

North Carolina Department of Transportation  
**PROJECT ENVIRONMENTAL CONSULTATION FORM**  
**TIP No. U-3615B**

**I. GENERAL INFORMATION**

- a. Consultation Phase: Construction
- b. Project Description SR 1820 (Skeet Club Road) –  
West of SR 1818 (Johnson Street) to NC 68  
(Eastchester Drive)  
In Guilford County
- c. WBS: 34962.1.1  
State Project: 8.2494701  
Federal Project: STP-1820(2)
- d. Document Type: EA December 23, 2002  
FONSI May 24, 2004  
Right of Way Consultation February 17, 2009

**II. CONCLUSIONS**

The above environmental document has been reevaluated as required by 23 CFR 771. It was determined that the current proposed action is essentially the same as the original proposed action. Proposed changes are noted below in Section III. It has been determined that anticipated social, economic, and environmental impacts were accurately described in the above referenced document(s) unless noted otherwise herein. Therefore, the original Administration Action remains valid.

**III. CHANGES IN PROPOSED ACTION AND ENVIRONMENTAL CONSEQUENCES**

**WATER RESOURCES**

Water resource classifications have not changed since the EA, FONSI, and 2009 Right of Way Consultation were completed. Jurisdictional features within the construction footprint that will be impacted by this project include Oak Hollow Lake (NCDWQ Classification WSIV; CA; NCDWQ Index No. 17-3-(0.7) and nine unnamed tributaries (UTs) to West Fork of Deep River (NCDWQ Classification WS-IV; NCDWQ Index No.17-3-(0.3).

Wetland resources have changed since the EA, FONSI and February 2009 Right of Way Consultation Memo. There were two wetland listed as 401 isolated wetlands located within the project area to the east of Abadare Drive that were added in August 17, 2004. However, during the August 2008 re-verification of jurisdictional features these two wetlands (W3 and W4) were deemed to be 404 wetlands due to their connection to a stream via a natural depression and were no longer considered isolated. The wetlands bordering Oak Hollow Lake were re-verified in June 2007 and defined as 3 individual small wetland adjacent to Oak Hollow Lake (Wetlands A, B, and D). Also, a new wetland (WF) was added in February 2013 in the area where natural stream design work is proposed. Only four of these riparian wetlands will be impacted: W3, WF, WB, and WD.

The project Section 401 Water Quality Certification and Section 404 Individual Permit were issued August 29, 2013 (003966) and September 20, 2013 (SAW-1999-21179) respectively. Permits will be modified as needed to reflect design changes.

### **FEDERALLY PROTECTED SPECIES**

As of September 22, 2014, the U.S. Fish and Wildlife Service (USFWS) lists one federally protected species for Guilford County: Small whorled pogonia (*Isotria medeoloides*). A species description and biological conclusion for the small whorled pogonia was not stated in either the EA or FONSI because the species was not added to the USFWS county list of protected species until after the documents were completed.

Small whorled pogonia was later addressed in a February 2008 natural environment review memorandum that updated the EA and FONSI for the February 2009 Right of Way Consultation. The project area was surveyed by NCDOT biologists for habitat for the small whorled pogonia. Section U-3615 B does have areas of habitat. A plant by plant survey in those areas was done in May 21, 2008 and May 14, 2013. No small whorled pogonia plants were found either time. A search of the North Carolina Natural Heritage Database on May 6, 2013 revealed no known occurrences of any federally protected species within 1.0 mile of the limits. A biological conclusion of “No Effect” was given.

Since the EA and FONSI the bald eagle has been delisted for Guilford County. The bald eagle has been delisted as of August 2007 and is not subject to Section 7 consultation and a biological conclusion is not required. However, the bald eagle remains protected by the Bald and Golden Eagle Protection Act. Habitat in the vicinity of U-3615B is limited to areas surrounding Oak Hollow Lake. Surveys conducted on February 23, 2007 found no nests within 660 feet of the project limits. The North Carolina Natural Heritage Program (NCNHP) records, last updated February 13, 2008, indicate that there are no known occurrences of a bald eagle nest within one mile of the project area.

A US Fish and Wildlife Service proposal for listing the Northern Long-eared Bat (*Myotis septentrionalis*) as an Endangered species was published in the Federal Register in October 2013. The listing will become effective on or before April, 2015. This species is included in USFWS's current list of protected species for Guilford County. NCDOT is working closely with the USFWS to understand how this proposed listing may impact NCDOT projects. NCDOT will continue to coordinate appropriately with USFWS to determine if this project will incur potential effects to the Northern long-eared bat, and how to address these potential effects, if necessary.

## **AIR QUALITY**

### **Attainment Status**

The project is located in Guilford County, which is within the Greensboro-Winston-Salem-High Point nonattainment area for fine particles PM 2.5 as defined by the EPA. This area was designated nonattainment for the PM2.5 standard in accordance with the Clean Air Act Amendments (CAAA) on April 5, 2005. However, due to improved monitoring data, this area was redesignated as maintenance for the PM 2.5 standard on December 19, 2011. Section 176(c) of the CAAA requires that transportation plans, programs, and projects conform to the intent of the state air quality implementation plan (SIP). The current SIP does not contain any transportation control measures for Guilford County. The Greensboro Metropolitan Planning Organization (MPO) 2035 Long Range Transportation Plan (LRTP), the High Point MPO 2035 LRTP, the Burlington Graham MPO 2035 LRTP, and the 2012-2018 Transportation Improvement Programs (TIPs) conform to the intent of the SIP (or base year emissions, in areas where no SIP is approved or found adequate). The USDOT made a conformity determination on the Greensboro MPO LRTP on October 1, 2013, the High Point MPO LRTP on March 6, 2013, the Burlington MPO LRTP on March 6, 2013, the Greensboro MPO TIP on March 6, 2013, the High Point MPO TIP on March 6, 2013 and the Burlington Graham MPO TIP on October 1, 2013. The current conformity determinations are consistent with the final conformity rule found in 40 CFR Parts 51 and 93. There are no significant changes in the project's design concept or scope, as used in the conformity analyses.

