

## Type III Categorical Exclusion Action Classification Form

STIP Project No.	<u>I-5714</u>
WBS Element	<u>50127.1.FS1</u>
Federal Project No.	<u>NHPP-077-1(219)23</u>

### A. Project Description:

State Transportation Improvement Program (STIP) Project No. I-5714 is the proposed reconfiguration of the State Road (SR) 2136 (Gilead Road) Diamond Interchange with I-77 to a Diverging Diamond Interchange (DDI) to improve traffic operations. The project is located in the Town of Huntersville, north of the City of Charlotte, in Mecklenburg County (see Figure 1 in Attachment A).

The Charlotte metropolitan region is one of the fastest growing areas in the United States. The Town of Huntersville is bordered by Cabarrus County to the east, the Town of Cornelius and Town of Davidson to the north, and Lincoln County to the west.

The proposed project (Build Alternative) includes upgrading the existing conventional diamond interchange configuration to a DDI. A DDI alters the flow of traffic on a road crossing a major highway. On the segment of the road between the interstate entrance and exit ramps, the lanes of traffic swap sides of the road. Because of where the lanes shift sides, there is no longer a need for left-turning vehicles to turn in front of opposing traffic. This reduces the length of traffic signal cycles, reduces delay times, lowers the risk of vehicular accidents, and improves the safety of pedestrian crossings. The design speed for the proposed project varies, with 40 miles per hour (mph) traveling eastbound from Reese Boulevard and 30 mph traveling through the DDI. The access control under the proposed project will be the same as existing conditions with full control on I-77, and limited access on Gilead Road.

Specific to the I-77/Gilead Road interchange, the Build Alternative proposes a six-lane divided design (see Figure 2 in Attachment A). This design consists of three eastbound and three westbound lanes along Gilead Road crossing over I-77 on parallel bridge structures, with a speed limit of 25 mph. The structure to the north would be a newly constructed bridge carrying eastbound traffic and the existing bridge, which is in good condition, will be repurposed as the southern, westbound bridge.

This proposed design would accommodate bicycles and pedestrians. Pedestrians would utilize accommodations including a path within the median on the existing bridge and bicycles would be expected to use on-street bike lanes or the shared multi-use space.

The proposed project would include resurfacing and restriping the existing roadway west of the DDI to Reese Boulevard. The existing left-over intersection on Gilead Road (providing access to Huntersville Medical Center) would be signed for emergency access only. Minor improvements to Reese Boulevard are included in the proposed project to support access to the medical center. These improvements include extending the southbound left-turn lane on Reese Boulevard and providing a bulb-out to accommodate passenger vehicle U-turns. The Build Alternative would tie into the ongoing U-5114 project to the east which also includes non-traditional improvements (median U-turns) along US 21 on both sides of the Gilead Road intersection.

**B. Description of Need and Purpose:**

***Purpose of Project***

The primary purpose of the proposed project is to reduce delay and congestion for traffic entering and exiting the I-77/Gilead Road interchange by eliminating left turns across opposing traffic through Gilead Road. The proposed DDI would provide more green time at the two signals resulting in less congestion, smoother traffic flow, and a safer facility.

***Need for Project***

The need for this project can be summarized as follows:

- Traffic congestion exists along the existing facility and is expected to worsen in the future.

I-77 operates as an interstate highway to the north and south of the Gilead Road interchange. Within the project study limits, vehicles traveling on Gilead Road through the study area are slowed and stopped by congestion. According to the traffic forecast completed for this project, traffic volumes are increasing (see Table 1 below).

**Table 1 – Traffic Volume (vpd)**

	<b>Base Year (2015) vpd</b>	<b>Future Year (2040) vpd</b>
<b>Gilead Road</b>	33,100-38,600	45,900-52,300
<b>I-77</b>	94,600-99,700	96,900-107,100

vpd: vehicles per day

The traffic operations analysis completed for this project indicates that without improvement, future intersection delays and queuing are well beyond acceptable levels, with queues extending beyond the storage lengths of the interchange ramps and stacking onto I-77.

**C. Categorical Exclusion Action Classification: Type III**

**D. Proposed Improvements: Not applicable**

**E. Special Project Information: (Provide a description of relevant project information, which may include: vicinity map, costs, alternative analysis (if any), traffic control and staging, and resource agency/public involvement).**

***Typical Section***

There are three typical sections associated with the proposed Build Alternative to accommodate dual bridge structures and tie into existing roadways on either end of the project. From west to east, the typical sections (see Figure 3 in Attachment A) are proposed for Reese Boulevard to I-77 southbound ramps, I-77 northbound ramps to US 21, and Gilead Road bridges.

- Typical Section 1 (Reese Boulevard to I-77 Southbound Ramps): Travel lanes are accommodated as noted in the Design Public Meeting Map (see Attachment B), ranging in width from 11 feet to 15 feet. A five-foot bike lane, curb and gutter, and five-foot sidewalk are also included in both directions.

- Typical Section 2 (I-77 Northbound Ramps to US 21): Travel lanes are accommodated as noted in the Design Public Meeting Map (see Attachment B), ranging in width from 12 feet to 15 feet. A six-foot bike lane and curb and gutter are included in both directions. A single eight-foot sidewalk is included between the directions of travel.
- Typical Section 3 (Gilead Road Bridges): Three travel lanes are accommodated in each direction; a six-foot bike lane is present along the inside of each bridge with 10-foot paved shoulders along the outside (see Attachment B). An 11-foot pedestrian space with barrier is included along the north side of the southern (westbound) bridge to connect the sidewalk proposed in the center of Typical Section 2.

A cost-sharing agreement between NCDOT and the Town of Huntersville will be necessary for some areas of proposed sidewalk. NCDOT is coordinating with the Town on this agreement which will include cost-sharing for any requested enhancements.

### ***Alternatives***

In addition to the NCDOT preferred improvements, the following alternatives to the proposed DDI were considered:

- No-Build
- Alternative Modes of Transportation
- Transportation Demand Management (TDM) Alternative
- Mass Transit Alternative

These alternatives would not meet the purpose and need of the project because they would not provide needed capacity to accommodate future travel demands and would not improve level of service.

### ***Right of Way***

Right of way impacts associated with the proposed projects are anticipated to be minor. There will be some impacts on the northeast and southeast corners at the intersection of Reese Boulevard and Gilead Road. There may be minor impacts to the southwest and northwest properties at the Gilead Road/US 21 intersection. Right of way after completion of the proposed project will vary throughout the corridor.

### ***Greenway, Pedestrian and Bicycle Considerations***

Pedestrian and bicycle accommodations are included in the proposed project. For traversing through the proposed DDI, pedestrians would be routed to the center of the two directions of travel (see Figure 4 in Attachment A). A sidewalk is included along the north side of the southern (existing) bridge. Through the interchange, pedestrians would be separated from vehicular traffic by a protective barrier. Once across the interchange, pedestrians would be directed back to the outside of the travel lanes, tying into existing sidewalks on either side of the interchange. Bicyclists would be accommodated in five-foot designated bike lanes. There are no greenway improvements associated with the proposed project.

