

US 221 IMPROVEMENTS

From North of SR 1366 (Roper Loop Road) in Rutherford County
to US 221-NC 226 in McDowell County
WBS Nos. 35608.1.1 and 34329.1.1

STIP Projects R-2597 and R-204D&E

ADMINISTRATIVE ACTION FINDING OF NO SIGNIFICANT IMPACT (FONSI)

N. C. DEPARTMENT OF TRANSPORTATION

submitted pursuant to 42 U.S.C. 4332(2) (c)



APPROVED:

3.6.2014

Date

for

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North Carolina Department of Transportation

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February 24, 2014

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PROJECT COMMITMENTS

US 221 IMPROVEMENTS

From North of SR 1366 (Roper Loop Road) in Rutherford County
to US 221-NC 226 in McDowell County
WBS Nos. 35608.1.1 and 34329.1.1

STIP PROJECTS R-2597 and R-204D&E

The following special commitments have been agreed to by NCDOT:

Project Development and Environmental Analysis Unit:

- Prior to purchase of project right of way, the NCDOT Project Development and Environmental Analysis Unit will complete a Revised Traffic Noise Analysis that will meet all requirements of the 2011 NCDOT Traffic Noise Abatement Policy.
- Prior to permitting, NCDOT will conduct plant surveys for federally listed small whorled pogonia (*Isotria medeoloides*) in the expanded study area near I-40 that contains potential habitat for the species. Surveys will take place during the blooming season.
- NCDOT will replace any fencing on SR 1321 (Thermal City Road) in the vicinity of the Albert Weaver Farm Historic Property that is disturbed during construction.
- NCDOT, U.S. Army Corps of Engineers (USACE), and the NC State Historic Preservation Office (NC-HPO) will comply with the provisions of the Memorandum of Agreement (MOA) with regards to the Adverse Effect of the project on the William Monteith House and the development of a data recovery plan for archaeological site 31MC285/285**. For the William Monteith House, the provisions include documentation, relocation of the house and outbuildings, and landscaping. For site 31MC285/285** NCDOT will conduct the data recovery and prepare the resulting archaeological report for submission to the NC State Historic Preservation Office (NC-HPO) and the NC Office of State Archaeology (OSA) after right of way (ROW) is acquired. A minimum of nine months will be required to completed data recovery investigations after ROW is obtained. Any portions of R-2597 that had not been surveyed due to landowner refusal to grant entry or modification to the Area of Potential Effects will also be surveyed, as necessary, after ROW acquisition.

Hydraulics Unit

- NCDOT Hydraulics Unit will coordinate with the NC Floodplain Mapping Program (FMP) to determine the status of the project with regard to applicability of NCDOT's Memorandum of Agreement, or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR).

NCDOT Division 13

- NCDOT Division 13 Office will submit sealed as-built construction plans to the NCDOT Hydraulics Unit upon completion of project construction, certifying that the drainage structures and roadway embankment that are located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.

Table of Contents

1.0 TYPE OF ACTION 1

2.0 DESCRIPTION OF THE PROPOSED ACTION 1

 2.1 Summary of Purpose and Need 1

3.0 ALTERNATIVES CONSIDERED 1

 3.1 No-Build Alternative..... 1

 3.2 Travel Demand Alternative..... 2

 3.3 Mass Transit Alternative..... 2

 3.4 Transportation Systems Management Alternative 2

 3.5 Build Alternatives 2

4.0 PREFERRED ALTERNATIVE..... 6

5.0 SUMMARY OF PROJECT IMPACTS..... 6

 5.1 Relocations..... 7

 5.2 Land Use 7

 5.3 Farmland 8

 5.4 Voluntary Agricultural Districts 8

 5.5 Community Facilities..... 8

 5.6 Indirect and Cumulative Effects..... 8

 5.7 Environmental Justice 9

 5.8 Cultural Resources..... 12

 5.9 Utilities 12

 5.10 Hazardous Material Sites/Underground Storage Tanks 12

 5.11 Terrestrial Communities 13

 5.12 Waters of the United States..... 13

 5.13 Rare and Protected Species 16

 5.14 Water Quality and Floodplains 16

 5.15 Riparian Buffers..... 16

 5.16 Air Quality 16

 5.17 Traffic Noise 17

 5.18 Mineral Resources..... 17

 5.19 Direct Impact Avoidance and Minimization 17

5.20	Permits	17
6.0	COMMENTS AND COORDINATION	18
6.1	Circulation of the SEA.....	18
6.2	Agency Comments on the SEA	18
6.3	Summary of Public Hearing Comments	22
7.0	ADDITIONS AND REVISIONS TO THE SEA	23
7.1	Delineations of Streams and Wetlands.....	23
7.2	Rare and Protected Species	23
7.3	ICE Update	23
7.4	Air Quality Analysis Report.....	28
7.5	Revised Traffic Noise Analysis.....	29
8.0	BASIS FOR FINDING OF NO SIGNIFICANT IMPACT (FONSI).....	29
9.0	REFERENCES.....	30

Tables

Table 3.1.	Summary of Environmental Impacts for the Segment Alternatives
Table 5.1.	Summary of Environmental Impacts for the LEDPA
Table 5.2.	Poverty Statistics for the Project Study Area
Table 5.3.	Utility Costs for LEDPA
Table 5.4.	Summary of Terrestrial Community Impacts (in acres) for the LEDPA
Table 5.5.	Summary of Stream Impacts (in feet) for the LEDPA
Table 5.6.	Summary of Wetland Impacts (in acres) for the LEDPA
Table 5.7.	Summary of Other Impacts (in acres) for the LEDPA on Other Waters of the U.S.
Table 7.1.	NCDOT HES Land Use Screening Matrix Results
Table 7.2.	NCDOT HES Cumulative ICE Screening Matrix (Part 1)
Table 7.3.	NCDOT HES Cumulative ICE Screening Matrix (Part 2)

Appendices

Appendix A.	Figures
Appendix B.	Comments Received on the SEA and During Development of the FONSI
Appendix C.	Cultural Resources Memorandum of Agreement
Appendix D.	Merger Team Concurrence Forms

1.0 TYPE OF ACTION

This is a North Carolina Department of Transportation (NCDOT) administrative action, State Finding of No Significant Impact (FONSI). NCDOT has determined that this project will not have any significant impact on the human or natural environment. This FONSI is based on the State Environmental Assessment (SEA) signed on June 30, 2011 (NCDOT, 2011a), which NCDOT evaluated and determined accurately disclosed the environmental impacts associated with the proposed project. This SEA, together with the information contained within this State FONSI (including responses to comments on the SEA), provides sufficient evidence and analysis for determining that an Environmental Impact Statement (EIS) is not required.

2.0 DESCRIPTION OF THE PROPOSED ACTION

NCDOT proposes to improve a 19-mile section of existing US 221 from north of SR 1366 (Roper Loop Road) in Rutherford County to US 221-NC 226 in McDowell County. The proposed improvements are included as two projects in the NCDOT Draft 2012 State Transportation Improvement Program (STIP), STIP Project R-2597 and STIP Project R-204D&E. Figure 1 in Appendix A shows the location of the project, as well as the project study area.

NCDOT prepared a combined SEA for both projects, given their dependent relationship. For clarity in describing details within this document, the two projects will be referred to as the “project.” Should discussion on specific details of each STIP project be required, they will be identified individually.

2.1 Summary of Purpose and Need

The primary purpose of the proposed project is to improve the levels of traffic service by reducing travel time along the US 221 intrastate corridor and increase safety. The primary need of the proposed project is that the projected traffic volumes cannot be handled safely with the existing two lanes of US 221.

3.0 ALTERNATIVES CONSIDERED

A full range of alternatives were considered for this project, including a No-Build Alternative, Travel Demand Management, Mass Transit, Transportation Systems Management, and Build Alternatives.

3.1 No-Build Alternative

It was determined that the No-Build Alternative would not meet the purpose and need of the project. It would not improve travel time through the corridor, and would not improve safety. Therefore, the No-Build Alternative was not recommended.

3.2 Travel Demand Alternative

Travel demand strategies include ridesharing, flexible work schedules, telecommuting, and “Guaranteed Ride Home,” services. The majority of the jobs in the project area are in the areas of manufacturing; education, health, and social services; construction; and retail trade. The demands of these jobs are often incompatible with telecommuting or flexible work schedules; and the scattered population of Rutherford and McDowell Counties, along with the lack of a central manufacturing center, would greatly reduce the efficiency of ridesharing or “Guaranteed Ride Home” services. For these reasons, travel demand options will not significantly reduce traffic along this section of US 221.

3.3 Mass Transit Alternative

Mass transit alternatives include buses, rail transit, and high occupancy vehicle (HOV) lanes. These transportation services are limited in the project area. The county provides bus transportation for several groups of citizens, including children, persons with disabilities, and elderly persons. There are no public bus or passenger rail services in either county, and there are no plans for such services. HOV lanes are typically used in settings more urban than those encountered along the existing facility. Therefore, the mass transit alternative was eliminated from further study.

3.4 Transportation Systems Management Alternative

Transportation systems management (TSM) improvements involve improving traffic flow of the roadway within the existing right-of-way with minimum capital expenditures and without reconstructing or adding additional through lanes to the existing road. TSM improvements alone will not increase capacity or improve levels of service to the levels required to substantially reduce congestion in the design year. Therefore, the TSM alternative was eliminated from further study.

It should be noted, however, that TSM improvements were incorporated into the Build Alternatives. The project will incorporate the use of median left-overs along the length of the project. Providing median left-overs will prohibit left turns onto US 221 requiring drivers to make a right-turn from a side street or driveway and then make a U-turn at the nearest location to continue in the opposite direction toward their destination. While this would decrease accessibility to some properties, reducing the number of turning movements allowed on US 221 would reduce the potential for traffic conflicts.

3.5 Build Alternatives

For the Build Alternatives, the project was initially divided into fifteen Segment Alternatives (A through H) that were evaluated in order to identify those segments to be carried forward. Potential east side and west side widening alignments were developed and overlain onto land

suitability maps. Symmetrical widening was not considered because of potential impacts on existing residential and commercial development. Each alternative was evaluated based on its consistency with the purpose and need of the project, as well as its potential impact to the human, cultural, and natural environments. In addition, public meetings were held in an effort to seek input from the public and incorporate it into the project planning process. During the course of several regulatory resource agency meetings, alternatives were eliminated, while additional alternatives were identified and added. Alternatives were eliminated from further study because of resulting impacts to the human and/or natural environment. The following alternatives were carried forward for further study:

- East side widening (Alternatives A1, B1, D1, E1, F1, and G1)
- West side widening (Alternatives B2, B3, F2, and G2)
- Best fit (shifting between east and west side widening) (Alternatives C, D, and H)
- Avoidance alternative to eliminate effects to a property that is eligible for the National Register of Historic Places (NRHP) (Alternative B3)

Impacts for the proposed build alternatives are shown in Table 3.1. Stream and wetland impacts shown in Table 3.1 vary from what was presented in the SEA because the SEA impacts were based on field delineations performed in June 2003. Due to the age of these delineations and changes in accepted field methodology, NCDOT developed updated information for the FONSI. Field delineations of Waters of the United States within the project area were conducted from August 8 through September 27, 2012. Other changes in impacts from that in the SEA are due to revisions in the project design and updated relocation information.

**Table 3.1
Summary of Environmental Impacts for the Segment Alternatives**

	Segment Alternative													
	A1	B1	B2	B3	C	D	D1	E1	F1	F2	G1	G2	H	
Construction Cost (in millions)	\$6.0	\$12.1	\$12.6	\$12.9	\$24.8	\$80.3	\$74.0	\$17.5	\$15.5	\$15.3	\$19.5	\$19.3	\$22.0	
Residential Relocations	2	13	16	25	11	14	14	18	2	0	0	0	20	
Businesses Relocations	1	5	9*	4	0	3	3	7	0	0	2	5	6	
Churches Displaced	---	1	1#	1#	---	---	---	---	---	1	---	---	2	
Recreational Facilities Impacted	---	---	---	---	---	2	2	---	---	---	---	---	---	
Major Transmission Towers Impacted	---	---	---	---	---	5	2	---	---	---	1	1	---	
NRHP-Eligible Archaeological Sites Affected	---	---	---	---	---	---	---	1	---	---	---	---	---	
Historic Architecture Adversely Effected	---	1	---	---	---	---	---	---	---	---	---	---	---	
Bridges over Streams	---	---	---	---	1	1	1	---	---	---	---	---	---	
Stream Crossings	1	3	4	3	7	20	20	11	2	2	1	1	3	
Length of Impacted Streams (linear feet)**	Perennial	195	541	675	877	2,129	4,882	4,754	3,319	1,676	1,826	946	946	1,797
	Intermittent	32	24	24	28	194	423	405	378	187	185	29	40	31
Wetland Impacts (acres)**	Wetlands	0.01	0.03	0.10	0.03	0.13	0.19	0.25	0.37	0.02	0.06	---	---	---
	Other Waters	---	---	0.09	---	---	---	---	0.02	---	---	---	---	---
Prime and Important Farmland Impacts (acres)	11.1	20.1	19.8	23.8	28.5	10.8	7.7	28.3	17.2	16.2	2.4	3.2	18.6	
Terrestrial Community Impacts (acres)	30	66.1	68.5	64.4	136.1	227.5	218.4	90.5	41.4	41.4	50.2	50.2	68.6	
Floodplain Area Impacted (acres)	---	---	---	---	2.21	7.33	7.07	3.69	0.13	0.12	---	---	1.03	

Notes: Estimate of impacts based on construction limits (slope stakes), unless otherwise noted.

--- denotes resource does not occur within segment

* Includes the displacement of several buildings associated with Gilkey Lumber Company.

** Stream and wetland impacts include an additional 25 feet to each side of the slope stake limit. Stream impacts do not include length of stream within an existing culvert. Stream impacts rounded to nearest foot.

Church Property impacted, not the church itself

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4.0 PREFERRED ALTERNATIVE

Based on information presented in the SEA, on September 12, 2012, NCDOT and its agency partners agreed that the following segment alternatives provided the Least Environmentally Damaging Practicable Alternative (LEDPA):

- A1 (West Side Widening) – The SEA evaluated only one alternative in Segment A; east side widening was eliminated from further study because it would result in a substantial number of relocations.
- B1 (West Side Widening) – This alternative was selected to limit impacts to Gilkey Lumber (a major local employer) and minimize stream and residential impacts.
- C (Best Fit Alignment) – The SEA evaluated only one alternative in Segment C; east and west side widening were eliminated from further study because of conflicts with utilities.
- D1 (Best Fit Alignment with Second Broad River bridge improved at existing location) – This alternative was selected because it allows for a shorter bridge over the Second Broad River; minimizes construction costs and future maintenance issues; had comparable stream, wetland, and floodplain impacts to Alternative D; and had fewer prime and important farmland, terrestrial community, and floodplain impacts.
- E1 (West Side Widening) – The SEA evaluated only one alternative in Segment E; east side widening was eliminated from further study because it would impact more businesses and a church, as well as result in greater stream impacts.
- F1 (West Side Widening) – This alternative was selected because input from McDowell County stated a preference for Alternatives F1 and G1 due to reduced business impacts and avoidance of impacts to a church. These alternatives also have fewer overall stream impacts.
- G1 (West Side Widening) – This alternative was selected because input from McDowell County stated a preference for Alternatives F1 and G1 due to reduced business impacts and avoidance of impacts to a church. These alternatives also have fewer overall stream impacts.
- H (Best Fit Alignment). – The SEA evaluated only one alternative in Segment H; east and west side widening were eliminated from further study because of impacts to adjacent properties.

5.0 SUMMARY OF PROJECT IMPACTS

The impacts associated with the LEDPA are shown in Table 5.1. The designs for STIP Project R-2597 are shown in Appendix A, Figure 2. The designs for Project R-204D&E are shown in Appendix A, Figure 3.

Table 5.1
Summary of Environmental Impacts for the LEDPA

	Segment Alternative								Total	
	A1	B1	C	D1	E1	F1	G1	H		
Construction Cost (in millions)	\$6.0	\$12.1	\$24.8	\$74.0	\$17.5	\$15.5	\$19.5	\$22.0	\$191.4	
Residential Relocations	2	13	11	14	18	2	---	20	80	
Businesses Relocations	1	5	---	3	7	---	2	6	24	
Churches Displaced	---	1	---	---	---	---	---	2	3	
Recreational Facilities Impacted	---	---	---	2	---	---	---	---	2	
Major Transmission Towers Impacted	---	---	---	2	---	---	1	---	3	
NRHP-Eligible Archaeological Sites Affected	---	---	---	---	1	---	---	---	1	
Historic Architecture Adversely Effected	---	1	---	---	---	---	---	---	1	
Bridges over Streams	---	---	1	1	---	---	---	---	2	
Stream Crossings	1	3	7	20	11	2	1	3	48	
Length of Impacted Streams (linear feet)**	Perennial	195	541	2,129	4,754	3,319	1,676	946	1,797	15,357
	Intermittent	32	24	194	405	378	187	29	31	1,280
Wetland Impacts (acres)**	0.01	0.03	0.13	0.25	0.37	0.02	---	---	0.81	
Other Waters	---	---	---	---	0.02	---	---	---	0.02	
Prime and Important Farmland Impacts (acres)	11.1	20.1	28.5	7.7	28.3	17.2	2.4	18.6	133.9	
Terrestrial Community Impacts (acres)	30	66.1	136.1	218.4	90.5	41.4	50.2	68.6	701.3	
Floodplain Area Impacted (acres)	---	---	2.21	7.07	3.69	0.13	---	1.03	14.1	

Notes: Estimate of impacts based on construction limits (slope stakes), unless otherwise noted.

--- denotes resource does not occur within segment

* Includes the displacement of several buildings associated with Gilkey Lumber Company.

** Stream and wetland impacts include an additional 25 feet to each side of the slope stake limit. Stream impacts do not include length of stream within an existing culvert. Stream impacts rounded to nearest foot.

Church Property impacted, not the church itself

5.1 Relocations

The project will result in the displacement of approximately 80 homes, 24 businesses, and 3 religious facilities.

5.2 Land Use

Land use in Rutherford and McDowell Counties is largely rural, with some residences, small businesses, and farms. Unemployment in this area has been consistently higher than the state average, thus there has been minimal development pressure. It is anticipated that existing trends

in land use will continue in these parts of Rutherford and McDowell Counties. The project has been included in Thoroughfare Plans for Rutherford County since 1976 (NCDOT, 1976), and widening US 221 was the top priority project in the McDowell County Thoroughfare Plan in 1995 (NCDOT, 1995). The project is also consistent with current local land use plans (Rutherford County, 2001 and McDowell County, 1993/2010). It is also included in the Comprehensive Transportation Plan for McDowell County, (NCDOT, 2013a).

5.3 Farmland

Farmland Conversion Forms (CPA-106) were completed for each segment of the US 221 project. In no case did the potential impacts rise to the level that would require mitigation for farmland impacts (a score of 160 or higher). Segments A, B, C, E, and F exceeded a preliminary (Parts III and IV) score and were submitted to the Natural Resources Conservation Service (NRCS) for review. According to NRCS, there are 54,557 acres of farmland in Rutherford County (15 percent of the county area) and 329,807 acres of farmable land in the county. NRCS states that there are 50,093 acres of farmland in McDowell County (18 percent of the county area) and 205,326 acres of farmable land. As shown in Table 5.1, the project would convert approximately 134 acres of Prime and Important Farmland.

5.4 Voluntary Agricultural Districts

Rutherford and McDowell Counties both have Voluntary Agricultural District (VAD) Ordinances. Both counties were contacted with regards to potential VAD impacts associated with the project and neither county responded. They were contacted again during the development of this FONSI. The McDowell County NRCS stated that there were no VADs along US 221 through the project area. The Rutherford County Soil and Water Conservation District stated that several properties along US 221 through the project area were listed in the Rutherford County Farmland Preservation Program. None of the listed parcels will have direct impacts from the proposed project and no additional action is required.

5.5 Community Facilities

The project will not directly impact local health services, public safety services, schools, cemeteries, or community centers.

5.6 Indirect and Cumulative Effects

Subsequent to publication of the SEA, the project was evaluated using the most recent NCDOT screening tool for potential Indirect and Cumulative Effects (ICEs). The results of this evaluation (discussed in Section 7.3) indicate that the project has a low potential to induce ICEs.

5.7 Environmental Justice

According to the US Department of Transportation (USDOT) update to its guidance on carrying out Executive Order 12898 on Environmental Justice in Minority and Low-Income Populations (USDOT, 2012), a minority and/or low-income population is defined as an environmental justice community if it meets one or both of the following criteria:

- The Census Block Group (BG) contains 50 percent or more minority persons and/or the Census BG contains 25 percent or more low-income persons.
- The percentage of minority and/or low-income persons in any Census Block Group is more than 5 percent greater than the county average.

Table 5.2 shows poverty statistics by census BG. While most of the census BGs within the project study area are above the threshold level, it should be noted that there are high poverty rates in both Rutherford and McDowell Counties. The project would not create any disproportionate effects to low-income populations. In addition, both adverse and beneficial impacts associated with the project would be experienced equally by all travelers through the area.

**Table 5.2
Poverty Statistics for the Project Study Area**

Location			Total		Population Under 50% of Poverty Level		Population Between 50%-99% of Poverty Level		Population Between 100%-124% of Poverty Level		Population Between 125%-150% of Poverty Level		Total Population under 150% of Poverty Level
			Estimate	Standard Error	Estimate	Standard Error	Estimate	Standard Error	Estimate	Standard Error	Estimate	Standard Error	
North Carolina			9,162,147	1,600	634,807	10,653	838,749	11,769	466,589	8,461	484,960	9,727	2,425,105
McDowell			43,761	326	2,931	672	5,166	870	2,649	492	2,961	615	13,707
Tract 9702	BG2	Block Group 2, Census Tract 9702	2,422	475	159	165	176	165	85	90	161	124	581
Tract 9705	BG1	Block Group 1, Census Tract 9705	1,539	342	113	121	221	175	115	105	70	92	519
Tract 9709.01	BG1	Block Group 1, Census Tract 9709.01	1,534	296	8	13	116	114	147	126	168	200	439
	BG3	Block Group 3, Census Tract 9709.01	2,175	477	42	62	501	362	332	201	236	204	1,111
	BG4	Block Group 4, Census Tract 9709.01	1,141	357	257	245	207	161	30	47	32	38	526
Tract 9709.02	BG1	Block Group 1, Census Tract 9709.02	907	327	188	287	0	98	0	98	85	89	273
	BG2	Block Group 2, Census Tract 9709.02	1,964	432	105	91	63	73	39	44	133	122	340
Rutherford County			65,584	376	4,850	788	8,602	1,229	4,619	902	3,364	736	21,435
Tract 9601	BG1	Block Group 1, Census Tract 9601	2,677	621	253	184	476	329	142	148	230	206	1,101
Tract 9602	BG1	Block Group 1, Census Tract 9602	847	208	96	97	41	38	42	64	50	57	229
	BG2	Block Group 2, Census Tract 9602	2,408	466	83	49	246	111	211	251	130	134	670

Source: American Community Survey, 2011

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5.8 Cultural Resources

Under Section 106 of the National Historic Preservation Act, the project will result in an Adverse Effect on the William Monteith House, a property determined eligible for the National Register of Historic Places (NRHP). In addition, the project will impact archaeological site 31Mc285/285**, which has also been determined to be eligible for listing on the NRHP. The U.S. Army Corps of Engineers (USACE), as the lead federal agency for this project, has entered into a Memorandum of Agreement (MOA) with NCDOT and the North Carolina State Historic Preservation Office (NC-HPO) to mitigate for the effects of the project on the eligible properties. The MOA and supporting data are included in Appendix C.

5.9 Utilities

NCDOT developed utility cost estimates developed for the project in 2008 and 2009. Costs were estimated for each segment of R-2597, and for R-204D&E. Based on a request from the City of Marion, a utility estimate for R-204D was updated by NCDOT on June 18, 2013. It was estimated that the project utility costs would include \$256,000 for power pole relocations, \$25,170,000 for telephone pole relocation, \$400,000 for water line construction, \$310,500 for sewer line construction, and \$18,665 for miscellaneous sewer item construction. The total utility cost estimate for R-204 D was \$1,010,335. Utility Costs for the LEDPA are summarized in Table 5.3

Table 5.3
Utility Costs for LEDPA
(in thousand dollars)#

Project	R-2597					R-204 D&E	
Segment	A1*	B1*	C*	D1*	E1*	D***	E**
Power Poles	\$84	\$620	\$871	844	\$599	\$256	\$448
Telephone Poles	\$0	\$9	\$0	\$6	\$2	\$25	\$0
Water Line	\$102	\$235	\$449	\$0	\$316	\$400	\$800
Sewer Line	\$0	\$0	\$0	\$0	\$33	\$310	\$0
Sewer Items	\$0	\$0	\$0	\$0	\$0	\$19	\$0
Total	\$186	862	\$1,420	\$850	\$951	\$1,010	\$1,248

- rounded to nearest thousands, differences in total costs due to rounding

* NCDOT estimate, November, 2009

**NCDOT estimate, April, 2008

***NCDOT estimate, June, 2013

5.10 Hazardous Material Sites/Underground Storage Tanks

Field surveys conducted by NCDOT identified six underground storage tank (UST) sites, five additional sites with the possibility for USTs, and one site with geoenvironmental concern within the project study area. No hazardous waste sites or apparent landfills were identified within the project study area. All of these sites are expected to have a low impact to this project.

5.11 Terrestrial Communities

The project will impact terrestrial communities in the project study area as result of grading and paving portions of the project study area. Table 5.4 presents the extent of each terrestrial community type in the project study area and the anticipated impact to each community type based on the preliminary roadway design plans.

Table 5.4
Summary of Terrestrial Community Impacts (in acres) for the LEDPA

Segment Alternative	Community Types Impacted			Total Impact
	Upland Forest	Floodplain Forest	Maintained/ Disturbed	
A1	19.7	0	10.3	30
B1	24.6	0	41.5	66.1
C	70.9	0.5	64.7	136.1
D1	144.2	13.0	61.2	218.4
E1	18.1	2.3	70.1	90.5
F1	15.3	0.1	32	47.4
G1	21.7	0	26.7	48.4
H	21	0	47.6	68.6
Total	337	22.7	354.9	705.5

5.12 Waters of the United States

The project will result in impacts to jurisdictional streams, wetlands and ponds in the project area. As noted in Section 3.5, NCDOT conducted updated field delineations of Waters of the United States within the project area from August 8 through September 27, 2012. Preliminary delineations from this effort were provided to the Merger team to assist in the determination of LEDPA. Table 5.5 shows impacts to perennial and intermittent streams for the selected LEDPA, for the delineated waterbodies as verified by USACE.

Table 5.5
Summary of Stream Impacts (in feet) for the LEDPA

Map ID	Stream Name	Segment (s)	Length Impacted	Classification
S2	UT to Mountain Creek	A1	153	Perennial
S2a*	UT to UT to Mountain Creek	A1	42	Perennial
S5	UT to UT to Mountain Creek	A1	32	Intermittent
S12	UT to Mountain Creek	B1	292	Perennial
S12a	UT to UT to Mountain Creek	B1	24	Intermittent
S13	UT to Mountain Creek	B1	22	Perennial
S16	UT to Mountain Creek	B1	228	Perennial
S20*	UT to Cathey's Creek	C	257	Perennial
S20d	UT to UT to Cathey's Creek	C	60	Intermittent
S22*	UT to Cathey's Creek	C	202	Perennial
S22b	UT to UT to Cathey's Creek	C	26	Perennial
S23	UT to Cathey's Creek	C	536	Perennial
S30	UT to Cathey's Creek	C	121	Perennial

Map ID	Stream Name	Segment (s)	Length Impacted	Classification
S34*	UT to Second Broad River	C	639	Perennial
S36	UT to Second Broad River	C	30	Perennial
S37	UT to Second Broad River	C	319	Perennial
S37b	UT to UT to Second Broad River	C	134	Intermittent
S38*	Stoney Creek	D1	157	Perennial
S42	UT to Second Broad River	D1	14	Perennial
S44*	Rockhouse Creek	D1	170	Perennial
S46	UT to Second Broad River	D1	119	Perennial
S46a	UT to Second Broad River	D1	295	Perennial
S46aa	UT to UT to Second Broad River	D1	22	Perennial
S47	UT to Second Broad River	D1	191	Perennial
S47e	UT to UT to Second Broad River	D1	65	Intermittent
S48	UT to Second Broad River	D1	171	Perennial
S49	UT to Second Broad River	D1	88	Perennial
S50	UT to Second Broad River	D1	44	Intermittent
S51*	Scrub Grass Branch	D1	340	Perennial
S51a	UT to Scrub Grass Branch	D1	28	Perennial
S51b	UT to Scrub Grass Branch	D1	191	Perennial
S52	UT to Second Broad River	D1	181	Perennial
S53	UT to Second Broad River	D1	146	Perennial
S53b	UT to Second Broad River	D1	109	Perennial
S54*	UT to Second Broad River	D1	117	Perennial
S55*	Second Broad River	D1	652	Perennial
S57*	UT to Second Broad River	D1	565	Perennial
S57b	UT to UT to Second Broad River	D1	296	Intermittent
S58*	UT to Second Broad River	D1	149	Perennial
S59	UT to Second Broad River	D1, E	1052, 247	Perennial
S60	UT to Second Broad River	E	217	Perennial
S61	UT to Second Broad River	E	127	Intermittent
S62	UT to Stanfords Creek	E	234	Perennial
S62a	UT to UT to Stanfords Creek	E	761	Perennial
S62b	UT to UT to Stanfords Creek	E	20	Intermittent
S62c	UT to UT to Stanfords Creek	E	42	Intermittent
S63	UT to Stanfords Creek	E	160	Perennial
S63a	UT to Stanfords Creek	E	114	Intermittent
S63b	UT to UT to Stanfords Creek	E	43	Intermittent
S63c	UT to UT to Stanfords Creek	E	210	Perennial
S65*	Goose Creek	E	211	Perennial
S65a	UT to Goose Creek	E	33	Intermittent
S65a	UT to Goose Creek	E	606	Perennial
S66	UT to Goose Creek	E	229	Perennial
S68	UT to North Muddy Creek	E	209	Perennial
S69*	North Muddy Creek	E	236	Perennial
S69c	North Muddy Creek	F1	307	Perennial
S69d	North Muddy Creek	F1	62	Intermittent
S71	UT to North Muddy Creek	F1	841	Perennial
S72	UT to Hicks Branch	F1	528	Perennial
S72	UT to Hicks Branch	F1, G1	125, 29	Intermittent
S72a*	Hicks Branch	G1	73	Perennial
S72aa	UT to Hicks Branch	G1	873	Perennial
S74	UT to Corpening Creek	H	299	Perennial
S74a	UT to UT to Corpening Creek	H	23	Perennial

Map ID	Stream Name	Segment (s)	Length Impacted	Classification
S75	UT to Corpening Creek	H	341	Perennial
S76	UT to Corpening Creek	H	529	Perennial
S76a	UT to UT to Corpening Creek	H	31	Intermittent
S76b	UT to UT to Corpening Creek	H	256	Perennial
S78*	Youngs Fork	H	48	Perennial
S78a	UT to Youngs Fork	H	59	Perennial
S78b	UT to Youngs Fork	H	242	Perennial
		Total	16,644	

* - Obvious Perennial (no form completed, data compiled from field notes, where available), segments rounded to nearest foot.

Table 5.5 lists impacts to wetlands for the selected LEDPA.

Table 5.6
Summary of Wetland Impacts (in acres) for the LEDPA

Map ID	NCWAM Classification	Segment (s)	Hydrologic Classification	NCDWQ Wetland Rating	Area
W1	Headwater Forest Wetland	B1	Riparian	13	0.02
W1a	Seep	A1	Riparian	10	0.01
W2	Headwater Forest Wetland	C	Riparian	68	0.09
W3	Headwater Forest Wetland	C	Riparian	55	0.03
W5	Headwater Forest Wetland	E	Riparian	67	0.17
W8	Bottomland Hardwood	D1	Riparian	40	0.01
W8a	Bottomland Hardwood	D1	Riparian	40	0.004
W12	Seep	B1	Riparian	33	0.002
W17a	Headwater Forest Wetland	B1	Riparian	31	0.06
W22b	Headwater Forest Wetland	C	Riparian	36	0.01
W40	Bottomland Hardwood	D1	Non-riparian	15	0.08
W40a	Freshwater Marsh	D1	Non-riparian	22	0.05
W51	Seep	D1	Non-riparian	34	0.05
W62a	Headwater Forest Wetland	E	Riparian	27	0.20
W71	Non-Tidal Freshwater Marsh	F1	Riparian	21	0.02
				Total	0.806

Table 5.7 lists the impacts to Other Waters of the U.S. within the US 221 project area.

Table 5.7
Summary of Other Impacts (in acres) for the LEDPA on Other Waters of the U.S.

Map ID	Classification	Segment (s)	Area	Compensatory Mitigation Required
OW65a	Pond	F1	0.02	No
		Total	0.02	

5.13 Rare and Protected Species

Field surveys for applicable federally listed threatened and endangered species were conducted from May 14-May 17, 2013. The NCNHP lists five federally protected species for Rutherford County and four federally protected species for McDowell County. There have been no changes in protected species since publication of the SEA. The project was determined to have “No Effect” on all of these species with the exception of small whorled pogonia (*Isotria medeoloides*). In the development of final design for Segment R-204D, a design revision would expand the study area for the project along I-40. NCDOT NES has determined that the area is potential habitat for the species. Assessment of this area will be made within the blooming window of the species prior to permitting. At this time, the conclusion for small whorled pogonia is unresolved. A conclusion was not required for the Bog turtle (*Clemmys muhlenbergii*), as it is listed as Threatened by Similarity of Appearance.

5.14 Water Quality and Floodplains

The project will slightly increase the amount of impervious surface within the project area, which will subsequently increase stormwater runoff. The project area includes Water Supply Watershed class WS-V waters in the Broad River Watershed (the Rutherford County portion of the study area), as well as Youngs Fork (Corpening Creek), a stream listed as impaired under Section 303(d) of the Clean Water Act (CWA) of 1972, as amended.

Flood Insurance Rate Maps (FIRMs) for the project area were updated in October 2008. This information was used to determine floodplain impacts associated with the project. The Hydraulics Unit will coordinate with the NC Floodplain Mapping Program (FMP), the delegated state agency for administering the Federal Emergency Management Agency (FEMA) National Flood Insurance Program, to determine status of the project with regard to applicability of NCDOT’s Memorandum of Agreement with FMP, or approval of a Conditional Letter of Map revision (CLOMR) and subsequent final Letter of Map Revision (LOMR).

5.15 Riparian Buffers

The project is located in the Broad River and Catawba River Basins. There are no riparian buffer regulations in place in these areas.

5.16 Air Quality

The project is located in Rutherford and McDowell Counties, both of which have been determined to comply with the National Ambient Air Quality Standards (NAAQS). FHWA’s Interim Guidance Update on Mobile Source Air Toxic Analysis in NEPA Documents (FHWA, 2012) updated reporting requirements for mobile source air toxics (MSATs). Based on this update, a Revised Air Quality Analysis was developed. The results of this report are discussed more fully in Section 7.4.