**A qualitative PM 2.5 hot-spot analysis is not required for this project since it is not an air quality concern. The Clean Air Act and 40 CFR 93.116 requirements were met without a hot-spot analysis, since this project has been found not to be of air quality concern under 40 CFR 93.123(b)(1).**

## **Mobile Source Air Toxics (MSAT)**

### **Background**

Controlling air toxic emissions became a national priority with the passage of the Clean Air Act Amendments (CAAA) of 1990, whereby Congress mandated that the U.S. Environmental Protection Agency (EPA) regulate 188 air toxics, also known as hazardous air pollutants. The EPA has assessed this expansive list in their latest rule on the Control of Hazardous Air Pollutants from Mobile Sources (Federal Register, Vol. 72, No. 37, page 8430, February 26, 2007), and identified a group of 93 compounds emitted from mobile sources that are listed in their Integrated Risk Information System (IRIS) (<http://www.epa.gov/iris/>). In addition, EPA identified seven compounds with significant contributions from mobile sources that are among the national and regional-scale cancer risk drivers from their 1999 National Air Toxics Assessment (NATA) (<http://www.epa.gov/ttn/atw/nata1999/>). These are acrolein, benzene, 1,3-butadiene, diesel particulate matter plus diesel exhaust organic gases (diesel PM), formaldehyde, naphthalene, and polycyclic organic matter. While FHWA considers these the priority mobile source air toxics, the list is subject to change and may be adjusted in consideration of future EPA rules. The 2007 EPA rule mentioned above requires controls that will dramatically decrease MSAT emissions through cleaner fuels and cleaner engines. According to an FHWA analysis using EPA's MOBILE6.2 model, even if vehicle activity (vehicle-miles travelled, VMT) increases by 145 percent as assumed, a combined reduction of 72 percent in the total annual emission rate for the priority MSAT is projected from 1999 to 2050, as shown in Figure 1.

### **Incomplete Or Unavailable Information For Project-Specific MSAT**

#### **Health Impacts Analysis**

In FHWA's view, information is incomplete or unavailable to credibly predict the project-specific health impacts due to changes in MSAT emissions associated with a proposed set of highway alternatives. The outcome of such an assessment, adverse or not, would be influenced more by the uncertainty introduced into the process through assumption and speculation rather than any genuine insight into the actual health impacts directly attributable to MSAT exposure associated with a proposed action.

The U.S. Environmental Protection Agency (EPA) is responsible for protecting the public health and welfare from any known or anticipated effect of an air pollutant. They are the lead authority for administering the Clean Air Act and its amendments and have specific statutory obligations with respect to hazardous air pollutants and MSAT. The EPA is in the continual process of assessing human health effects, exposures, and risks posed by air pollutants.

They maintain the Integrated Risk Information System (IRIS), which is "a compilation of electronic reports on specific substances found in the environment and their potential to cause human health effects" (EPA, <http://www.epa.gov/iris/>). Each report contains assessments of non-cancerous and cancerous effects for individual compounds and quantitative estimates of risk levels from lifetime oral and inhalation exposures with uncertainty spanning perhaps an order of magnitude.

Other organizations are also active in the research and analyses of the human health effects of MSAT, including the Health Effects Institute (HEI). Two HEI studies are summarized in Appendix D of FHWA's Interim Guidance Update on Mobile source Air Toxic Analysis in NEPA Documents. Among the adverse health effects linked to MSAT compounds at high exposures are; cancer in humans in occupational settings; cancer in animals; and irritation to the respiratory tract, including the exacerbation of asthma. Less obvious is the adverse human health effects of MSAT compounds at current environmental concentrations (HEI, <http://pubs.healtheffects.org/view.php?id=282>) or in the future as vehicle emissions substantially decrease (HEI, <http://pubs.healtheffects.org/view.php?id=306>).

The methodologies for forecasting health impacts include emissions modeling; dispersion modeling; exposure modeling; and then final determination of health impacts - each step in the process building on the model predictions obtained in the previous step. All are encumbered by technical shortcomings or uncertain science that prevents a more complete differentiation of the MSAT health impacts among a set of project alternatives. These difficulties are magnified for lifetime (i.e., 70 year) assessments, particularly because unsupportable assumptions would have to be made regarding changes in travel patterns and vehicle technology (which affects emissions rates) over that time frame, since such information is unavailable.

It is particularly difficult to reliably forecast 70-year lifetime MSAT concentrations and exposure near roadways; to determine the portion of time that people are actually exposed at a specific location; and to establish the extent attributable to a proposed action, especially given that some of the information needed is unavailable.

There are considerable uncertainties associated with the existing estimates of toxicity of the various MSAT, because of factors such as low-dose extrapolation and translation of occupational exposure data to the general population, a concern expressed by HEI (<http://pubs.healtheffects.org/view.php?id=282> ). As a result, there is no national consensus on air dose-response values assumed to protect the public health and welfare for MSAT compounds, and in particular for diesel PM. The EPA (<http://www.epa.gov/risk/basicinformation.htm#g>) and the HEI

(<http://pubs.healtheffects.org/getfile.php?u=395>) have not established a basis for quantitative risk assessment of diesel PM in ambient settings.

