

Transportation Staff Meeting

September 7, 2011

2:00 PM

Room 601

AGENDA

1. **PL Fund Presentation** (Barren)

Description:

The purpose of this presentation is to provide PL Fund users (and prospective users) with information on federal requirements associated with the use of such funds. Loretta Barren of the Federal Highway Administration will conduct the presentation.

Since the information will be provided via Power Point, it is not recommended that those interested in this topic participate by conference call.

2. **Idlewild Road Feasibility Study** (Cook)

Description:

NCDOT has prepared a draft feasibility study for Idlewild Road, from I-485 to Indian Trail Road-Fairview Road. Comments on the draft are due by September 12.

Attachment: Draft feasibility study.

3. **TIP # P-5002B, CSX Railroad Pinoca Yard Storage Improvements** (Cook)

Description:

NCDOT's Rail Division is proposing to construct additional storage tracks at the CSX Railroad's Pinoca Yard to mitigate for the loss of capacity at its Tryon Yard resulting from the NS/CSX mainline grade separation project. The Rail Division has requested that the MPO provide information that might be helpful in evaluating the potential environmental impacts of the expansion of the Pinoca Yard. Comments are due by September 22.

Attachment: Letter and maps from the Rail Division.

Access number: 704-432-5484

FEASIBILITY STUDY

FS-0210B

**Widening SR 1501 (Idlewild Road) From
SR 1520 (Fairview Road/Indian Trail Road) To I-485**

Mecklenburg/Union County

Division 10



Prepared by the
Program Development Branch
N. C. Department of Transportation

Henry U. Esealuka
Feasibility Studies Engineer

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Derrick W. Lewis, P.E.
Feasibility Studies Unit Head

Date

Widening SR 1501 (Idlewild Road) From SR 1520 (Fairview Road/Indian Trail Road) To I-485

Mecklenburg/Union County

FS-0210B

I. General Description

This feasibility study describes the widening of SR 1501 (Idlewild Road) from SR 1520 (Fairview Road/Indian Trail Road) to I-485, a distance of 2.3 miles. Widen Idlewild Road from a two-lane road to a multi-lane facility. Utilize existing alignment and the project location map is shown on Figure 1. As part of this study, three different alternatives were investigated and the associated costs with the breakdowns are described below:

* *ALTERNATE A*: Four-lane divided curb and gutter section and 30 feet raised grass median. The proposed Right-of-Way is variable with a minimum of 130 feet with additional right of way where needed.

* *ALTERNATE B*: Four-lane divided with shoulder section and 30-foot raised grass median. The proposed Right-of -Way is variable with a minimum of 150 feet with additional right of way where needed.

* *ALTERNATE C*: Six-lane divided curb and gutter section and 30-foot raised grass median. The proposed Right-of -Way is variable with a minimum of 150 feet with additional right of way where needed.

This study is the initial step in the planning and design process for this project and is not to be considered the product of exhaustive environmental or design investigations. The purpose of the study is to describe the problem, recommend a treatment including costs, and identify potential problem areas that deserve consideration in the planning and design phases.

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II. Background

The primary purpose of this project is to provide traffic operations and safety improvements to Idlewild Road from Indian Trail Road to I-485.

This project is recommended and supported by the MUMPO in conjunction with the Department of Transportation. Also, this project is included in the MUMPO 2030 Long-Range Transportation Plan.

In the North Carolina Statewide Functional Classification System, Idlewild Road is designated as collector.

As it exists now, this section of Idlewild Road primarily is a two-lane shoulder section with a pavement width between 21- 60-feet depending on the location, additional widening are provided at intersections in order to accommodate left turn lanes. The posted speed limit varies between 35mph and 45mph.

The land immediately surrounding the project area; that is, north-west of Stevens Mill Road up to I-485 (end project) is mostly undeveloped woodlands with few scattered businesses. Further south-east of Stevens Mill Road up to Indian Trail-Fairview Road (begin project) is predominantly single-family homes with some businesses.

At the western end of the project, planning for TIP Project U-4913, the widening of Idlewild Road from its existing pattern to a multilane facility between I-485 to Stevens Mill Road is currently in progress and section 1 of this study overlaps this project. If U-4913 progresses thru planning, design and construction, the recommendations of this study may require modification.

III. Traffic and Safety

There are three existing signals within the project limits. They are located at Indian Trail- Fairview Road, Stevens Mill Road and on Idlwild market Driveway.

