



PAT McCRORY
Governor

NICHOLAS J. TENNYSON
Secretary

July 1, 2016

MEMORANDUM TO: External Scoping Meeting Attendees

FROM: Tracy Walter, P.E.
Project Development and Environmental Analysis

SUBJECT: External Scoping Meeting
Widen I-85 to Eight Lanes from US 321 to NC 273, Gaston
County, Federal Aid No. NHPP-085-1(121)27, WBS No.
50135.1.FS1, STIP No. I-5719

The Project Development and Environmental Analysis Unit (PDEA) has started the project development and environmental and engineering studies for the subject project. The project is included in the North Carolina Department of Transportation's federally approved 2016-2025 State Transportation Improvement Program (STIP) and is currently scheduled for right-of-way acquisition to begin in fiscal year 2022 and construction let in fiscal year 2024.

An External Scoping Meeting has been scheduled on **Wednesday, July 20 at 12:45 p.m.** The meeting will be held in the NCDOT Structure Design Conference Room in Building A, Century Center, 1000 Birch Ridge Road in Raleigh.

The general purpose of this meeting is to begin early coordination with our agency partners by discussing known information about the project and project area. There are Project Data Sheets, mapping, and other materials for this meeting in the project file located on the PDEA Merger website:

<https://xfer.services.ncdot.gov/pdea/MergerMeetings/>

Please review this material and be prepared to discuss any additional known information regarding your resource and/or area of expertise as it may concern the project. We would especially appreciate any information you might have that would be helpful in identifying and evaluating important issues or topics that should be considered.

Thank you for your assistance in the project development process. If you have any questions concerning the project or the Project Data Sheets, please contact Tracy Walter at (919) 707-6177 or by email at twalter@ncdot.gov. Please include STIP Project Number **I-5719** in all correspondence and comments.





I-85 Improvements

STIP Project No. I-5719

US 321 (exit 17) to NC 273 (exit 27) – widening
Gaston County



MEETING AGENDA

Date: July 20, 2016

Time: 12:45PM – 2:45PM

Place: NCDOT Structure Design Conference Room, Century Center – Building A

Remote Participants: Call 919-250-7882 and join the meeting from your computer at

<https://meet.lync.com/nconnect-ncdot/tahart/RHVCZ4S7>

Purpose: External Scoping Meeting

- ▶ Introductions
- ▶ Project Overview
 - Project description
 - Existing transportation network
 - Structures
 - Other STIP projects
 - Traffic
 - Purpose
 - Previous studies / current activities
 - Environmental features
- ▶ Next Steps / Schedule
- ▶ Individual Agencies Report
 - Federal Highway Administration
 - U.S. Army Corps of Engineers
 - U.S. Environmental Protection Agency
 - U.S. Fish and Wildlife Service
 - NC Division of Water Resources
 - NC Wildlife Resources Commission
 - NC Historic Preservation Office
 - Gaston-Cleveland-Lincoln Metropolitan Planning Organization
- ▶ Discussion

Project Development and Environmental Analysis Scoping Information Sheets

<u>TIP Nos.:</u>	I-5719	<u>Sent Date:</u>	July 1, 2016
<u>WBS No.:</u>	50135.1.FS1	<u>Revision Date:</u>	
<u>Federal Aid No.:</u>	NHPP-085- 1(121)27	<u>Meeting Date:</u>	July 20, 2016
<u>Divisions:</u>	Division 12		
<u>Counties:</u>	Gaston		

Project Description: Widening I-85 from US 321 (exit 17) to NC 273 (exit 27) to eight lanes. See **Figure 1**.

General Project Need: Preliminary: To improve capacity/mobility/travel time reliability on I-85 in the study area.

Metropolitan / Rural Planning Organization: Gaston-Cleveland-Lincoln Metropolitan Planning Organization (GCLMPO)

NEPA/404 Merger Candidate?: Yes No To Be Determined

Feasibility Study Completed?: Yes No Date of Study:

<u>Project Schedule:</u>	<u>Type of Document:</u>	<u>Dates:</u>
Environmental Document(s):	EA	TBD
	FONSI	TBD
Right of Way Authorization Date:		FY 2022
Let Date:		FY 2024

Cost Estimate:

TIP Estimate:
(5/1/2016)

Current Estimate:

Construction:	R/W & Utilities:	Total Cost ¹ :
\$215,000,000	\$40,500,000	\$257,509,000

¹ Includes \$2,009,000 in prior years cost.

Design Criteria:

Length of Project:

Approx. 9.8 miles

Right of Way:

Existing ¹ :	-Approx. 175–450 feet on mainline. (typical ~260 feet) -Approx. 250–2,200 feet at interchanges. (typical ~1,000 feet) -Approx. 70–150 feet on intersecting roadways (bridged). (typical ~100 feet) -Approx. 50–200 feet on intersecting railroads (bridged). (typical ~100 feet)
Proposed:	250–300 feet

Type of Access Control:

Existing:	Full access control
Proposed:	Full access control

Roadway Typical Section:

Existing:	6-lane, raised concrete median divided <ul style="list-style-type: none"> o From west/south project terminus to mile marker 26 (approx. 9 miles). 8-lane, raised concrete median divided <ul style="list-style-type: none"> o From mile marker 26 to east/north project terminus (approx. 1 mile).
Proposed:	8-lane, raised concrete median divided

Speed:

Existing Posted Speed:	60 mph
Proposed Design Speed:	65 mph

¹ Measured in ArcGIS, between parcel boundaries (source: Gaston County GIS).

Bridge/Culvert Inventory:

- 2 – Bridges carrying I-85 over:
1. US 321 (Exit 17) and *Railroad* (abandoned Norfolk Southern; Highland Rail Trail)
 2. South Fork Catawba River and Willow Drive to Pharr Yarns Plant
- 18 – Bridges over I-85:
1. Fairview Drive/W Davidson Avenue
 2. Dr. Martin Luther King, Jr. Way (former N Marietta Street)
 3. Modena Street
 4. *Railroad* – NCDOT (Owner)/Piedmont & Northern Railway (Operator)
 5. NC 7/E Ozark Avenue (Exit 19)
 6. *Railroad* – Norfolk Southern (Owner/Operator)
 7. NC 279/N New Hope Road (Exit 20)
 8. Aberdeen Boulevard
 9. Cox Road (Exit 21)
 10. S Church Street
 11. S Main Street (Exit 22)
 12. *Railroad* – Norfolk Southern (Owner/Operator)
 13. Groves Street
 14. NC 7/McAdenville Road/Main Street (Exit 23)
 15. Hickory Grove Road
 16. Belmont–Mt Holly Road (Exit 26)
 17. *Railroad* – NCDOT (Owner)/Piedmont & Northern Railway (Operator)
 18. NC 273/Beatty Drive/Park Street (Exit 27)
- 3 – Major culverts under I-85 (NCDOT BMU bridge database):
1. Kaglor Branch
 2. Unnamed Tributary to Long Creek
 3. Duharts Creek

Functional Classification:

Interstate

Strategic Transportation Corridor Information:

STC I (I-85)
Note: STC U (US 74W/US 74E) parallels I-85 to the south and may be involved at a couple intersections.

CTP/Thoroughfare Plan Designation (Facility Type):

6 Lane Freeway and 8 Lane Freeway (GCLMPO, 2012).

Air Quality Status: Non-attainment Maintenance Attainment

Horizon Completion Year (Long Range Trans. Plan):

2030

Typical Section in Compliance with Conformity Determination?

Yes No

Traffic (AADT):

	Year	Range of Traffic (vehicles per day)
Current Year ² :	2014	107,000-126,000
Design Year (No Build):	2040	TBD
Design Year (Build):	2040	151,600-171,200

% TTST:	12%
% Dual:	3%
% DHV:	8%

-Information above is from Traffic Estimate,
January 20, 2016
-Traffic factor assumptions from STIP Project
I-5000
-Traffic Forecast under development

Design Standards Applicable:

AASHTO 3R

Railroad Involvement:

Norfolk Southern Railway, Piedmont & Northern
Railway.

