



August 20, 2019 REVISED 9/19/19

Mr. Johnnie A. Hill, Coordinator Construction Projects  
Water Resources Department  
2602 S. Elm-Eugene Street  
Greensboro, NC 27406

Re: City of Greensboro, NC  
240 Webster Stream Stabilization

Engineering and Surveying Services Proposals

Dear Mr. Hill:

As part of our current On-Call Engineering Services Agreement with the City of Greensboro Water Resources Department, CH Engineering is pleased to offer this Engineering and Surveying Scope for approval on the Webster Storm Drainage Study.

**I. Understanding of the Project**

- II.** The purpose of this project is to provide this proposal for stream bank stabilization at property address 240 Webster Rd. It is our understanding that significant slope failure is being experienced along the banks as well as at the public sanitary sewer outfall.

**III. Scope of Work**

CH Engineering's scope of work for this project will consist of the following:

- A. Conventional Surveys- CH Engineering shall provide design surveys providing locations of existing culverts and stream cross sections for storm drainage design project as detailed in Attachment A.
- B. Project Coordination. CH Engineering shall coordinate effort between the Sub-consultants and the City of Greensboro to maintain project schedule and design effort.
- C. Stream Bank Stabilization- Atkins shall prepare flood study, conceptual plans, construction plans, permitting and bidding support as detailed in Attachment B.
- D. Construction Administration and Project Closeout. Davenport Engineering shall perform both of those services as detailed in Attachment C.

**IV. Project Fee:**

Project Fee:

Conventional Surveys - CH Engineering	\$9,255.00 Lump sum
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Project Coordination - CH Engineering	\$4,000.00 Hrly not to exceed.
Stream Bank Stabilization – Atkins	\$85,951.45 Lump sum
Construction Admin. – Davenport Engineering	\$4,724 Hrly not to exceed.
Project Closeout- Davenport Engineering	\$2,700 Hrly not to exceed.

<b>Total Fee</b>	<b>\$106,630.45</b>
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CH Engineering appreciates the opportunity to submit this scope for engineering and surveying services related to this project. If acceptable, please forward the appropriate contract documents to our office for execution, and we will proceed accordingly. If you have any questions, or would like to discuss this proposal in further detail, please let me know.

Sincerely,

CH ENGINEERING, PLLC



Maha A. Chambliss, PE  
President

# ATTACHMENT A

## Surveying Proposal Scope of Services & Fee (CH Engineering)



CH Engineering, PLLC  
WBE Certified  
3220 Glen Royal Road  
Raleigh, NC 27617  
Tel 919 788 0224  
Fax 919 788 0232  
www.ch-engr.com

**Amit Sachan, PE, CFM**  
Project Director, Mid-Atlantic  
**ATKINS**  
1616 E. Millbrook Road, Suite 160  
Raleigh, NC, 27609

July 30, 2019

Subject:  
Webster Road – Stoney Brook Apartments  
Stream Stabilization Survey  
Greensboro, NC

Mr. Sachan:

CH Engineering is pleased to provide this proposal for surveying services on the above referenced project.

It is our understanding the purpose of the survey is to provide topographic and planimetric locations for the area outlined in yellow and to provide cross section profiles at eleven (11) locations as shown in green on the attached **Exhibit A**.

Date:  
1 August 2019

Contact:  
Jeff Munn, PLS

Phone:  
919.788-0224  
Ext. 5469

E-mail:  
jmunnn@ch-engr.com

## Scope of Services

- GPS control points (2) will be set at the project site to establish horizontal and vertical control. The Horizontal datum established will be based upon the (NAD 83) 2011 adjustment and will be based on the North Carolina State Plane coordinate System. The Vertical datum for this project will be based on the NAVD 88 vertical datum.
- GPS ties will be completed to nearby published geodetic monuments to verify the horizontal and vertical datum as described above.
- Approximately 600 feet of control traverse will be established along the project limits and will be used for the locations requested as described below.
- Differential levels will be used to establish the elevations for the control traverse points.
- Establish one (1) temporary benchmark near the middle of the project limits as shown in yellow on the attached **Exhibit A**.
- Provide cross section locations at eleven (11) locations as shown in green on the attached **Exhibit A**. The existing water depth will also be obtained at each cross section.
- Provide topographic survey information for approximately one (1) acre as shown outlined in yellow on the attached **Exhibit A**. The existing stream banks and channel profile features will be provided.