5.17 Traffic Noise

Traffic noise effects for the US 221 project will be updated to comply with the NCDOT Traffic Noise Abatement Policy (NCDOT, 2011b). This update is discussed more fully in Section 7.5. The results of this analysis are not anticipated to have an effect on the chosen LEDPA.

5.18 Mineral Resources

The project will not directly impact mining or mineral resources. The project will have impacts to the Lucky Strike Gold Mine and Heather Grove Gold and Gem Panning. It is not anticipated that these right of way acquisitions would require relocation of these facilities.

5.19 Direct Impact Avoidance and Minimization

Impacts to wetlands, streams, homes, businesses, and churches, were minimized by adjusting alignments, widths, and slopes and by reducing the design footprint in an effort to minimize impacts. A list of specific avoidance and minimizations were finalized with the agencies during the Merger Concurrence Point (CP) 4A Meeting, was held on November 13, 2013. The signed Concurrence Form is included in Appendix D.

5.20 Permits

Due to the placement of fill associated with stream crossings over jurisdictional surface waters (i.e., wetlands and surface waters), it will be necessary to obtain permits from the USACE and the NC Division of Water Resources (NCDWR). These permits are required under Sections 404 and 401 of the CWA and are summarized below.

- Section 401 General Water Quality Certification (401 permit) – This permit from NCDWR is required prior to the issuance of a Section 404 Individual Permit. The 401 permit is required for any activity that will result in a discharge into “Waters of the United States” or for which the issuance of a federal permit is required. The anticipated impacts to streams (over 600 feet) and wetlands (over 0.1 acre) will require an individual 401 permit to be obtained and mitigation will be required.
- Section 404 (Impacts to “Waters of the United States”) – Impacts to “Waters to the United States” are under the jurisdiction of the USACE. These impacts will require a Section 404 permit. As the project will impact over 600 feet of streams and over 0.1 acre of wetlands, an individual 404 permit must be obtained and mitigation will be required.
- State Stormwater Permit – Effective August 1, 2013, the Stormwater Permitting Program has been moved to the North Carolina Division of Energy, Mineral, and Land Resources. NCDOT will coordinate with regulatory agencies to obtain the necessary permits.

6.0 COMMENTS AND COORDINATION

The following sections describe public involvement and agency coordination efforts conducted after publication of the SEA. Additional information is provided in Appendix B.

6.1 Circulation of the SEA

The SEA was circulated to federal, state, and local agencies for review on September 19, 2011. The SEA and project mapping were also made available for public review. The review period for the SEA closed in December 2011.

Copies of the SEA and maps displaying the location of the projects were made available for public review at:

- NCDOT District Engineer's Office, 3931 NC Highway 226 S, Marion
- NCDOT County Maintenance Yard, 909 Ledbetter Road, Spindale
- Rutherford County Offices Building, 289 North Main Street, Rutherfordton
- County Administration Building, 60 East Court Street, Marion.

6.2 Agency Comments on the SEA

The following federal agencies supplied comments on the SEA:

- USACE
- U.S. Environmental Protection Agency (USEPA).

Comment: USACE, as the federal agency responsible for the Section 106 compliance, commented on historic resource issues, expressing concern at not having been present during Section 106 meetings with NC-HPO.

Response: The decision to develop the document as an SEA (rather than a federal Environmental Assessment) postdated the NC-HPO effects determination. USACE has been involved throughout the remainder of Section 106 coordination.

Comment: USACE noted that delineations for the project had taken place in 2005 and were no longer valid.

Response: NCDOT conducted updated stream and wetland delineations in 2012, the results of which are included in this document.

Comment: USEPA recommended the selection of Alternatives D1 and F1.

Response: The alternatives USEPA recommended were chosen as LEDPA.

Comment: USEPA recommended using the most stringent BMP stormwater controls for drainages to Corpening Creek (Youngs Fork), a stream listed as contaminated in 2012 by North Carolina under 303(d) of the CWA. Finally, USEPA recommended avoidance and minimization efforts be considered, including slope reductions, median reductions, and the bridging of Cathy's Creek.

Response: Youngs Fork (Corpening Creek) is an impaired stream included on the 2012 Final 303(d) list for Ecological/biological integrity Benthos, but it is not classified as High Quality Waters or sensitive waters. NCDOT has agreed to implement Design Standards in Sensitive Watersheds for sedimentation and turbidity, which do not apply to the proposed project. NCDOT will develop standard stormwater management within the design plans for the proposed project. The proposed project is not anticipated to impact Youngs Fork (Corpening Creek) for Ecological/biological integrity.

The following state agencies supplied comments on the SEA:

- North Carolina Natural Heritage Program (NCNHP)
- NC-HPO
- North Carolina Department of Agriculture and Consumer Services – Agricultural Services (NCDACS)
- North Carolina Division of Water Quality (NCDWQ), now the North Carolina Division of Water Resources (NCDWR), Transportation Permitting Unit.

Comment: NCNHP stated a preference to avoid or minimize impacts to three Significant Natural Heritage Areas (SNHAs) that are within one mile of the US 221 corridor: Rocky Face Mountain and Cedar Knob (located on the east side of US 221 at the Rutherford/McDowell County line), Bovender Farm (located west of US 221 north of Painters Gap Road in Rutherford County), and Montford Cove/ Chestnut Mountain (located on the west side of US 221 south of Mudcut Road in McDowell County). They also noted that populations of the Bog Turtle (*Glyptemys muhlenbergii*), federally listed as Threatened due to Similarity of Appearance (T/SA), were found within a mile of the project area, as were several plant species that were listed as either state protected or Federal Species of Concern (FSC).

Response: The project team will work to minimize any impacts to these resources to the extent practicable. As a T/SA species, field surveys are not required for bog turtle.

Comment: NC-HPO noted that the significance of archaeological site 31RF167 had not been evaluated and a portion of Segment C had not been surveyed due to landowner refusal to grant entry.

Response: Archaeological Site 31RF167** will be avoided by the undertaking as the updated design has shifted the construction limits and Area of Potential Effects (APE) away from the site. NCDOT will conduct additional archaeological evaluations after right of way is acquired for R-

2597 to address any remaining denied access parcels or modification to the APE, in consultation with NC-HPO / Office of State Archaeology (OSA).

Comment: NCDACS requested avoidance and minimization of any conversion of agricultural land.

Response: NCDOT will limit impacts to agricultural lands to the extent practicable.

Comment: The NCDWR Transportation Permitting Unit noted that Corpening Creek (Youngs Fork) is on the North Carolina CWA Section 303(d) list of impacted waters and recommended that the most protective sediment and erosion control BMPs be implemented in this area in accordance with *Design Standards in Sensitive Watersheds* to reduce the risk of nutrient runoff.

Response: There are no High Quality Waters or sensitive waters present for the proposed project (none classified WS-I, WS-II, HQW, ORW, SA, CA, or Tr). There are no aquatic T&E species issues. There are no Riparian Buffer Rules for any part of the proposed project. One stream - Youngs Fork (Corpening Creek) - is included on the 2012 Final 303(d) List for “Ecological/biological Integrity Benthos.” NCDOT has agreed to implement Design Standards in Sensitive Watersheds for sediment/sedimentation and turbidity impairments, which do not apply to the proposed project. Standard Sedimentation and Erosion Control BMPs will be applied to this project.

Comment: NCDWR noted that the SEA stated the ICE assessment would be updated using current methodologies, and also suggested expansion of the ICE study area.

Response: Please refer to the updated ICE discussion in Section 7.3, which uses NCDOT’s current ICE guidelines. The original ICE study area boundaries were set based on communication with NCDOT, local planners, topographic constraints, the limited potential for extension of water and sewer services beyond the project corridor, and the limited growth potential of McDowell and Rutherford Counties (whose population growth ranked 67th and 65th, respectively, of the 100 North Carolina counties from 2000 to 2010). NCDOT maintains these boundaries are appropriate.

Comment: NCDWR concluded their comments with a series of requests for minimizing stream and wetland impacts and controlling stormwater impacts associated with the project.

Response: NCDOT will limit impacts to these resources to the extent practicable.

Two following local agencies supplied comments on the SEA:

- City of Marion
- McDowell County.

Comment: The City of Marion would prefer a five-lane portion for at least the area from I-40 to the northern terminus of the project and wishes to have input during the avoidance/minimization process.

Response: NCDOT currently does not recommend the use of five-lane typical sections. NCDOT met with officials from Marion and McDowell County to discuss avoidance/minimization concerns on July 24, 2012, and September 19, 2013. NCDOT is committed to working with local officials throughout the completion of the project.

Comment: The City of Marion expressed concerns over stormwater impacts to Corpening Creek (Youngs Fork), a CWA Section 303(d) listed stream; the City (Marion) wishes to separate issues from their WWPT from impacts associated with runoff from the improved highway.

Response: NCDOT requested data on contaminant hotspots from the City of Marion. Contamination of Corpening Creek is mainly attributed to the Corpening Creek Wastewater Treatment Plant and non-point source contamination from stormwater.

Comment: The City of Marion stated concerns about potential conflicts with existing water and sewer lines near I-40.

Response: NCDOT developed updated utility estimates to more fully evaluate conflicts with water and sewer lines near I-40. The updated impacts are presented in the FONSI.

Comment: The City of Marion inquired as to what the impact of the proposed directional crossovers would be on school bus travel times.

Response: NCDOT noted that the additional travel to the U-turn bulbs would be offset by the greater mobility of the improved facility. Therefore, no impact is anticipated.

Comment: McDowell County is in the process of updating their Comprehensive Transportation Plan (CTP) and requested their updates to be reflected in the alternative selection and design process. For example, existing Southern Railroad right of way in the Clinchfield area has been acquired to convert to a bike path.

Response: Comment noted. It was not possible to delay alternative selection pending the update of the CTP. The CTP was reviewed during development of the FONSI and was determined to be consistent with the selected LEDPA.

Comment: The City of Marion inquired about the NCDOT pedestrian and sidewalk policy, specifically, if the City can request sidewalks for the entire corridor, or only the area within the City limits.

Response: NCDOT informed the City that a three-party agreement could be pursued with NCDOT, the City, and the County to provide sidewalks along the curb and gutter sections of US 221.

6.3 Summary of Public Hearing Comments

NCDOT certifies that a public hearing for the subject project has been held, and the social, economic, and environmental impacts, consistency with local community planning goals and objectives, and comments from individuals have been considered in the selection of the Preferred Alternative.

Public Hearings for the project were held on March 12, 2012, at R-S Central High School in Rutherfordton and March 13, 2012, at the City of Marion Community Building in Marion. The format of the hearings was an informal open house from 4:30 - 6:30 p.m. with a formal presentation held at 7:00 p.m. Local Officials Information Meetings were held immediately beforehand at 2:00 p.m. Displays available for review included the public hearing maps. During the informal open house, a map request station was set up to allow citizens to request portions of the public hearing maps in the vicinity of their property. An announcement of the meeting was placed on the NCDOT website. The meeting was also advertised via a newsletter announcing the meeting and advertisements in local newspapers. Comments on the SEA were accepted through April 12, 2012.

All of the written and verbal comments and responses are provided in Appendix B. The most common comments are summarized below:

Comment: Several comments that there is not enough traffic to support the project.

Response: Traffic data consistently support the need for the project.

Comment: Several comments requesting additional U-turn bulbs because of concerns that the distance required to travel to the nearest U-turn is too great.

Response: NCDOT will investigate additional U-turn bulbs during final design.

Comment: Several requests related to right in/right out access (in lieu of a cul-de-sac), driveway access, traffic signals, relocation of U-turn bulbs, and other property-specific design issues.

Response: NCDOT will evaluate these requests during final design.

Comment: Concerns about access to Rutherford Electric Membership Corporation (REMC) substation.

Response: NCDOT will coordinate with REMC to get specifications for mobile substation to determine if it is possible to provide access during final design.

Comment: Request to minimize impacts to trees.

Response: NCDOT will attempt to minimize impacts to trees during final design.

7.0 ADDITIONS AND REVISIONS TO THE SEA

7.1 Delineations of Streams and Wetlands

USACE and NCDWR consider stream and wetland field delineations to be accurate for a period of five years after completion. As the delineations used in the SEA were based on field surveys undertaken in June 2003, it was necessary to update this work. Preliminary stream and wetland delineations were completed prior to meeting with the Merger Team to assist in the selection of LEDPA. Preliminary delineation data approved by USACE are shown in this document (See Section 5.12).

7.2 Rare and Protected Species

There are seven species listed as federally threatened or endangered in Rutherford and McDowell Counties, four of which lack suitable habitat in the project area. For the SEA, conclusions on impacts to Small-whorled pogonia (*Isotria medeoloides*) and Dwarf flowered heartleaf (*Hexastylis naniflora*) were based on field surveys conducted in May 2004. For the FONSI, updated field surveys for applicable federally listed threatened and endangered species (Dwarf-flowered heartleaf, Small whorled pogonia, and White irisette [*Sisyrinchium dichotomum*]) were conducted from May 14-17, 2013. The project was determined to have “No Effect” on all of these species.

7.3 ICE Update

In their comments on the SEA, NCDOT Human Environment Section-Community Studies (HES-CS) noted that the 2006 ICE report was not consistent with current ICE methodology, specifically inclusion of the quantitative ICE matrix. They also noted that the 2008 recession may have changed conditions in the project area and that as a result, current demographic data needed to be considered. Based on this assessment, they requested that the ICE be updated.

This analysis generally confirmed the results of the previous analysis, which indicated that while changes in land use were possible, even under the high induced growth scenario, only minimal changes in the amount of impervious cover are expected. While these changes in impervious cover are unlikely to have an effect at the Future Land Use Study Area (FLUSA) scale, localized effects are possible.

It should be noted that, mainly because of the large amount of available land and limited development restrictions within the FLUSA, the score for the ICE matrix indicates somewhat higher than anticipated ICEs associated with the project. The FLUSA extends for more than 21 miles and includes the entirety of all parcels within a half mile of the project area, resulting in more than 5,000 acres of potentially developable land. However, much of the FLUSA is located in hilly to mountainous areas with limited development potential. The area also lacks extensive

land use controls. Although zoning controls are not present within the FLUSA, the economy of the region has been depressed by the loss of mills over the past few decades and the economy for the region is expected to grow at a lower rate than the state average through at least 2018 (NC Employment Security Commission, 2013).

The Indirect Land Use Effects Screening Matrix is shown in Table 4. The following discussion explains how the ratings were derived:

Project Scope - The scope of the project is anticipated to be moderately low, as this is a widening, not a new location project.

Accessibility Change - The proposed project is expected to reduce travel time through the project area in the project design year by approximately three minutes. Based on the screening matrix, time savings of zero to three minutes are ranked moderately low.

Forecasted Population Growth - The annualized population growth is minor (0.23 percent). Based on the screening matrix, annualized annual population growth of zero to one percent is considered moderately low.

Forecasted Employment Growth - the annualized employment growth is also low (0.21 percent). Based on the screening matrix, annualized annual employment growth of zero to one percent is considered moderately low.

Available Land - The factor most conducive for growth is the amount of available land (over 5,000 acres.). Based on the screening matrix, more than 5,000 acres of available land is considered to be high concern.

Water/Sewer Availability - The City of Marion has stated that they have limited availability for the foreseeable future to expand water and sewer services. Currently, water and sewer services extend south from the City of Marion to Goose Creek Road. Rutherford County has no water or sewer service north of Roper Loop Road and has no plans on extending those services at this time. For this reason, this factor is rated moderately low.

Market for Development - The market for development in the FLUSA is poor. Employment in the project study area is below the average rate in North Carolina. According to County officials, there has been little development in the project area and the prospect for growth in the future is limited. For this reason, this factor is rated low.

Public Policy - Growth policy in both Rutherford and McDowell County is based on the respective counties comprehensive plans. There is zoning in Marion, but there are few development constraints in the majority of the FLUSA. There are watershed protection ordinances in both counties within the FLUSA. Also, area topography would tend to increase the cost of development through much of the FLUSA, as would the lack of water and sewer

availability in the area between Roper Loop Road and Goose Creek Road. For these reasons, the factor is rated neutral.

Notable Environmental Features - Field surveys found no populations of federally protected species within the US 221 project study area. While the Second Broad River and its tributaries are considered to be Class WS-V, they have no categorical restrictions on watershed development or wastewater dischargers like other WS classifications. Corpening Creek is included on the North Carolina 2012 Clean Water Act Section 303(d) list of impaired waters. However, both counties in the FLUSA have watershed protection ordinances. There are few other notable features within the FLUSA. For these reasons, the factor is rated low.

The results of the screening process are shown in Table 7.1. The score for this project was 13 out of a possible 46 points, which indicates that a Land Use Scenario Assessment is not likely to be required. Based on this result, and input from the local communities regarding current and medium term economic prospects for the area, and the minimal historical and forecasted growth in the study area, it was concluded that further assessment is not required.

**Table 7.1
NCDOT HES Land Use Screening Matrix Results**

Rating	Project Scope	Accessibility Change	Forecasted Population Growth	Forecasted Employment Growth	Available Land	Water/ Sewer Availability	Market for Development	Public Policy	Notable Env. Features	Results
More Concern	Major new location	> 10 minute savings	>3% annual population growth	Substantial # of new jobs expected	5000+ acres of land	All services existing/ available	Abundant development activity	Less stringent no growth management	Targeted or threatened resource	
↑					X					
↑								X		
↔										
↓	X	X	X	X		X				Indirect scenario assessment not likely
↓							X		X	
Less Concern	Very limited scope	No travel time savings	No population growth or decline	No new jobs or job losses	Limited land available	No service available now or in future	Development activity lacking	More stringent growth management	Features incorporated in local protection	
Score	2	2	1	1	2	1	0	3	1	13

*Matrix Source, NCDOT Human Environment Unit, 2012

The NCDOT Indirect and Cumulative Land Use Effects Screening Matrix also includes tools to evaluate the past, current, and anticipated future effects of development on notable environmental features. Tables 7.2 and 7.3 show the results of this assessment. While some past practices have impacted notable environmental resources in the study area, protections put in place by Rutherford and McDowell Counties are working to limit the effect of current development and it is anticipated that they will continue to work to ensure future development does not contribute to potential cumulative effects. The results of the evaluation (as illustrated in the matrices shown in Tables 7.2 and 7.3), show that this project has a total score of 8 out of a possible 88 points. Based on this evaluation, it is considered that the project is not likely to contribute to cumulative impacts within the FLUSA.

Detailed qualitative analysis of the probable development patterns in the FLUSA suggests the proposed project will have little to no effect on future stormwater runoff or water quality in the watersheds encompassed by the project. Future ICEs in the project area will be limited by existing watershed regulations, topographic constraints, the lack of water and sewer services to unincorporated portions of the FLUSA, and the relatively low current and expected increases in area populations and employment. Current data suggest that these circumstances will be in place through the time horizon of the assessment.

**Table 7.2
NCDOT HES Cumulative ICE Screening Matrix (Part 1)**

Rating	Notable Cultural Features			Notable Community Features		
	Past Actions	Current Activities	Future Development	Past Actions	Current Activities	Future Development
More Concern	Unique resources not protected/ recognized	Unique resources not protected/ recognized	Unique resources not protected/ recognized	Unique resources not protected/ recognized	Unique resources not protected/ recognized	Unique resources not protected/ recognized
↑						
↑						
↔	X					
↓				X		
↓		X	X		X	X
Less Concern	Features incorporated in local planning and protection	Features incorporated in local planning and protection	Features incorporated in local planning and protection	Features incorporated in local planning and protection	Features incorporated in local planning and protection	Features incorporated in local planning and protection
Score	3	-1	-2	2	-1	-2

*Matrix Source, NCDOT Human Environment Unit, 2012

**Table 7.3
NCDOT HES Cumulative ICE Screening Matrix (Part 2)**

Rating	Notable Water Quality Features			Notable Habitat Features			Results
	Past Actions	Current Activities	Future Development	Past Actions	Current Activities	Future Development	
More Concern	Unique resources not protected/ recognized	Unique resources not protected/ recognized	Unique resources not protected/ recognized	Unique resources not protected/ recognized	Unique resources not protected/ recognized	Unique resources not protected/ recognized	
↑							
↑	X			X			
↔							
↓		X			X	X	Cumulative impacts not likely
↓			X				
Less Concern	Features incorporated in local planning and protection	Features incorporated in local planning and protection	Features incorporated in local planning and protection	Features incorporated in local planning and protection	Features incorporated in local planning and protection	Features incorporated in local planning and protection	
Score (Cont.)	4	1	-2	3	1	2	8

*Matrix Source, NCDOT Human Environment Unit, 2012

7.4 Air Quality Analysis Report

The Air Quality Analysis Report (NCDOT, 2013b) was developed to determine the effect on air quality from the US 221 project. Based on this analysis, it was determined that, due to the anticipated design year AADT, this project is considered to be a project with low potential for MSAT effects. For this reason, a qualitative assessment was determined to be applicable.

For the preferred alternative in this air quality analysis, the amount of MSAT emitted would be proportional to the vehicle miles traveled (VMT), as other variables such as fleet mix are anticipated to be the same. Because the VMT for the Build Alternative is estimated to be the same as the No-Build Alternative, higher levels of MSAT are not expected from the Build Alternative compared to the No Build. Regardless of the alternative chosen, emissions will likely be lower than present levels in the design year as a result of USEPA’s national control programs that are projected to reduce annual MSAT emissions by over 80 percent from 2010 to

2050. Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the USEPA-projected reductions is so great (even after accounting for VMT growth) that MSAT emissions in the study area are likely to be lower in the future in virtually all locations.

For the Build and No-Build Alternative, there are no localized areas where VMT would increase or decrease. Therefore, there are no possible localized increases or decreases in MSAT emissions. Regardless, even if increases were to occur, they too will be substantially reduced in the future due to implementation of USEPA's vehicle and fuel regulations.

7.5 Revised Traffic Noise Analysis

A Revised Traffic Noise Analysis is currently under development. The analysis will apply the most recent FHWA and NCDOT requirements for traffic noise impact assessment. In particular, the supplemental report will detail impacts to specific noise receptors from the project LEDPA. It is not anticipated that the major findings of the original noise reports or the recommendations regarding mitigation will change. The revised analysis will be made available to the public as a post-FONSI Technical memo.

8.0 BASIS FOR FINDING OF NO SIGNIFICANT IMPACT (FONSI)

This FONSI, in conjunction with the SEA (which is incorporated by reference), have been evaluated by NCDOT and determined to accurately discuss the Purpose and Need of this project, the effects to the human and natural environment, the impacts of the project and the appropriate mitigation measures. No significant impacts to natural, social, ecological, cultural, economic or scenic resources are anticipated. The proposed project is consistent with local plans, and the project has been coordinated with federal, state, and local agencies. Based on this evaluation, responses to the SEA, and public involvement, it has been determined that a FONSI is applicable to this project. Neither an EIS nor further environmental analysis is required. NCDOT takes full responsibility for the accuracy, scope, and content of the SEA and the FONSI.

Additional information according to this proposal and documentation can be obtained by contacting:

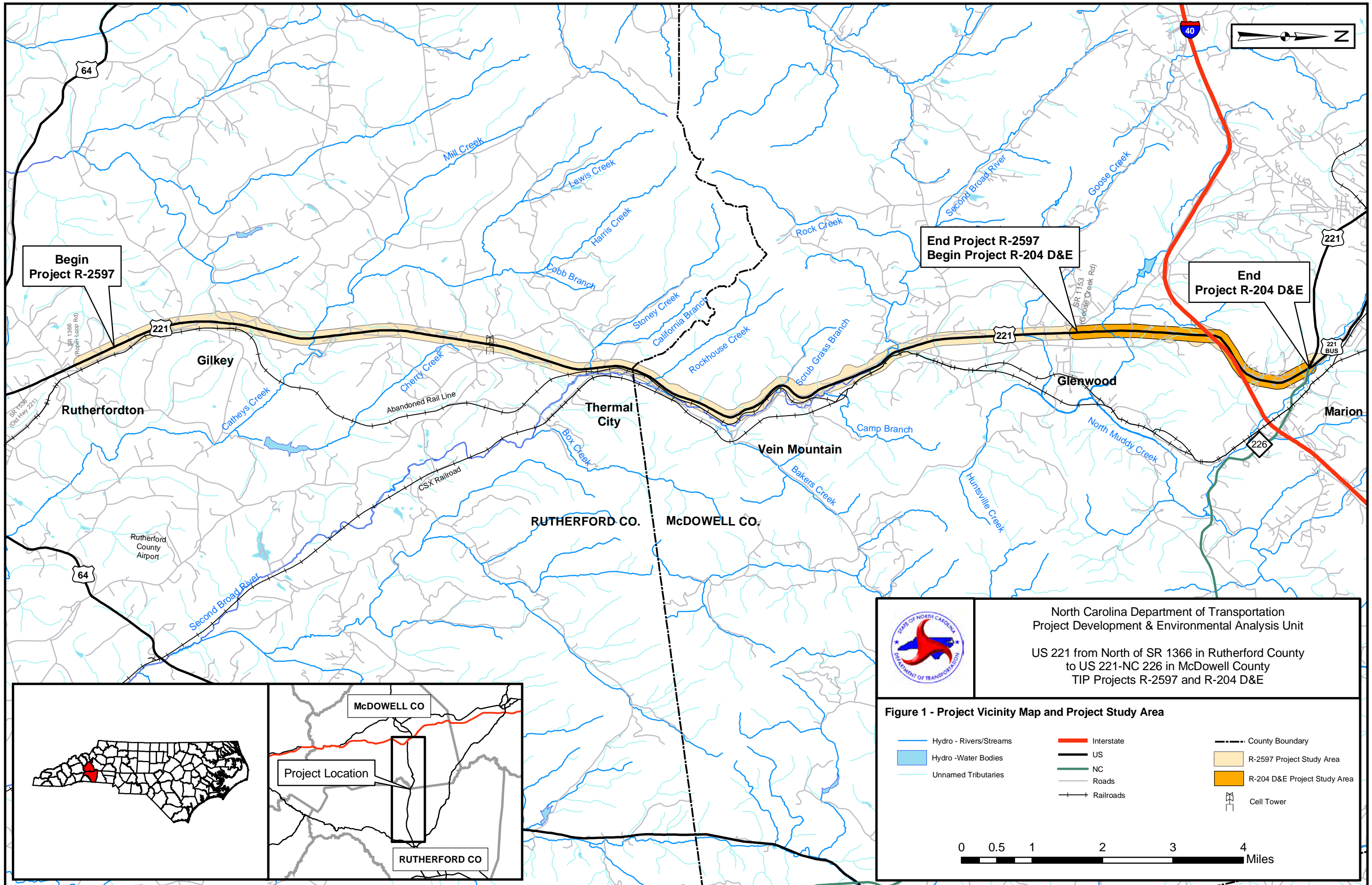
Richard W. Hancock, P.E., Manager
Project Development and Environmental Analysis Unit
NC Department of Transportation
1548 Mail Service Center
Raleigh, NC 27699-1548
Telephone – (919) 707-6000

9.0 REFERENCES

- American Community Survey, 2011. Download of five-year estimates of poverty statistics for North Carolina, Rutherford County, NC, and McDowell County, NC and selected census block groups.
- Federal Highway Administration, 2012. Interim Guidance Update on Mobile source Air Toxic Analysis in NEPA Documents. Website viewed on October, 30, 2013: http://www.fhwa.dot.gov/environment/air_quality/air_toxics/policy_and_guidance/ajintguidmem.cfm
- North Carolina Department of Transportation (NCDOT), 1976, Updated 1997. Rutherford Urban Corridor Thoroughfare Plan. NCDOT Statewide Planning Branch, Small Urban Planning Unit. Raleigh NC. September 1976.
- 1995. Thoroughfare Plan for McDowell County. NCDOT Statewide Planning Branch, Small Urban Planning Unit. Raleigh NC. December 1995.
- 2011a. US 221 Improvements from North of SR 1366 (Roper Loop Road) in Rutherford County to US 221-NC 226 in McDowell County US 221 State Environmental Assessment.
- 2011b. Traffic Noise Abatement Policy. Policy adopted on July 13, 2011. Website cited October 30, 2013: <https://connect.ncdot.gov/resources/Environmental/Compliance%20Guides%20and%20Procedures/2011%20NCDOT%20Traffic%20Noise%20Abatement%20Policy.pdf>
- 2012. Human Environment Section (HES) ICE Screening Matrix.
- 2013a. Comprehensive Transportation Plan for McDowell County. Website cited October 15, 2013: <http://digital.ncdcr.gov/cdm/compoundobject/collection/p16062coll9/id/25362/rec/6>
- 2013b. Air Quality Analysis Report for Project R-2597 and R-204 D&E. Developed by Michael Baker Engineering
- U.S. Census Bureau, 2010. Population estimates for North Carolina, Rutherford County, McDowell County, and selected census block groups.

APPENDIX A

FIGURES





 North Carolina Department of Transportation
 Project Development & Environmental Analysis Unit
 US 221 from North of SR 1366 in Rutherford County
 to US 221-NC 226 in McDowell County
 TIP Projects R-2597 and R-204 D&E

Figure 1 - Project Vicinity Map and Project Study Area

- | | | |
|------------------------|------------|------------------------------|
| Hydro - Rivers/Streams | Interstate | County Boundary |
| Hydro - Water Bodies | US | R-2597 Project Study Area |
| Unnamed Tributaries | NC | R-204 D&E Project Study Area |
| | Roads | Cell Tower |
| | Railroads | |

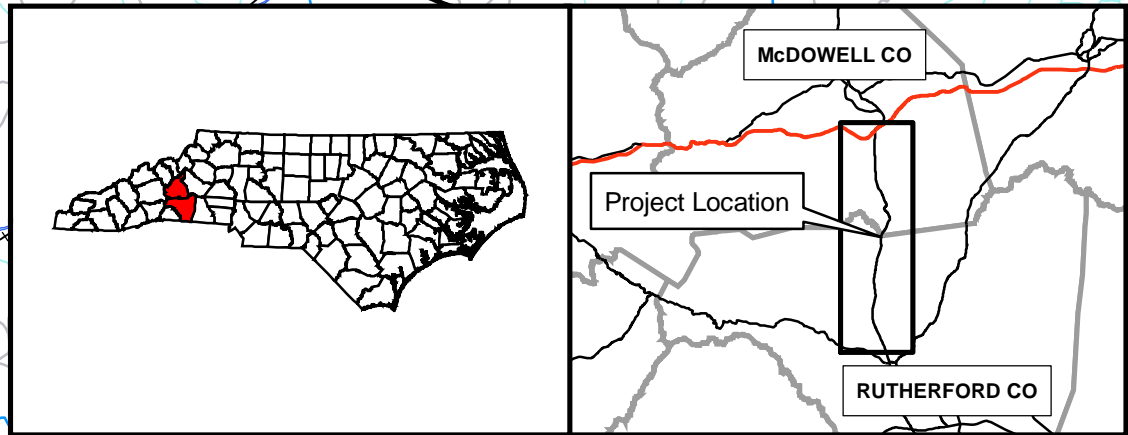
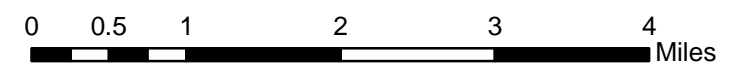


FIGURE 2

PRELIMINARY DESIGNS

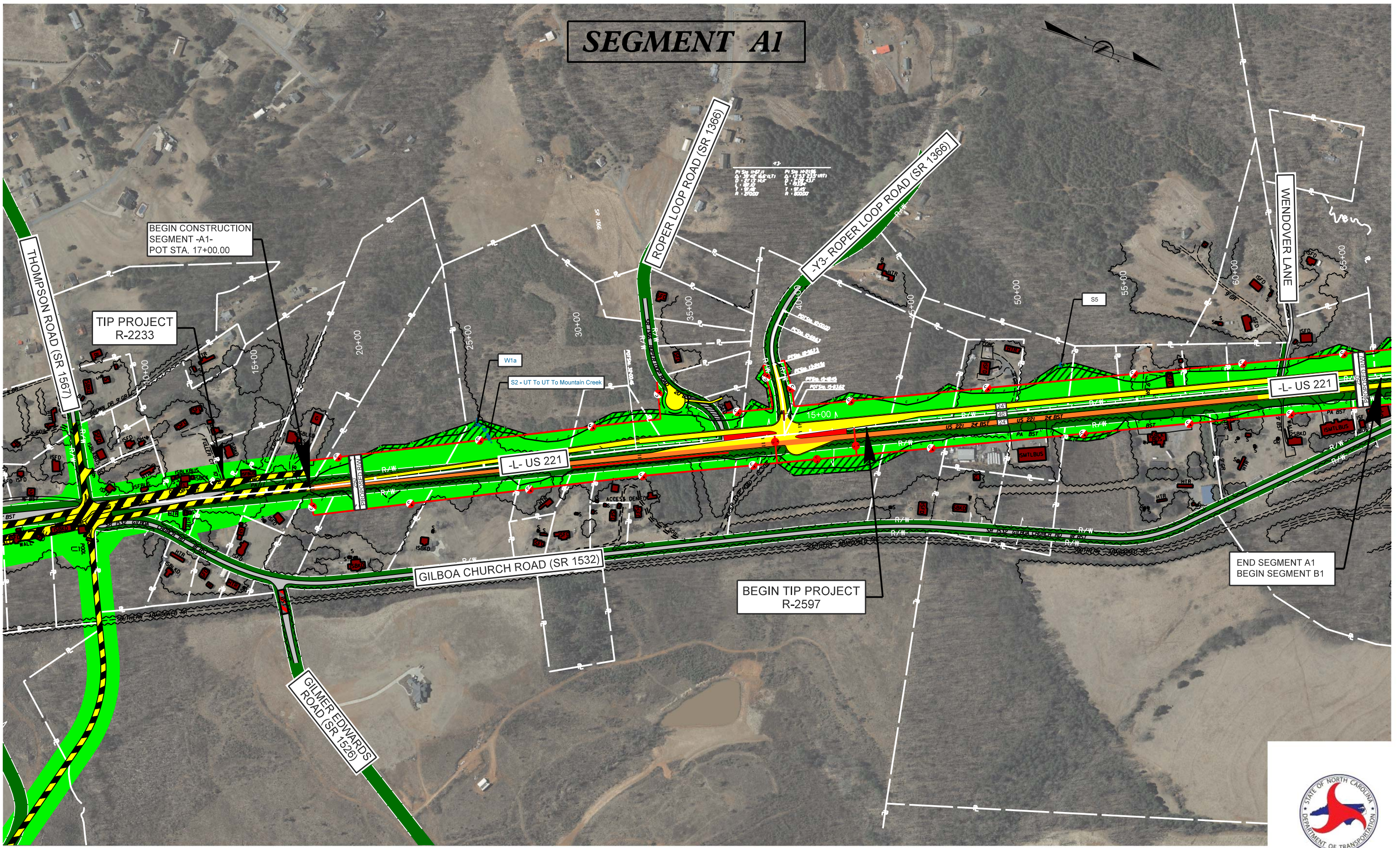
FOR R-2597

LEDPA

LEGEND	
	BUILDINGS
	EXISTING RIGHT OF WAY
	PROPOSED RIGHT OF WAY
	ALL EASEMENTS
	EXISTING ROADWAY
	EXISTING ROADWAY TO BE REMOVED
	EXISTING ROADWAY TO BE RESURFACED
	PROPOSED ROADWAY
	FUTURE ROADWAY
	PROPOSED STRUCTURES, ISLAND, CURB AND GUTTER
	EXISTING STRUCTURES, ISLAND, CURB AND GUTTER TO BE RETAINED
	EXISTING STRUCTURES TO BE REMOVED
	JURISDICTIONAL STREAM-BODY OF WATER
	RAILROAD RIGHT OF WAY
	UTILITY EASEMENT
	CEMETERIES
	PROPOSED CONTROL OF ACCESS
	PROPOSED PARTIAL CONTROL OF ACCESS
	EXISTING CONTROL OF ACCESS
	PRESENT ADT
	FUTURE ADT
	PROPERTY LINES
	HISTORIC PROPERTY
	WETLANDS