The current year (2011) Average Daily Traffic (ADT) within the project limits ranges from 24,000 vehicles per day (vpd) at the west end (I-485) to

14,400 vpd at the east (Indian Trail-Fairview Road) end of the project. For the design year 2035, the estimated traffic volumes within the project limits ranges from 45,800 vehicles per day (vpd) at the west end (I-485) to 39,750 vpd at east (Indian Trail-Fairview Road) end of the project. Truck traffic is estimated to make up 7% of the ADT traffic.

During the three-year period from January 1, 2006 through December 31, 2008, there were 147 accidents reported within the project limits. 89 of these crashes were property damage only accidents, 58 were injury crashes and there were no fatalities as a result of these accidents. The accident rate for this 2.3 mile portion of roadway was 355.39 accidents per 100 million vehicle miles of travel (acc/100mvm), which was considerably lower than the 2006-2008 statewide rate of 413.78 accidents/100 mvm for two-lane undivided primary routes.

The most prevalent accident types along this corridor are as follows: approximately 48 percent of accidents were rear end; slow or stop, 12 percent were with left turn; same roadway and 12 percent were angle accidents. Individually, all other accident types are approximately thirty eight (28) percent or less of total accidents. Improvements to upgrade this section of roadway to a multilane facility should reduce the likelihood of these types of accidents.

IV. Description of Alternatives

The construction cost estimate shown below for each alternative includes the installation of a five (5) foot sidewalk on both sides of the road within the project limits. This sidewalk is estimated to cost an additional \$300,000 per side. All alternatives specified that the outside lane(s) be 14 foot in width to permit the sharing of lane for bicycle.

ALTERNATE A, sections 1 thru 3:

Section 1- is the widening of Idlewild Road from I-485 to 700 feet southeast of Stevens Mill Road. The proposed cross section is a four-lane divided curb and gutter section with a 30-foot raised grass median, 86-foot wide face to face of curbs with 15-foot berms on a minimum of 130-feet of right-of-way along existing alignment. The length of this segment is approximately 4500-feet. See figures 1 and 2.

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For Alternative A, Section #1, zero resident relocation and zero business relocations are expected. The total cost of this segment is estimated to be \$19,600,000 with \$6,700,000 for construction, \$12,400,000 for utility relocation and \$500,000 for right-of-way.

Section 2- is the widening of Idlewild Road from 700 feet southeast of Stevens Mill Road to 3000 feet southeast of Stevens Mill Road. The proposed cross section is a four lane divided curb and gutter section with 30-foot raised grass median, 86-foot wide face to face of curbs with 15-foot berms on a minimum 130-feet of right-of-way along existing alignment. The length of this segment is approximately 2300-feet. See figures 1 and 2.

For Alternative A, Section #2, zero resident relocation and zero business relocations are expected. The total cost of this segment is estimated to be \$6,900,000 with \$2,300,000 for construction, \$4,400,000 for utility relocation and \$200,000 for right-of-way.

Section 3- is the widening of Idlewild Road from 3000 feet southeast of Stevens Mill Road to southeast of Indian Trail Road. The proposed cross section is a four-lane divided curb and gutter section with 30-foot raised grass median, 86-foot wide face to face of curbs with 15-foot berms on a minimum 130-feet of right-of-way along existing alignment. The length of this segment is approximately 5100-feet. See figures 1 and 2.

For Alternate A, Section #3, it is anticipated that there will be twenty (20) residences and one (1) business will be impacted due to this project. The total cost of this segment is estimated to be \$13,800,000 with \$6,200,000 for construction, \$3,400,000 for utility relocation and \$4,200,000 for right-of-way.

Total Construction (Alternate A, Sections 1 thru 3).....	\$15,200,000
Total Right-of-Way (Alternate A, Sections 1 thru 3).....	\$4,900,000
Total Utility Relocations (Alternate A, Sections 1 thru 3).....	\$20,200,000
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Total Project Cost (Alternate A, Sections 1 thru 3).....	\$40,300,000

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ALTERNATE B, sections 1 thru 3:

Section 1- is the widening of Idlewild Road from I-485 to 700 feet southeast of Stevens Mill Road. The proposed cross section is a four-lane divided shoulder section, 88-feet wide edge to edge of pavement including 5-feet paved shoulders and a 30-foot raised grass median on a minimum of 150-feet of right-of-way along existing alignment. The length of this segment is approximately 4500-feet. See figures 1 and 2.

For Alternate B, Section #1, zero resident relocation and zero business relocations are expected. The total cost of this segment is estimated to be \$19,600,000 with \$6,500,000 for construction, \$12,400,000 for utility relocation and \$700,000 for right-of-way.