Utility Involvement:

Duke Energy, PSNC Energy

2 NCDOT – Traffic Survey Group, Transportation Planning Branch, “2014 AADT, Gaston County, North Carolina.”

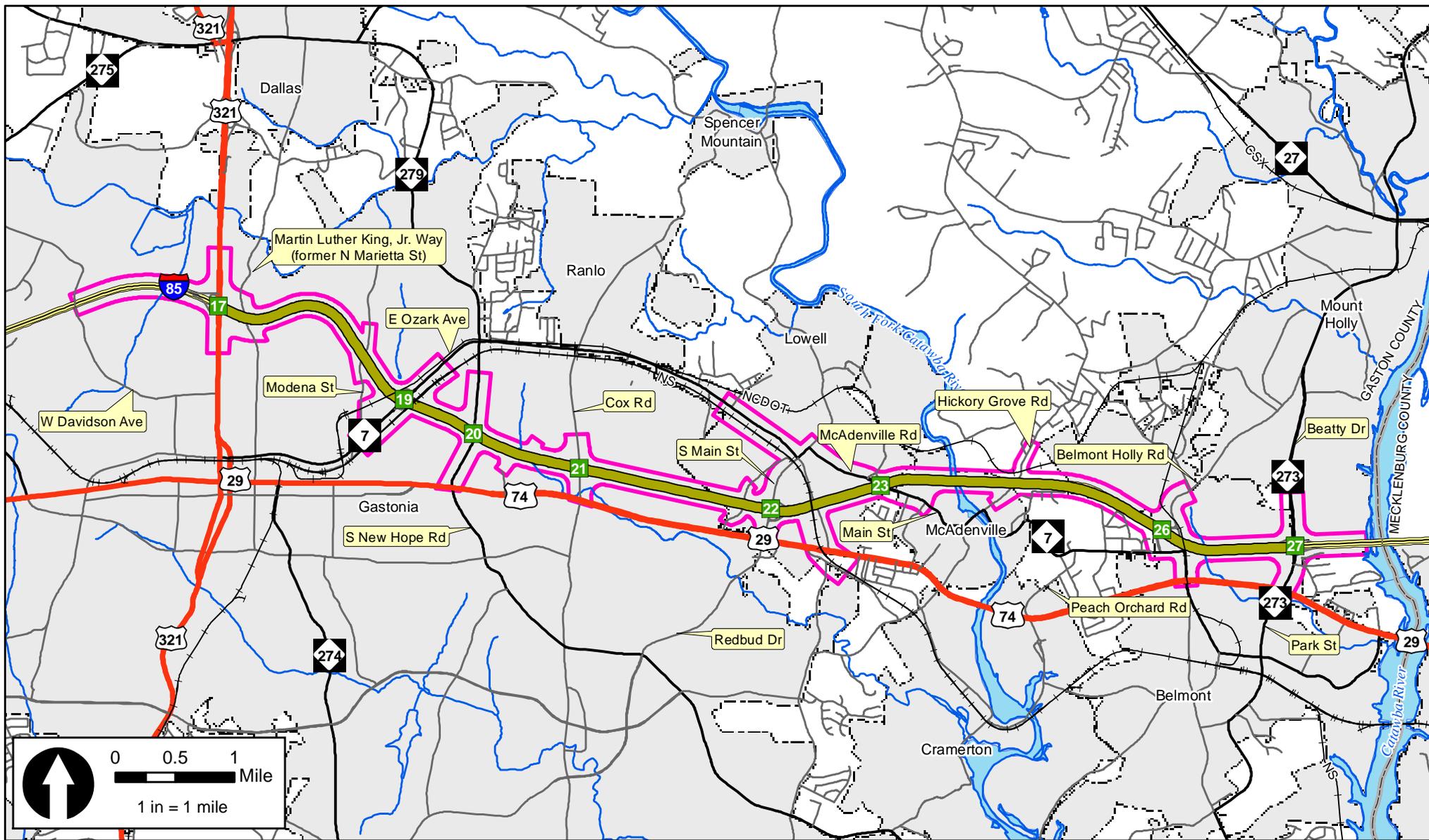
Preliminary Study Area Resources Inventory Table

Resource/Affected Environment & Measure	Applicability/Resources in Study Area
General Project Information	
Crossings or Intersections (48)	<p>8 – Interchanges</p> <ol style="list-style-type: none"> 1. US 321 (Exit 17) 2. NC 7/E Ozark Avenue (Exit 19) 3. NC 279/N New Hope Road (Exit 20) 4. Cox Road (Exit 21) 5. S Main Street (Exit 22) 6. NC 7/McAdenville Road/Main St (Exit 23) 7. NC 7/McAdenville Road/Belmont Mt. Holly Road (Exit 26) 8. NC 273/Beatty Drive/Park Street (Exit 27) <p>16 – Intersections</p> <ol style="list-style-type: none"> 1. US 321 and I-85 (Exit 17) Westbound Ramp Terminal 2. US 321 and I-85 (Exit 17) Eastbound Ramp Terminal 3. NC 7/E Ozark Avenue and I-85 (Exit 19) Westbound Ramp Terminal 4. NC 7/E Ozark Avenue and I-85 (Exit 19) Eastbound Ramp Terminal 5. NC 279/N New Hope Road and I-85 (Exit 20) Westbound Ramp Terminal 6. NC 279/N New Hope Road and I-85 (Exit 20) Eastbound Ramp Terminal 7. Cox Road and I-85 (Exit 21) Westbound Ramp Terminal 8. Cox Road and I-85 (Exit 21) Eastbound Ramp Terminal 9. S Main Street and I-85 (Exit 22) Westbound Ramp Terminal 10. S Main Street and I-85 (Exit 22) Eastbound Ramp Terminal 11. NC 7/McAdenville Road/Main Street and I-85 (Exit 23) Westbound Ramp Terminal 12. NC 7/McAdenville Road/Main Street and I-85 (Exit 23) Eastbound Ramp Terminal 13. NC 7/McAdenville Road/Belmont Mt. Holly Road and I-85 (Exit 26) Westbound Ramp Terminal 14. NC 7/McAdenville Road/Belmont Mt. Holly Road and I-85 (Exit 26) Eastbound Ramp Terminal 15. NC 273/Beatty Drive/Park Street and I-85 (Exit 27) Westbound Ramp Terminal 16. NC 273/Beatty Drive/Park Street and I-85 (Exit 27) Eastbound Ramp Terminal <p>3 – Active Railroad Crossings [Owner/Operator (Crossing No.)]</p> <ol style="list-style-type: none"> 1. NCDOT/Piedmont & Northern Railway (PNRW) (631898J) 2. Norfolk Southern (NS)/NS (716203K) 3. NS/NS (631251L) <p>1 – Inactive Railroad Crossing [Owner/Operator (Crossing No.)]</p> <ol style="list-style-type: none"> 1. NCDOT/PNRW (631235C) <p>13 (approx.) – Crossings requiring 72" pipe or greater were identified in preliminary field assessment by HNTB Hydraulic Engineers.</p>

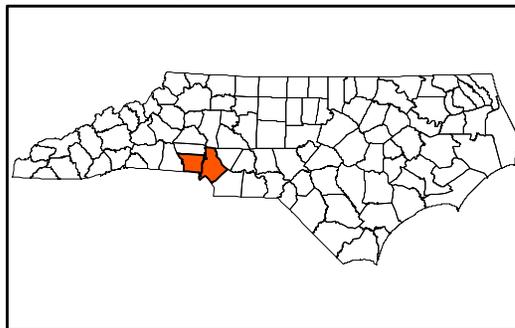
Cultural Resources	
NRHP (listed and eligible) sites, districts, other properties (5)	<p>3 – NRHP Listed Property</p> <ol style="list-style-type: none"> 1. McAdenville Historic District (GS0428) 2. Belmont Abbey Cathedral [Individual listing] (GS0001) 3. Belmont Abbey Historic District (GS0020) <p>2 – NRHP Eligible Property</p> <ol style="list-style-type: none"> 1. St. Leo's Hall (GS0220) 2. Piedmont & Northern Railway Linear Historic District (GS1625)
Human Environment	
Community Resources (32)	<p>17 – Churches</p> <ol style="list-style-type: none"> 1. Cedar Grove Baptist (1326 Cedar Ave, Gastonia) 2. Promised Land Baptist (1024 Old Modena St, Gastonia) 3. East Gastonia Church of God (1407 E Cedar Ave, Gastonia) 4. Faith United Methodist Church (1511 E Ozark Ave, Gastonia) 5. Gospel Light Holiness (104 Weldon St, Gastonia) 6. Redeemed of the First Born (210 Welch Ave, Gastonia) 7. Bethlehem Baptist Church (575 Separk Cir, Gastonia) 8. Wrights Chapel Methodist (701 Cobb St, Lowell) 9. New Life Christian Center (128 Robbins St, Lowell) 10. Mt Calvary Baptist (120 Branch St, Lowell) 11. Epic Church (100 B Indian Walk, Lowell) 12. Lowell Presbyterian (207 E First St, Lowell) 13. Belmont Abbey Catholic (100 Belmont-Mt. Holly Rd, Belmont) 14. O'Conner's Grove Methodist (613 Main St, Belmont) 15. Lowell Smyre United Methodist (201 N Main St, Lowell) 16. First Baptist (400 W First St, Lowell) 17. Lowell Church of God (804 W First St, Lowell) <p>9 – Cemeteries</p> <ol style="list-style-type: none"> 1. Lutheran Chapel 2. Webb Cemetery 3. Adam Springs Gravesite 4. McAdenville Town Cemetery 5. Wilson-Reid (relocated in 2001) 6. John Harmon 7. St. Benedict (St. Leo) Cemetery 8. O'Conner's Grove Methodist Church 9. Mount Zion Baptist Church Memorial Gardens <p>3 - Fire Stations</p> <ol style="list-style-type: none"> 1. Lowell Volunteer FD 2. Gastonia City FD Station 2 3. Gastonia City FD Station 6 <p>2 – Hospitals</p> <ol style="list-style-type: none"> 1. Caromont Regional Medical Center (2525 Court Dr, Gastonia) (aka, Gastonia Memorial Hospital) 2. Carolinas Rehabilitation-Mount Holly (275 Beatty Dr, Belmont) <p>1 – Police Station</p> <ol style="list-style-type: none"> 1. Lowell PD (102 E. First St) <p>1 – Local Historic Landmark</p> <ol style="list-style-type: none"> 1. Lowell Teacherage (503 W. First St, Lowell)
Public Parks/Section 4(f) Properties (10)	<p>5 – NRHP Listed and Eligible Properties (listed above)</p> <p>5 – Public Parks</p> <ol style="list-style-type: none"> 1. Joe Hudson Park 2. Bradley Center Park 3. Woodhill Elementary Park 4. Sims Legion Park 5. McDonald Field