SEGMENT A1



PI Sta. 10+71.11	PI Sta. 10+219.88
Δ: 20.42' (6.14m)	Δ: 12.33' (3.85m)
L: 15.22'	L: 8.54'
R: 21.00'	R: 20.00'

BEGIN CONSTRUCTION
SEGMENT -A1-
POT STA. 17+00.00

TIP PROJECT
R-2233

-L- US 221

-L- US 221

GILBOA CHURCH ROAD (SR 1532)

BEGIN TIP PROJECT
R-2597

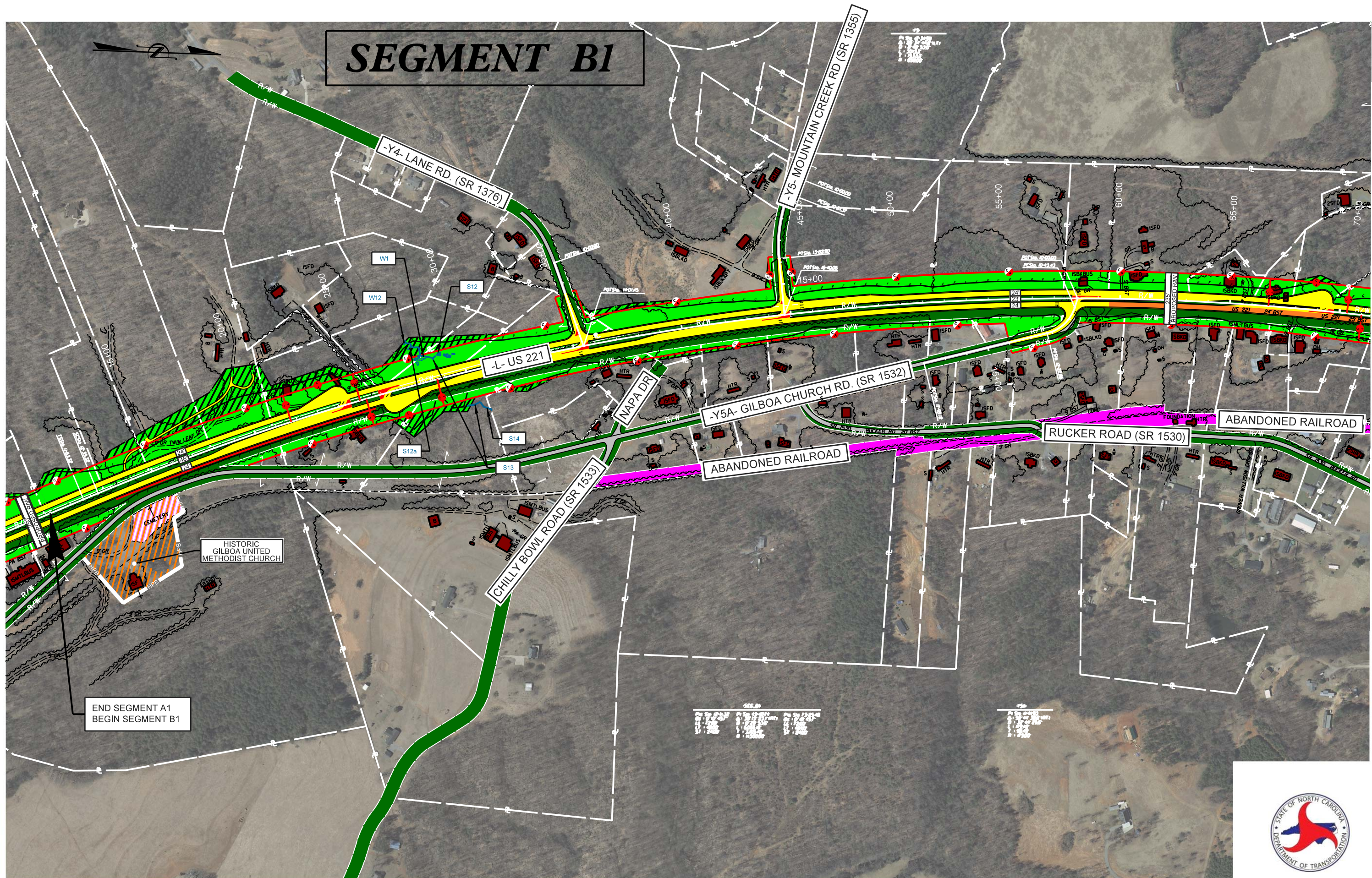
GILMER EDWARDS
ROAD (SR 1529)

END SEGMENT A1
BEGIN SEGMENT B1

Scale: 1" = 400'



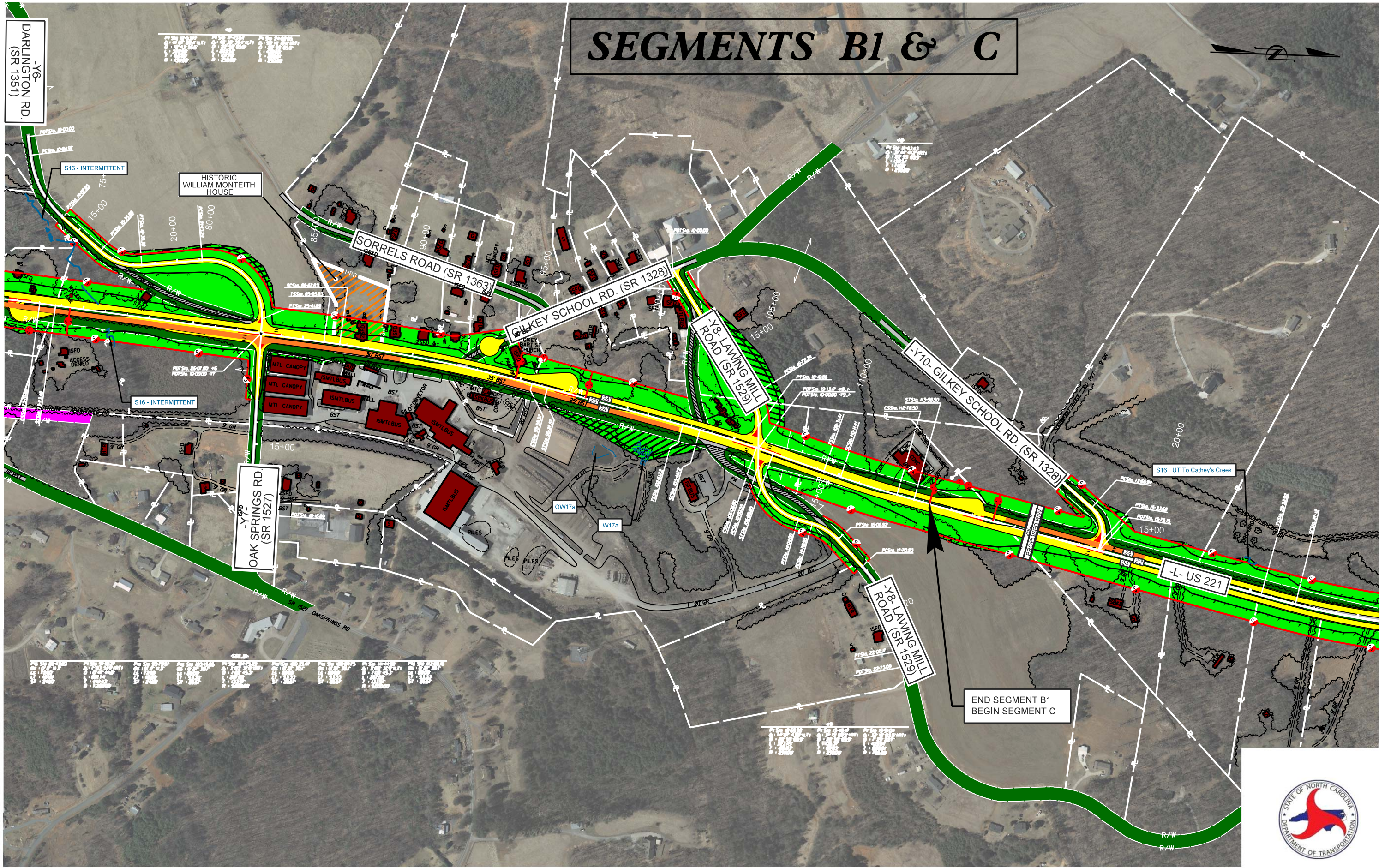
SEGMENT B1



Scale: 1" = 400'



SEGMENTS B1 & C



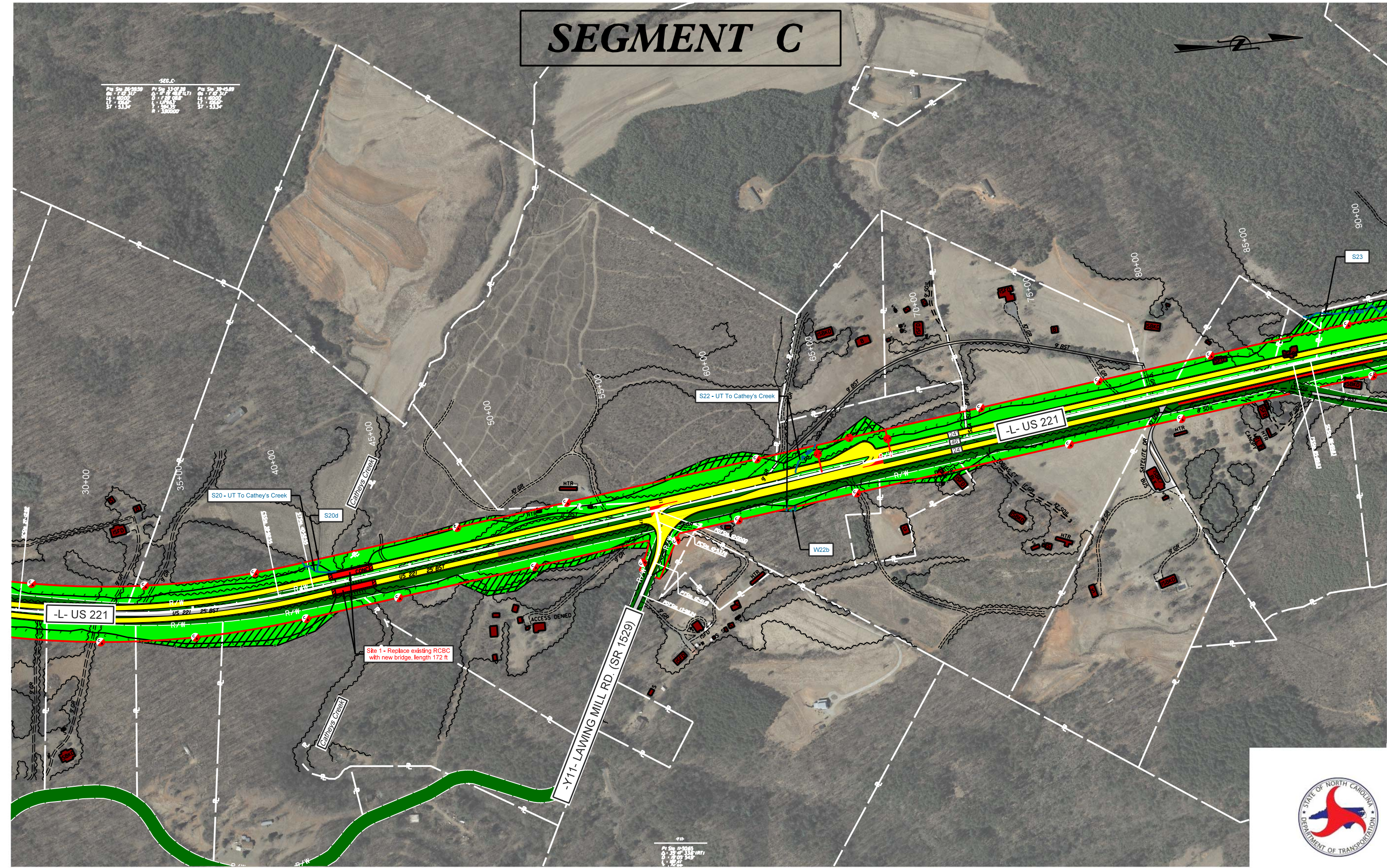
END SEGMENT B1
BEGIN SEGMENT C

Scale: 1" = 400'



SEGMENT C

SEG. C		
PI STA 25+00.00	PI STA 31+07.20	PI STA 75+05.00
CH = 7.50' (1.1)	CH = 7.50' (1.1)	CH = 7.50' (1.1)
LS = 6000'	LS = 6000'	LS = 6000'
ST = 53.3'	ST = 53.3'	ST = 53.3'
R = 300000'		

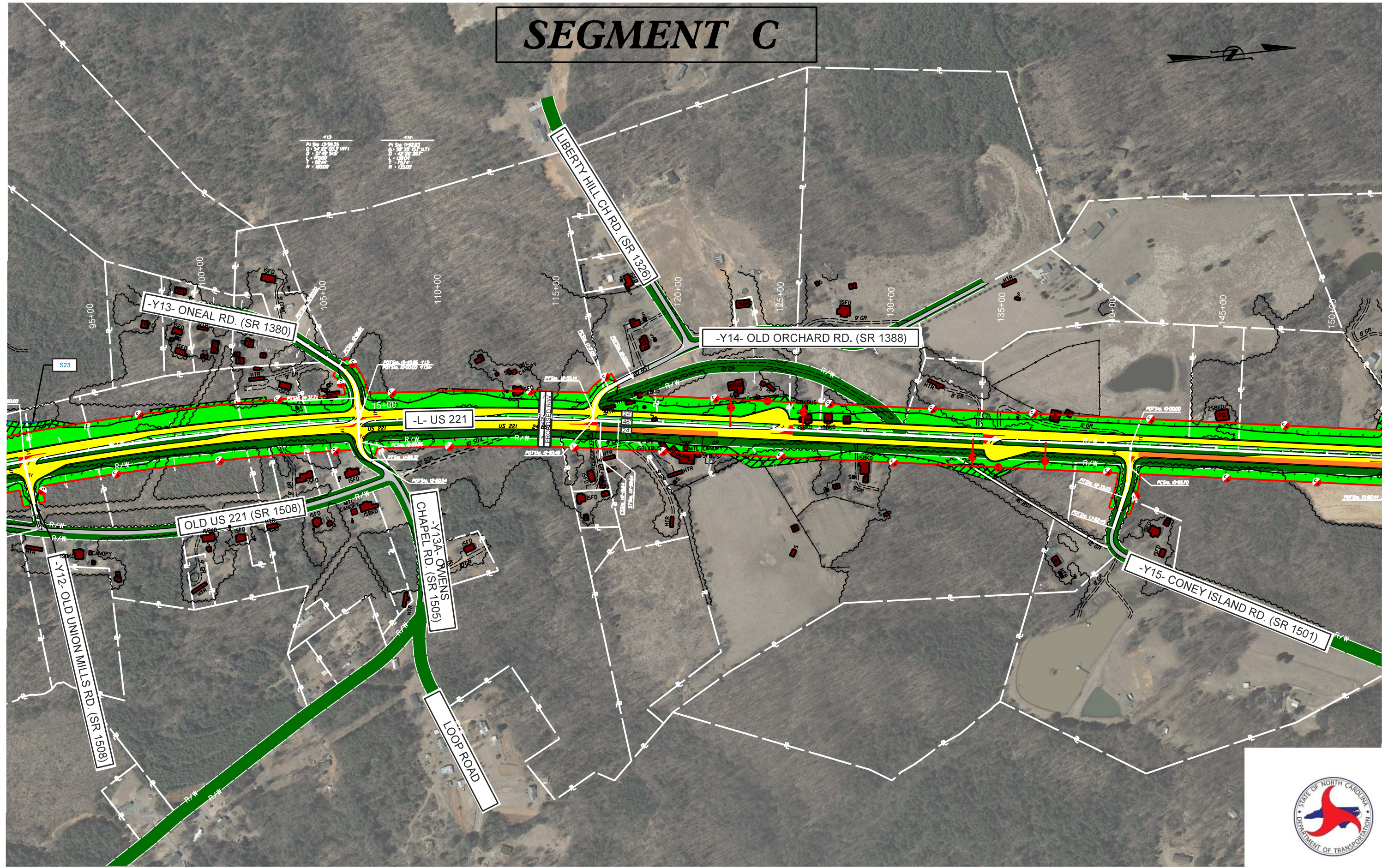


PI STA 10+00.00	PI STA 11.15+17.1
CH = 7.50' (1.1)	CH = 7.50' (1.1)
LS = 6000'	LS = 6000'
ST = 53.3'	ST = 53.3'
R = 300000'	

Scale: 1" = 400'



SEGMENT C

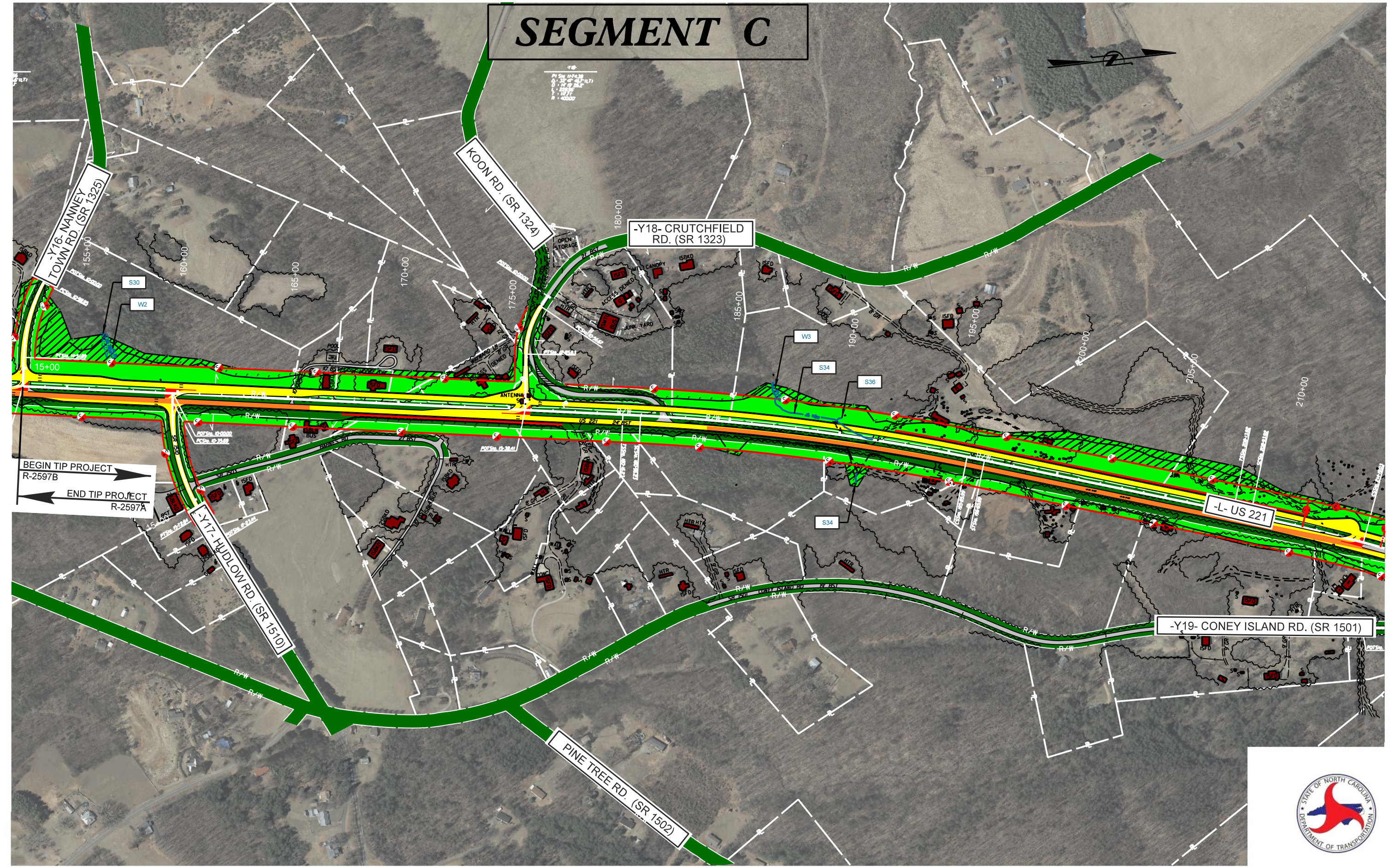


Scale: 1" = 400'



SEGMENT C

PI STA 1874.38
G. 75.00' (23' IL7)
L. 230.00'
W. 117.17'
R. 400.00'

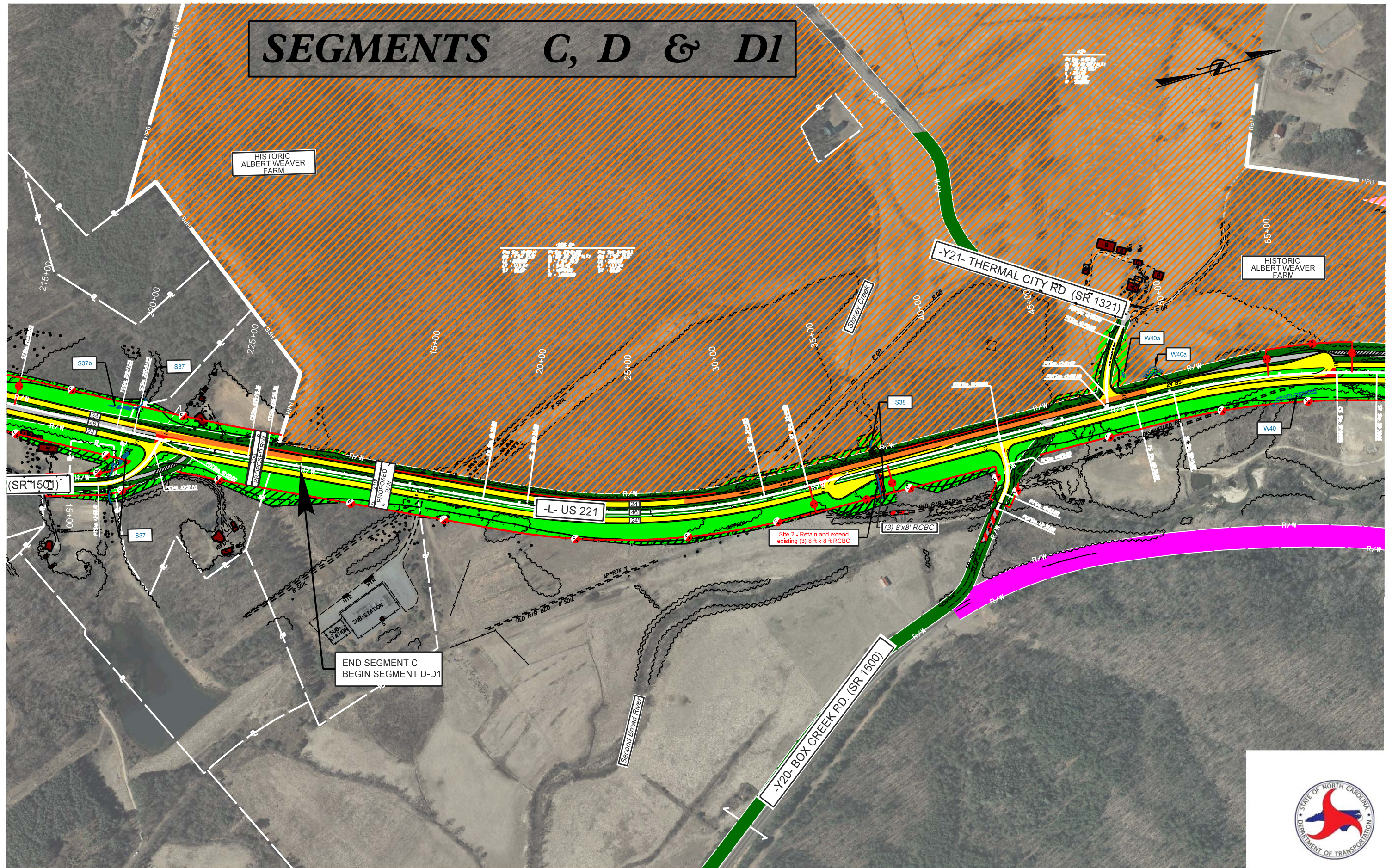


BEGIN TIP PROJECT
R-2597B
END TIP PROJECT
R-2597A



Scale: 1" = 400'

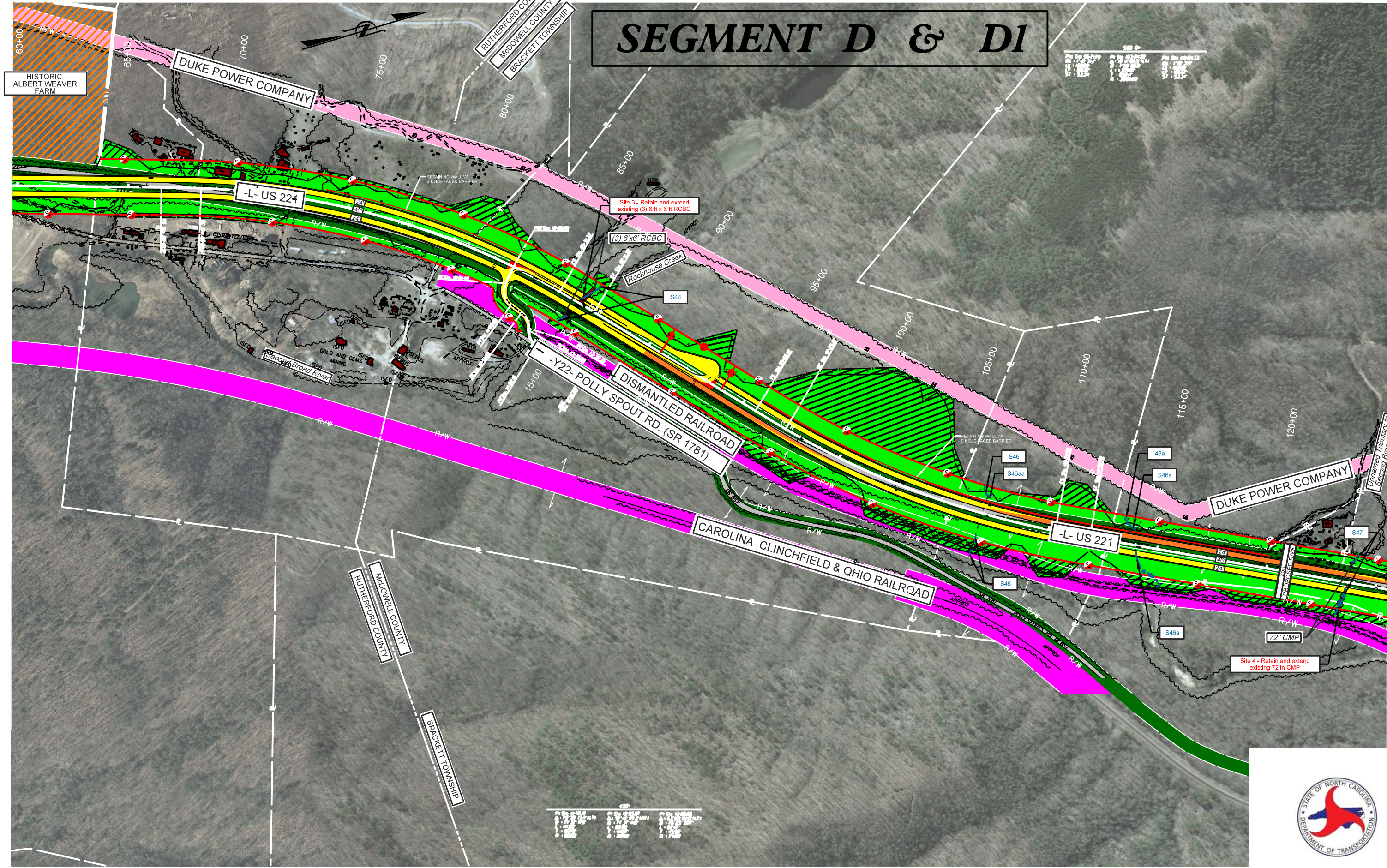
SEGMENTS C, D & D1



Scale: 1" = 400'



SEGMENT D & DI



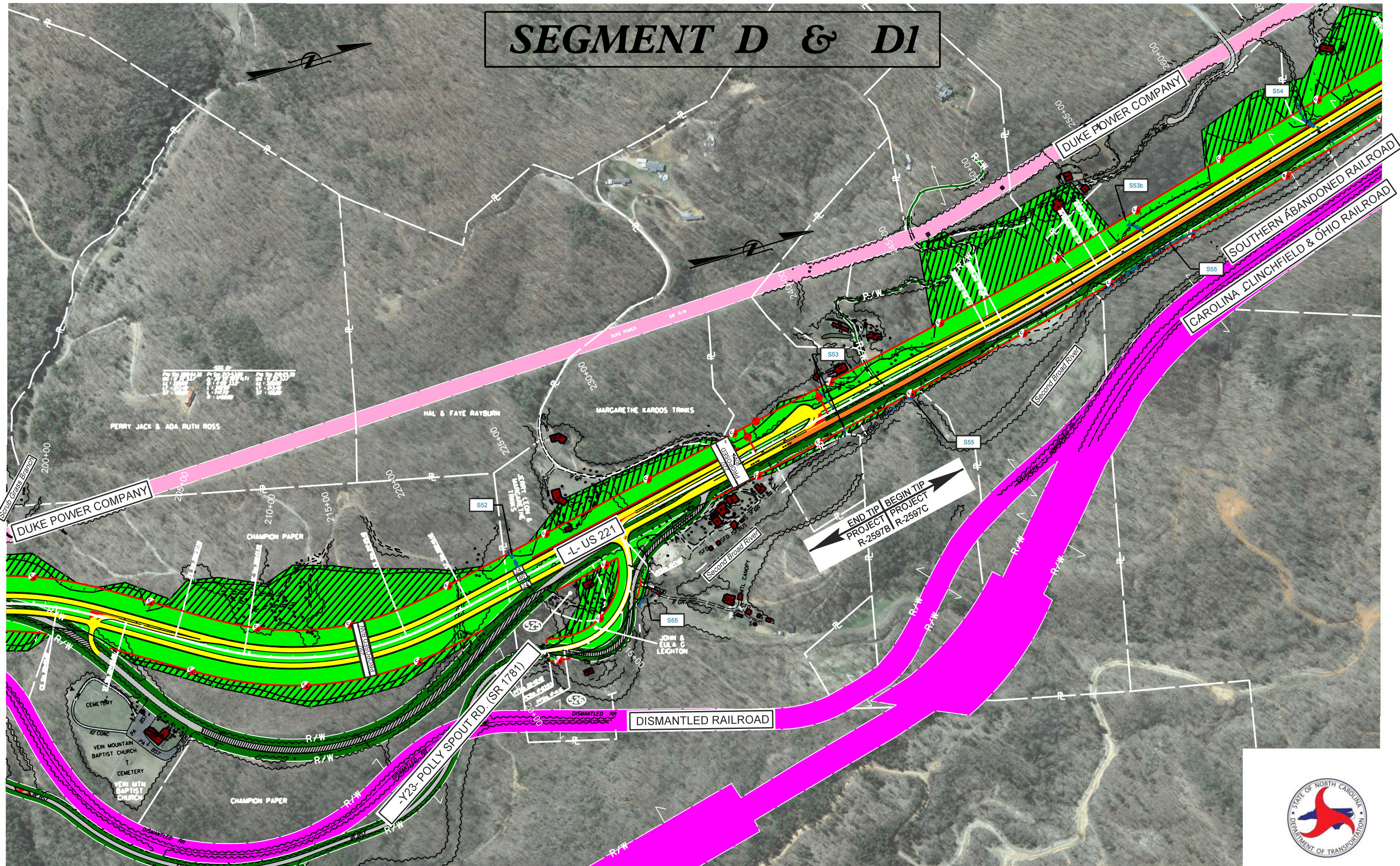
400' = 1"		
DATE	BY	CHKD
11/11/11	J. W. HARRIS	J. W. HARRIS
11/11/11	J. W. HARRIS	J. W. HARRIS
11/11/11	J. W. HARRIS	J. W. HARRIS
11/11/11	J. W. HARRIS	J. W. HARRIS

400' = 1"		
DATE	BY	CHKD
11/11/11	J. W. HARRIS	J. W. HARRIS
11/11/11	J. W. HARRIS	J. W. HARRIS
11/11/11	J. W. HARRIS	J. W. HARRIS
11/11/11	J. W. HARRIS	J. W. HARRIS

Scale: 1" = 400'