Section 2- is the widening of Idlewild Road from 700 feet southeast of Stevens Mill Road to 3000 feet southeast of Stevens Mill Road. The proposed cross section is a four-lane divided shoulder section, 88-feet wide edge to edge of pavement including 5-feet paved shoulders and a 30-foot raised grass median on a minimum of 150-feet of right-of-way along existing alignment. The length of this segment is approximately 2300-feet. See figures 1 and 2.

For Alternate B, Section #2, zero resident relocation and zero business relocations are expected. The total cost of this segment is estimated to be \$7,000,000 with \$2,300,000 for construction, \$4,400,000 for utility relocation and \$300,000 for right-of-way.

Section 3- is the widening of Idlewild Road from 3000 feet southeast of Stevens Mill Road to southeast of Indian Trail Road. The proposed cross section is a four-lane divided shoulder section, 88-feet wide edge to edge of pavement including 5-feet paved shoulders and a 30-foot raised grass median on a minimum of 150-feet of right-of-way along existing alignment. The length of this segment is approximately 5100-feet. See figures 1 and 2.

For Alternate B, Section #3, it is anticipated that there will be twenty (20) residences and one (1) business will be impacted due to this project. The total cost of this segment is estimated to be \$14,700,000 with \$6,100,000 for construction, \$3,400,000 for utility relocation and \$5,200,000 for right-of-way.

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Total Construction (Alternate B, Sections 1 thru 3)..... .. \$14,900,000
Total Right-of-Way (Alternate B, Sections 1 thru 3)..... ..\$6,200,000
Total Utility Relocations (Alternate B, Sections 1 thru 3)... \$20,200,000

Total Project Cost (Alternate B, Sections 1 thru 3)..... ..\$41,300,000

ALTERNATE C, sections 1 thru 3:

Section 1- is the widening of Idlewild Road from I-485 to 700 feet southeast of Stevens Mill Road. The proposed cross section is a six-lane divided curb and gutter section with 30-foot raised grass median, 86-foot wide face to face of curbs with 15-foot berms on a minimum of 150 feet of right-of-way along existing alignment. The length of this segment is approximately 4500-feet. See figures 1 and 2.

For Alternate C, Section #1, zero resident relocation and zero business relocations are expected. The total cost of this segment is estimated to be \$21,200,000 with \$8,100,000 for construction, \$12,400,000 for utility relocation and \$700,000 for right-of-way.

Section 2- is the widening of Idlewild Road from 700 feet southeast of Stevens Mill Road to 3000 feet southeast of Stevens Mill Road. The proposed cross section is a four-lane divided curb and gutter section with 30-foot raised grass median, 86-foot wide face to face of curbs with 15-foot berms on a minimum of 150 feet of right-of-way along existing alignment. The length of this segment is approximately 2300-feet. See figures 1 and 2.

For Alternate C, Section #2, zero resident relocation and zero business relocations are expected. The total cost of this segment is estimated to be \$7,800,000 with \$3,100,000 for construction, \$4,400,000 for utility relocation and \$300,000 for right-of-way.

Section 3- is the widening of Idlewild Road from 3000 feet southeast of Stevens Mill Road to southeast of Indian Trail Road. The proposed cross section is a six-lane divided curb and gutter section with 30-foot raised grass median, 86-foot wide face to face of curbs with 15-foot berms on a minimum of 150 feet of right-of-way along existing alignment. The length of this segment is approximately 5100-feet. See figures 1 and 2.

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For alternative C, Section #3, it is anticipated that there will be twenty (20) residences and one (1) business will be impacted due to this project. The total cost of this segment is estimated to be \$16,500,000 with \$7,900,000 for construction, \$3,400,000 for utility relocation and \$5,200,000 for right-of-way.

Total Construction (Alternate C, Sections 1 thru 3).....	\$19,100,000
Total Right-of-Way (Alternate C, Sections 1 thru 3).....	\$6,200,000
Total Utility Relocations (Alternate C, Sections 1 thru 3)...	\$20,200,000
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Total Project Cost (Alternate C, Sections 1 thru 3).....	\$45,500,000

Under all alternates, the utility costs are anticipated to be significant because of the potential impacts along the facility. During later planning and design phases, a best fit solution should be fully investigated when more detailed survey data is available because considerable cost reductions may be possible.