Greenways, Game Lands, Land and Water Conservation Fund Properties, etc. (4)	2 – Greenways 1. Highland Rail Trail 2. South Fork Trail 1 – Blueway 1. South Fork River Blueway 1 – LWCF (Section 6f) Property 1. Bradley Center Park
Residential Properties (# potentially affected)	TBD
Business Properties (# potentially affected)	TBD
High % Special Populations (Low-Income, Minority)	Yes. Low-income, minority, and language assistance (LA) populations present.
Natural Environment	
Streams (# of stream crossings)	52 (field delineated channels); approx. 22 stream crossings
Wetlands (est. acres)	Approx. 6 acre (field delineated)
Critical Water Supply Watersheds	Yes. Catawba River (Lake Wylie below elevation 570).
Riparian Buffer Rules apply?	Yes. 50 feet of all shorelines of the Catawba River mainstem below Lake James and along mainstem lakes from and including Lake James to the NC/SC boundary (i.e., includes Lake Wylie) (15A NCAC 02B.0243).
Identified Critical Habitat/ESA Spp. (# known)	TBD
Physical Environment	
Hazardous Materials (66 known sites)	55 – USTs 3 – Landfill sites 5 – hazardous waste generator sites 1 – dry cleaner site 1 – superfund site 1 – brownfield site
Utilities	Duke Energy, PSNC Energy
Active agriculture (Voluntary Agricultural District)	No VADs or EVADs in the study area.
Noise	Impacts TBD. Noise sensitive receptors in study area (residences).

NOTES: This table is intended to be used in conjunction with the Environmental Features Maps (**Figures 2a-2c**) and the USGS Maps (**Figures 3a-3c**).



Sources: NC OneMap, NCDOT.



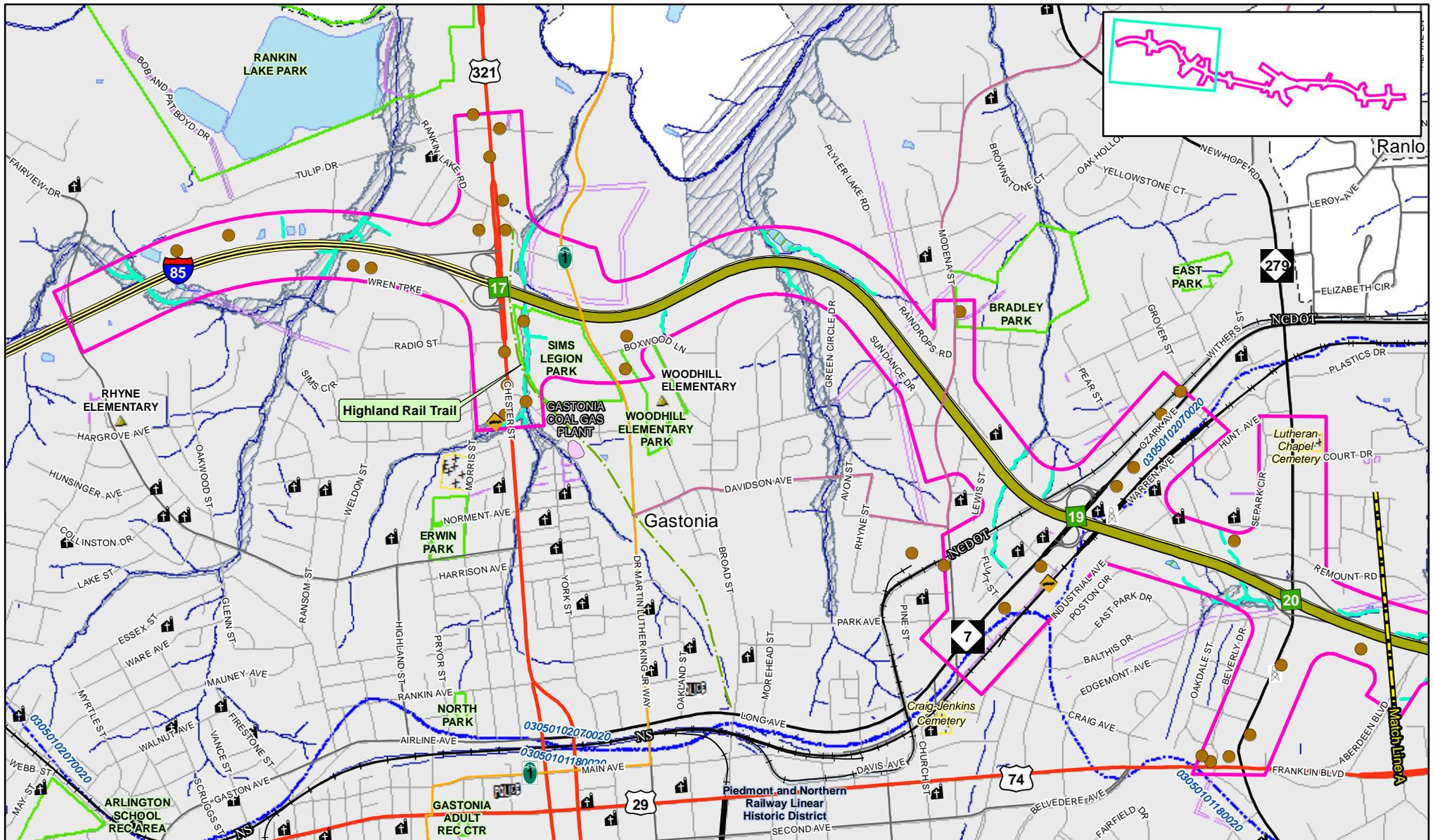
Legend

- Preliminary Study Area
- Exit
- Interstate
- US Route
- County Boundary
- Municipal Boundary
- Open Water
- Stream
- NC Route
- Local Road
- ++ Railroad