### ***Cost Estimates***

Preliminary construction cost estimates were developed for the Build Alternative from the preliminary designs. The total project cost is estimated to be \$11,770,000 (detailed in Table 2 below).

Table 2 – Cost Estimates

	<b>Build Alternative</b>
Total Construction Cost	\$ 10,400,000
Utility Costs	\$770,000
Right-of-way Costs	\$600,000
Total Project Cost	\$ 11,770,000

### ***Agency Coordination***

Coordination with various agencies (Federal, State, and local) listed below, and applicable units within NCDOT, was ongoing throughout the documentation process.

- Federal Highway Administration (FHWA)
- United States Army Corps of Engineers (USACE)
- United States Environmental Protection Agency (USEPA)
- United States Fish & Wildlife Service (USFWS)
- North Carolina Wildlife Resource Commission (NCWRC)
- North Carolina Department of Water Resources (NCDWR)
- Charlotte Regional Transportation Planning Organization (CRTPO)
- North Carolina State Historic Preservation Office (NCSHPO)
- Town of Huntersville

The USFWS commented that potential threatened/endangered species impacts associated with possible utility relocations should be evaluated and addressed during utility coordination. The NCWRC encouraged the use of low-impact development techniques (e.g., pervious pavement, strong stormwater treatment).

No wetland, stream, historic architecture, or archeological impacts are anticipated.

### ***Public Involvement***

#### **Newsletters/Public Meeting**

All property owners within the study area were added to a mailing list that was used to send out meeting notices and a newsletter. A public meeting and local officials informational meeting were held on August 19, 2016. Approximately 90 citizens attended, and there was a general acceptance and optimism about the project. The project mailing list was updated throughout the project process to account for all interested parties. The project mailing list contains approximately 650 names.

#### **Informational Meetings**

Two informational meetings were held on Wednesday, November 9, 2016 in Huntersville. Meeting attendees included representatives from the Lake Norman Chamber of Commerce and the Huntersville Business Park. Information was presented on the I-5714 project and representatives for the adjacent U-5114 project were also present to address any questions/comments on U-5114. Approximately 25 people attended, and there was a general acceptance of the project. NCDOT will continue to coordinate with the Lake Norman Chamber of Commerce, Novant Health Huntersville Medical Center, and Huntersville Business Park.



F. Project Impact Criteria Checklists:

<u>Type III Actions</u>		Yes	No
If the proposed improvement is identified as a Type III Class of Action answer all questions. • The Categorical Exclusion will require FHWA approval. • If any questions are marked “yes” then additional information will be required for those question in Section G.			
1	Does the project involve potential effects on species listed with the US Fish and Wildlife Service (USFWS) or National Marine Fisheries (NMFS)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Does the project result in impacts subject to the conditions of the Bald and Golden Eagle Protection Act (BGPA)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	Does the project generate substantial controversy or public opposition, for any reason, following appropriate public involvement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4	Does the project cause disproportionately high and adverse impacts relative to low-income and/or minority populations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5	Does the project involve substantial residential or commercial displacements or right of way acquisition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	Does the project include a determination under Section 4(f)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7	Is a project-level analysis for direct, indirect, or cumulative effects required based on the NCDOT community studies screening tool?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8	Is a project level air quality Mobile Source Air Toxics (MSAT) analysis required?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9	Is the project located in anadromous fish spawning waters?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10	Does the project impact waters classified as Outstanding Resource Water (ORW), High Quality Water (HQW), Water Supply Watershed Critical Areas, 303(d) listed impaired water bodies, buffer rules, or Submerged Aquatic Vegetation (SAV)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11	Does the project impact waters of the United States in any of the designated mountain trout streams?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12	Does the project require a U.S. Army Corps of Engineers (USACE) Individual Section 404 Permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
13	Will the project require an easement from a Federal Energy Regulatory Commission (FERC) licensed facility?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
14	Does the project include Section 106 of the National Historic Preservation Act (NHPA) effects determination other than a no effect, including archaeological remains? Are there project commitments identified?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
15	Does the project involve hazardous materials and/or landfills?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
16	Does the project require work encroaching and adversely effecting a regulatory floodway or work affecting the base floodplain (100-year flood) elevations of a water course or lake, pursuant to Executive Order 11988 and 23 CFR 650 subpart A?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
17	Is the project in a Coastal Area Management Act (CAMA) county and substantially affects the coastal zone and/or any Area of Environmental Concern (AEC)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
18	Does the project require a U.S. Coast Guard (USCG) permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

19	Does the project involve construction activities in, across, or adjacent to a designated Wild and Scenic River present within the project area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
20	Does the project involve Coastal Barrier Resources Act (CBRA) resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>Type III Actions (continued)</u>		Yes	No
21	Does the project impact federal lands (e.g. USFS, USFWS, etc.) or Tribal Lands?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
22	Does the project involve any changes in access control?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
23	Does the project have a permanent adverse effect on local traffic patterns or community cohesiveness?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
24	Will maintenance of traffic cause substantial disruption?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
25	Is the project inconsistent with the STIP or the Metropolitan Planning Organization's (MPO's) Transportation Improvement Program (TIP) (where applicable)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
26	Does the project require the acquisition of lands under the protection of Section 6(f) of the Land and Water Conservation Act, the Federal Aid in Fish Restoration Act, the Federal Aid in Wildlife Restoration Act, Tennessee Valley Authority (TVA), Tribal Lands, or other unique areas or special lands that were acquired in fee or easement with public-use money and have deed restrictions or covenants on the property?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
27	Does the project involve Federal Emergency Management Agency (FEMA) buyout properties under the Hazard Mitigation Grant Program (HMGP)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
28	Is the project considered a Type I under the NCDOT's Noise Policy?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
29	Is there prime or important farmland soil impacted by this project as defined by the Farmland Protection Policy Act (FPPA)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
30	Are there other issues that arose during the project development process that effected the project decision?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

\* see Attachment C for required documentation.

**G. Additional Documentation as Required from Section F**

**Question 8: Air Quality**

***Air Quality***

A project-level air quality analysis was prepared for this project. A copy of the unabridged version of the full technical report entitled Air Quality Analysis, I-77/SR 2136 (Gilead Road) Interchange in Mecklenburg County, dated August 2016, can be viewed at the Project Development & Environmental Analysis (PDEA) Unit, Century Center Building A, 1000 Birch Ridge Drive, Raleigh. A summary of the Air Quality Analysis follows.