*Note: The above costs do not include the cost of converting the I-485/Idlewild Road interchange into a Diverging Diamond Interchange (DDI) as discussed below.

V). Other Considerations

Given the available information, we anticipate traffic operational issues with the existing I-485/Idlewild Road interchange. Therefore, we did consider modifications to this interchange and it appears that a six lane diverging diamond interchange (DDI) in conjunction with the six lane widening recommended in Alternative 3 would adequately accommodate the 2035 design year traffic volumes. The total cost to convert and widen the existing interchange into a six lane DDI is estimated to be \$7,500,000 with \$7,300,000 for construction and \$200,000 for utility relocation.

VI). Recommendations

It is recommended to improve Idlewild Road to a multi-lane facility with curb and gutter. Three different alternatives were investigated and the associated costs with the breakdowns are described in section IV above.

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The cost difference between the four-lane divided curb and gutter section, four-lane divided shoulder section with option for future widening and the six-lane divided curb and gutter section; all with 30-foot raised grass median, ranges between \$5.0 million and \$4.0 million respectively; in favor of the four-lane section(s). Although 150-foot right-of-way is utilized for both the four-lane divided shoulder section with option for future widening and the six-lane curb and gutter sections. However, in 2035 design year, our analyses indicates that the four-lane shoulder section (Alternate "B") will operate at a level of service "F" while the six-lane curb and gutter section (Alternate "C") would accommodate the projected traffic volume and operating at an acceptable level of service "D" or better with appropriate intersection improvements. Therefore, due to these factors, the six-lane divided cross-sections (Alternate "C") is preferred.

Total Costs of Recommended improvement included the I-485 interchange is estimated to be \$53,000,000 with \$26,400,000 for construction, \$6,200,000 for Right-of-Way and up to \$20,400,000 for utility relocation. When more detailed survey data is available during later planning and design stages, a best fit solution should be fully investigated in order to reduce the anticipated utility relocation costs.

VII. Additional Comments

An exhaustive environmental screening was not conducted for this study. However, the following information summarizes conclusions about the project study area based on existing data.

There are no properties listed on the National Register of Historic Places within the immediate vicinity of the proposed improvements. There are also no known archaeological sites within the project study area.

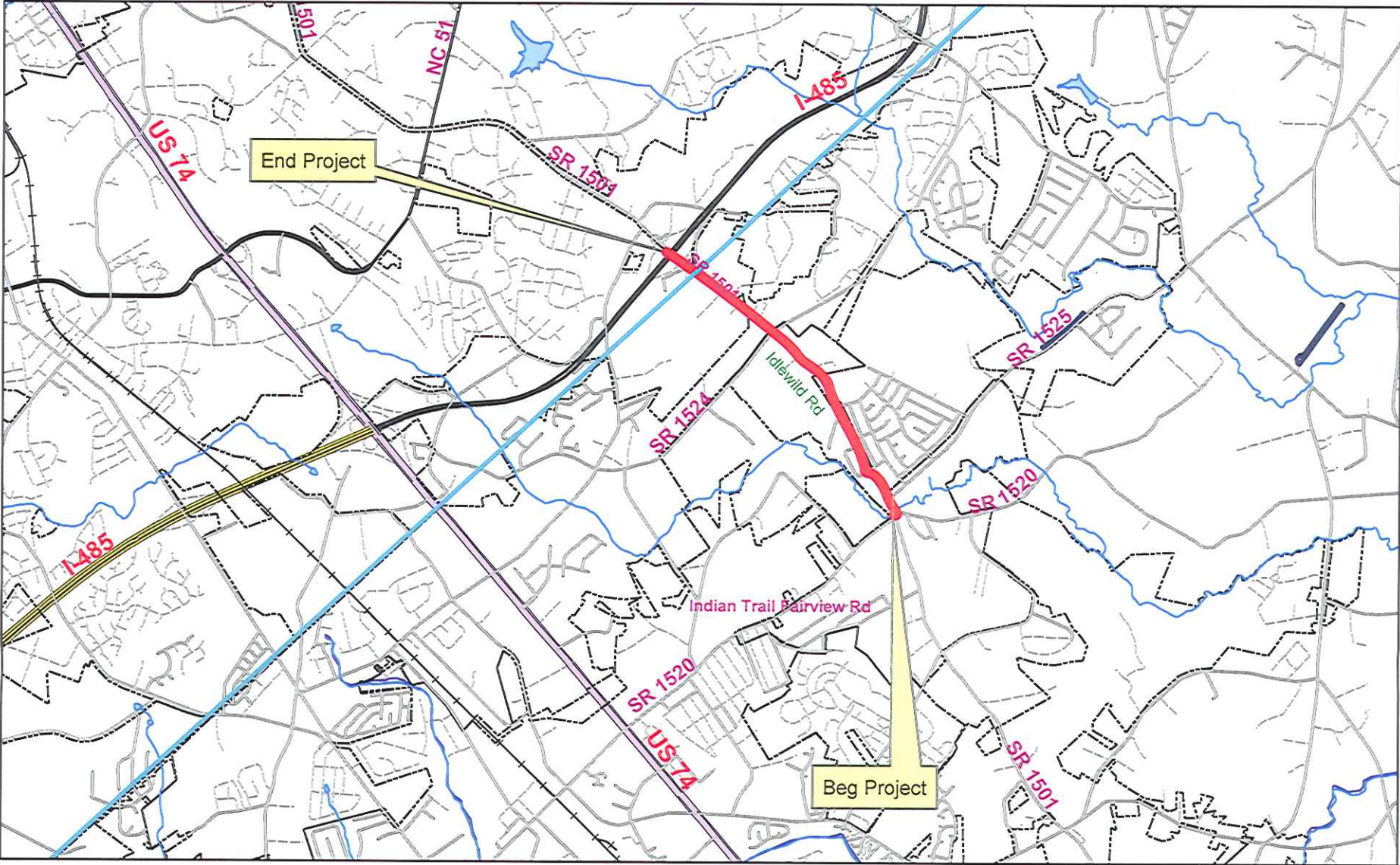
According to the National Heritage Program GIS data base, there were no Threatened or Endangered species identified within the immediate project area. The proposed project corridor crosses wetlands associated with the North Fork Crooked Creek, therefore, permits with the U.S. Army Corps of Engineers may be necessary.