Our ref:  
Webster Road – Stoney  
Brook Apartments –  
Stream Stabilization  
Survey - Greensboro  
NC

- Provide planimetric locations for visible above ground improvements for the area outlined in yellow. Locations will include the following: existing streams, roads, curb and gutter, signs, buildings, fences, sidewalks, walkways, rip rap areas, landscaped areas, wood lines, visible gravity utilities, storm manholes, inverts, headwalls, pipe sizes and material types if field accessible.
- Parcel and easement research will be completed for the two affected parcels and the adjacent parcels. Copies of the current deeds and plats will be obtained if available. The owner information and the deed and plat references will be shown in the base mapping file.
- Parcel boundaries will be shown by using information available on the Guilford County GIS site, no actual field surveys will be completed to show the parcel boundaries.
- The existing utility easements will be shown in the base mapping if the existing easement documents are available and plottable by using the utility structures or the GIS parcel lines.
- Provide base mapping in auto-cad format at the desired scale defined by Atkins.

### **Assumptions**

- CH Engineering will not be responsible for contacting the affected property owners, Atkins or the City of Greensboro will notify the property owners and provide a letter to CH Engineering before any fieldwork begins.
- SUE Level B utility designation and location for underground utilities is not a part of this scope of work and will be provided in a separate estimate provided by CH Engineering.
- Property surveys are not included in this scope of work and will be considered as additional services if requested.
- Parcel lines will be shown in the base mapping from information available on the Guilford County GIS system.
- Wetland surveys are not a part of this scope of work and will be considered as additional services if requested.
- Mapping, plat recording and providing legal descriptions are not included in this proposal.
- Flood plain mapping is not a part of this scope of work and will be considered as additional services if requested.
- Staking items for future designed improvements is not a part of this scope of work and will be considered as additional services if requested.

### **Schedule**

CH Engineering will begin work within one week upon receipt of an approved and signed contract or a notice to proceed.

### **Fee**

The lump sum fee for the scope as outlined above is as follows: **\$ 9,255.00**

## DBE/WBE Certification

CH Engineering, PLLC is certified as a Disadvantaged Business Enterprise (DBE/WBE) with the North Carolina Department of Transportation, the City of Raleigh, Durham County, and the City of Durham, Triangle Transit Authority, Raleigh-Durham Airport, County of Charleston, SC, City of Charleston, SC and the South Carolina Department of Transportation DBE Unified Program. CH Engineering is also HUB certified as a Woman Owned Business Enterprise. CH Engineering is available and dedicated to serve its clients with experienced professionals in all facets a project may require.

## Liability Insurance

CH Engineering maintains liability insurance of \$1,000,000 professional liability for errors and omissions and is prepared to show proof of insurance upon request by the owner. We also maintain General Liability in the amount of \$2,000,000 with and aggregate of \$4,000,000. Please advise if you need copies of CH Engineering's insurance certificates for professional and general liability.

## Terms of Payment

Invoices shall be submitted on a monthly basis for services rendered based on percent complete. After receipt of CH Engineering's invoice each month, owner pledges to process payment to CH Engineering within 7 days from receipt of invoice.

Sincerely,

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Jeff Munn P.L.S.  
Survey Project Manager