Figure 1. Preliminary Study Area

STIP Project I-5719
 I-85 Widening,
 Gaston County
 May 2016





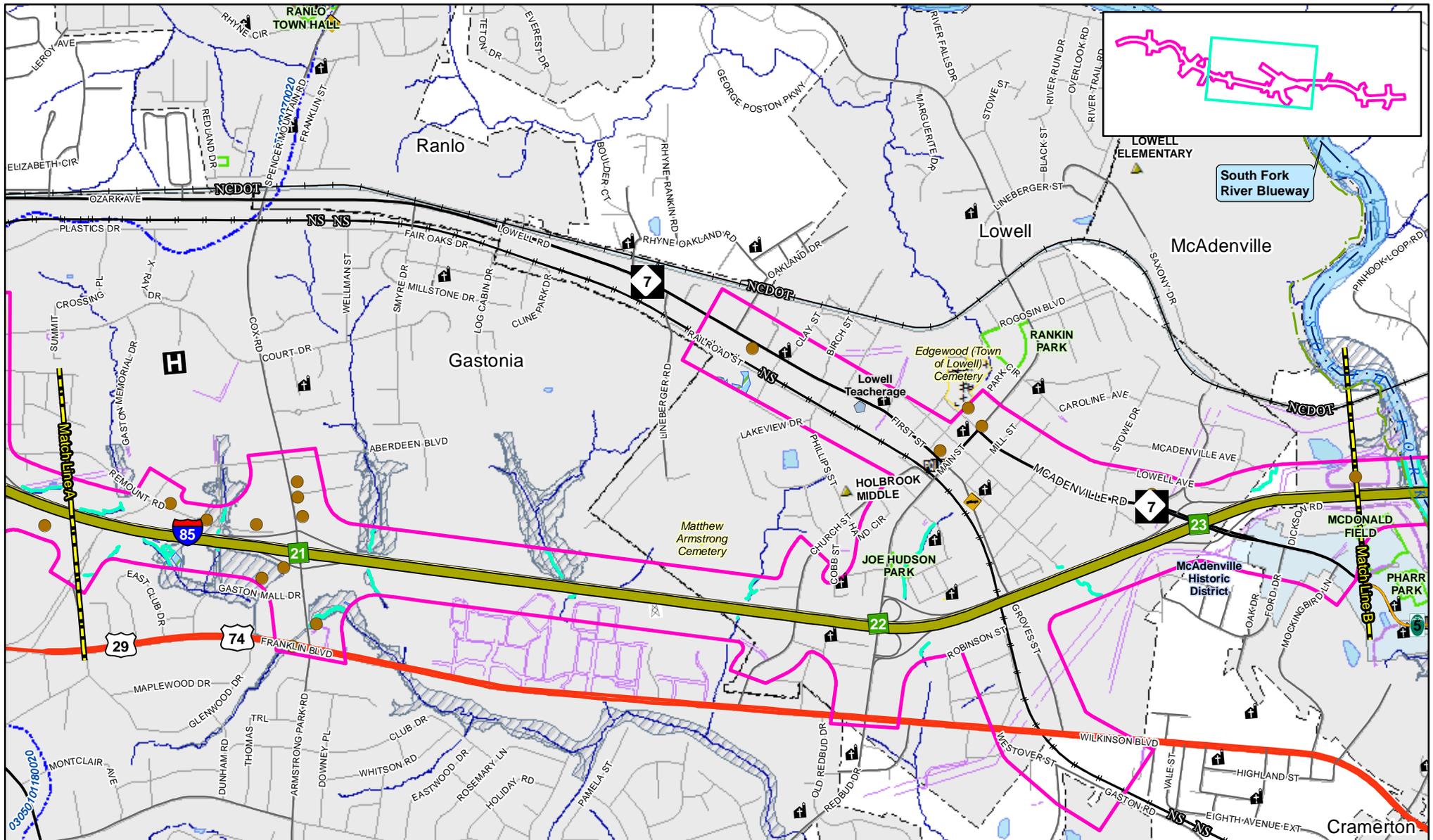
Sources: NC OneMap, NCDOT, NCHPO, NCFMP, Gaston County GIS, Mecklenburg County GIS. Credit: HNTB North Carolina, PC, June 2016.

I-5719 - I-85 Widening	Exit	Blueway	Hospital	NRHP Listed/Eligible Property	Water Supply Watershed - Critical
Preliminary Study	Interstate	Greenway	Police Station	NRHP Listed/Eligible Boundary	Water Supply Watershed - Protected
Municipal Boundary	US Route	Signed Local Bicycle Route	Fire Station	Known Potential Hazardous Waste Site	0.2% Annual Chance Floodplain (FEMA)
County Boundary	NC Route	Unsigned Bicycle Connector	School	Hazardous Substance Disposal	Zone AE Floodplain (FEMA)
Park	Local Road	Moderate Bicycle Suitability	Church	303d Listed (2014)	Field Delineated Jurisdictional Stream
Open Water	Railroad	Easement	Cemetery	Targeted Watershed	Field Delineated Wetland
Stream/Creek			FCC		

Figure 2a Environmental Features Map

I-85 Widening STIP Project I-5719 Gaston County

1 in = 2,000 ft



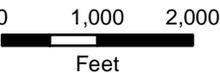
Sources: NC OneMap, NCDOT, NCHPO, NCFMP, Gaston County GIS, Mecklenburg County GIS. Credit: HNTB North Carolina, PC, June 2016.

I-5719 - I-85 Widening	Exit	Blueway	Hospital	NRHP Listed/Eligible Property	Water Supply Watershed - Critical
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Stream/Creek			FCC		

Figure 2b Environmental Features Map

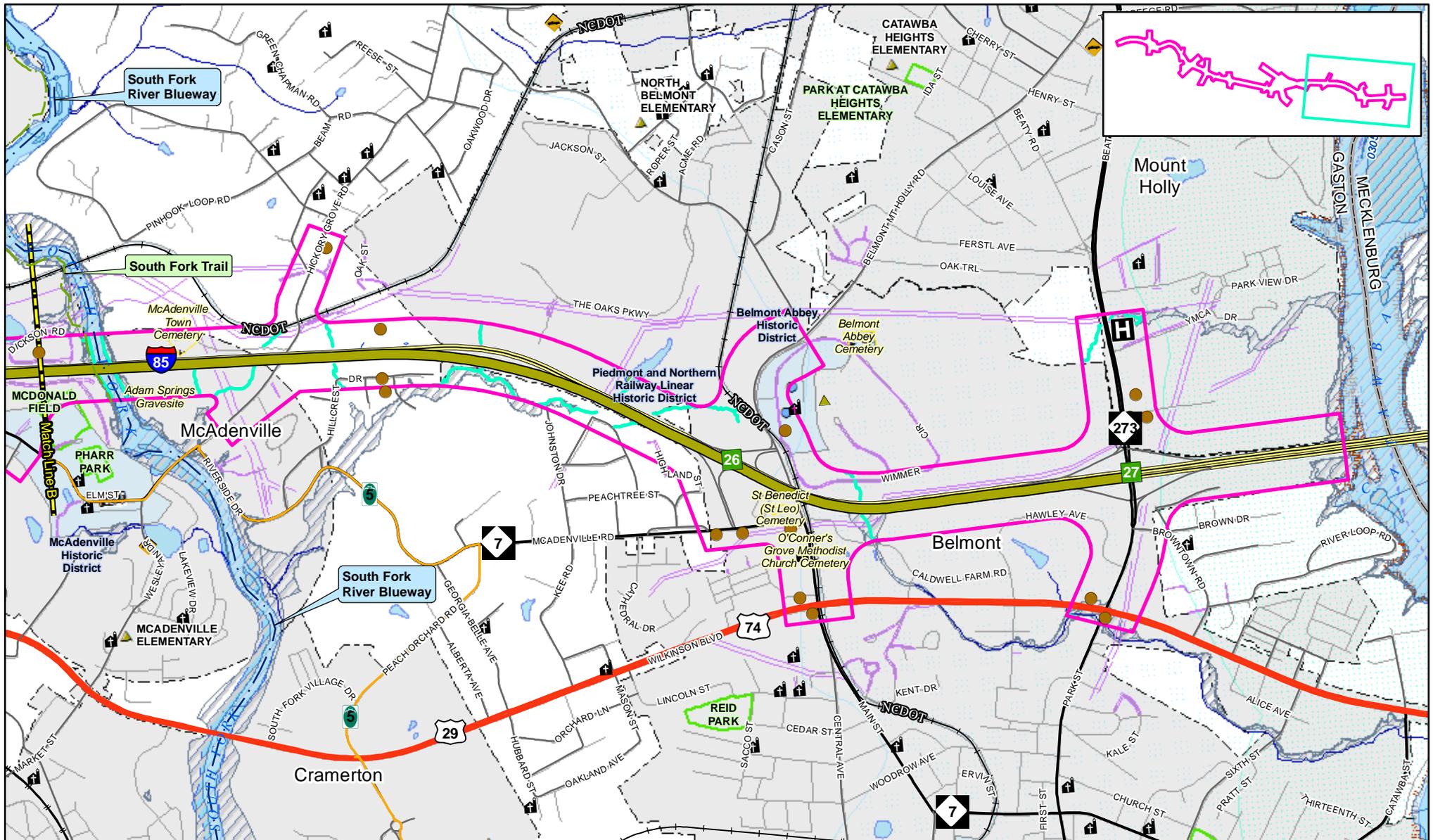
I-85 Widening STIP Project I-5719 Gaston County





1 in = 2,000 ft





Sources: NC OneMap, NCDOT, NCHPO, NCFMP, Gaston County GIS, Mecklenburg County GIS. Credit: HNTB North Carolina, PC, June 2016.

