

**EXHIBIT “A”**  
**CITY OF NEWBURYPORT**  
**PHILLIPS DRIVE NEIGHBORHOOD**  
**ROADWAY AND DRAINAGE IMPROVEMENTS**

April 29, 2020

**Scope of Services**

BSC Group, Inc. (BSC) prepared a comprehensive scope of work for the proposed roadway and drainage improvements within the Phillips Drive Neighborhood in the City of Newburyport, Massachusetts which includes Phillips Drive, Sullivan Drive, Drew Street, and Ryan Road. The proposed services shall include the wetland resource area delineations, design, permitting, bidding and limited construction support of the roadway and drainage improvements as outlined in the RFP dated February 14, 2020.

BSC has prepared this proposal based upon the following understanding of your needs and circumstances that have affected the scope of services:

- An existing conditions survey of the area has been previously prepared and will be provided in AutoCAD file format for use in the execution of this scope.
- The neighborhood was originally built on wetlands and the soils are typically poorly draining causing high groundwater and drainage issues in the neighborhood. Improvements will need to consider subdrains, swales and other drainage features to direct stormwater runoff away from homes to improve existing poor drainage conditions.
- Based on the MassGIS Wetlands Viewer, there appears to be wetland resource areas and/or buffer zones located in and adjacent to the neighborhood. Thus, the delineation of these areas and the filing of a Notice of Intent with the Newburyport Conservation Commission along with the issuance of an Order of Conditions for the proposed improvements will be required.
- The design and construction of the improvements shall be in compliance with applicable federal, state, and local regulations, including the latest edition of the MassDOT Standard Specifications for Highways and Bridges, latest edition, 2/20/20, and the City’s Stormwater Management Ordinance and Stormwater Rules and Regulations.
- The project is intended to be constructed in two phases as outlined in the RFP.
- The City will determine if the water distribution and/or sanitary sewer systems require upgrading. If required BSC can incorporate the upgrades as an Additional Service.

## **Scope of Work:**

### **Wetland Delineation**

BSC wetland scientists will update delineated wetland resource areas within and adjacent to the project limits. Because of trespass law, we are unable to delineate wetlands on property not owned by the City without approval from the property owners. However, we will sketch the estimated location of wetlands which extend from, or may be located within, 100-ft of the roadway right of way line.

Additionally, BSC will evaluate and flag the Mean Annual High-Water Mark/Top of Bank (whichever is higher) of the stream that runs from Ryan Road to Hoyt's Lane to establish the associated 200-foot Riverfront Area on plans. BSC assumes the Top of Bank will be consistent with the Mean Annual High-Water Mark. Flagging will be limited to the roadway right of way boundary. However, BSC will estimate the Top of Bank and assess the presence of other resource areas, such as Bordering Vegetated Wetlands, along the immediate limits of the right of way boundary. Wetland resource areas will be identified in accordance with the Massachusetts Wetlands Protection Act, its associated Regulations, the Department of Environmental Protection (DEP) Policy 95-1, the Army Corps of Engineers (ACOE) Wetland Delineation Manual (1987) and any local ordinance/bylaw requirements. Policy 95-1 specifically outlines the current DEP criteria and methodology for defining jurisdictional wetlands in Massachusetts. Both the ACOE Manual and Policy 95-1 allow for the use of the environmental characteristics of hydrophytic vegetation, hydric soils and hydrology in order to identify wetland areas.

As part of this task, BSC scientists will place sequentially numbered pink flagging tape in the field in order to demarcate the wetland/upland boundary onsite. The City will engage the surveyor of record to locate the wetland flagging and add to the existing conditions plan.

### **Pavement Evaluation and Soil Borings**

BSC will perform a visual evaluation of the pavement deterioration and the existing drainage issues. Additionally, BSC, with support from the City, will engage a contractor to provide one day of borings, approximately 8-10 borings to refusal or 10-12 feet deep, to help determine the best repair methods for each individual section of roadway. Test pits in critical areas off the sides of the roadway may be advisable to determine groundwater elevations to support the stormwater management improvements. The cost of the boring contractor has been included in our fee and it is assumed that the City will be able to perform the test pit excavation.

BSC will compile the results of the borings, our evaluation of the existing pavement, and recommended repair solutions in a letter report.

### **Schematic Design**

Working with the City, BSC will prepare a preliminary plan set showing proposed improvements to Phillips Drive, Sullivan Drive, Drew Street, and Ryan Road. BSC's plans will show preliminary roadway improvements, rough site grading, utilities, and stormwater management solutions for discussion and review with the City Departments. The BSC site plans will include:

- Cover Sheet
- Existing Conditions Plan (provided by others)
- Site Preparation Plan: Plan illustrating those existing Site elements to be removed or modified prior to new construction and general construction phase erosion control.

