDOT) is proposing to construct a multi-lane thoroughfare on new location in New Hanover County, North Carolina. Located within the urban core of the City of Wilmington, the proposed 1.7-mile long Independence Boulevard Extension would be an extension of existing Independence Boulevard (SR 1209) on new location from the intersection with Randall Parkway and Mercer Avenue to Martin Luther King Jr. Parkway (US 74). The proposed project is designated in the Draft 2018-2027 NCDOT State Transportation Improvement Program (STIP) as STIP Number U-4434 and described as “Independence Boulevard Extension, Randall Parkway to US 74 (Martin Luther King Jr. Parkway). Multi-lanes on new location.”</p> <p>There is currently one alignment alternative (Alternative 7) with two interchange options at Market Street being considered. The two interchange options are a tight urban diamond interchange (TUDI) and a single point urban interchange (SPUI). Both interchange option designs would limit the footprint of the interchange and require less right-of-way than a traditional interchange.</p> <p>The typical section is proposed as a four-lane highway with a grass median and shoulders on both the inside and outside of the through lanes and will be built to accommodate design speeds of 60 miles per hour. The proposed alternative would have full control of access, and would be elevated in many places to avoid two railroad crossings and existing roadways. The project also would include a 10-foot multi-use path on the eastern side of the roadway extending from Randall Parkway to Maides Park. The multi-use path would include crosswalks and pedestrian signals at Market Street.</p>				

Notable Characteristics

- Within the Direct Community Impact Area (DCIA), south of Market Street, a 5-foot sidewalk is located along the west side of Covil Avenue and a 10-foot multi-use path is located along the east side. In addition, intermittent sidewalk was observed along local residential roads, primarily where new development has occurred. To the north of Princess Place Drive there are sidewalks on both sides of 30th Street and throughout the Creekwood South neighborhood. There is also a sidewalk on the west side of Manly Avenue from Princess Place Drive to Maides Park. Both the north and south side of Market Street have sidewalks throughout the length of the DCIA.



- Pedestrian activity was prevalent throughout the DCIA during the site visits. Observed pedestrian activity included a pedestrian who was walking south on Mercer Avenue and then using church and business property to cross between Mercer and Covil Avenues in the vicinity of Darlington Avenue.
- Public transportation is provided through Wave Transit and includes fixed-route bus services and stops throughout the DCIA. There are five fixed bus routes within the DCIA: routes 101, 105, 106, 108, and 207.
- There are numerous residential and business driveways – both paved and unpaved – and cross streets in the DCIA including many that are within the right-of-way footprint of the project. Residential driveways line Covil and Mercer Avenues, 31st Street, Montgomery Avenue, and Evans Street. Business driveways line Market Street and Randall Parkway.
- The Burnt Mill Business Park is located in the southern portion of the DCIA at the intersection of Covil Avenue and Randall Parkway. The business park currently holds more than a dozen buildings and has four additional office buildings under construction or planned.
- Within the DCIA, Market Street is a major retail and business corridor, with hotels, restaurants, home improvement businesses, and car dealerships.
- The New Hanover County Emergency Medical Services (EMS) Manager noted that the Market Street corridor is a major artery for EMS response vehicles..
- Local school transportation officials identified 169 school buses that traverse the DCIA on a daily basis.
- There are eleven churches in the DCIA, including two within the footprint of the project: Iglesia Vision Trinidad Divina Pentecostes and the Light of the World Ministry.
- There were a number of indicators of community cohesion in the DCIA. During the site visit, visible community interactions were observed, particularly in the neighborhoods to the north of Market Street along Montgomery Avenue. In addition, some businesses, along Market Street, such as the CVS, likely serve the local neighborhoods indicating that there is economic stability in the area. The presence of community cohesion can also be derived from the number of churches in the DCIA - particularly the number of churches in the vicinity of the project on Princess Place Drive – indicating community connections.
- Market Street is a five-lane thoroughfare with heavy vehicular traffic through the DCIA. None of the streets that intersect Market Street within the DCIA have pedestrian crossing accommodations, making crossing Market Street unsafe for pedestrian traffic. Currently, the nearest pedestrian signals and crosswalks to Covil Avenue that cross Market Street are approximately a half mile to the east and 0.8 miles to the west. During site visits, several pedestrians and bicyclists were observed making unsafe crossings on Market Street.
- The public noted their concern regarding an elevated roadway in the Citizens Informational Workshop held on June 13, 2011. Several of the attendees expressed concern that the elevated project would have associated noise and aesthetic impacts on the surrounding neighborhoods.
- Census data indicates a notable presence of minority and low-income populations meeting the criteria for environmental justice (EJ) as well as populations protected by Title VI and related statutes within the DSA. Minority and low-income communities were observed both within the DCIA and within the project footprint during the field visit and were noted by



local planners. Notable concentrations of minorities and low-income individuals were observed north of Market Street.

- Census data does not indicate Limited English Proficiency (LEP) populations meeting the United States Department of Justice LEP Safe Harbor threshold, but does indicate an Asian/Pacific language-speaking population exceeding 50 persons within the DSA that may require language assistance.

Potential Project Impacts

Unless otherwise stated, impacts discussed here and within the body of the report pertain to both the SPUI and TUDI interchange options.

- The proposed designs for the project include sidewalks on both the north and south sides of Market Street through the limits of the project. The proposed sidewalks would replace current sidewalks.
- The current designs sever access for Mercer Avenue, Evans Street and 31st Street directly to Market Street, which will impede access to businesses on Market Street for bicyclists and pedestrians using those roads.
- The designs for the extension of Darlington Avenue (as part of the Independence Boulevard Extension project) currently do not include sidewalks, meaning that pedestrians who travel under the bridge would have to use the roadway, and would be exposed to vehicular traffic without a safe way to escape traffic. Since this will be the only crossing of Independence Boulevard Extension available south of Market Street, the lack of crossing facilities would constitute a severe impact to pedestrian movement. There is an affordable housing complex nearby, indicating that the project could negatively impact EJ populations.
- As part of the planning process for U-4434 a Multi-Modal Transportation Evaluation was completed in 2012 that included bicycle, pedestrian, and transit facilities, both existing and planned. The evaluation noted that, based on the construction phasing for all sections of the project, the vast majority of the facilities can safely maintain pedestrian traffic onsite during construction.
- Wave Transit bus routes 106 and 108 that use Covil Avenue to travel north to Market Street from Independence Boulevard and Randall Parkway would have to be rerouted during and after construction since Covil Avenue will be terminated just north of the railroad tracks. Depending on how the routes are reconfigured during and after construction, transit users may experience impacts in the form of loss of service or increased distance to stops and impacts to transit service times, specifically as it relates to route stop times.
- The amount of impacts to driveways and cross streets is anticipated to be moderate. Residential driveways for residents in the DCIA that will not be relocated will maintain their current driveway access.
- When constructed, the project would remove the driveway access to the Burnt Mill Business Park from Covil Avenue, but access at the main entrance and several secondary entrances on Randall Parkway would remain.
- As part of the project, driveway access on Market Street from Wayne Drive/30th Street east to Darlington Avenue will be removed. Many of the business and commercial properties along Market Street that are not within the project footprint will no longer have direct access



from Market Street upon completion of the project, although this is not expected to adversely impact sales.

- According to GIS approximately 43 businesses would be displaced if the SPUI interchange is selected, and 51 businesses would be displaced if the TUDI interchange is selected.
- The New Hanover County Emergency Management and 911 Communications Manager noted that the project would have a high impact to response times if major intersections in the corridor are closed or narrowed to one lane during construction.
- School officials noted that the project would have a moderate impact on school transportation because some of the bus routes would need to be modified during construction to avoid the construction area by reaching the schools from the opposite direction.
- The two churches within the footprint of the project would be displaced as a result of the project. One of the churches, the Iglesia Vision Trinidad Divina Pentecostes, is a Spanish-language church that serves the Hispanic community and a potential EJ resource, although census data indicates that there is not a notable Hispanic population in the DSA. Both churches may have difficulty in finding nearby land to relocate. Direct impacts to the remaining churches and other community resources within the DSA are not anticipated.
- Independence Boulevard Extension would be elevated on a berm from approximately the intersection of Randall Parkway north to Market Street. This berm would change the physical makeup of the community and serve as a physical and psychological barrier. The introduction of an elevated freeway through an established neighborhood may also adversely impact property values.
- The addition of pedestrian crossing facilities on the eastern side of the project across Market Street would make it safer and more convenient to cross Market Street within the DCIA. It would also close a long gap where no crossing facilities exist, and provide safer connections between neighborhoods and businesses on either side of the road.
- Current designs do not address the concerns raised by the community. The project remains mostly elevated from the intersection of Mercer Avenue and Randall Parkway to north of Hurst Street.
- Notably adverse community impacts are anticipated with this project and these effects appear to affect Title VI and EJ populations notably more than the general population and have higher adverse effects on the EJ population than on the general population; thus, impacts to minority and low-income populations appear to be disproportionately high and adverse. Benefits and burdens resulting from the project are not anticipated to be equitably distributed throughout the community. Disparate impacts are anticipated under Title VI.

Recommendations

- The NCDOT Project Manager should continue to investigate the inclusion of bicycle and pedestrian facilities and connections in future phases of the designs, including bicycle and pedestrian accommodations to relocated bus stops. In particular, the NCDOT Project Manager should include sidewalks under the bridge of the Darlington Avenue extension as well as bicycle and pedestrian access to Market Street from roads that will no longer have direct access to Market Street. This action would offset EJ concerns. The Project Manager should also ensure bicycle/pedestrian accommodation during construction in accordance with existing NCDOT guidance. The Project Manager should also ensure that the on- and off-



ramps be designed so that bicyclists and pedestrians traveling along Market Street can get across the ramps safely.

- The NCDOT Project Manager should coordinate with NCDOT Work Zone Traffic Control to evaluate the necessary level of bicycle/pedestrian access accommodation during construction.
- The NCDOT Project Manager should coordinate with NCDOT Division of Bicycle and Pedestrian Transportation and Wave Transit to analyze transit needs for remaining homes and ensure accessibility to transit routes and relocated transit stops. This action would offset EJ concerns.
- The NCDOT Project Manager should coordinate with affected business owners throughout the remaining planning and design phases of the project in an effort to mitigate impacts to their business operations.
- The NCDOT Project Manager should conduct outreach to business owners on Market Street to keep them informed of access changes both during and after construction.
- The NCDOT Project Manager should communicate with New Hanover County Emergency Management and 911 Communications staff in order to maintain EMS access and avoid road closures and detours during the construction process.
- Based on the school transportation official's comment, it is recommended that Market Street or Princess Place Drive should remain open during construction to facilitate east/west traffic flow and maintain access to surrounding schools.
- The NCDOT Project Manager should provide relocation assistance to the two churches within the project footprint with the goal of finding nearby locations for the relocated churches.
- The NCDOT Project Manager should conduct targeted outreach to potentially affected communities prior to the public meeting (to be held July 22, 2019). The NCDOT should consider working with the City of Wilmington planning staff and impacted neighborhoods to develop neighborhood plans to preserve existing community cohesion.
- Early coordination among the City of Wilmington, Wilmington Housing Authority, Wave Transit, and NCDOT relocation assistance staff to identify affordable housing near transit services and pedestrian infrastructure is recommended and may be beneficial in minimizing impacts to displaced, low-income residents.
- The NCDOT Project Manager should continue to investigate aesthetic mitigation measures to minimize resident concerns over having an elevated roadway structure in a neighborhood. It is recommended that NCDOT form an aesthetics committee that would provide ideas to designers that would minimize the aesthetic impacts to the neighborhoods surrounding the project.
- Public involvement and outreach activities must ensure full and fair participation of all potentially affected communities in the transportation decision-making process.
- Because notable Asian/Pacific language-speaking populations are located within the DCIA the NCDOT Project Planning Engineer should consult with NCDOT Public Involvement to determine appropriate measures assuring meaningful public involvement to satisfy the requirements of Executive Order 12898.

Indirect and Cumulative Effects Statement

- The project may alter travel patterns and reduce travel time. Due to the potential transportation impact-causing activities, this project may influence nearby land uses or



stimulate growth. Therefore, a detailed indirect and cumulative effects (ICE) study was completed. The ICE report was submitted in December, 2011. A Land Use Scenario Assessment (LUSA), completed in July 2019, further assesses potential indirect and cumulative effects.



1. Project Description

The North Carolina Department of Transportation (NCDOT) is proposing to construct a multi-lane thoroughfare on new location in New Hanover County, North Carolina. Located within the urban core of the City of Wilmington, the proposed 1.7-mile long Independence Boulevard Extension would be an extension of existing Independence Boulevard (SR 1209) on new location from the intersection with Randall Parkway and Mercer Avenue to Martin Luther King Jr. Parkway (US 74). The proposed action (or project) is designated in the Draft 2018-2027 NCDOT State Transportation Improvement Program (STIP) as STIP Number U-4434 and described as “Independence Boulevard Extension, Randall Parkway to US 74 (Martin Luther King Jr. Parkway). Multi-lanes on new location.”

The primary purpose for the project is to accomplish the following:

- Improve connectivity and capacity by providing an additional 4-lane, north-south corridor that will provide a systemic increase in the overall traffic capacity for north-south travel within central Wilmington.
- Improve transportation system linkage through the addition of an intrastate/intramodal thoroughfare that will provide a continuous north-south connection between the east-west major arterials of US 117 (Shipyards Boulevard), US 76 (Wooster Street, Dawson Street, and Oleander Drive), US 17 Business (Market Street), and Martin Luther King Jr. Parkway that is consistent with local and state transportation plans.

The project would address the following needs:

- **Deficient North-South Regional Roadway Connectivity:** The City of Wilmington’s regional routes consist of continuous east-west roadways and offer only two continuous north-south routes: 3rd Street and College Road (US 117 / NC 132). The distance between the two routes varies from 3 to 4 miles. All remaining north-south roadways offer short, discontinuous segments that force commuters to redirect from one north-south route onto east-west roadway segments that connect to the next north-south route. This weaving or “stair-step movement” north or southward places considerable pressure on already-full east-west routes, as well as signalized intersections in the network. Improving north-south connectivity would reduce the stair-step travel pattern, reduce turning movements, and increase capacity by promoting increased signal green-time to east-west and north-south through movements (U-4434 Purpose and Need Report, August 2013).
- **Deficient North-South System Capacity:** Traffic modeling and capacity analysis for the transportation network show that additional traffic capacity is needed within central Wilmington (Traffic Capacity Analysis Independence Boulevard Extension, 2018). System modeling confirms a high demand for north-south travel within central Wilmington, from Independence Boulevard to College Road, which exceeds the capacity of existing and planned improvements for the area. There are numerous traffic generators, both to the north, south, and within the project DCIA that utilize the north-south routes in central Wilmington.
- **Deficient Linkage Within and Through New Hanover County:** One of the goals for the greater Wilmington Area is to develop an integrated regional transportation system by providing an intrastate link between designated activity centers. For example: Independence Boulevard directly links port facilities to the airport. The project would



provide a thoroughfare that addresses the desired outcomes prescribed in the Wilmington Urban Area Metropolitan Planning Organization's (WMPO) Comprehensive Transportation Plan (2015) and *Cape Fear Transportation 2040 Metropolitan Transportation Plan* (2015).

1.1. Existing Roadway Conditions

Independence Boulevard currently extends from River Road north to Randall Parkway and is one of the few north-south connections in the City of Wilmington. The project will extend this roadway north to Martin Luther King Jr. Parkway. Independence Boulevard is currently a two-lane roadway with no control of access south of US 421 (Carolina Beach Road) and transitions to a multi-lane thoroughfare at US 421 (Carolina Beach Road) with partial control of access north to Randall Parkway.

Covil Avenue is a north-south route that runs from the Randall Parkway/Independence Boulevard intersection to Market Street. The roadway is a two-lane local road with no control of access. Covil Avenue is heavily used by drivers to move between Market Street and Independence Boulevard. Land uses along Covil Avenue include single and multi-family residential with some business use at the northern end, near the intersection of Market Street. There is a 10-foot multi-use path on the east side of Covil Avenue from Darlington Avenue to Broad Street, and a 5-foot sidewalk on the east side from Broad Street to Market Street.

Mercer Avenue is also a north-south two-lane road with no control of access that connects Market Street to the northern end of Independence Boulevard. However, Mercer Avenue is not as heavily used as a cut-through between Market Street and Independence Boulevard, likely because there is no traffic signal at Market Street and the connection to and from Independence Boulevard requires a turn. Land uses on Mercer Avenue include single family residential, industrial, business, and civic uses. There are no sidewalks on Mercer Avenue.

Market Street, in the vicinity of the project, is a five-lane, east-west road that provides a connection from Interstate 40 and College Road to downtown Wilmington. There are many curb cuts on Market Street, which provide access to businesses, and there are 5-foot sidewalks on both sides of the road. Market Street is a major commercial corridor from 29th Street east.

North of Market Street, 31st Street and Montgomery Avenue are north-south local roads that are both two lanes with no control of access. Single-family residences are located on both roads and neither have sidewalks.

1.2. Proposed Modifications

There is currently one alignment alternative (Alternative 7) with two interchange options at Market Street being considered. The two interchange options are a tight urban diamond interchange (TUDI) and a single point urban interchange (SPUI). Figure 1 shows the alignment with the TUDI interchange, and Figure 2 shows the alignment with the SPUI interchange. The designs of both interchange options would limit the footprint of the interchange and require less right-of-way than a traditional interchange. A TUDI performs better in terms of moving vehicular traffic through the interchanges at the end of the ramps, but requires a greater footprint than a SPUI.



Figure 1: Alternative 7 with TUDI interchange

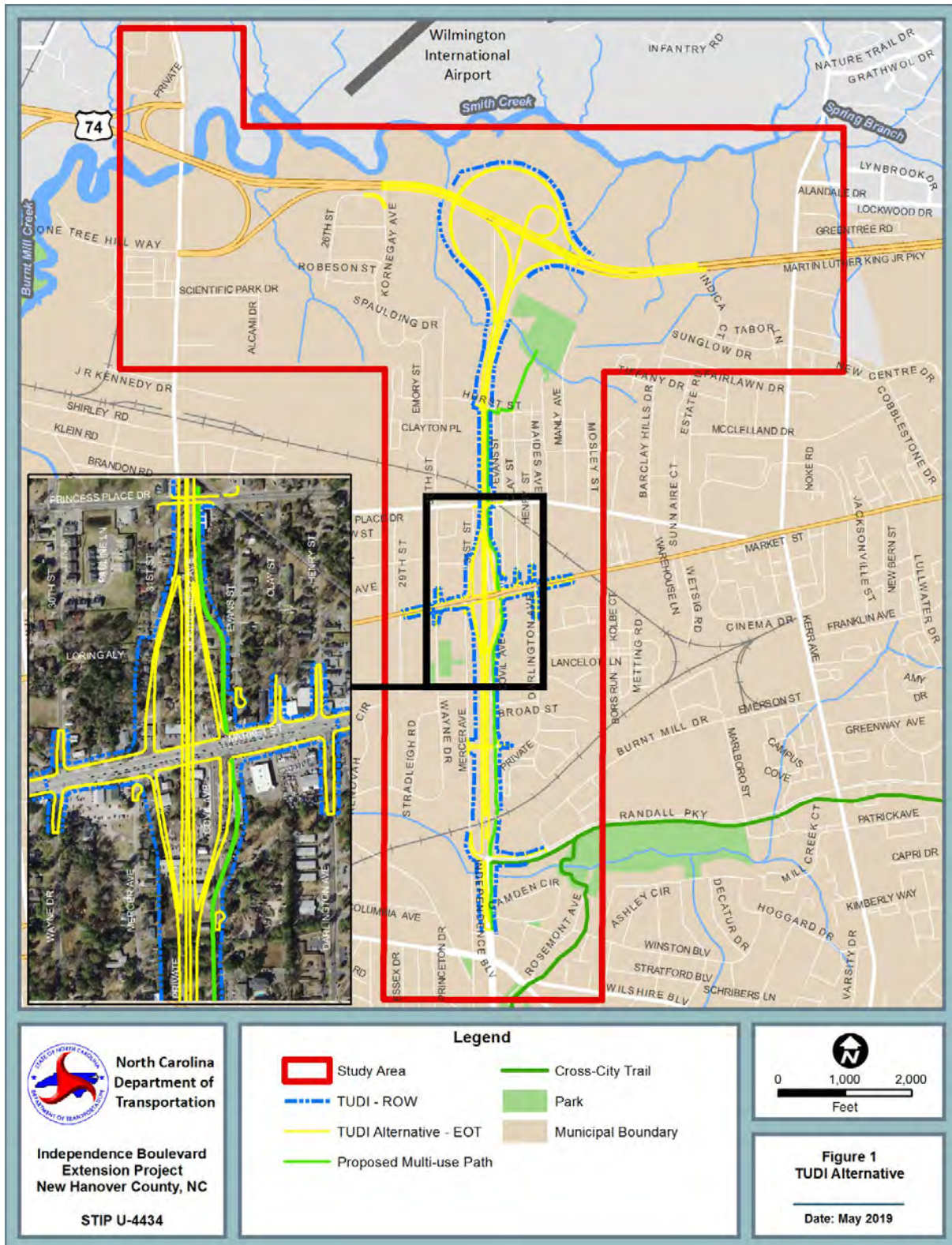
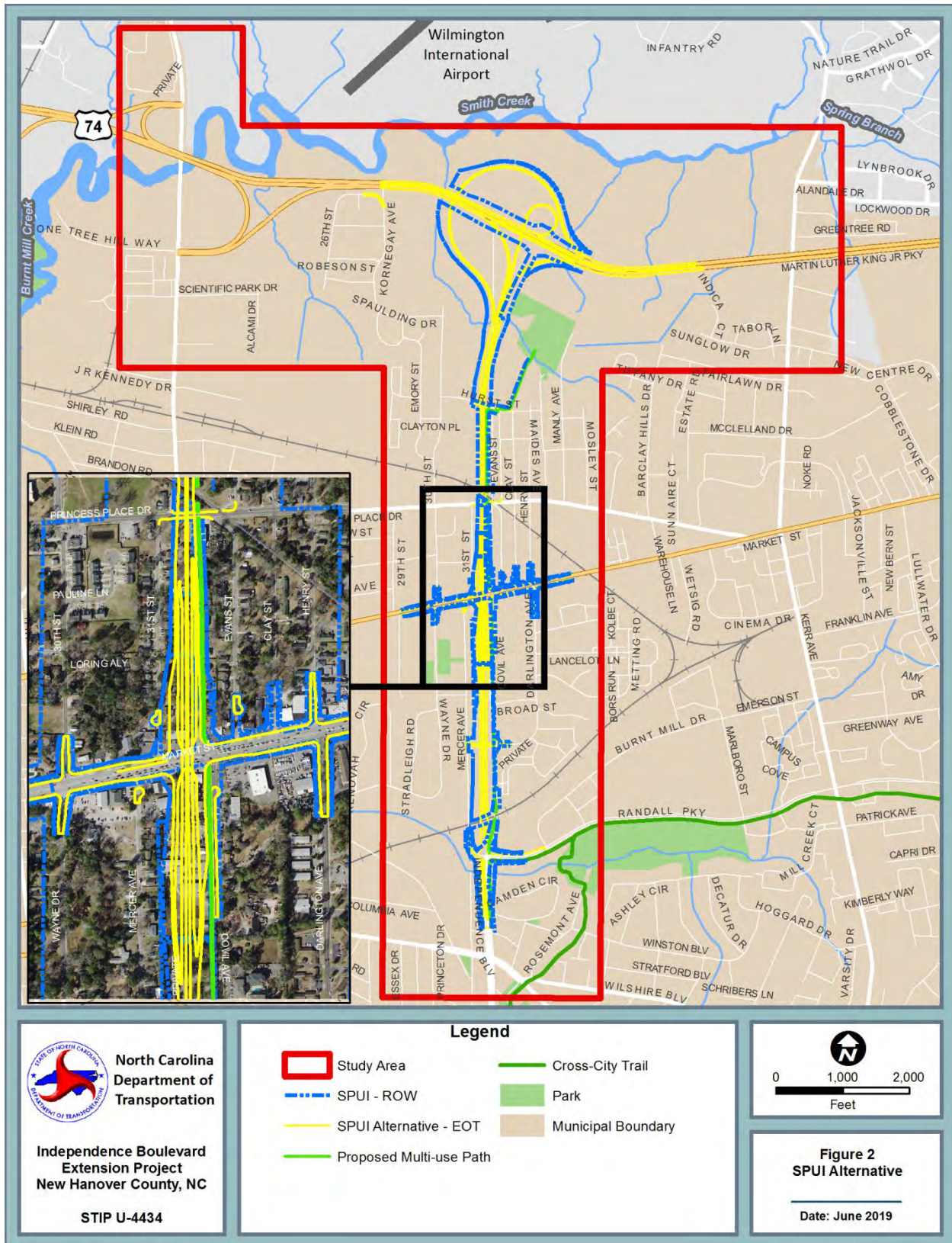


Figure 2: Alternative 7 with SPUI interchange



The typical section is proposed as a four-lane thoroughfare with a grass median and shoulders on both the inside and outside of the through lanes, and would be built to accommodate design speeds of 60 mph. The typical section also includes a 10-foot multi-use path to be constructed on the east side of the roadway. The multi-use path would be constructed at the existing roadway elevation. The proposed alternative would have full control of access, and would be elevated in many places to avoid two railroad crossings and existing roadways.