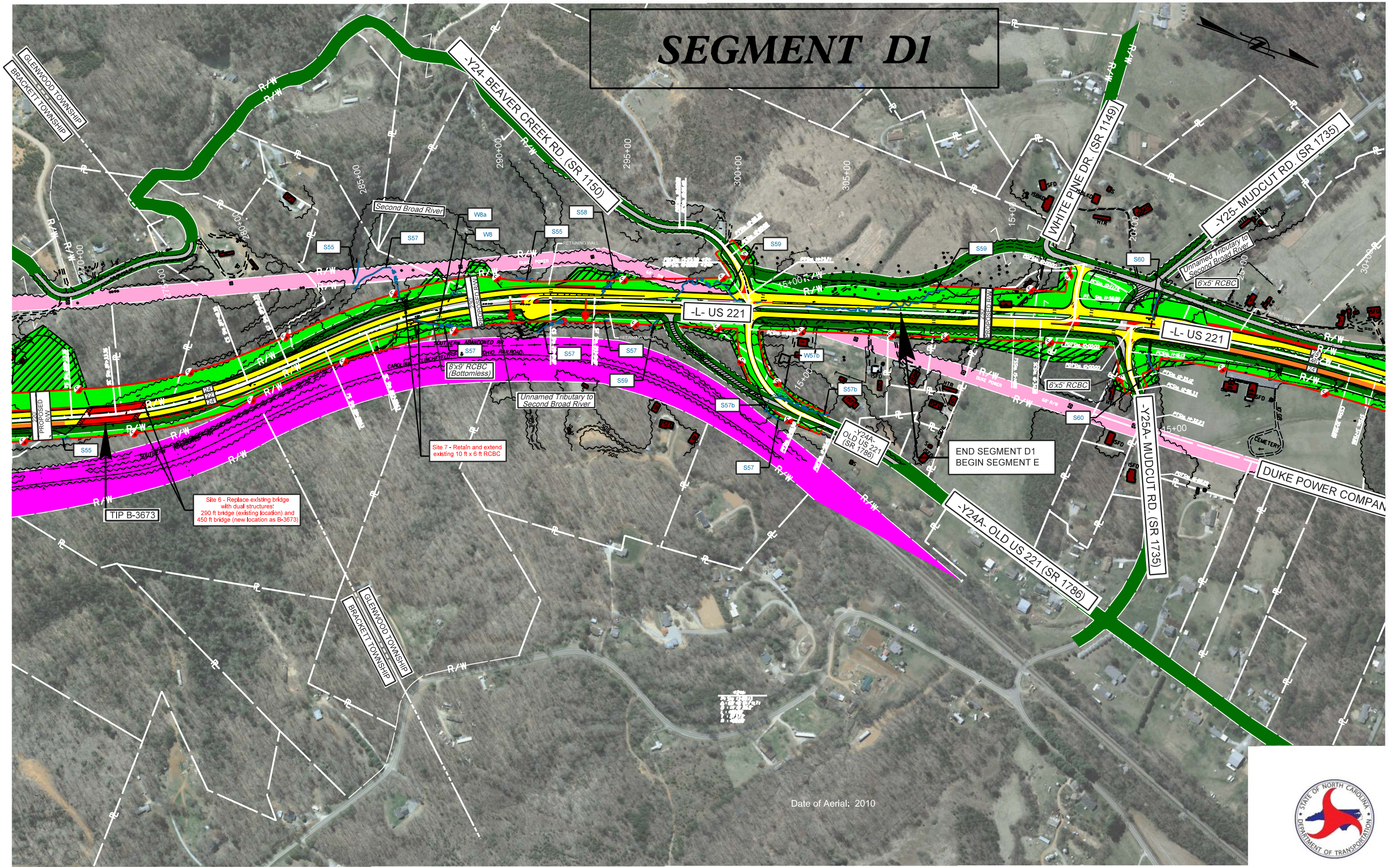
SEGMENT D & D1



Scale: 1" = 400'



SEGMENT D1



Site 6 - Replace existing bridge with dual structures: 290 ft bridge (existing location) and 450 ft bridge (new location as B-3673)

Site 7 - Retain and extend existing 10 ft x 6 ft RCBC

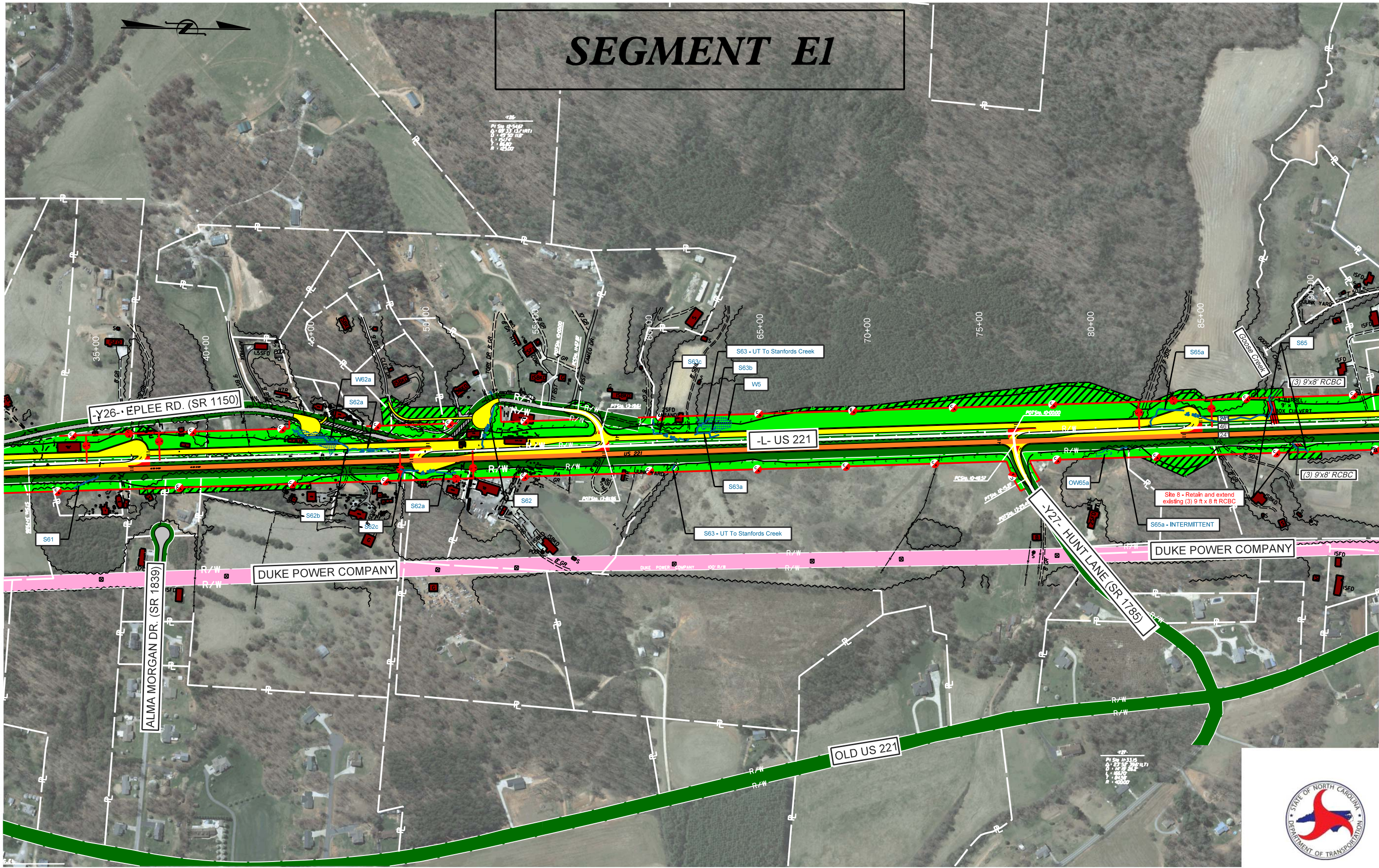
END SEGMENT D1
BEGIN SEGMENT E

Date of Aerial: 2010

Scale: 1" = 400'



SEGMENT E1

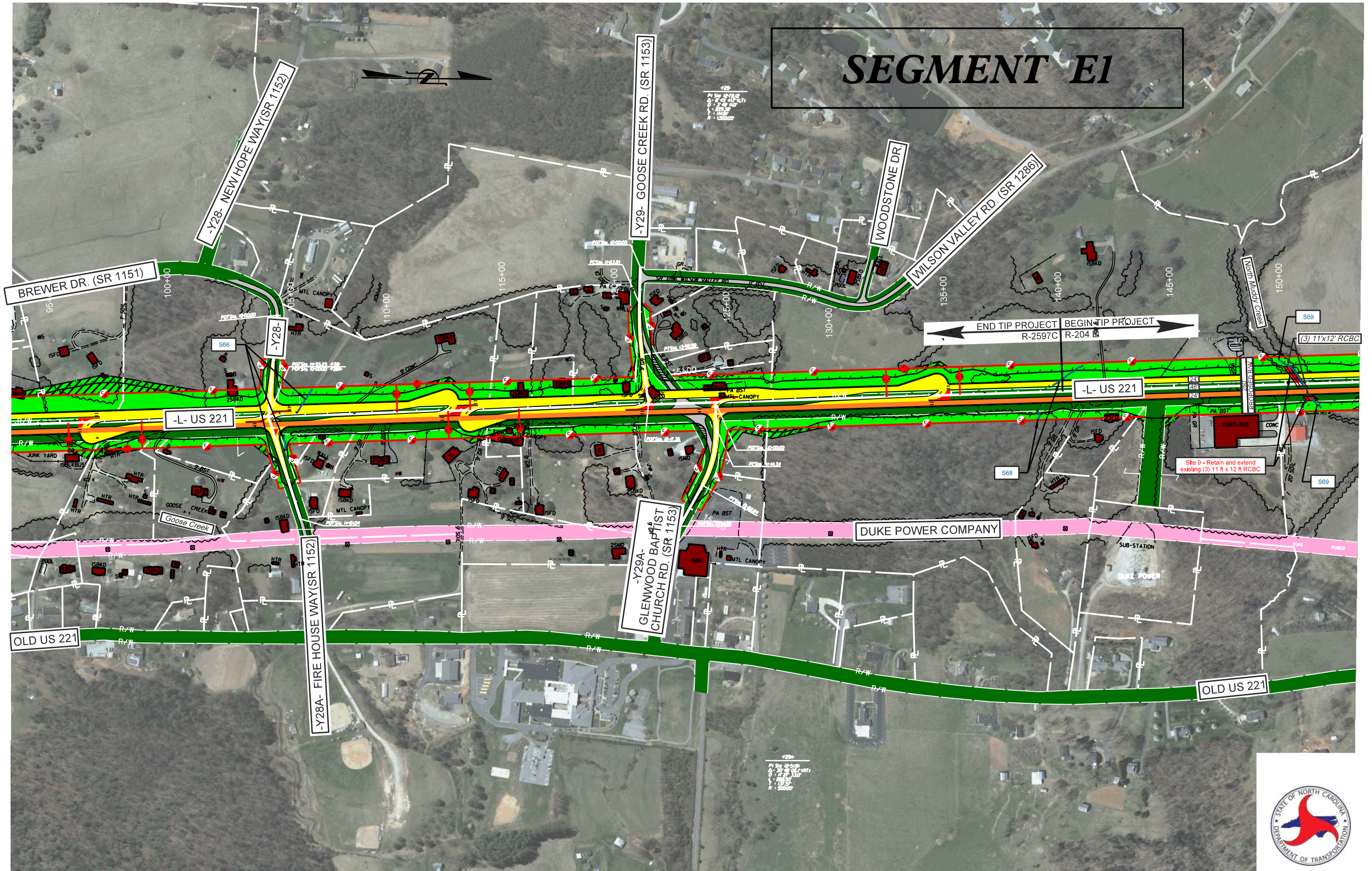


125
P:\DWG\1150\1150.DWG
D:\DWG\1150
Y: 1150
R: 1150

125
P:\DWG\1150\1150.DWG
D:\DWG\1150
Y: 1150
R: 1150



SEGMENT E1



Scale: 1" = 400'




























FIGURE 3

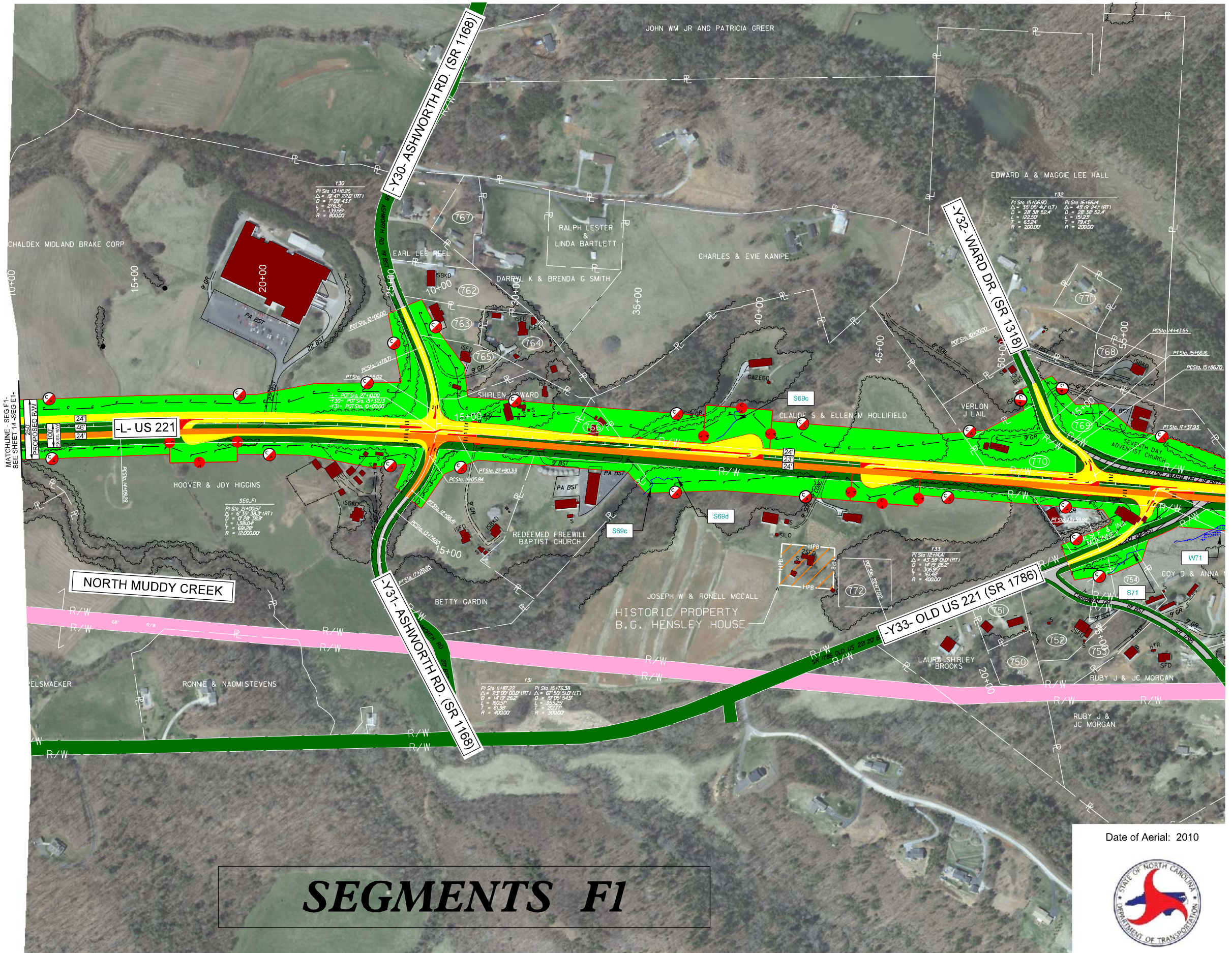
PRELIMINARY DESIGNS

FOR R-204

LEDPA

LEGEND	
	BUILDINGS
	EXISTING RIGHT OF WAY
	PROPOSED RIGHT OF WAY
	ALL EASEMENTS
	EXISTING ROADWAY
	EXISTING ROADWAY TO BE REMOVED
	EXISTING ROADWAY TO BE RESURFACED
	PROPOSED ROADWAY
	TEMPORARY ROADWAY / DETOURS
	FUTURE ROADWAY
	PROPOSED STRUCTURES, ISLAND, CURB AND GUTTER
	EXISTING STRUCTURES, ISLAND, CURB AND GUTTER TO BE RETAINED
	EXISTING STRUCTURES, ISLAND, CURB AND GUTTER TO BE REMOVED
	FUTURE STRUCTURES, ISLAND, CURB AND GUTTER
	LAKES, RIVER, STREAMS AND PONDS
	RAILROAD RIGHT OF WAY
	UTILITY EASEMENT
	CEMETERIES
	PROPOSED CONTROL OF ACCESS
	EXISTING CONTROL OF ACCESS
	PRESENT ADT
	FUTURE ADT
	PROPERTY LINES
	EXISTING TRAFFIC SIGNAL
	PROPOSED TRAFFIC SIGNAL





PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



SEGMENTS F1

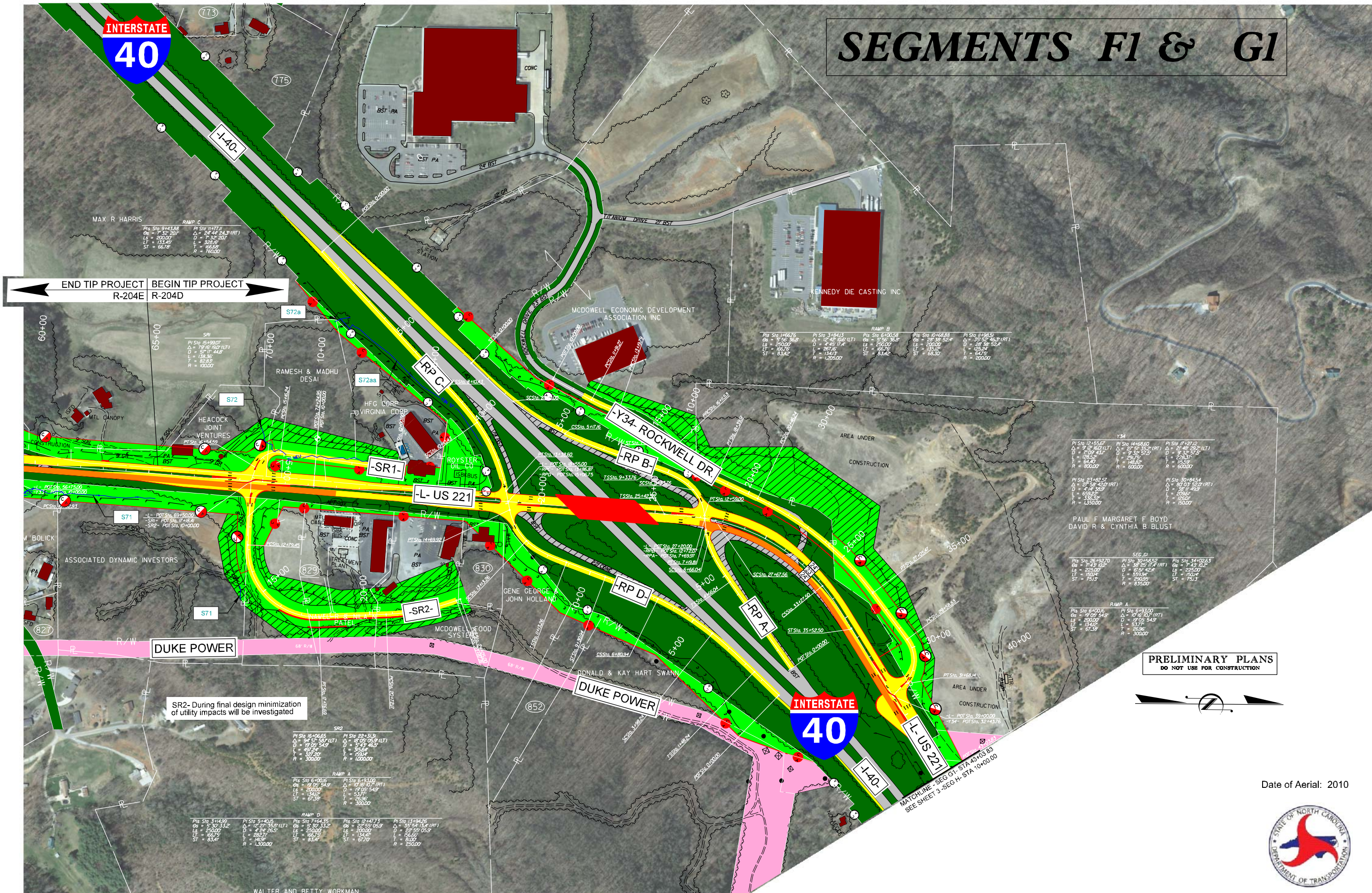
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Date of Aerial: 2010



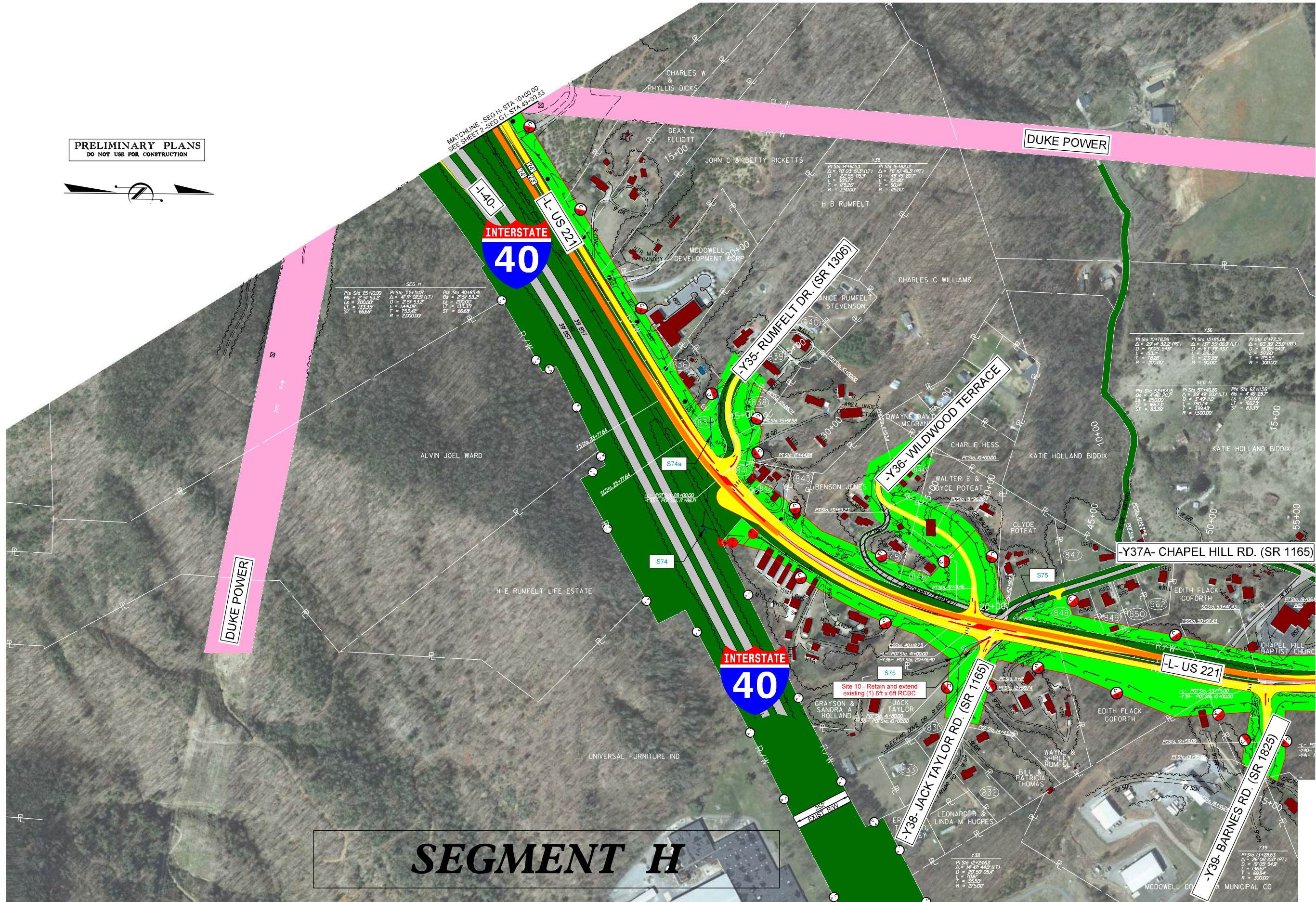
SHEET 2 OF 5

SEGMENTS F1 & G1



Scale: 1" = 400'

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

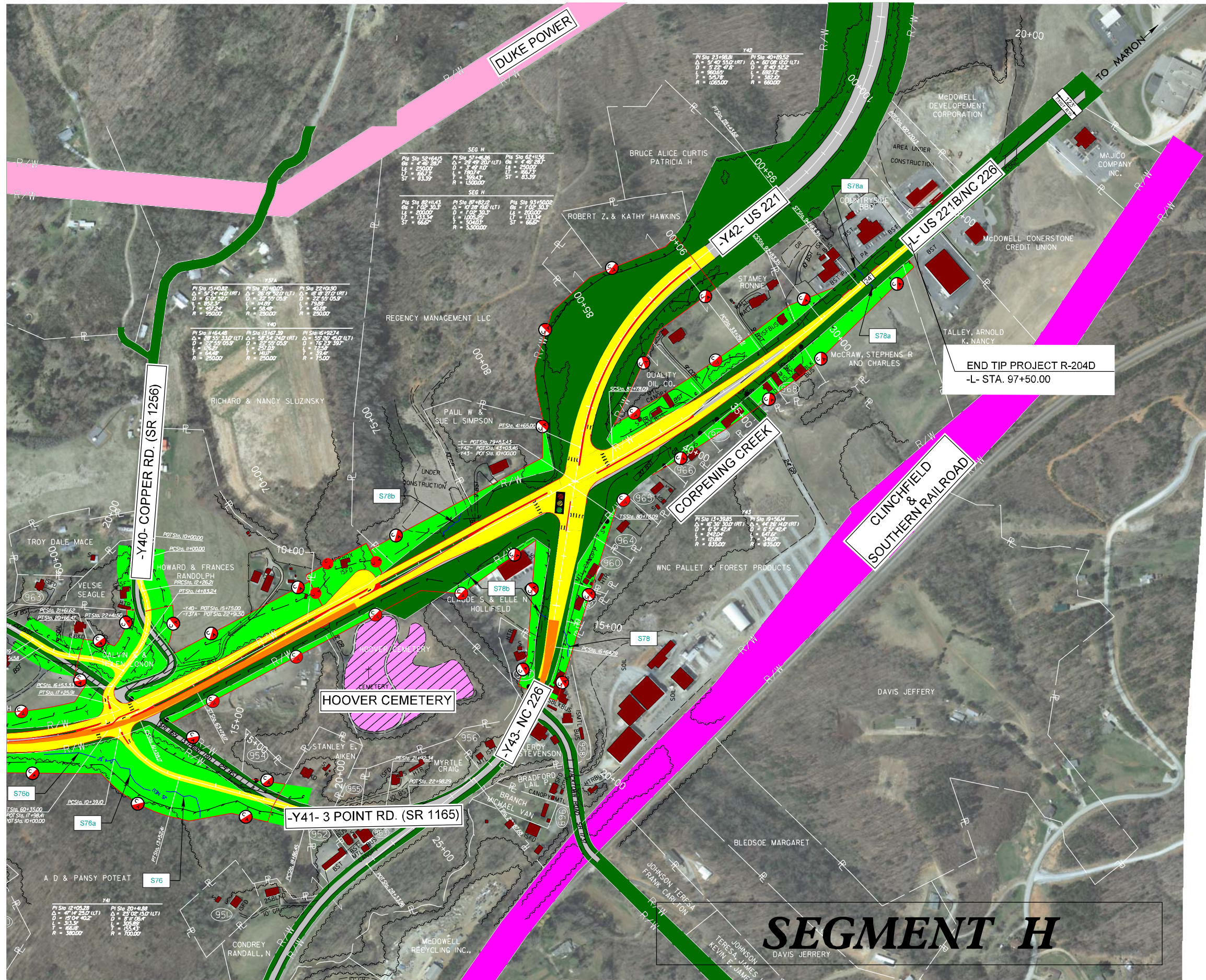


SEGMENT H

Scale: 1" = 400'

Date of Aerial: 2010





PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



Date of Aerial: 2010



SEGMENT H

Scale: 1" = 400'

APPENDIX B

**COMMENTS RECEIVED ON THE SEA AND
DURING DEVELOPMENT OF THE FONSI**

Federal Comments

Gilland, Ken

From: Qubain, Joseph <jqubain@ncdot.gov>
Sent: Wednesday, October 19, 2011 4:49 PM
To: Beckwith, Loretta A SAW
Cc: Hart, Teresa A
Subject: RE: SEA for US 221 (STIP R-2597/R-204 D & E) and USACE requirements (UNCLASSIFIED)

Good Afternoon,

As agreed we will handle this by email, and not in the FONSI.

1) You are right that this is a State EA and a state funded project. But it has been our experience that funding sources change, and in an effort to be ready if this becomes funded by the FHWA, we have had them involved and aware of the project. An argument can be made not to have them sign the forms, but if at the last minute this becomes federally funded, then "all our ducks are in a row" and we can proceed with the project with hardly any change or effort in our NEPA process.

2) In the EA we have not included a preferred alternative. That will be determined in CP3 and after our Public Hearing. You are right that in has be done both ways, but our thinking is to get the stakeholders input and share it with the Merger Team prior to the selection that will be done in CP3. In my personal experience I have found that the EPA will not sign off on CP3 without a published document.

3) Unfortunately I do not have a copy of the EA in my new office, but if memory serves me, this is a site which we were not given access to by the owner. This was discussed with our Human Environment Unit and they indicated that this is not a problem. According to their present process, they usually survey these sites after CP3. Unfortunately this project, because on the alignment issue at the bridge, was sort on hold for a few years, and our process has changed.

As for the other comments in your email, as you mentioned in our phone call, these do not pertain to the EA and you had discussed them with Carla.

If you have any further questions, I will be more than glad to answer them.

Until another Project Manager is assigned, I will continue to help were I can.

Although I check the voice mail on my PDEA phone, I can be also reached at 919 - 733 -2520.

Have a nice evening,

Joseph

-----Original Message-----

From: Beckwith, Loretta A SAW [mailto:Loretta.A.Beckwith@usace.army.mil]
Sent: Wednesday, October 19, 2011 4:10 PM
To: Qubain, Joseph
Subject: FW: SEA for US 221 (STIP R-2597/R-204 D & E) and USACE requirements (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Joseph,

As we discussed, here are the comments/questions on US 221 (#1-3). We can probably handle these by phone or e-mail.

Thanks,

Lori

-----Original Message-----

From: Beckwith, Loretta A SAW

Sent: Wednesday, October 19, 2011 3:33 PM

To: 'thart@ncdot.gov'

Cc: 'Dagnino, Carla S'; Jones, Scott SAW; McLendon, Scott C SAW

Subject: SEA for US 221 (STIP R-2597/R-204 D & E) and USACE requirements (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Hello Teresa,

This message concerns comments on the SEA for US 221 widening (STIP R-2597/R-204 D & E). I'm sending this e-mail to you because I understand that Joseph is no longer the project manager. If this is not correct, please let me know and/or forward this to the correct project manager.

I reviewed the document and have the following comments/questions. Please let me know if you need me to explain any of my comments.

1. I understood that this is a state project and the USACE is the lead federal agency - this is correct, right? If so, please detail why the FHWA signed the CP forms and the concurrence form for properties not eligible for the NHRP (Appendix E) and why the USACE didn't sign the properties not eligible form.
2. I may have overlooked it, but which set of segments (for those segments with multiple options) comprise DOT's preferred alternative? If not in the EA, will the preferred alternative be identified in the FONSI? I've seen it done both ways (in the EA and in the FONSI) - which way is the norm?
3. On page 76 of the SEA, what are the predicted effects on 31MC285/285** if it cannot be avoided? I don't see if referenced in the June 26, 2007, letter from the SHPO (Appendix E). Did the SHPO send any correspondence about this site?

Carla asked me to review the document and comment on how/if it addresses USACE requirements (404(b)(1) guidelines and the public interest review PIR)); these requirements are in addition to our NEPA requirements and we must complete these analyses in order to make a permit decision.

The following comments concerning required information for our guidelines and PIR analysis do not need to be addressed in this SEA - I'm simply providing this information to Carla, as requested, but please be aware that we will need this information in order to evaluate your project and determine if it can be authorized - the following information for this project can be submitted with the application, during the public comment period, etc.

Again, for future projects, you may want to discuss (internally) if/how you want to package/provide all of this information and then engage Scott McLendon (USACE Team Leader for DOT) for input from the USACE.

Details of the Public Interest Review - we are required to determine if a permit can be issued based on an evaluation of the probable impact(s), including cumulative impacts, of the proposed activity and its intended use on the public interest. Evaluation of the probable impact(s) which the proposed activity may have on the public interest requires a careful weighing of all those factors which are relevant in each particular case. All factors which may be relevant to the proposal must be considered, including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretions, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people.

Most of these resource areas (both baseline and expected effects) were examined in the SEA for this project with the following exceptions:

conservation, aesthetics (although topography was discussed), floodplain values (had baseline but no anticipated impacts), water supply (for HWYs need info re impervious surfaces, anticipated effects of recharge, etc.), and energy needs.

For the guidelines, the categories are physical substrate; water circulation, fluctuation, and salinity; suspended particulate/turbidity; contaminant availability; aquatic ecosystem effects; proposed disposal site; cumulative effects, and; secondary effects.

Carla, descriptions/explanations for the PIR and guidelines are in the template documents that I've sent you (the old format and the new one).

Also, please ensure that all alternatives examined, to include avoidance, minimization of impacts (modified project designs, all minimization effects, etc.) are described in detail and explain why each alternative was or wasn't chosen as the preferred alternative.

As noted in the SEA, please note that the delineation for waters of the U.S. was last verified in March 2005 and verifications are valid for 5 years only.

I've provided the information above in an effort to explain the information I'll need, specific to this project. For all future programmatic (vs. project specific) issues/questions, such as the information we need for every project, possible formats for providing this information, etc., please contact Scott McLendon.

Thank you,

Lori Beckwith

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

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**U.S. EPA REGION 4 RALEIGH OFFICE
TERRY SANFORD FEDERAL COURTHOUSE
310 NEW BERN AVENUE
RALEIGH, NORTH CAROLINA 27601**

Date: September 30, 2011

Dr. Gregory J. Thorpe, Ph.D.
Manager, Project Development and Environmental Analysis Branch
North Carolina Department of Transportation
1548 Mail Service Center
Raleigh, North Carolina 27699-1548

SUBJECT: EPA Review Comments of the State Environmental Assessment (EA) for the US 221 Improvements, Rutherford and McDowell Counties, North Carolina; TIP Nos.: R-2597/R-204D&E

Dear Dr. Thorpe:

The U.S. Environmental Protection Agency Region 4 (EPA) has reviewed the subject document and is commenting consistent with Section 309 of the Clean Air Act and Section 102(2)(C) of the National Environmental Policy Act (NEPA). The North Carolina Department of Transportation (NCDOT) proposes widening and new location sections along US 221 between the towns of Rutherfordton (from north of SR 1366/Roper Loop Road) and Marion (US 221-NC-226). The length of the combined projects is approximately 19 miles.

The proposed project is included in the NEPA/Section 404 Merger process due to the anticipation of jurisdictional impacts to wetlands and streams. EPA has been involved with the proposed project since July of 2002. Concurrence point 1, Purpose and Need was concurred upon on October 16, 2002. Concurrence point 2, Detailed Study Alternatives was signed on August 17, 2004. On June 9, 2011, EPA concurred on the revised Concurrence point 2 for Detailed Study Alternatives and Concurrence point 2A, Bridging and Alignment Decisions.

For segments A1, C, E1, and H, there is one preferred alignment that was studied in detail in the EA. Other segments include B1, B2 or B3, D or D1, F1 or F2, and G1 or G2. EPA's detailed technical review comments are included in an attachment (See Attachment A).

In summary, EPA proposes to continue to coordinate with NCDOT and other Merger team agencies on the selection of the Least Environmental Damaging Practicable Alternative (LEDPA). EPA has not identified an environmentally preferred alternative at this time for segments 'B' and 'G'. EPA recommends the selection of Alternatives D1 and F1 for those segments under consideration. EPA is requesting a copy of the Finding

of No Significant Impact (FNSI) when it becomes available. Should you or your staff have any questions, please feel free to call me at 919-856-4206 or contact me by e-mail at militscher.chris@epa.gov. Thank you for the opportunity to comment.

Sincerely,

A handwritten signature in black ink, appearing to read "Chris Militscher", written over a horizontal line.