Date

Accepted by,

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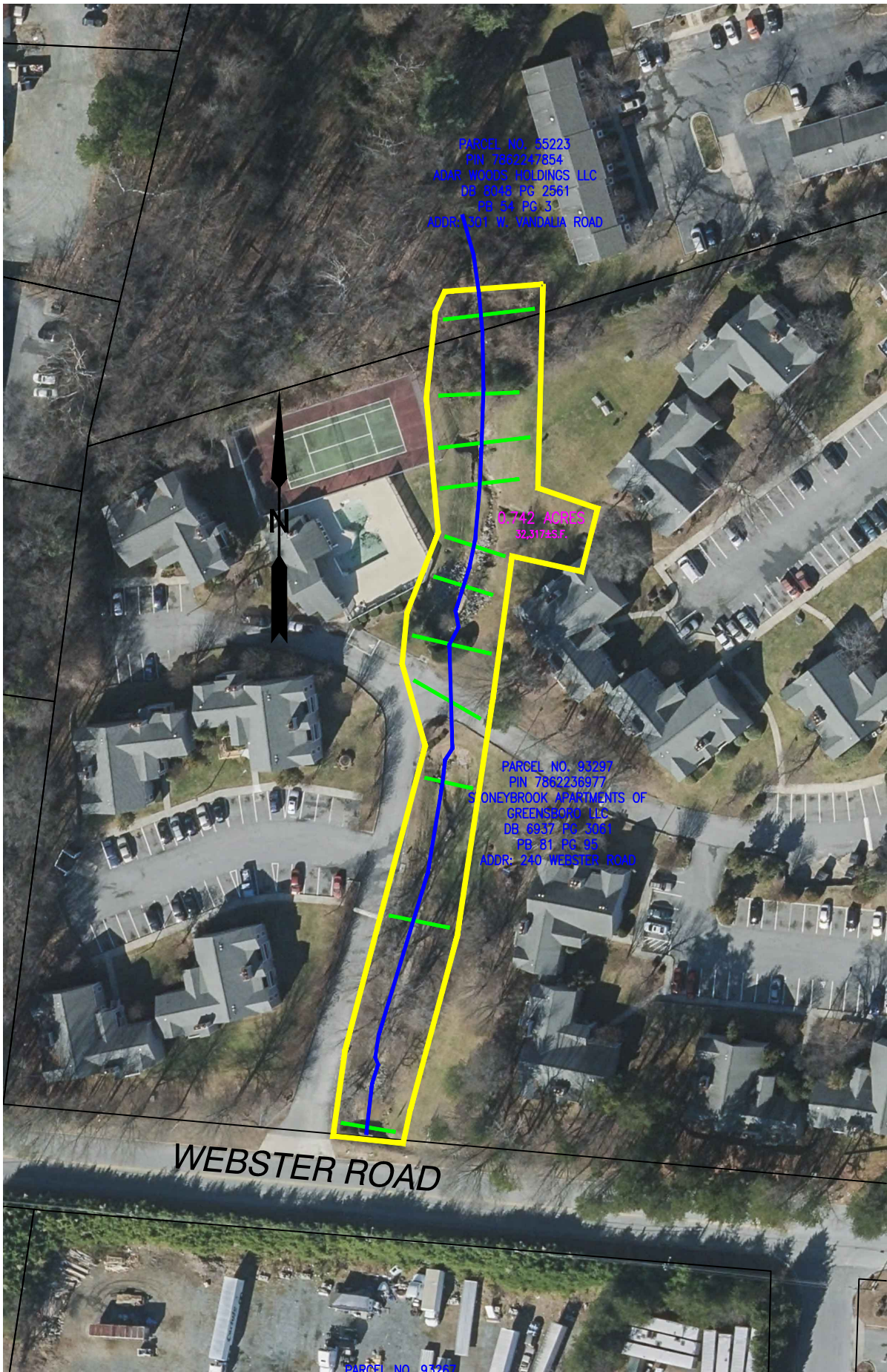
Atkins Global

Authorized Signature

Date

This proposal and its contents shall not be duplicated, used, or disclosed—in whole or in part—for any purpose other than to evaluate the proposal. This proposal is not intended to be binding or form the terms of a contract. The scope and price of this proposal will be superseded by the contract. If this proposal is accepted and a contract is awarded to CH Engineering, PLLC as a result of—or in connection with—the submission of this proposal, CH Engineering, PLLC and/or the client shall have the right to make appropriate revisions of its terms, including scope and price, for purposes of the contract. Further, client shall have the right to duplicate, use, or disclose the data contained in this proposal only to the extent provided in the resulting contract.





PARCEL NO. 35223  
PIN 7862247854  
ADAR WOODS HOLDINGS LLC  
DB 8045 PG 2561  
PB 54 PG 3  
ADDR: 1001 W. VANDALIA ROAD

0.742 ACRES  
32,317±S.F.

PARCEL NO. 93297  
PIN 7862236977  
S ONEYBROOK APARTMENTS OF  
GREENSHAW LLC  
DB 6937 PG 2061  
PB 81 PG 85  
ADDR: 240 WEBSTER ROAD

WEBSTER ROAD

PARCEL NO. 93297

## ATTACHMENT B

### Stream Bank Stabilization Scope of Services & Fee (Atkins)



Ms. Maha Chambliss, PE  
President, CH Engineering  
3220 Glen Royal Road  
Raleigh, NC 27617

September 18, 2019

**Subject: Webster Road Streambank Stabilization – City of Greensboro**

Dear Maha,

Atkins appreciate the opportunity to provide a proposal for the City of Greensboro (herein referred to as the 'City') for streambank stabilization near Webster Road. It is our understanding that streambank erosion at few locations within non-encroachment areas have resulted in loss of private property and failure risk to public sanitary sewer outfall. As shown in Figure 1, project area is defined as the existing stream from Webster Road to the south, running north, crossing Stonebrook and continuing to just beyond the existing tennis courts (approx. 570 linear feet). In order to prevent further loss to the private property and protect existing public utilities, the City has requested Atkins' assistance with preparation of flood study, conceptual plans, construction plans, permitting, and bidding support.



**Figure 1. Location Map**

The study area is located along the South Buffalo Creek Tributary 10 which is mapped by FEMA/NCFMP as 'Zone AE without Floodway'. Here is a list of services that Atkins team will perform:

**1. Data Collection:** Atkins will obtain supporting information (i.e. LiDAR, contours) from the NCFMP/NCDOT websites. Atkins will obtain additional information (i.e. parcels, storm drainage info) from the City. Surveyors from CH Engineering will collect topographic, channel, and subsurface utility surveys. Atkins will utilize topographic information supplemented by survey data for analysis.