Bicycle accommodations are currently provided under all alternatives studied for this project.

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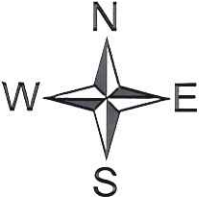
Figure 1



Mecklenburg/Union County



Project Limits



END PROJECT

BEGIN PROJECT

Proposed Alignment
150' Proposed R/W

Scale = 1"=1000'



00117

1501

1501

1501

02

03

14

28

69

74

74

74

74

74

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74

74

74

74

Hood Rd

Parkway

Way

Way

Way

Way

Way

Way

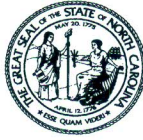
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STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE
GOVERNOR

EUGENE A. CONTI, JR.
SECRETARY

August 22, 2011

Mr. Robert Cook, Secretary
Meck-Union Metropolitan Planning Org.
600 East Fourth Street, 8th Floor
Charlotte, NC 28202

SUBJECT: CSXT Pinoca Yard Storage Improvements Project (P-5002B),
City of Charlotte, Mecklenburg County, North Carolina

Dear Mr. Cook,

The proposed TIP Project # P-5002 Norfolk Southern/CSXT Mainline Grade Separation Project will result in the loss of rail car storage capacity at CSXT's Tryon Yard in Charlotte. To mitigate for the impacts to Tryon Yard, the North Carolina Department of Transportation (NCDOT) Rail Division is proposing to construct additional storage tracks at the CSX Transportation (CSXT) Pinoca Yard in the city of Charlotte. **Figure 1** is a project location map and **Figure 2** shows the project study area.

A Federally-funded Categorical Exclusion (CE) Checklist document is being prepared in coordination with the Federal Railroad Administration (FRA). This document is intended to satisfy the requirements of both the National Environmental Policy Act (NEPA) and the North Carolina Environmental Policy Act (SEPA).

In an effort to expedite the environmental clearance process, we are asking your agency to provide any information you might have that would be helpful in evaluating the potential environmental impacts of the proposed rail yard storage improvements project. If applicable, please also identify any permits or approvals that may be required by your agency. We ask that you please respond in writing by **September 22, 2011**.

We appreciate your time and cooperation on this project. If you have any questions or need any additional information concerning this project, please contact either:

Ryan White, P.E.
NCDOT-Rail Division
Rail Project Development Engineer
(919) 733-7245 ext 266
rlwhite@ncdot.gov
Rail Division – Environmental & Planning Branch

Terry Winebrenner, PE
Gannett Fleming, Inc.
Environmental Project Manager
(919) 859-4880
twinebrenner@gfnet.com

Sincerely,

A handwritten signature in blue ink that reads "Marc Hamel".