There is also the lack of a national consensus on an acceptable level of risk. The current context is the process used by the EPA as provided by the Clean Air Act to determine whether more stringent controls are required in order to provide an ample margin of safety to protect public health or to prevent an adverse environmental effect for industrial sources subject to the maximum achievable control technology standards, such as benzene emissions from refineries. The decision framework is a two-step process. The first step requires EPA to determine an "acceptable" level of risk due to emissions from a source, which is generally no greater than approximately 100 in a million. Additional factors are considered in the second step, the goal of which is to maximize the number of people with risks less than 1 in a million due to emissions from a source. The results of this statutory two-step process do not guarantee that cancer risks from exposure to air toxics are less than 1 in a million; in some cases, the residual risk determination could result in maximum individual cancer risks that are as high as approximately 100 in a million. In a June 2008 decision, the U.S. Court of Appeals for the District of Columbia Circuit upheld EPA's approach to addressing risk in its two step decision framework. Information is incomplete or unavailable to establish that even the largest of highway projects would result in levels of risk greater than deemed acceptable.

Because of the limitations in the methodologies for forecasting health impacts described, any predicted difference in health impacts between alternatives is likely to be much smaller than the uncertainties associated with predicting the impacts. Consequently, the results of such assessments would not be useful to decision makers, who would need to weigh this information against project benefits, such as reducing traffic congestion, accident rates, and fatalities plus improved access for emergency response, that are better suited for quantitative analysis.

### **MSAT Conclusion**

What we know about mobile source air toxics is still evolving. As the science progresses FHWA will continue to revise and update this guidance. FHWA is working with Stakeholders, EPA and others to better understand the strengths and weaknesses of developing analysis tools and the applicability on the project level decision documentation process.

### **Summary**

The project is located in Guilford County, which complies with the National Ambient Air Quality Standards. This project will not add substantial new capacity or create a facility that is likely to meaningfully increase emissions.

Therefore, it is not anticipated to create any adverse effects on the air quality of this attainment area. This evaluation completes the assessment requirements for air quality of the 1990 Clean Air Act Amendments and the NEPA process, and no additional reports are necessary.

## **NOISE ANALYSIS**

In accordance with the NCDOT Traffic Noise Abatement Policy effective July 13, 2011, the Traffic Noise & Air Quality Group reviewed the above-referenced project's Traffic Noise Analysis dated November 19, 2003. We offer the following comments:

1. According to the document entitled, *Highway Traffic Noise/Construction Noise Analysis for the Widening of SR 1003 (North Main Street) and SR 1820 (Skeet Club Road), Guilford County* (NCDOT, November 19, 2003) for STIP U-3615, no noise abatement was found to be feasible and reasonable due to the absence of access control along the facility. The 2003 Noise Study predicted 61 residential impacts and one business impact. The Date of Public Knowledge is May 24, 2004, the date of FONSI approval.
2. After a careful review of the Skeet Club Road corridor from Johnson Street to NC 68, only one residential neighborhood appeared to warrant additional traffic noise assessment. Known in the 2003 Noise Study as Receptors 8 through 15, this residential neighborhood of cluster homes is located along Anji Court and Sunburst Drive at the intersection of Birchgarden Drive and Skeet Club Road. Several receptors were impacted by traffic noise according to the 2003 Noise Study. There also appears to be sufficient receptor density to make noise abatement potentially cost effective. However, several homes will be located very close to the proposed Skeet Club Road right of way, some as close as 10 feet. The final noise report was completed on November 19, 2003 based on the 1996 NCDOT Traffic Noise Abatement Policy. Reasonableness section of the 1996 NCDOT Traffic Noise Abatement Policy states that "Barrier height - The height above ground level facing the receptor should not exceed a maximum of 7.5 meters, or approximately 25 feet." Abatement is not reasonable for the residential area according to the 1996 NCDOT Traffic Noise Abatement Policy since the ratio of wall height vs. distance to receptor does not meet the reasonableness criteria of the 1996 NCDOT Policy, see attached memorandum. Also per e-mail dated Tuesday, November 25, 2014 from Ms. Amy G. Dupree, Area Utility Agent – Western Region Supervisor, NCDOT Utility Unit: "Per our discussion, the noise wall location on Skeet Club does not appear to be feasible since there is a proposed aerial power line and proposed buried telephone in this exact location. Some of the relocation work has already started on the project as well and those proposed power poles could already be in place." See attached memorandum.

3. Changes in the design, a decrease in the project footprint from Sta. 169+46.53 –L– to 198+00+ –L–, will not affect the final noise report results.
4. No additional traffic noise analysis is required for STIP U-3615B. This is mostly due to the proximity of receptors to the Skeet Club Road right of way and the presence of multiple driveways and intersecting roads that render noise abatement unfeasible.

## DESIGN CHANGES

There have been no substantial changes to the proposed action or the project study area since the completion of the Finding of No Significant Impact (FONSI). There have been various minor design changes since the completion of the Finding of No Significant Impact (FONSI) in 2004, which have been incorporated into the plans as follows:

1. Pertaining to the Elihu Mendenhall property, a 4(f) resource, in accordance to with the Project Commitments the following note was added to the Construction Plans:

“The contractor shall fully restore easement area to a condition equal to or better than what existed prior to the project”

The easement referenced in the Construction Plans note is the Temporary Construction Easement for the protection of the Spring House Ruins, see item 2 below.