The roadway would follow the existing alignment of Independence Boulevard from the beginning of the project, at Malpass Avenue, north to Randall Parkway. North of Randall Parkway, the project would be on a new alignment between Covil Avenue and Mercer Avenue. Covil Avenue would remain; however, it would be severed at the CSX railroad tracks and just south of Market Street, to accommodate either interchange option. Similarly, Mercer Avenue would remain; however, it also would have its access to Market Street removed to allow for the footprint of either interchange option. Access to Covil Avenue would continue to be provided by Darlington Avenue and Broad Street. Access to Mercer Avenue would remain from Independence Boulevard as well as from Covil Avenue by an extension of Darlington Avenue via an underpass at Independence Boulevard. The project would be elevated on a berm to reach a bridge over the CSX railroad tracks and would continue on a berm to the bridge over the Darlington Avenue extension. The construction of the roadway and associated berm would require relocations along Covil Avenue and Mercer Avenue. The road would gradually return to grade briefly before being elevated to reach a bridge over Market Street.

North of Market Street, the project would continue to follow a new alignment between Evans Street and 31st Street along the current Montgomery Avenue. The project would remove Montgomery Avenue, and would require the relocation of residences along 31st Street, Montgomery Avenue, and Evans Street. The roadway would be bridged from Market Street to just north of Hurst Street, where it would return to grade. Access to Evans Street and 31st Street from Market Street would be eliminated for both interchange alignments, but would be maintained from Princess Place Drive to the north. Access to Clay Street from Market Street would be removed if the SPUI interchange is chosen, but would remain if the TUDI interchange is chosen.

The project would include a 10-foot multi-use path that would run adjacent to the project on the east side from Randall Parkway north to Hurst Street, where it would turn east towards Maides Park. The multi-use path would be at the base of the berm, on the south side of Market Street, and at the base of the Independence Boulevard Extension bridge north of Market Street.

The project would also convert Market Street from a no-control-of-access thoroughfare to a full-control-access thoroughfare from its intersection with Wayne Drive and 30th Street east to Darlington Avenue and Henry Street. Remaining businesses along Market Street would lose direct access to and from Market Street, but would retain access from side streets.

The public last provided input on the project in 2011. Since then, NCDOT has worked with the City of Wilmington and the WMPO to investigate a variety of alternatives including raised rail options and a depressed (or tunneled) roadway. Both a raised rail and a depressed roadway would require City of Wilmington to close funding gaps, and were not favored by the Wilmington City Council. The raised roadway is the only remaining alternative. The next Citizen Informational Workshop is scheduled for July 22, 2019. A timeline for a history of the project is included in Appendix E.



1.3. Regional/Community Context

The City of Wilmington is located in southeastern North Carolina in New Hanover County and is the most populated municipality in the county. Wilmington is home to a historic downtown, a university, and beaches and other tourist destinations that draw visitors every year, particularly in the summer. The project is approximately 2.5 miles from the historic downtown, and is located in a predominantly residential area of the city, although there is a mixture of land uses along the project corridor.

The Demographic Study Area (DSA) experienced notable population growth between 2000 and 2010 with an annualized growth rate of 2.9 percent. This rate exceeded the annualized growth rate of New Hanover County by 0.5 percent, but was lower than the City of Wilmington's annualized growth rate of 3.5 percent.

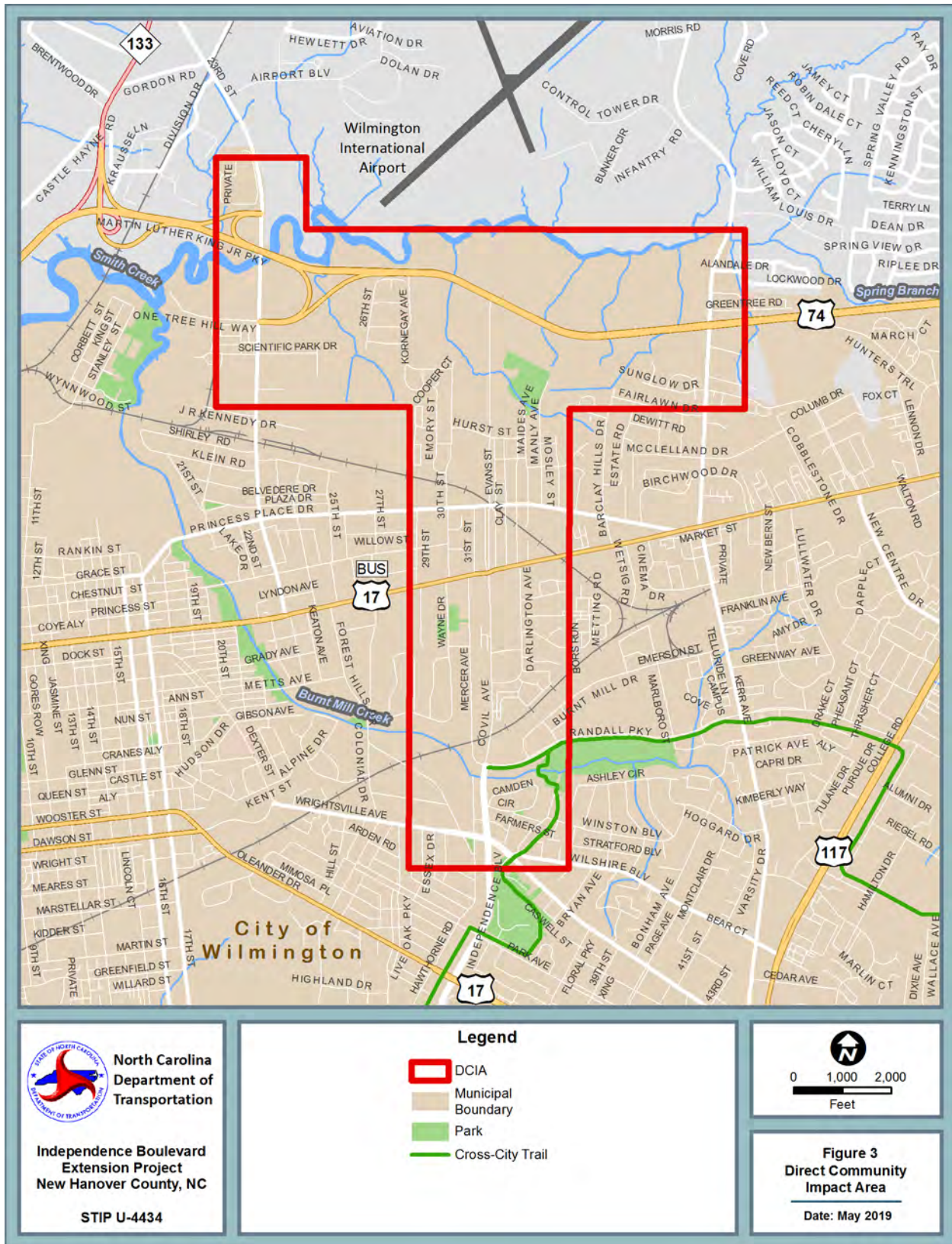
1.4. Community Study Areas

1.4.1. Direct Community Impact Area

The DCIA is the area surrounding the project that is likely to be directly affected by the project in any way during, throughout, and after project completion. The DCIA was drawn in a manner that would allow for the evaluation of a full range of alternatives that connect the logical termini for the project. The area runs generally north and south, with an expanded area running east and west near the northern termini at Martin Luther King Jr. Parkway. The DCIA boundaries are from Martin Luther King Jr. Parkway to the north, Randall Parkway to the south, Barclay Hill Drive to the east, and 30th Street to the west. The DCIA is shown on Figure 3.



Figure 3: Direct Community Impact Area (DCIA)

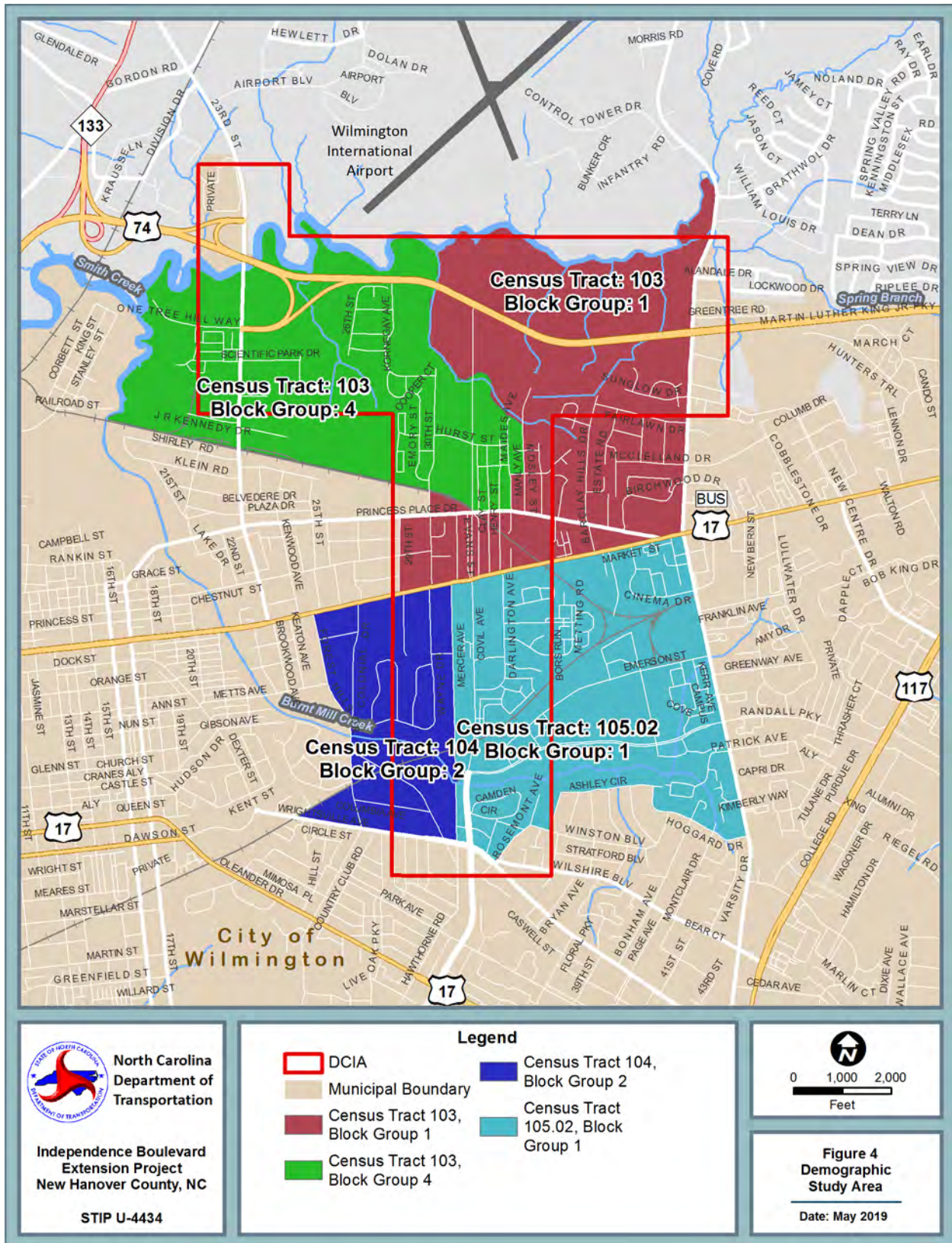


1.4.2. Demographic Study Area

The DSA, as shown in Figure 4, is defined to provide demographic characteristics for the community surrounding the project. The DSA is based on the 2011 Community Characteristics Report (CCR) - Environmental Justice Addendum and includes all census block groups within the DCIA. Block groups that were partially located within the DCIA were only included if they contained residential land uses within the portion that fell inside the DCIA and/or if it was determined that the population would likely be subjected to direct impacts.



Figure 4: Demographic Study Area (DSA)

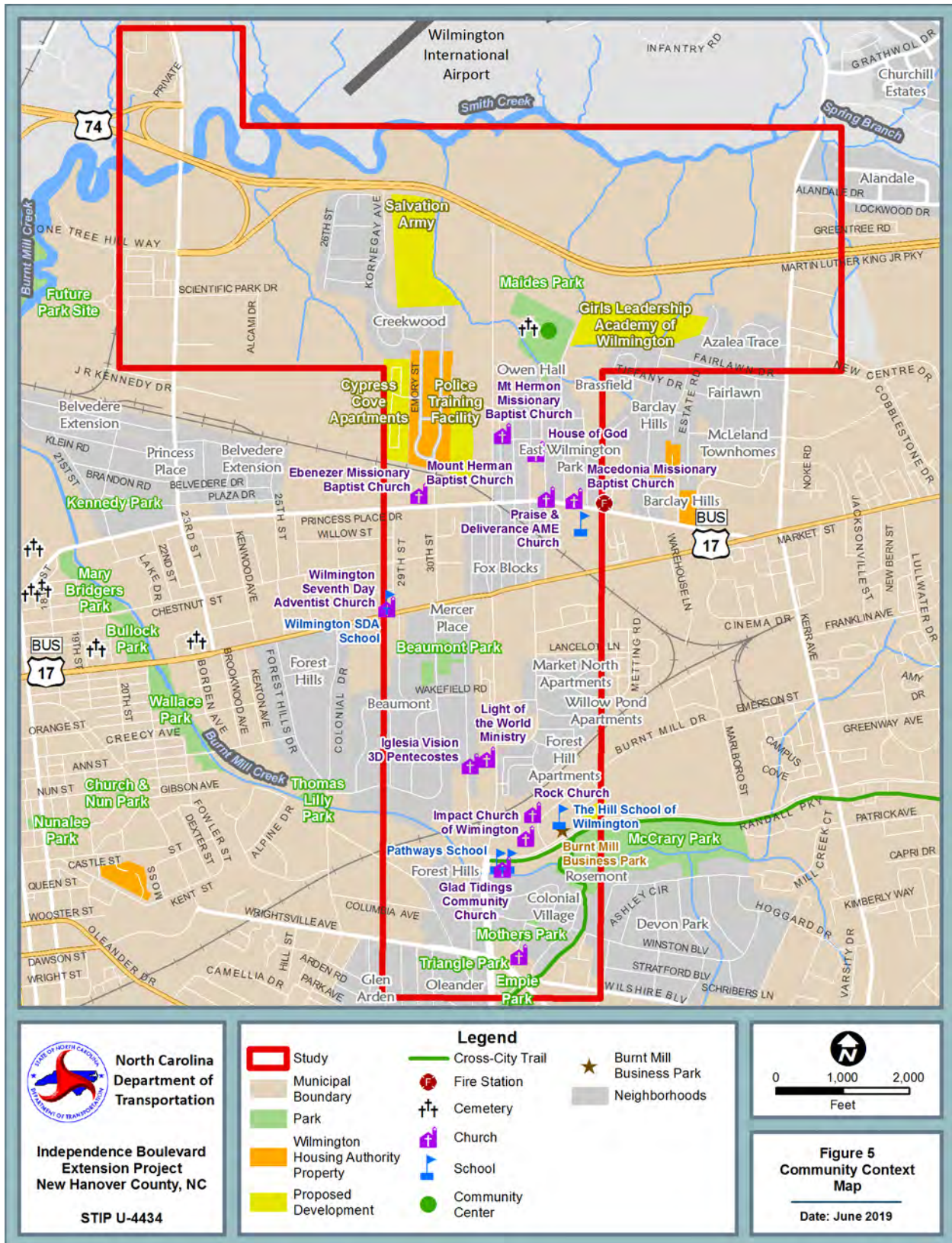


1.4.3. Community Context Map

Figure 5 shows the community characteristics of the DCIA. It includes the community features and other items discussed in Section 2.



Figure 5: Community Characteristics of the DCIA



2. Community Characteristics, Impacts, & Recommendations

This section documents the presence of specified community characteristics along with their general location relative to the project, which is an important factor in assessing the nature of potential impacts. It also notes if there would be impacts to the identified resources and makes recommendations on how to avoid or minimize impacts.

2.1. Recreational Resource(s) or Activity

2.1.1. Presence

There are no state or national parks or forests within the DCIA. There are a total of six local parks within the DCIA. Maides Park, located north of Princess Place Drive along Manley Avenue, is a neighborhood park owned and operated by the City of Wilmington. The park went through extensive renovations and had a grand re-opening in May 2009. Park amenities include picnic shelters, grills, basketball courts and athletic fields with lights, walking trails, and a community center that includes a full-service kitchen, multi-purpose rooms, space for arts and crafts, and a computer lab. Other notable features within Maides Park include a small cemetery and a stream.

In addition to Maides Park, the City of Wilmington operates Beaumont Park, located between Wayne Drive and Mercer Avenue just south of Market Street. Beaumont Park is a neighborhood park, approximately 3 acres in size and contains a playground, picnic areas, and basketball courts.

McCray Park is located at the intersection of Randall Parkway and Marlboro Street, northeast of Colonial Village. Park amenities include shelters, picnic tables, a canoe/kayak launch, and fishing. A segment of the Cross-City Trail is located north of the park along Randall Parkway.

Mother's Park, a neighborhood park, is located in the Colonial Park neighborhood. It includes playground equipment, tables, and benches.

Triangle Park and Empie Park are located in the southern portion of the DCIA. Triangle Park is a triangular half-acre parcel bounded by Wrightsville Avenue to the north and Forest Hills Drive to the south and east. There are no facilities within the park. The Cross-City Trail traverses the park. Empie Park is owned and operated by the City of Wilmington. It includes playgrounds, tennis courts, open space, picnic shelters, a concession stand, basketball courts, athletic fields, lighted facilities, and a dog park.

All of these parks are publicly-owned resources, owned by the City of Wilmington, and are potential Section 4(f) resources. None of the parks are accessed by the project.

2.1.2. Impacts

While potential Section 4(f) resources are located within the DCIA, impacts to the use and access to these resources is not anticipated.

2.1.3. Recommendation

None



2.2. Section 6(f) Land and Conservation Fund Resources

2.2.1. Presence

Empie Park, at the southern end of the DCIA is a Section 6(f) resource. The park received Land and Conservation Fund resources in 1967 for the development of the park. The City of Wilmington purchased the land. The park is a 32-acre City of Wilmington Park that contains the Althea Gibson Tennis Complex which has 18 lighted tennis courts and a clubhouse. The park also has playgrounds, ball fields, a dog park, basketball courts, and shuffleboard and bocce courts. The Land and Water Fund Conservation Grant covers the entirety of the park.

2.2.2. Impacts

While a Section 6(f) resource is located within the DCIA, Empie Park is beyond the limits of construction for the project, and impacts to the use and/or access to this resource are not anticipated.

2.3. Farmland Soils

2.3.1. Presence

There are no farmland soils eligible for protection under the Farmland Protection Policy Act as the entire project area is within the urbanized area of the City of Wilmington.

2.3.2. Impacts

None.

2.3.3. Recommendation

None.

2.4. Voluntary & Enhanced Voluntary Agricultural Districts (VAD/EVAD)

2.4.1. Presence

There are no voluntary or enhanced voluntary agricultural districts in the DCIA.

2.4.2. Impacts

None.

2.4.3. Recommendation

None.

2.5. Agricultural Resources and Activity

2.5.1. Presence

There are no agricultural resources or activities in the DCIA.

2.5.2. Impacts

None.

2.5.3. Recommendation

None.



2.6. Bicycle, Pedestrian, and/or Greenway Facilities and Active Transportation

2.6.1. Presence

The DCIA is an urban area with a mixture of land uses making the area appealing to bicyclists and pedestrians. In addition, the area within and around the DCIA has a number of low and moderate income households that likely rely on non-motorized transportation methods. As noted in Section 2.7, there are many bicyclists and pedestrians that use the sidewalk and street network to move about. There are pedestrian facilities throughout the DCIA, including within the project footprint. There are fewer consistent sidewalk segments running north to south than east to west. There is a 5-foot sidewalk on the west side of Covil Avenue from just north of Broad Street to Market Street. A 10-foot multi-use path was recently constructed on the east side of Covil Avenue from Broad Street to Darlington Avenue. There are no additional north-south pedestrian facilities on either Covil Avenue or Mercer Avenue. The only north-south pedestrian facilities south of Market Street and within the DCIA are along Darlington Avenue, which has a portion of missing sidewalk between Metting Road and Lancelot Lane.

There are no north-south sidewalks between Market Street and Princess Place Drive in the DCIA. These streets are low volume, low speed streets. To the north of Princess Place Drive, there are sidewalks on both sides of 30th Street and throughout the Creekwood South neighborhood. There is also a sidewalk on the west side of Manly Avenue from Princess Place Drive to Maides Park.

East-west pedestrian connectivity is better within the DCIA. There are sidewalks on both sides of the Wrightsville Avenue, Market Street, Princess Place Drive, and on the north sides of Randall Parkway and Hurst Street. Wrightsville Avenue and Market Streets have heavy vehicular traffic within the DCIA; however, neither road has pedestrian crossing facilities to cross from the north to the south within the DCIA.

The only dedicated bicycle facility within the DCIA is along Princess Place Drive, which has bicycle lanes on both sides of the road. The multi-use path along Covil Avenue can also accommodate bicycles.

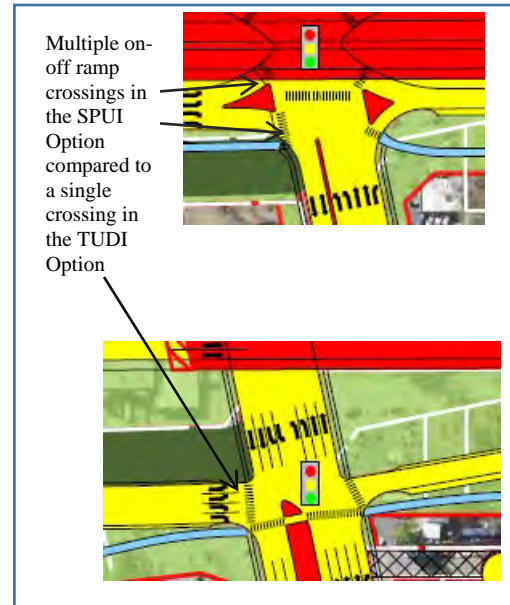
Portions of Wilmington's Cross-City Trail are also in the DCIA. The Cross-City Trail is a 15 mile off-road, multi-use trail that connects several parks that are south of the DCIA to Empie Park and further north to the Heide-Trask Drawbridge at the Intracoastal Waterway. In addition to connecting the parks, the trail provides bicycle and pedestrian access to numerous recreational, cultural, and educational destinations in Wilmington. No sections of the Cross-City Trail are within the construction limits of the project.