Christopher A. Militscher, REM, CHMM
Merger Team Representative

For: Heinz J. Mueller, Chief
EPA Region 4 NEPA Program Office

cc: S. Hair, USACE
A. Euliss, NCDWQ

Attachment A
State EA Detailed Technical Comments
US 221 Improvements
Rutherford and McDowell Counties
R-2597/R-204D&E

Stream and Wetland Impacts

Segments A1, C, E1, and H have a combined total of 5,717 linear feet of jurisdictional stream impacts and 0.28 acres of jurisdictional wetland impacts. Alternatives B1, B2 and B3 have 1,351, 1,515, and 1,615 linear feet of jurisdictional stream impacts, respectively. Alternatives B1, B2 and B3 have the same impact to jurisdictional wetland impacts of 0.02 acres. EPA does not have an identified environmental preference for the 'B' segment alternatives and requests input from other Merger team agencies at the future Concurrence point 3, meeting. There are other human resources potentially impacted and that may need to be considered (e.g., B1 has an Adverse Effect on a historic property). For Alternatives D and D1, there are 3,685 and 3,529 linear feet of jurisdictional stream impacts, respectively. Both D and D1 have the same wetland impact of 0.06 acres. EPA has identified Alternative D1 as its environmentally preferred alternative because of lesser impacts to streams, fewer residential and business relocations, lesser impacts to prime and important farmlands, fewer impacts to terrestrial communities and lesser impacts to regulated floodplain areas. For Alternatives F1 and F2, there are 589 and 603 linear feet of jurisdictional stream impacts, respectively. Both F1 and F2 do not impact jurisdictional wetlands. EPA has identified Alternative F1 as its environmentally preferred alternative because of lesser impacts to streams, fewer business relocations, and avoids a church. Other human and natural resource impacts are not statistically that different or are the same between the alternatives. For Alternatives G1 and G2, the jurisdictional stream impacts are the same for both alternatives at 647 linear feet. There are no wetland impacts for either alternative. EPA has not identified an environmentally preferred alternative for this segment.

All of the streams in the project study area are classified under the North Carolina Division of Water Quality (NCDWQ) as either Water Supply (WS) V or Class C. Major streams in the project study area include tributaries to Mountain Creek, Cathey's Creek, Stoney Creek, Second Broad River, Rockhouse Creek, Scrub Grass Branch, Stanfords Creek, North Muddy Creek, Hicks Branch, and Corpening Creek. Corpening Creek (also known as Youngs Fork) is listed on the Draft 2010 Section 303(d) list for impaired waters. According to the EA, it was originally listed in 1998. Impacts to tributaries to Corpening Creek are estimated to 1,214 linear feet (Segment H). EPA requests that NCDOT consider the most stringent Best Management Practices (BMPs) for stormwater controls in this area of the proposed project.

The EA identifies several avoidance and minimization measures that may be implemented for the proposed project, including slope reductions, median reductions and

bridging (e.g., Cathey's Creek). EPA will continue to work with NCDOT and other Merger team agencies on final avoidance and minimization measures during the NEPA/Section 404 Merger process. Compensatory mitigation for unavoidable impacts to jurisdictional resources are proposed to be addressed through the N.C. Ecosystem Enhancement Program (EEP).

Other Natural Resources Impacts

Based upon the summary of environmental impacts (i.e., Table S.1), other natural resources impacts include a range of terrestrial forest impacts from 559.9 acres to 576.6 acres depending upon the alternatives selected. There are no impacts identified for Federally-listed threatened and endangered species or gamelands. Total floodplain impacts are estimated to be 8.32 acres or less depending upon the alternatives selected.

Human Resources Impacts

Total residential relocations range from 105 to 110 depending upon the alternatives selected. Total business relocations range from 40 to 48 depending upon the alternatives selected. Twenty-two (22) of the business relocations occur in segments E1 and H. Similarly, 70 residential relocations will be in segments C, E1 and H.

There are no parks or schools anticipated to be impacted from the proposed project. One (1) church and 1 historic resource could possibly be relocated and adversely effected, respectively, if Alternative B1 is selected.

Impacts to prime and important farmlands range between 149.6 acres and 159.4 acres depending upon the alternatives selected. NCDOT reports in the EA that local agencies were contacted concerning impacts to Voluntary Agricultural (Farmland) Districts (VADs) within the project study area but no response has been provided (Page 79). Both Rutherford and McDowell Counties adopted VAD ordinances.

Environmental justice issues are discussed on Pages 81-83 of the EA. Relocation impacts are not believed to represent a disproportionately high or adverse impact to minority or low-income populations.

Two private recreational type facilities (businesses) are anticipated to be impacted by the selection of either D or D1 in this segment of the proposed project. Several major transmission towers are also anticipated to be impacted from the proposed project in the 'D' and 'G' segments.

State Comments



North Carolina Department of Administration

Beverly Eaves Perdue, Governor

Moses Carey, Jr., Secretary

November 15, 2011

Mr. Joseph Qubain
N.C. Dept. of Transportation
Project Dev. & Env. Analysis Branch
1548 Mail Service Center
Raleigh, NC 27699-1548

Re: SCH File # 12-E-4220-0077; EA; Proposed construction of a multi-lane widening from the US 221-NC 226 Split to SR 1153 (Goose Creek Rd.) TIP #R-204D&E and TIP #R-2597

Dear Mr. Qubain:

The above referenced environmental impact information has been reviewed through the State Clearinghouse under the provisions of the North Carolina Environmental Policy Act.

Attached to this letter are comments made in the review of this document. Because of the nature of the comments, it has been determined that no further State Clearinghouse review action on your part is needed for compliance with the North Carolina Environmental Policy Act. The attached comments should be taken into consideration in project development.

Sincerely,

A handwritten signature in black ink, appearing to read "W. E. H. Creech".

William E. H. Creech

Attachments

cc: Region C

Mailing Address:
1301 Mail Service Center
Raleigh, NC 27699-1301

Telephone: (919)807-2425
Fax (919)733-9571
State Courier #51-01-00
e-mail state.clearinghouse@doa.nc.gov

Location Address:
116 West Jones Street
Raleigh, North Carolina




North Carolina Department of Environment and Natural Resources

Beverly Eaves Perdue
Governor

Dee Freeman
Secretary

MEMORANDUM

TO: Zeke Creech
State Clearinghouse

FROM: Melba McGee 
Project Review Coordinator

RE: 12-0077 - US 221 Improvements in McDowell and Rutherford Counties

DATE: November 10, 2011

The attached comments were received by this office after the response due date. These comments should be forwarded to the applicant and made a part of our previous comment package.

Thank you for the opportunity to respond.

Attachment



North Carolina Department of Environment and Natural Resources
Office of Conservation, Planning, and Community Affairs

Beverly Eaves Perdue, Governor

Linda Pearsall, Director

Dee Freeman, Secretary

November 4, 2011

To: Melba McGee, Environmental Coordinator
From: Laura Gadd, Botanist, NC Natural Heritage Program
Re: Environmental Review of the proposed US 221 Improvements in McDowell and Rutherford County, NC.
Project: 12-0077

The NC Natural Heritage Program has current records of Significant Natural Heritage Areas and rare species within one mile of the proposed improvement corridor of US 221, as shown in the Environmental Assessment provided for this project.

Three Significant Natural Heritage Areas (SNHAs) occur within one mile of US 221 corridor:

Rocky Face Mountain and Cedar Knob. This is a state significant site due to a large cluster of rare plant species including state-significant occurrences of *Asplenium pinnatifidum* and *Prunus alleghaniensis*, as well as populations of *Berberis canadensis* and *Eupatorium godfreyanum*, and several rare bryophytes. Large site contains extensive forest communities typical of the western piedmont and mountains, excellent examples of Low Elevation Rocky Summit with clear influence from mafic rock embedded by fairly extensive examples of widespread forest community types.

Bovender Farm. This site has a state significant population of *Quercus prinoides*, as well as regionally significant occurrences of *Baptisia albescens* and *Thermopsis mollis*. Also present are a number of Watch List species.

Montford Cove/Chestnut Mountain. This site is significant for its fairly mature examples of Dry-mesic Oak-Hickory Forests and Rich cove forests.

Rare animal species reported within one mile of the project area:

Bog Turtle (*Glyptemys muhlenbergii*) – US: Threatened, NC: Threatened

Rare plants species within one mile of the project area

- Dwarf Chinquapin Oak (*Quercus prinoides*) – NC: Endangered
- Divided-leaf Ragwort (*Packera millefolium*) – US: Federal Species of Concern, NC: Threatened
- Sweet White Trillium (*Trillium simile*) – NC: Threatened
- Rough Blazing-star (*Liatris aspera*) – NC: Threatened
- Smooth Sunflower (*Helianthus laevigatus*) -NC: Special Concern-Vulnerable
- American Barberry (*Berberis canadensis*)-NC: Special Concern-Vulnerable
- Pringle's Water Feather Moss (*Oxyrrhynchium pringlei*) – NC: Significantly Rare

There are two rare plant species with historical records that were once known to occur adjacent to US 221:

- Creamy Wild Indigo (*Baptisia bracteata*) – NC: Special Concern-Historical
- Pale Coneflower (*Echinacea pallida*) – NC: Significantly Rare

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These species records, both current and historical, listed above indicate an increased potential for them occurring within the project areas if suitable habitat exists there. Please contact the NC Wildlife Resources Commission, US Fish and Wildlife Service, and/or the NC Natural Heritage Program if these or other rare species are found within the project area. If rare species are found or if construction is proposed within SNHAs, we request that you design the project to minimize impacts to the rare species populations and their habitat.

Although no rare species have recently yet been reported from the immediate project area, the use of Natural Heritage Program data should not be substituted for actual field surveys, particularly if the project area contains suitable habitat for rare species, significant natural communities, or priority natural areas.

You may wish to check the Natural Heritage Program database website at www.ncnhp.org for a listing of rare plants and animals and significant natural communities in the county and on the quad map. Our Program also has a new website that allows users to obtain information on element occurrences and significant natural heritage areas within two miles of a given location: http://nhpweb.enr.state.nc.us/public/virtual_workroom.phtml. To log-in, see the instructions on the log-in screen. You may want to click "Help" for more information, once you get into the website.

Please do not hesitate to contact me at 919-707-8647 if you have questions or need further information.

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NORTH CAROLINA STATE CLEARINGHOUSE
DEPARTMENT OF ADMINISTRATION
INTERGOVERNMENTAL REVIEW

COUNTY: MCDOWELL

F02: HIGHWAYS AND ROADS

STATE NUMBER: 12-E-4220-0077
DATE RECEIVED: 09/19/2011
AGENCY RESPONSE: 11/02/2011
REVIEW CLOSED: 11/07/2011



MS RENEE GLEDHILL-EARLEY
CLEARINGHOUSE COORDINATOR
DEPT OF CULTURAL RESOURCES
STATE HISTORIC PRESERVATION OFFICE
MSC 4617 - ARCHIVES BUILDING
RALEIGH NC

ER 02-8048

Draft letter -

A - LGH/BSS 10/6/11

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DEPT OF CULTURAL RESOURCES
DEPT OF TRANSPORTATION
ISOTHERMAL PLANN & ECON DEV

Due 9/29/11

PROJECT INFORMATION

APPLICANT: N.C. Dept. of Transportation
TYPE: State Environmental Policy Act
Environmental Assessment

*Due 10/21/11 Σ NCEA
RSE 10/10/11*

DESC: Proposed construction of a multi-lane widening from the US 221-NC 226 Split to SR 1153 (Goose Creek Rd.) TIP #R-204D&E and TIP #R-2597

CROSS-REFERENCE NUMBER: 02-E-4220-0266

The attached project has been submitted to the N. C. State Clearinghouse for intergovernmental review. Please review and submit your response by the above indicated date to 1301 Mail Service Center, Raleigh NC 27699-1301.

If additional review time is needed, please contact this office at (919)807-2425.

AS A RESULT OF THIS REVIEW THE FOLLOWING IS SUBMITTED: NO COMMENT COMMENTS ATTACHED

SIGNED BY:

Renee Gledhill-Earley

DATE: 10-21-11



SEP 23 2011



North Carolina Department of Cultural Resources
State Historic Preservation Office

Ramona M. Bartos, Administrator

Beverly Eaves Perdue, Governor
Linda A. Carlisle, Secretary
Jeffrey J. Crow, Deputy Secretary

Office of Archives and History
Division of Historical Resources
David Brook, Director

October 20, 2011

MEMORANDUM

TO: Greg Thorpe, Ph.D., Director
Project Development and Environmental Analysis Branch
NCDOT Division of Highways

FROM: Claudia Brown *PS for Claudia Brown*

SUBJECT: US 221 Improvements, R-2597 and R-204D&E, McDowell and Rutherford Counties,
ER 02-8048



We have received the Environmental Assessment for the above projects from the State Clearinghouse.

The Environmental Assessment documents the additional archaeological work required prior to the initiation of US 221 construction activities. For R-2597, the significance of archaeological site 31RF167 has not been evaluated and a portion of Segment C has not been surveyed. It is our understanding that additional archaeological work will be undertaken at these two locations after acquisition of right-of-way. We look forward to receiving the archaeological survey report detailing the results of the survey and evaluation.

For R-204D&E, one archaeological site, 31MC285 will be the focus of limited data recovery excavation. We look forward to receiving the Data Recovery Plan for review.

We believe the EA adequately addresses our concerns for historic structures.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, please contact Renee Gledhill-Earley, environmental review coordinator, at 919/807-6579. In all future communication concerning this project, please cite the above referenced tracking number.

cc: Matt Wilkerson, NCDOT
State Clearinghouse

NORTH CAROLINA STATE CLEARINGHOUSE
DEPARTMENT OF ADMINISTRATION
INTERGOVERNMENTAL REVIEW

COUNTY: MCDOWELL

F02: HIGHWAYS AND ROADS

STATE NUMBER: 12-E-4220-0077

DATE RECEIVED: 09/19/2011

AGENCY RESPONSE: 11/02/2011

REVIEW CLOSED: 11/07/2011

MS SUSAN DECATSYE
CLEARINGHOUSE COORDINATOR
DEPT OF AGRICULTURE
1001 MSC - AGRICULTURE BLDG
RALEIGH NC

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PROJECT INFORMATION

APPLICANT: N.C. Dept. of Transportation
TYPE: State Environmental Policy Act
Environmental Assessment

DESC: Proposed construction of a multi-lane widening from the US 221-NC 226 Split to SR 1153 (Goose Creek Rd.) TIP #R-204D&E and TIP #R-2597

CROSS-REFERENCE NUMBER: 02-E-4220-0266

The attached project has been submitted to the N. C. State Clearinghouse for intergovernmental review. Please review and submit your response by the above indicated date to 1301 Mail Service Center, Raleigh NC 27699-1301.

If additional review time is needed, please contact this office at (919)807-2425.

AS A RESULT OF THIS REVIEW THE FOLLOWING IS SUBMITTED: NO COMMENT COMMENTS ATTACHED

SIGNED BY:

Susan DeCatsye

DATE:

11/2/11





Steven W. Troxler
Commissioner

North Carolina Department of Agriculture
and Consumer Services
Agricultural Services

Vernon Cox
Environmental Programs
Specialist

Ms. Sheila Green
State Clearinghouse
N.C. Department of Administration
1301 Mail Service Center
Raleigh, North Carolina 27699-1301

October 31, 2011

State #: 12-E-4220-0077

RE: Multi-lane widening of US 221-NC 226 Split to SR 1153 (TIP # R-204D&E and RIP # R-2597)

Dear Ms. Green:

Thank you for the opportunity to comment on the proposed widening of US 221-NC 226 in Rutherford and McDowell counties. The North Carolina Department of Agriculture and Consumer Services (NCDA&CS) is concerned about the conversion of North Carolina's farm and forest lands to other uses. Due to the importance of agricultural activities in the area, as well as the economy of the entire state, NCDA&CS strongly encourages the project planners to avoid conversion of agricultural land to other uses whenever possible. When avoidance is not possible, all reasonable efforts to minimize impacts to agricultural land should be implemented.

Respectfully,

Vernon Cox
Environmental Programs Specialist





North Carolina Department of Environment and Natural Resources

Division of Water Quality

Coleen H. Sullins

Director

Beverly Eaves Perdue
Governor

Dee Freeman
Secretary

October 26, 2011

MEMORANDUM

To: Melba McGee, Environmental Coordinator, Office of Legislative and Intergovernmental Affairs

From: Brian Wrenn, Division of Water Quality, Transportation Permitting Unit *BW*

Subject: Comments on the State Environmental Assessment related to proposed improvements to US 221 from existing north of SR 1366 (Roper Loop Road) to existing US 221-NC 226 in Rutherford and McDowell Counties, State Project Nos. 6.899002T and 6.879005T, TIP Project Nos. R-2597 and R-204 D&E, State Clearinghouse Project No.12-0077.

This office has reviewed the referenced document dated June 30, 2011. The NC Division of Water Quality (NCDWQ) is responsible for the issuance of the Section 401 Water Quality Certification for activities that impact Waters of the U.S., including wetlands. It is our understanding that the project as presented will result in impacts to jurisdictional wetlands, streams, and other surface waters. NCDWQ offers the following comments based on review of the aforementioned document:

Project Specific Comments:

1. This project is being planned as part of the 404/NEPA Merger Process. As a participating team member, NCDWQ will continue to work with the team.
2. Corpening Creek is class C; 303(d) waters of the State. Corpening Creek is on the 303(d) list for impaired use of ecological/biological integrity for benthos. NCDWQ is very concerned with sediment and erosion impacts that could result from this project. NCDWQ recommends that the most protective sediment and erosion control BMPs be implemented in accordance with *Design Standards in Sensitive Watersheds* to reduce the risk of nutrient runoff to Corpening Creek. NCDWQ requests that road design plans provide treatment of the storm water runoff through best management practices as detailed in the most recent version of NCDWQ's *Stormwater Best Management Practices*.
3. In Section V.H. Indirect and Cumulative Effects, the documents states that the Indirect and Cumulative Effects Assessment will be updated using current methodologies. NCDWQ requests that the ICE study area be expanded. The document states that the study area was determined by drawing a perimeter ½ mile off of the project boundaries. This seems to be a very arbitrary way to determine an ICE study area boundary. Several 303(d) watersheds are located adjacent or just downstream from the current study area. In addition, several other large transportation projects are being planned/constructed just outside of the current study area. Potential effects to these 303(d) watersheds as well as the effects of the other transportation projects should be adequately assessed in this study.

4. The document is organized by presenting the narrative of the document first and providing the figures associated with the narrative in a separate Appendix at the end of the document. This makes it difficult to review the narrative while referring to the figures referenced in the narrative. Please insert the figures in appropriate locations within the narrative to facilitate reviewing the document.

General Comments:

5. The environmental document shall provide a detailed and itemized presentation of the proposed impacts to wetlands and streams with corresponding mapping. If mitigation is necessary as required by 15A NCAC 2H.0506(h), it is preferable to present a conceptual (if not finalized) mitigation plan with the environmental documentation. Appropriate mitigation plans will be required prior to issuance of a 401 Water Quality Certification.
6. Environmental assessment alternatives shall consider design criteria that reduce the impacts to streams and wetlands from storm water runoff. These alternatives shall include road designs that allow for treatment of the storm water runoff through best management practices as detailed in the most recent version of NCDWQ's *Stormwater Best Management Practices*, such as grassed swales, buffer areas, preformed scour holes, retention basins, etc.
7. After the selection of the preferred alternative and prior to an issuance of the 401 Water Quality Certification, the NCDOT is respectfully reminded that they will need to demonstrate the avoidance and minimization of impacts to wetlands (and streams) to the maximum extent practical. In accordance with the Environmental Management Commission's Rules {15A NCAC 2H.0506(h)}, mitigation will be required for impacts of greater than 1 acre to wetlands. In the event that mitigation is required, the mitigation plan should be designed to replace appropriate lost functions and values. The NC Ecosystem Enhancement Program may be available for use as wetland mitigation.
8. In accordance with the Environmental Management Commission's Rules {15A NCAC 2H.0506(h)}, mitigation will be required for impacts of greater than 150 linear feet to any single stream. In the event that mitigation is required, the mitigation plan shall be designed to replace appropriate lost functions and values. The NC Ecosystem Enhancement Program may be available for use as stream mitigation.
9. Future documentation, including the 401 Water Quality Certification Application, should continue to include an itemized listing of the proposed wetland and stream impacts with corresponding mapping.
10. NCDWQ is very concerned with sediment and erosion impacts that could result from this project. NCDOT shall address these concerns by describing the potential impacts that may occur to the aquatic environments and any mitigating factors that would reduce the impacts.
11. An analysis of cumulative and secondary impacts anticipated as a result of this project is required. The type and detail of analysis shall conform to the NC Division of Water Quality Policy on the assessment of secondary and cumulative impacts dated April 10, 2004.
12. NCDOT is respectfully reminded that all impacts, including but not limited to, bridging, fill, excavation and clearing, and rip rap to jurisdictional wetlands, streams, and riparian buffers need to be included in the final impact calculations. These impacts, in addition to any construction impacts,

temporary or otherwise, also need to be included as part of the 401 Water Quality Certification Application.

13. Where streams must be crossed, NCDWQ prefers bridges be used in lieu of culverts. However, we realize that economic considerations often require the use of culverts. Please be advised that culverts shall be countersunk to allow unimpeded passage by fish and other aquatic organisms. Moreover, in areas where high quality wetlands or streams are impacted, a bridge may prove preferable. When applicable, NCDOT should not install the bridge bents in the creek, to the maximum extent practicable.
14. Whenever possible, NCDWQ prefers spanning structures. Spanning structures usually do not require work within the stream or grubbing of the streambanks and do not require stream channel realignment. The horizontal and vertical clearances provided by bridges shall allow for human and wildlife passage beneath the structure. Fish passage and navigation by canoeists and boaters shall not be blocked. Bridge supports (bents) shall not be placed in the stream when possible.
15. Bridge deck drains shall not discharge directly into the stream. Stormwater shall be directed across the bridge and pre-treated through site-appropriate means (grassed swales, pre-formed scour holes, vegetated buffers, etc.) before entering the stream. Please refer to the most current version of NCDWQ's *Stormwater Best Management Practices*.
16. Sediment and erosion control measures shall not be placed in wetlands or streams.
17. Borrow/waste areas shall avoid wetlands to the maximum extent practical. Impacts to wetlands in borrow/waste areas will need to be presented in the 401 Water Quality Certification and could precipitate compensatory mitigation.
18. The 401 Water Quality Certification application will need to specifically address the proposed methods for stormwater management. More specifically, stormwater shall not be permitted to discharge directly into streams or surface waters.
19. Based on the information presented in the document, the magnitude of impacts to wetlands and streams may require an individual permit application to the Corps of Engineers and corresponding 401 Water Quality Certification. Please be advised that a 401 Water Quality Certification requires satisfactory protection of water quality to ensure that water quality standards are met and no wetland or stream uses are lost. Final permit authorization will require the submittal of a formal application by the NCDOT and written concurrence from NCDWQ. Please be aware that any approval will be contingent on appropriate avoidance and minimization of wetland and stream impacts to the maximum extent practical, the development of an acceptable stormwater management plan, and the inclusion of appropriate mitigation plans where appropriate.
20. If concrete is used during construction, a dry work area shall be maintained to prevent direct contact between curing concrete and stream water. Water that inadvertently contacts uncured concrete shall not be discharged to surface waters due to the potential for elevated pH and possible aquatic life and fish kills.
21. If temporary access roads or detours are constructed, the site shall be graded to its preconstruction contours and elevations. Disturbed areas shall be seeded or mulched to stabilize the soil and appropriate native woody species shall be planted. When using temporary structures the area shall be cleared but not grubbed. Clearing the area with chain saws, mowers, bush-hogs, or other

mechanized equipment and leaving the stumps and root mat intact allows the area to re-vegetate naturally and minimizes soil disturbance.

22. Placement of culverts and other structures in waters, streams, and wetlands shall be placed below the elevation of the streambed by one foot for all culverts with a diameter greater than 48 inches, and 20 percent of the culvert diameter for culverts having a diameter less than 48 inches, to allow low flow passage of water and aquatic life. Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands or streambeds or banks, adjacent to or upstream and down stream of the above structures. The applicant is required to provide evidence that the equilibrium is being maintained if requested in writing by NCDWQ. If this condition is unable to be met due to bedrock or other limiting features encountered during construction, please contact the NCDWQ for guidance on how to proceed and to determine whether or not a permit modification will be required.
23. If multiple pipes or barrels are required, they shall be designed to mimic natural stream cross section as closely as possible including pipes or barrels at flood plain elevation, floodplain benches, and/or sills may be required where appropriate. Widening the stream channel shall be avoided. Stream channel widening at the inlet or outlet end of structures typically decreases water velocity causing sediment deposition that requires increased maintenance and disrupts aquatic life passage.
24. If foundation test borings are necessary; it shall be noted in the document. Geotechnical work is approved under General 401 Certification Number 3687/Nationwide Permit No. 6 for Survey Activities.
25. Sediment and erosion control measures sufficient to protect water resources must be implemented and maintained in accordance with the most recent version of North Carolina Sediment and Erosion Control Planning and Design Manual and the most recent version of NCS000250.
26. All work in or adjacent to stream waters shall be conducted in a dry work area. Approved BMP measures from the most current version of NCDOT Construction and Maintenance Activities manual such as sandbags, rock berms, cofferdams and other diversion structures shall be used to prevent excavation in flowing water.
27. While the use of National Wetland Inventory (NWI) maps, NC Coastal Region Evaluation of Wetland Significance (NC-CREWS) maps and soil survey maps are useful tools, their inherent inaccuracies require that qualified personnel perform onsite wetland delineations prior to permit approval.
28. Heavy equipment shall be operated from the bank rather than in stream channels in order to minimize sedimentation and reduce the likelihood of introducing other pollutants into streams. This equipment should be inspected daily and maintained to prevent contamination of surface waters from leaking fuels, lubricants, hydraulic fluids, or other toxic materials.
29. Riprap shall not be placed in the active thalweg channel or placed in the streambed in a manner that precludes aquatic life passage. Bioengineering boulders or structures shall be properly designed, sized and installed.
30. Riparian vegetation (native trees and shrubs) shall be preserved to the maximum extent possible. Riparian vegetation must be reestablished within the construction limits of the project by the end of the growing season following completion of construction.

NCDWQ appreciates the opportunity to provide comments on your project. Shall you have any questions or require any additional information, please contact Brian Wrenn at 919-807-6365.

cc: Lori Beckwith, US Army Corps of Engineers, Asheville Field Office
Clarence Coleman, Federal Highway Administration
Chris Militscher, Environmental Protection Agency (electronic copy only)
Marella Buncick, US Fish and Wildlife Service (electronic copy only)
Marla Chambers, NC Wildlife Resources Commission
Mike Parker, NCDWQ Asheville Regional Office
File Copy

**Comments from City of Marion and McDowell
County**



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE
GOVERNOR

EUGENE A. CONTI, JR.
SECRETARY

DATE: July 26, 2012

SUBJECT: Minutes for July 24, 2012 Local Officials Informational Meeting for Improvements to US 221, TIP Projects R-2597 and R-204 DE, Rutherford and McDowell Counties, WBS Numbers 35608 and 34329

PARTICIPANTS:

Juanita Doggett	Marion City Council
Scott Spratt	Marion Police Department
Heather Cotton	Marion Planning and Development
Brant Sikes	Marion Public Works
Bob Boyette	Marion City Manager
Chuck Abernathy	McDowell County Manager
Rod Birdsong	McDowell County Chamber
Carol B. Price	McDowell County Tourism
Josh King	Isothermal RPO
Lloyd Cuthbertson	Marion City Council
Brenda Moore, PE	NCDOT Roadway Design
Konchata Noland	NCDOT Roadway Design
Linh Nguyen, PE	NCDOT Transportation Planning
Rick Tipton, PE, PLS	NCDOT Highway Division 13
Mike Reese, PE	NCDOT Congestion Management
Undrea Major	NCDOT PD&EA Branch
Jamille Robbins	NCDOT PD&EA Branch
John Conforti, REM	NCDOT PD&EA Branch
Dave Wilver, PE	Michael Baker Engineering
Ken Gilland, PG	Michael Baker Engineering

A Local Officials Informational Meeting was held at the Marion Community Building on July 24, 2012 at 1 p.m. The purpose of the meeting was to receive input from the community prior to decisions on preferred alternatives for the subject project.

Jamille Robbins began with introductions followed by a brief presentation by Mike Reese on the differences between four-lane, median divided and five-lane roadways in terms of safety and maintenance of traffic. The presentation was followed by an extended question and answer session. The conversation is summarized below.

Question: *Would it be possible to have a five-lane section for a portion of the proposed improvements? This might allow a reduction of the project footprint and improve business access. The most recent improvements in McDowell County (US 221 north of Marion and Sugar Hill Road) have a five-lane typical.*

Answer: The Department feels, based on studies in North Carolina and elsewhere, that the four-lane, median divided facility is safer, in that it reduces head-on collisions and fatalities. These studies took place after the improvements of US 221 north of Marion were designed. Since US 221, unlike Sugar Hill Road, is a strategic highway corridor, it is being designed to accommodate that function. If the portion of US 221 north of Marion needs future improvements, it is likely that a five-lane typical would be implemented. Based on this information and current Department policy, a five-lane typical

section is not being considered for this project. The four-lane, median divided facility is approximately 15 feet wider than the five-lane typical in most cases.

Question: *The City and County are concerned about right of way (ROW) and access impacts to local businesses. McDowell and Marion have limited tax bases, and every job counts. They are concerned also because area topography limits the potential of businesses to relocate and 28 percent of the land in the County is owned by state or federal entities, which places further limits on the tax base in this county with low property values and high unemployment.*

Answer: Anecdotal information from recent projects using a four-lane median divided typical section indicated that while businesses had some loss of revenue during construction, their customer base returned or grew after construction. In terms of ROW acquisition, the Department will make every practicable effort to reduce impacts to homes and businesses. Based on the preliminary designs, the Department feels there will be an opportunity to reduce impacts to businesses north of the intersection of US 221 and NC 226/US 221 Business. The Department will examine the use of retaining walls and other minimization measures to reduce impacts throughout the corridor during the 25% designs, which are currently under development.

Question: *The City is concerned about the cost of utility relocations. The City extended water and sewer service for six miles along US 221 in an attempt to develop the area for business use. The first set of water and sewer lines were installed in 1995 to Glenwood School, and the last extension was in 2003. There is a 12-inch water line extending to Goose Creek Road. The City has conducted a preliminary assessment that indicated relocation of the utilities (which they would be responsible for due to the size of the City) would cost as much as \$5 million. This cost would bankrupt the City.*

Answer: The Department asked the City to provide digital files showing the location of the existing water and sewer lines, as the determination has not yet been made on a preferred alternative for Sections F (Goose Creek Road to just south of I-40) and G (the I-40 interchange) of the project. The Department will explore all practicable measures to minimize water and sewer impacts.

Question: *The City is trying to encourage retirees to settle in the area. The project has the potential to impact three of the four largest hotels used by visitors to the area.*

Answer: The Department will take all practicable steps, including the use of retaining walls, to minimize and avoid impacts to hotels in the project area.

Question: *What is the timeframe for the project?*

Answer: A determination of the Least Environmentally Damaging Practicable Alternative (LEDPA) will be made by the end of 2012. This determination will be made by the Department and the Merger Team, which includes regulators. ROW purchase is scheduled for 2014 and construction in 2015 for the portion of the project from I-40 to the Marion Bypass.

Question: *If the impacts to the local economy are too severe, can we delay the project?*

Answer: The Department hopes to work with the community to ensure the project is delivered in a timely fashion and the schedule is maintained. However, if strong local opposition persists, the project could be delayed. Given the Department's financial limitations, if a project is delayed, funding could be applied to other projects, so it would be difficult to estimate when the project could be re-started.

Question: *When could NCDOT share more information on potential impacts?*

Answer: The Department will have more definitive impact information when the 25% designs area available, which should be during the first quarter of 2013. The design will include the preferred alternative and will be based on updated survey work, so the impacts can be estimated with greater precision and accuracy. The Department will share this information with the City and work with them

to limit impacts to businesses, water and sewer lines, and residences. The Department will continue to coordinate with the City, County, and local landowners through the process.

Question: *What is the RPO role in this process?*

Answer: The Isothermal Rural Planning Organization (RPO) has a seat at the Merger Team. Members of the Isothermal RPO are taking Merger Team training in October and at that time will be able to act as a signatory for the project. The RPO is also responsible for developing the Long-Range Transportation Plan, the Small Area Transportation Plan for Marion, and reviewing proposed TIP projects.

In addition to these issues, the City stated that they would be pursuing outside funds to relocate utilities, if necessary. Currently the only water and sewer client south of I-40 is the Glenwood School. The City agreed to provide digital information on utilities to NCDOT in the next two weeks.

If you have any questions, please contact Undrea Major at 919-707-6028.

cc: Meeting Participants



**ISOTHERMAL
RURAL PLANNING ORGANIZATION**

111 West Court Street
P. O. Box 841
Rutherfordton, North Carolina 28139-0841
Phone: (828) 287-2281 • Fax: (828) 287-2735
Website: www.regionc.org • E-mail: kfuller@regionc.org

November 27, 2012

Mr. Undrea Major:

The Isothermal Rural Planning Organization (IRPO) wishes to express its concerns regarding the NCDOT STIP project R-2597/R-0204. We are not currently prepared to support Concurrence Point 3 for the following reasons:

- A. The RPO and the City of Marion have requested a utility relocation cost estimate for sections F, G, and H of STIP project R-0204. We have not yet received cost estimates for this section.
- B. The City of Marion and McDowell County have expressed concerns over the number of potential business and residential impacts for sections G&H of R-0204.

The RPO and the City of Marion is willing to work closely with NCDOT on addressing (or understanding) these impacts fully before achieving concurrence point 3.

The RPO and its local governments understand the Merger Process and are willing to come to agreement with NCDOT and the rest of the merger team in the near future.