2. Removed the fill slope off the Spring House Ruins, Sta. 186+60± –L– to 187+30± –L–, without a retaining wall and added the following safeguards for the historic resource:

- Addition of a Temporary Construction Easement for the protection of the Spring House Ruins;
- Safety Fence be placed around the Spring House Ruin, and;
- A note stating “Historical Spring House Not To Be Disturbed”

The plans were presented to SHPO, November 13, 2014, it was determined that the Safety Fence though temporary would result in "no adverse effect" on the historic property, see the attached concurrence form, dated November 19, 2014.

3. During coordination with Colonial Pipeline it was determined that a 36” steel gas pipeline, Sta. 233+85± –L–, required bridging to prevent overburdening the pipe. Two bridges are to be constructed over the 36” steel gas pipeline, a westbound bridge of 118.20 LF and an eastbound bridge 109.74 LF.



4. Due to the funding status of U-3615A and to minimize impacts to adjacent property owners the footprint of the project will decreased from Sta. 169+46.53 -L- to 198+00± -L- as follows:

- Sta. 169+46.53 -L- to 181+36.38 -L- two lane section with left and right turn lanes at the eastbound approach to the SR 1818 (Johnson Street) intersection;
- Sta. 181+36.38 -L- to 192+00± -L- three lane section with left and right turn lanes at the westbound approach to the SR 1818 (Johnson Street) intersection, and ;
- Sta. 192+00+ -L- to 198+00± -L- transition from a three lane section a four lane with center turn lane(s).

The above noted changes may require a Request for Modification to Individual Section 404 and Section 401 Water Quality Certification.

The above design changes have not resulted in additional impacts to the human and natural environments. The revisions have been presented to FHWA and are considered minor.

**IV. LIST OF ENVIRONMENTAL COMMITMENTS**

NC DOT will implement all practical measures and procedures to minimize and avoid environmental impacts.

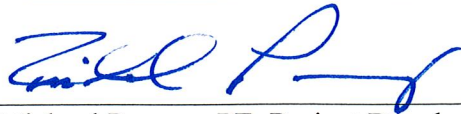
See attached Project Commitments.

**V. COORDINATION**

PDEA personnel have discussed current project proposals with others. Please note who was coordinated with and the date. This section is to be filled out by the project manager and does not require signatures.

Design Engineer:	<u>Tatia White</u>	<u>October 6, 2014</u> Date
FHWA Engineer:	<u>Felix Davila</u>	<u>November 6, 2014</u> Date
Permits Section:	<u>Deanna Riffey</u>	<u>October 20, 2014</u> Date
Hydraulics Unit:	<u>Paul Fisher</u>	<u>October 31, 2014</u> Date

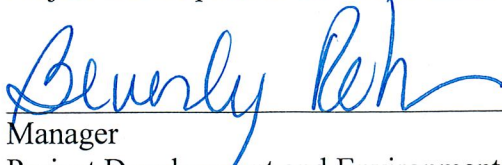
**VI. NCDOT CONCURRENCE**



Michael Penney, PE. Project Development Engineer  
Project Development and Environmental Analysis

15 DECEMBER 2014

Date




Manager  
Project Development and Environmental Analysis

Date

12/15/14

**VII. FHWA CONCURRENCE**

For 

Federal Highway Administration  
Division Administrator

Date

12/15/14

# PROJECT COMMITMENTS

SR 1820 (Skeet Club Road)  
From west of SR 1818 (Johnson Street) to NC 68 (Eastchester Drive), Guilford County  
Federal Aid Project No. STP-1820(2)  
State Project No. 8.2494701  
WBS Project No. 34962.1.1  
**T.I.P. Project No. U-3615B**

## Commitments Developed through Project Development and Design

Current status, changes, or additions to the project commitments as shown in the environmental document for the project are printed in *italic* font.

### Structure Design Unit / Roadside Environmental Unit / Division Construction Engineer

- For the removal of bridge No.65 over Oak Hollow Lake, Best Management Practices will be employed to minimize sediment distribution downstream in the lake. Care will be taken in the removal of the bridge and the removal of erosion control or sediment control devices so that sediment is not released downstream in the lake.

*This is a standard operating procedure.*

*This commitment will be implemented during construction of the project.*

### Roadway Design Unit

- The Elihu Mendenhall property, a 4(f) resource, will be impacted with temporary easements. These easements will be needed only during the construction of the project. The easements will not cause permanent or adverse physical impacts, or interfere with the activities or purposes of the Farmstead. A note will be added to the roadway design plans and/or project special provisions instructing the contractor to fully restore each easement area to a condition equal to or better than what existed prior to the project. As specified in ~~23 CFR 774.135~~ 23CFR 774.13(d), the temporary easements will not constitute a use of property from the Farmstead within the meaning of Section 4(f), and a Section 4(f) Evaluation is not required. However, if modifications during final design result in any of the above conditions not being met, then a 4(f) evaluation will be required.

*A note instructing the contractor to fully restore each easement in the area of Elihu Mendenhall property to a condition equal to or greater than what existed prior to the project was not included on the Right of Way Plans or in the Project Special Provisions. ~~Roadway agreed the note will be added to the plans.~~*

*The following note has been added to the Construction Plans:*

*“The contractor shall fully restore easement area to a condition equal to or better than what existed prior to the project”*

# PROJECT COMMITMENTS

*The easement referenced in the Construction Plans note is the Temporary Construction Easement for the protection of the Spring House Ruins*

## **Hydraulics Unit and Project Development and Environmental Analysis Unit**

- Any impacts to wetlands, streams, and buffers must comply with the Randleman Buffer Rules, 404/401 regulations, water supply regulations (15A NCAC 2B .0216), and any other required federal, state, and local regulations.