2.6.2. Impacts

The proposed designs for the project include sidewalks on both the north and south sides of Market Street through the limits of the project which would replace current sidewalks. Crosswalks and pedestrian facilities will be included across the on and off ramps in both designs, although crossing the ramps would be easier if the TUDI interchange is constructed because there would be fewer conflict crossings. For the SPUI interchange, in order to create the single point interchange at the base of the ramps, the on and off ramps would be right-in and right-out meaning that a pedestrian would potentially have to cross two lanes of traffic going in opposite directions. The TUDI option would only have one ramp crossing for pedestrians to navigate.



In 2018 the WMPO requested that an adjacent 10-foot multi-use path be included from Randall Parkway north to connect to Maides Park, which would include crosswalks and other pedestrian accommodations at Market Street (and other intersections). The 10-foot multi-use path has been included in the preliminary designs for the project on the east side of the proposed roadway, and would include a crosswalks and pedestrian signals allowing pedestrians to cross Market Street (there would be no facilities on the northwest side of the interchange). The multi-use path would replace the sidewalks on the west side of Covil Avenue, and would provide bicycle and pedestrian connectivity through the corridor. The multi-use path would be accessible from residents on the west side of the corridor at cross streets such as Market Street where crosswalks would be provided, and Princess Place Drive and Hurst Street where sidewalks would connect to the east side under the bridged Independence Boulevard Extension.



The project would sever the connections of several streets to Market Street and prevent direct access to businesses for pedestrians and bicyclists. Both the TUDI and SPUI intersection designs would close access to Market Street for Covil Avenue, Mercer Avenue, Evans Street and 31st Street. Access to Market Street from Covil Avenue would remain for bicycle and pedestrians in the form of the multi-use path, however closure of the other streets would require that bicyclists and pedestrians use other streets to access Market Street.

The preliminary plans include the construction of a bridge over an extension of Darlington Avenue that would provide access to Mercer Avenue. The designs for the extension of Darlington Avenue currently do not include sidewalks, meaning that pedestrians who travel under the bridge would have to use the roadway, and would be exposed to vehicular traffic without a safe way to escape traffic. Further, the lack of sidewalks mean that residents on the west side of the corridor south of Market Street do not have a safe and practical way to access the multi-use path. Since this will be the only crossing of Independence Boulevard Extension available south of Market Street, the lack of crossing facilities would constitute a severe impact to pedestrian movement and, since there is an affordable housing complex nearby, would therefore have EJ implications.

No other bicycle or pedestrian facilities would be added or removed with the project.

2.6.3. Recommendation

The NCDOT project manager should continue to investigate the inclusion of bicycle and pedestrian facilities and connections in future phases of the designs, including bicycle and pedestrian accommodations to relocated bus stops (discussed in Section 2.8). In particular, the NCDOT project manager should include sidewalks under the bridge of the Darlington Avenue extension. These sidewalks could be on the north side so as to connect to the recently constructed sidewalks on Darlington Avenue. The NCDOT Project Manager should also consider providing bicycle and pedestrian connections from the severed roads (Mercer Avenue and Evans and 31st

Streets) to Market Street so residents can maintain their non-motorized connections to the businesses on Market Street.

The project manager should also ensure bicycle/pedestrian accommodation during construction in accordance with existing NCDOT guidance.

Finally, the NCDOT Project Manager should ensure that the on- and off-ramps be designed so that bicyclists and pedestrians traveling along Market Street can get across the ramps safely, that there is adequate sight distances for both pedestrians and vehicular drivers, and that pedestrian crossings aren't excessively wide.

2.7. Bicycle/Pedestrian Activity

2.7.1. Presence

Pedestrian activity was prevalent throughout the DCIA during the site visit conducted on April 11, 2019. In areas where sidewalks were not present, the pedestrians were observed walking in the streets amongst vehicular traffic in residential and commercial areas. A pedestrian was also observed walking south on Mercer Avenue and then using church and business property to cross between Mercer and Covil Avenues.

Several bicyclists were also noted during site visits. In particular, one bicyclist was noted having difficulty crossing a street amongst traffic in an area without crosswalks, signage, or other safety measures.

The presence of bicyclists and pedestrians was also noted in both the site visit for the CCR in 2009 and the Multi-Modal Transportation Evaluation in 2012, as well as other field visits associated with the project.

2.7.2. Impacts

As part of the planning process for U-4434, the project included the preparation of a Multi-Modal Transportation Evaluation in 2012 that included bicycle, pedestrian, and transit facilities, both existing and planned. The evaluation noted that, based on the construction phasing for all sections of the project, the vast majority of the facilities can safely maintain pedestrian traffic onsite during construction. As currently designed, the project will likely impede bicycle and pedestrian activity as it will remove access for many of the residents to the north and south of Market Street to the businesses on Market Street. The recommendations made in Section 2.6.3 would have a positive effect on bicycle and pedestrian activity in the area.

2.7.3. Recommendation

The NCDOT Project Planning Engineer should coordinate with NCDOT Work Zone Traffic Control to evaluate the necessary level of bicycle/pedestrian access accommodation during construction.

2.8. Transit Routes, Facilities, and/or Activity

2.8.1. Presence

Public transportation is provided through Wave Transit. Wave Transit provides fixed-route bus services. Wave Transit also provides paratransit services and ride-sharing is coordinated through Cape Fear Breeze Regional Transportation Demand Management Program.

The following five fixed bus routes provide service within the DCIA:



- Route 101 (Princess Place) serves Princess Place Drive and the shopping centers off Market Street between Princess Place Drive and College Road. Route 101 operates Monday through Saturday from 6am to 9pm and 9am to 6pm on Sundays.
- Route 105 (Medical Center) serves Market Street between College Road and 16th Street. Route 101 operates Monday through Saturday from 6am to 9pm and 9am to 6pm on Sundays.
- Route 106 (Shipyard Boulevard) serves Independence Boulevard and Covil Avenue to Market Street and Shipyard Boulevard. Route 106 operates Monday through Saturday from 6am to 9pm and 9am to 6pm on Sundays.
- Route 108 (Market Street Express) serves the shopping centers along New Centre Drive, the Burnt Mill Business Park along Randall Parkway, Covil Avenue, and Market Street within the DCIA. Route 108 operates Monday through Saturday from 6am to 9pm and Sunday from 9am to 6pm.
- Route 207 (North) serves North Kerr Avenue and Martin Luther King Jr Parkway, connecting the area within the DCIA to downtown Wilmington. Route 207 operates Monday through Friday from 6am to 9pm, with no service on the weekends.

2.8.2. Impacts

Transit service for most routes would be maintained during and after construction. The Route 101 stop at Princess Place Drive and Montgomery Avenue may need to be relocated during and after construction as it is located within the project footprint. Routes 106 and 108 use Covil Avenue to travel from Independence Boulevard and Randall Parkway, respectively, would need rerouting during and after construction since Covil Avenue will be terminated just north of the CSX railroad tracks. The routes could potentially use the new Independence Boulevard Extension and the proposed interchange at Market Street. Route 106 has two southbound stops on Covil Avenue – one at Broad Street and one at Randall Parkway – that would likely be eliminated. The northbound route has one stop at Darlington Avenue at the Reserve Apartments, and one at Darlington Avenue and Metting Road. Even if Route 106 is rerouted to continue service to Covil Avenue (via Mercer Avenue and Darlington Avenue, for example) transit users may experience impacts in the form of increased distance to stops, depending on how the route is reconfigured. Transit users may also experience impacts to transit service times, specifically as it relates to route stop times.

2.8.3. Recommendation

The NCDOT project manager should coordinate with NCDOT Division of Bicycle and Pedestrian Transportation and Wave Transit to analyze transit needs for remaining homes and ensure accessibility to transit routes and relocated transit stops.

2.9. Local Area Plans, Goals, and Development Activity

2.9.1. Presence

There are several planning documents that discuss the area around the DCIA as well as several on-going and planned development projects in the DCIA. This section provides a summary of the recommendations made in these plans, and an overview of the development activity.



2.9.1.1 Plans

Create Wilmington Comprehensive Plan

The City of Wilmington adopted the *Create Wilmington Comprehensive Plan* (City of Wilmington 2016) in early 2016. The plan is a series of five documents that include: growth factors report, foundations report, policies, and growth strategies maps and report. The plan focuses on growing Wilmington inward and upward by concentrating on infill and redevelopment, job growth, housing options, integrating land uses to reduce traffic congestion, and improve housing, working, and shopping opportunities. The growth strategies maps are included in Appendix E.

The Covil Avenue and Market Street intersection area was identified as an Urban Mixed-Use Center and encourages moderate to high-density development patterns. Concentrated investment and revitalization are proposed to accommodate walkability, improve vitality, and create a sense of place. The plan further identifies the area around Market Street and Covil Avenue as an area for suburban commercial retrofit, which would seek to encourage infill development in surface parking lots, improve pedestrian movement, and use access management techniques to reduce the number of driveways along corridors.

The *Create Wilmington Comprehensive Plan* also identifies several roads in the project vicinity as corridors and complete streets. Independence Boulevard and Market Street were designated as major corridors and regional parkways which would prioritize motor vehicle mobility with some walkable qualities such as buffered sidewalks and crosswalks. Mercer Avenue, 30th Street, Princess Place Drive, and a small southern portion of Darlington Avenue (from Frog Pond Place south to Covil Avenue) were designated as community connectors. Community connectors are used to protect existing residential character and to create transitions from regional-scale roadways (such as major corridors) to neighborhood areas. Finally, Darlington Avenue, from Market Street to Frog Pond Place, is designated as a Main Street, which prioritizes pedestrians and encourages a mixture of land uses.

The *Create Wilmington Comprehensive Plan* also identifies an opportunity for developing a transit/greenway loop around the city by relocating the freight rail corridor that services the Port of North Carolina State Port across the Cape Fear River. This rail corridor currently passes through the DCIA twice, just to the north of Randall Parkway and just to the north of Princess Place Drive. In its place, the plan recommends replacing the rail with a trolley line that would loop around the city, and would include an adjacent greenway.

Cape Fear Transportation 2040 Metropolitan Transportation Plan

The WMPO *Cape Fear Transportation 2040 Metropolitan Transportation Plan* was adopted in November 2015. The plan calls for a safe, efficient, appropriate, responsible, integrated, multimodal transportation system. The proposed Independence Boulevard Extension is listed in the bicycle and pedestrian and roadways project list. The plan also notes that the Independence Boulevard Extension, along with the proposed Cape Fear Crossing are important connectors for freight movement and important in promoting intermodal connections between the ports, highways, and rail networks.

The plan recommends the WMPO complete access management plans for the major corridors within Wilmington. Access management techniques identified include access spacing, driveway



spacing, safe turning lanes, median treatments, and right-of-way management. The Independence Boulevard Extension was ranked low in the fiscally-constrained roadways project list and was denoted to receive funding from alternative funding mechanisms.

Comprehensive Greenway Plan: Wilmington/ New Hanover (2013)

The goal of this plan is to create a framework in which the local governments and its partners can build a network of greenways in Wilmington and New Hanover County. One of the proposed trails is the Independence Boulevard Trail which is a 1.1- mile trail that connects McCrary Park to Maides Park. Another proposed trail, 17th/ Independence trail, is 4 miles and would connect Greenfield Lake and New Hanover Regional Medical Center to River Road.

Market Street Corridor Study (2010)

The City of Wilmington, New Hanover County, WMPO, and NCDOT collaboratively developed the *Market Street Corridor Study* for the portion of Market Street between Colonial Drive and Porters Neck Road that was completed in 2010. The study was an integrated study that evaluated both land use and transportation for the corridor and outlined a vision for the Market Street Corridor that bisects the DCIA. One of the main goals of the plan is to strengthen the economic and fiscal impact of commercial development along the Market Street corridor.

The corridor study recommends a grade separated interchange with connections between Market Street and Independence Boulevard using collector-distributor roads on the existing Wayne Drive and Darlington Avenue alignments. The report states that the entry points onto Independence Boulevard are proposed to operate with right-in/right-out operations, with the provision of adequate acceleration and deceleration lanes onto the freeway. The area along Market Street, adjacent to the project, from a land use perspective is identified as a location that may include significant redevelopment. The Market Street corridor is identified as having a substantial opportunity to inject mixed-use office and commercial buildings.

Wilmington Metropolitan Planning Organization - US 17 Business Corridor Study; 3rd Street to Covil Avenue (2007)

The WMPO completed a corridor study in 2007 to evaluate the Market Street corridor based on changes in travel patterns due to the completion of Martin Luther King Jr. Parkway and a portion of I-140. The study's preferred alternative recommended reducing Market Street from four lanes of traffic down to one lane in either direction with a landscaped median, bike lanes, and limited on-street parking. In addition, the study recommended reducing the number of intersections with full access down to only the major intersections and to maintain 16th and 17th Streets as a one-way pair. The study noted that the Independence Boulevard Extension project would need to be completed before work can begin on the proposed improvements along Market Street.

Improvements in this area are needed in order to remove left turning traffic out of the through lane and to provide a divided median to enhance safety.

The study was updated in 2016 to evaluate and in some cases re-evaluate affected intersections to guide the decision making process towards action. Based on the results of the analysis the recommendation of a road reconfiguration was removed due to negative impacts to Market Street. The study noted that additional – as in the original report – connectivity and capacity, similar to what will be provided by the Independence Boulevard Extension, is needed in the



region to redistribute trips from Market Street before the road reconfiguration will be viable for the proposed limits from 3rd Street to Covil Avenue.

Walk Wilmington: A Comprehensive Pedestrian Plan

The City of Wilmington and the WMPO, in collaboration with the NCDOT, developed *Walk Wilmington: A Comprehensive Pedestrian Plan* (2009) to serve as a framework for the implementation of new city policies, guidelines, and design standards that ensure adequate and safe transportation facilities for pedestrians throughout Wilmington. The plan also focuses on expanding education, encouragement, and awareness campaigns and programs to enhance pedestrian safety and vehicular driver enforcement initiatives. Recommendations are made within the plan to construct sidewalks on several streets within the DCIA including Mercer Avenue, Evans Street, Clay Street, and Hurst Street. In addition, crosswalks at the intersection of Covil Avenue and Independence Boulevard are recommended to provide a crossing opportunity at Market Street which, the plan notes, is not available between Barclay Hills Drive and 23rd Street.

Wilmington – New Hanover County Joint Coastal Area Management Plan

The *Wilmington – New Hanover County Joint Coastal Area Management Plan* (2006) was developed to provide protection of coastal areas of environmental concern for the county. As part of the plan, a land use classification system was developed to chart a course of growth, development, and conservation. The land classification map shows the DCIA for the project crossing mostly urban land uses, with conservation areas along Burnt Mill Creek and Smith Creek and its tributaries. As indicated in this plan update, substantial annexations during the 1990s led to high population growth rates for the City of Wilmington and misleadingly decreased growth rates for New Hanover County. Local planning staff estimated future population growth based on slow, medium and rapid growth rates, which was used to evaluate the city's development capacity. They estimated that the City of Wilmington would grow anywhere from 0.5 percent to 1.5 percent annually between 2000 and 2020. The 1.5 percent rapid growth rate would lead to a population of 120,727 in 2020. The population of New Hanover County (excluding the City of Wilmington) would grow anywhere from 1.0 percent to 2.25 percent annually in the same time period, with a population of up to 110,917 in 2020.

2.9.1.2 Area Development Activity

The City of Wilmington is currently constructing the Haynes-Lacewell Police and Fire Training facility on the south side of Hurst Street, just to the west of the project footprint. The facility will be 30,000 square feet, and will include an indoor shooting range, training classrooms, simulators and sufficient office space to accommodate the approximate 500 officers and firefighters that the city trains annually. The Haynes-Lacewell Police and Fire Training Facility is expected to be completed in late 2019.

The Cypress Cove Apartments are currently being built at 821 Emory Street, to the west of the DCIA. The Cypress Cove Apartments are partially funded by the Wilmington Housing Authority, the City of Wilmington, and NC Housing Tax Credits, and will provide apartments at lower than market rates. The Cypress Cove Apartments are expected to be completed in 2019.

The Wilmington Corps of the Salvation Army has submitted plans to the City of Wilmington for its new community center and “Center of Hope” to be constructed at 1220 N 30th Street, just to



the southwest of the proposed interchange of Independence Boulevard and Martin Luther King Jr Parkway. The 25-acre complex would include a chapel, community center, arts center, recreation center, classrooms, dining facilities, and boarding space as well as ball fields. The campus would be accessed by N 30th Street and Kornegay Avenue, and construction is scheduled to begin in 2020.

The Girls Leadership Academy of Wilmington is planning to construct a 30-acre school campus at 4100 Sunglow Drive in the northeast portion of the DCIA. The campus will include four educational buildings that will accommodate up to 700 students grades 6 through 12. School leaders hope to open the new campus in the fall of 2019.

2.9.2. Impacts

The City of Wilmington has been aware of the project and has included it in major planning documents that have been developed by the city. The project would likely have positive impacts in terms of encouraging mixed use type of development at the intersection of Covil Avenue and Market Street because access to the intersection would be improved. The project is also consistent with the *Create Wilmington Comprehensive Plan* in that it would provide additional bicycle and pedestrian connection through the area. This is especially the case with the inclusion of the adjacent mixed -use path which would run along the Independence Boulevard Extension. The mixed-use path also supports the recommendation in the WMPO, *Wilmington-New Hanover County Comprehensive Greenway Plan* to construct a greenway connection between McCrary Park and Maides Park. It would also address the recommendation for crossing facilities at the current intersection of Covil Avenue and Market Street made in the *Walk Wilmington: A Comprehensive Pedestrian Plan* pedestrian plan.

2.10. Driveways and Cross Streets

2.10.1. Presence

There are numerous residential driveways – both paved and unpaved – and cross streets in the DCIA including many that are within the right-of-way footprint of the project. Residential driveways line Covil and Mercer Avenues, 31st Street, Montgomery Avenue, and Evans Street.

Business and commercial properties are also located in the project footprint, mainly in the vicinity of the Randall Parkway intersection and the Market Street intersection. The Burnt Mill Business Park on Randall Parkway has a secondary entrance on Covil Avenue and many of the businesses along Market Street within the DCIA have access driveways from Market Street.

2.10.2. Impacts

The amount of impacts to driveways and cross streets is anticipated to be moderate. Residential driveways for residents in the DCIA that would not be relocated would maintain their current driveway access. These include residents along the east side of Covil Avenue and the west side of Mercer Avenue on the south side of Market Street, and residents on 31st and Evans Streets to the north of Market Street. The entirety of Montgomery Avenue would be within the right-of-way footprint of the project. Residential driveways for the residents that are not relocated on Evans and 31st Street would also maintain their current driveway access. Princess Place Drive and Hurst Street which connects the Creekwood South neighborhood to the Owen Hall and Ridgecrest neighborhoods to the east would be bridged and access would be maintained.



The elimination of access to Covil Avenue and Mercer Avenue from Market Street would change the access to residences along these streets. Depending on the direction of travel, residents may be required to travel slightly further on more circuitous routes.

When constructed, the project would remove the driveway access to the Burnt Mill Business Park from Covil Avenue, but access at the main entrance and several secondary entrances on Randall Parkway would remain.

Many of the business and commercial properties along Market Street that are not within the project footprint would no longer have direct access from Market Street upon completion of the project. As part of the Independence Boulevard Extension project, driveway access on Market Street from Wayne Drive/30th Street east to Darlington Avenue would be removed. Remaining businesses would be accessed from side streets. These changes to access are not anticipated to adversely impact sales since the new access points will still be on each property and the side streets can handle the additional traffic. This type of limited access is consistent with the goal established in the *Create Wilmington Comprehensive Plan* of using access management techniques along Market Street to reduce the number of driveways.

2.10.3. Recommendation

The NCDOT project manager should conduct outreach to business owners on Market Street to keep them informed of access changes both during and after construction.

2.11. Business and Economic Resources and Transportation Activity

2.11.1. Presence

The Burnt Mill Business Park is located in the southern portion of the DCIA at the intersection of Covil Avenue and Randall Parkway. The business park currently holds more than a dozen buildings and has four additional office buildings under construction or planned.

Market Street is a major retail and business corridor. Within the DCIA, Market Street has hotels, restaurants, home improvement businesses, and car dealerships.

There are several businesses along Princess Place Drive that are also within the project footprint. These businesses include a daycare, a sound studio, and auto repair garage.

2.11.2. Impacts

Relocation reports for the project are currently being developed. For the purpose of the CIA, a GIS analysis was conducted on potential relocations using current designs' right-of-way limits, parcel and land use data, and building structure data obtained from the City of Wilmington. Based on this analysis, approximately 43 businesses would be relocated if the SPUI interchange option is selected. These include two businesses at the southern end of Mercer Avenue, approximately 39 businesses in the vicinity of the Market Street interchange, and two businesses along Princess Place Drive. The TUDI, with a larger footprint at the interchange, would require approximately 51 businesses to be relocated. This includes two businesses at the southern end of Mercer Avenue, approximately 47 businesses in the vicinity of the Market Street interchange, and two businesses along Princess Place Drive.

Most remaining businesses within the DCIA would see a positive economic benefit, as the project would improve the local transportation system by providing better north-south mobility.



This would improve customer accessibility to businesses in the DCIA, including much more seamless connectivity to I-40 and the Wilmington International Airport to the north.

2.11.3. Recommendation

The NCDOT project manager should coordinate with affected business owners throughout the remaining planning and design phases of the project in an effort to mitigate impacts to their business operations.

2.12. Emergency Medical Services (EMS) Operations

2.12.1. Presence

Police service in the DCIA is provided by the Wilmington Police Department and the New Hanover County Sheriff's Department. The Wilmington Police Department's headquarters are at 615 Bess Street, west of the DCIA in downtown Wilmington. The New Hanover County Sheriff's office is downtown at 316 Princess Street.

Fire services are provided by the Wilmington Fire Department and, within the DCIA, they are specifically provided by Fire Station 3 located at 114 Cinema Drive.

Overall EMS services are provided by New Hanover County EMS Emergency Management and 911 Communications which is located at 230 Government Center Drive. The EMS Manager noted that the Market Street corridor is a major artery for EMS response vehicles.

2.12.2. Impacts

The New Hanover County Emergency Management and 911 Communications Manager noted that the project would have a high impact to response times if major intersections in the corridor are closed or narrowed to one lane during construction. The corridor is a response artery for EMS response vehicles.

2.12.3. Recommendation

The NCDOT project manager should communicate with New Hanover County Emergency Management and 911 Communications staff in order to maintain EMS access and avoid road closures and detours during the construction process.

2.13. School Bus Routes

2.13.1. Presence

Local school transportation officials noted there are three schools within 0.4 miles of the project and indicated 169 buses traverse the DCIA on a daily basis. Students attending nearby schools travel to school by bus or car.

2.13.2. Impacts

School officials noted that the project would have a moderate impact on school transportation because some of the bus routes would need to be modified during construction to avoid the construction area by reaching the schools from the opposite direction. In addition, the official noted that Market Street or Princess Place Drive should remain open to facilitate east/west traffic flow at any given point in time.