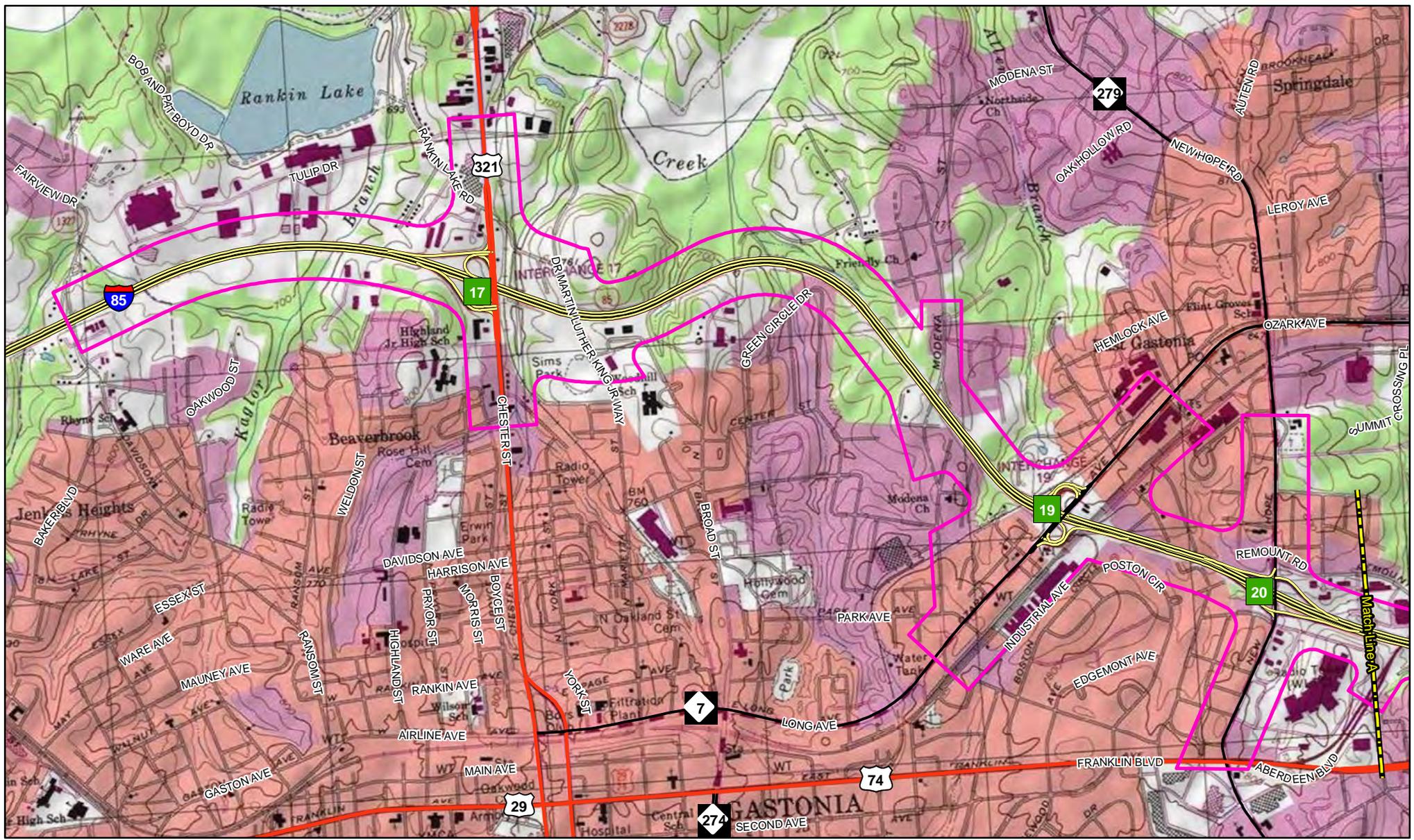
I-5719 - I-85 Widening	Exit	Blueway	Hospital	NRHP Listed/Eligible Property	Water Supply Watershed - Critical
Preliminary Study	Interstate	Greenway	Police Station	NRHP Listed/Eligible Boundary	Water Supply Watershed - Protected
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County Boundary	NC Route	Unsigned Bicycle Connector	School	Hazardous Substance Disposal	Zone AE Floodplain (FEMA)
Park	Local Road	Moderate Bicycle Suitability	Church	303d Listed (2014)	Field Delineated Jurisdictional Stream
Open Water	Railroad	Easement	Cemetery	Targeted Watershed	Field Delineated Wetland
Stream/Creek			FCC		

Figure 2c Environmental Features Map

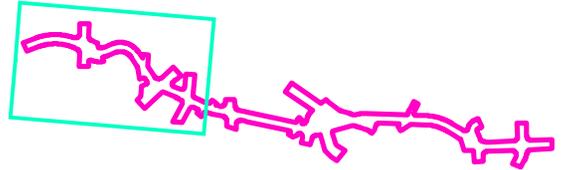
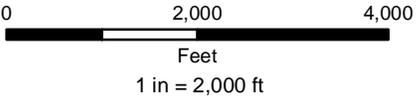
I-85 Widening STIP Project I-5719 Gaston County

0 1,000 2,000 Feet

1 in = 2,000 ft



Sources: NCDOT, ArcGIS Online (USGS 7.5-Minute Gastonia North [2002], Gastonia South [1993], Mount Holly [1993], Belmont [1977], Mountain Island Lake [1997], and Charlotte West [1993]).



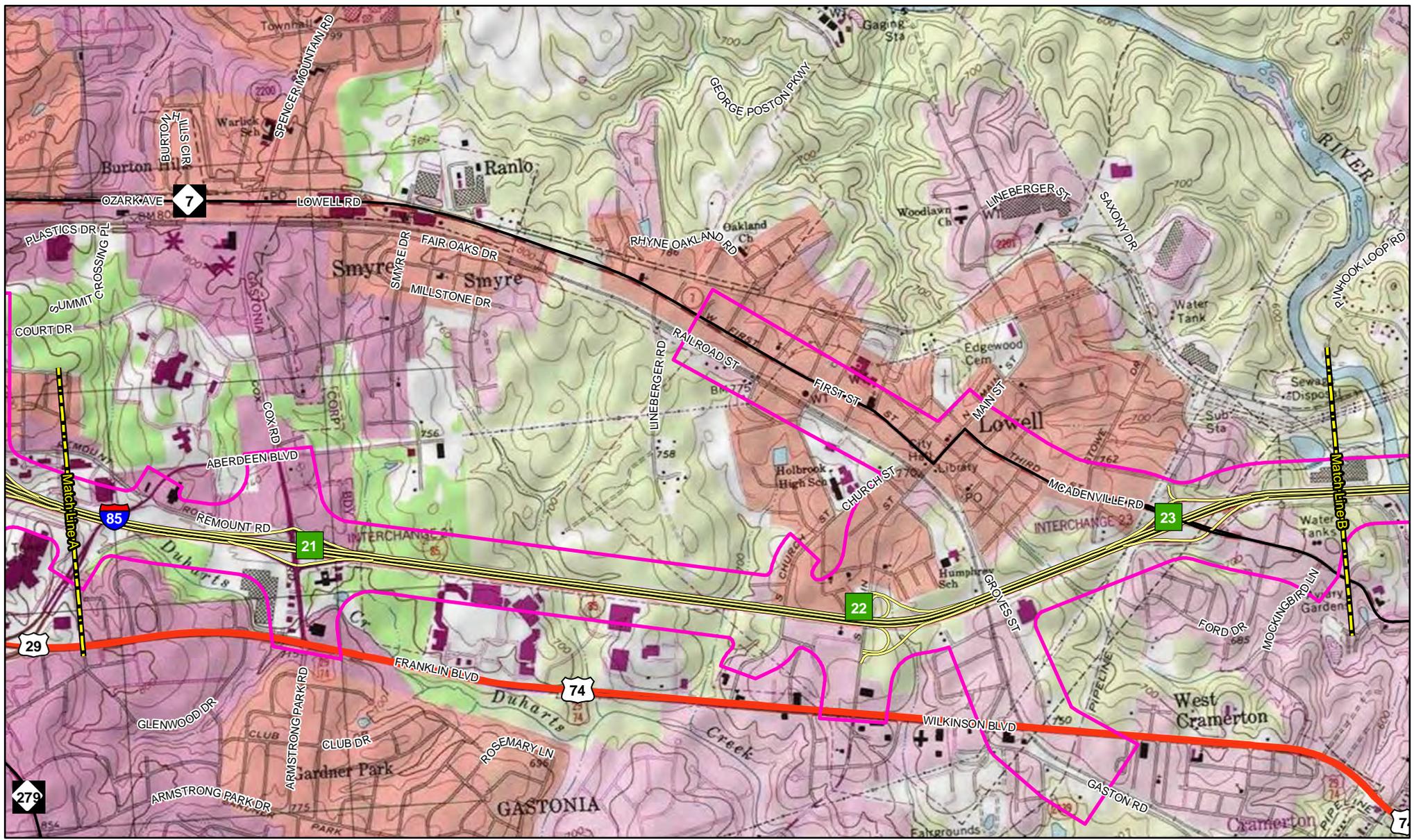
Legend

- Preliminary Study Area
- Exit
- Interstate
- Interstate Ramp
- US Route
- NC Route

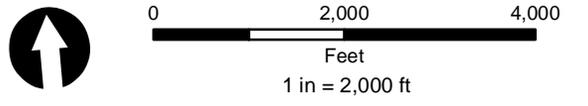
Figure 3a USGS Map

I-85 Widening
STIP Project I-5719
Gaston County





Sources: NCDOT, ArcGIS Online (USGS 7.5-Minute Gastonia North [2002], Gastonia South [1993], Mount Holly [1993], Belmont [1977], Mountain Island Lake [1997], and Charlotte West [1993]).