*This is a standard operating procedure.*

*This commitment is addressed in the permit application for the project.*

## **Geotechnical Unit**

- It is anticipated that the proposed widening of Skeet Club Road will encroach on one property identified as an underground storage tank (UST) site. This impacted site will be further evaluated prior to right of way acquisition.

*There are three (3) UST sites identified by NCDOT Geotechnical Unit that may be impacted by the proposed widening. 1) Bizzy Bee Grocery II at 3802 North Main Street 2) Dixon Produce at 3300 North Main Street 3) Former Tan Safeway at 3301 North Main Street. All three sites will be evaluated prior to acquisition.*

*None of these sites referenced are located in section U-3615B.*

## **Hydraulics Unit**

- Hazardous spill basins will be required on any part of the project that falls within a 0.5 mile of the Critical Area of the Water Supply Watershed.

*Hazardous spill basins have been included in the Right of Way Plans and Construction Plans as needed.*

## **Hydraulics Unit and Structure Design Unit**

- In association with the replacement of Bridge #65, no deck drains will be allowed to discharge directly into Oak Hollow Lake.

*Bridge design of Bridge No. 65 is complete and does not have deck drains.*

## **Project Development and Environmental Analysis Unit**

- The noise analysis in this report assumed a worst-case scenario of a 4-lane median divided typical section. It is anticipated that the final recommendation on the typical section may reduce the number of impacted noise receptors. Once the typical section recommendation

# PROJECT COMMITMENTS

has been determined, the number of impacted noise receptors will be re-calculated and reported in the final environmental document.

*A revised noise report has been completed and is summarized in Section V of the FONSI.*

- In the area of the Historic Spring House, in order to accommodate for the widening of the road and avoid impacts to the Spring House ruins, two avoidance alternatives have been developed. Until final designs are complete, it cannot be determined at this time which alternate will be used. The State Historic Preservation Officer issued a determination of "No effect" for Alternative 1 (1:1 slope), and a determination of "adverse effect" for Alternative 2 (retaining wall) (see pages B-1 and B-2 in Appendix B for concurrence forms). Once more detailed survey and soils information is obtained, an alternative will be selected, and the project's impact on this 4(f) resource will be re-evaluated. If the "adverse effect" alternative is selected, a Memorandum of Agreement (MOA) will have to be issued. Impacts associated with the selected alternative will be included in the final environmental document.

~~*After investigating the soils in the area of the Spring House Ruins, it was determined that a 2:1 slope could be utilized. After presenting this information to the SHPO, it was determined that the slope alternative would result in "no adverse effect" on the historic property, and the retaining wall alternative (which includes a handrail and guardrail) would result in an "adverse effect". Although the slope would impact the site, it would act as a protective covering for the Spring House. This decision was made with the condition that archaeological monitoring be provided during fill and construction of the project (see Appendix B in the FONSI pages B-1 and B-2 for concurrence form). The retaining wall alternative was seen as a least desirable alternative due to the fact that the guardrail, handrail, and size and appearance of the retaining wall would not be consistent with the historic and rural nature of the National Register Property.*~~

*The Right-of-Way and Construction Plans were completed after the FONSI and removed the fill slope off the Spring House Ruins without a retaining wall and added the following safeguards for the historic resource:*

- *Addition of a Temporary Construction Easement for the protection of the Spring House Ruins;*
- *Safety Fence be placed around the Spring House Ruin, and;*
- *A note stating "Historical Spring House Not To Be Disturbed"*

*The plans were presented to SHPO, November 13, 2014, it was determined that the Safety Fence, though temporary, would result in "no adverse effect" on the historic property; the latest concurrence form, dated November 19, 2014, is attached to the Construction Consultation.*

## **Right of Way Unit**

- Properties owned by the City of High Point at Oak Hollow Lake were purchased with grants from the US Department of Interior. That property is protected by Section 6(f)(3) of the Land and Water Conservation Fund (LWCF) Act of 1965. Rights of way needs of this

## PROJECT COMMITMENTS

property for this project are a LWCF Conversion. NC Department of Environment and Natural Resources, Division of Parks and Recreation, and the US Department of Interior have approved of the mitigation by replacement with property of equal value.

*See the City of High Point Conversion attachment to the Consultation for U-3615 of February 2009.*

- The above referenced properties of Oak Hollow Lake are protected by Section 4(f). They are qualified as Deminimus.

*See the City of High Point Letter of March 15, 2007 and the published Public Notice of January 2, 2009 attached to the Consultation of February 2009.*

### **Project Development and Environmental Analysis Unit – Natural Environment Section**

- A US Fish and Wildlife Service proposal for listing the Northern Long-eared Bat (*Myotis septentrionalis*) as an Endangered species was published in the Federal Register in October 2013. The listing will become effective on or before April, 2015. This species is included in USFWS's current list of protected species for Guilford County. NCDOT is working closely with the USFWS to understand how this proposed listing may impact NCDOT projects. NCDOT will continue to coordinate appropriately with USFWS to determine if this project will incur potential effects to the Northern long-eared bat, and how to address these potential effects, if necessary.

*This commitment will be implemented prior to and during construction of the project.*

## COMMITMENTS DEVELOPED FROM PERMITTING

### **Roadside Environmental and Division 7 Construction**

#### 401 condition 7

For the 150 linear feet of streams being impacted due to site dewatering activities, the site shall be graded to its preconstruction contours and revegetated with appropriate native species.