- Roadway Improvements Plans: Plan illustrating Site construction materials, dimensioned layout, utilities, existing and proposed contours, and general Site construction features.
- Roadway Profiles: Plan illustrating the proposed and existing roadway centerline profiles and utilities.
- Stormwater Management Plans: Plan illustrating the proposed and existing drainage structures and features to improve the stormwater management of the neighborhood.
- Signage Plan: Plan illustrating the proposed location and type of signage to be installed on the improved neighborhood roadway network.
- Details: Details at appropriate scale to support approval from the City including typical roadway sections.

BSC will submit the Schematic Plan set to the Client for review and comment. One set of revisions have been included in our budget to address review comments from the City.

BSC will attend project Team meetings, Team conference calls and a neighborhood meeting to support the project. For budgeting purposes, BSC has included 24 hours of meeting time during this phase of the project.

### **75% Design Documents**

Based upon the approved Schematic Design and the Neighborhood meeting BSC will prepare 75% Construction Documents for the purpose of permitting the project with the City of Newburyport Conservation Commission. The 75% Design Documents will be prepared for both Phase I and Phase II of the project.

BSC will also prepare a set of project specifications, including technical and front-end specifications in CSI format to cover all elements of the construction described on the plans prepared above.

A construction cost estimate, using unit pricing, will be prepared based on the approved plans and using the estimated construction quantities for both Phase I and Phase II. The construction documents (plans, technical and front-end specifications, and construction cost estimate) will be submitted to the City for review and comments. Review comments will be satisfactorily addressed and/or incorporated into a final set of 75% construction documents as appropriate.

### **Notice of Intent Package Preparation and Submittal**

Using the approved 75% Design Plans, BSC will prepare a Notice of Intent package (with associated plans and analysis) for approval of the project under the Massachusetts Wetlands Protection Act (310 CMR 10.00) and the City of Newburyport Wetlands Ordinance. The Notice of Intent will be submitted to the Newburyport Conservation Commission and the Department of Environmental Protection (DEP) in accordance with filing requirements. BSC will coordinate with the Commission to determine the responsibility for providing public notice in the newspaper. We will obtain an abutters list from the City and mail abutter notifications as required.

For projects of this nature, it is typical to receive input during the Conservation Commission processes. BSC has included a budget to provide up to 40 hours of written and engineering design plan revisions and responses to comments received during the Conservation Commission hearings. Additional time, if required, will be provided as an additional service on a time and materials basis.

BSC team will attend the Conservation Commission public hearing in support of the Project. BSC has estimated the attendance of two (2) Conservation Public Hearings in support of the Project. Upon receipt, we will review the Orders of Conditions (OOC) for any issues detrimental to the City's interests. After the OOC is found to be acceptable by the City, BSC will record the Order at the Essex County Registry of Deeds.

### **Final Design Documents**

Based upon the approved 75% Design Documents and the Order of Conditions BSC will prepare the 100% Construction Documents for the purpose of bidding and construction of the approved work. The documents will cover both Phase I and Phase II of the project with the understanding that the drainage improvements will be constructed first with the roadway improvements beginning the following construction season as a separate bid project. Careful attention will be given to the Phase I work and accommodating the existing Phase II infrastructure along with the bidding and constructing the drainage work separate from the roadway improvement work. The Phase II design will include the removal of any temporary infrastructure required in Phase I.

A set of bidding specification, including technical and front-end sections, to cover elements of the site construction described on the plans will be prepared to support Phase I and II.

The 75% Construction estimates will be updated and advanced to 100%. The construction documents (plans, technical specifications, and construction cost estimate) will be submitted to the City for review and comments. Review comments will be satisfactorily addressed and/or incorporated into a final set of construction documents as appropriate.

### **Bid Documents**

Based upon the approved Final Design, BSC will prepare two sets of Bid Documents for bidding and construction of the approved work associated with Phase I of the project. The documents will cover the Phase I scope of work of the project with the understanding that the drainage improvements will be constructed first with the roadway improvements beginning the following construction season as a separate bid project.

A set of bidding specification, including technical and front-end sections, to cover elements of the site construction described on the plans will be prepared to support both Bid packages for the Phase I scope of work.

The Construction estimates will be updated and advanced to 100%. The construction documents (plans, technical specifications, and construction cost estimate) will be submitted to the City for review and comments. Review comments will be satisfactorily addressed and/or incorporated into a final set of Bid documents as appropriate.