2.13.3. Recommendation

Based on the school transportation officials comment, it is recommended that Market Street or Princess Place Drive should remain open during construction to facilitate east/west traffic flow and maintain access to surrounding schools.

2.14. Community Resources

2.14.1. Presence

There are several churches in the DCIA, including two within the footprint of the project. The Iglesia Vision Trinidad Divina Pentecostes, located at 359 Mercer Avenue, is a Spanish language church that serves the Hispanic community. The Light of the World Ministry located at 340 Covil Avenue is also within the project footprint. The Light of the World Ministry property includes the church building and a paved basketball court.

Other churches within the DCIA include the following:

- Glad Tidings Community Church (3110 Randall Parkway)
- Impact Church of Wilmington (3131 Randall Parkway #2)
- Rock Church (3233 Burnt Mill Drive #1)
- Wilmington Seventh Day Adventist Church (2833 Market Street)
- Ebenezer Missionary Baptist Church (2929 Princess Place Drive)
- Praise and Deliverance AME Church (3601 Princess Place Drive)
- Macedonia Missionary Baptist Church (3701 Princess Place Drive)
- House of God Church (443 Maides Avenue)
- Mount Herman Baptist Church (504 Evans Street)

There are also several schools within the DCIA, none of which are in the footprint of the project. The schools within the DCIA are as follows:

- Oasis NC (3114 Randall Parkway) is a 501(c)3 non-profit organization providing academic and social instructional services that benefit individuals with autism, attention deficit/hyperactivity disorder, anxiety, and other learning differences.
- Pathways Middle and High School (3110 Randall Parkway) is a private Christian school associated with the Glad Tidings Community Church.
- Wilmington Adventist School (2833 Market Street) is a private Christian school that serves kindergarten through 8th grade.
- Career Readiness Academy (CRA) at Mosley (3702 Princess Place Drive) – The CRA at Mosley is part of the New Hanover County School System, and has grades 9 through 12. The school's curriculum is designed to increase student achievement and graduation rates, provide relevant job skills and credentials to students, and to increase sustainable partnerships with the local business community.
- The Hill School of Wilmington (3333 Jaeckle Drive, Suite 140) – The Hill School is located in the Burnt Mill Office Park in the southern portion of the DCIA and has grades 1 through 8. The Hill School offers half-day academic programs for students with learning disabilities and attention deficit/hyperactivity disorder.
- The Girls Leadership Academy of Wilmington campus (4100 Sunglow Drive) discussed in Section 2.9.1 is currently under construction.



There is only one community center within the DCIA. The Derrick G.S. Davis Community Center is located in Maides Park at 1101 Manly Avenue. The community center has two multi-purpose rooms, an arts and crafts room, a full service kitchen, and a computer room. Maides Park is also where the only cemetery within the DCIA is located. The Maides Park Cemetery contains the graves of James and Matilda Maides (after whom the park is named), as well as an undetermined number of other graves.

The Haynes-Lacewell Police and Fire Training Facility discussed in Section 2.9.1 is currently under construction on Hurst Street, just to the west of the project footprint.

2.14.2. Impacts

The two churches within the footprint of the project would be displaced as a result of the project. One of the churches, the Iglesia Vision Trinidad Divina Pentecostes is a Spanish-language church that serves the Hispanic community as a likely EJ resource, although census data indicates that there is not a notable Hispanic population in the DSA. Both churches may have difficulty in finding nearby land to relocate as available land is scarce within the immediate area around the churches. For Iglesia Vision Trinidad Divina Pentecostes, if the congregants live near the church and walk or bicycle to church then the church not being relocated near its current location would be an adverse affect on a minority community.

Direct impacts to the remaining churches within the DCIA are not anticipated.

Similarly, none of the schools, the community center, nor the cemetery are expected to be impacted as a result of the project. These facilities are outside of the project footprint and will not be directly impacted by the project, nor are any of the facilities expected to have their access altered. The Haynes-Lacewell Police and Fire Training Facility is being constructed immediately adjacent to the project footprint; however, it would not be directly impacted and would not have its access altered upon completion of the project.

2.14.3. Recommendation

The NCDOT project manager should provide relocation assistance to the two churches within the project footprint with the goal of finding nearby locations for the relocated churches.

2.15. Community Cohesion

2.15.1. Presence

There are several well-established neighborhoods throughout the DCIA that range from modest developments along Princess Place Drive, East Wilmington, and Creekwood neighborhoods to the more affluent Forest Hills neighborhood. There were a number of indicators of community cohesion in the DCIA. During the site visit visible community interactions and pedestrian activity were observed, particularly in the neighborhoods to the north of Market Street along Montgomery Avenue. City of Wilmington city planners indicated neighborhoods within the DCIA have a high occupancy rate partially due to a mix of price points, varied densities, and proximity to goods and services. In addition, while many of the businesses on Market Street draw customers from outside the DCIA, some businesses, such as the CVS, likely serve the local neighborhoods. The presence of community cohesion can also be derived from the number of churches in the DCIA, particularly the number of churches in the vicinity of the project on Princess Place Drive. It's reasonable to assume that these churches draw many of their parishoners from neighborhoods surrounding the project.



2.15.2. Impacts

The construction of a thoroughfare on a new location through a residential area that is well-established is likely to impact community cohesion and stability. Based on GIS data, the project would result in 88 residential relocations if the SPUI interchange is selected, and 106 residential relocations if the TUDI interchange is selected. Under both interchange scenarios, many of the relocations would be in the section that would traverse from Randall Parkway to the CSX

railroad that is just north of Princess Place Drive.

While the property owners that would have direct impacts from partial or complete acquisitions are protected under the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, there would be community cohesion impacts to the residents in the vicinity of the project that remain.

Independence Boulevard Extension would be elevated on a berm from approximately the intersection of Randall Parkway north to Market Street. While a new connection would be provided to cross via an extension of Darlington Avenue, this berm would change the physical makeup of the community, and serve as

a barrier, particularly if the project includes noise walls along the roadway. The inclusion of noise walls has not been determined yet and will not be determined until after a noise study is conducted. Community cohesion impacts are likely to be most acute to the residents who remain on the east side of Covil Avenue and the west side of Mercer Avenue to the south of Market Street, and to the residents whose property will not be purchased along 31st and Evans Streets north of Market Street. However, given that the surrounding area is flat, the introduction of an elevated roadway through established neighborhoods is likely to cause impacts to community cohesion. An elevated roadway providing no access while reducing connectivity would likely reduce housing values within its vicinity.



The view from Darlington Avenue looking west towards Covil Avenue today (top), and with a rendering of the proposed Independence Boulevard Extension (bottom).

Community facilities (e.g., churches, schools, day cares) that are located in the DCIA also have the potential of being impacted from either acquisitions or indirect changes in access or loss of clientele. The residents and businesses that remain in the area would be indirectly impacted from the loss of neighbors, changes in traffic patterns, and the construction of a new physical and psychological barrier. This could alter and impede pedestrian mobility and safety.

2.15.3. Recommendation

The NCDOT project manager should conduct targeted outreach to potentially affected communities prior to the public meeting (to be held July 22, 2019). The NCDOT should consider working with City of Wilmington planning staff and impacted neighborhoods to develop neighborhood plans to preserve existing community cohesion.

In addition, early coordination among the City of Wilmington, Wilmington Housing Authority, Wave Transit, and NCDOT relocation assistance staff to identify affordable housing near transit services and pedestrian infrastructure may be beneficial in minimizing impacts to displaced, low-income residents.

2.16. Community Health and Safety

2.16.1. Presence

Market Street is a five-lane thoroughfare with heavy vehicular traffic through the DCIA and currently none of the cross streets in the DCIA have pedestrian crossing accommodations, making crossing Market Street unsafe. Within the DCIA, there were a total of 16 bicycle and pedestrian crashes on Market Street between the years 2007 and 2016 according to NCDOT Division of Bicycle and Pedestrian Transportation statistics. The nearest pedestrian signals and crosswalks across Market Street to the east are at Barclay Hills Drive, approximately a half mile from the intersection of Market Street and Covil Avenue. To the west, the nearest crosswalks across Market Street are at 23rd Street, approximately 0.8 mile from the intersection of Market Street and Covil Avenue. During site visits, several pedestrians and bicyclists were observed making unsafe crossings on Market Street.

2.16.2. Impacts

The addition of pedestrian crossing facilities on the eastern side of the interchange (where the multi-use path would cross) should make it safer and more convenient to cross Market Street within the DCIA. It would also close a long gap where no crossing facilities exist, and provide safer connections between neighborhoods and businesses on either side of the road. In addition, it would provide a safe and formal connection to Maides Park from both the neighborhoods to the south and for users of the Cross-City Trail.

2.16.3. Recommendation

None

2.17. Area/Community Concerns

2.17.1. Presence

The public noted their concern regarding an elevated roadway in the Citizens Informational Workshop held on June 13, 2011. Several of the attendees noted that the elevated project would have associated noise and aesthetics impacts on the surrounding neighborhoods. Meeting minutes from the Citizens Informational Workshop are included in Appendix E.



2.17.2. Impacts

Current designs do not address the concerns raised by the community. The project remains mostly elevated from the intersection of Mercer Avenue and Randall Parkway to north of Hurst Street. The next public meeting is scheduled for July 22, 2019 where the public will be asked to provide input on the project.

2.17.3. Recommendation

The NCDOT project manager should continue to investigate aesthetic mitigation measures to minimize resident concerns over having an elevated roadway structure in a neighborhood. It is recommended that NCDOT form an aesthetics committee that would provide ideas to designers that would minimize the aesthetic impacts to the neighborhoods surrounding the project. The committee would be made up of NCDOT representatives, local residents and stakeholders, and an Aesthetics Review Team. The committee could address retaining walls, bridge structures, and potential noise walls.

2.18. Recurring Effects

2.18.1. Impacts

There are no recurring effects anticipated with the project.

2.19. Other Impacts

There are no other impacts anticipated as a result of the project.

2.20. Environmental Justice (EJ) and Title VI Populations

2.20.1. Presence

Census data indicates a notable presence of minority and low-income populations meeting the criteria for EJ as well as populations protected by Title VI and related statutes within the DSA. Minority and low-income communities were observed both within the DCIA and within the project footprint during the field visit and were noted by local city planners. In addition to minority and low-income populations observed during the site visit, other EJ indicators included distressed and dilapidated properties, particularly on the north side of Market Street, and vacant buildings.

2.20.2. Impacts

Notably adverse community impacts are anticipated with this project and these effects appear to affect Title VI and EJ populations more than the general population and have higher adverse effects on the EJ population than on the general population; thus, impacts to minority and low-income populations appear to be disproportionately high and adverse. Benefits and burdens resulting from the project are not anticipated to be equitably distributed throughout the community. Disparate impacts are anticipated under Title VI. Many of the homes that would be acquired within the project footprint are distressed and dilapidated and many of the surrounding neighborhoods are low-income and minority neighborhoods that would experience impacts to their community cohesion. Finding comparable housing at a comparable price would be challenging in Wilmington, where rents are rising and there is a shortage of affordable housing. While there are other affordable housing units available in the vicinity of the project, many residents may be forced to move away from the area to find comparable housing.



In addition to the residential relocations, some of the businesses that would be relocated may be owned by minority or low-income populations or may primarily serve minority or low-income populations, which may mean that the remaining residents that frequent the businesses would have to travel further to get to the business.

2.20.3. Recommendation

Previous recommendations made in this report will help address the impact to EJ communities. These include the recommendation for the inclusion of bicycle and pedestrian facilities and connections in future phases of the designs, including bicycle and pedestrian accommodations to relocated bus stops. This may help address impacts to residents in the vicinity of the project who rely on non-motorized transportation who may have their existing connections to work and shopping interrupted by the new roadway.

In addition, the inclusion of sidewalks under the bridge of the Darlington Avenue extension would improve mobility in the area south of Market Street, and would help provide east-west connectivity in this low-income area.

The inclusion of aesthetic treatments both in the vicinity of the elevated structure south of Market Street and the bridged section north of Market Street would help offset the community cohesion impacts to surrounding neighborhoods. While this may not prevent the reduction of housing values, it would help mitigate some of the visual impacts of the elevated structure in a neighborhood.

Public involvement and outreach activities must ensure full and fair participation of all potentially affected communities in the transportation decision-making process.

2.21. Limited English Proficiency (LEP) or Language Assistance (LA) Populations

2.21.1. Presence

Census data does not indicate limited English proficiency (LEP) populations meeting the United States Department of Justice LEP Safe Harbor threshold, but does indicate an Asian/Pacific language-speaking population exceeding 50 persons within the DSA that may require language assistance. This population is in southeastern portion of the DCIA. The field visit was unable to determine the exact location of this population.

2.21.2. Recommendation

Because notable Asian/Pacific language-speaking populations are located within the DCIA the NCDOT project planning engineer should consult with NCDOT Public Involvement to determine appropriate measures assuring meaningful public involvement to satisfy the requirements of Executive Order 12898.

3. Additional Community Characteristics

3.1. Notable Population Growth or Decline

The DSA experienced notable population growth between 2000 and 2010 with an annualized growth rate of 2.9 percent. This rate exceeded the annualized growth rate of New Hanover County by 0.5 percent, but was lower than the City of Wilmington's annualized growth rate of 3.5 percent. Two block groups, in particular, experienced notable population growth during the time period. Census Tract 103, Block Group 1 and Census Tract 105.02, Block Group 1 had



annualized growth rates of 5.3 percent and 4.1 percent, respectively. Both these block groups are in the eastern portion of the DCIA. One other block group (Census Tract 103 Block Group 4) had a population decline of -0.9 percent. This block group is located in the southwestern portion of the DCIA.

According to 2017 ACS population estimates, the population of Wilmington has outpaced North Carolina in terms of population growth since 2010. Wilmington's population has grown by 13.8 percent compared to the state's 5.4 percent.

During the April, 2019 site visit, recent development was noted in the southeastern portion of the DCIA at the Burnt Mill Business Park and along Randall Parkway where the Flying Machine Brewing Company had recently opened. In addition, the Cypress Cove Apartments off Emory Street in the northeastern portion of the DCIA can be expected to bring several hundred new residents.

3.2. STIP Projects

STIP projects in and around the vicinity of this project are listed in Table 1 and shown in Figure 6.

Table 1: STIP projects in vicinity of DCIA

STIP	Project	Description and Current Schedule
STIP U-5863	NC 133 (Castle Hayne) road widening	Widen NC 133 (Castle Hayne Road) for 3.7 miles from I-140/US 17 to SR 1310 (Division Drive) in Wilmington. Right-of-way scheduled for 2021 and construction scheduled for 2023.
STIP U-6083	North 23rd Street road widening	Widen North 23 rd Street from US 74 (Martin Luther King, Jr. Parkway) north to NC 133 (Castle Hayne Road). Right-of-way is scheduled for 2025 and construction is scheduled for 2027.
STIP U-5881	NC 132 (College Road) road upgrade	Improvements to N.C. 132 (College Road) from Gordon Road (S.R. 2048) to New Centre Drive (S.R. 1272). Part of a series of projects to improve College Road from Gordon Road to Sanders Road in Wilmington. Right-of-way is scheduled for 2022 and construction is scheduled for 2024.
STIP U-5792	NC 132 (College Road) and US 74 (Martin Luther King, Jr Parkway) intersection improvements	Intersection improvements including converting the at-grade intersection to an interchange. Part of a series of projects to improve College Road from Gordon Road to Sanders Road in Wilmington. Right-of-way is scheduled for 2022 and construction is scheduled for 2024.



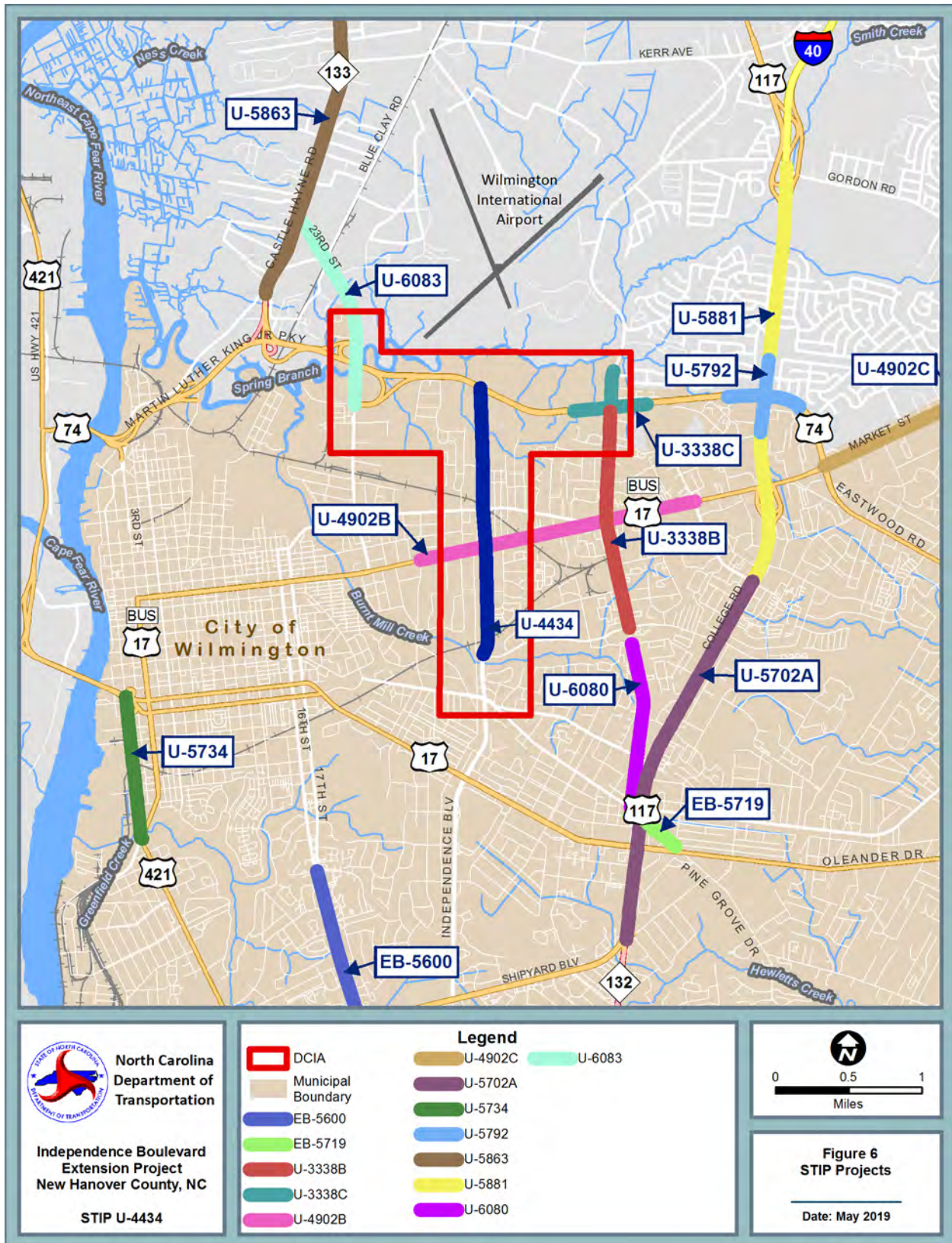
STIP	Project	Description and Current Schedule
STIP U-5702A	NC 132 (College Road) access management	Access management and travel time improvements along an approximately 2.6 mile section of College Road from New Centre Drive (S.R. 1272) to just south of U.S. 117 (Shipyard Boulevard). Part of a series of projects to improve College Road from Gordon Road to Sanders Road in Wilmington. Right-of-way is scheduled for 2022 and construction is scheduled for 2024.
STIP U-3338B & C	Kerr Avenue road widening	Widen SR 1175 Kerr Avenue to multi-lanes from Randall Parkway to (US 74 Martin Luther King, Jr. Parkway). Section B is under construction, and section C is scheduled for construction in 2020. Section A is complete.
STIP U-4902B & C	U.S. 17 Business (Market Street) access management improvements	Convert the existing center turn lane on US 17 Business (Market Street) to a raised median, creating a four-lane divided roadway from CSX railroad to Cinema Drive and Jacksonville Street to north of US 177/132 (College Road) for U-4902B and north of US 177/NC 132 (College Road) to Station Road for U-4902C. Both sections are currently in the right-of-way acquisition phase with construction scheduled for 2020 for Section B and 2021 for Section C. Section A is complete.
STIP U-5734	US 421 (South Front Street) road widening	Widen U.S. 421 (South Front Street) from two-lanes to a four-lane divided thoroughfare from U.S. 17 Business/U.S. 76/ U.S. 421 (Cape Fear Memorial Bridge) to U.S. 421 (Burnett Boulevard) in Wilmington. Right-of-way is scheduled for 2021 and construction is scheduled for 2023
STIP U-6080	Kerr Avenue Road road widening	Widen SR 1175 (Kerr Avenue) from Patrick Avenue to SR 1411 (Wrightsville Avenue) to multi-lanes. Right-of-way is scheduled for 2025 and construction is scheduled for 2027.
STIP EB-5600	South US 17 multi-use path	Construct a multi-use path along SR 1219 (South 17 th Street) from Hospital Plaza to Independence Boulevard. Construction is expected to begin in 2019.



STIP	Project	Description and Current Schedule
STIP EB-5719	Peachtree Avenue bicycle lanes	Construct bicycle lanes along Peachtree Avenue from Park Avenue to MacMillan Avenue. Construction is expected to begin in 2020.



Figure 6: STIP projects in vicinity of DCIA



3.3. Traffic Generating Facilities or Nodes

The Burnt Mill Business Park, located in the southern portion of the DCIA, has several business, retail, and school tenants spread out in a dozen buildings. Four more buildings are under construction or planned. Market Street is a major commercial corridor with numerous retail and commercial businesses, restaurants, and hotels, including businesses within the project footprint and DCIA.

The Wilmington International Airport is also a major regional traffic generating facility and is located just to the north, but outside of the DCIA.

4. Additional Recommendations

None

5. Indirect and Cumulative Effects

The project may alter travel patterns and reduce travel time. Due to the potential transportation impact-causing activities, this project may influence nearby land uses or stimulate growth. . Therefore, a detailed indirect and cumulative effects (ICE) study was completed. The ICE report was submitted in December, 2011. A Land Use Scenario Assessment (LUSA), completed in July 2019, further assesses potential indirect and cumulative effects.



6. Sources

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16. U.S. Census Bureau (2019, April 26). *2010 U.S. Census and the American Community Survey* Retrieved from: <http://www.census.gov>
17. Uniform Relocation Assistance and Real Property Acquisition Act (1970)



Appendices

- A. Summary of Demographics Used in Tabular Form
- B. Site Photographs
- C. Local Official Input Forms
- D. Health Indicators Table
- E. Other Information
 - Project timeline
 - Public Involvement Summary from Public Workshop held 6/11/2011.
 - Create Wilmington Growth Maps
 - Wave System Map



Appendix A: Summary of Demographics Used in Tabular Form

Minority Population

Geography	Total Population	White, Non-Hispanic		Minority Population*		Meets Thresholds	
		#	%	#	%	50%	10% over County
CT 103, BG 1	2,561	1,063	41.5%	1,498	58.5%	Yes	Yes
CT 103, BG 4	1,462	84	5.7%	1,378	94.3%	Yes	Yes
CT 104, BG 2	631	532	84.3%	99	15.7%	No	No
CT 105.02, BG 1	4,367	2,815	64.5%	1,552	35.5%	No	Yes
DSA	9,021	4,494	49.8%	4,527	50.2%	Yes	N/A
New Hanover County	219,866	169,063	76.9%	50,803	23.1%		

* 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 (2013-2017), Table B03002, "Hispanic or Latino Origin by Race."