Marc Hamel
North Carolina Department of Transportation

MAILING ADDRESS:
NC DEPARTMENT OF TRANSPORTATION
RAIL DIVISION
1553 MAIL SERVICE CENTER
RALEIGH, NC 27699-1553

TELEPHONE: 919-733-4713
FAX: 919-715-6580
WEBSITE: WWW.BYTRAIN.ORG

LOCATION:
TRANSPORTATION BUILDING
1 SOUTH WILMINGTON STREET
RALEIGH, NC

Figure 1 - Project Location Map

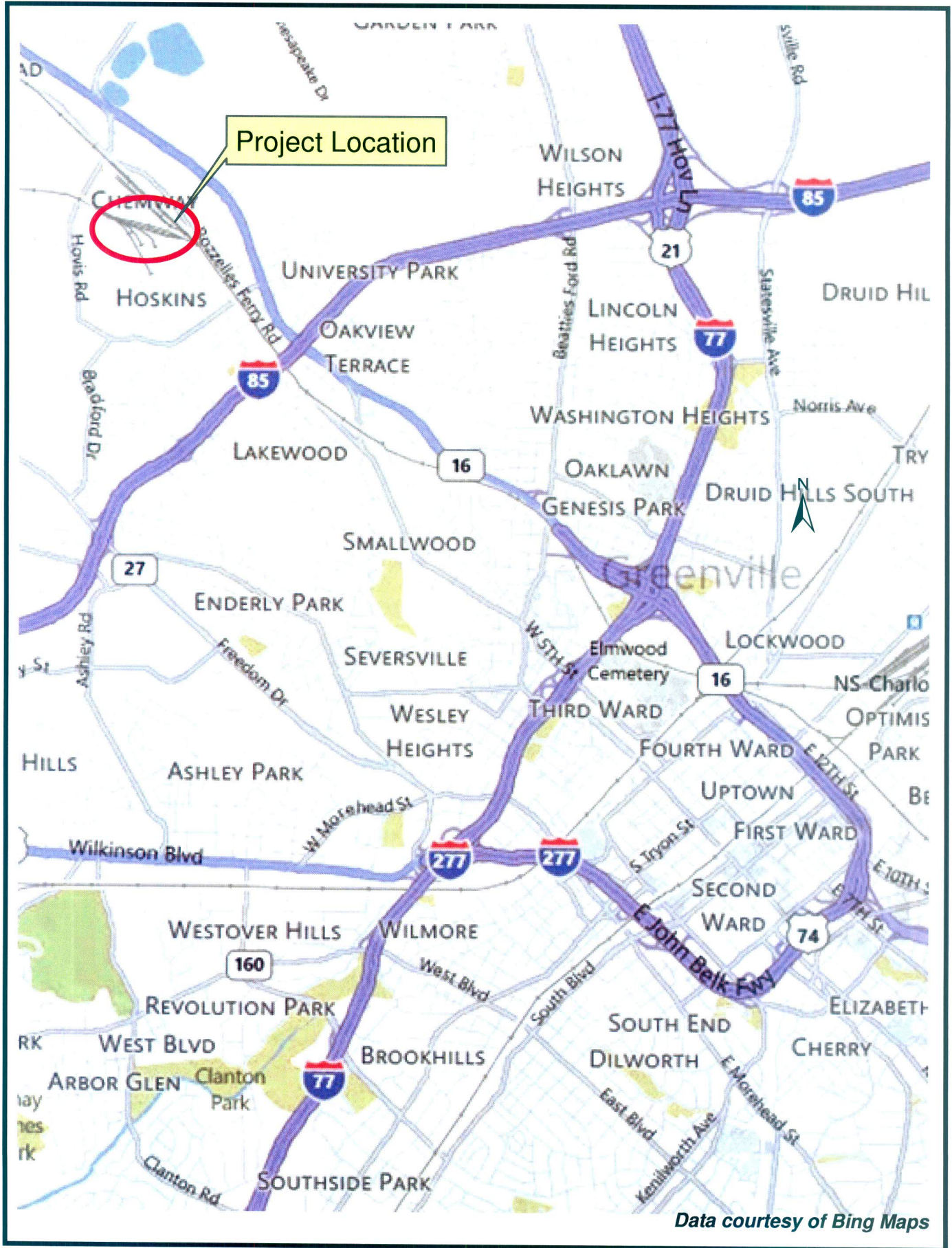


Figure 2 - Project Study Area