### **Division 7 Construction**

#### 401 condition 12

A turbidity curtain will be installed in Oak Hollow Lake if driving or drilling activities occur within the lake, on the bank, or within 5 feet of the top of bank. This condition can be waived with prior approval from DWR.

# PROJECT COMMITMENTS

## Project Development and Environmental Analysis Unit – Natural Environment Section

### 404 condition f

Compensatory mitigation requirements for U-3615B are summarized in Table 1(see Permit). Due to the status of Section U-3615A being unfunded and letting more than 5 years out, NCDOT is not proposing mitigation for Section U-3615A at this time. The U-3615B section will permanently impact a total of 2,099 feet of warm water streams. Of these 2,099 feet, there are 111 feet of stream impacts requiring mitigation.

The Corps is requiring 2:1 mitigation for 452 feet of perennial stream impacts and 1:1 mitigation for 1,536 feet of intermittent stream impacts. NCDOT is providing onsite mitigation of 760 feet of warm water stream by relocating a section of UT at site 3-3. The remaining mitigation requirement of 1,680 feet of permanent warm water stream impacts will be provided by the North Carolina Ecosystem Enhancement Program (NCEEP), as outlined in the letter dated April 23, 2013, from James B. Stanfill, NCEEP Asst. Management Supervisor. In order to compensate for this wetland impact associated with this permit, mitigation shall be provided in accordance with the provisions outlined on the most recent attached Compensatory Mitigation Responsibility Transfer Form. The requirements of this form, including any special conditions listed on this form, are hereby incorporated as special conditions of this permit authorization. NCEEP will also provide mitigation for 0.82 acres (2:1 ratio) of permanent riparian wetland impacts resulting from roadway fill, excavation, and mechanized clearing. The on-site mitigation will be constructed and in compliance with the attached U-3615B Stream Mitigation Plan dated January 12, 2013 (see Permit - Identified as Exhibit C).

### 401 condition 20

Compensatory mitigation for impacts to 1,580 linear feet of streams at a replacement ratio of 1:1 is required for U-3615B. Compensatory mitigation for impacts to jurisdictional streams shall be provided by onsite stream relocations of 760 linear feet of UT 3-3 West Fork of Deep River. The onsite stream relocation shall be constructed in accordance with the design submitted by your May 2, 2013 application. All on-site mitigation sites shall be protected in perpetuity by a conservation easement or through NCDOT fee simple acquisition and recorded in the NCDOT Natural Environment Unit mitigation geodatabase. Please be reminded that as-builts for the completed streams shall be submitted to the North Carolina Division of Water Resources 401 Wetland Unit with the as-builts for the rest of the project. If the parameters of this condition are not met, then the permittee shall supply additional stream mitigation for the 760 linear feet of impacts. All channel relocation will be constructed in a dry work area, will be completed and stabilized and must be approved on site by NCDWR staff, prior to diverting water into the new channel. Whenever possible, channel relocations shall be allowed to stabilize for an entire growing season. All stream relocations shall have a 50-foot wide native wooded buffer planted on both sides of the stream unless otherwise authorized by this Certification. A transitional phase incorporating rolled erosion control product (RECP) and appropriate temporary cover is allowable.

### 401 condition 23

Compensatory mitigation for impacts to 101,023 square feet of protected riparian buffers in Zone 1 (303,069 square feet of mitigation) and 70,419 square feet of protected riparian buffers in Zone 2 (105,629 square feet of mitigation) shall be required for U3615B. In accordance with 15A NCAC 02B.0252, riparian vegetation reestablishment shall include a minimum of at least 2 native hardwood tree species planted at a density sufficient to provide 320 trees per acre at maturity. All on-site mitigation sites shall be protected in perpetuity by a conservation easement or through

## PROJECT COMMITMENTS

NCDOT fee simple acquisition and recorded in the NCDOT Natural Environment Unit mitigation geodatabase.

### 401 condition 24

The permittee shall monitor the buffer mitigation site. Monitoring shall consist of stem counts. An annual report shall be submitted to NCDWR for a period of 5 years showing monitoring results, survival rate/ success of tree and vegetation establishment, and that diffuse flow through the riparian buffer has been maintained. The first annual report shall be submitted within one year of final planting. Failure to achieve a buffer density of 320 trees per acre after 5 years will require the annual report to provide appropriate remedial actions to be implemented and a schedule for implementation. Approval of the final annual report, and a formal “close out” of the mitigation site by NCDWR is required.

### 401 condition 25

Compensatory mitigation for 303,069 square feet of riparian buffers in Zone 1 and 105,629 square feet in riparian buffer Zone 2 shall be required for U3615B. We understand that 45,810 square feet of protected riparian buffer in Zone 1 and 29,829 square feet of protected riparian buffer in Zone 2 are being performed on-site. We understand that you have chosen to perform compensatory mitigation for the remaining 257,259 square feet of riparian buffer in Zone 1 and 75,800 square feet of riparian buffer in Zone 2 to protected buffers through use of the North Carolina Ecosystem Enhancement Program (NCEEP). Mitigation for unavoidable impacts to Randleman Riparian Buffers shall be provided in the Cape Fear River Basin and done in accordance with 15A NCAC2B.0252. NCEEP has indicated in a letter dated August 20, 2013 that they will assume responsibility for satisfying the compensatory mitigation requirements for the above-referenced project, in accordance with NCEEP’s Mitigation Banking Instrument signed July 28, 2010.






STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

PAT MCCRORY  
GOVERNOR

December 12, 2014

ANTHONY J. TATA  
SECRETARY

**MEMORANDUM TO:** Michael Penney, PE  
Project Development Engineer



**FROM:** Gregory A. Smith, LG, PE  
Traffic Noise & Air Quality Supervisor  
Human Environment Unit

**SUBJECT:** **Review of Traffic Noise Analysis**  
State Project U-3615B

According to the U-3615 Highway Traffic Noise / Construction Noise Analysis prepared by NCDOT in November 2003, no noise abatement was found to be feasible and reasonable due to the absence of access control along the facility. The 1996 NCDOT Traffic Noise Abatement Policy was, and remains, effective for noise analysis and abatement assessment on U-3615. The 2003 Noise Study predicted 61 residential impacts and one business impact. The Date of Public Knowledge is May 24, 2004 - the date of FONSI approval. This project was reviewed by my office in May 2013 to comply with provisions in the 2011 NCDOT Traffic Noise Abatement Policy. Our review confirmed that neither traffic noise abatement nor further traffic noise analysis is required for U-3615B. This finding was based on the close proximity of receptors to the Skeet Club Road right of way and the presence of multiple driveways and intersecting roads that render noise abatement infeasible.

1. The Traffic Noise & Air Quality Group again reviewed the Skeet Club Road corridor from Johnson Street to NC 68 per your request, to again confirm that traffic noise abatement considerations remain unfeasible. Based upon our review, only one area appeared to warrant additional traffic noise analysis. Identified in the 2003 Noise Study as Receptors 8 through 15, this residential neighborhood of cluster homes is located along Anji Court and Sunburst Drive at the intersection of Birchgarden Drive and Skeet Club Road. Several receptors were impacted by traffic noise according to the 2003 noise analysis. There appears to be sufficient receptor density to make noise abatement potentially reasonable; however, several

**MAILING ADDRESS:**  
NC DEPARTMENT OF TRANSPORTATION  
HUMAN ENVIRONMENT SECTION  
1598 MAIL SERVICE CENTER  
RALEIGH NC, 27699-1598

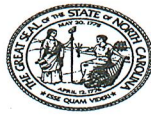
TELEPHONE: 919-707-6000  
FAX: 919-212-5785  
WEBSITE: [WWW.NCDOT.ORG](http://WWW.NCDOT.ORG)

**LOCATION:**  
PROJECT DEVELOPMENT &  
ENVIRONMENTAL ANALYSIS UNIT -  
CENTURY CENTER BUILDING B  
1020 BIRCH RIDGE DRIVE  
RALEIGH NC, 27610

homes will be located very close to the proposed Skeet Club Road right of way, some as close as 10 feet. A reasonableness factor found in the 1996 Noise Policy was “barrier-scale relationship”, which stated that it generally would not be reasonable to provide abatement unless the receptor would be located a minimum distance of four times the height of the wall from the proposed wall. This was to prevent noise walls from having a dominant effect on receptors located close to the wall. Assuming a minimum noise wall height of 12 feet (the height necessary to break line-of-sight between the receptor and traffic noise sources), a receptor would need to be located at least 48 feet from the wall. The receptors in this area would not meet this minimum spacing requirement; therefore, it would not be reasonable to provide noise abatement.

2. Subsequent changes in the design that decrease the project footprint between -L- Sta. 169+46.53 and 198+00 will not affect the final noise report results.
3. Additionally, utility conflicts further preclude noise barrier construction for this area. Please see the attached memorandum sent to me from John Stewart, Senior Utility Agent, on December 11, 2014.

Please contact me at (919) 707-6087 or [gasmith@ncdot.gov](mailto:gasmith@ncdot.gov) if you need additional information.



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION


PAT MCCRORY  
GOVERNOR

ANTHONY J. TATA  
SECRETARY

December 11, 2014

State Project No.: U-3615B  
County: Guilford  
Description: Improvement of SR 1820 (Skeet Club Road) from West of  
Sr 1818 (Johnson Street) to NC 68 (Eastchester Drive)

MEMORANDUM TO: Mr. Greg Smith, PE

FROM: John Stewart   
Senior Utility Agent

SUBJECT: Review of Highway Traffic Noise/Construction Noise Analysis  
for the widening of SR 1003 (North Main Street) and SR  
1820 (Skeet Club Road)

The potential noise wall for Receptors 8 through 15, this residential neighborhood of cluster homes is located along Anji Court and Sunburst Drive at the intersection of Birchgarden Drive and Skeet Road appears not to be feasible since propose utilities (power and telephone) are being place in the same location as the potential noise wall. Some of the utility relocation work is already taking place.

**MAILING ADDRESS:**  
NC DEPARTMENT OF TRANSPORTATION  
UTILITIES UNIT  
1555 MAIL SERVICE CENTER  
RALEIGH NC 27699-1555

TELEPHONE: 919-707-6690  
FAX: 919-250-4151

WEBSITE: [WWW.NCDOT.ORG/DOH](http://WWW.NCDOT.ORG/DOH)

**LOCATION:**  
CENTURY CENTER COMPLEX  
BUILDING B  
1020 BIRCH RIDGE DRIVE  
RALEIGH NC 27610

Federal Aid #: STP-1820(2)

TIP#: U-3615

County: Guilford

CONCURRENCE FORM FOR ASSESSMENT OF EFFECTS

Project Description: Widen Old US 311/SR 1003 from north of US 311 to Skeet Club Road from North Main Street west of Eastchester Drive (NC 68)

On November 13, 2014, representatives of the

- North Carolina Department of Transportation (NCDOT)
- Federal Highway Administration (FHWA)
- North Carolina State Historic Preservation Office (HPO)
- Other

Reviewed the subject project and agreed on the effects findings listed within the table on the reverse of this signature page.