The project is located in Mecklenburg County, which is within the Charlotte maintenance area for the 2008 ozone (O3) standard as defined by the USEPA. This area was originally designated marginal nonattainment for O3 under the 2008 eight-hour ozone standard on July 20, 2012. However, due to improved monitoring data, this area was re-designated maintenance for the 2008 eight-hour ozone

standard on July 28, 2015 (effective August 27, 2015). The proposed project is not anticipated to create any adverse effects on the air quality of this attainment/maintenance area.

Based on the qualitative analysis completed, under the Build alternative in the design year it is expected there would not be higher MSAT emissions in the project study area relative to the No Build Alternative. In considering the project study area, EPA's vehicle and fuel regulations, coupled with fleet turnover, will over time cause substantial reductions that, in almost all cases, will cause area-wide MSAT levels to be significantly lower than today.

This qualitative evaluation completes the assessment requirements for air quality of the 1990 CAAA and the NEPA process, and no additional reports are necessary.

## Question 28: Noise

### ***Traffic Noise***

In accordance with Title 23 Code of Federal Regulations Part 772, Procedures for Abatement of Highway Traffic Noise and Construction Noise (Title 23 CFR 772) and the North Carolina Department of Transportation Traffic Noise Policy (October 2016), each Type I highway project must be analyzed for predicted traffic noise impacts. A copy of the unabridged version of the full Traffic Noise Report (TNR), dated December 2016, is on file at NCDOT and can be obtained through the PDEA Unit, Century Center Building A, 1000 Birch Ridge Drive, Raleigh. A summary of the TNR follows.

### **Traffic Noise Impacts and Noise Contours**

This project is expected to have no traffic noise impacts to any receptors under the Build Alternative. The maximum extent of the 71- and 66- dBA noise level contours measured from the center of the proposed roadway is less than 25 feet and 100 feet, respectively.

Temporary and localized noise impacts will likely occur as a result of project construction activities. Construction noise control measures will be incorporated into the project plans and specifications.

### **Summary**

Based on the TNR, traffic noise abatement is not recommended and no noise abatement measures are proposed as a result of the proposed action. This evaluation completes the highway traffic noise requirements of Title 23 CFR Part 772. No additional noise analysis will be performed for this project unless warranted by a substantial change in the project's design concept or scope.

In accordance with NCDOT Traffic Noise Policy, the Federal/State governments are not responsible for providing noise abatement measures for new development for which building permits are issued after the Date of Public Knowledge. The Date of Public Knowledge of the proposed highway project will be the approval date of this Categorical Exclusion. For development occurring after this date, local governing bodies are responsible to ensure that noise compatible designs are utilized along the proposed facility.

## H. Project Commitments

**Mecklenburg County  
I-77/SR 2136 (Gilead Road) Interchange  
Federal Project No. NHPP-077-1(219)23  
WBS No. 50127.1.FS1  
TIP No. I-5714**

### **Natural Environment Section**

Construction activities for this project will not take place until Endangered Species Act compliance is satisfied for the NLEB.

Coordinate with the Utilities Unit on potential threatened/endangered species and wetland and stream impacts associated with possible utility relocations if outside of the project study area.

### **Roadside Environmental**

Roadside Environmental will manage invasive plant species, as appropriate.

### **Division 10**

Division 10 will continue to coordinate with Novant Health Huntersville Medical Center during final design regarding the hospital access on Gilead Road.

Division 10 will coordinate with Novant Health Huntersville Medical Center and local emergency medical services during construction regarding appropriate traffic control plans for access to the hospital.

NCDOT Best Management Practices for Construction and Maintenance Activities will be adhered to during construction to minimize potential adverse effects caused by construction.

Division 10 will continue to coordinate with the Huntersville Business Park during final design and/or right-of-way acquisition on proposed improvements at the Gilead Road/Reese Boulevard intersection.

Division 10 will coordinate with the Town of Huntersville on a cost-sharing agreement for wider sidewalks and other requested enhancements.

### **Utilities Unit/Roadway Design/Division 10**

Determine impact of utility relocations during final design.

I. Categorical Exclusion Approval

STIP Project No. I-5714  
WBS Element 50127.1.FS1  
Federal Project No. NHPP-077-1(219)23

**Prepared By:**

7-10-17  
Date Candice A. Andre  
Candice Andre, AICP, Senior Project Planner  
VHB Engineering NC, P.C.

**Prepared For:** N.C. Department of Transportation

**Reviewed By:**

7/10/17  
Date Beverly D. Robinson  
Beverly Robinson, CPM, Western Region Group Supervisor  
Project Development and Environmental Analysis Unit, NCDOT

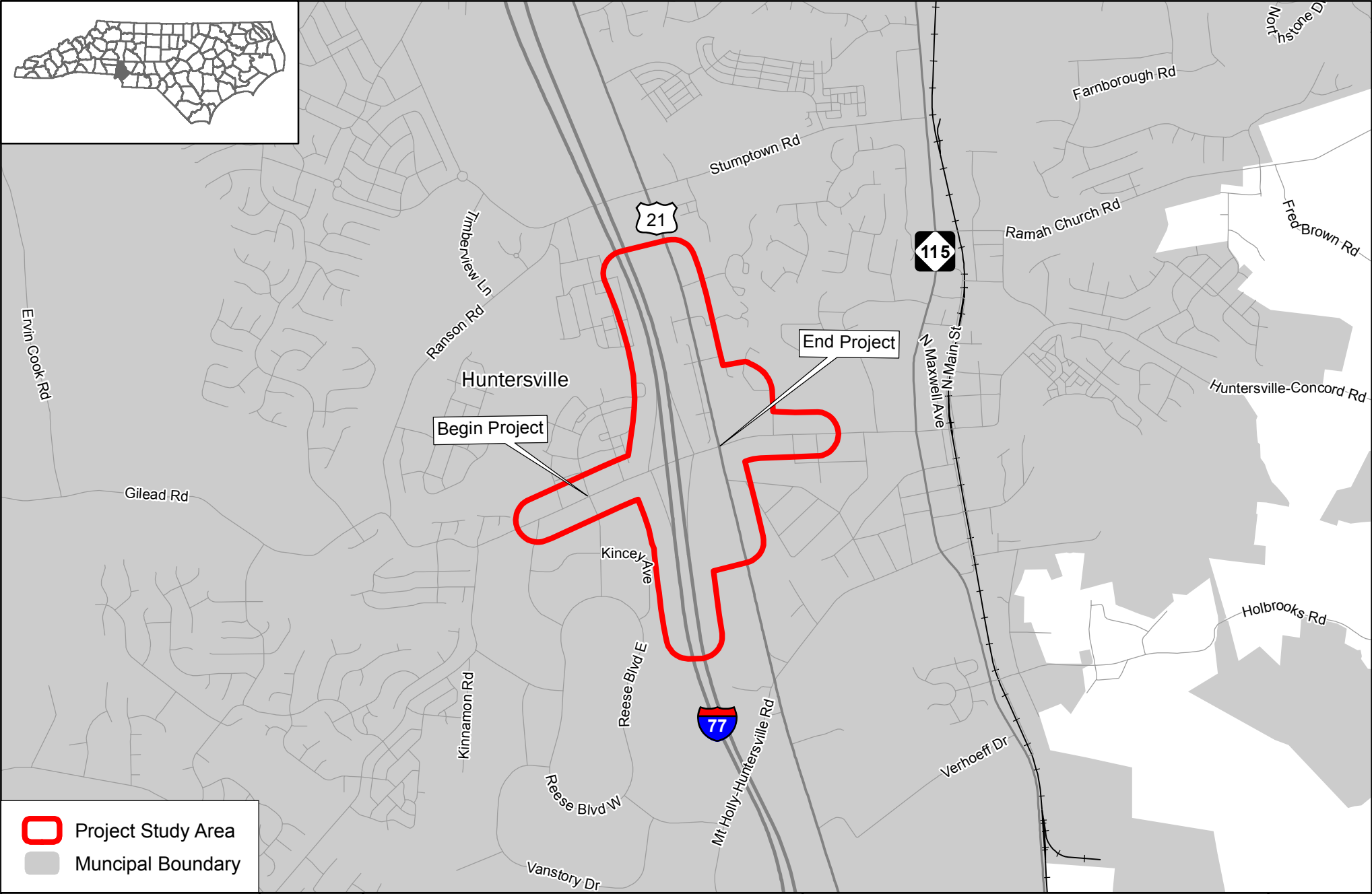
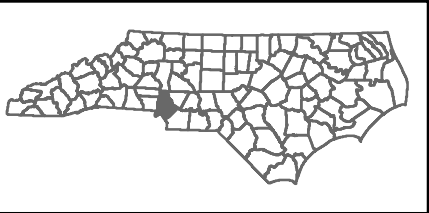
NCDOT certifies that the proposed action qualifies as a Type III Categorical Exclusion.