**2. Flood Study:** Atkins will utilize effective discharges for the flood study. Atkins will modify effective HEC-RAS hydraulic model, to create existing conditions model, based on topographic data. Atkins will establish the 100-year and floodway water surface elevations for existing conditions. Atkins will evaluate up to two (2) alternatives for streambank and/or channel improvements. Atkins will attempt to achieve a 'no-rise' for each alternative evaluated. Atkins will prepare narratives to summarize results of the analysis. Atkins will also create maps so show any changes to the floodplain limits due to the channel improvement alternatives considered. Atkins will provide a draft analysis and results to the City for review. The hydraulic models and/or supporting 'no-rise' documentation will be revised if needed per the City's comments. Atkins will attend up to two (2) meetings with the City to discuss analysis.

Following construction, Atkins will utilize the as-built survey provided by the City to update the hydraulic model. Atkins will document any changes due to the as-built (i.e. post-project) conditions as compared to the pre-project (i.e. existing) conditions.

**3. Construction Plans:** Atkins will perform detailed design and prepare construction plans for the alternative preferred by the City.

- Construction Plans and Profiles: develop construction plans for each project as follows:
  - General Sheets – including cover, legends, index, and general notes
  - Existing Condition Plan – based upon the topographic land survey and utility designations
  - Demolition Plans – depicting existing site features to be demolished, removed, or abandoned in place, and initial erosion & sediment control measures
  - Site & Grading Plans – proposed site work, grading and final erosion & sediment control measures. Develop existing stream profile and cross-section sheets as necessary to depict grading work
- Construction Details
  - Site Details – construction details will be developed for site and erosion control in accordance with appropriate local and state standards
- Erosion and Sediment Control:
  - Provide detailed plans and design showing erosion and sediment control measures required during construction in accordance with City of Greensboro Standards and the latest version of the North Carolina Erosion & Sediment Control Planning and Design Manual. Demolition plans will be prepared separately showing the required site demolition measures, along with phase I E&SC measures. Phase II E&SC measures will be shown on the proposed site and grading plans.
- Permitting:
  - Provide E&SC plans and application paperwork to the NCDEQ for review
- Site and Grading:
  - Provide site and grading plans and profiles necessary to show stream stabilization improvements and modifications, and final stabilization of disturbed areas.
- Quality Control (QC) Assurance Review
  - Perform a complete internal QC review. A QC document set with the appropriate stamps, dates and signatures shall be submitted with the design package if requested, records of all QC documents will be kept on file.

- Final Bid Documents:
  - Prepare final bid documents including engineer's cost estimate, completed plans and specifications.

**4. Environmental Permitting:** Atkins shall perform the following natural resources-related services based upon a study area depicted in Figure 2 below.



**Figure 2. Environmental Permitting**

#### 4.1 Pre-Field Work

Atkins shall collect geospatial data to develop a data library for this project. The data library will include, at minimum, soil maps for buffer determinations, recent satellite imagery to support recent erosion status of the channel, and Light Distance and Ranging data (LiDAR) to support stream assessment. Using the data library, Atkins will prepare field maps to facilitate efficient field investigations to confirm status of potential Clean Water Act jurisdictional resources (streams, vegetated wetlands, and open waters), applicable state-regulated buffer areas, and federally protected species habitat.

#### 4.2 Landowner Letter Delivery

Unless provided a template by City of Greensboro, Atkins shall prepare a letter for review and signature by the City of Greensboro Project Manager to notify property owners that field surveys for natural resources will be taking place within the natural resources study area. Atkins shall print and mail the letter prior to conducting the field surveys. There are approximately (2) property owners within the study area based on 2019 Guilford County tax parcel data.

#### 4.3 Site Investigations

The natural resources study area will be visited and qualitatively evaluated for environmental features. Atkins shall collect field information on soils, stream characteristics (bank height, bankfull width, water depth, channel substrate, velocity, clarity), federally-listed endangered or threatened species (or their formally designated habitat) or species currently proposed for listing under the Act, and stream assessments.

Since the stream will mapped by a PLS survey, field delineations of waters of the US is not proposed. Global Positioning System (GPS) data will be collected at erosion points of interest and to support georeferencing site photos collected during the visit. The primary focus of the field visit will be to assess the stream, collect an upland data form to document absence of wetlands, and screen for habitat of any species listed for Guilford County. Intermittent or perennial stream determinations will be based on US



Army Corps of Engineers (USACE) and NC Division of Water Quality (NCDWQ) criteria. Based upon review of available aerial photography, the proposed Natural Resources Study Area is not expected to support anything other than one perennial stream. USACE and NCDWQ data sheets will be completed for any wetland and stream in the natural resources study area. USACE Rapanos forms will NOT be completed, since the City of Greensboro will be requesting a preliminary jurisdictional determination. A North Carolina Stream Assessment Method (NCSAM) data form will be prepared for the stream in accordance with the assessment procedures outlined in the NCSAM user manual.