Signed:

Mary Pope 11/14/2014  
Representative, NCDOT Date

Allen Braw 11-19-14  
FHWA, for the Division Administrator, or other Federal Agency Date

Renee Hedrick-Early 11-14-14  
Representative, HPO Date

Federal Aid #: STP-1820(2)

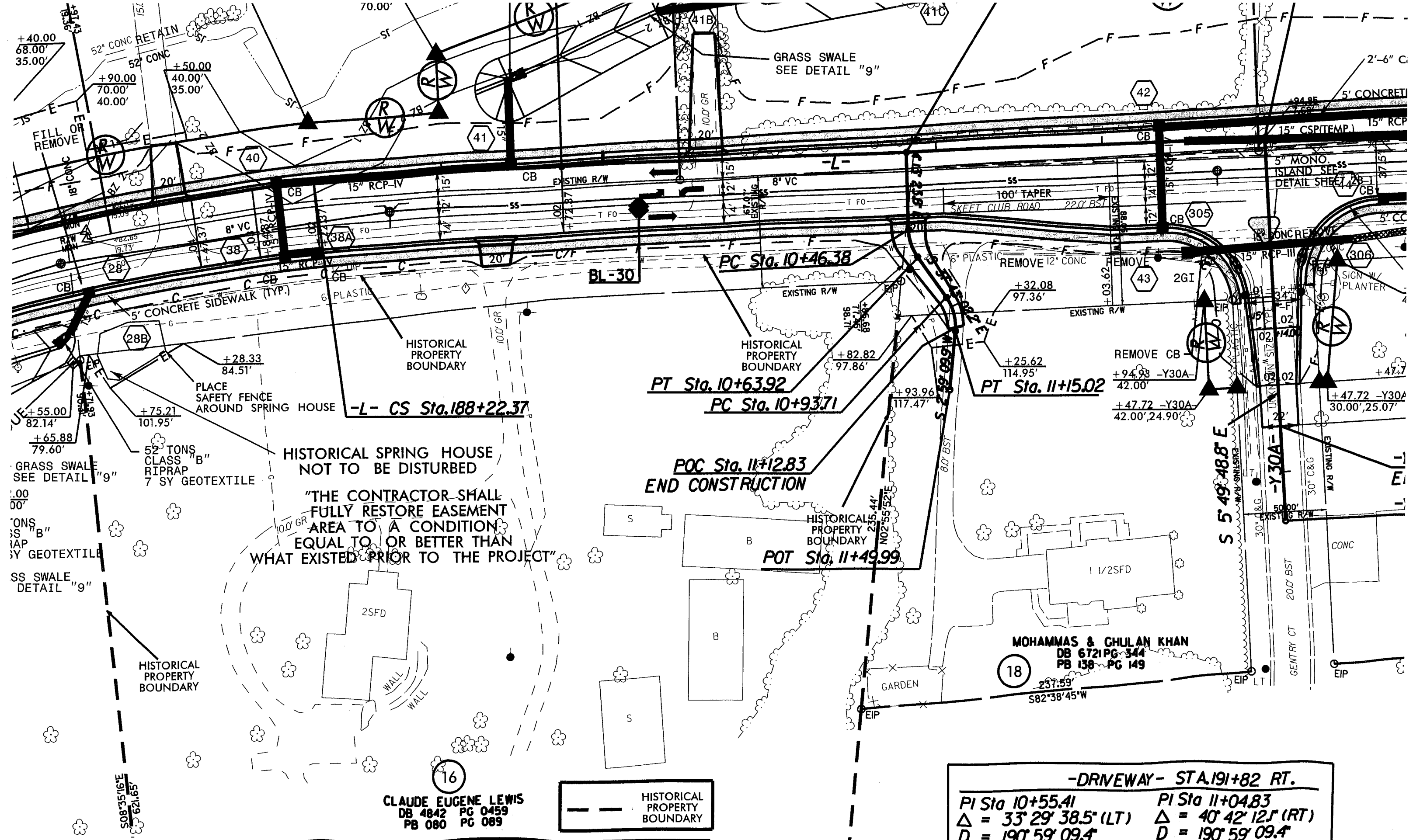
TIP#: U-3615

County: Guilford

Property and Status	Alternative	Effect Finding	Reasons
Elihu and Abigail Mendelhall House (DE under Criteria B,C,D)	Preferred alternative	No Adverse Effect	There will be no acquisition of permanent easements from the historic boundary and no significant resources will be removed from the historic property as a result of our work in the existing ROW. Temporary fencing will be installed by NCDOT around the perimeter of the historic springhouse throughout construction so as to avoid unintentional impacts to the site. Fencing will be removed by NCDOT after construction concludes.

Initialed: NCDOT MPA FHWA DB HPO PJG

FHWA Intends to use the HPO's concurrence as a basis for a "de minimis" finding for the following properties, pursuant to Section 4(f):



CLAUDE EUGENE LEWIS  
DB 4842 PG 0459  
PB 080 PC 089

--- HISTORICAL PROPERTY BOUNDARY

**DETAIL 9**  
(Not to Scale)

FROM STA. 183+78 TO STA. 185+78-L- (RT) FROM STA. 185+78 TO STA. 186+57-L- (RT)  
GRASS SWALE DATA (from basin #1) GRASS SWALE DATA  
h = 2'