7/10/17  
Date Beverly D. Robinson  
Beverly Robinson, CPM, Western Region Group Supervisor  
North Carolina Department of Transportation

**FHWA Approval:**


7/11/17  
Date John F. Sullivan, III  
John F. Sullivan, III, PE, Division Administrator  
Federal Highway Administration

# **Attachment A**



 Project Study Area  
 Municipal Boundary

Scale  
0 1,000 2,000 4,000  
Feet

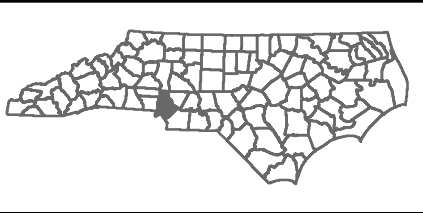


**Figure 1**  
**Project Location Map**

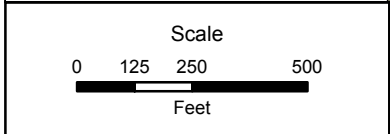
**I-77 and SR 2136 (Gilead Road) Interchange**  
Mecklenburg County  
STIP No. I-5714







NC OneMap, NC Center for Geographic Information and Analysis, NC 911 Board



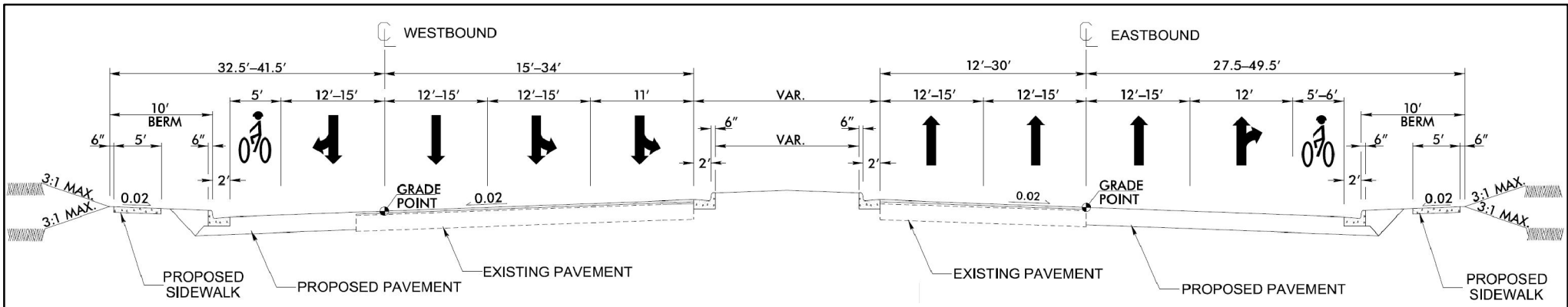
**Figure 2**  
**Build Alternative**

**I-77 and SR 2136 (Gilead Road) Interchange**  
Mecklenburg County  
STIP No. I-5714

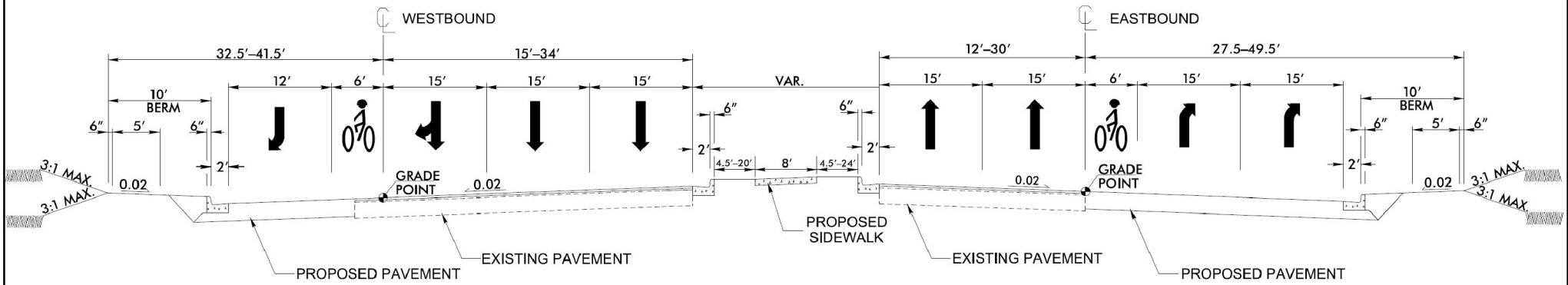


1/17/2016

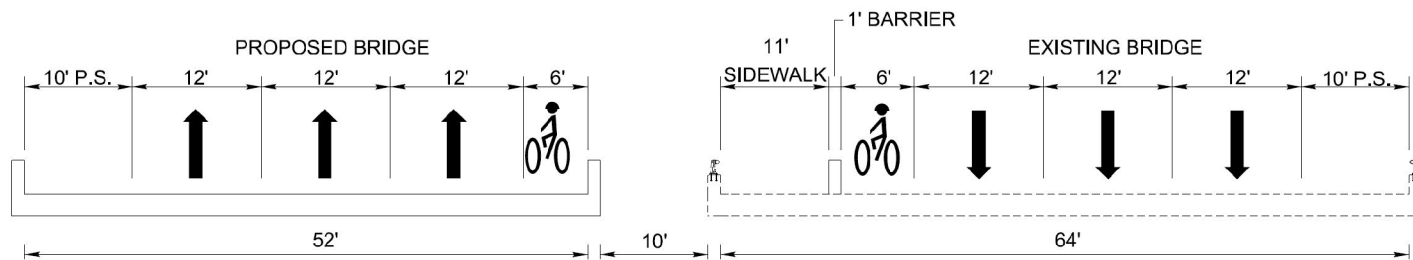