Five species with federal protection (all current Proposed, Threatened, Endangered Species, and bald eagle) have ranges that extend into Guilford County (Table 1, October 4, 2018), including bald eagle. Field investigations will include determination of presence or absence of available habitat for listed species (Michaux's sumac and small-whorled pogonia), while the other species will have biological conclusions developed based upon available habitat and literature. Detailed presence/absence surveys for bald eagle, Cape Fear shiner, Roanoke logperch, and Atlantic pigtoe, and any bat species are not proposed in this scope and are therefore excluded.

The field visit is proposed to take one-person day, with a lone worker performing the field visit in a single day (including travel time). Any services requiring effort beyond this level is considered out of scope and will require additional fee.

#### **4.4 Preliminary Jurisdictional Determination**

Atkins will prepare a combined Preliminary Jurisdictional Determination (PJD)/Buffer Determination Package and any required exclusionary Surface Water Identification Training (SWIT) forms/mapping shall be included as an Appendix to the PJD.

Atkins shall submit a preliminary jurisdictional package (mapping, photos, and completed USACE Routine Wetland Evaluations document wetland absence, Waters upload table, NCSAM rating forms, and SWIT stream forms) to the City of Greensboro Project Manager prior to scheduling the field concurrence meeting. Atkins shall coordinate with the City of Greensboro to gain authorization to work as the City's agent, and Atkins shall sign the preliminary jurisdictional determination request and directly submit to the USACE representative (copying the City of Greensboro Project Manager) so that they have the package at least one week prior to the field verification meeting. Features in the jurisdictional determination package will be labeled as follows:

- Wetlands (not expected) will be labeled as "Potential Wetland Waters of the US"
- Mitigable Streams will be labeled as "Potential Non-Wetland Waters of the US (Stream)"
- Non-Mitigable Stream will be labeled as "Potential Non-Wetland Waters of the US (Tributary)"
- Ponds will be labeled as "Potential Non-Wetland Waters of the US (Pond)"

Atkins shall identify the USACE and NCDEQ regulators responsible for the project prior to initiation of the project delineation. Atkins shall coordinate and schedule a field visit with the USACE and NCDEQ regulators at the completion of the field visit (see Site Investigations task). Atkins anticipates one field visit to obtain USACE and NCDEQ verification of the waters of the US determination. Atkins shall notify other natural resource agencies of the delineation field efforts but will give scheduling priority to the availability of the USACE. During the field meeting, Atkins shall discuss the proposed streambank stabilization approach and the applicability of Nationwide Permit 13 to ensure that the permitting strategy meets the appropriate requirements. Following field approval of the delineation, written approval of the delineation will be requested from the USACE and NCDEQ regulators.

#### **4.5 Nationwide Permitting**

It is anticipated that the impacts associated with this project will be eligible for authorization under Nationwide 13 for bank stabilization and its associated 401 Clean Water Act certification. The Atkins will prepare the 404/401 permit application in the format specified by the Wilmington District Corps of Engineers, which is understood to be the ePCN format.

### *Pre-Application Meeting*

Atkins will use the field concurrence visit for the jurisdictional determination an onsite meeting with the US Army Corps of Engineers (USACE), North Carolina Department of Environmental Quality (NCDEQ) to review the proposed project, discuss any regulatory concerns, and establish a timetable for acquisition of the permit.

The consultant will provide mapping and supplemental information to support the determination of the aquatic significance of the streams and wetlands (see Jurisdictional Determination task). During this meeting, the consultant will confirm appropriate requirements for each impacted resource.

### *Prepare and Submit Clean Water Act Section 404/401 Permit Application*

Atkins will prepare the appropriate permit using the ePCN application. The completed application will document all proposed impacts to Waters of the U.S., including state-regulated Jordan Lake watershed riparian buffers. At its discretion, the City of Greensboro may execute the Joint State and Federal Application form as the applicant or may designate Atkins as the City's agent in the processing of the permit application for the subject project and in furnishing supplemental information in support of the application. The supporting documentation provided with any Section 404 application will include, at a minimum, concurrence from the State Historic Preservation Office regarding the anticipated project effects to any cultural resources, as well as either a biological conclusion documenting "no effect" on any federally listed species or habitat. Only a brief memo to each agency documenting lack of affect is included in this scope. Services associated with additional coordination or surveys for cultural or protected species surveys are excluded.