Legend

- Preliminary Study Area
- Exit
- Interstate
- Interstate Ramp
- US Route
- NC Route

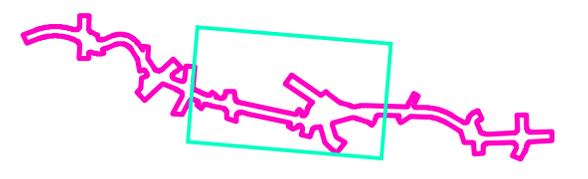
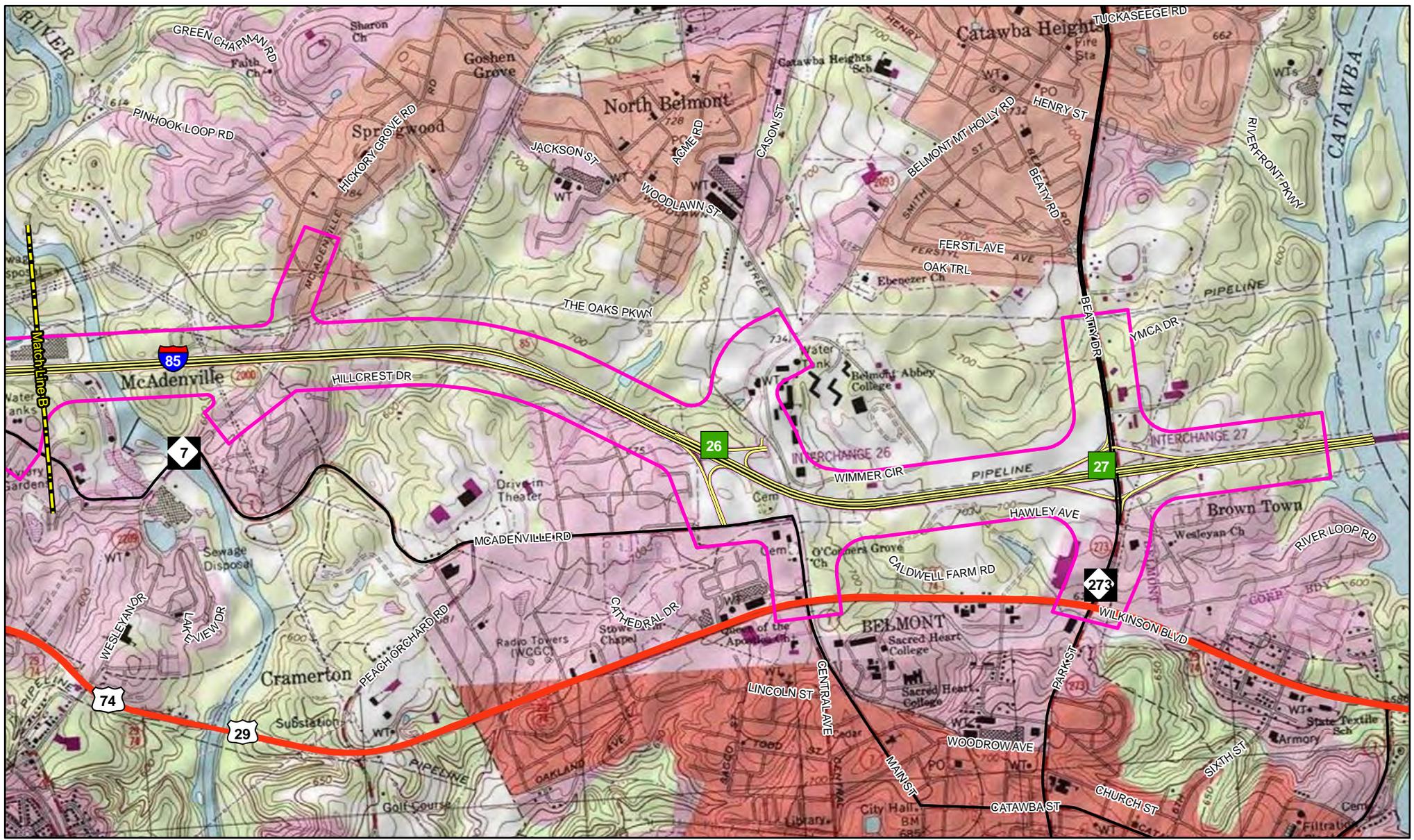


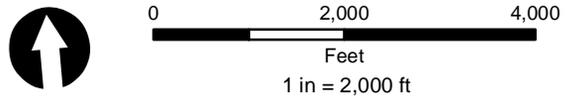
Figure 3b USGS Map

I-85 Widening
STIP Project I-5719
Gaston County





Sources: NCDOT, ArcGIS Online (USGS 7.5-Minute Gastonia North [2002], Gastonia South [1993], Mount Holly [1993], Belmont [1977], Mountain Island Lake [1997], and Charlotte West [1993]).



Legend

- Preliminary Study Area
- Exit
- Interstate
- US Route
- Interstate Ramp
- NC Route

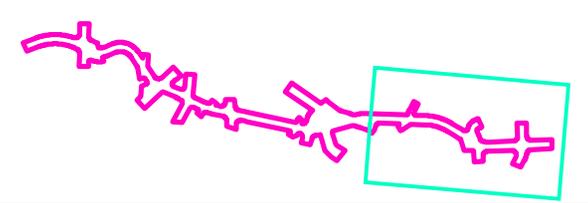


Figure 3c USGS Map

I-85 Widening
STIP Project I-5719
Gaston County





STIP Project I-5719

*I-85 Widening
Gaston County*



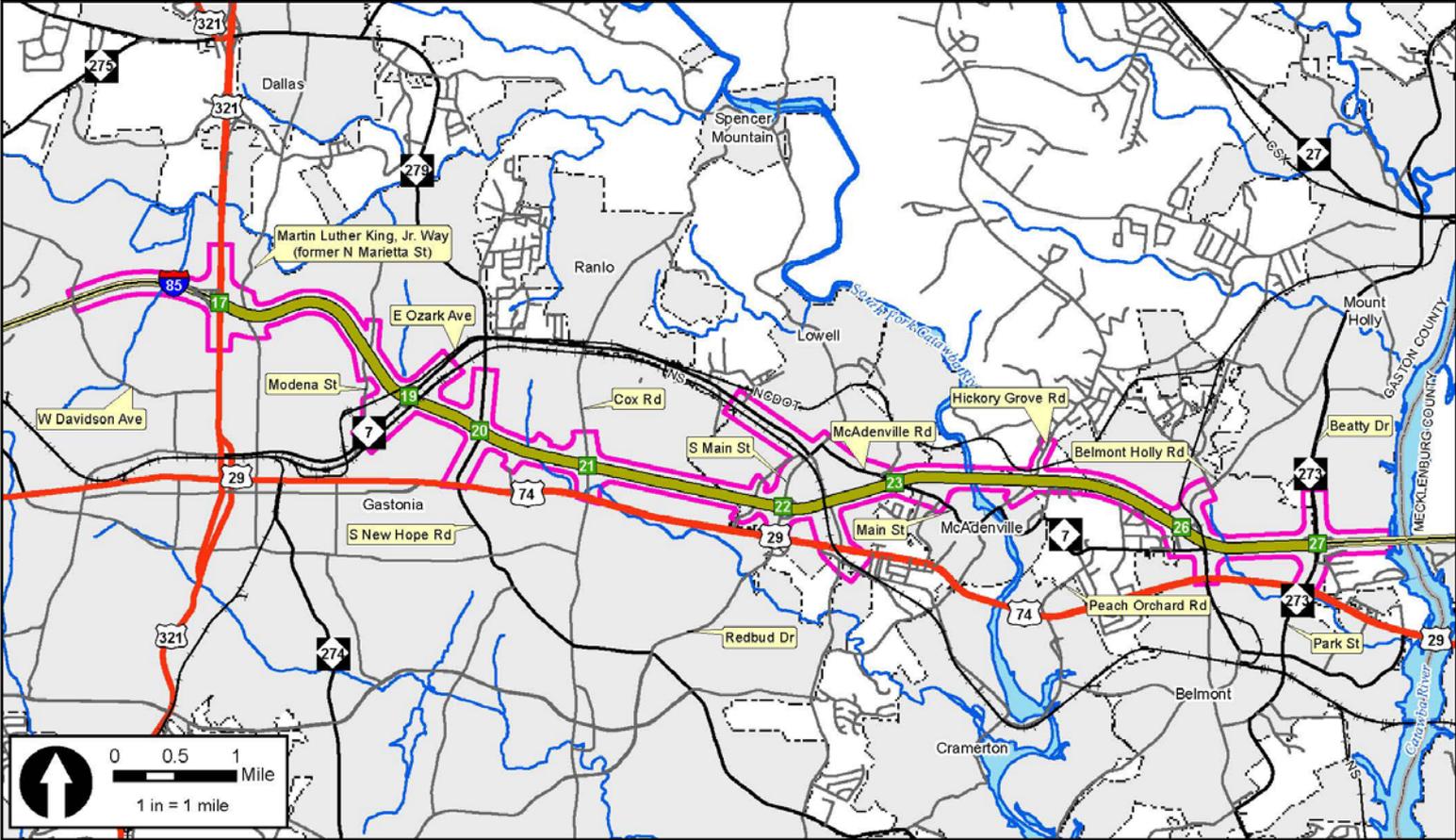
External Scoping Meeting
July 20, 2016 12:45 p.m.
Structure Design Conference Room
Century Center, Building A

Agenda

- ▶ Introductions
- ▶ Project Overview
 - ▶ Project description
 - ▶ Existing transportation network
 - ▶ Structures
 - ▶ Other STIP projects
 - ▶ Traffic
 - ▶ Purpose
 - ▶ Previous studies / current activities
 - ▶ Environmental features
- ▶ Next Steps/Schedule
- ▶ Individual Agencies Report
- ▶ Discussion



Project Vicinity



Sources: NC OneMap, NCDOT.