Typical Section 1: Reese Boulevard to I-77 Southbound Ramps



Typical Section 2: I-77 Northbound Ramps to U.S. 21



Typical Section 3: Gilead Road Bridges

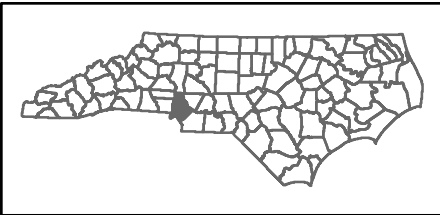
Not to Scale

Figure 3  
Typical Sections

I-77 and SR 2136 (Gilead Road) Interchange  
Mecklenburg County  
STIP No. I-5714







- Build Alternative Pedestrian Path
- Build Alternative Roadway

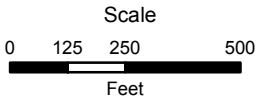


Figure 4  
Build Alternative  
Pedestrian Corridor

I-77 and SR 2136 (Gilead Road) Interchange  
Mecklenburg County  
STIP No. I-5714



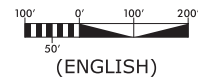
NC OneMap, NC Center for Geographic Information and Analysis, NC 911 Board



## **Attachment B**

**PRELIMINARY PLANS**  
DO NOT USE FOR CONSTRUCTION

DESIGN DATA	
Functional Class	= Collector
Design Speed	= 30mph
Max. Superlev.	= 0.06

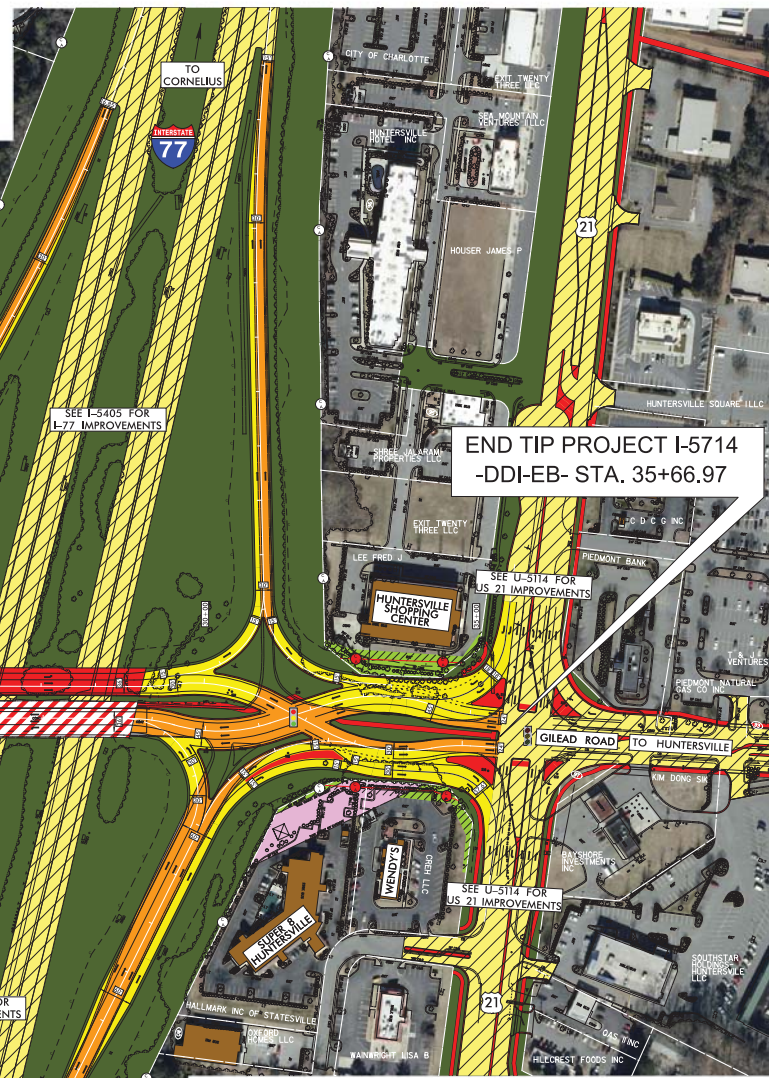
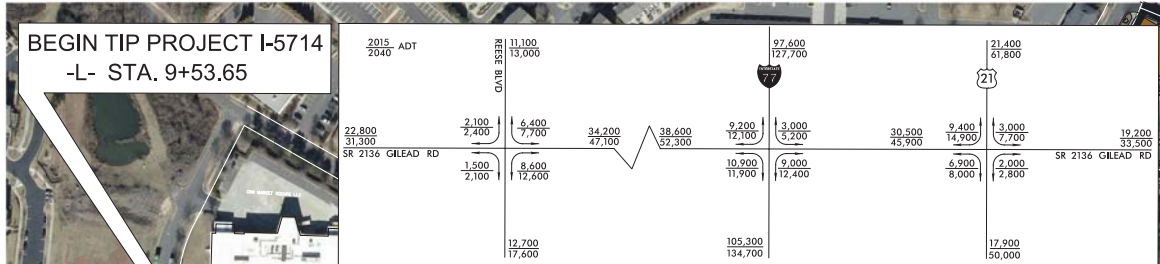


