



Borum, Wade and Associates, P.A.

May 25, 2018

Mr. Brian Boyd, Water Engineering Specialist
City of Greensboro, Water Resources Department
2602 South Elm-Eugene Street
Greensboro, NC 27406

Re: Proposal for Surveying and Engineering Design Services
Water Improvements Project – N. Elm Street

Dear Mr. Boyd:

We appreciate the opportunity to present this Surveying and Engineering Design Services Proposal for the above referenced project. The Proposal outlines our Project Understanding, Scope of Services, Schedule of Fees and Contract Special Conditions.

PROJECT UNDERSTANDING

The City of Greensboro proposes to install up to approximately 10,235 linear feet of new 12” water mains in North Elm Street beginning at Abe Brenner Place and running northward to West Cornwallis Drive. This new 12” water line will replace the existing water lines that now runs along this route. Borum, Wade and Associates, P.A. (BWA) will be the lead surveyor and engineering designer for the project. BWA proposes to sub-contract with Northstate Utility Locating, Inc. to provide underground utility locations, to sub-contract with John Davenport Engineering, Inc. for traffic control designs, to sub-contract with Pilot Environmental, Inc. to prepare the necessary applications for any wetlands/streams disturbances that may be required during construction (if needed), and to sub-contract with a Terracon Consultants, Inc. to provide a sub-surface exploration report in the area of construction. Also, BWA will be responsible for the contract documents, bidding of the project, construction staking, as-built surveying and some construction administration. Excluding any time delays encountered due to unforeseen “issues” that may arise during the planning process, BWA targets to complete these plans, specifications and permits within approximately 180 days after the City finalizes the contract and issues an Authorization to Proceed.

SCOPE OF SERVICES

Surveying, Preliminary Property Mapping and Preliminary Route Layout

1. Meet with City Staff to discuss the Scope of the project.
2. Research the public road right of ways within the project limits.
3. Meet with City staff to review the findings of the research if necessary.
4. Notify Northstate Utility Locating to proceed with underground utility locations.
5. Notify Terracon to proceed with roadway borings (up to approximately 40 borings are proposed: 20 borings to determine thickness and material composition of the pavement system and stone thickness; and, 20 borings to be extended 5’ below the pavement surface to sample the soil sub-grade).
6. Field survey the area within the project limits.
7. Provide surveys and Geotechnical Sub-surface report (as prepared by Terracon) for the City’s review as necessary for the preparation of the water mains extension design plans.

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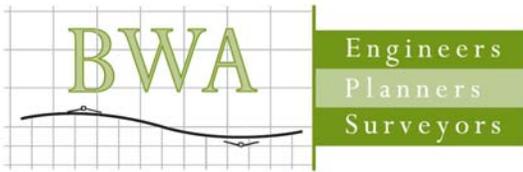
Website: www.borum-wade.com

N.C. License #: C-0868

8. Provide a preliminary layout of the water mains incorporating various design considerations such as utility conflicts, road bores, etc.
9. Collaborate with the City to review the proposed water line design routes.
10. Respond to any City preliminary comments and revise the plans as necessary to finalize the route of the new water lines.
11. Provide required documentation to be used by the City in the acquisition of any temporary and/or permanent easements as required for the project (if needed):
 - a. Compile affected property ownership data and enter it into City's Microsoft Access database.
 - b. Provide G-Drawings (i.e. property maps) to City of Greensboro standards.
 - c. Revise G-Drawing per City comments.
 - d. Complete the City provided Utility Easement Forms along with attached D-Drawings exhibits to be recorded by the City at the Guilford County Register of Deeds.

Utility Design & Roadway Improvements

12. Coordinate the preliminary routes with all necessary reviewers including City Staff.
13. Begin preparation of the Construction Plans and Specifications for the water mains, sidewalk/handicap ramp(s) improvements and/or replacements and any travel way striping improvements. Plans and Specifications to be reviewed with the City at periodic completion intervals, such as 30%, 60% and 90%.
14. After the route is finalized, BWA will notify John Davenport Engineering, Inc. to coordinate traffic control plans and detour plans with GDOT.
15. Analyze and determine the extent of any citizen impacts that may occur during the construction.
16. Finalize the development and submission to the City of the project manual and drawings inclusive of the front-end documents as provided by the City. The Contract and Specifications book will include the Special Conditions and Bid Forms along with the City of Greensboro Standard Specifications for Water, Sewer and Street Construction (as provided by the City).
17. Provide technical criteria, written descriptions and design data for the City's use in filing applications for the permits and/or approvals of the appropriate governmental agencies and assist the City in consultations with appropriate authorities. (Note: We anticipate for this contract proposal that the City will provide all necessary plan review and the water permit, NCDEQ will provide the Land Disturbing Permit if more than 1 acre of land is disturbed, and Pilot Environmental will apply to NCDEQ and USACE if necessary to disturb any jurisdictional streams and/or wetlands. No other public permit applications are included as a part of this proposal).
18. Prepare an Opinion of Probable Construction Cost in 2018 dollars based upon the design drawings and specifications. (A local utility contractor may be used as a sub-consultant during this portion of the design project).
19. Provide one set of mylar sepia drawings and/or paper prints of the plans along with one set of reproducible specifications for the City's use in bidding the project.