Race

Geography	Total Population	White		Black or African American		American Indian and Alaska Native Alone		Asian		Native Hawaiian/Pacific Islander		Some Other Race		Two or More Races		Total Non-White	
		#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
CT 103, BG 1	2,561	1,101	43.0%	1,441	56.3%	-	0.0%	-	0.0%	7	0.3%	12	0.5%	-	0.0%	1,460	57.0%
CT 103, BG 4	1,462	84	5.7%	1,358	92.9%	-	0.0%	-	0.0%	-	0.0%	20	1.4%	-	0.0%	1,378	94.3%
CT 104, BG 2	631	548	86.8%	56	8.9%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	27	4.3%	83	13.2%
CT 105.02, BG 1	4,367	2,829	64.8%	1,357	31.1%	-	0.0%	68	1.6%	-	0.0%	26	0.6%	87	2.0%	1,538	35.2%
DSA	9,021	4,562	50.6%	4,212	46.7%	-	0.0%	68	0.8%	7	0.1%	58	0.6%	114	1.3%	4,459	49.4%
New Hanover County	219,866	177,774	80.9%	31,246	14.2%	630	0.3%	2,877	1.3%	178	0.1%	2,552	1.2%	4,609	2.1%	42,092	19.1%

Source: US Census Bureau, American Community Survey 5-year Estimates (2013-2017), Table B02001, "Race."



Hispanic or Latino Population

Geography	Total Population	Hispanic		Not Hispanic	
		#	%	#	%
CT 103, BG 1	2,561	50	2.0%	2,511	98.0%
CT 103, BG 4	1,462	-	0.0%	1,462	100.0%
CT 104, BG 2	631	16	2.5%	615	97.5%
CT 105.02, BG 1	4,367	56	1.3%	4,311	98.7%
DSA	9,021	122	1.4%	8,899	98.6%
New Hanover County	219,866	11,879	5.4%	207,987	94.6%

Source: US Census Bureau, American Community Survey 5-year Estimates (2013-2017), 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 103, BG 1	2,561	947	37.0%	403	15.7%	239	9.3%	Yes	Yes
CT 103, BG 4	1,462	771	52.7%	275	18.8%	32	2.2%	Yes	Yes
CT 104, BG 2	631	40	6.3%	-	0.0%	-	0.0%	No	No
CT 105.02, BG 1	4,327	1,769	40.9%	908	21.0%	684	15.8%	Yes	Yes
DSA	8,981	3,527	39.3%	1,586	17.7%	955	10.6%	Yes	N/A
New Hanover County	213,223	38,374	18.0%	19,820	9.3%	18,642	8.7%		

Source: US Census Bureau, American Community Survey 5-year Estimates (2013-2017), Table C17002, "Ratio of Income to Poverty Level in the Past 12 Months."



Zero-Car Households

Geography	Occupied Housing Units	No Vehicle Available		One Vehicle Available		Two or More Vehicles Available	
		#	%	#	%	#	%
CT 103, BG 1	1,140	192	16.8%	576	50.5%	372	32.6%
CT 103, BG 4	505	134	26.5%	175	34.7%	196	38.8%
CT 104, BG 2	267	-	0.0%	97	36.3%	170	63.7%
CT 105.02, BG 1	1,915	129	6.7%	813	42.5%	973	50.8%
DSA	3,827	455	11.9%	1,661	43.4%	1,711	44.7%
New Hanover County	91,673	5,818	6.3%	31,973	34.9%	53,882	58.8%

Source: US Census Bureau, American Community Survey 5-year Estimates (2013-2017), Table B25044, "Tenure by Vehicles Available."

Limited English Proficiency

Geography	Total Adult Population, 18 years and older	Primary Language Group of Persons Who Speak English Less than Very Well								Meets Thresholds	
		Spanish		Other Indo-Euro		Asian/Pacific		Other			
		#	%	#	%	#	%	#	%	LEP	LA
CT 103, BG 1	2,109	21	1.0%	20	0.9%	-	0.0%	-	0.0%	N/A	No
CT 103, BG 4	838	-	0.0%	-	0.0%	-	0.0%	-	0.0%	N/A	No
CT 104, BG 2	491	-	0.0%	-	0.0%	-	0.0%	-	0.0%	N/A	No
CT 105.02, BG 1	3,672	8	0.2%	44	1.2%	52	1.4%	-	0.0%	N/A	Yes
DSA	7,110	29	0.4%	64	0.9%	52	0.7%	-	0.0%	No	N/A

Source: US Census Bureau, American Community Survey 5-year Estimates (2013-2017), Table B16004, "Age by Language Spoken at Home by Ability to Speak English for the Population 5 Years and Over."



Population Change, 2000 to 2010

Geography 2010	Census 2000 Population	Census 2010 Population	Difference	Percent Change	Annualized Growth Rate
CT 103, BG 1	1,439	2,401	962	66.9%	5.3%
CT 103, BG 4	1,517	1,386	(131)	-8.6%	-0.9%
CT 104, BG 2	846	902	56	6.6%	0.6%
CT 105.02, BG 1	2,298	3,431	1,133	49.3%	4.1%
DSA	6,100	8,120	2,020	33.1%	2.9%
Wilmington city	75,838	106,476	30,638	40.4%	3.5%
New Hanover County	160,307	202,667	42,360	26.4%	2.4%
North Carolina	8,049,313	9,535,483	1,486,170	18.5%	1.7%

Source: Steven Manson, Jonathan Schroeder, David Van Riper, and Steven Ruggles. IPUMS National Historical Geographic Information System: Version 12.0 [Database]. Minneapolis: University of Minnesota. 2017. <http://doi.org/10.18128/D050.V12.0>
Census 2000/Census 2010 Time Series Tables Geographically Standardized



Appendix B: Site Photographs



Figure 1: 10-foot multi-use path on the east side of Covil Avenue.



Figure 2: The Hill School in Burnt Mill Business Park.



Figure 3: Abandoned apartment complex at 206 Covil Avenue.



Figure 4: Businesses on Market Street



Figure 5: Businesses on Market Street



Figure 6: Rail crossing at Princess Place Drive

Appendix C: Local Official Input Forms

Complete the tables below to document the results of local official contacts – EMS, planner, schools. If more than one EMS official, planner, or school official is contacted (for example, multiple jurisdictions), then include a table for each.

- First Contact Date:** Enter the date of the first contact attempt.
- Method(s):** Check the applicable box(es).
- Form returned on:** Check this box if the form is returned via email, fax, or snail mail. Include the date.
- Interview on:** Check this box if you interviewed the contact person by phone or in-person. Include the date.
- No response:** Check this box if you do not receive a response or are unable to reach the person by the time that you submit the report to Community Studies.
- Comments:** Examples of comments include date of last contact attempt (only if no response), returned blank or incomplete form.

Attach completed Local Official Input Forms on the Local EMS Input Form, Local Planner Input Form, and Local Schools Input Form pages. If there is no response, insert the text “No response received.”

LOCAL EMS

Name:	Zak Whicker	
Title:	Emergency Management Manager	
Agency:	New Hanover County Emergency Management and 911	
Phone:	910.798.6907	
Email:	zwhicker@nhcgov.com	
FIRST CONTACT DATE	METHOD(S)	RESULT
5/7/2019	<input type="checkbox"/> Email <input checked="" type="checkbox"/> Phone <input type="checkbox"/> In-person	<input type="checkbox"/> Form returned on <input type="checkbox"/> Interview on (date) <input checked="" type="checkbox"/> No response Comments:



LOCAL PLANNER

Name: Christine Hughes Title: Sr. Planner – Comprehensive Planning and Design Agency: City of Wilmington Planning, Development, and Transportation Department Phone: 910.341.5885 Email: Christine.Hughes@wilmingtonnc.gov		
FIRST CONTACT DATE	METHOD(S)	RESULT
4/8/2019	<input checked="" type="checkbox"/> Email <input type="checkbox"/> Phone <input type="checkbox"/> In-person	<input checked="" type="checkbox"/> Form returned on 4/9/2019 <input type="checkbox"/> Interview on (date) <input type="checkbox"/> No response Comments:

LOCAL SCHOOLS

Name: Mark Clawson Title: Transportation Information System Coordinator Agency: New Hanover County Schools Transportation Phone: 910.254.4084 Email: mark.clawson@nhcs.net		
FIRST CONTACT DATE	METHOD(S)	RESULT
04/01/2019	<input checked="" type="checkbox"/> Email <input type="checkbox"/> Phone <input type="checkbox"/> In-person	<input checked="" type="checkbox"/> Form returned on 4/2/2019 <input type="checkbox"/> Interview on (date) <input type="checkbox"/> No response Comments:



Local EMS Input Form

NC Department of Transportation Community Studies Group, Human Environment Section

Local EMS Input Form for

STIP Project U-4434 COMMUNITY IMPACT ASSESSMENT

Contact Information

Interviewee Name: Zak Whicker

Date: 5/09/2019

Title/Position: Emergency Management Manager

Phone Number: 910.798.6907

Organization/Agency: New Hanover County EMS & 911

Email: zwhicker@nhcgov.com

Completed Via: X Email Phone

Interview Information/Instructions

If completed by phone:

Interviewed By (Name/Organization): NHRMC EMS

If completed by email:

Using the project information and map below, please respond to the following questions by typing your answers in the space provided. Then save (using the **Save As** command) this file with a new file name for your records and e-mail the **new** file back to the original sender. If you would prefer to complete a hard copy of this form, please send all sheets to the address or fax number below:

AECOM

c/o Todd McAulliffe

6000 Fairview Road, Suite 200

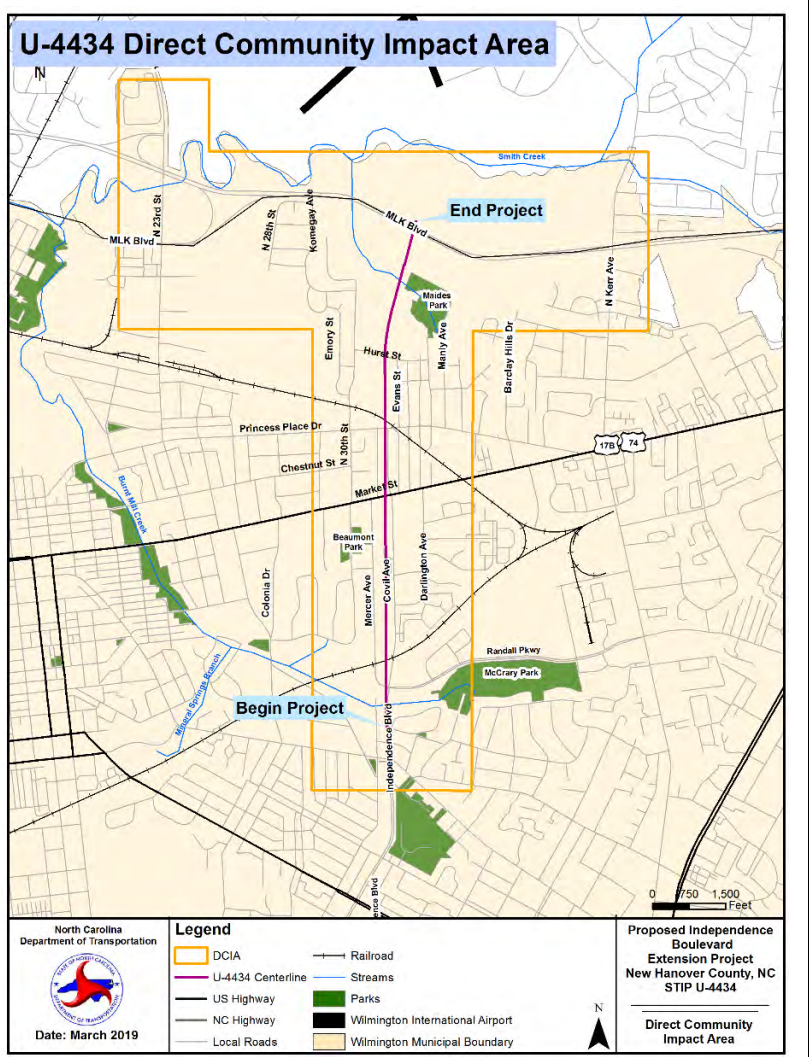
Charlotte, NC 28210

Todd.mcaulliffe@aecom.com



Project Information

Independence Boulevard Extension would be an extension of existing Independence Boulevard (SR 1209) from the intersection with Randall Parkway and Mercer Avenue to Martin Luther King Jr. Parkway (US 74). The proposed action (or project) is designated in the Draft 2018-2027 NCDOT State Transportation Improvement Program (STIP) as STIP Number U-4434. There is currently one alignment alternative (Alternative 7) with two interchange options at Market Street being considered. The two interchange options are a tight urban diamond interchange (TUDI) and a single point urban interchange (SPUI). The designs of both of the interchange options would limit the footprint of the interchange and require less right-of-way than a traditional interchange.



For all applicable questions, please provide a detailed explanation of your response in the field provided.	Check if item is applicable
1. Are there any concerns related to EMS services for this project? Please be as specific as possible (e.g. location in a high call volume area, closure could affect response to schools, weight restrictions, expected new development in the area, coordination with partner agency required to facilitate service). N/A	<input type="checkbox"/>
2. Based on your knowledge of the project area, do you have any concerns with the condition/capacity of potential detour routes, or the location of resources along these routes? N/A	<input type="checkbox"/>
3. Are there any future time periods or events that you know of where bridge or road closure or reduction in number of lanes for construction would be of particular concern? N/A	<input type="checkbox"/>



<p>4. Rate the overall impact on emergency services if the bridge or roadway were closed or at reduced capacity for up to a year:</p> <p> <input type="checkbox"/> No Impact <input type="checkbox"/> Low Impact <input type="checkbox"/> Moderate Impact <input checked="" type="checkbox"/> High Impact </p>	
<p>5. Are road names referenced by the names locals would use?</p> <p>Yes</p>	<input checked="" type="checkbox"/>
<p>6. Is there anyone else you feel should be contacted regarding this project (i.e. local officials or stakeholders)?</p> <p>No</p>	<input type="checkbox"/>
<p>7. Do you have any other concerns regarding the potential impact of this project on EMS services, or any additional comments? Please be as specific as possible.</p> <p>Major intersections being down to one lane or closed. This will impact our response times as this is a main artery for EMS response.</p>	<input checked="" type="checkbox"/>



Local Planner Input Form

NC Department of Transportation Community Studies Group, Human Environment Section

Local Planner Input Form for

STIP Project U-4434 COMMUNITY IMPACT ASSESSMENT

Contact Information

Interviewee Name: Christine Hughes

Date:

Title/Position: Senior. Planner

Phone Number: 910.341.5885

Organization/Agency: City of Wilmington Planning Department

Email:

Completed Via: Email Phone

Interview Information/Instructions

If completed by phone:

Interviewed By (Name/Organization):

If completed by email:

Using the project information and map below, please respond to the following questions by typing your answers in the space provided. Then save (using the **Save As** command) this file with a new file name for your records and e-mail the **new** file back to the original sender. If you would prefer to complete a hard copy of this form, please send all sheets to the address or fax number below:

AECOM

c/o Todd McAulliffe

6000 Fairview Road, Suite 200

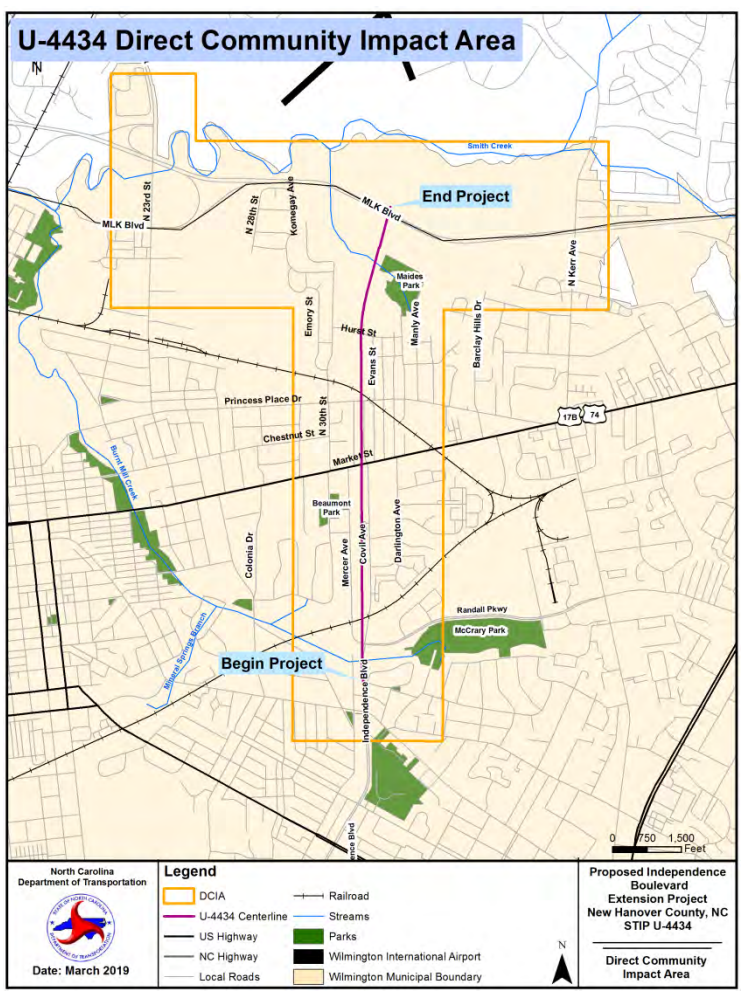
Charlotte, NC 28210

Todd.mcaulliffe@aecom.com



Project Information

Independence Boulevard Extension would be an extension of existing Independence Boulevard (SR 1209) from the intersection with Randall Parkway and Mercer Avenue to Martin Luther King Jr. Parkway (US 74). The proposed action (or project) is designated in the Draft 2018-2027 NCDOT State Transportation Improvement Program (STIP) as STIP Number U-4434. There is currently one alignment alternative (Alternative 7) with two interchange options at Market Street being considered. The two interchange options are a tight urban diamond interchange (TUDI) and a single point urban interchange (SPUI). The designs of both of the interchange options would limit the footprint of the interchange and require less right-of-way than a traditional interchange.



Check those questions that apply and provide a detailed explanation of your response in the field provided. **Check if item is applicable**

Growth and Development	
1. Are there any known plans for development in the vicinity of the project? Haynes-Lacewell City Training Facility, Cypress Cove Apartments, Salvation Army Corps Community Center, GLOW NC School, redevelopment of 206/210 Covil Ave	x <input type="checkbox"/>
2. Are there any adopted plans for growth or economic development that could directly affect or be affected by this project? Yes, for the full extent of the project boundary (see <i>Create Wilmington Comprehensive Plan</i> , including rail realignment)	x <input type="checkbox"/>
3. Are there plans to extend water/sewer lines or to build any new facilities, such as fire stations, schools, or other facilities, in the vicinity of the project? Haynes-Lacewell police and fire training facility, GLOW School, Salvation Army	x <input type="checkbox"/>



<p>4. Are there any specific business and/or economic resources present in the project area, such as business parks, distribution centers, manufacturing facilities, etc.? Commercial development at intersection of Covil Avenue and Market Street and Mercer and Market</p>	<p>x <input type="checkbox"/></p>
<p>Special Populations</p>	
<p>5. Are you aware of any minority, low-income or limited English proficiency (LEP) populations/ communities in the vicinity of the project? If so, please provide the locations of these populations in the area. <i>[If yes, proceed to Question 6. If no, skip to Question 7.]</i> Yes; there are several low-income housing developments in the vicinity, including on Broad Street, Darlington Ave, Creekwood (WHA), and development along Mercer and Montgomery Avenues. The study area is a high poverty, high minority population area</p>	<p><input type="checkbox"/></p>
<p>6. Are there specific community resources or services that are used by minority, low-income or LEP populations in the vicinity of the project? How is the project likely to affect minority and low-income populations? Wilmington Housing Authority properties and other Section 8 housing</p>	<p><input type="checkbox"/></p>
<p>7. Are there any tribal groups connected with land, religious, ethnic or other special populations with different mobility needs or outreach needs in the project area? Unknown</p>	<p><input type="checkbox"/></p>
<p>8. Who should we contact to discuss outreach needs for any special populations? Please provide input on community leader contacts, media sources or other ways to reach these populations. Wilmington Housing Authority; Kathy King</p>	<p><input type="checkbox"/></p>
<p>Access, Accessibility, and Mobility</p>	
<p>9. Is there pedestrian or bicycle activity/traffic or transit use along the project? If so, please describe multimodal activity in the project area. No bike/ped facilities in the area; please check with WAVE Transit re: transit in the area</p>	<p><input type="checkbox"/></p>
<p>10. Are there any existing access, accessibility, or mobility concerns or any barriers to non-auto travel in the area? Please consider all modes. There are currently no facilities in the area, so mobility is a concern</p>	<p><input type="checkbox"/></p>
<p>11. Are there any adopted plans for pedestrian, greenway, bicycle, or transit facilities in the area? For each plan, please provide a description of how the plan applies to the project area, the title of the plan, its year of adoption, and the current status of its implementation. Please see <i>Create Wilmington Comprehensive Plan</i>, including Growth Strategies Maps, and Walk Wilmington Plan</p>	<p><input type="checkbox"/></p>
<p>Agricultural Operations</p>	
<p>12. Are you aware of any active agricultural operations in the vicinity of the project? If so, please describe these operations (e.g. size, ownership, crops, years farmed, suppliers, customers, value to the community). <i>[If yes, answer Question 12. If no, skip to Question 13.]</i> Unknown</p>	<p><input type="checkbox"/></p>



<p>13. Are farm support services—such as farm suppliers, equipment dealers, processing and storage facilities, and farmer’s markets—located in the vicinity of the project? If so, please describe these services (e.g. type, location).</p> <p>No</p>	<input type="checkbox"/>
<p>14. Does the project lie within a VAD or EVAD district, or are you aware of any land with other farmland protections (plans, tax districts or credits, trust, agricultural zoning, deed restrictions)? If so, please describe the nature and location of these areas and properties.</p> <p>Unknown</p>	<input type="checkbox"/>
<p>Other Notable Features</p>	
<p>15. Are there any recreational properties within the project area that were purchased or improved with Land and Water Conservation Act funds?</p> <p>Unknown</p>	<input type="checkbox"/>
<p>16. Are there any other specific notable community resources or issues in the project area? (e.g. socio-economic resources, recreational resources, community safety concerns, cohesive neighborhoods, areas in decline) If so, please describe.</p> <p>Maides Park; cemetery; safety concerns; areas in decline</p>	<input type="checkbox"/>
<p>Detours and Closures</p>	
<p>17. Are there any future time periods or events that you know of where road or bridge closure or reduction in number of lanes for construction would be of particular concern?</p> <p>Unknown</p>	<input type="checkbox"/>
<p>18. <i>[If applicable]</i> Based on your knowledge of the project area, do you have any concerns with the condition/capacity of potential detour routes, or the location of resources along these routes?</p> <p>N/A</p>	<input type="checkbox"/>
<p>19. Rate the overall impact on local planning objectives if the bridge or roadway were closed or at reduced capacity for up to a year:</p> <p><input type="checkbox"/> Positive Impact <input type="checkbox"/> No Impact <input type="checkbox"/> Low Impact x<input checked="" type="checkbox"/> Moderate Impact <input type="checkbox"/> High Impact</p>	
<p>Closing Questions</p>	
<p>20. Are road names referenced by the names locals would use?</p> <p>Yes</p>	<input type="checkbox"/>
<p>21. Is there anyone else you feel should be contacted regarding this project (i.e. local officials or stakeholders)?</p> <p>Yes – both</p>	<input type="checkbox"/>
<p>22. Do you have any additional comments about this project?</p>	<input type="checkbox"/>