**DESIGN PUBLIC MEETING MAP**  
PROJECT 50127.1.FS1 (I-5714)

**MECKLENBURG COUNTY**

SR 2136 (GILEAD ROAD) INTERCHANGE.  
UPGRADE EXISTING DIAMOND  
INTERCHANGE TO DIVERGING DIAMOND  
INTERCHANGE

ROLL 1 OF 1

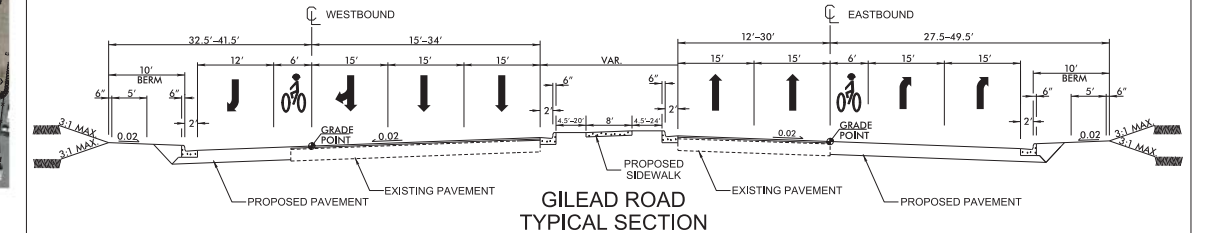
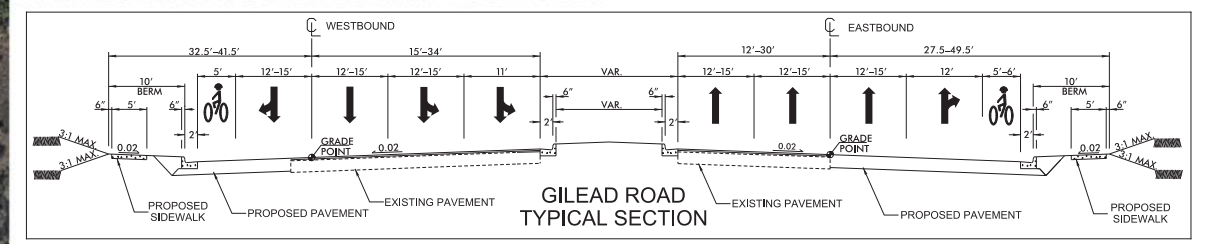
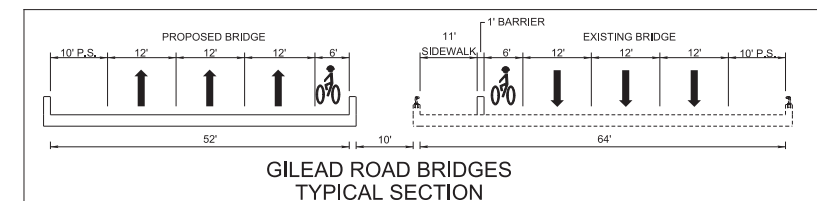
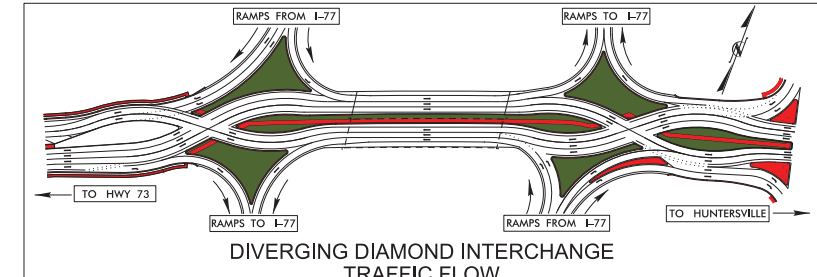


DDI-EASTBOUND				
PI Sta 20+567.4 Δ = 25°33'18.5" (LT) D = 19°05'54.9" L = 133.84' T = 68.03' R = 300.00'	PI Sta 23+27.80 Δ = 34°23'55.1" (RT) D = 19°05'54.9" L = 36.64' T = 92.86' R = 300.00'	PI Sta 24+33.39 Δ = 6°59'48.9" (LT) D = 19°05'54.9" L = 36.64' T = 18.34' R = 300.00'	PI Sta 29+12.84 Δ = 8°41'25.5" (LT) D = 19°05'54.9" L = 45.50' T = 22.80' R = 300.00'	PI Sta 30+34.28 Δ = 36°26'05.2" (RT) D = 19°05'54.9" L = 190.71' T = 98.74' R = 300.00'
PI Sta 34+79.54 Δ = 38°04'37.5" (LT) D = 19°05'54.9" L = 199.37' T = 103.52' R = 300.00'		PI Sta 34+79.54 Δ = 13°34'37.5" (RT) D = 19°05'54.9" L = 71.09' T = 35.71' R = 300.00'		

DDI-WESTBOUND				
PI Sta 18+72.86 Δ = 17°38'45.9" (LT) D = 19°05'54.9" L = 92.39' T = 46.57' R = 300.00'	PI Sta 20+24.42 Δ = 38°49'44.4" (RT) D = 19°05'54.9" L = 203.31' T = 105.73' R = 300.00'	PI Sta 23+35.96 Δ = 33°30'44.1" (LT) D = 19°05'54.9" L = 175.47' T = 90.32' R = 300.00'	PI Sta 24+63.04 Δ = 15°54'50.3" (RT) D = 19°05'54.9" L = 83.33' T = 43.93' R = 300.00'	PI Sta 28+28.22 Δ = 0°32'53.9" (RT) D = 0°49'06.6" L = 66.99' T = 33.49' R = 7,000.00'
PI Sta 29+02.07 Δ = 15°21'40.2" (RT) D = 19°05'54.9" L = 80.43' T = 40.46' R = 300.00'		PI Sta 30+34.33 Δ = 34°09'54.4" (LT) D = 19°05'54.9" L = 178.89' T = 92.19' R = 300.00'		
PI Sta 33+37.95 Δ = 35°25'07.9" (RT) D = 19°05'54.9" L = 201.61' T = 104.53' R = 300.00'		PI Sta 34+69.05 Δ = 13°06'17.2" (LT) D = 19°05'54.9" L = 68.62' T = 34.46' R = 300.00'		

**LEGEND**

- BUILDINGS
- EXISTING RIGHT OF WAY
- PROPOSED RIGHT OF WAY
- PROPOSED EASEMENTS (DRAINAGE, CONSTRUCTION, AND UTILITY)
- EXISTING ROADWAY
- EXISTING ROADWAY TO BE RESURFACED
- PROPOSED ROADWAY
- OTHER PROJECT
- PROPOSED STRUCTURES, ISLAND, CURB AND GUTTER
- EXISTING STRUCTURES, ISLAND, CURB AND GUTTER TO BE RETAINED
- EXISTING UTILITY EASEMENT
- PROPERTY LINES
- EXISTING TRAFFIC SIGNAL
- PROPOSED TRAFFIC SIGNAL
- PROPOSED CONTROL ACCESS
- EXISTING CONTROL ACCESS



**DESIGN PUBLIC MEETING MAP**  
PROJECT SHEET (I-5714)  
**MECKLENBURG COUNTY**  
SR 2136 (GILEAD ROAD) INTERCHANGE.  
UPGRADE EXISTING DIAMOND  
INTERCHANGE TO DIVERGING DIAMOND  
INTERCHANGE  
ROLL 1 OF 1

**DESIGN PUBLIC MEETING MAP**  
PROJECT 50127.1.FS1 (I-5714)  
**MECKLENBURG COUNTY**  
SR 2136 (GILEAD ROAD) INTERCHANGE.  
UPGRADE EXISTING DIAMOND  
INTERCHANGE TO DIVERGING DIAMOND  
INTERCHANGE  
ROLL 1 OF 1