Detailed mitigation planning is not anticipated and is therefore excluded from this scope of services.

### *Preparation of Drawings and Maps*

The Section 404/401 permit application package will include drawings depicting the proposed impacts to waters of the U.S., including fill placed for the bank stabilization, as well as any impacts from access or mechanized land clearing (clearing and grubbing), and any impacts to jurisdictional open water (e.g., culvert extensions, stream channel re-alignments, or the placement of riprap in stream channels). The permit application will include the surveyed or measured boundaries of jurisdictional waters superimposed on the actual development/grading plans to establish the proposed jurisdictional impacts. These drawings will be prepared based upon established impact drawings standards.

### *Negotiations and Permit Acquisition*

Atkins will be in contact with the USACE, NCDEQ, and other federal, state and local regulatory personnel throughout the course of the permit application process and coordinate the submission of any additional information as requested by the respective agencies to facilitate permit acquisition.

The City of Greensboro will be informed of all communications involving the project. Upon request, the Atkins will furnish supplemental information in support of the Section 404/401 permit application authorization request (e.g., Threatened & Endangered Species information, clarification, additional information or responses to comments, etc.). If necessary, the consultant will prepare the appropriate responses to agency or public comments received because of the public notice or from the dissemination of the permit authorization request, as directed by the City of Greensboro.

## **4.6 Natural Resources Task Administration**

Completion of the natural resources task requires various administrative services such as phone calls, brief memoranda and/or letters about the status of the project, schedule coordination, task hazard and safety documentation, and internal project team meetings. Atkins anticipates one short client/stakeholder meeting to discuss any comments received from City of Greensboro or other parties designated by the City to provide reviews.

**5. Bidding Support:** Atkins will provide support during the bidding phase. The services will include:

- Assist the City with preparation of meeting agenda and meeting minutes.

- Participate in the pre-bid meeting.
- Prepare responses to bidders questions.
- Assist with bid tabulation and evaluation.
- Provide final recommendation.

## Deliverables

Atkins will provide following deliverables:

- i. Flood study: up to two (2) hard copies of the H&H report along with digital files of hydraulic models.
- ii. Environmental Permitting:
  - Jurisdictional Determination package
  - Nationwide Permit 13 submittal package (using USACE ePCN system) in digital format.
  - All field forms (originals)
  - One copy of all field notes in pdf format
  - A copy of all shape files used to create the figures
  - QA/QC form with signatures
- iii. Construction Plans: 50% Construction Plans, Final Construction Plans, and Signed/Sealed Plans for Stamping/Signatures. The general nature of the submissions is as follows:
  - Preliminary Submission (50% design)
    - Prepare preliminary general construction plan sheets
    - Prepare existing conditions plans and preliminary demolition plans
    - Prepare preliminary typical section and site and grading plan and profile on construction document plan sheets showing cut/fill limits and impacts based on outcome of hydraulic calculations and flood study provided by others.
    - Prepare preliminary phase 1 and phase 2 erosion and sediment control design
    - Develop preliminary site details
    - Prepare cross sections at critical locations along the stream alignment
  - Final Construction Plan Submission (100% design)
    - Refine all elements prepared in the Initial Final Submission and revise based on the City review comments
    - Prepare all final design elements and construction plan sheets, profiles, details, and calculations
  - Submit Final Drawings for Approval Stamping/Signatures
    - Make any final revision to all construction plan sheets based on the City Final review comments and issue Final Signed and Sealed construction document plan set
- iv. Submission will incorporate City and review comments from previous submissions. Comment responses will be prepared for each subsequent submission.
- v. Four (4) full-size hardcopy and a PDF of all applicable documents (Plans, E&S Calculations, Review Comment Responses) will be provided at each submission. AutoCAD files will be provided at the final submission.
- vi. All drawings will be prepared as follows:
  - Using AutoCAD Civil 3D
  - 24"x36" Plan Sheets on standard City border
  - 1"=20' Scale for all Plan Sheets
  - 1"=20' Horizontal : 1"=5' Vertical Scale for all Profile Sheets



## Schedule

Atkins proposes following schedule barring any unexpected delays from the regulatory agencies during permitting.

- Flood Study – 4 weeks from the receipt of survey data
- Preliminary Submission (~50%) – 4 weeks from flood study and preferred conceptual plan
- City review period – 2 weeks
- Environmental Permitting - 6 weeks from preferred conceptual plan
- Final Construction Plan Submission (~100%) – 3 weeks
- City review period – 2 weeks
- Final signed/sealed construction Plans – 2 weeks

## Assumptions

This scope and fee estimate were prepared with following assumptions. If any of these statements are invalid, the scope and fee may be subject to change.

- Access to the site will be provided
- Property owner coordination will be performed by the City

## Exclusions

Following exclusions apply to the Atkins' scope of services.