Local Schools Input Form

NC Department of Transportation Community Studies Group, Human Environment Section

Local Schools Input Form for

STIP Project U-4434 COMMUNITY IMPACT ASSESSMENT

Contact Information

Interviewee Name: Mark Clawson

Date: 4-2-2019

Title/Position: Transportation Information System Coordinator

Phone Number: 910.254.4084

Organization/Agency: New Hanover County Schools Transportation

Email: mark.clawson@nhcs.net

Completed Via: Email Phone

Interview Information/Instructions

If completed by phone:

Interviewed By (Name/Organization):

If completed by email:

Using the project information and map below, please respond to the following questions by typing your answers in the space provided. Then save (using the **Save As** command) this file with a new file name for your records and e-mail the **new** file back to the original sender. If you would prefer to complete a hard copy of this form, please send all sheets to the following address or fax number:

AECOM

c/o Todd McAulliffe

6000 Fairview Road, Suite 200

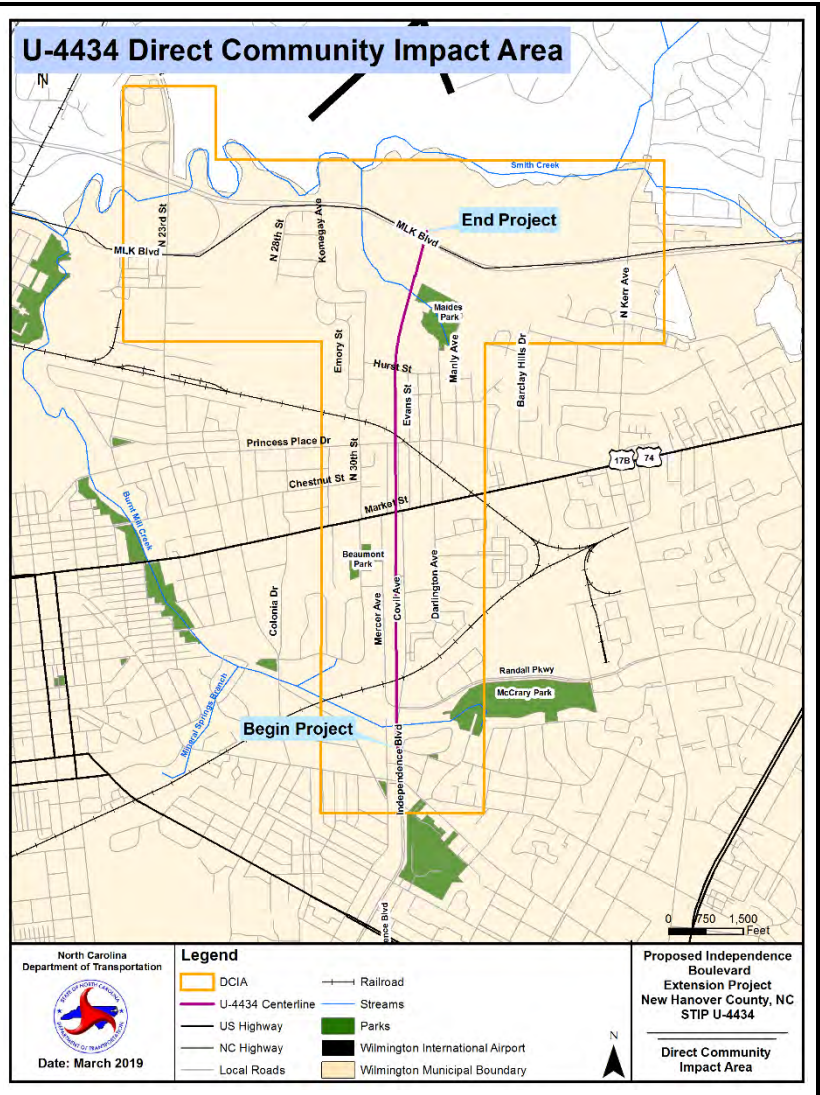
Charlotte, NC 28210

Todd.mcaulliffe@aecom.com

Project Information



Independence Boulevard Extension would be an extension of existing Independence Boulevard (SR 1209) from the intersection with Randall Parkway and Mercer Avenue to Martin Luther King Jr. Parkway (US 74). The proposed action (or project) is designated in the Draft 2018-2027 NCDOT State Transportation Improvement Program (STIP) as STIP Number U-4434. There is currently one alignment alternative (Alternative 7) with two interchange options at Market Street being considered. The two interchange options are a tight urban diamond interchange (TUDI) and a single point urban interchange (SPUI). The designs of both of the interchange options would limit the footprint of the interchange and require less right-of-way than a traditional interchange.



Check all questions that apply and provide a detailed explanation of your response in the field provided.	Check if item is applicable
1. How many school buses pass through the corridor per day (total # of daily buses, total # daily of trips)? Within the Direct Impact Zone Area, 169 buses traverse this zone on a daily basis.	x
2. Is the corridor used by carpool traffic or pedestrians to access local schools? If yes, please describe the location and time(s) of day. Students attending nearby schools would travel to school by bus or car. No walkers cross Covil/Montgomery.	x
3. <i>[Applicable if schools are located in or near the project area]</i> Are there any Safe Routes to School plans in place at schools in the vicinity of the project? There are 3 schools within 0.4 miles of Covil/Montgomery. Routes would need to be modified to avoid the construction area by reaching the schools from the opposite direction.	x
4. Based on your knowledge of the project area, do you have any concerns with the condition/capacity of potential detour routes or the location of resources along these routes with respect to school traffic? Ideally, either Market or Princess Place should remain open to facilitate east/west traffic flow at any given point in time. Traffic parallel to Covil/Montgomery should not be an issue.	x
5. Are there any future time periods or events that you know of where bridge or road closure or reduction in number of lanes for construction would be of particular concern? None that would necessarily impact school transportation.	<input type="checkbox"/>
6. Rate the overall impact on school transportation if the bridge or roadway were closed or at reduced capacity for up to a year: <input type="checkbox"/> No Impact <input type="checkbox"/> Low Impact x Moderate Impact <input type="checkbox"/> High Impact	
7. Are road names referenced by the names locals would use? Yes	x
8. Is there anyone else you feel should be contacted regarding this project (i.e. local officials or stakeholders)?	<input type="checkbox"/>
9. Are there any other concerns you have regarding the potential impact of this project on school transportation services or any additional comments? Please be as specific as possible.	<input type="checkbox"/>



Appendix D: Health Indicators Table

CHARACTERISTIC	SMALLEST DATA LEVEL	U-4434 DCIA	NEW HANOVER COUNTY	NORTH CAROLINA	DATA SOURCE	NOTES
Number of Pedestrian or Bicyclist Crashes in DCIA (Ped/Bike)	<i>DCIA</i>	(43/27)			http://ncdot.maps.arcgis.com/home/webmap/viewer.html?useExisting=1	Count the number of crashes within the DCIA from 2012-2016 using NCDOT's Bicyclist and Pedestrian Crash Map.
Average Pedestrian Crash Rate	<i>City</i>		5.4	2.77	http://www.pedbikeinfo.org/pbcat_nc/	Crashes per 10,000 residents, avg. of 2012-2016 crash totals, 2010 pop
Average Bicyclist Crash Rate	<i>City</i>		3.1	1.03	http://www.pedbikeinfo.org/pbcat_nc/	Crashes per 10,000 residents, avg. of 2008-2012 crash totals, 2010 pop
Physical Inactivity	<i>County</i>		19.0%	23.0%	http://www.countyhealthrankings.org/app/north-carolina/2014/overview	Percent of adults aged 20+ reporting no leisure-time physical activity, 2019
Access to exercise opportunities	<i>County</i>		87.0%	65.0%	http://www.countyhealthrankings.org/app/north-carolina/2014/overview	Percentage of individuals who reside in a census block within a half mile of a park or (urban) one mile of a rec. facility or (rural) three miles of a rec. facility, 2010 & 2018



Appendix E: Other Information

Project Timeline



Independence Boulevard Extension, Wilmington, NC October 28, 2014

- **1972 to Present:** The proposed extension of Independence Boulevard has been included in Wilmington’s Long Range Plans since 1972 and is currently included in the Cape Fear Commutes 2035 Transportation Plan. The extension of Independence Boulevard is also a component of the Wilmington Urban Loop.
 - **Note:** In October 2008, the Wilmington Urban Area Metropolitan Planning Organization (WMPO) Transportation Advisory Committee (TAC) voted to amend the Functional Classification Map for the portion of Independence Boulevard from Shipyard Boulevard to Martin Luther King Jr. Parkway (including the proposed project) to the Urban Principal Arterial classification.
- **July 2002:** NCDOT conducted a feasibility study of the proposed project. The project was then programmed in the NCDOT’s State Transportation Improvement Program (STIP as project number U-4434).
- **March 2008:** A preliminary Purpose and Need Statement determined that the need for the Independence Boulevard Extension is demonstrated by deficiencies in traffic capacity, north/south regional roadway connectivity, and transportation system linkage.

The project team utilized the Wilmington traffic demand model to determine the north-south “system” demand in the central Wilmington area. Modeling results showed that the north-south capacity of the central region will not meet future demands in year 2035. Local and regional traffic desiring to travel in the north-south direction currently must “stair-step” through a series of non-continuous north-south and east-west roadways to reach their destinations. Most of these roadways are intended to service local traffic within residential areas and the downtown Central Business District.

- **May 2010:** NCDOT completed screening of various north-south corridors to determine if any of these corridors were reasonable and practical conduits to help north-south connectivity by providing a direct route between the four major east-west arterials: US 117 (Shipyard Boulevard), US 76 (Oleander Drive), US 17 Business (Market Street) and US 74 (Martin Luther King, Jr. Parkway). NCDOT consulted the Market Street study to determine baseline City desires, and performed corridor screenings based on an at-grade boulevard with a 150-foot width. The five north-south routes that were identified as potential alternative corridors are as follows:
 - 16th/17th Street Corridor
 - 23rd Street Corridor
 - Independence Boulevard Corridor
 - Kerr Avenue Corridor
 - College Road Corridor

It was determined that the Independence Boulevard corridor best met central Wilmington’s need for a continuous north-south route, best met long range goals, and would cause





considerably fewer impacts to the human and natural environment when compared to other corridor alternatives.

- June 2011: A Draft Purpose and Need Report was prepared, which was supported by travel demand modeling and traffic capacity analysis.
- June 2011: A public meeting was held to gather comments from the public on the project study area and why the project is needed.
- Spring/Summer 2011: NCDOT completed designs of a 35-45 mph at-grade boulevard facility for the Independence Boulevard corridor. It was determined that the amount of lanes necessary to accommodate the projected traffic and provide turn lanes at Market Street would require a much wider roadway width than previously envisioned. Early capacity analysis modeling determined that an "at-grade" intersection, or signalized intersection, at Market Street would fail in the design year, even if constructed with 8 lanes (4 in each direction) along Independence Boulevard. It was also determined that the roadway must be bridged over the two existing CSX railroad crossings. As a result, it was concluded that an elevated facility would need to be constructed for most of the project length. First-run conceptual designs showed that the footprint of an elevated facility with 4-lanes was essentially the same as an at-grade boulevard with multiple turning lanes at sidestreet intersections.
- October 2011: NCDOT completed development and analysis of eight conceptual, elevated alternatives for the project length. Numerous intersection and interchange alternatives were evaluated at Market Street and Martin Luther King, Jr. Parkway. Intersecting driveways were no longer a concern; therefore the proposed speed was raised to 55 mph.
- December 2011: NCDOT met with the local NCDOT Division and the WMPO to pare-down the alternatives. Alternatives 2, 7, and 8 were selected for detailed study in the environmental document (Environmental Impact Statement).
- July 2012: NCDOT completed preparation of a newsletter and Citizen Information Workshop materials with the intention of holding a September 2012 public meeting. Materials would present all alternatives considered to date, as well as the three alternatives and various interchange designs selected as Detailed Study Alternatives.
- July 2012: NCDOT met with City of Wilmington Traffic and Signals engineers to review components of the Detailed Study Alternatives, given their knowledge of local traffic. The group discussed project constraints and various potential configurations – to determine whether City staff had any design ideas on how to keep the facility "at-grade." City staff suggested evaluating one way pairs - which was studied and then dismissed as not providing acceptable levels of service.
- August 2012: The project team met with the Wilmington City Council to present alternatives. An elevated facility was not favored by a majority of Council. A Council member requested that a "raised rail" study be conducted, which would evaluate raising the railroad over Independence Boulevard at both crossings. It was decided to postpone the citizen workshop again until further studies had been completed.





- **September 2012:** NCDOT initiated a raised rail study.
- **January 2013:** While studying a raised rail concept, NCDOT alternatively initiated a “depressed facility” study to determine if it was feasible to pass Independence Boulevard underneath the two railroad crossings, while also accommodating an interchange with Market Street.
- **April 2013:** An updated traffic analysis was finalized for the Detailed Study Alternatives.
- **May 2013:** NCDOT met with the NCDOT Division and the WMPO to review the conceptual designs developed for the raised rail study and the depressed facility study. NCDOT determined that a depressed facility was feasible, and initiated a more detailed preliminary design and evaluation to identify appropriate construction methods, drainage concepts required, costs, and more approximate construction limits for comparison to the Detailed Study Alternatives.
- **Spring 2014:** NCDOT completed designs, impact analysis, and cost estimates for Detailed Study Alternatives 2, 7, and 8 as an elevated facility; for the conceptual raised rail alternative; and for a depressed facility.
- **March 2014:** NCDOT met with the NCDOT Division and the WMPO to review the Detailed Study Alternatives, the raised rail concept, and the depressed facility design. The team reviewed alternative comparison information such as initial cost, community impacts, and anticipated relocations. The group also reviewed draft information materials for presentation to the public, which included a project visualization video to assist the public in better understanding the proposed project.
- **April 2014:** The project team met with the Wilmington City Council and the TAC. NCDOT noted that the raised rail alternative previously requested by the City Council and the depressed facility alternative did not look favorable in terms of funding – unless the City of Wilmington would want to contribute. The updated project visualization video was also reviewed, as were NCDOT’s anticipated next steps. NCDOT relayed its desire to formally notify the public of project status. The current raised rail, depressed facility, and elevated Detailed Study Alternatives were not favored by the majority of the City Council.
- **September 2014:** NCDOT again met with Wilmington City Council to review the background of the project, with a special focus on critical constraints within the project study area such as railroad crossings and current/projected traffic volumes within Wilmington. NCDOT presented the new STI funding program, as well as the funding outlook for Independence Boulevard Extension. NCDOT suggested that completion of a Draft Environmental Impact Statement would empower the City to preserve a NCDOT-preferred corridor for the project. It was determined a resolution would be drafted for future consideration by the Wilmington City Council.



CIW Summary

DRAFT MEMORANDUM

To: Citizen's Informational Workshop Participants
From: Peter Trencansky, PE, PTOE Project Manager
Date: August 1, 2011
Subject: **Summary of Comments for Citizen's Informational Workshop #1
Independence Boulevard Extension STIP U-4434**

A public workshop was held on June 13, 2011 at the following location:

Date: June 13, 2011
Time: 4:00 – 7:00 PM
Location: Rachel Freeman School of Engineering

The intent of the workshop was to solicit public input prior to establishing Purpose and Need and developing project designs. The public was provided the opportunity to listen to a short presentation describing the project, the draft Purpose and Need. The public was also provided the opportunity to review maps showing the study area. Participants were encouraged to talk to NCDOT staff and project team members and provide comments. All attendees received a project handout with a comment form.

Sixty seven participants signed in at the workshop representing a total of 70 attendees. The project team received seven comment sheets at the workshop and four comment sheets after the workshop.

The following project team members participated in the workshop:

Ron Lucas	Federal Highway Administration
Ted Devens	NCDOT Project Development and Environmental Analysis
Brian Yamamoto	NCDOT Project Development and Environmental Analysis
Nadia Aboulhosn	NCDOT Project Development and Environmental Analysis
Ron McCollum	NCDOT Roadway Design
Jeffrey Teague	NCDOT Roadway Design
Jamille Robbins	NCDOT Public Involvement and Community Studies
Martha Hodge	NCDOT Public Involvement and Community Studies
Megan Cogburn	NCDOT Public Involvement and Community Studies
Allen Pope	NCDOT Division 3
Jackson Provost	NCDOT Division 3
Patrick Riddle	NCDOT Division 3
Peter Trencansky	URS Corporation
David Griffin	URS Corporation
Mike Lindgren	URS Corporation
Kory Wilmot	URS Corporation
Sarah Wicklund	URS Corporation

Overview of Major Themes from Workshop Participants



The following general themes were discussed between the project team and members of the public during the informal session:

- Many of the attendees confirmed that there are transportation problems in the study area and that traveling in the north-south direction is difficult, especially between Oleander Drive and Market Street.
- There were extensive discussions relating to the grade separation of the two existing railroad crossings. A majority of the public agreed that a grade separated crossing would be preferable to an at-grade crossing.
- Some members of the public noted that many of the residents in the area may not be aware that the project would include grade separated railroad crossings and that many of the people in the area assumed that the project would just add a lane in each direction along Covil Avenue.
- Many individuals noted the need for other projects in the vicinity of the proposed project, especially the widening of Randall Parkway and Kerr Avenue. Several individuals felt that the Kerr Avenue interchange should be completed before Independence is extended because it would cause a major bottleneck if it remained an at-grade intersection with Martin Luther King Jr. Parkway.
- The need for an interchange at Market Street was a frequent subject of conversation with a majority of the public feeling that an at-grade intersection would not work and an interchange would be the better option. In addition, a slight majority of individuals felt that a roadway with a greater level of control of access would be preferable to a non-controlled access roadway with driveways.
- The scale and magnitude of the project were noteworthy items to the public. Several individuals were concerned with the elevation of the proposed project due to the grade separations and potential interchanges. The associated noise, aesthetics and potential for large retaining walls were also concerns noted by the public in regard to the elevated roadway.
- Several citizens felt that the design of the Randall Parkway intersection would create problems in the future due to the heavy turn volumes from Randall Parkway to Independence Boulevard. Several individuals said that an interchange or grade separation would be beneficial at this location, but also stressed that the connection to Mercer Avenue was also important.

Summary of Comment Sheet Questions

- Nine of the eleven commenters say they encounter traffic congestion within the project study area, seven of which say the congestion occurs at the intersection of Market Street and Covil Avenue.
- Ten of the eleven commenters say they use other north-south (College Road and Kerr Avenue) and east-west routes (Market Street, Randall Parkway, and Wrightsville Avenue) to travel in the north-south direction.
- Ten of the eleven commenters offered additional ideas for Independence Boulevard, two of which think there needs to be a grade separated interchange at Market Street and two feel that widening Randall Parkway will benefit the traffic congestion.
- Nine of the eleven commenters provided specific locations within the study area that have a transportation related problem that needs to be improved.
- Five of the eleven commenters provided additional needs for the Independence Boulevard Extension.
- Eight of the eleven commenters provided other comments on the project.



Detailed Summary of Comments

The following people submitted written comments at the June 13 Public Workshop Meeting:

Polly Shaver – Ms. Shaver stated that she uses College Road, 17th and 16th Streets, and occasionally 3rd Street through downtown, as well as east-west routes to travel north and south in Wilmington. She suggested an elevated road to lessen the impact and insure parkway travel (few stops). Ms. Shaver thanked us for listening to the public so early in the planning stages.

Thomas J. Oaks – Mr. Oaks stated that he encounters traffic congestion at the intersection of Market Street and Covil Avenue. He thinks the congestion is caused by poor planning with the intersections of Randall Parkway at Kerr Avenue and at College Road. Mr. Oaks stated that he uses Randall Parkway to College Road or Kerr Avenue as well as the east-west routes Market Street and Wrightsville Avenue to travel north and south. He stated when the Independence Boulevard was proposed in 1972, Randall Pkwy was nonexistent. He suggested widening Randall Pkwy as originally intended, the right of way is already existent. Mr. Oaks S. Kerr Avenue to MLK Pkwy should also be widened; it's an easy route to accomplish without displacing and dividing neighborhoods. Mr. Oaks stated when the plan was conceived nearly 40 years ago, the traffic patterns were different. He suggested that Independence Blvd. could be routed along Randall Pkwy to Kerr Avenue, eliminating a need to cross the railroad tracks. He also stated the right or ways already exist, so there would be no need for eminent domain on Covil Avenue, Montgomery Street, and 31st Street. Mr. Oaks suggested the completion of the widening of Kerr Avenue from Randall Pkwy to MLK Pkwy, which is already 3 lanes wide, will accomplish the same effect with a much lower budget and have a better overall traffic flow.

Rev. Gary & Rev. Cecie Blazer – Revs. Gary and Cecie Blazer stated they encounter traffic congestion at the intersection of MLK Pkwy and Kerr Avenue. They think the congestion is unreasonable and the cause of the congestion is due to the road needing to be 4 lanes all the way to Randall Pkwy or an overpass need to be put in over MLK Pkwy. The Reverends stated they use College Road as well as Randall Pkwy, Market Street, and MLK Pkwy to travel north and south. They suggested not beginning this project until the bottle neck at MLK Pkwy and Kerr Avenue are dealt with or this project will just be defeating the purpose of moving traffic from south to north. Revs. Gary and Cecie Blazer stated at 1217 Kerr Avenue the ditches on the west side are at least 8 to 10 feet deep and are extremely hazardous and an accident waiting to happen.

Adam Oaks – Mr. Oaks stated he encounters traffic at the intersection of Market Street and Covil Avenue. He does not think the congestion is unreasonable but thinks the cause of the congestion is due to a poor traffic route on Randall and a poorly designed intersection at Randall Pkwy and Kerr Avenue. Mr. Oaks stated that he uses College Road and Kerr Avenue, as well as Market Street and Wrightsville Avenue to travel north and south. He suggested widening Randall Pkwy and Kerr Avenue which have much larger right of ways and less residential disturbed. He stated that Kerr Avenue already connects to MLK Pkwy and this option would eliminate railroad overpasses and additional interchanges, as well as allow for opportunities for more aesthetically pleasing views (sound barriers are not pleasing!!) Mr. Oaks stated that if the Randall Pkwy/Kerr Avenue option was used, it would fix false data shown on Covil Avenue. He also stated that we need to think more about the community and less about engineering and development. He stated coming from an urban planning background this city is on a one way street to one poorly designed city. Mr. Oaks also stated that no effort has been made to think about the community and the image of the city. He thinks the existing extension from Oleander Drive to Randall Pkwy is one of the most horrible looking streetscapes he's seen and thinks he might as well live in Cary, NC and just use berms!

Hal Kitchin – Mr. Kitchin stated he encounters traffic congestion at the intersection of Market Street and Covil Avenue. He thinks the congestion is relatively unreasonable and thinks the congestion is caused by the need for north-south movements but no real infrastructure apart from College Road. Mr. Kitchin stated he uses College Road and Randall Pkwy to travel north and south. He stated that for the project to



be effective, the intersection of Independence Boulevard and Market Street will need to be an interchange. Mr. Kitchin stated that ideally, Randall Pkwy would be extended to Eastwood Road in order to maximize cross-city connectivity; however, such a connection may now be impossible as a result of the College's historical opposition.

Bill McDow – Mr. McDow stated that he encounters traffic congestion where Independence merges at Covil Avenue and at the signal for Market Street [and Covil Avenue] where left turns sometimes take multiple cycles to clear the one. He does not think the congestion is unreasonable and thinks the congestion is caused by traffic conflicts with southbound through traffic. He suggested changing the signal phasing to help with the afternoon early rush hour. Mr. McDow stated he uses College Road, Carolina Beach Road, and Kerr Avenue, as well as Oleander Drive, Randall Pkwy, Market Street, and MLK Pkwy to travel north and south. Mr. McDow suggested not having an at grade intersection at Market Street and using a flyover or allow traffic to turn prior to the signal for Market Street. He suggested that Market Street could use Mercer Street to access Independence Boulevard. He cited a possible problem with CSX crossing at Princess Place Drive and near Creekwood neighborhood, and a possible wetlands issue at MLK Pkwy. Mr. McDow thinks this is a great project, but it needs expedited funding.