# **Attachment C**





area consists of the eroded soils (Cecil sandy clay loam, 2-8% slopes, eroded [CeB2], Cecil sandy clay loam, 8-15% slopes, eroded [CeD2]), frequently flooded soils (Monacan loam [Mo]), and heavily altered soils (Cecil-Urban land complex, 2-8% slopes [CuB], Urban land [Ur]). Preservation of archaeological materials within these soil type areas is likely to be poor. Various projects in the immediate vicinity of the I-77/SR 2136 (Gilead Road) interchange have been reviewed by the Office of State Archaeology (OSA) for their potential to disturb archaeological resources (e.g. HOT Lanes on I-77 [TIP# I-5405/I-4750, ER 12-0125], Park-and-Ride Facility [ER 02-7748], and Greenway Expansion [ER 07-1039]). The proposed project was submitted to SHPO/OSA for their review prior to its submittal to the NCDOT's cultural resource groups (Archaeology and Historic Architecture) through the Programmatic Agreement (PA) process. As a result of that submittal, the proposed project had been cleared, stating a "low probability for intact, significant archaeological resources to be adversely impacted by the planned project" (ER 15-1812). The NCDOT's Archaeology Group concurs with this finding. Based on the presence of eroded soils and the degree of residential/commercial development within the proposed project area, it is believed that the Study Area, as depicted, is unlikely to contain intact and significant archaeological resources. No archaeological survey is required for this project. If design plans change or are made available prior to construction, then additional consultation regarding archaeology will be required. At this time, no further archaeological work is recommended. If archaeological materials are uncovered during project activities, then such resources will be dealt with according to the procedures set forth for "unanticipated discoveries," to include notification of NCDOT's Archaeology Group.

#### SUPPORT DOCUMENTATION

See attached:  Map(s)     Previous Survey Info     Photos     Correspondence  
 Photocopy of County Survey Notes    Other:

#### FINDING BY NCDOT ARCHAEOLOGIST

##### NO ARCHAEOLOGY SURVEY REQUIRED

  
 \_\_\_\_\_  
 NCDOT ARCHAEOLOGIST II

September 15, 2015

\_\_\_\_\_  
 Date

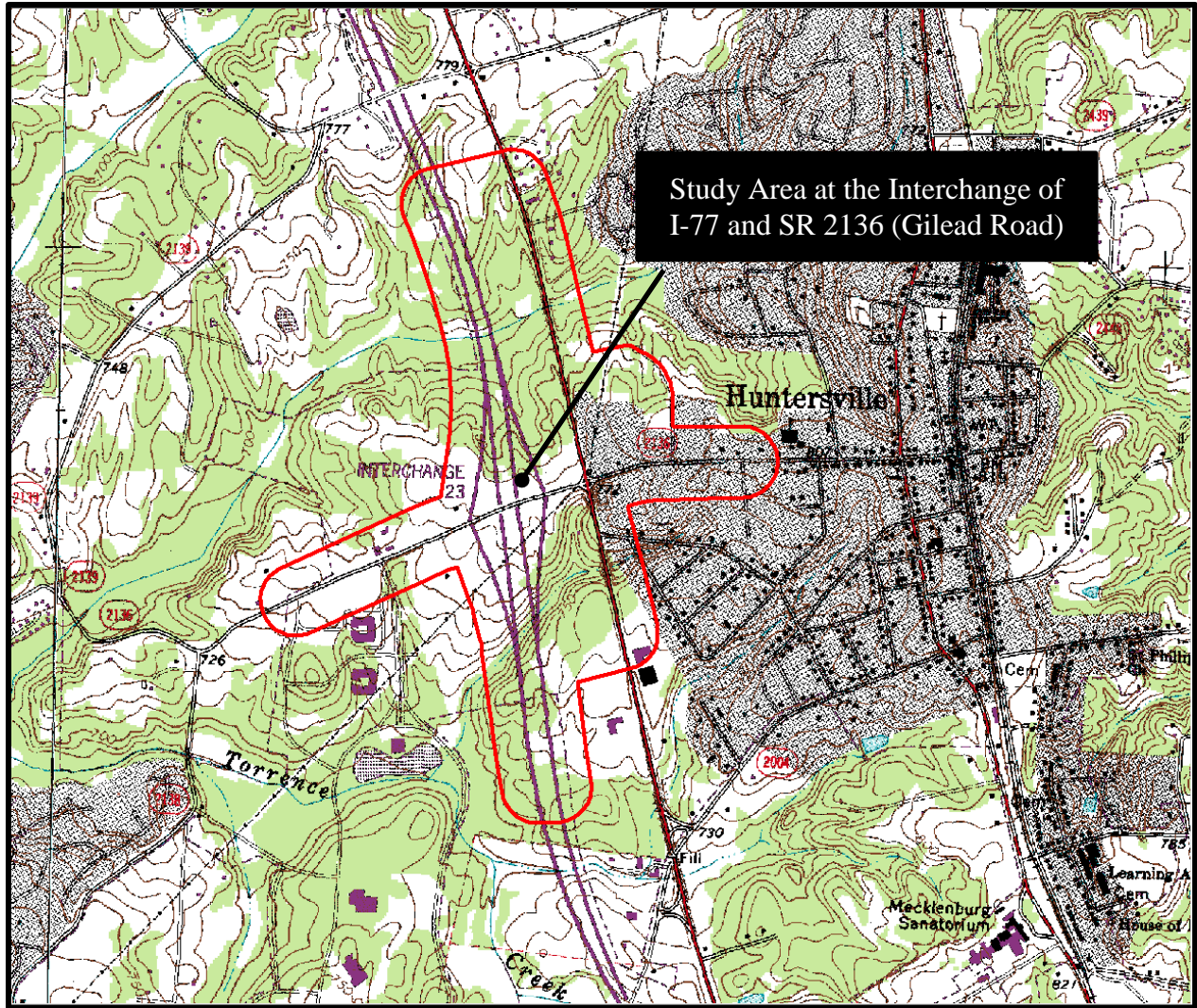
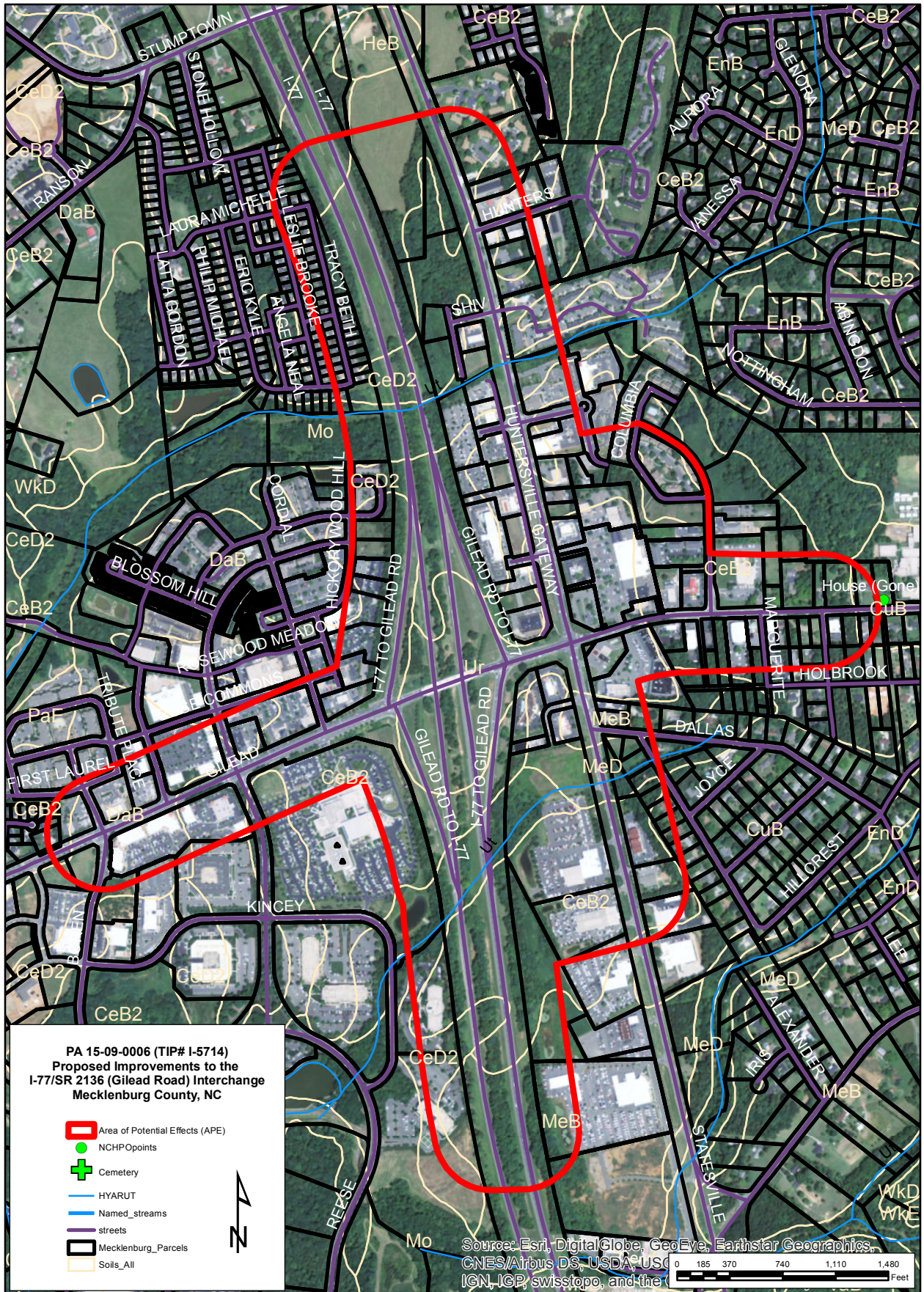