- Topographic Survey
- Utility design and/or relocation
- Landscape plan/design
- Construction Phasing – development of separate construction documents for phased construction of project
- Geotechnical testing
- CLOMR/LOMR permitting
- Any permit and notification fees
- Environmental compliance monitoring during construction
- Construction scheduling services or administration
- Preparation of contractors Stormwater Pollution Prevention Plan package
- Participation in meetings, hearings, or presentations (including public, community or City Council) unless specifically included in this scope of work
- Condition assessments of existing utilities, including sanitary or storm sewer

## Fee

The project scope will be completed for a lump sum cost of **\$85,951.45**. Detailed fee breakdown is as follows.

Task 1: Data Collection	\$2,224.80
Task 2. Flood Study	\$21,304.00
Task 3. Construction Plans	\$46,739.65
Task 4. Environmental Permitting	\$10,627.00
Task 5. Bidding Support	\$3,831.00
Direct Costs	\$1,225.00
Total:	\$85,951.45

Please let me know if you have any questions or need any clarifications. I may be reached at 919.431.5253 or [amit.sachan@atkinsglobal.com](mailto:amit.sachan@atkinsglobal.com). We look forward to the opportunity to work with you on this important assignment.

Sincerely,

A handwritten signature in blue ink that reads "Amit Sachan". The signature is fluid and cursive, with the first name "Amit" and last name "Sachan" clearly distinguishable.

Amit Sachan, PE, CFM  
Project Director, Atkins

## ATTACHMENT C

### Construction Administration and Project Closeout Scope of Services & Fee (Davenport)



August 13, 2019

Ms. Maha Chambliss, PE  
President  
CH Engineering  
3220 Glen Royal Road  
Raleigh, NC 27617  
Phone: 919-256-5462  
Email: mchambliss@ch-engr.com

**Subject:** Streambank Stabilization for Webster Road and Woodcroft Circle Neighborhoods  
Construction Engineering Services  
DAVENPORT Job No. 190048

John Davenport Engineering, Inc. (DAVENPORT) is pleased to submit this proposal (the "Proposal") to CH Engineering ("Client") for the work (the "Work") described in detail in the Scope of Services section of this Proposal. The Work will be performed for the following:

**Location:** 2 locations – Stonebrook Court and Webster Drive intersection & Woodcroft Circle  
Guilford County, NC

**Description:** Project consists of providing Construction Engineering Services for streambank stabilization projects at the Stonebrook Court and Webster Drive intersection and behind Woodcroft Circle in Greensboro, NC. The projects are being performed on an urgent basis due to the severely eroded bank issues at both sites.

This Proposal is limited exclusively to the Work as described in this Scope of Services and anything not described shall be considered excluded from the Work. DAVENPORT proposes to perform the Work which is described as follows:

## **I. SCOPE OF SERVICES**

Individual tasks will be outlined in the attached scope/man-hour breakdown.

### **A. Construction Administration and Observation**

DAVENPORT was advised by CH Engineering that each of the two (2) projects (Webster Road and Woodcroft Circle) will last one week.

DAVENPORT's staff will visit the project sites weekly to observe construction (approx. 40 hours per site) for a period of 2 weeks. Weekly progress reports will then be prepared by DAVENPORT staff documenting construction progress.

DAVENPORT staff can also review pay requests, assure compliance with final design, work with the city and engineer on any unforeseen conditions, and review Contractor's record drawings and all other close-out documentation.

### **B. Project As-Built Closeout**

DAVENPORT will take design drawings from contractor(s) on each site and clean up and reissue clean set of record or as-built drawings, certified and stamped by a NC Professional Engineer.

**ASSUMPTIONS/EXCLUSIONS**

This proposal is based upon the following exclusions and assumptions:

- Scope of services is based on preliminary scope provided by CH Engineering to Ryanne Murphy via e-mail on August 9, 2018.
- Site Contractor will issue "marked-up" as built drawings to DAVENPORT, who will provide cleaned up drawings in both CADD and PDF formats.
- CADD designs will need to be available to DAVENPORT for as built work.
- Survey necessary to complete as-built drawings will be performed by others.
- The scope of services is limited exclusively to the tasks outlined in the breakdown above.
- Items not specifically included in the scope spreadsheet will be an additional service.
- Utility design or re-design is not included.
- All fieldwork can be performed during normal business hours, typically Monday thru Friday from 8:00 am to 5:00 pm.

**FEES AND PAYMENTS**

The following fees are for the performance of the Work listed in the Scope of Services above, at the location described above. The fees listed in this Fees and Payments section do not cover any Additional Work (defined herein), or any other services which are not specifically described as part of the Work listed in the Scope of Services above. Payments of any invoice shall be taken to mean that the Client is satisfied with the services and is not aware of any deficiencies in those services.