Jessie C. Robertson – Mr. Robertson stated that he does not encounter traffic congestion and that he does not use any other roads to travel north and south. He suggested to not bother doing this project because it is a waste of time, money, and gives incompetents in DOT something to do. Mr. Robertson stated that speed limit signs are needed on Wrightsville Avenue especially in the area recently reconstructed. He also stated that the "No U-Turn" signs failed to happen on the new median and that the lanes don't line up with the lights at the intersection of Wrightsville Avenue and Independence Boulevard. Mr. Robertson suggested fixing the pot holes and finishing the unfinished projects already underway. He stated that he thinks this is a true waste of time and money.

Dave Mayes – Mr. Mayes stated that he encounters traffic congestion during rush hour and that the congestion is not unreasonable and is caused by a lack of capacity. He stated that he uses Kerr Avenue and 16th and 17th Streets as well as several east-west routes to travel north and south. Mr. Mayes suggested to accommodate cyclists and to eliminate the at-grade railroad crossing at Mercer Avenue and Covil Avenue. He also stated that the drainage outfall near the intersection of Broad Street and Covil Avenue needs to be fixed and this would also be a good opportunity to extend a leg of the Cross-City Trail over to Maides Park. Mr. Mayes expressed concern about the access to Wayne Drive, and the proximity to his rear yard property line.

Jonathon and Sara Babin – Mr. and Mrs. Babin stated they encounter traffic congestion on Market Street mostly in the afternoons due to folks traveling home from work. They stated that they use 3rd Street, College Road, 17th Street, Kerr Avenue, and Independence Boulevard to travel north and south, as well as Oleander Drive, Wrightsville Avenue, and Market St. They are not convinced the project is necessary, but think it should be biker friendly and think DOT should put more money into making Wilmington safer for bicycles. They think Market St is too narrow and not bicycle friendly. They think the DOT needs to be sensitive to the homeowners in the neighborhood, and should encourage alternate forms of transportation, public and bicycle. They question if we need another big road. Stated they think Market Street has more need for improvement because traffic is worse there. They suggested using Covil Avenue since it is directly connected to Independence Boulevard.

Nancy Haddock (Child Development Center, Inc.) – Ms. Haddock stated she encounters congestion on Market Street and that the lights stay green for Market Street for way too long and cause the wait time to cross Market St to be excessive. She stated she uses Princess Place Drive to 16th, 17th, and 23rd Streets to travel north and south. Ms. Haddock suggested making Kerr Avenue four lanes across MLK Parkway and replacing the stoplight with an overpass. She thinks there should be more signs and enforcement of speed limits on side streets crossing Independence Boulevard. She stated Independence Boulevard is 45[mph], Wrightsville Avenue should be 35[mph], along with Oleander Drive and Market Street, but EVERYBODY speeds. She stated the speed limit on Princess Place Drive needs to remain 35[mph] and be



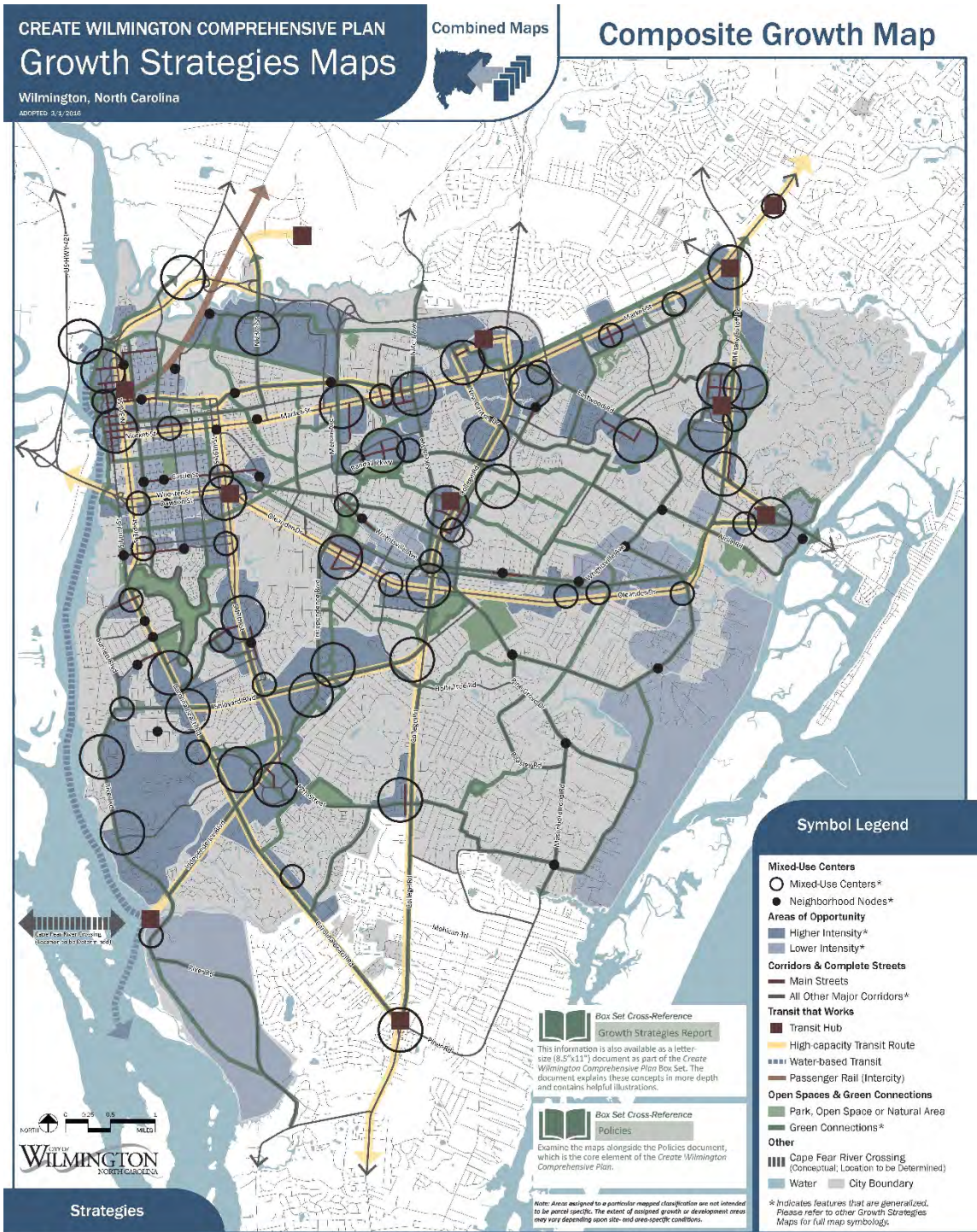
enforced. Ms. Haddock suggested considering roundabouts for the project if an overpass as Market Street is not affordable and stated that every major artery in New Hanover County is clogged by stoplights and the only overpass in town is College Road over Market Street, which is pitiful!

Rosalie Williams Eldridge – Ms. Eldridge stated that she encounters congestion at Market Street and Montgomery and thinks it is due to the wrong placement of the traffic signal. She stated that she thinks this is unreasonable, especially if you try to make a turn off of Market Street onto Evans Street or Clay Street. She stated that she uses Kerr Ave and 23rd Street, as well as Oleander Drive, Randal Parkway, Market Street and MLK Parkway to travel north and south. Ms. Eldridge thinks Independence Boulevard should be built as soon as possible. Ms. Eldridge suggested making lanes wider and creating separate turn lanes on Market Street between 17th Street and 29th Street. She inquired about when people will find out if they have to move and when the relocations will take place. She also inquired if these people will get a fair price for their homes and if they will have enough time to find affordable and comfortable housing. Ms. Eldridge expressed concern for those being displaced since many people have put a lot into their homes and worked hard for it, especially senior citizens.

If you have questions or comments regarding this information, please contact Peter Trencansky (URS) at (919) 461-1332.



Create Wilmington Growth Strategies Maps



Mixed-use Centers
Investment and revitalization should be concentrated in distinct nodal areas in order to accommodate walkability, vitality, increasing higher-density development patterns, and transit. This approach should be prioritized over a development pattern that disperses activity that new investment can bring to an area by spreading it out over too large of a geographic area and limiting transportation options. The identified Mixed-Use Centers include those already existing, those that are emerging, planned mixed-use developments, or newly designated areas. A particular type of center, called a "Neighborhood Node," is intended to foster neighborhood-scale focal points of development activity.

There are several types of Mixed-Use Centers, ranging in density, size, and regional impact. These are reflective of the underlying community development patterns in which they are located.

Areas of Opportunity
While all parts of the city can expect to experience some level of change, some areas will experience more intense change through new development, redevelopment, and infrastructure improvements. The Areas of Opportunity Map represents those parts of the city that have the greatest potential to accommodate future growth, infill, and new development. Efforts should be made to ensure a cohesive development pattern in these areas.

There are several types of Areas of Opportunity, and they vary in terms of land use hierarchy, intensity of development, and anticipated change. Each area has an overarching growth strategy. Development within an Area of Opportunity should be reflective of the underlying community development patterns.

Corridors & Complete Streets
The city must have a robust hierarchy of streets and paths in order to achieve its desired growth pattern. The Corridors and Complete Streets Map identifies which roadways should be prioritized for automobile and freight travel, and which. The needs of all modes of travel, even bike and pedestrian travel, should be balanced and prioritized. This map also shows that streets should be designed to reflect a certain character, for example being attractive gateway and access to neighborhoods, employing historic features, or prioritizing automobile movements across, through, and within the region.

There are several types of Corridors and Complete Streets. These vary based on ordered building conditions, street design, pedestrian priority, overall character, regional significance, and other factors.

Transit that Works
This map is designed to prioritize specific corridors for transportation system upgrades, including, but not limited to, faster transit travel times, more comfortable transit riding and waiting conditions, and a strong relationship to high and moderate density land uses that facilitate walking and bicycling. The strategies associated with this map encourage more transit stations in areas that integrate other land uses and serve as focal points to their surroundings.

The map employs a "transit oriented" and "transit ready" development framework for urban growth, where transportation is coordinated with Mixed-Use Centers and Corridors and Complete Streets maps so that each may reinforce the others.

Green Connections & Open Spaces
Pedestrian and bicycle mobility is at the forefront of creating a livable city. Wilmingtonians have expressed great interest in being able to walk and bike comfortably and safely, including incorporating these modes into daily needs and social activities. This may include going to the park, exercising, shopping, going out for the evening, and commuting to work. A robust network of green connections and open spaces is proposed throughout the city.

Green connections are classified by existing and proposed facilities in the New Hanover County Greenway Plan. Beyond these facilities, additional conceptual connections are also suggested in the plan. There are generally three types of solutions suggested to achieve a well-connected system.

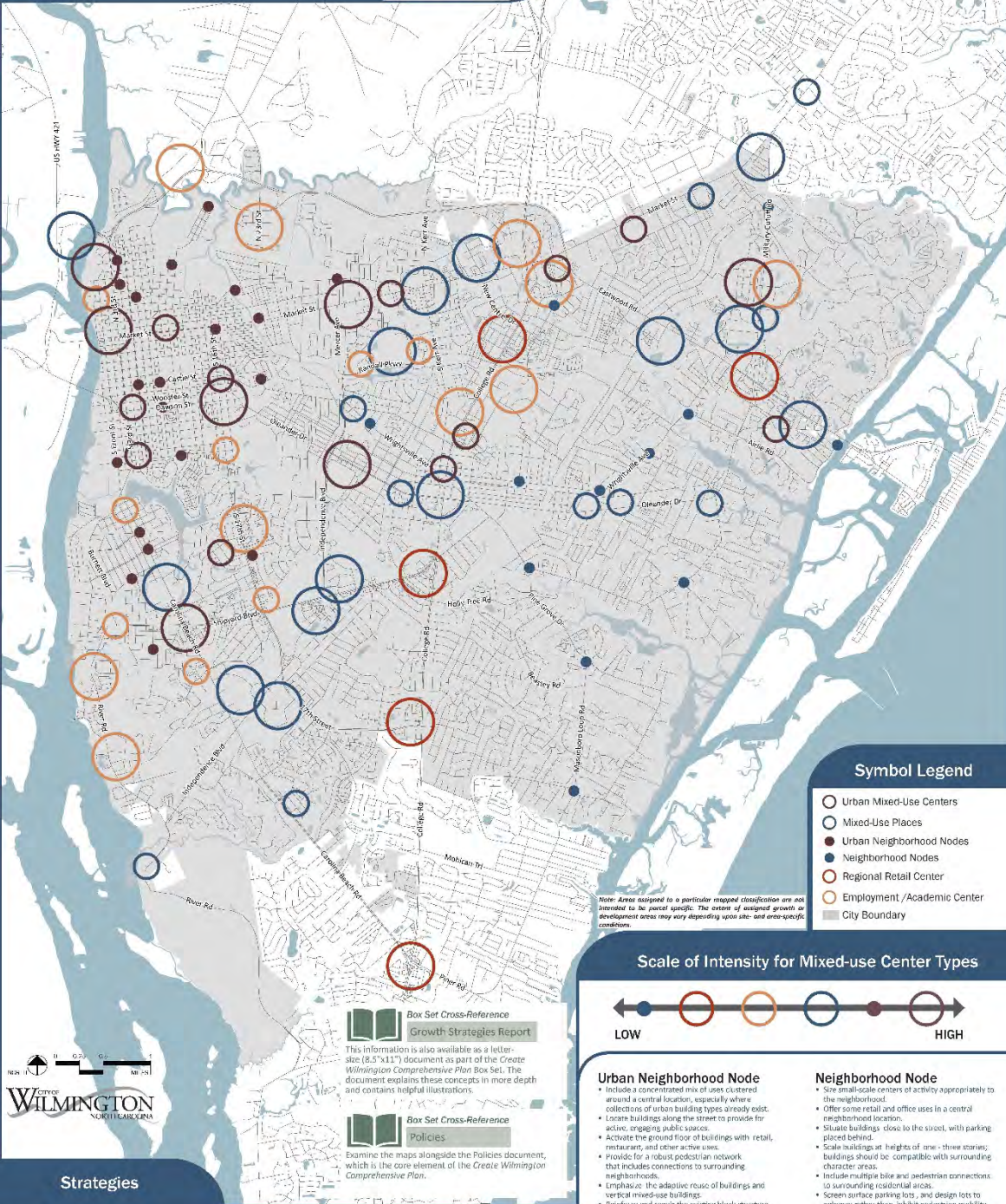


CREATE WILMINGTON COMPREHENSIVE PLAN
Growth Strategies Maps

Map 1 of 5

Mixed-use Centers

Wilmington, North Carolina
ADOPTED: 3/1/2016



Urban Mixed-use Center

- Develop with high and moderate densities and tall towers.
- Create and reinforce highly active, pedestrian-focused streetscapes.
- Reinforce or introduce traditional urban development patterns characterized by a highly connected system of small blocks, alleys, numerous pedestrian connections, and a mix of building types.
- Arrange buildings to create a comfortable public space and relate to one another as part of a larger placemaking scheme.
- Include a rich mix of uses: limit single-use developments with large building footprints.
- Place buildings directly onto public streets and provide active ground floor uses.
- Include well-connected pedestrian network with abundant amenities.
- Use structured and on-street parking to accommodate higher densities; limit surface parking lots and exposed parking stock facilities, especially along pedestrian streets.
- Create strong multimodal connections to adjacent neighborhoods.
- Encourage the adaptive reuse of buildings with urban qualities, such as civic frontage, high profile than one-story, and interesting character.

Mixed-use Place

- Develop with moderate densities and lot sizes.
- Include walkable components and some vertical mixed-use buildings.
- Design active pedestrian streetscapes and strong connections to adjacent neighborhoods.
- Include shopping centers with mixed-use and main street characteristics.
- Use structured and on-street parking to accommodate densities; limit surface parking lots and exposed parking deck facilities, especially along pedestrian streets.
- Provide a well-connected grid street system.
- Use alleys to limit the number of driveways along the block face.

Urban Neighborhood Node

- Include a concentrated mix of uses clustered around a central location, especially where collections of urban building types already exist.
- Locate buildings along the street to provide for active, engaging public spaces.
- Activate the ground floor of buildings with retail, restaurant, and other active uses.
- Provide for a robust pedestrian network that includes connections to surrounding neighborhoods.
- Emphasize the adaptive reuse of buildings and vertical mixed-use buildings.
- Reinforce and repair the existing block structure found in the Greater Downtown similar areas of the city to emphasize walkability.
- Limit parking; to emphasize walking and transit connections, on-street parking should be used while large surface parking lots are discouraged.

Neighborhood Node

- Size small-scale centers of activity appropriately to the neighborhood.
- Offer some retail and office uses in a central neighborhood location.
- Situate buildings close to the street, with parking placed behind.
- Scale buildings at heights of one - three stories; buildings should be compatible with surrounding character areas.
- Include multiple bike and pedestrian connections to surrounding residential areas.
- Screen surface parking lots, and design lots to enhance rather than inhibit pedestrian mobility.

Employment /Academic Center

- Emphasize areas of economic activity associated with academic and/or employment areas (offices, manufacturing hubs, and small businesses).
- Provide a commercial and civic focal point for the provision of daily services and the exchange of ideas, especially for the benefit of entrepreneurial growth, client and talent attraction, and employee health.
- Introduce housing and commercial uses where appropriate.

Regional Retail Center

- Accommodate large-format retail stores and other commercial suburban developments; grade-steps.
- Facilitate an efficient flow of automobile and delivery traffic.
- Accommodate the pedestrian whenever possible.
- Improve retail visibility through a cohesive development pattern and access between and among various sites.
- Include strategic connections to surrounding neighborhoods.



CREATE WILMINGTON COMPREHENSIVE PLAN
Growth Strategies Maps

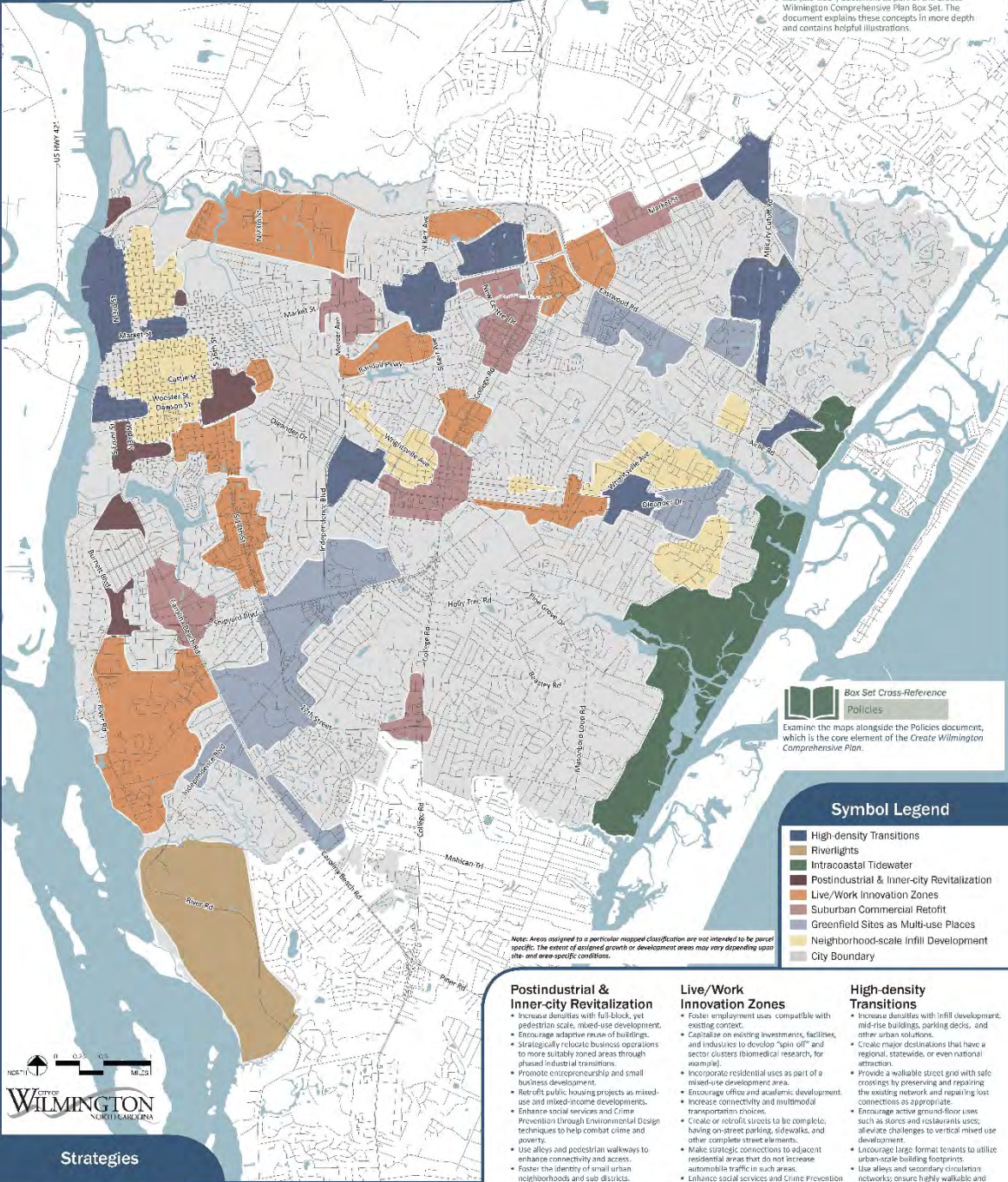
Map 2 of 5

Areas of Opportunity

Wilmington, North Carolina
ADOPTED: 3/1/2016

Box Set Cross-Reference
Growth Strategies Report

This information is also available as a letter-size (8.5"x11") document as part of the Create Wilmington Comprehensive Plan Box Set. The document explains these concepts in more depth and contains helpful illustrations.



Box Set Cross-Reference
Policies

Examine the maps alongside the Policies document, which is the core element of the Create Wilmington Comprehensive Plan.

Symbol Legend

- High-density Transitions
- Riverlights
- Intracoastal Tidewater
- Postindustrial & Inner-city Revitalization
- Live/Work Innovation Zones
- Suburban Commercial Retrofit
- Greenfield Sites as Multi-use Places
- Neighborhood-scale Infill Development
- City Boundary

Postindustrial & Inner-city Revitalization

- Increase densities with full-block, yet pedestrian-scale, mixed-use development.
- Encourage adaptive reuse of buildings.
- Strategically relocate business operations to more suitably zoned areas through phased industrial transitions.
- Promote entrepreneurship and small business development.
- Retrofit public housing projects as mixed-use and mixed-income developments.
- Enhance social services and Crime Prevention through Environmental Design techniques to help combat crime and poverty.
- Use alleys and pedestrian walkways to enhance connectivity and access.
- Foster the identity of small urban neighborhoods and sub-districts.
- Repair street connectivity and block structure that has been lost over time.

Live/Work Innovation Zones

- Foster employment uses compatible with existing context.
- Capitalize on existing investments, facilities, and industries to develop "spin off" and sector clusters (biomedical research, for example).
- Incorporate residential uses as part of a mixed-use development area.
- Encourage offices and academic development.
- Increase connectivity and multimodal transportation choices.
- Create or retrofit streets to be complete, having on-street parking, sidewalks, and other complete street elements.
- Make strategic connections to adjacent residential areas that do not increase automobile traffic in such areas.
- Enhance social services and Crime Prevention through Environmental Design techniques to combat crime and poverty.
- Reconsider industrial zoning that calls for excessive separation of uses.