Sincerely,

Karyl Fuller
Secretary
Isothermal Rural Planning Organization



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAT MCCRORY
GOVERNOR

1501 MAIL SERVICE CENTER, RALEIGH, N. C. 27699-1501

ANTHONY J. TATA
SECRETARY

September 23, 2013

MEMORANDUM TO: Meeting Participants

FROM: Undrea Major
NCDOT
Project Development & Environmental Analysis Unit

SUBJECT: Summary of the project meeting with the City of Marion and McDowell County officials, US 221 from SR 1366 in Rutherford County to US 221-NC 226 in McDowell County, TIP Projects R 2597 and R-204 D&E

A meeting was held on Thursday, September 19th, 2013, at 1:30 PM at the Marion Historic Depot, located at 58 Depot Street in Marion, NC. The following people were in attendance:

Steve Little	Mayor, City of Marion	steve@littleandlattimore.com
Bob Boyette	Manager, City of Marion	bboyette@marionnc.org
Brant Sikes	Public Works Dir. City of Marion	bsikes@marion.org
Lloyd Cuthbertson	Mayor Pro Tem	lloydcuthbertson@yahoo.com
Billy Martin	Marion City Council	bcmartin350@yahoo.com
Juanita Doggett	Marion City Council	juanitadoggett@hotmail.com
Don Ramsey	Marion City Council	donaldrramsey@yahoo.com
Everette Clark	Marion City Council	eclark@marionnc.org
Chuck Abernathy	Manager, McDowell County	charlesa@mcdowellgov.com
Ashley R. Wooten	Assist. Manager, McDowell County	awooten@mcdowellgov.com
Joe Kaylor	County Commissioner, McDowell County	
David Walker	McDowell County Commissioner	dwalker6241@yahoo.com
Randy Hollifield	McDowell County Commissioner	randyhollifield@yahoo.com
Karyl Fuller	Isothermal RPO	kfuller@regionc.org
Edith Vance	Citizen	828-659-8613
Rick Tipton	NCDOT Div. 13, Div. Engineer	r티pton@ncdot.gov
Kristina Solberg	NCDOT Div. 13	klsolberg@ncdot.gov
Doug McNeal	NCDOT Div. 13	dmcneal@ncdot.gov
Brenda Moore	NCDOT – Roadway Design	blmoore@ncdot.gov
Andrew Young	NCDOT – Roadway Design	apyoung@ncdot.gov
Carl Barclay	NCDOT – Utilities Unit	cbarclay@ncdot.gov
James Swinson	NCDOT – Utilities Unit	jeswinson@ncdot.gov
Undrea “Dre” Major	NCDOT – PDEA Unit	ujmajor@ncdot.gov

MAILING ADDRESS:
NC Department of Transportation
Rail Division

TELEPHONE: 919-707-4700
FAX: 919-715-6580

LOCATION:
Transportation Building
1 S. Wilmington Street

Stephen C. Trexler Cardno NC, Inc.
Craig Young Baker Engineering

steve.trexler@cardno.com
cmyoung@mbakercorp.com

During the meeting, the following topics were discussed:

Introductions

Mayor Little welcomed everyone and thanked NCDOT for coordinating the meeting. After the Mayor's welcoming comments, meeting participants introduced themselves.

Utility Relocation Costs for R-204D&E

Mayor Little began the project specific discussion by clearly stating that the City of Marion could not afford the estimated cost for relocating the impacted utilities within their jurisdiction (from I-40, north to the US 221 Bypass in Marion), as required under G.S.136-27.3. Current estimates for utility relocation range from approximately \$1.2M (NCDOT estimate) to \$2.2M (City of Marion estimate).

Mayor Little presented the following two options for moving forward with the R-2597/R-204D&E project:

1. NCDOT absorbs all costs associated with utility relocation work for the section of US 221 starting just south of the I-40/US 221 interchange and extending north to the intersection of US 221 and the US 221 Bypass.
2. Acknowledge that the cost of widening US 221, from south of the I-40 interchange to the US 221 Bypass, and its associated impacts, outweighs the benefit recognized by the City of Marion; therefore, NCDOT should stop the US 221 widening project south of the I-40 interchange and leave the portion north of that as-is.

Former Mayor, Everette Clark, added that the City of Marion previously extended water and sewer service south along US 221 during his term as Mayor and in anticipation of the R-2597 project beginning the planning process back in the early/mid 1990's. Mr. Clark stated that the City of Marion should not have to pay for the relocation of these utilities since the City previously paid for the initial extension along US 221.

Brant Sikes asked if NCDOT utility staff would be willing to coordinate on a review of the recent utility relocation cost estimates, since there is a sizeable difference between the estimate prepared by NCDOT (\$1.2M) and the City (\$2.2M). James Swinson stated that he would be happy to coordinate with the City on the review and refinement of the utility cost estimates.

Chuck Abernathy, McDowell County Manager, mentioned that the US 221 widening project would provide a benefit to the County, not just the City of Marion, and as such, the County would be willing to look at a possible "cost sharing" agreement for the utility relocation expenses. In addition, Mr. Abernathy suggested that possible legislative changes could be explored (e.g., a change in G.S.136-27.3), as well as possible design changes that could reduce the cost burden on the City (e.g., not widening US 221 north of the I-40 interchange).

Schedule

Ricky Tipton stated that the current schedule for R-204D has NCDOT letting the project for construction in November 2015. With the recent changes in NCDOT's project prioritization process, the equity formula has been replaced with the Strategic Mobility Formula process (<http://ncdot.org/strategictransportationinvestments/>). As part of this new prioritization process, all projects funded for construction before July 1, 2015 will proceed as scheduled; projects slated for after that time will be ranked and programmed according to the new formula.

Mayor Little reiterated the City's desire to delay or eliminated the R-204D project, especially in light of the new prioritization information that Ricky Tipton shared, and instead, would prefer NCDOT to focus on the R-2507 project. If the R-204D project is still planned to be built, then delaying the project could allow the City additional time to develop possible funding options for raising the necessary funds to cover the utility relocation costs. Bob Boyette supported Mayor Little's request to delay the R-204D project and agreed that this would allow the City time to explore other funding options. Mr. Boyette stated that the City understands that delaying R-204D may also lead to the reprioritization of the overall R-2597/R-204D&E project and that the City is willing to accept the possible schedule change. He also stated that the City will not recognize any economic benefits from the US 221 widening until after the entire project (R-2597 and R-204D&E sections) is completed so "fast tracking" the R-204D project does not make sense to the City.

Funding

Everette Clark inquired about the funding source for R-2597/R-204D&E, specifically, how much of the total project cost is funded by the Federal government. Ricky Tipton responded that the project is funded entirely with State transportation funds and that no Federal Highway funding is being used for this project. Mr. Clark stated that preliminary estimates developed by the City show that for every \$0.01 increase in the current tax rate yields approximately \$35,000 in additional yearly revenue. Assuming the City needs \$1M to fund the utility relocation costs for the R-204D project, they City would need to increase their tax rate roughly \$0.06 in order to raise the needed \$200,000/year required to cover the utility costs (assume \$200K/yr for the 5-year period between now and when the project is complete). Representatives from the City Council, as well as the current and former mayor, all stated that passing such a tax increase is not feasible.

Designs

Bob Boyette stated that the City was impressed with the minimization and overall designs for US 221, south of the I-40 interchange. He stated that the City still has some concerns with the designs north of I-40 and the associated impacts to the businesses located along US 221 through that section. He asked that NCDOT try and minimize these impacts, to the extent practicable. Brenda Moore said that NCDOT is continuing to review and revise the designs in order to minimize impacts to properties, where possible.

A City representative asked what the proposed width was for the US 221 widening project. Ricky Tipton responded that NCDOT proposes to widen US 221 to a 4-lane divided roadway with a 46' grassed median. This is similar to the widening currently being done for US 221 south of Rutherfordton. Ricky also stated that NCDOT has moved away from building 5-lane undivided roadways due to operational and safety concerns with that type of typical section. He added that the preliminary plans for R-2597/R-204D&E show a "worst-case" width for the proposed widening and that

NCDOT will look to minimize the necessary roadway right of way and construction limits during the final design phase of the project.

Concerned Citizen

Ms. Edith Vance was in attendance at the meeting and asked the Mayor if she could say a few words about the project. Ms. Vance was given the floor and she proceeded to state the following concerns:

- She is opposed to the US 221 widening project (R-2597/R-204D&E)
- She believes that we have enough pavement and concrete in this state and that by adding more, we are increasing our potential for disastrous flooding and erosion, similar to the recent flooding events in Colorado
- She is concerned that with the widening of US 221, travel speeds will increase, resulting in more accidents along the route

Mayor Little thanked Ms. Vance for her comments and for her continued interest in the US 221 widening project.

Summary and Next Steps

Mayor Little, Ricky Tipton, and Dre Major summarized the meeting discussions as follows:

- The new NCDOT prioritization initiative will dictate the order and schedule of the R-2597 and R-204D&E projects
- MPO/RPO input on project priorities carries substantial weight in the process and can influence the priority decision
- The greatest utility relocation costs are associated with the proposed interchange design changes for the I-40/US 221 interchange
- The City is requesting that NCDOT delay or eliminate the R-204D project from the Transportation Improvement Program, instead, focusing their efforts on constructing the R-2597 project south of the I-40/US 221 interchange
- The next Project Merger Meeting is scheduled for October 23rd, 2013 in Raleigh, NC and will review and discuss issues related to “minimization and mitigation” for impacts related to water resources; otherwise referred to as “Concurrence Point 4a”
- The final environmental document, a “Finding of No Significant Impact” (FONSI), is in progress and NCDOT anticipates finalizing it after the October Merger Meeting

With no other items to discuss, the meeting was adjourned at 2:54 PM.

UJM/cmy

Cc: [add anyone?]

Public Hearing and Citizen Comments

SUMMARY OF VERBAL COMMENTS BY HEARING SPEAKERS
ON MARCH 12, 2012, AND NCDOT RESPONSE

Thomas Gerth 2231 North 221, Rutherfordton, NC 28139

Comment: Resides in the Monteith House; Segment B3 would impact several of his neighbors. Doesn't want to lose the lumber yard or another business behind him to save his house, especially since he has land behind his current house that he can build on, if needed. Estimates about 17 homes would be acquired to save his house. Requests that NCDOT take his house.

Moderator: Thank you Mr. Gerth.

Comment: A number of neighbors already spoke to him. Doesn't want to take the blame for neighbors losing their house.

Moderator: Thank you sir.

SUMMARY OF VERBAL COMMENTS BY HEARING SPEAKERS
ON MARCH 13, 2012, AND NCDOT RESPONSE

(Note: An asterisk (*) indicates a direct response required by NCDOT.)

Rod Birdsong Executive Director of the Chamber of Commerce
369 Hidden View Loop, Marion, NC 28752

Comments: Supports the widening of US 221, as well as the project. Concerned about the number of business relocations, specifically, the last 2.5 miles of the project have 31 of the 66 business relocations, about 47%. Depending on the alignment, Super 8, Days Inn, frontage of Hampton Inn, Open Flame restaurant, Wild Ridges structure, Talladega Machine, Marathon gas station, country store, among others could be relocated. Concerned that the economic impact of acquiring businesses is too great. Concerned about safety at the I-40 and US 221 intersection, specifically the off ramp from I-40 eastbound where vehicles pull out in front of on-coming traffic. Concerned whether the last 2.5 miles of the project has a higher incident of crashes than the statewide average. Requests that there be some flexibility in NCDOT's determination about the width of the right of way, the design and access points, particularly in the 2.5 mile section south of Marion. Concerned about the impact to the City's economy and for the businesses in the Marion area.

Moderator: Thank you sir for your comments.

Bob Boyette City Manager, City of Marion

Comments: Supports the widening of US 221 concept. The City, with a limited tax base, limited jobs, limited development opportunities in the community, does not want to lose prime commercial areas around the interstate and can't afford to have numerous commercial buildings demolished. Requests that NCDOT reduce the right of way to avoid the business relocations or put in retaining walls that would preserve some of the business locations and avoid those jobs and tax base being lost. Requests the more developed 2.5 mile area south of Marion be treated differently and therefore, requests a five-lane section in this area. The five-lane section in nearby communities has worked well. Requests consideration for the type of access associated with a five-lane section to preserve the business locations, as well as jobs and tax base being lost.

Moderator: Thank you, Mr. Boyette.

Chuck Abernathy McDowell County Manager / Economic Development Director

Comments: Doesn't need to reiterate what Mr. Birdsong and Mr. Boyette have said, but received assurance from NCDOT that this is the beginning of the process and encourages public to give their input. Comments that citizens are interested in project impacts to businesses and residences as a result of the design alternatives and associated right of way.

Moderator: Thank you Mr. Abernathy.

Terrill Hoffman 833 Miracle Valley Way

Comments: Would like more discussion of the project impacts on the people that live along the highway. Is not interested in driving on a four-lane highway every time he wants to go to Marion. Concerned that the proposed design will require him to drive two miles past his home to make a U-turn to get to his home, adding 50% more time to his drive from his house to Marion. Doesn't think the median U-turns make the highway safer when an individual has to travel twice as far to get home. Concerned that the environmental studies in the document are 20 years old and decisions are being made using old data. Concerned about driving on a highway that is under construction for 10 years. Against the project because it's a waste of money and won't benefit anyone in the community.

Moderator: Thank you sir for your comments. If you're having to drive two miles out of the way, one thing I would like to say is please let us know where you live, because we may be able to look at putting a U-turn access closer; so, you don't have to drive that far out of the way.

Comments: I live on that map (Segment D).

Moderator: Right, but again, all of the U-turn accesses haven't been put on the map and public comments will help us make those decisions, because we don't want you to have to drive two miles out of the way. You've let us know and given us your address. Those are things we'll look at.

WRITTEN COMMENTS RECEIVED AND NCDOT RESPONSE

(Note: An asterisk (*) indicates a direct response required by NCDOT.)

Teresa Adkins 4395 Goose Creek Road, Marion, NC 28752

Comments: Concerned that the US 221 North/South highway noise would be very loud after the West Court business is relocated. Requests that trees be planted between her driveway and the new highway to help reduce traffic noise. She believes the trees would provide a safety factor for her kids. Requests that instead of extending her driveway with “partial paving on one end,” as was mentioned, she requests the driveway needs to be completely paved.

Response: Comments noted. Efforts will be made to minimize impacts to the existing tree zone during the final design process.

Edward Burgin 418 Cliff Logan Drive, Rutherfordton, NC 28139

Comment: Prefers Segment B3 and doesn't mind that his properties along Sorrels Road would be acquired. “The sawmill is a great asset to the community” and he doesn't want to lose area jobs in a weak economy.

Response: Comment noted.

* **Bill Byers** Manager, Young's Creek, LLC (North State Gas)
P.O. Box 1122, Rutherfordton, NC 28139

Comments: “As currently designed, the US 221 TIP R-204D proposal will relocate the business at 2211 Rutherford Road in Marion, NC. Young's Creek, LLC, completed the new office and operations center there in 2008. The construction was done on a very minimum-sized parcel. The proposed reduction in the size of this property would ruin its current utility and eliminate the value to the owner.” They were never informed during the purchase of their property “that there was any danger of right-of-way condemnation,” despite their coordination with the City of Marion Town Planner, City of Marion Town Council (in a re-zoning hearing) and their realtor. They have “invested hundreds of thousands of dollars in developing this site” and the NCDOT's February 2012 bulletin announcing the public review of the State EA “was our first indication that our business was in jeopardy from the US 221 improvements plan.” They request that the SEA include the impact the proposed improvements north of the US 221/NC 226 intersection would have on their business. They feel that “all of our efforts and investments may be negated without prior warning.” They also request that NCDOT “consider scaling back its improvements north of the 221/226 intersection in such a way as to permit our current business operations to continue there.” Requests to be informed in writing of the outcome of their request so they know whether they would be relocated or whether current operations would continue.

Response: Comments noted. Citizens Information Workshops were held for the project in September 2003. At that time, a newsletter was mailed to individuals within the 1,000-foot project corridor. The design of the proposed roadway was then developed within the project corridor. Efforts will be made to minimize impacts during final design. However, it should be noted that there are several design constraints in this area (e.g., the need to provide turn lanes, tying into existing US 221).

Warren Cable

394 Ashworth Loop, Marion, NC 28752

Comment: In an email dated 3/14/12, a representative of Redeemed Free Will Baptist Church inquired about the broken dotted lines ---F---F---F--- on the map he received at the meeting.

Response: Mr. Robbins responded via email that those are portions of the roadway that need additional dirt to elevate the roadway or maintain a consistent grade.

Comment: In a subsequent email, he inquires about the chain link fence he was told would be in front of the Church. He adds that there is not a fence currently along US 221 North where the road was previously widened and he feels the fence would “hinder and deface our property.”

Response: Mr. Robbins responded via email explaining the partial control of access along the proposed roadway and offers a “black-coated vinyl fence as an option for your property instead of the normal style fence.” Mr. Robbins adds that “anything above that would involve the property owner contributing the additional cost for the preferred style of fencing. This is something that will be addressed during the right-of-way phase of the project.”

* **Chapel Hill Baptist Church** 109 Chapel Hill Church Loop, Marion, NC 28752

Comments: The Pastor believes “this project is vital to the future economic development of our county;” however, he is not convinced that the proposed plan is the best for the Church. He thinks a five-lane road is a better option rather than a four-lane divided with directional crossover with median U-turns. He is concerned that with the proposed project, one end of Chapel Hill Church Loop would be closed and no longer accessible to US 221. This would require 70 to 90 vehicles on a given Sunday to exit the church parking lot the same way. He is concerned that all vehicles would be making a right-turn onto US 221 and then a U-turn to go northbound. The Pastor considers “this to be a safety hazard.” He believes traffic would be backed up at the US 221/Chapel Hill Church Loop intersection, as well as at the U-turn on Sunday mornings as most churches dismiss from their services. He believes a five-lane section would alleviate this problem; this type of roadway has worked well on US 221 north of Marion. Alternatively, the Pastor suggests installing a traffic signal at the Chapel Hill Church Loop/3 Point Road/US 221 intersection. While this option is not as ideal as a five-lane section, the needs of the church would be served. The Pastor would be “open to discussing this project in person.”

Response: Comments noted. The four-lane median-divided section meets the purpose and need for the project to a greater degree than a five-lane section (e.g., it would better enhance mobility and reduce crashes). A signal warrant study for the Chapel Hill Church Loop/US 221 intersection will be completed during final design.

Chapel Hill Baptist Church Members

Comments: Petition submitted with signatures from members of the Church reiterating the Pastors comments that while they agree that US 221 needs to be widened, they are not in agreement with the present plan. The Church members would prefer a five-lane roadway in the vicinity of the Church. They believe that a five-lane roadway would prove more beneficial and would be readily accepted by the Church and community.

Response: Comments noted. The four-lane median-divided section meets the purpose and need for the project to a greater degree than a five-lane section (e.g., it would better enhance mobility and reduce crashes). A traffic signal for Chapel Hill Church Loop will be investigated during final design.

Bob Boyette

City Manager, City of Marion
P.O. Drawer 700, Marion, NC 28752

Comments: Although the “City has supported for 20 years the concept of widening US 221 to multiple lanes,” they have design concerns. The City is concerned that the “minimum 250-foot right-of-way width is excessive and will lead to unneeded impacts to established commercial buildings from the northern end of the project just north of the US 221/NC 226 intersection in Marion to Goose Creek Road south of Marion.” The impacts to numerous commercial buildings would “certainly lead to the loss of jobs and property tax base for the City of Marion and McDowell County, something that our Tier 1 County cannot afford.” The City reiterates that since at least 2003, they have requested that a five-lane section be considered from the northern end of the project to Goose Creek Road. They request the five-lane roadway should include the “narrowest right of way possible and the installation of design features such as retaining walls wherever possible, to avoid the loss of any commercial buildings.” The City is concerned that “the divided highway design will not provide for adequate access to commercial, industrial, and residential properties in the developed area” north of Goose Creek Road. The City is concerned that motorists will choose to bypass a business rather than make a U-turn to access the business. “The City believes that a five-lane section is the only design that will provide for adequate access to commercial, industrial, and residential property in the area noted above.” The City appreciates NCDOT staff’s willingness “to modify the final design so that it works for the community.” The City requests that NCDOT work with the City, as well as McDowell County, McDowell Chamber of Commerce, McDowell Tourism Development Authority, and the Marion Business Association to address their concerns. The City offers to arrange small group meetings to begin looking at final design options north of Goose Creek Road.

Response: Comments noted. The four-lane median-divided section meets the purpose and need for the project to a greater degree than a five-lane section (e.g., it would better enhance mobility and reduce crashes). The four-lane median-divided typical section is also consistent with the development of US 221 as a Strategic Highway Corridor (see <http://www.ncdot.gov/doh/preconstruct/tpb/shc/>). Efforts will be made to minimize property impacts during final design. A meeting with the City will be held prior to the next Merger Team meeting.

Hicks Conner Jr. 126 Antler Trail, Union Mills, NC 28167

Comment: Wanted to make NCDOT aware that some of the right-of-way at 117 Antler (Grace Tabernacle Church) has a cemetery on top of the hill.

Response: Comment noted.

Eric Connor

McDowell Food Systems Inc.
4231 US 221, Marion, NC 28752

Comment: Concerned that Segment F2/G2 shows the right of way across part of their building and no access is shown to their property. Unsure whether the whole parcel is a take or if access would be given.

Response: In an email dated 3/27/12, Mr. Robbins explained that under the east side widening scenario, the building would be acquired and no access would be provided to the property. Mr. Robbins goes on to say that if the remaining portion of the property is deemed an uneconomic remnant, NCDOT would offer to buy the entire property. However, if the remaining

property still has value and the company decided to rebuild, it would be up to the company to provide access to the property as long as it is outside the NCDOT's control of access. The Right of Way Agents name, Mr. Bob Haskett, and number, 828.274.8435 was provided for additional information.

Comment: Requests how long the company has to notify NCDOT of their decision.

Response: Mr. Robbins states that the comment period for this stage of the project development process ends April 13th.

Comment: In email correspondence dated 4/12/12, McDowell Food Systems indicated that they prefer east side widening (Segments F2/G2).

Response: Mr. Robbins responded confirming that the property owner prefers east side widening which would result in the purchase of the buildings on McDowell Food Systems property instead of west side widening which would preserve the business and provide access via a new driveway.

Comment: Representative confirms that they prefer east side widening.

Sherman and Louise Davis 7475 Hwy 221 South, Marion, NC 28752

Comments: Appreciates that the meetings were well organized. She is concerned about the relocation of businesses at the US 221/I-40 interchange and suggests that R-2597 be constructed first while R-204 design is being reworked at the interstate. Recommends constructing a new road behind the businesses (Dollar General and the motels), providing a new bridge over I-40 reconnecting at Wilson Valley Drive on US 221 South, leaving existing US 221 South section at the motels and Dodge Rockwell Business Park as a service road.

Response: Comments noted. According to the State Transportation Improvement Program, Project R-204D, which includes the I-40 interchange, is scheduled for right-of-way acquisition and construction in Fiscal Years 2014 and 2016, respectively. Based on this schedule, design revisions at the US 221/I-40 interchange would not cause a delay in the estimated project schedule. Due to the limited spacing between the existing businesses on the east side of US 221 and the Duke Power easement, constructing a new road behind the existing businesses would impact the Duke Power easement. The Duke Power easement runs on both sides of I-40 in this area; therefore, a new road east of US 221 would cross the easement twice, substantially increasing the cost of the project due to the increased number of transmission tower impacts. Additionally, the NCDOT prefers that roadways intersect as close to a 90 degree angle as possible in order to minimize the bridge length and cost, as well as provide adequate sight distance for the ramp terminals. A new road east of US 221 would cross over I-40 nearly parallel making the new bridge extremely long and making it difficult to tie in with existing US 221 South.

Charles Dicks

3578 US 221 South, Marion, NC 28752

Comments: Understands that Segment H, which he lives along, is a best fit widening scenario, but thinks the existing right of way on the east side of US 221 should be utilized before any land on the west side is acquired. He doesn't see the need to maintain a wide stretch of wasted land. He comments that the roadbed in front of his property is lower than either end of the street and raising it five feet would eliminate much of his property being acquired. He also comments that the Hampton Inn, north of his property, needs all of their present parking.

Response: Comments noted. The existing right of way on the east side of US 221 is associated with I-40. Construction of the proposed US 221 project may not encroach upon the I-40 right of way. Therefore, existing US 221 in the I-40 area would be widened to the west.

Mark Earley

Baldor Electric Company, Industrial Park
510 Rockwell Drive, Marion, NC 28752

Comment: Requests that NCDOT "review alternatives to provide a safe left turn alternative when exiting Rockwell Drive onto the proposed four-lane highway." ABB-Baldor has approximately 75 vehicles exiting the plant three times per day and 78% of its employees travel north on US 221 to go home. Additionally, "there are two other manufacturing locations in the Industrial Park along with significant truck traffic."

Response: Comments noted. Other alternatives were investigated, but were not possible to accommodate due to the constraints in this area presented by the proximity to the I-40 ramps. It should be noted that there are other options to travel north on US 221 other than direct access from Rockwell Drive, including taking I-40 east one exit to Exit 86 and traveling westbound on NC 226 back to US 221.

Dean Elliott

3574 Hwy 221 South, Marion, NC 28752

Comment: Requests that the grade in the Hampton Inn area be reviewed. Suggests raising the grade 4 to 5 feet above existing in this area which would allow a better driveway tie-in to his property, as well as others.

Response: Comment noted. Raising the grade of US 221 in this location would create more property impacts than what it shown on the hearing maps due to the fill slopes.

* **Bennett Finkler**

333 Chapel Hill Church Loop, Marion, NC 28752

Comments: Concerned about the widening of US 221 near its intersection with I-40 and the effect on the businesses and homes in that area. He stated that the 23 to 46-foot median seems "unnecessarily wide for some sections of the highway" affecting "more homes and businesses than necessary." He comments that the US 221 Bypass around Marion includes four lanes and "appears to have a median of only 13 feet or about equal to the width of a (travel) lane." He adds that the 13-foot raised concrete barrier median along the bypass is half of the proposed median width and "has not posed any problems for accidents that I am aware of and has had much less impact on the surrounding buildings than the new construction would." Requests that a 13-foot median be considered in the densely populated areas near I-40. The proposed construction in this area would take a large part of his land, including his well and septic field, and "would likely necessitate that my house be condemned, unless city services are available." Requests an explanation why the 13-foot median is not a viable option for the heavily populated areas. Alternatively, he suggests a five-lane highway "might be a good option in the business area,

though I can see how that might be more likely to cause accidents.” He awaits NCDOT’s response. He also requests a copy of the Right of Way pamphlet.

Response: Comments noted. The four-lane median-divided section meets the purpose and need for the project to a greater degree than a five-lane section (e.g., it would better enhance mobility and reduce crashes). The median width is necessary to provide median crossovers and turn lanes. Although there are length of the project between the crossovers and turn lanes, it is important to keep the median width consistent because of driver expectations.

Hubert and Faye Flynn 208 Nanneytown Road, Union Mills, NC 28167

Comment: Concerned about the existing “major erosion problems” caused by runoff from US 221 between the Hudlow Road/US 221 and Nanneytown Road/US 221 intersections. He comments that wherever “a drainage pipe is under the road, the runoff has caused erosion.” He adds that “the side ditches of the old road that crosses Hugh Simpson property onto Hubert Flynn’s are so large you would think you are visiting the Grand Canyon. These gullies will only get bigger and larger with the new 221 four lane.” Requests that plans to improve this erosion problem need to be included in the R-2597 project.

Response: Comment noted. The runoff problem will be investigated during final design.

Paige Gibson P.O. Box 1882, Marion, NC 28752

Comments: Writes on behalf of her brother, two sisters, and herself that own a 30+ acre farm along US 221 South, located where TIP R-2597C ends and TIP R-204E begins, where her father currently resides (#5752). Concerned that “every trip into town, which is currently a left hand turn, will require a right hand turn and an approximate 1 mile round trip, out of the way to go north. This would involve going past Goose Creek to the proposed crossover U-turn.” She adds that almost every trip from this driveway is a northbound trip. She adds that the same thing occurs if the property is accessed from the south. From the south, “you must go past Ashworth Road, make a U-turn to return south.” She requests one of the following options: 1) Consider a five-lane highway from Goose Creek Road into Marion, which would allow right or left turns from each driveway and reduce the speed. 2) Place additional pavement in the median and across from each driveway to allow access for each driveway either northbound or southbound. This would be similar to the construction of US 221 North where the highway is divided near Baxter. 3) Include additional directional crossover with median U-turns closer to their driveway to reduce the one mile of additional travel. Several good locations exist along this stretch of highway.

Response: Comments noted. The four-lane median-divided section meets the purpose and need for the project to a greater degree than a five-lane section (e.g., it would better enhance mobility and reduce crashes). Additional directional crossovers with U-turn bulbs will be investigated during final design. It should also be noted that U-turns can be made at intersections with other roadways and not only at the directional crossovers.

Gilkey Lumber Company, Inc. (Tim Parton, President)
2250 Hwy 221 North, Rutherfordton, NC 28139

Comments: Supports Segment B1 as the best option for the Gilkey Lumber Company. Adds that Segment B2 would put Gilkey Lumber out of business and Segment B3 would be more damaging to the environment. Comments that the turnaround north of Lawing Mill Road (SR 1529) is too far north making it difficult for transfer trucks carrying 80,000 lbs to turn south on

the hill and slope of the highway. Adds that Gilkey Lumber services from 40 to 60 trucks a day and employs 55 - 60 persons.

Response: Comments noted. The additional lane on US 221 provided by the project should alleviate this difficulty. As necessary, trucks can travel to the next directional crossover to make their U-turn. Additional directional crossovers with U-turn bulbs will also be investigated during final design.

William Hague

Comments: Opposes the proposed improvements and feels there is little benefit for the cost of the project, which is over \$100 million. He adds that US 221 has a maximum 2010 annual average daily traffic of 7,800 vehicles and a minimum of 2,900; far below the current capacity of the facility. He believes making US 221 multi-lane is unnecessary and comments that the level of service along US 221 decreases due to traffic queuing behind slower traffic, as well as the mixing of local traffic with regional traffic. He states that with the low traffic volumes along the existing roadway, constructing a multi-lane, divided facility with high right of way and construction costs is unnecessary. He suggests constructing turn lanes at intersections and instead of widening the entire facility, construct passing lanes every few miles. “The passing lanes can alternate between northbound and southbound, making the facility only three lanes wide, reducing the amount of right of way needed and reducing construction costs. This could potentially provide many of the same benefits of a multi-lane highway, with a lower cost and less impact.” He hopes that NCDOT will take these comments into consideration before proceeding with the proposed improvements.

Response: Comments noted. The purpose and need for the improvements to US 221 are described in the SEA and include mobility improvements and reductions in crashes.

Haldex Brake Products Corporation 5334 US 221 South, PO Box 1129, Marion, NC 28752

Comments: Concerned about the right-turn only exit from their facility and concerned that the turnaround provided south of their entrance requiring employees to cross traffic and make a U-turn before merging with traffic in order to travel north is extremely dangerous for their 100 employees and “will put our employees at risk.” They are concerned about their freight carriers performing this maneuver, as well. Adds that there are two other larger manufacturing facilities in the area that will “encounter the same problems with a large number of employees leaving at the same time and having to perform these dangerous crossover and U-turns.” Requests that NCDOT reconsider the proposed divided highway and possibly construct an undivided five lane highway in the vicinity of their business.

Response: Comments noted. During final design, NCDOT will investigate moving the U-turn bulb location. In addition, NCDOT will investigate the possibility of providing driveway access to Ashworth Road. If design changes cannot be accommodated, the trucks can use the next directional crossover further south on US 221.

Ronnie Hendrix 160 Sorrels Road, Rutherfordton, NC 28139

Comment: Recommends relocating the William Monteith House on existing property (Lot 227).

Response: Comment noted. NCDOT will coordinate with the State Historic Preservation Office and the historic resource property owner regarding impacts to the William Monteith House.

Terrill Hoffman 833 Miracle Valley Way

Mr. Hoffman's comments were noted under the speaker section. However, responses to Mr. Hoffman's comments that were not addressed in the executive summary are included below.

Comments: Concerned that environmental studies prepared for the EA are 20 years old. Would like more discussion of the project impacts on the people that live along the highway. Concerned about driving on a highway that is under construction for 10 years.

Response: Natural systems surveys are currently being updated for the project. Section V.E Social Effects in the SEA includes a discussion of the potential residential and business relocation impacts based on the preliminary engineering designs. However, additional information regarding residential and business relocation impacts will be included in the Finding of No Significant Impact (FONSI) published Fall 2012. Your property is located within TIP Project R-2597B, between Nanneytown Road and the Polly Spout Road northern intersection. According to the NCDOT 2009 – 2015 TIP, construction is anticipated to occur post year, after Fiscal Year 2020, and is currently unfunded. The construction dates for the various sections of R-2597 and R-204 begin as early as Fiscal Year 2016. In general, each section of TIP Project R-2597 and R-204 may take anywhere from three to five years to be constructed. However, with some sections of the project not currently funded, it is likely that there may be a several year span where there is no construction occurring along US 221.

Claude & Ellen Hollifield 5052 US 221 South, Marion, NC 28752

Comments: Agrees that existing US 221 needs to be widened; but does not approve of the four-lane divided facility with an access fence. He adds that as a main road into Marion, traveling over I-40 with no access to property from both directions is not desired. He states that there are five-lane roads in the county that are operating well.

Response: Comment noted. The four-lane median-divided section meets the purpose and need for the project to a greater degree than a five-lane section (e.g., it would better enhance mobility and reduce crashes). Additional directional crossovers with U-turn bulbs will be investigated during final design. It should also be noted that U-turns can be made at intersections with other roadways and not only at the directional crossovers.

Jennifer Jarrett 3440 US 221 South, Marion, NC 28752

Comments: Comments that the proposed right of way for TIP R-204D will take her septic field in front of her home (Map 8, Segment H, #836). She adds that according to local environmental health inspectors, there is no other option for a new septic field on her property. She inquires 1) whether her home would be purchased by NCDOT and 2) would she be able to sell her property to NCDOT prior to right of way acquisition.

Response: An impacted property owner may request to be purchased sooner through NCDOT's Hardship Acquisition process. Hardship acquisition is initiated by the property owner because of

particular financial or health-related hardship. Decisions regarding whether a property will be acquired sooner than the right-of-way date included in the NCDOT's TIP are evaluated on a case by case basis. Advanced acquisition can also be discussed with the Right-of-Way Agent. For information regarding the NCDOT Relocation Assistance Program, the NCDOT Right-of-Way Agent / Area Negotiator can be contacted at (336) 667-9114. As the project progresses through final design, additional minimization measures will be taken which may, in some areas, reduce the potential impacts from those shown at the public hearing. For homeowners who must relocate because of the project, the NCDOT has several programs to minimize the inconvenience of relocation: relocation assistance, relocation moving payments, and relocation replacement housing payments. A relocation officer is assigned to each project and can provide additional information regarding these programs. The relocation officer also assists homeowners in searching for and moving to replacement property. Appendix G in the SEA includes additional information regarding NCDOT's Relocation Assistance Program.

Benson Jones 320 Wildwood Terrace, Marion, NC 28752

Comment: Inquires whether the curve just past Wildwood Terrace would be straightened out under this project and requests a map that shows the property acquired on the west side of the road between Chapel Hill Loop Road and the Hampton Inn. He looks forward to this much needed project.

Response: An information packet was emailed on March 15 to provide additional information.

Michael Jones (Woodrow W. Jones Property) 303 Sorrels Road, Rutherfordton, NC 28139

Comments: Supports Segment B1, taking the historic property, sparing "all of Sorrels Road and not wiping out Gilkey." Segment B1 would acquire less of his farm and not split his farm in half, leaving a portion isolated with no access. Concerned that the proposed project would acquire three of his properties: Michael's Market (Segment A1) near Thompson Road; his lot along US 221 near Mountain Creek Road; and his farm along US 221 near Darlington Road.

Response: Comments noted. As the project progresses through final design, additional minimization measures will be taken which may, in some areas, reduce the potential impacts from those shown at the public hearing. For homeowners who must relocate because of the project, the NCDOT has several programs to minimize the inconvenience of relocation: relocation assistance, relocation moving payments, and relocation replacement housing payments. A relocation officer is assigned to each project and can provide additional information regarding these programs. For information regarding the NCDOT Relocation Assistance Program, the NCDOT Right-of-Way Agent / Area Negotiator can be contacted at (336) 667-9114. The relocation officer also assists homeowners in searching for and moving to replacement property. Appendix G in the SEA includes additional information regarding NCDOT's Relocation Assistance Program.