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Bidding Phase

- 20. Provide Bid Documents to City of Greensboro requirements.
- 21. Respond to Bidders questions relating to the Construction Documents.
- 22. Attend Pre-Bid Meeting.
- 23. Attend the bid opening.
- 24. Evaluate the bids and provide recommendations.

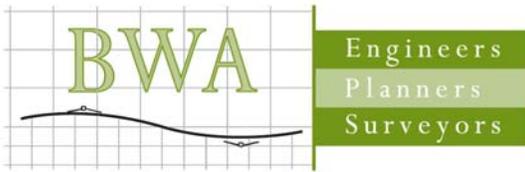
Construction Staking and Administration Phase

- 25. Attend Pre-Construction Meeting with City representatives and contractor.
- 26. Provide Construction Staking as necessary to complete the construction of the water line.
- 27. Perform periodic site inspections at the City’s request. (Note: The City will be the lead inspector on the project; however, it is expected that BWA, as the engineer of record, will perform a maximum of 12 periodic inspections as required by City staff).
- 28. Answer contractor’s questions, including evaluating work change directives/change orders.
- 29. Conduct a final inspection with City inspector to verify the completion of final punch-list construction items.
- 30. Provide as-built utility surveys for the project. (Provide one set each of As-Built drawings per City of Greensboro standards on mylar sepia and paper copy, along with an electronic copy in AutoCAD format for the City’s records).

SCHEDULE OF FEES

BWA proposes to provide the technical services indicated under the SCOPE OF SERVICES on an Hourly, Not to Exceed basis. The fees breakdown is as follows:

Surveying, Mapping, Engineering Design and Project Management:	\$175,000.00
Bid Documents Preparation:	\$ 10,500.00
Construction Staking and Administration:	\$ 27,500.00
Northstate Utility Locating, Inc. (Expense Allowance):	\$ 30,000.00
Pilot Environmental, Inc. – Wetlands/Streams Permits (Expense Allowance):	\$ 3,000.00
Terracon Consultants, Inc. - Geotechnical Exploration (Expense Allowance):	\$ 28,000.00
John Davenport Engineering, Inc. – Traffic Control Design (Expense Allowance):	\$ 85,000.00
Additional Reimbursable Expenses (Allowance):	<u>\$ 5,000.00</u>
TOTAL Surveying and Engineering Design Services Fees:	\$356,000.00



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SPECIAL CONDITIONS AND EXCLUSIONS

The following Special Conditions and Exclusions shall apply to the proposal:

1. Reimbursable Expenses shall include: copies, mileage, printing/binding, sub-contractor utility locator, sub-consultant for geotechnical sub-surface exploration, sub-consultant to prepare traffic control plan, and sub-consultant to help prepare the Cost Estimate (if required).
2. No environmental permitting is anticipated for this project. These services have been excluded from this Proposal, however, they can be provided as a Reimbursable Expense to be invoiced as Time and Materials.
3. This Proposal is based upon the information received from the City in the Request for Proposal (email dated May 18, 2018) and subsequent conversations with the City of Greensboro Water Resources Department. If for any reason a scope revision is necessary, you will be notified in writing with a Scope Change Request letter.
4. Construction Administration Services performed by our Team will only be on a periodic inspection schedule in order to aid the City inspectors and to ensure the correctness of our Final Construction As-Built Plans. We will be available to answer contractor questions; however, we will not be responsible for any construction activities nor will we assume authority of the contractor's work, safety procedures, schedules, quality of work, etc.
5. BWA will not be responsible for the accuracy, absence, and/or presence of the location of underground utilities. It will be contractor's responsibility to verify the location of any and all underground utilities during construction.
6. All Construction Staking is included in this Proposal.
7. All regulatory permit/review/inspection fees are not included as a portion of this proposal. BWA will inform the City of any required fees during the design process. The City will provide the required checks made payable to the appropriate Authority or Agency.

Please utilize this Proposal Letter as needed in preparing the Design Services Contract for the City of Greensboro. If you have any questions, or need additional information, please do not hesitate to call our office.

Sincerely,
Borum, Wade and Associates, P.A.

T. Eugene Mustin, PE
Vice President

Attachment: Hourly Rates Schedule - Borum, Wade and Associates, P.A