High-density Transitions

- Increase densities with infill development, mid-rise buildings, parking decks, and other urban solutions.
- Create major destinations that have a regional, statewide, or even national attraction.
- Provide a walkable street grid with safe crossings by preserving and repairing the existing network and repairing lost connections as appropriate.
- Encourage active ground-floor uses such as stores and restaurants used to alleviate challenges to vertical mixed-use development.
- Encourage large format tenants to utilize urban-scale building footprints.
- Use alleys and secondary circulation networks to ensure highly walkable and active streetscapes.
- Place parking to the rear of buildings and ensure primary building access from the public sidewalk network.
- Create design guidelines for key areas as needed.

Intracoastal Tidewater

- Focus on preserving character and single-family compatibility, including preservation of the National Register Historic District.
- Create pedestrian, bicycle, and small motor vehicle connections from various road segments and driveways.
- Increase public and semi-public water access.
- Consider accessory dwelling units and alternative building types.
- Consider coastal design guidelines for new development.
- Limit the number of driveways along parkways and loop road corridor types; encourage shared access and a network of connected streets and pathways.

Neighborhood-scale Infill Development

- Focus on preserving character and single-family compatibility, including preservation of the National Register Historic District.
- Create pedestrian, bicycle, and small motor vehicle connections from various road segments and driveways.
- Increase public and semi-public water access.
- Consider accessory dwelling units and alternative building types.
- Consider coastal design guidelines for new development.
- Limit the number of driveways along parkways and loop road corridor types; encourage shared access and a network of connected streets and pathways.

River Lights

- Implement adopted master plans.
- Encourage mixed-use centers and new and traditional development patterns.
- Ensure that new development meets the intent of adopted plans.
- Encourage public water access areas and incorporate natural features into the public space network.

Strategies

Greenfield Sites as Multi-use Places

- Implement adopted master plans; create new master plans as needed.
- Encourage town centers and other suburban mixed-use development types.
- Make connections to adjacent areas and incorporate them into new development.
- Provide abundant open space and buffers along low density neighborhoods, but integrate with existing multifamily and commercial areas.

- Maximize structured parking and minimize the use of large surface parking lots.
- Develop multi-use areas and provide multimodal connections between various uses.
- Encourage a variety of building types; employ new and traditional urban design principles in site and building design.
- Ensure a walkable block structure and a clear hierarchy of complete streets.
- Provide Main Streets with pedestrian-friendly storefronts and street furniture.

Suburban Commercial Retrofit

- Encourage infill development in surface parking lots.
- Overcome barriers to pedestrian movement such as excessive distances at street crossings, lack of sidewalks and crosswalks, and disconnected walking networks.
- Add residential uses and make connections to nearby existing residential areas.
- Develop design standards for commercial development.
- Use access management techniques, such as connected parking lots, to reduce the number of driveways along corridors.
- Retrofit underperformed and outdated suburban buildings and sites.
- Prioritize a more urban building prototype for large format and chain commercial developments.
- Establish an urban block structure in appropriate locations; convert parking lot driveways to full-service streets.

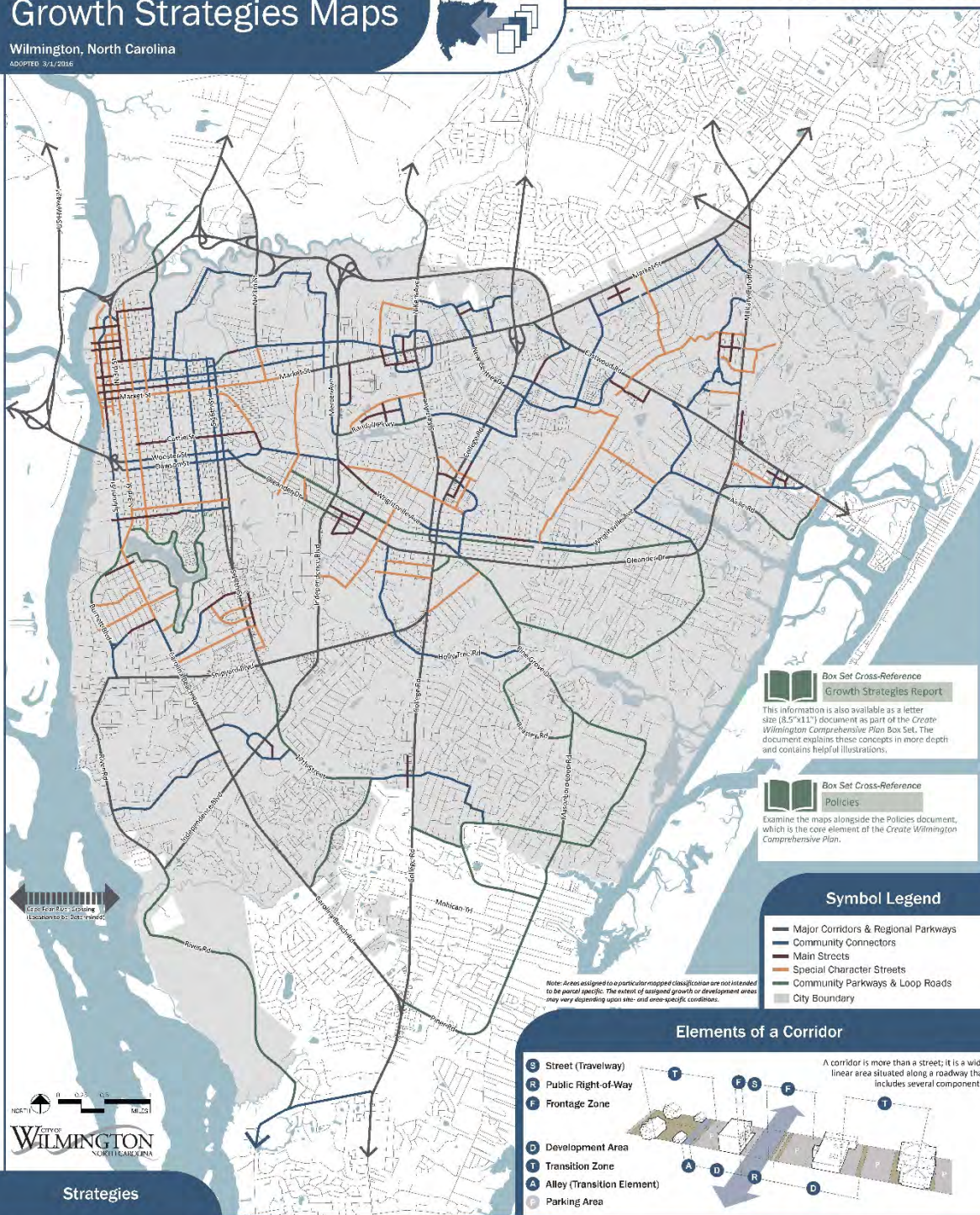


CREATE WILMINGTON COMPREHENSIVE PLAN
Growth Strategies Maps

Map 3 of 5

Corridors & Complete Streets

Wilmington, North Carolina
ADOPTED 3/1/2016



Box Set Cross-Reference
Growth Strategies Report

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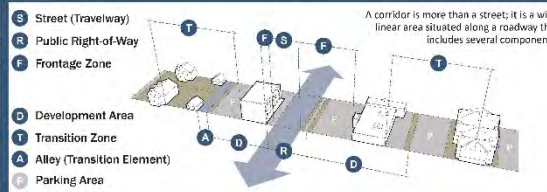
Box Set Cross-Reference
Policies

Examine the maps alongside the Policies document, which is the core element of the Create Wilmington Comprehensive Plan.

Symbol Legend

- Major Corridors & Regional Parkways
- Community Connectors
- Main Streets
- Special Character Streets
- Community Parkways & Loop Roads
- City Boundary

Elements of a Corridor



Strategies

Major Corridors & Regional Parkways

- Design these multimodal thoroughfares with some desirable qualities, including grade-separated bike lanes, sidewalks, and appropriate crosswalks.
- Prioritize motor vehicle mobility.
- Place buildings along these corridors back from the roadway to accommodate signage and some parking in front of the building, landscaped street yards, and parking lot landscaping.
- Add landscaped medians, where possible.
- Buffer sidewalks, bike lanes, and multi-use paths from the motor vehicle lanes.

Community Connectors

- Create transitions from regional-scale roadways to neighborhood and business areas. These streets are sometimes called "collector streets," though they may also be classified as arterials.
- Line these corridors with a mix of building and site types at varying densities and setbacks.
- Utilize trees and landscaping, and include adequate bike lanes and sidewalks.
- Design buildings and site with a variety of frontage types, including more urban conditions that foster safe pedestrian activity.
- Use these transitional corridors to protect existing residential character.

Main Streets

- Prioritize the pedestrian along these small-scale streets with shops, on-street parking, and buildings fronting continuously onto the sidewalk.
- Enhance these corridors with medians and streetscape improvements.
- Incorporate existing storefronts and infill development at high densities, while making smooth transitions into adjacent neighborhoods.
- Place parking to the rear or side of buildings, and not in the front of buildings. Surface parking lots and parking deck facades are along these streets.
- Foster a public realm that significantly favors pedestrians over automobiles.
- Encourage storefronts, bistros, individual building corners, and other active ground floor conditions that work together along the street to create a continuous corridor.

Special Character Streets

- Promote development and redevelopment, reduce pedestrian-automobile conflicts, and preserve historic streetscape elements currently located in these roadways.
- Minimize the visibility of surface parking lots and parking deck facades, especially along primary pedestrian streets.
- Prioritize pedestrian and bicycle mobility and placemaking efforts while continuing to accommodate moderate to large volumes of motor vehicle traffic.

Community Parkways & Loop Roads

- Maintain parkway corridors as scenic multimodal roadways with trees and landscaping.
- Include landscaped medians, bike and pedestrian facilities, and access management elements, such as limited crosswalks.
- Maintain scenic character by limiting sprawling commercial development.
- Maximize green landscaped frontages.

Residential Streets & Other Local Corridors

- Consider the character of the community, network connectivity and pedestrian mobility and keep at the forefront of design consideration when dealing with city streets.
- Implement traffic calming measures for neighborhood areas, using a variety of techniques such as landscape features, traffic circles, and others.

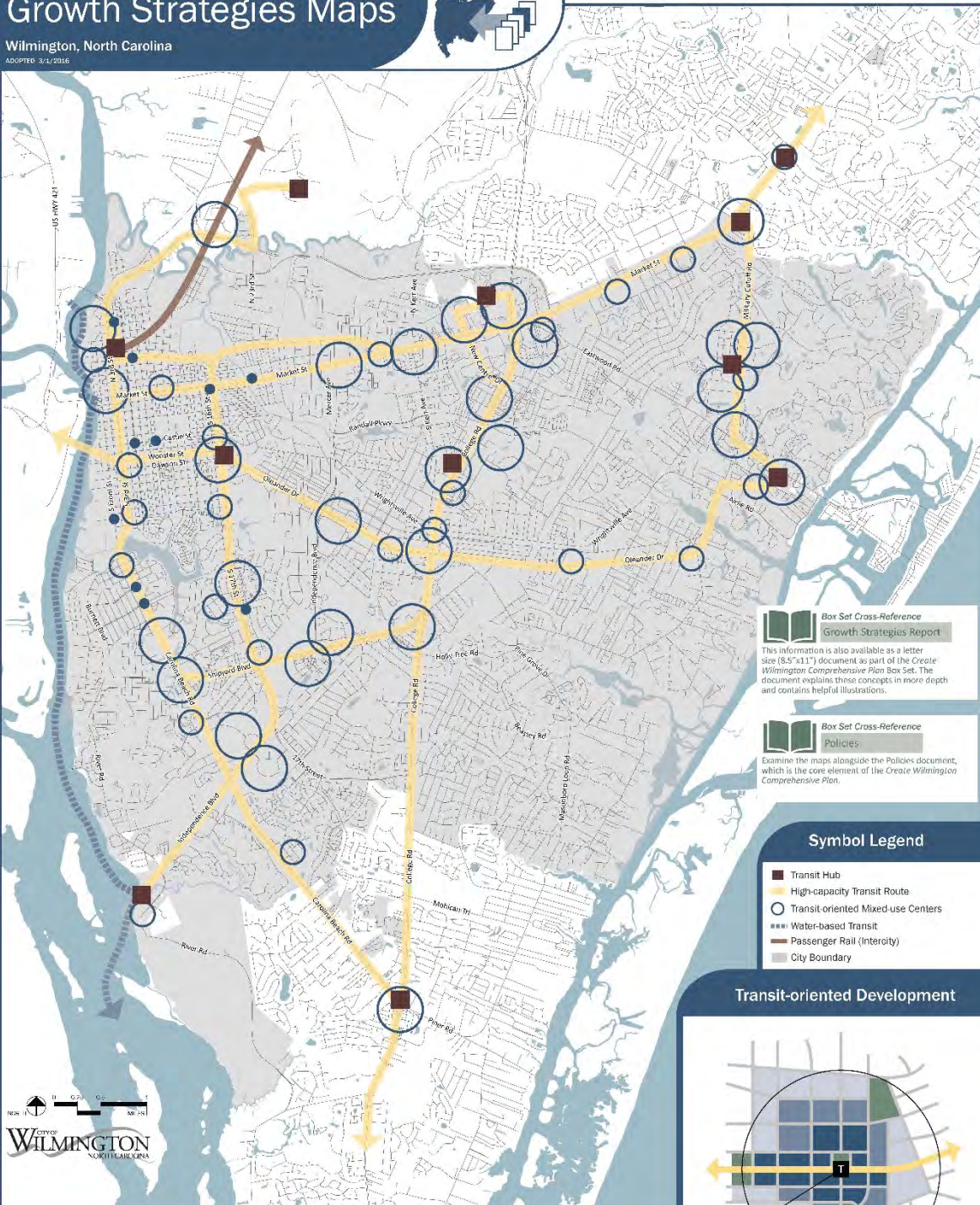


CREATE WILMINGTON COMPREHENSIVE PLAN Growth Strategies Maps

Wilmington, North Carolina
ADOPTED: 3/1/2016

Map 4 of 5

Transit that Works



Box Set Cross-Reference
Growth Strategies Report

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Box Set Cross-Reference
Policies

Examine the maps alongside the Policies document, which is the core element of the Create Wilmington Comprehensive Plan.

Symbol Legend

- Transit Hub
- High-capacity Transit Route
- Transit-oriented Mixed-use Centers
- - - Water-based Transit
- ⋯ Passenger Rail (intercity)
- ▭ City Boundary

Transit-oriented Development



High density mixed use development patterns intentionally planned around transit stations and/or stops with an integrated pedestrian network, open space and appropriate transitions to surrounding neighborhoods. This relationship maximizes the use of transit and provides accessible destinations.

- Transit System:**
- Transit Station / Stop
 - High-capacity Transit Route
 - 1/4 mile radius (Contextual Walking Distance)
- Integrated Development:**
- High-density Mixed-use Area
 - Moderate-density Mixed-use Area
 - Moderate-to-Low-density Transition Area
 - Open Space

Strategies

Transit-oriented Mixed-use Centers

- Develop mixed-use centers located along high-capacity transit routes; note that most of the Mixed-use Centers designated on the Growth Strategies Maps are located along a proposed high-capacity transit line.
- Supplement the transit systems within and between Mixed-use Centers, such as a trolley in the Downtown Core or a shuttle system around the university area.

Transit Hub

- Maximize the intensity and density of surrounding development; include significant public spaces associated with the development of transit stations, and make integrated, intentionally-designed connections to these facilities.
- Encourage the location of transit stations in proximity to development and passenger destinations.
- Identify and plan future transit connections to potential "park & ride" locations.

High-capacity Transit Route

- Improve transit service along these priority transit corridors, along with higher-density development in order to establish and contribute to the required demand to operate the service.
- Include transit service options, such as improved bus service to a modern streetcar line.
- Support higher density residential development along priority transit corridors.

Water-based Transit Service

- Use the Cape Fear River as a transportation corridor to connect Wilmington with southern New Hanover County and Brunswick County.
- Develop an efficient ferry system that does not conflict with port operations.
- Use a water taxi system to connect the east and west banks of the Cape Fear River downtown.

Conventional Bus Transit System*

- Maximize development density and intensity around bus routes; include significant public spaces with proposed transit stations, and make high-quality connections to these facilities.
- Encourage the location of transit stations in proximity to development and passenger destinations.

*Conventional bus transit system is not shown on this map.

*Note: Areas assigned to a particular mapped classification are not intended to be parcel specific. The extent of assigned growth or development areas may vary depending upon site- and area-specific conditions.

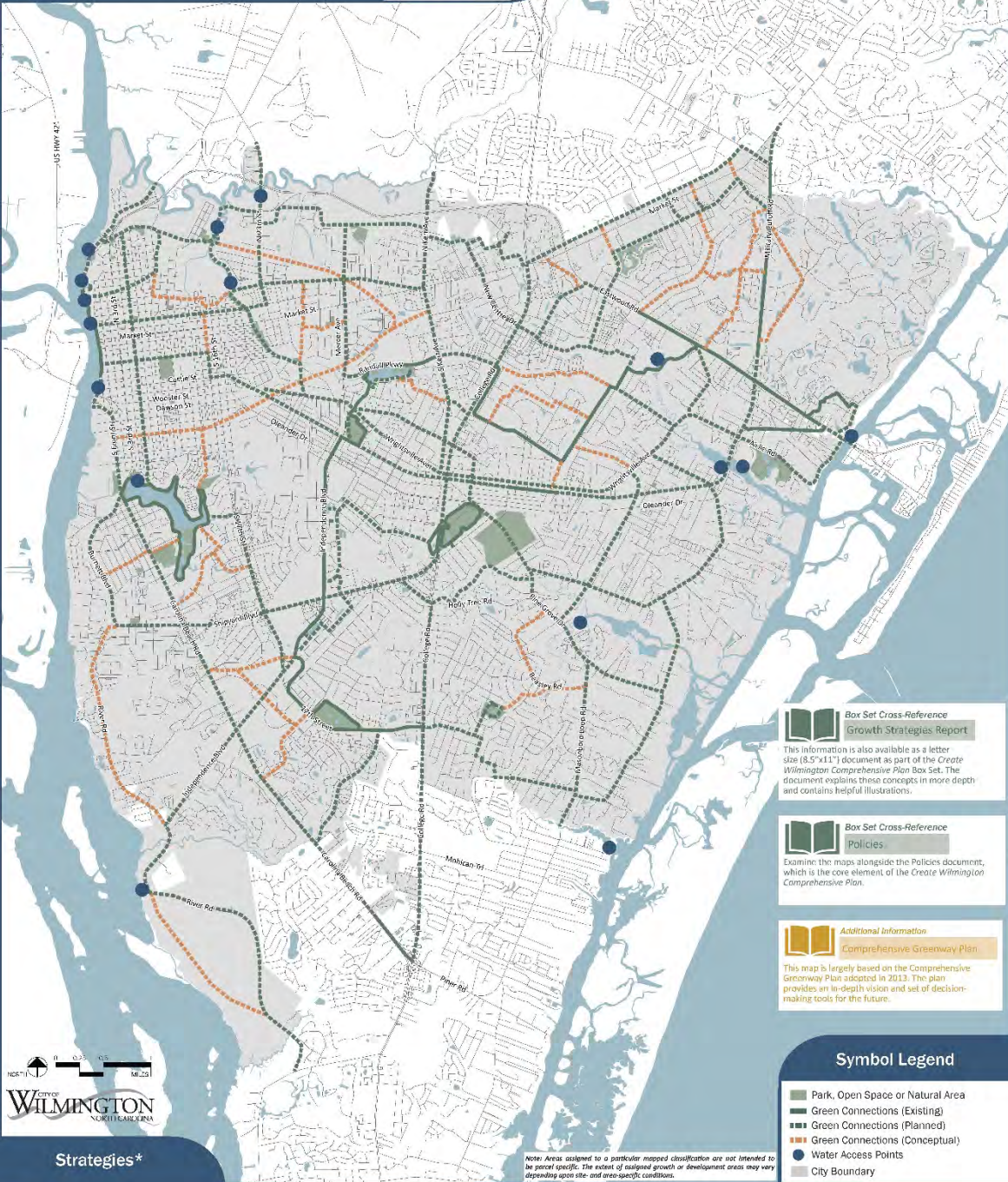


CREATE WILMINGTON COMPREHENSIVE PLAN
Growth Strategies Maps

Map 5 of 5

Open Spaces & Green Connections

Wilmington, North Carolina
ADOPTED: 3/1/2016



Box Set Cross-Reference
Growth Strategies Report

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Box Set Cross-Reference
Policies

Examine the maps alongside the Policies document, which is the core element of the Create Wilmington Comprehensive Plan.

Additional Information
Comprehensive Greenway Plan

This map is largely based on the Comprehensive Greenway Plan adopted in 2013. The plan provides an in-depth vision and set of decision-making tools for the future.

Symbol Legend

- Park, Open Space or Natural Area
- Green Connections (Existing)
- Green Connections (Planned)
- Green Connections (Conceptual)
- Water Access Points
- City Boundary



Strategies*

Types of Green Connections

- Multi-Use Paths & Bike Lanes**
- Include a physical separation between motor vehicle traffic and multi-use paths; improve use pedestrian street crossings.
 - Design these facilities for bicycle riding over long distances in a comfortable setting.
 - Locate bike lanes adjacent to motor vehicle or parking lanes on the roadway. Use buffers to separate cyclists from traveling cars. Bike lanes should be accompanied by sidewalks.
 - Use bicycle-automobile shared-lane arrows, also known as sharrows, in low automobile traffic areas to indicate bicycle traffic may also share the lane with vehicular traffic.

- Greenways, Trails, Alleys & Riverwalks**
- Where appropriate, dedicated these facilities for bicycle and pedestrian travel.
 - Locate these facilities away from busy automobile traffic.
 - Create strategic connections between areas.
 - Include alternative pathway types, such as boardwalks, park trails, pedestrian alleys, and others.
 - Include these facilities as linear parks for recreation and low-intensity transportation.

- Main Streets & Pedestrian Priority Streetscapes**
- Focus on walkable areas of the urban environment that are used for both transportation and recreation.
 - Provide amenities such as frequent crosswalks and signals, traffic calming street design, alternative paving materials, on-street parking, street trees, enhanced streetscape elements, buildings that face the sidewalk, and limited driveways along the street.
 - Connect walkable destinations and mixed-use centers.
 - Provide adequate bike parking.

Types of Open Spaces

- Protected Natural Areas**
- Maintain large areas undisturbed by human settlement.
 - Include meaningful open spaces.
 - May include walking/biking trails and vetewerway access points.
 - Maintain national reputation for scenic and natural characteristics found in the Lower Cape Fear Region.

- Community Parks & Facilities**
- Prioritize formal parks with active and passive components, including athletic facilities, walking trails, and a variety of areas for various uses.
 - Include schoolyards and other large outdoor recreation areas.
 - Provide parking lots for access, and prioritize cycling and walking connections.
 - Locate facilities within and near neighborhoods.

- Plazas & Pocket Parks**
- Create smaller portions of land for recreation and open space.
 - Include small playgrounds, seating areas, courtyards, and plazas, as appropriate.
 - Utilize green areas (covered with grass and trees), hardscape (paving materials), or a mix of both.
 - Prioritize these open spaces in dense areas.
 - Ensure visibility from the street and surrounding buildings to ensure safety and reduce crime.

*Strategies provide a variety of ways to achieve the mapped green connections system. The specific types of green connections and open spaces are not mapped in order to allow implementation flexibility.

Wave System Map