Richard Liebeck General Manager, Hampton Inn
3560 US 221 South, Marion, NC 28752

Comments: Does not believe there is enough traffic to support the project. Concerned about losing a large portion of the Hampton Inn parking lot, as well as losing "tens of thousands of dollars due to lost revenue with a large construction project in front of the hotel. The economic impact will be devastating to the community if we lose the Super 8 and Days Inn, also."

Response: Comments noted. The Hampton Inn is located within TIP Project R-204D, between I-40 and the US 221/NC 226 intersection. According to the NCDOT 2009 – 2015 TIP,

construction is anticipated to occur in Fiscal Year 2016. In general, each section of TIP Project R-2597 and R-204 may take anywhere from three to five years to be constructed.

Wendell Mast 147 Sorrels Road, Rutherfordton, NC 28139

Comment: Supports Segment B3.

Response: Comment noted.

Joseph McCall 4897 US 221 South, Marion, NC 28752

Comments: Believes the “widening project is overkill to correct problems in certain areas, such as the westbound exit ramp at US 221.” The crossovers in the vicinity of his property are two to three hundred feet from his driveway and “neither of these are of any value to me.” He must travel approximately a mile out of his way based on the locations of the crossovers. Requests whether the west side crossover could be shifted north 500 feet and the east side crossover be shifted south 500 feet. States that his farm is covered by a land use tax deferral (GS #105-296) and that sale of the property with this deferral to a non-family person is subject to substantial penalty for the affected part, three years back taxes plus interest. Inquires whether the State of NC would “pay this penalty over and above the ‘fair market value’ of the land.”

Response: Comments noted. The four-lane median-divided section meets the purpose and need for the project to a greater degree than a five-lane section (e.g., it would better enhance mobility and reduce crashes). Additional directional crossovers with U-turn bulbs will be investigated during final design. It should also be noted that U-turns can be made at intersections with other roadways and not only at the directional crossovers. For example, a U-turn would be permitted at the intersection with existing US 221 near this property.

NCDOT’s purchase of land from this property would be exempt from the tax deferral statute penalties. If additional information is needed, a relocation officer is assigned to each project and can provide information regarding the NCDOT Relocation Assistance Program. The NCDOT Right-of-Way Agent / Area Negotiator can be contacted at (336) 667-9114.

Ronell McCall 4897 US 221 South, Marion, NC 28752

Comment: Agrees that existing US 221 needs “some upgrade;” however, she feels that a four lane facility is “totally unnecessary and a waste of money” and suggests a three lane facility with “some passing zones.”

Response: Comment noted. The four-lane median-divided section was determined to best meet the purpose and need for the project (i.e., enhance mobility and reduce crashes).

* **Joyce McCloskey** Owner, Cranberry's and Lace
2245 Rutherford Road, Marion, NC 28752

Comments: Requests advanced acquisition. Last year she was in the process of negotiating the sale of her business, when she found out that it would be acquired under the proposed project. She confirmed that with Mr. Tipton, as well as a local realtor, and was told that she could not sell her property. Her husband is suffering from Parkinson's Disease and Dementia and she is interested in selling her home and moving to Morganton, closer to her husband's doctors and her relocated business. She discusses her financial situation and the need to have her business acquired sooner rather than later. She adds that she "would be ever so grateful" if NCDOT would consider "moving up the timeline to acquire her property."

Response: Comment noted. An impacted property owner may request to be purchased sooner through NCDOT's Hardship Acquisition process. Hardship acquisition is initiated by the property owner because of particular financial or health-related hardship. Decisions regarding whether a property will be acquired sooner than the right-of-way date included in the NCDOT's TIP are evaluated on a case by case basis. Advanced acquisition can also be discussed with the Right-of-Way Agent. For information regarding the NCDOT Relocation Assistance Program, the NCDOT Right-of-Way Agent / Area Negotiator can be contacted at (336) 667-9114. As the project progresses through final design, additional minimization measures will be taken which may, in some areas, reduce the potential impacts from those shown at the public hearing. For homeowners who must relocate because of the project, the NCDOT has several programs to minimize the inconvenience of relocation: relocation assistance, relocation moving payments, and relocation replacement housing payments. A relocation officer is assigned to each project and can provide additional information regarding these programs. The relocation officer also assists homeowners in searching for and moving to replacement property. Appendix G in the SEA includes additional information regarding NCDOT's Relocation Assistance Program.

McDowell County (Charles Abernathy, County Manager) 60 East Court Street,
Marion, NC 28752

Comments: Concerned that the minimum 250-foot right of way is "excessive and will have adverse impacts on established commercial businesses and industry," especially in the section from Goose Creek Road to US 221/NC 226. He adds that the buildings proposed to be impacted, "would lead to job loss and loss of property tax base in McDowell County." He feels "as a Tier 1 county it is hard to absorb such losses." He states that "McDowell County supports the project, but feels that the design between the northern end of the project north of the US 221/NC 226 intersection southward to Goose Creek Road should be revised to allow for a five lane section, with the smallest right of way possible and installation of design features such as retaining walls wherever possible." Concerned about the divided highway not providing adequate access to commercial, industrial or residential properties in this area. There are four manufacturing facilities located between Goose Creek Road and the US 221/NC 226 intersection that employ approximately 460 employees. "In many cases employees of these industrial facilities will have to cross two lanes of traffic, complete a U-turn, and merge in order to reach their destination. This will also pose a great danger for freight carriers trying to access the businesses and industries." The County offers to arrange small group meetings to begin looking at options for the final design of the project.

Response: Comments noted. The four-lane median-divided section meets the purpose and need for the project to a greater degree than a five-lane section (e.g., it would better enhance mobility and reduce crashes). The four-lane median-divided typical section is also consistent with the development of US 221 as a Strategic Highway Corridor (see

<http://www.ncdot.gov/doh/preconstruct/tpb/shc/>). Efforts will be made to minimize property impacts during final design. Also, additional directional crossovers with U-turn bulbs will be investigated during final design. It should also be noted that U-turns can be made at intersections with other roadways and not only at the directional crossovers. If trucks cannot safely accelerate to cross traffic to complete a U-turn, they should travel to the next median crossover. NCDOT will meet with McDowell County officials prior to the next Merger Team meeting.

McDowell County Chamber of Commerce (Rod Birdsong) 1170 West Tate Street,
Marion, NC 28752

Comments: Although initially in support of the strategic corridor concept for US 221, concerned about the “project’s design for portions of US 221 in McDowell County.” Concerned that the minimum 250-foot right of way width is “excessive and will lead to unneeded impacts on established commercial buildings from the northern end of the project in Marion to Goose Creek Road.” Requests that NCDOT “give close attention to McDowell County’s Tier 1 status, one factor in which is our current unemployment rate of near 13 percent.” States that “31 of the 66 business dislocations occur in the last three miles of the project. In other words, 47% of the project’s economic impact on tax base, jobs, and lodging facilities occurs in the Marion area.” Recommends that this section of the project be “re-designed as a five-lane section, with the narrowest right of way possible and the installation of retaining walls wherever possible.” Concerned that the superstreet design will “prevent adequate access to commercial, industrial and residential properties in the final three-mile section.” Concerned that the inconvenience to tourists, in addition to the industrial park employees, of having to drive past a business and turn around to access the business would cause tourists to “avoid the nuisance of traveling well out of their way to access these facilities, resulting in the loss of income for the affected businesses and the eventual loss of jobs.”

Response: Comments noted. The four-lane median-divided section meets the purpose and need for the project to a greater degree than a five-lane section (e.g., it would better enhance mobility and reduce crashes). The four-lane median-divided typical section is also consistent with the development of US 221 as a Strategic Highway Corridor (see <http://www.ncdot.gov/doh/preconstruct/tpb/shc/>). Efforts will be made to minimize property impacts during final design. Also, additional directional crossovers with U-turn bulbs will be investigated during final design. It should also be noted that U-turns can be made at intersections with other roadways and not only at the directional crossovers.

McDowell County Citizens Marion, Old Fort, Nebo, NC

Comments: Twenty-four citizens signed a letter stating their support for the project and concerns that the proposed 250-foot right of way would lead to “unneeded property impacts” between Goose Creek Road and the US 221/NC 226 intersection. Concerned that “the divided highway design will not provide for adequate access to commercial, industrial and residential properties in the developed area from just north of the US 221 Bypass southward to Goose Creek Road.” Reiterated concerns that motorists would have to drive past a business and turn around to access that business. Recommends that the US 221 design “between the northern end of the project southward to Goose Creek Road be revised to allow for a five-lane section, with the narrowest right of way possible and the installation of design features such as retaining walls wherever possible, to avoid the loss of any commercial buildings, unless absolutely necessary.”

Response: Comments noted. The four-lane median-divided section meets the purpose and need for the project to a greater degree than a five-lane section (e.g., it would better enhance mobility and reduce crashes). The four-lane median-divided typical section is also consistent with the

development of US 221 as a Strategic Highway Corridor (see <http://www.ncdot.gov/doh/preconstruct/tpb/shc/>). Efforts will be made to minimize property impacts during final design. Also, additional directional crossovers with U-turn bulbs will be investigated during final design. It should also be noted that U-turns can be made at intersections with other roadways and not only at the directional crossovers.

McDowell County Tourism Development Authority (Carol Price)

Comments: Would support the project once their concerns are addressed: 1) “Extremely concerned over the minimum 250-foot right-of-way width and the resulting impact on existing businesses from the northern end of the project just north of Marion’s US 221/NC 226 intersection to Goose Creek Road south of Marion.” Particularly concerned about the potential loss of three of the city’s four hotels located in this section, resulting in “a significant loss of jobs.” Stated that “by increasing the section to three or four lanes, allowing for passing lanes and avoiding property loss, improvements would result in fewer lost jobs. However, should NCDOT choose to increase this section by expanding to five lanes, we request the narrowest right of way possible and installation of design features such as retaining walls be used wherever possible, thus avoiding the loss of any commercial buildings.” She feels that “the divided highway design offered in the developed area from north of the US 221 bypass southward to Goose Creek Road creates the most significant, negative economic impact,” specifically in the I-40 area. She states that “we would respectfully request that NCDOT work with the City and our partner agencies, including McDowell County, the McDowell Chamber of Commerce and the Marion Business Association to satisfactorily address the points made above, while preserving as many local jobs and businesses as possible.”

Response: Comments noted. The four-lane median-divided section meets the purpose and need for the project to a greater degree than a five-lane section (e.g., it would better enhance mobility and reduce crashes). The four-lane median-divided typical section is also consistent with the development of US 221 as a Strategic Highway Corridor (see <http://www.ncdot.gov/doh/preconstruct/tpb/shc/>). Efforts will be made to minimize property impacts during final design. Also, additional directional crossovers with U-turn bulbs will be investigated during final design. It should also be noted that U-turns can be made at intersections with other roadways and not only at the directional crossovers. NCDOT will meet with McDowell County officials prior to the next Merger Team meeting.

Janice McNeil P.O. Box 1316, Marion, NC 28752

Comments: Inquires where the projected traffic is coming from and concerned whether a traffic study has been performed recently. Inquires who will pay for this project and whether her taxes would increase. Comments that residences and businesses would be affected and inquires whether streams or wetlands would be impacted. Inquires how many people from the area would be employed for the short term and long term.

Response: Comments noted. The project is currently state funded, primarily by the Highway Trust Fund. In 2000, the Highway Trust Fund provided \$880 million generated from highway use taxes, gasoline taxes, and the State Treasurer’s investments. Impacts to wetlands and streams as a result of the proposed project are included in Section V.A.2 Waters of the United States of the SEA. The stream and wetland impacts are quantified for each stream within each segment along the project. As discussed in Section V.F Economic Effects in the SEA, the US 221 project can have both positive and negative impacts on the economy of an area. The analysis of the potential economic impacts of the project is related to the expected growth in the industrial and commercial sectors that could result from improved access to the industrial development near the

I-40 interchange and other similar types of properties in the area. In addition, it is anticipated that increased state and local tax revenues would be generated in the project area during the construction phase of the proposed project, thereby providing additional financial support for public programs that aid low-income persons.

Sandra Norton

2747 South Creek Road, Nebo, NC 28761

Comments: Opposes the widening of existing US 221 and does not feel there is enough traffic to justify widening the highway. She believes the design of the road is “excessive at the very least and suicidal at best.” Concerned that “travelers have to go past their destination and make an extra turn, increasing travel time and gas consumption.” She does not believe there is a safety benefit to this design and feels if the road must be widened, “a five or three lane highway would be far more practical.” Concerned that as the small community of Glenwood has begun to grow, the businesses in that area that would be affected have been in business less than five years and may not be able to rebuild or recover from being relocated. Does not believe fair market value in a down economy is really fair. Concerned for those losing their homes or land, or those “living on the edge of a four lane mega highway.” Concerned that instead of helping the community, this project would hurt the community. Believes her tax dollars could be better spent.

Response: Comments noted. Traffic data support the need for the project. The four-lane median-divided section meets the purpose and need for the project to a greater degree than a five-lane section (e.g., it would better enhance mobility and reduce crashes). The four-lane median-divided typical section is also consistent with the development of US 221 as a Strategic Highway Corridor (see <http://www.ncdot.gov/doh/preconstruct/tpb/shc/>). Efforts will be made to minimize property impacts during final design.

Rita O’Brien

Comment: Requests the internet address for the US 221 hearing maps.

Response: Link to the hearing maps provided to her in March 14 email.

Terry Dale Padgett

7477 US 221 South, Marion, NC 28752

Comment: Concerned because the hearing map shows full control of access for the turnaround bulb across his existing driveway (Segment E1, Parcel 619). This private driveway is the only access to the house and other structures on the property, which lie outside the proposed right of way. Inquires whether the design will be revised to provide access to his home and property. The structures and driveway have been there since 1969.

Response: Comment noted. The driveway will be relocated during final design to provide access to the property.

* **Kaustubh Patel** 6259 US 221 South, Marion, NC 28752

Comments: Feels that the public meeting was effective; but has specific questions about his property: 1) Will his property be acquired? 2) If yes, how much. What is the timeframe for right-of-way acquisition? Will the NCDOT “spare” vacant land (on his property) for him to relocate since septic and well is outside right of way? Would appreciate an answer to his questions.

Response: Comments noted. According to Map 6 (Segment E1) shown at the public hearing, the structures on your property (Parcel 692) would be acquired by the proposed project. The proposed right of way would take approximately 40 feet of additional land from your property, measured from the existing US 221 right of way. Your property is located within TIP Project R-2597C, between the Polly Spout Road northern intersection and Goose Creek Road. According to the NCDOT 2009 – 2015 TIP, right-of-way acquisition is anticipated to occur in Fiscal Year 2018. As the project progresses through final design, additional minimization measures will be taken which may, in some areas, reduce the potential impacts from those shown at the public hearing. For businesses that must relocate because of the project, the NCDOT has several programs to minimize the inconvenience of relocation: relocation assistance, relocation moving payments, and relocation replacement payments. A relocation officer is assigned to each project and can provide additional information regarding these programs. The relocation officer also assists business owners in searching for and moving to replacement property. For information regarding the NCDOT Relocation Assistance Program, the NCDOT Right-of-Way Agent / Area Negotiator can be contacted at (336) 667-9114. Appendix G in the State Environmental Assessment (SEA) includes additional information regarding the NCDOT’s Relocation Assistance Program. Regarding whether land will be spared for you to relocate on your property, the NCDOT is not in the business of purchasing property that is not needed for the project right-of-way. However, if property is purchased and then all of it is not needed, the property owner would be given the opportunity to buy that portion back from the State.

Walter Poteat 88 Walter Drive, Marion, NC 28752

Comments: Concerned because the maps show Wildwood Terrace being relocated through his property. Believes the better alignment “would be to come straight down to US 221 at Hollands Storage buildings,” tie-in the old Wildwood Terrace below the first house on the left, keeping the present width on the top of the hill, and providing him an entrance to US 221 where it is.

Response: Comment noted. This design request was investigated, but could not be accommodated. It was noted that existing Wildwood Terrace runs parallel to existing US 221 along a steep vertical slope. The cut slope for the proposed widening of US 221 would undermine the road and a retaining wall could not save the existing location of Wildwood Terrace. Due to the large grade difference between Wildwood Terrace and US 221, other options would have impacts to other properties and, in some cases, more buildings would be impacted. The current design minimizes property impacts, which is why it was presented in the EA.

Bennie & Dixie Proctor 1998 US 221 Highway North, Rutherfordton, NC 28139
(Property listed as Margaret & Orland Elms)

Comment: After looking at real estate for three years, they bought their well-built home. They are in their 60’s and would prefer to enjoy their retirement there rather than relocate. In favor of widening existing US 221, but do not want to lost their home, Gilkey Lumber, or the historic property. Based on the potential impacts, they prefer Segment B3.

Response: Comment noted.

Rutherford Electric Membership Corporation (REMC) P.O. Box 1569, Forest City, NC 28043
Judson Wortman, Construction Engineer

Comments: REMC owns a substation between Segment C (Sta. 226+56.36) and Segment D (Sta. 33+14.85) - access needs to be provided for driveway to substation and to transmission line (steel tower) right of way adjacent to driveway. REMC has a 100-foot right of way for a 100 kV transmission line (concrete poles) in Segment C (Sta. 226+56.36). Special concern should be given to this transmission line - access should be provided to this right of way. Comments that according to the plans, it appears one concrete pole structure may be impacted - cost to move this structure will be between \$150,000 - \$200,000. From the substation driveway, located at 4734 Hwy 221 North, REMC has a triple-circuit distribution line that will cost approximately \$130,000/mile to relocate. A crossover through the median should be provided to allow REMC's mobile substation access to the property during extreme power restoration activities. The mobile substation is an over-weight/over-width superload - U-turns are not possible with this piece of equipment. There are multiple locations on all segments where REMC distribution lines will be affected. REMC expects all access to facilities to be provided as currently exists. REMC expects full compensation for any relocations that are needed.

Response: Comments noted. The NCDOT will work with REMC during final design to determine access to their property.

Rutherford County Commissioners (Julius Owens, Chairman) 289 N. Main Street
Rutherfordton, NC 28139

Comments: 1) Supports Segment B1 in the Gilkey area. "We strongly encourage the DOT to find a means of honoring the wishes of the owner of the Historic Monteith House. The owner wishes that his house be torn down rather than the road re-routed to save it." 2) Recommends that NCDOT look closely at safety issues for truck traffic near Gilkey Lumber and Hudlow Road. They add that "fully loaded 18-wheel trucks needing to go south on 221 will be required to travel north first and then do a U-turn and come uphill to go south creating a safety concern of very slow moving trucks." He states that "a significant amount of truck traffic travels between Gilkey Lumber and a chip mill operation on Centennial Road." 3) Concerned that the proposed cul-de-sac on one end of Roper Loop Road would increase response time for emergency vehicles. "We propose an access road be built either for local use or limited to emergency vehicle use." 4) Examine the area of Gilkey School Road, Lawing Mill Road, and Painters Gap Road for safety and consider a potential realignment to make these roads a T-intersection. 5) Identify Bechtler Mint Historic Site on the maps and "any appropriate accommodations for access to the site be considered." 6) Identify the Thermal Belt Rail Trail on the maps as a public trail. Access to the trail's beginning point at Oak Springs Road needs to be accommodated - map currently shows "Abandoned Railroad" - trail continues to Oakland Road in Spindale. 7) Concerned about the safety to cyclists needing to cross the highway. Concerned that as cyclists ride on the main highway, they must make a U-turn to "legally" cross the highway.

Response: Comments noted. NCDOT will coordinate with the State Historic Preservation Office and the historic resource property owner regarding impacts to the William Monteith House.

The additional lane on US 221 provided by the project should alleviate the difficulty noted near the Gilkey Lumber Company. As necessary, trucks can travel to the next directional crossover to make their U-turn. Additional directional crossovers with U-turn bulbs will also be investigated during final design

A right in/right out access (in lieu of cul-de-sac) will be provided to Roper Loop Road during final design to accommodate the emergency vehicle access concerns.

Coordination was performed with NCDOT regarding the location of the Bechtler Mint Historic Site and whether it needed to be included on project maps. The beginning project limit for TIP Project R-2597 is north of Roper Loop Road, although some widening would occur along US 221 immediately south of Roper Loop Road. However, improvements to US 221 between Thompson Road and Roper Loop Road are predominantly included in TIP Project R-2233, the Rutherfordton Bypass project. With construction anticipated to begin in Fiscal Year 2020, the Rutherfordton Bypass project would be constructed prior to the TIP Project R-2597A project, which is currently unfunded and scheduled for construction post year (i.e., after Fiscal Year 2020). Therefore, any accommodations for access to the site were considered under TIP Project R-2233.

The project mapping will be updated to include the Thermal Belt Rail Trail.

NCDOT is currently researching bicycle movements on divided highways with median crossovers. If recommendations are developed based on the research, they will be investigated for this project.

Donald Spratt 204 Sorrels Road, Rutherfordton, NC 28139

Comments: Does not see a need to widen US 221 and does not agree with the typical section proposed. Opposed to Segment B3 that takes Sorrels Road and many homes, including his home. Suggests that some land be taken on either side of existing US 221 through Gilkey and that the median width be decreased. Recommends realigning US 221 out of the Gilkey area; building it ½ mile on the east or west side of existing US 221. He reiterates that he is against using Sorrels Road for any US 221 improvements.

Response: Comments noted. The alternatives through Gilkey were designed such that they widened predominantly on the east side or on the west side of existing US 221. If land had been taken from both sides of existing US 221, the Gilkey Lumber Company and the William Monteith Historic House would have both been impacted instead of only one or the other. In addition, the median width through Segment B (Gilkey) was decreased to 23 feet to minimize property impacts through this area. Realigning US 221 out of the Gilkey area and constructing it a half mile east or west of existing US 221 would situate the new roadway too far from the existing road. Locating a new road this far from existing US 221 would make it difficult to get to and drivers would more than likely choose not to use the new road.

* **Kenneth Suttles, PLS** Suttles Survey, 40 South Main Street, Suite 200, Marion, NC 28752

Comments: Requests a copy of the centerline data after final design in the area of Copper Road (SR 1256) north along US 221; 1,500 feet along the Howard and Frances Randolph Property.

Response: Comment noted. After the final design process is complete, the plans will be made available to the public upon request. Please resubmit your request at that time.

* **Margie Trink** 145 Caravan Drive
Owns 212 Caravan Drive, as well

Comments: Could not attend the meeting, but received information from neighbors that her house would be impacted. Inquires how soon she will know the “definite plan,” when will the

final route be made public, and when will she be told how much of her property will be acquired. She has numerous right of way questions, such as the timing of a financial offer, can she live in the home after it is purchased, for a certain amount of time, and if she moves her heirloom outdoor plants, will her house value be affected. She was going to make some improvements to her home and isn't sure if she should go ahead with these plans (and receive more for her home with the improvements) or stop the improvements. Does not feel that this project is a wise use of state funds. Inquires about surveys for rare wildflowers on her property or in McDowell County and how that affects the widening decision. Mentions that the property at 212 Caravan Drive is solely owned by her and inquires if the mapping will be updated. Inquires how the project affects that property.

Response: Comments noted. The NCDOT anticipates holding a Merger Team Meeting with environmental agencies, as well as other interested parties, to discuss and select a Preferred Alternative in Fall 2012. After selection of a Preferred Alternative for each section of the project, a newsletter will be mailed to property owners informing them of the decision. As the project progresses through final design, additional minimization measures will be taken which may, in some areas, reduce the potential impacts from those shown at the public hearing. For homeowners who must relocate because of the project, the NCDOT has several programs to minimize the inconvenience of relocation: relocation assistance, relocation moving payments, and relocation replacement housing payments. A relocation officer is assigned to each project and can provide additional information regarding these programs. The relocation officer also assists homeowners in searching for and moving to replacement property. Appendix G in the SEA includes additional information regarding NCDOT's Relocation Assistance Program. For information regarding the NCDOT Relocation Assistance Program, the NCDOT Right-of-Way Agent / Area Negotiator can be contacted at (336) 667-9114. Section V.A.3 Rare and Protected Species in the SEA includes a discussion of the plants and animals in Rutherford and McDowell Counties with a classification of endangered, threatened, proposed endangered, and proposed threatened that are protected under the Endangered Species Act. A survey of the project area was performed to determine if any protected plant or animal species were present. The survey revealed that habitat for these species is not present in the project area and no impacts to these species are anticipated during project construction. The property owner information included on the maps was obtained several years ago during the development of the mapping. During final design of the project, updated mapping would be requested, including the most recent property owner information. According to Map 4 (Segments D&D1) shown at the public hearing, the house located at 212 Caravan Drive would be impacted by the proposed project. However, the house located at 145 Caravan, which is situated a further from US 221 would not be impacted.

Perry Ward, Jr. 9 Cross Mountain Drive, Marion, NC 28752

Comments: Maps show that there is no U-turn located immediately south of his property, which is located at R-2597B & R-2497C break. He states that "per design," there should be a U-turn 800 feet to 1,000 feet south of Polly Spout Road. Comments that the nearest U-turn north of his property is three miles north and because he owns property on both sides of the road, he would have to drive about 6 miles to get to his property across the road from his house. Requests NCDOT review the locations of the U-turns. His property east of US 221 is accessed by a deeded right of way through the Paul & Lynda Cartwright property and along the abandoned railroad. Requests that access to this driveway be provided at a suitable location. It ties in to existing US 221 north of the proposed bridge in Segment D.

Response: Comments noted. Additional directional crossovers with U-turn bulbs will be investigated during final design. It should also be noted that U-turns can be made at intersections

with other roadways and not only at the directional crossovers. For example, a U-turn would be permitted at the intersection with existing US 221 south of this property.

Driveway access will be investigated during final design.

David Yelton 265 Amber Oaks Drive, Rutherfordton, NC 28139

Comments: Concerned that the project as proposed is not needed. Feels that the addition of passing lanes “would alleviate most of the minor inconveniences that exist.” Concerned about Gilboa United Methodist Church and cemetery and “would appreciate full consideration of protecting our location and the avoidance of leaving our access at the end of a road (i.e. cul-de-sac).”

Response: Comment noted. The four-lane median-divided section best meets the purpose and need for the project (e.g., enhance mobility and reduce crashes). The four-lane median-divided typical section is also consistent with the development of US 221 as a Strategic Highway Corridor (see <http://www.ncdot.gov/doh/preconstruct/tpb/shc/>).

In the vicinity of Gilboa United Methodist Church, the widening of US 221 takes place predominantly on the west side of US 221, avoiding impacts to the church and cemetery. The Church’s access along Gilboa Church Road would remain unchanged, with the exception of the minor realignment of Gilboa Church Road at the Gilboa Church Road/US 221 intersection.

Rocky Yelton 120 Sorrels Road, Rutherfordton, NC 28139

Comment: Supports Segment B3. Adds that the other two alternatives would either impact the Lumber Company or would be a traffic hazard with large trucks entering/exiting proposed US 221 in close proximity to the Lumber Company. Comments that several individuals along Sorrels Road are willing to sell and relocate.

Response: Comment noted.

APPENDIX C

CULTURAL RESOURCES MEMORANDUM OF AGREEMENT



REPLY TO
ATTENTION OF:

DEPARTMENT OF THE ARMY
WILMINGTON DISTRICT, CORPS OF ENGINEERS
69 DARLINGTON AVENUE
WILMINGTON, NORTH CAROLINA 28403-1343

February 3, 2014

Regulatory Division

Action ID: SAW-2004-31349

John T. Eddins, Ph.D.
Advisory Council on Historic Preservation
Office of Federal Agency Programs
Federal Permitting, Licensing, and Assistance Section
1100 Pennsylvania Avenue, NW
Suite 803
Washington, D.C. 20004

RE: Memorandum of Agreement (MOA) for Improvements to US 221 from north of SR 1366 to NC 226, Rutherford and McDowell Counties, North Carolina (TIP Numbers R-2597 and R-204 D&E).

Dear Dr. Eddins:

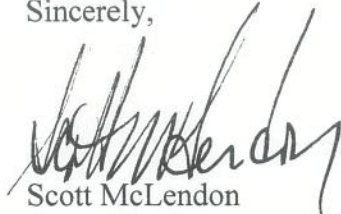
Enclosed please find a copy of the MOA between the U.S. Army Corps of Engineers (USACE), the North Carolina Department of Transportation (NCDOT), and the North Carolina State Historic Preservation Office, which addresses the Adverse Effects of the above-referenced project on properties that have been determined eligible for listing in the National Register of Historic Places in the project vicinity. The Federal Highway Administration is not funding this project; as such, and because implementation of this project will require authorization under Section 404 of the Clean Water Act, the USACE, Wilmington District, is serving as the lead Federal agency with respect to ensuring compliance with Section 106 of the National Historic Preservation Act of 1966. A permit for this project, if issued, will contain a condition that obligates the NCDOT to comply with the provisions in the referenced MOA.

The USACE defined the undertaking, determined the boundaries of the permit area, and evaluated the effects of the undertaking on historic properties for this project pursuant to 33 CFR, Part 325, Appendix C. The result of this analysis was the decision that the entire project area should be federalized. The scope of the permit area in this analysis is identical to the scope that would be identified by the regulations at 36 CFR Part 800; as such, both regulations are referenced in the attached MOA.

In accordance with 36 CFR §800.6(b)(1)(iv), we are forwarding a copy of the executed MOA for your records.

If you have any questions or need additional information, please contact Lori Beckwith, Regulatory Project Manager, Asheville Regulatory Field Office, at (828) 271-7980, ext. 223.

Sincerely,



Scott McLendon
Chief, Regulatory Division
Wilmington District Office

Enclosure

Copies Furnished:

Renee Gledhill-Earley
North Carolina State Historic Preservation Office
4617 Mail Service Center
Raleigh, North Carolina 27699-4617

Kate Husband
North Carolina Department of Transportation
PDEA – Human Environment Section
Historic Architecture Group
1598 Mail Service Center
Raleigh, North Carolina 27699-1598

BCF:

CESAW-RG-A/BECKWITH

**MEMORANDUM OF AGREEMENT
AMONG THE UNITED STATES ARMY CORPS OF ENGINEERS,
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION,
AND
NORTH CAROLINA STATE HISTORIC PRESERVATION OFFICER
FOR
IMPROVEMENTS TO US 221 FROM NORTH OF SR 1366 TO NC 226
RUTHERFORD AND MCDOWELL COUNTIES, NC
TIP PROJECT R-2597 AND R-204 D&E
WBS NO. 35608.1.1 AND 34329.1.1**

WHEREAS, the United States Army Corps of Engineers (USACE) has determined that the improvements to a 19-mile section of existing US 221 from north of SR 1366 (Roper Loop Road) in Rutherford County to US 221-NC226 in McDowell County (the Undertaking) will have an adverse effect upon the William Monteith House, a property determined eligible for the National Register of Historic Places (NRHP); and

WHEREAS, the Undertaking will compromise the historic integrity of the William Monteith House by intruding into the property and through the present location of the house; and

WHEREAS, the Undertaking will affect archeological site 31Mc285/285**, a property determined eligible for listing in the National Register of Historic Places; and

WHEREAS, in accordance with 36 CFR Part 800, the NCDOT acknowledges and accepts the advice and conditions outlined in the Council "Recommended Approach for the Consultation on the Recovery of Significant Information from Archaeological Sites," published in the Federal Register (FR Doc. 99-12055) on May 17, 1999; and

WHEREAS, the consulting parties agree that the recovery of significant information from the archaeological site listed above may be done in accordance with the published guidance; and

WHEREAS, the USACE has consulted with the North Carolina State Historic Preservation Officer (SHPO) pursuant to 36 CFR Part 800, regulations implementing Section 106 of the National Historic Preservation Act (16 U.S.C. 470f) and 33 CFR Part 325, Appendix C, procedures for the protection of historic properties; and

WHEREAS, the North Carolina Department of Transportation (NCDOT) has participated in the consultation and been invited by USACE and the SHPO to be a signatory to this Memorandum of Agreement (MOA); and

WHEREAS, Mr. and Mrs. Thomas and Bonnie Gerth, current owners of the Monteith House and Place (herein after referred to as Property Owner) have participated in the consultation and have been invited to concur with the MOA; and

WHEREAS, the USACE has notified the Advisory Council on Historic Preservation (Council) of the adverse effect and the Council has declined to comment or participate in the consultation;

NOW, THEREFORE, USACE, NCDOT, and the SHPO agree that the Undertaking shall be implemented in accordance with the following stipulations in order to take into account the effects of the Undertaking on the historic properties.

STIPULATIONS

The USACE and NCDOT shall ensure that the following measures are carried out:

I. Documentation

To document the William Monteith House and its setting before any construction is initiated, NCDOT shall record the property in accordance with the attached Historic Structures Recordation Plan and submit the results to the SHPO in advance of any work taking place at the property. The SHPO will have fifteen (15) days from receipt of the results of the documentation to review and comment.

Following the relocation of the William Monteith House, NCDOT will again record the property and re-evaluate its eligibility for listing in the National Register. The recordation materials and re-evaluation will be submitted to the SHPO within one (1) year of the relocation of the William Monteith House. The SHPO will have fifteen (15) days from receipt of the results of the follow-up documentation to review and comment.

II. Relocation of the William Monteith House and Outbuildings

NCDOT will move the William Monteith House to a new location within the parcel boundaries and provide a suitable foundation and driveway for the house as well as utility connections, a well, and septic system (if no public connection is available) so that the house can be made habitable by the Property Owner. NCDOT will evaluate each of the outbuildings to determine whether or not they can be successfully moved within the historic boundaries, the cost of the move, and whether or not the move would be cost effective. The results of the evaluations will be provided to the Property Owner and the SHPO. If an outbuilding can be successfully moved in a cost-effective manner and will be used by the Property Owner, NCDOT will move the outbuilding.

III. Landscaping

After the William Monteith House has been moved, NCDOT, in consultation with the Property Owner and SHPO, will develop a landscaping plan for the house and will provide for its implementation. Any plant materials lost within two (2) years of planting will be replaced by NCDOT.

IV. Data Recovery for Archaeological Site 31Mc285/285.**

- A. The NCDOT, in consultation with the SHPO, will develop a Data Recovery Plan (DRP) for site 31Mc285/285**, which will be affected by the subject project.
- B. The NCDOT will ensure that the DRP will be implemented after Right-of-Way is acquired or once Right-of-Entry is secured from the property owners and prior to construction activities within the site location as shown in the DRP.

- C. Upon completion of the Data Recovery efforts, the NCDOT will prepare and forward a Management Summary to the SHPO detailing the results of the Data Recovery field investigations. The Management Summary will contain sufficient information to demonstrate that the field investigation portion of the DRP has been implemented.
- D. Upon receipt of the Management Summary, the SHPO will respond within fifteen (15) days to the recommendations contained within the document.
- E. Upon acceptance of the recommendations contained in the Management Summary, the SHPO will issue the NCDOT documentation that the Data Recovery field investigations have been completed.
- F. The NCDOT or their consultants will complete the analysis and report preparation-detailing site 31Mc285/285** within twelve (12) months after completion of the fieldwork.