Legend

Preliminary Study Area	Exit
I-5719 - I-85 Widening	Interstate
County Boundary	US Route
Municipal Boundary	NC Route
Open Water	Local Road
Stream	Railroad

Figure 1. Preliminary Study Area

STIP Project I-5719
I-85 Widening,
Gaston County
May 2016



Project Description

I-5719 proposes widening I-85 from US 321 (Exit 17) to NC 273 (Exit 27), approximately 9.8 miles.

Cost Estimate:

	Construction	R/W & Utilities	Total Cost
I-5719			
STIP Estimate (5/1/2016)	\$215,000,000	\$40,500,000	\$257,509,000*

*Includes \$2,009,000 in prior years' cost.

Interstate 85

- ▶ Interstate
- ▶ Strategic Transportation Corridor I
- ▶ 6-lane concrete median divided freeway from US 321 (Exit 17) to I-85 mile marker 26
- ▶ 8-lane concrete median divided freeway from I-85 mile marker 26 to Catawba River
- ▶ Full access control
- ▶ Current posted speed 60 mph



Bridges

- ▶ 2 Bridges carrying I-85 over:
 - ▶ US 321 (Exit 17) and Railroad – Norfolk Southern/Highland Rail Trail
 - ▶ South Fork Catawba River and Willow Drive to Pharr Yarns Plant
- ▶ 18 Bridges over I-85:
 - ▶ Fairview Drive/W. Davidson Avenue
 - ▶ Dr. Martin Luther King, Jr. Way
 - ▶ Modena Street
 - ▶ *Railroad* – NCDOT (owner) / Piedmont & Northern Railway (operator)
 - ▶ NC 7/E. Ozark Avenue (Exit 19)
 - ▶ *Railroad* – Norfolk Southern (owner/operator)
 - ▶ NC 279/N. New Hope Road (Exit 20)
 - ▶ Aberdeen Boulevard
 - ▶ Cox Road (Exit 21)
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 - ▶ *Railroad* – Norfolk Southern (owner/operator)
 - ▶ Groves Street
 - ▶ NC 7/McAdenville Road/Main Street (Exit 23)
 - ▶ Hickory Grove Road
 - ▶ Belmont-Mount Holly Road (Exit 26)
 - ▶ Railroad – NCDOT (owner)/Piedmont & Northern Railway (operator)
 - ▶ NC 273/Beatty Drive/Park Street (Exit 27)



Culverts

- ▶ 3 Culverts:
 - ▶ Kaglor Branch
 - ▶ Unnamed Tributary to Long Creek
 - ▶ Duharts Creek

- ▶ Approximately 13 Crossings requiring 72-inch pipe or greater



(HNTB Hydraulics Preliminary Finding)



Other STIP Projects in Vicinity

STIP No.	Route	STIP Description	Funding (Fiscal Year)
I-5895	I-85	US 321 (Exit 17) to US 74 (Exit 10). Widen roadway.	ROW 2022 Const. 2024
C-5600G	I-85	NC 7 (McAdenville Road/Main Street) to Interchange with I-485. Install ITS Devices.	No ROW Const. 2016
I-5000	I-85	I-85/US 321. Geometric Safety improvements to interchange.	ROW complete Const. 2017
EB-5769	West Walnut Avenue	West Airline Avenue to North Firestone Street. Bike and pedestrian.	ROW 2024 Const. 2025
EB-5751	Second Avenue	SR 2278 (South Marietta Street) to SR 1131 (Linwood Road). Construct bike facilities and missing sidewalk.	No ROW Const. 2024
EB-5772	NC 274/Broad Street	East 4th Avenue to NC 7 (Long Avenue). Add bike facilities, improve sidewalks, and make bike/pedestrian improvements to intersections.	No ROW Const. 2024
EB-5767	Second Avenue	South Chestnut Street to South Belvedere Avenue. Construct bike facilities and missing sidewalk.	ROW 2023 Const. 2024
U-5778	NC 279 (Lower Dallas Highway)	Intersection of NC 279 (Lower Dallas Highway) and NC 275 (Dallas Stanley Highway). Intersection improvements.	ROW 2021 Const. 2023
U-2523B	NC 279	North of SR 2275 (Robinson-Clemmer Road) to West of NC 275 in Dallas.	ROW 2021 Const. 2023
EB-5702	NC 279 (North New Hope Road)	US 29/74 (East Franklin Boulevard) to NC 7 (East Ozark Avenue). Construct missing sidewalk on one side of road.	ROW 2016 Const. 2017
I-5713	I-85	SR 2200 (Cox Road) interchange. Construct interchange improvements. (Coordinate with I-5719)	ROW 2018 Const. 2020
EB-5706	SR 2200 (Cox Road)	I-85 to Court Drive. Construct missing sidewalk on both sides of road.	ROW 2017 Const. 2018
U-3608	NC 7	I-85 to US 29/74. Widen to multi-lanes.	ROW 2019 Const. 2021
B-5857	US 29/US 74	Replace Bridge 350082 over South Fork Catawba River.	ROW 2023 Const. 2024
U-5800	NC 7	Intersection of NC 7/US 74 and NC 7/US 29. Construct northbound thru-lane and intersection improvements.	ROW 2019 Const. 2021

STIP No.	Route	STIP Description	Funding (Fiscal Year)
EB-5748	Beatty Road	Smith Street to Ferstl Avenue. Construct sidewalk on one side.	No ROW Const. 2023
I-5770	I-85	0.7 mile north of Gaston County line to 0.1 mile north of SR 5901 (Billy Graham Parkway). Pavement rehabilitation.	No ROW Const. 2016
P-5200	Piedmont and Northern Railroad	Rail corridor between Gastonia and Mount Holly including the Belmont Spur. Reactivation of railroad corridor.	ROW 2017 Const. 2017
C-5505	Piedmont and Northern Railroad	Rail trail, Woodlawn Avenue to Belmont Abbey College and Downtown. Convert abandoned NCDOT railroad line to a pedestrian trail.	No ROW Const. 2016
I-5006	I-85	Gaston County Line to concrete pavement in Mecklenburg near SR 1601 (Moores Chapel Road). Pavement Rehabilitation.	Constr. (GARVEE) 2016
I-5007	I-85	South Fork River Bridge to Exit 27. Pavement Rehabilitation.	Constr. (GARVEE) 2016
I-5894	I-85	Mile Marker 22 to Mecklenburg County Line. Pavement Rehabilitation.	Const. 2017
I-5893	I-85	Mile Marker 14 to Mile Marker 22. Pavement Rehabilitation.	Const. 2016

Other Local Projects/Studies (Unfunded)			
N/A	I-85	Ramp metering study is underway. (NCDOT-TPB)	N/A
N/A	P&N Railroad	Upgrade Belmont Spur of former P&N Railroad between Belmont Abbey College and Downtown Belmont to accommodate trolley service. (GCLMPO, 2040 MTP)	N/A



Traffic

Traffic (AADT)

	Year	Range of Traffic (vpd)
Current Year	2014	107,000 – 126,000
Design Year (No Build)	2040	TBD
Design Year (Build)	2040	151,600 – 171,200

% TTST:	12%
% Dual:	3%
% DHV:	8%

- Information above is from Traffic Estimate, January 20, 2016.
- Traffic factor assumptions from STIP Project I-5000.
- Traffic Forecast under development.