Figure 1: Cornelius, NC (USGS 1993).







15-09-0006



## HISTORIC ARCHITECTURE AND LANDSCAPES NO HISTORIC PROPERTIES PRESENT OR AFFECTED FORM

This form only pertains to Historic Architecture and Landscapes for this project. It is not valid for Archaeological Resources. You must consult separately with the Archaeology Group.

### PROJECT INFORMATION

<b>Project No:</b>	I-5714	<b>County:</b>	Mecklenburg
<b>WBS No.:</b>	50127.1.FS1	<b>Document Type:</b>	CE
<b>Fed. Aid No:</b>	NHPP-077-1(219)	<b>Funding:</b>	<input type="checkbox"/> State <input checked="" type="checkbox"/> Federal
<b>Federal Permit(s):</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>Permit Type(s):</b>	unknown
<b><u>Project Description:</u></b> Convert interchange (Exit 23-Gilead Rd) on I-77 from traditional diamond interchange to a diverging diamond interchange.			

### SUMMARY OF HISTORIC ARCHITECTURE AND LANDSCAPES REVIEW

- There are no National Register-listed or Study Listed properties within the project's area of potential effects.
- There are no properties less than fifty years old which are considered to meet Criteria Consideration G within the project's area of potential effects.
- There are no properties within the project's area of potential effects.
- There are properties over fifty years old within the area of potential effects, but they do not meet the criteria for listing on the National Register.
- There are no historic properties present or affected by this project. (Attach any notes or documents as needed.)

**Date of field visit:** February 25, 2016

#### **Description of review activities, results, and conclusions:**

Review of HPO quad maps, historic designations roster, and indexes was undertaken on September 9, 2015. Based on this review, there are no existing NR, DE, LL, SL, or SS in the project area. Mecklenburg GIS Tax Data revealed that one house in the project area was older than 50 years. NCDOT contracted Mattson, Alexander, & Associates to evaluate the property's eligibility for National Register listing. April 8, 2016 the report recommending that the Hugh M and Louisa C. McAuley house as not eligible for the National register was delivered to HPO. In a letter dated May 6, 2016 HPO concurred with that finding. No historic properties will be affected by this project.

**SUPPORT DOCUMENTATION**

Map(s)     Previous Survey Info.     Photos     Correspondence     Design Plans

**FINDING BY NCDOT ARCHITECTURAL HISTORIAN**

Historic Architecture and Landscapes – **NO HISTORIC PROPERTIES PRESENT OR AFFECTED**

Shelby Reap  
NCDOT Architectural Historian

May 10, 2016  
Date



**North Carolina Department of Natural and Cultural Resources**  
**State Historic Preservation Office**

Ramona M. Bartos, Administrator

Governor Pat McCrory  
Secretary Susan Kluttz

Office of Archives and History  
Deputy Secretary Kevin Cherry

May 6, 2016

MEMORANDUM

TO: Shelby Reap  
Office of Human Environment  
NCDOT Division of Highways

FROM: Renee Gledhill-Earley *Renee Gledhill-Earley*  
Environmental Review Coordinator

SUBJECT: Historic Structures Survey Report, Conversion of Traditional Diamond Interchange on I-77  
at SR 2136 to Diverging Diamond Interchange, I-5714, Mecklenburg County, ER 15-1812

Thank you for your letter of April 1, 2015, providing the above-referenced report for the proposed undertaking. We have reviewed the report and concur that the Hugh M. and Louisa C. McAuley House (MK3466) is not eligible for listing in the National Register of Historic Places due to modern alterations, including the application of synthetic siding, new windows and replacement porch posts.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919-807-6579 or [environmental.review@ncdcr.gov](mailto:environmental.review@ncdcr.gov). In all future communication concerning this project, please cite the above referenced tracking number.

cc: Mary Pope Furr, NCDOT, [mfurr@ncdot.gov](mailto:mfurr@ncdot.gov)