DAVENPORT's fee for the Work listed in the Scope of Services above will be lump sum fees which will be invoiced on a monthly basis:

SERVICE	FEE	TYPE
Task 1 – Construction Admin/Observation for Webster Drive DAVENPORT Project Number 190048.600	\$4,724.00	T/M Not To Exceed
Task 2 – Project Closeout Expenses for Webster Drive DAVENPORT Project Number 190048.600	\$2,700.00	T/M Not To Exceed
Task 3 – Construction Admin/Observation for Woodcroft Circle DAVENPORT Project Number 190048.600	\$4,724.00	T/M Not To Exceed
Task 4 – Project Closeout Expenses for Woodcroft Circle DAVENPORT Project Number 190048.600	\$2,700.00	T/M Not To Exceed
<b>TOTAL T/M FEES ONLY</b>	<b>\$14,848.00</b>	
Notes:		
1) These fees are valid for 90 days.		

**ADDITIONAL WORK**

Experience indicates that certain additional items of work may be required or necessary which DAVENPORT cannot presently determine or estimate. For this reason, the fee for these items is not included in the provisions listed above on "Fees and Payments" for the performance of the Work. Further, the performance of these items is not included in the Work unless the item is expressly described as the Work in the preceding Scope of Services section. These additional items of work ("Additional Work") are caused by many factors, usually at the discretion of the Client and/or his construction contractors. They may also be caused by reviewing agency or Client variance/deviation from present policies and standards of reviewing governmental agencies. "Additional Work" may sometimes be referred to as extras, change orders, or add-ons,

**Home Office:**

119 Brookstown Ave., Suite PH1  
Winston-Salem, NC 27101  
Main: 336.744.1636; Fax: 336.458.9377

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but for purposes of this Proposal, all such descriptions are intended to be encompassed within the term Additional Work.

- Additional work required by the Owner/Client, town, or other governmental agency that is not expressly included in the above Scope of services.
- Any task not specifically included in the attached scope/man-hour breakdown.
- Work revisions on any Scope of Services items that are required as a result of a change requested by the Client after previous approval by it or any approving agencies.
- Certifications not specifically called for in the Scope of Services.
- Waiver or variance services.
- Changes in policies or regulations during the progress of work that affects current schedule or projected time to complete.
- Expert witness testimony.
- Attendance at meetings other than those specified in the proposal.
- Utility design and/or relocation design.

#### **SITE/CIVIL FEES AND PAYMENTS FOR ADDITIONAL WORK**

Fees and payments for Additional Work shall be in addition to any fees and payments for the Work described in the Scope of Services above.

#### **CLOSURE**

If you find this proposal acceptable, please sign this contract where indicated below and return the original to us as our authorization and notice to proceed.

We appreciate the opportunity to provide these services to you. Please contact me if you have any questions.

Sincerely,



Chris Bowers, EI

Enclosures: Standard Hourly Rates Table  
cc: Accounting  
File 190048





## STANDARD HOURLY RATES & REIMBURSABLE SCHEDULE

President	\$275.00/hour
Regional Production Director or Senior Associate	\$195.00/hour
Senior Project Manager IV	\$180.00/hour
Senior Project Manager III	\$170.00/hour
Senior Project Engineer IV	\$170.00/hour
Project Manager II	\$160.00/hour
Senior Project Engineer III	\$155.00/hour
Project Manager I	\$155.00/hour
Senior Project Scientist/Geologist IV	\$150.00/hour
Communications Manager	\$145.00/hour
Chief Administrative Officer	\$130.00/hour
Senior Project Scientist/Geologist III	\$125.00/hour
Project Engineer II	\$120.00/hour
Project Engineer I	\$115.00/hour
Project Scientist/Geologist II	\$105.00/hour
Visualization Technician	\$100.00/hour
Project Scientist/Geologist I	\$85.00/hour
Environmental Field Tech II	\$85.00/hour
Environmental Field Tech I	\$70.00/hour
Traffic Engineering Assistant III	\$75.00/hour
Traffic Engineering Assistant II	\$65.00/hour
Administrative	\$65.00/hour
Engineering Technician	\$60.00/hour
Traffic Engineering Assistant I	\$45.00/hour
Mileage	\$0.62/mile
Additional Report Copies or Plots	\$100.00 Each
Meals and Lodging	At Cost
Reimbursable Expenses (sub-consultants, courier, etc.)	Cost + \$15%
Permit and Review Fee Reimbursement	Cost + \$15%

**Escalation:** DAVENPORT reserves the right to escalate hourly rates annually, upon a new calendar year, in accordance with its newly-adopted standard hourly rate schedule.