Traffic Estimate and Planning Level Capacity Analysis

Facility	Exit #	Location	Existing # of Lanes	2040 Build # of Lanes	Traffic Estimate 2014 AADT	Traffic Estimate 2040 AADT (Build)	Daily Level-of Service							
							Existing Conditions				2040 Build (8-Lanes per MTP)			
							LOS C	LOS D	LOS E	LOS F	LOS C	LOS D	LOS E	LOS F
I-85	17 to 19	US 321 to NC 7	6	8	107,000	151,600		107,000					151,600	
I-85	19 to 20	NC 7 to NC 279	6	8	116,000	160,000			116,000				160,000	
I-85	20 to 21	NC 279 to Cox Rd	6	8	116,000	158,400			116,000				158,400	
I-85	21 to 22	Cox Rd to South Main St	6	8	118,000	160,800			118,000				160,800	
I-85	22 to 23	South Main St to NC 7	6	8	125,000	171,200			125,000					171,200
I-85	23 to 26	NC 7 to Belmont Mt. Holly Rd / NC 7	6	8	126,000	169,200				126,000				169,200
I-85	26 to 27	Belmont Mt. Holly Rd / NC 7 to NC 273	6	8	125,000	163,600			125,000				163,600	

* Level-of-Service AADT Thresholds based on NCLOS 3.6.1.0 and STIP Project I-5000 project level traffic forecast factors (D=60%, DHV=8%, HV=15%, Urban, Rolling, Ramp Density=0.8) along I-85 corridor.

6-Lane Level-of-Service Average Annual Daily Traffic (AADT) Thresholds - LOS C (91,500), LOS D (110,400), LOS E (125,500), LOS F (>125,500)

8-Lane Level-of-Service Average Annual Daily Traffic (AADT) Thresholds - LOS C (122,000), LOS D (147,200), LOS E (167,400), LOS F (>167,400)

Project Purpose

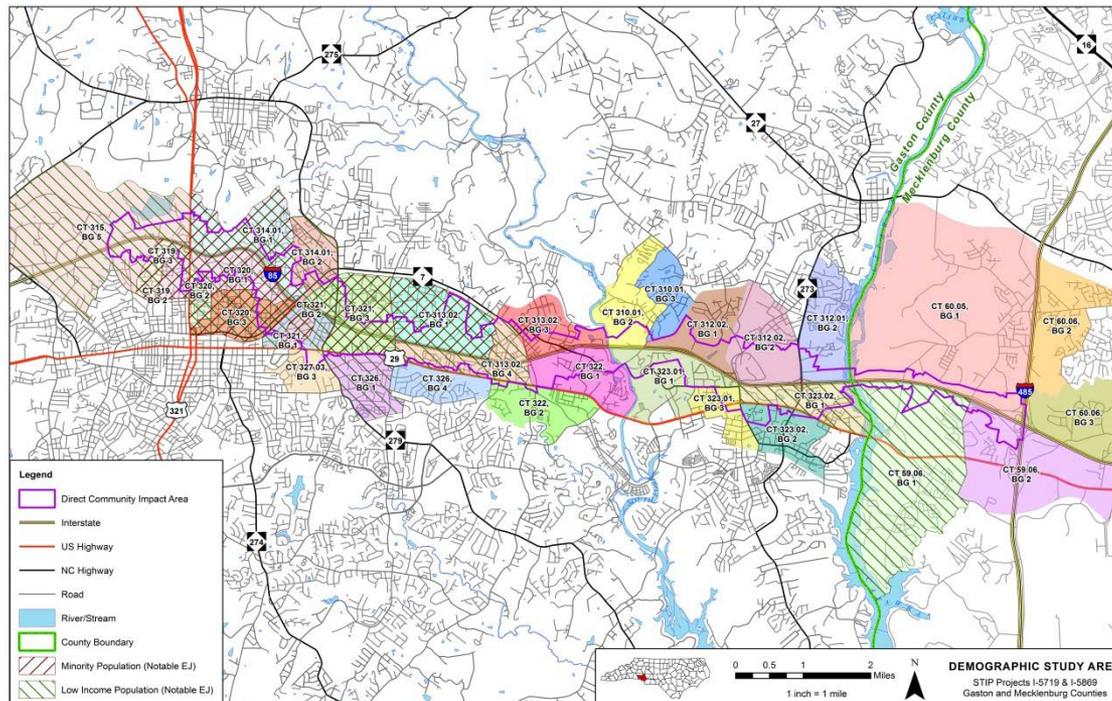
(preliminary)
To improve
capacity/mobility/travel time reliability
on I-85 in the study area.



Previous Studies/Current Activities

Community Characteristics Report

- ▶ *Completed December 2015*
- ▶ *Low Income Populations*
- ▶ *Minority Populations*
- ▶ *Language Assistance Populations*



Environmental Features

Human Environment

► Churches

- Cedar Grove Baptist Church
- Promised Land Baptist Church
- East Gastonia Church of God
- Faith United Methodist Church
- Gospel Light Holiness Church
- Redeemed of the First Born
- Bethlehem Baptist Church
- Wrights Chapel Methodist Church
- New Life Christian Center
- Mt. Calvary Baptist Church
- Epic Church
- Lowell Presbyterian Church
- Belmont Abbey Catholic Church
- O'Conner's Grove Methodist Church
- Lowell Smyre United Methodist Church
- First Baptist Church
- Lowell Church of God



Environmental Features

Human Environment

► Cemeteries

- Lutheran Chapel
- Webb Cemetery
- Adam Springs Gravesite
- McAdenville Town Cemetery
- Wilson Reid (relocated in 2001)
- John Harmon
- St. Benedict (St. Leo) Cemetery
- O'Conner's Grove Methodist Church
- Mount Zion Baptist Church Memorial Gardens



Environmental Features

Community Resources

▶ NRHP Listed Property

- ▶ McAdenville Historic District (GS0428)
- ▶ Belmont Abbey Cathedral [individually listed] (GS0001)
- ▶ Belmont Abbey Historic District (GS0020)

▶ NRHP Eligible Property

- ▶ St. Leo's Hall (GS0220)
- ▶ Piedmont & Northern Railway Linear Historic District (GS1625)

▶ Public Parks

- ▶ Joe Hudson Park
- ▶ Bradley Center Park (*Section 6(f)*)
- ▶ Woodhill Elementary Park
- ▶ Sims Legion Park
- ▶ McDonald Field

▶ Greenways

- ▶ Highland Rail Trail
- ▶ South Fork Trail

▶ Blueway

- ▶ South Fork River Blueway



Environmental Features

Community Resources

► Hospitals

- Caromont Regional Medical Center (formerly Gastonia Memorial Hospital)
- Carolinas Rehabilitation – Mount Holly

► Fire Stations

- Lowell Volunteer Fire Department
- Gastonia City Fire Department Station #2
- Gastonia City Fire Department Station #6

► Police Station

- Lowell Police Department



Environmental Features

Natural Environment

- ▶ **Streams** – approximately 52 (field delineated channels) with 22 crossings
 - ▶ Major Streams:
 - ❑ Kaglor Branch
 - ❑ Long Creek
 - ❑ Jule Allen Branch
 - ❑ Duharts Creek
 - ❑ South Fork of the Catawba River
 - ❑ UT at Belmont Abbey College
- ▶ **Wetlands** – approx. 6 acres (field delineated)



Environmental Features

Natural Environment

- ▶ **Floodplains**
- ▶ **Water Supply Watershed Critical Area**
- ▶ **Water Supply Watershed (WS IV)**
- ▶ **Catawba River Buffer Rules – 50 feet of all shorelines (including Lake Wylie)**
- ▶ **Bald and Golden Eagle Protection Act**
 - Possible habitat at Rankin Lake



Environmental Features

Physical Environment

► Hazardous Materials

- 55 USTs
- 3 landfill sites
- 5 hazardous waste generator sites
- 1 each – dry cleaner site, Superfund site and brownfield site

► Utilities

- Duke Energy
- PSNC Energy
- Municipal Water/Sewer
- Fiber Optic

► Active Agriculture

- No VADs or EVADs in the study area

► Noise

- Impacts TBD
- Noise sensitive receptors likely in study area, including residences, churches, schools, & parks



Next Steps/Schedule

2016-2025 STIP:

- ▶ **STIP Project I-5719**
 - ▶ Right of way funding – FY 2022
 - ▶ Utilities funding – FY 2022
 - ▶ Construction funding – FY 2024

Next Steps:

- ▶ **Merger Screening Meeting**
- ▶ **Traffic Forecast Preparation**
- ▶ **Purpose and Need Development**
- ▶ **Alternatives Development**
- ▶ **Public Meeting**
- ▶ **Functional/Preliminary Design**
- ▶ **Hydraulic Technical Memorandum**
- ▶ **Other Technical Studies**
- ▶ **Environmental Document**



NCDOT Current STIP
May 2016



Individual Agencies Report

- ▶ Federal Highway Administration
- ▶ U.S. Army Corps of Engineers
- ▶ U.S. Environmental Protection Agency
- ▶ U.S. Fish and Wildlife Service
- ▶ NC Division of Water Resources
- ▶ NC Wildlife Resources Commission
- ▶ NC Historic Preservation Office
- ▶ Gaston-Cleveland-Lincoln Metropolitan Planning Organization



Discussion



The End