V. Unanticipated Discovery

In accordance with 36 CFR 800.11(a), if NCDOT identifies additional cultural resource(s) during construction and determine them to be eligible for the NRHP, all work will be halted within the limits of the NRHP-eligible resource(s) and the USACE and SHPO contacted. If after consultation with the Signatory and Concurring Party(ies) additional mitigation is determined necessary, the NCDOT, in consultation with the Signatory and Concurring Party(ies), will develop and implement appropriate protection/mitigation measures for the resource(s). Inadvertent or accidental discovery of human remains will be handled in accordance with North Carolina General Statutes 65 and 70.

VI. Dispute Resolution

Should any of the Signatory or Concurring Party(ies) object within (30) days to any plans or documentation provided for review or object to the implementation of any of the stipulations pursuant to this MOA, the USACE shall consult with the objecting party(ies) to resolve the objection. If the USACE or objecting party(ies) determines that the objection cannot be resolved, the USACE will forward all documentation relevant to the dispute to the Council. Within thirty (30) days after receipt of all pertinent documentation, the Council will either:

1. Provide the USACE with recommendations which the USACE will take into account in reaching a final decision regarding the dispute, or
2. Notify the USACE that it will comment pursuant to 36 CFR Section 800.7(c) and proceed to comment. Any Council comment provided in response to such a request will be taken into account by the USACE, in accordance with 36 CFR Section 800.7 (c) (4) with reference to the subject of the dispute.

Any recommendation or comment provided by the Council will be understood to pertain only to the subject of the dispute; USACE and NCDOT's responsibility to

carry out all of the actions under this agreement that are not the subject of the dispute will remain unchanged.

VII. Amendments

If any Signatory to this MOA believes that its terms cannot be carried out or that an amendment to the terms must be made, that party(ies) shall immediately consult with the other party(ies) to develop amendments in accordance with 36 CFR 800.6(c)(7). If an amendment cannot be agree upon, the dispute resolution process set forth in Stipulation VIII will be followed.

VIII. Termination

Any Signatory to this MOA may terminate the agreement by providing notice to the other parties, provided that the signatories and concurring parties will consult during the period prior to termination to seek agreement on amendments or other actions that would avoid termination. Termination of this MOA will require compliance with 36 CFR 800. This MOA may be terminated by the execution of a subsequent MOA that explicitly terminates or supersedes its terms.

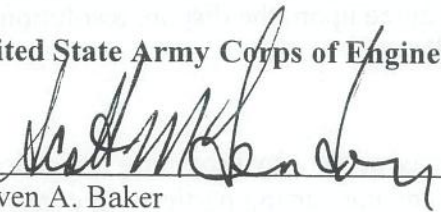
IX. Duration

Unless terminated pursuant to Stipulation VII above, this MOA will be in effect until USACE, in consultation with the other Signatory and Concurring Party(ies), determines that all of its terms have satisfactorily been fulfilled or if NCDOT is unable or decides not to construct the Undertaking.

Execution of this Memorandum of Agreement by USACE, NCDOT and the SHPO, its subsequent filing with the Council, and implementation of its terms evidence that USACE has afforded the Council an opportunity to comment on the Undertaking that USACE has taken into account the effects of the Undertaking on the historic properties.

AGREE:

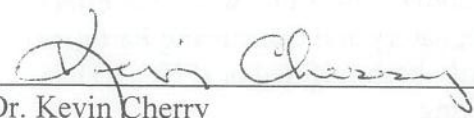
United State Army Corps of Engineers



Steven A. Baker
Colonel, U.S. Army
District Commander

3 FEB 2014
Date

State Historic Preservation Officer:



Dr. Kevin Cherry
North Carolina State Historic Preservation Officer

11/18/2013
Date

North Carolina Department of Transportation:



Robert Andrew Joyner, P.E.
Human Environment Section Head

11/26/13
Date

FILED:

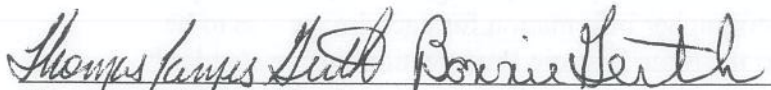
By: _____
Advisory Council on Historic Preservation

Date

**MEMORANDUM OF AGREEMENT
AMONG THE UNITED STATES ARMY CORPS OF ENGINEERS,
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION,
AND
NORTH CAROLINA STATE HISTORIC PRESERVATION OFFICER
FOR
IMPROVEMENTS TO US 221 FROM NORTH OF SR 1366 TO NC 226
RUTHERFORD AND MCDOWELL COUNTIES, NC
TIP PROJECT R-2597 AND R-204 D&E
WBS NO. 35608.1.1 AND 34329.1.1**

Execution of this Memorandum of Agreement by USACE, NCDOT and the SHPO, its subsequent filing with the Council, and implementation of its terms evidence that USACE has afforded the Council an opportunity to comment on the Undertaking that USACE has taken into account the effects of the Undertaking on the historic properties.

CONCUR:


Thomas and Bonnie Gerth
Property Owners

Jan. 20, 2014
Date

APPENDIX A

**Historic Structures and Landscape Recordation Plan
Improvements to US 221 from North of SR 1366 to NC 226
Rutherford and McDowell Counties, North Carolina
TIP Project No. R-2597 and R-204 D&E
WBS No. 35608.1.1 & 34329.1.1**

I. Photographic Requirements

1. Elevations and oblique views of the William Monteith House, all of its outbuildings, and the house and outbuildings in their setting.
2. Representative structural and ornamental details of the house and outbuildings.
3. Representative photographs of the overall property.

II. Photographic Format

1. Color digital images (all views). Images are to be shot on a digital camera and labeled according to the State Historic Preservation Office standards.
2. All processing to be done to archival standards.
3. The accompanying printed inventory of the images – including subject, location, date, and photographer information for each image – is to be completed according to the State Historic Preservation Office standards.

III. Copies and Curation

1. One (1) set of all above mentioned photographic documentation, including a compact disc of labeled images, will be deposited with the North Carolina Office of Archives and History/Historic Preservation Office to be made a permanent part of the statewide survey and iconographic collection.
2. One (1) contact sheet shall be deposited in the files of the Historic Architecture Group of NCDOT.



Preserving America's Heritage

February 12, 2014

Scott McLendon
Chief, Regulatory Division
Corps of Engineers
Wilmington District Office
69 Darlington Avenue
Wilmington, NC 28403-1343

Ref: *Proposed Improvements to US 221 from North of SR 1366 to NC 226
Rutherford and McDowell Counties, North Carolina*

Dear Mr. McLendon:

The Advisory Council on Historic Preservation (ACHP) has received the Memorandum of Agreement (MOA) for the above referenced project. In accordance with Section 800.6(b)(1)(iv) of the ACHP's regulations, the ACHP acknowledges receipt of the MOA. The filing of the MOA, and execution of its terms, completes the requirements of Section 106 of the National Historic Preservation Act and the ACHP's regulations.

We appreciate your providing us with a copy of the MOA and will retain it for inclusion in our records regarding this project. Should you have any questions or require additional assistance, please contact Anthony Guy Lopez at (202) 606-8525 or alopez@achp.gov.

Sincerely,

LaShavio Johnson
Historic Preservation Technician
Office of Federal Agency Programs

ADVISORY COUNCIL ON HISTORIC PRESERVATION

1100 Pennsylvania Avenue NW, Suite 803 • Washington, DC 20004
Phone: 202-606-8503 • Fax: 202-606-8647 • achp@achp.gov • www.achp.gov

APPENDIX D

MERGER TEAM CONCURRENCE FORMS

Section 404/NEPA Merger Project Team Meeting Agreement Concurrence Point No. 1 – PURPOSE AND NEED

Project No./TIP No./ Name/Description:

Federal Aid Project Number: N/A
State Project Number: 6.899002T & 6.879005T
TIP Number: R-2597 & R-204 D&E
TIP Description: Improvements to US 221 from SR 1536 in Rutherford County to NC 226 in McDowell County

PURPOSE and NEED:

The purpose of these projects is to improve the level of traffic service by reducing travel time along the US 221 Intrastate Corridor and increase safety. The revised Purpose and Need Statement, dated May 2003, for the combined projects is incorporated by reference.

The Project Team has concurred on this date of October 16, 2002 with the Purpose and Need and Study Area for TIP No. R-2597 and R-204 D&E as stated above.

U. S. Army Corps of Engineers

Stephen W. Linn

U. S. Environmental Protection Agency

Oliver A. [Signature]

U. S. Fish and Wildlife Services

Mark A. Zwick

N. C. Wildlife Resources Commission

Marla Chambers

N. C. Department of Cultural Resources

[Signature]

N. C. DENR – DWQ

Cynthia F. Van Der Weide

Federal Highway Administration

Clarence D. Coker Jr.

N.C. Department of Transportation

John Waldworth

**Section 404/NEPA Merger Project Team Meeting Agreement
Concurrence Point No. 2
Alternatives to be Studied in Detail in the NEPA Document**

Project No./TIP No./ Name/Description:

Federal Aid Project Number: N/A
State Project Number: 6.899002T & 6.879005T
TIP Number: R-2597 & R-204 D&E
TIP Description: Improvements to US 221 from SR 1536 in Rutherford County to
NC 226 in McDowell County

Alternative(s) Selected for Detailed Study:

1. West side widening along the Segments A1, B1, E1, F1, and G1.
2. East side widening along the Segments B2, F2, and G2
3. Best fit widening with minor relocations in the Vein Mountain area to address substandard horizontal curvature in Segments C, D, and H
4. Avoidance of Montieth House Historic Property in Segment B3.

The Project Team has concurred on this date of August 17, 2004 with the selection of the above noted Alternative(s) to be evaluated in detail for TIP Nos. R-2597 and R-204 D&E.

U. S. Army Corps of Engineers

U. S. Environmental Protection Agency

U. S. Fish and Wildlife Services

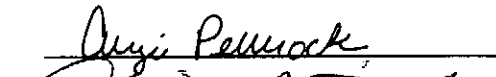
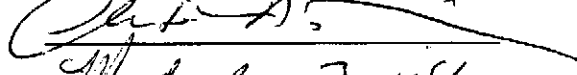
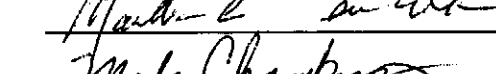
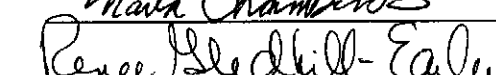


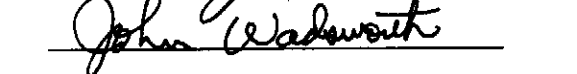

N. C. Wildlife Resources Commission

N. C. Department of Cultural Resources

N. C. DENR – DWQ

Federal Highway Administration

N. C. Department of Transportation

Section 404/NEPA Merger Project Team Meeting Agreement
REVISED Concurrence Point No. 2
Alternatives to be Studied in Detail

Project No./TIP No./Name/Description:

Federal Aid Project Number: N/A
WBS Element: 35608.1.1 & 34329.1.1
State Project No.: 6.899002T & 6.879005T
TIP Number: R-2597 & R-204 D&E
TIP Description: Improvements to US 221 from North of SR 1366 (Roper Loop Road) in Rutherford County to US 221-NC 226 in McDowell County

Alternatives Selected for Detailed Study that were Concurred with on August 17, 2004:

1. West side widening along the Segments A1, B1, E1, F1, and G1.
2. East side widening along the Segments B2, F2, and G2.
3. Best fit widening with minor relocations in the Vein Mountain area to address substandard horizontal curvatures in Segments C, D, and H.
4. Avoidance of Monteith House Historic Property in Segment B3.

Since that meeting, an additional alternative has been developed in Segment D:

5. Replace the bridge over the Second Broad River, located north of Vein Mountain, on its existing alignment (Segment D1).

On this date of June 9, 2011, the Project Team has concurred to add the above alternative, Segment D1, to the Alternatives to be Studied in Detail for TIP Nos. R-2597 & R-204 D&E.

U. S. Army Corps of Engineers

U. S. Environmental Protection Agency

U. S. Fish and Wildlife Services

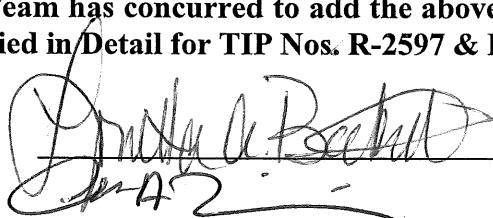
N. C. Wildlife Resources Commission


N. C. Department of Cultural Resources (HPO)


N. C. DENR – DWQ

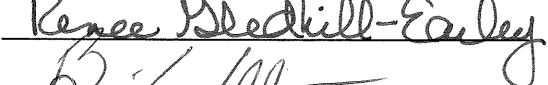
Federal Highway Administration

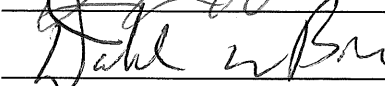
N. C. Department of Transportation














Section 404/NEPA Merger Project Team Meeting Agreement Concurrence Point No. 2a – Bridging Decisions

Project No./TIP No./Name/Description:

Federal Aid Project Number: N/A
WBS Element: 35608.1.1 & 34329.1.1
State Project No.: 6.899002T & 6.879005T
TIP Number: R-2597 & R-204 D&E
TIP Description: US 221 from North of SR 1366 (Roper Loop Road) in Rutherford County to US 221-NC 226 in McDowell County

Bridging Decisions:

After review of the project area and the existing drainage structures, the following hydraulic structures are recommended for the subject project:

- Site 1: Replace existing RCBC with new bridge, bridge length 172 ft., along existing crossing.
- Site 2: Retain and extend existing RCBC, 3 @ 8 ft. x 8 ft.
- Site 3: Retain and extend existing RCBC, 3 @ 6 ft. x 6 ft.
- Site 4: Retain and extend existing 72-inch CMP
- Site 4a: Retain and extend existing 72-inch CMP
- Site 5: Retain and extend existing RCBC, 3 @ 6 ft. x 6 ft.
- Site 6: -D- Replace Bridge No. 17 with new bridge, bridge length 450 ft., west of existing crossing.
- Site 6: -D1- Replace Bridge No. 17 with new bridge, bridge length 232 ft., along existing crossing.
- Site 7: -D- Retain and extend existing RCBC, 1 @ 10 ft. x 6 ft., or extend bridge from Site 6 (TBD in CP3)
- Site 7: -D1- Retain and extend existing RCBC, 1 @ 8 ft. x 9 ft.
- Site 7a: Retain and extend existing RCBC, 1 @ 6 ft. x 5 ft.
- Site 8: Retain and extend existing RCBC, 3 @ 9 ft. x 8 ft.
- Site 9: Retain and extend existing RCBC, 3 @ 11 ft. x 12 ft.
- Site 10: Retain and extend existing RCBC, 1 @ 6 ft. x 6 ft.

On this date of June 9, 2011, the Project Team has concurred with the bridging decisions as stated above. Reference Recommended Major Drainage Structures table as shown in CP2a handout dated June 9, 2011 and is attached.

U. S. Army Corps of Engineers

U. S. Environmental Protection Agency

U. S. Fish and Wildlife Services

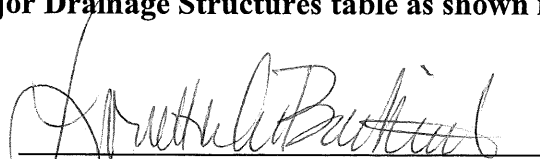
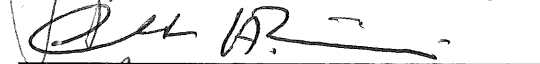
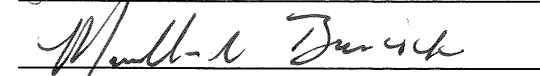
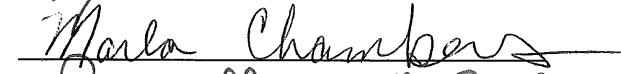
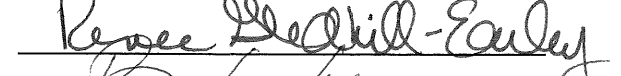
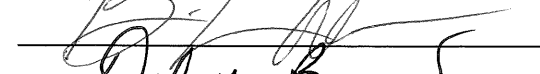


N. C. Wildlife Resources Commission

N. C. Department of Cultural Resources (HPO)

N. C. DENR – DWQ

Federal Highway Administration

N. C. Department of Transportation

**Section 404/NEPA Merger Project Team Meeting Agreement
Concurrence Point No. 3 – Least Environmentally Damaging
Practicable Alternative (LEDPA)**

Project No./TIP No./Name/Description:

Federal Aid Project Number: N/A
WBS Element: 35608.1.1 & 34329.1.1
State Project No.: 6.899002T & 6.879005T
TIP Number: R-2597 & R-204 D&E
TIP Description: Improvements to US 221 from North of SR 1366 (Roper Loop Road) in Rutherford County to US 221-NC 226 in McDowell County

Least Environmentally Damaging Practicable Alternative (LEDPA):

After review of the anticipated project impacts, the following alternatives are recommended as LEDPA for the subject project:

- Segment A1 (West Side Widening)
- Segment B1 (West Side Widening)
- Segment C (Best Fit)
- Segment D1 (West Side Widening)
- Segment E1 (West Side Widening)
- Segment F1 (West Side Widening)
- Segment G1 (West Side Widening)
- Segment H (Best Fit)

On this date of November 2, 2012, the Project Team has concurred with the LEDPA as stated above.

U. S. Army Corps of Engineers _____

U. S. Environmental Protection Agency _____

U. S. Fish and Wildlife Services _____

N. C. Wildlife Resources Commission _____

N. C. Department of Cultural Resources (HPO) _____

N. C. DENR – DWQ _____

Federal Highway Administration _____

N. C. Department of Transportation _____

Isothermal Rural Planning Organization _____

Marla Chambers 12/13/12
Renee Hedrick-Earley 12/13/12

**Section 404/NEPA Merger Project Team Meeting Agreement
Concurrence Point No. 3 – Least Environmentally Damaging
Practicable Alternative (LEDPA)**

Project No./TIP No./Name/Description:

Federal Aid Project Number: N/A
WBS Element: 35608.1.1 & 34329.1.1
State Project No.: 6.899002T & 6.879005T
TIP Number: R-2597 & R-204 D&E
TIP Description: Improvements to US 221 from North of SR 1366 (Roper Loop Road) in Rutherford County to US 221-NC 226 in McDowell County

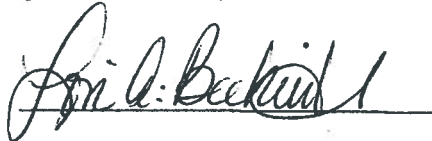
Least Environmentally Damaging Practicable Alternative (LEDPA):

After review of the anticipated project impacts, the following alternatives are recommended As LEDPA for the subject project:

- Segment A1 (West Side Widening)
- Segment B1 (West Side Widening)
- Segment C (Best Fit)
- Segment D1 (West Side Widening)
- Segment E1 (West Side Widening)
- Segment F1 (West Side Widening)
- Segment G1 (West Side Widening)
- Segment H (Best Fit)

On this date of November 2, 2012, the Project Team has concurred with the bridging decisions as stated above.

U. S. Army Corps of Engineers



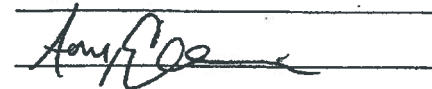
U. S. Environmental Protection Agency



U. S. Fish and Wildlife Services

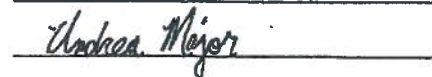
N. C. Wildlife Resources Commission

N. C. Department of Cultural Resources (HPO)



N. C. DENR – DWQ

Federal Highway Administration



N. C. Department of Transportation

Isothermal Rural Planning Organization

**Section 404/NEPA Merger Project Team Meeting Agreement
Concurrence Point No. 3 – Least Environmentally Damaging
Practicable Alternative (LEDPA)**

Project No./TIP No./Name/Description:

Federal Aid Project Number: N/A
WBS Element: 35608.1.1 & 34329.1.1
State Project No.: 6.899002T & 6.879005T
TIP Number: R-2597 & R-204 D&E
TIP Description: Improvements to US 221 from North of SR 1366 (Roper Loop Road) in Rutherford County to US 221-NC 226 in McDowell County

Least Environmentally Damaging Practicable Alternative (LEDPA):

After review of the anticipated project impacts, the following alternatives are recommended As LEDPA for the subject project:

- Segment A1 (West Side Widening)
- Segment B1 (West Side Widening)
- Segment C (Best Fit)
- Segment D1 (West Side Widening)
- Segment E1 (West Side Widening)
- Segment F1 (West Side Widening)
- Segment G1 (West Side Widening)
- Segment H (Best Fit)

On this date of November 2, 2012, the Project Team has concurred with the bridging decisions as stated above.

U. S. Army Corps of Engineers

U. S. Environmental Protection Agency

U. S. Fish and Wildlife Services

N. C. Wildlife Resources Commission

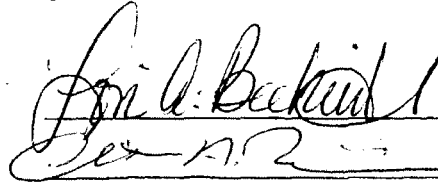
N. C. Department of Cultural Resources (HPO)

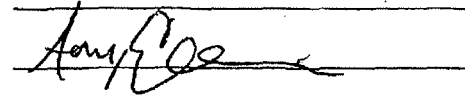
N. C. DENR – DWQ

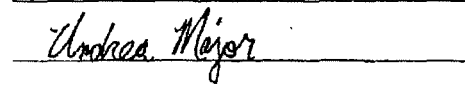
Federal Highway Administration

N. C. Department of Transportation

Isothermal Rural Planning Organization


Jon A. Beckwith
12/10/12





Section 404/NEPA Merger Project Team Meeting Agreement

Concurrence Point No. 4a – Avoidance and Minimization

Project No./STIP No./Name/Description:

Federal Aid Project Number: N/A
WBS Element: 35608.1.1 & 34329.1.1
State Project No.: 6.899002T & 6.879005T
STIP Number: R-2597 & R-204 D&E
STIP Description: US 221 from North of SR 1366 (Roper Loop Road) in Rutherford County to US 221-NC 226 in McDowell County

Avoidance and Minimization Measures:

Segment A

The selected alternative is A1. A1 has no major crossing structures; waters of the U.S. impacts are estimated to be 195 feet of perennial stream, 32 feet of intermittent stream, and 0.01 acre of wetlands. A1 was chosen to be the only alternative carried forward for detailed study as it minimized residential relocations. North of Mountain Creek Road, the median width transitions from 46 feet to 23 feet to minimize impacts (including those associated with Segment B1).

Segment B

The selected alternative is B1. There are no major stream crossings, waters of the U.S. impacts are estimated to be 541 feet of perennial stream, 24 feet of intermittent stream, and 0.09 acre of wetlands. To minimize impacts, the median width was narrowed to 23-feet through the northern intersection with Gilkey School Road, at which point the median width was further reduced to 20 feet. To limit impacts to Gilkey Lumber Company associated with alternative B2, and to avoid the greater stream and residential impacts associated with alternative B3, B1 was selected as LEDPA by the Merger Team.

Segment C

The “Best Fit” alignment was the only alternative carried forward for further study, and is the selected alternative. There is one major stream crossing within the segment and waters of the U.S. impacts are estimated to be 2,129 feet of perennial stream, 194 feet of intermittent stream, and 0.13 acre of wetlands. Median width transitions to 46 feet by the crossing of Cathey’s Creek. Segment C includes the following site:

- Site 1, Cathey’s Creek (S20). Under the proposed design, the existing 9-ft by 11-foot reinforced concrete box culvert (RCBC) will be replaced by a bridge.

Segment D

The selected alternative is D1. This is a “Best Fit” alignment with a bridge replacement on the existing location. There are six major stream crossings and; waters of the U.S. impacts are estimated at 4,754 feet of perennial stream, 405 feet of intermittent stream, and 0.25 acre of wetlands. Impacts for the two alignment alternatives were reviewed and the Merger Team concurred that Segment D1 was the LEDPA, as it allows for a shorter bridge; minimizes construction costs and future maintenance issues; has comparable stream, wetland, and floodplain impacts; and has fewer prime and important farmland, terrestrial community, and floodplain impacts. Segment D1 includes the following sites:

- Site 2, Stoney Creek (S38). Under the proposed design, the existing 3 barreled 8-foot by 8-foot RCBC will be retained and extended. NCDOT will explore the use of a retaining wall to minimize impacts during final design.

- Site 3, Rockhouse Creek (S44). Under the proposed designs the 3-barreled 6-foot by 6-foot RCBC will be retained and extended.
- Site 4, Unnamed Tributary (UT) to Second Broad River (S-47). Under the proposed design, the existing 72-inch CMP will be retained and extended.
- Site 5, Scrub Grass Branch (S51). Under the proposed design, the existing 3 barreled six-foot by six-foot RCBE will be retained and extended. From station 195+50 through 197+50, 1.5:1 slopes were used on the left side of the road from station 191+50 to 194+00 1.5:1 slopes were used on the right side of the road. The stations are different due to the skew of the pipe.
- Site 6, Second Broad River (S55). The existing bridge will be replaced under project B-3673. A second bridge will be added for this project to accommodate southbound traffic. Median width through this area was reduced to 22 feet, and retaining walls were used to avoid impacts to the Second Broad River. NCDOT will investigate the use of a retaining wall to minimize impacts at this location.
- Site 7, UT to Second Broad River (S57). Narrower median width retained through this crossing. Under the proposed design, the existing 10-foot by 6-foot bottomless RCBC will be retained and extended (NCDOT will verify that the bottomless culvert can be extended). North of this crossing, median width transitions back to 46 feet.

Segment E

Alternative E1 was the only alternative carried forward. There are two major stream crossings; waters of the U.S. impacts are estimated at 3,319 feet of perennial stream, 378 feet of intermittent stream, 0.37 acre of wetlands, and 0.02 acre of other waters. Segment E1 includes the following sites:

- Site 8, Goose Creek (S65). Under the proposed design, the existing 9-foot by 8-foot RCBC will be retained and extended.
- Site 9, North Muddy Creek (S69). Under the proposed design, the existing three barreled, 11-foot by 12-foot RCBC will be retained and extended.

Segment F

The selected alternative is F1. To minimize impacts, median width is reduced to 23 feet north of SR 1168 (Ashworth Road). There are no major crossing structures; stream impacts are estimated at 1,676 feet of perennial stream, 187 feet of intermittent stream, and 0.02 acre of wetlands. Alternatives carried forward were F1 (west side widening) and F2 (east side widening). Segment impacts for the two alignment alternatives were reviewed and the Merger Team concurred that Segment F1 was the LEDPA, as it had fewer perennial stream and farmland impacts.

Segment G

The selected alternative is G1. To minimize impacts, median width is reduced to 23 feet. There are no major crossing structures; waters of the U.S. impacts are estimated at 946 feet of perennial stream, 40 feet of intermittent stream, and no acres of wetlands. Impacts for the two alignment alternatives were reviewed and the Merger Team concurred that G1 was the LEDPA, as it had fewer intermittent stream and farmland impacts and fewer business relocations.

Segment H

Only a "Best Fit" alignment was carried forward, was and is the selected alternative. To minimize impacts, median width is reduced to 23 feet. During the preparation of the hearing maps, revisions were made to the design at the US 221-NC 226 intersection to minimize impacts and reduce project costs. There is one major stream crossings; waters of the U.S. impacts are estimated at 1,797 feet of perennial stream, 31 feet of intermittent stream, and no wetland acres. Segment H includes the following site:

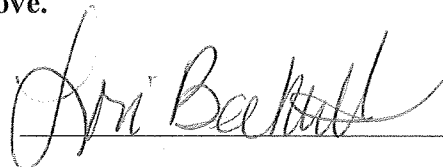
- Site 10, UT to Corpening Creek (S75). Under the proposed design, it was originally agreed that the existing 6-foot by 6-foot RCBC would be retained and replaced. However, at the Concurrence Point 4b Meeting, it was decided that the culvert would be replaced.

NCDOT is also working with the communities to identify further opportunities to limit impacts to utilities, businesses, residences, and water resources along the project corridor. Once surveys of the project area are available, the final design can be revised to further minimize impacts to the human and natural environments. In particular, NCDOT will investigate:

- Minimizing the length of culverts to the extent possible
- Where culverts are being extended or installed on steep slopes, exploring the use of baffles to maintain aquatic organism passage; where baffles are not possible, exploring the use of drop boxes to maintain stable outfall from the culvert
- Relocating streams to the maximum extent practicable in lieu of piping, as appropriate.

The Project Team has concurred on this date of November 13, 2013 with the avoidance/minimization measures stated above.

U. S. Army Corps of Engineers



U. S. Environmental Protection Agency

U. S. Fish and Wildlife Services



N. C. Wildlife Resources Commission

N. C. Department of Cultural Resources (HPO)

N. C. DENR – DWQ

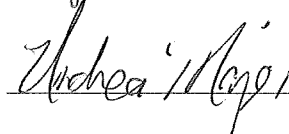


Federal Highway Administration

Isothermal RPO



N. C. Department of Transportation



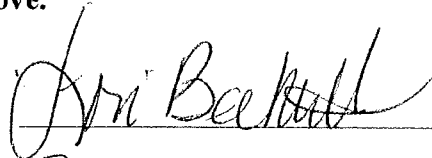
- Site 10, UT to Corpening Creek (S75). Under the proposed design, it was originally agreed that the existing 6-foot by 6-foot RCBC would be retained and replaced. However, at the Concurrence Point 4b Meeting, it was decided that the culvert would be replaced.

NCDOT is also working with the communities to identify further opportunities to limit impacts to utilities, businesses, residences, and water resources along the project corridor. Once surveys of the project area are available, the final design can be revised to further minimize impacts to the human and natural environments. In particular, NCDOT will investigate:

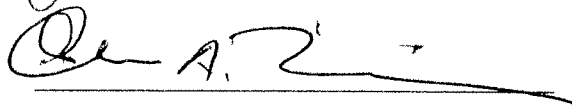
- Minimizing the length of culverts to the extent possible
- Where culverts are being extended or installed on steep slopes, exploring the use of baffles to maintain aquatic organism passage; where baffles are not possible, exploring the use of drop boxes to maintain stable outfall from the culvert
- Relocating streams to the maximum extent practicable in lieu of piping, as appropriate.

The Project Team has concurred on this date of November 13, 2013 with the avoidance/minimization measures stated above.

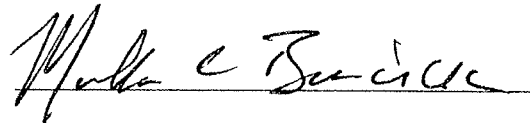
U. S. Army Corps of Engineers



U. S. Environmental Protection Agency



U. S. Fish and Wildlife Services



N. C. Wildlife Resources Commission

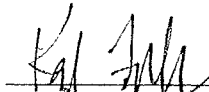
N. C. Department of Cultural Resources (HPO)

N. C. DENR – DWQ

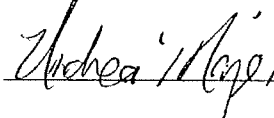


Federal Highway Administration

Isothermal RPO



N. C. Department of Transportation



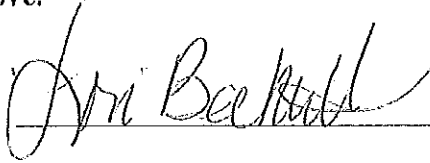
- Site 10, UT to Corpening Creek (S75). Under the proposed design, it was originally agreed that the existing 6-foot by 6-foot RCBC would be retained and replaced. However, at the Concurrence Point 4b Meeting, it was decided that the culvert would be replaced.

NCDOT is also working with the communities to identify further opportunities to limit impacts to utilities, businesses, residences, and water resources along the project corridor. Once surveys of the project area are available, the final design can be revised to further minimize impacts to the human and natural environments. In particular, NCDOT will investigate:

- Minimizing the length of culverts to the extent possible
- Where culverts are being extended or installed on steep slopes, exploring the use of baffles to maintain aquatic organism passage; where baffles are not possible, exploring the use of drop boxes to maintain stable outfall from the culvert
- Relocating streams to the maximum extent practicable in lieu of piping, as appropriate.

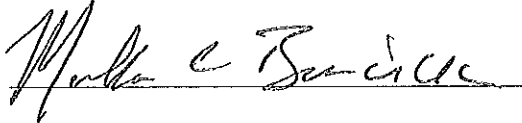
The Project Team has concurred on this date of November 13, 2013 with the avoidance/minimization measures stated above.

U. S. Army Corps of Engineers



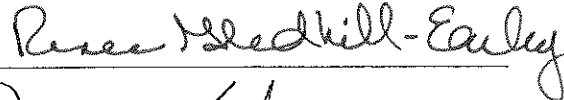
U. S. Environmental Protection Agency

U. S. Fish and Wildlife Services

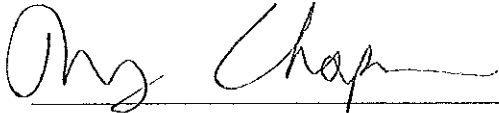


N. C. Wildlife Resources Commission

N. C. Department of Cultural Resources (HPO)

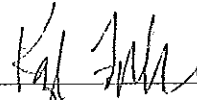
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N. C. DENR - DWQ

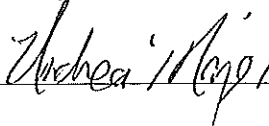


Federal Highway Administration

Isothermal RPO



N. C. Department of Transportation



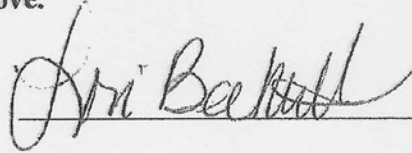
- Site 10, UT to Corpening Creek (S75). Under the proposed design, it was originally agreed that the existing 6-foot by 6-foot RCBC would be retained and replaced. However, at the Concurrence Point 4b Meeting, it was decided that the culvert would be replaced.

NCDOT is also working with the communities to identify further opportunities to limit impacts to utilities, businesses, residences, and water resources along the project corridor. Once surveys of the project area are available, the final design can be revised to further minimize impacts to the human and natural environments. In particular, NCDOT will investigate:

- Minimizing the length of culverts to the extent possible
- Where culverts are being extended or installed on steep slopes, exploring the use of baffles to maintain aquatic organism passage; where baffles are not possible, exploring the use of drop boxes to maintain stable outfall from the culvert
- Relocating streams to the maximum extent practicable in lieu of piping, as appropriate.

The Project Team has concurred on this date of November 13, 2013 with the avoidance/minimization measures stated above.

U. S. Army Corps of Engineers

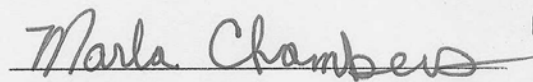


U. S. Environmental Protection Agency

U. S. Fish and Wildlife Services



N. C. Wildlife Resources Commission

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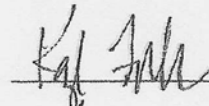
N. C. Department of Cultural Resources (HPO)

N. C. DENR - DWQ



Federal Highway Administration

Isothermal RPO



N. C. Department of Transportation

