

EXHIBIT A

TASK ORDER “TO2020.01”

This Task Order pertains to an Agreement by and between the City of Beacon, (“OWNER”), and Henningson, Durham & Richardson Architecture and Engineering, P.C., (“ENGINEER”), dated _____, 20____, (“the Agreement”). Engineer shall perform services on this Task Order as described below and provided herein and in the Agreement. This Task Order shall not be binding until it has been properly signed by both parties. Upon execution, this Task Order, as it is described below, shall supplement the Agreement.

TASK ORDER NUMBER: TO2020.01

TASK ORDER NAME: Upper Fishkill Ave. Study Area (UFSA)

PART 1.0 TASK ORDER DESCRIPTION:

The portion of the City of Beacon known as the “Upper Fishkill Ave Study Area” (UFASA), shown on Figure 1, has recently become of interest for development. The City is tasking HDR to investigate certain aspects of the existing infrastructure in the area and potential modifications to increase the available capacity of the infrastructure. Details of the proposed scope of services, Owner’s responsibilities, schedule, and fee are provided in the following sections.

PART 2.0 SCOPE OF SERVICES TO BE PERFORMED BY ENGINEER:

The scope of services included in this Task Order are described below:

1. Sewer Connectivity Update. Support the City’s efforts to investigate the relevant connectivity of the sewers within the UFASA in order to determine the actual extent of the UFASA tributary area, including the connectivity of the Delevan cul-de-sac and of portions of the “Groveville” area, as well as potential connectivity of City-owned stormwater infrastructure (such as catch basins or storm drains). Update the City’s sewer-system model accordingly, if necessary.

This task element includes HDR support in the form of coordination of information with the City, compilation and analysis of such information to update the sewer system model and associated graphics, and up to one (1) field day for one (1) HDR staff member to accompany City staff (or their designated party) to inspect sewers for connectivity and/or other characteristics such as manhole depth,

orientation of manhole laterals, etc. However, this task element does not provide for HDR to themselves perform the field work (e.g., opening manholes, measuring depths, etc.).

2. Pump Station Update. Support the City's efforts to investigate the relevant characteristics and capacity of the Fishkill Avenue Pump Station, and update the sewer-system model accordingly, if necessary.

This task element includes coordination of information but no field work on the part of HDR.

3. I/I Comparison. Based upon flow-metering data previously measured in the UFASA, determine the components of inflow and infiltration (I/I), including dry-weather (seasonal) infiltration, rainfall-dependent inflow, and rainfall-dependent infiltration, and compare those levels to other areas within the City.
4. Investigate Sewer Modification Impacts. Using the City sewer system model, including any updates made during the above task elements, develop two or three conceptual modifications of the Fishkill Ave. sewer in the hydraulic "bottleneck area" (previously identified in the vicinity of Delevan St. to Hanna Lane) to resolve the high water levels predicted there during large storms. For each conceptual modification, HDR will determine the predicted improvement (with respect to peak water level) along Fishkill Ave. as well as the predicted change in peak water levels elsewhere between the UFASA and the sewage treatment plant, since resolving water levels in one area can adversely affect levels downstream. HDR will provide the conceptual modifications to the City so that the City Engineer can develop associated cost estimates.
5. Develop Approach to Identify I/I from Private Sources. HDR will work with the City to develop a suitable approach to identify I/I from private sources. HDR will also advise the City regarding potential approaches to estimate the quantity of I/I from potential sources once they are identified. A level of effort is assumed for this task, but the actual level of effort may differ from this estimate, depending upon the City's determination of suitability of the available approaches. HDR not incur additional effort without prior City authorization.

6. Estimate Impacts of Different Levels of I/I Reduction. HDR will apply the City's sewer system model, as updated to represent the existing sewer system as described in the above steps, to determine the benefits for sewer capacity of implementing different levels of I/I reduction. (Note: any actual I/I reductions would not occur until corrective actions are completed.)

Another part of this task element will consider how a certain level of I/I reduction could impacts given the structural modifications investigated in item 4 above.

7. Project Management. HDR will perform routine project management during the execution of this Task Order, including preparation of monthly progress updates and invoicing status and related coordination with the City.

PART 3.0 OWNER'S RESPONSIBILITIES:

The scope, schedule, and fee estimate provided herein assumes that the City will provide available documents (such as pump station drawings and specifications), results of any field work or measurements that the City collects itself or through other contractors and which the City deems appropriate and relevant to this study, and coordination with HDR as necessary for HDR to perform these task elements in a timely way.

PART 4.0 PERIODS OF SERVICE:

The approximate time needed to complete each task element is provided in Table 1, below. As shown, HDR's efforts are anticipated to take approximately 8 weeks, including coordination with the City on task element #5; that said, additional time allowance for the City to arrange for and deploy for field measurements is anticipated, so that the actual calendar time to perform this work could be longer.

PART 5.0 ENGINEER'S FEE:

Fee estimates are provided for each task element in Table 1, below:

Table 1: Estimated Duration and Fee for each Task Element

Task Element	Task Name	Duration (weeks)	Task Fee
1	Sewer Connectivity Update	1.0	\$5,500
2	Pump Station Update	0.75	\$2,000
3	I/I Determination and Comparison	1.0	\$5,300
4	Investigate Sewer Modifications	0.75	\$3,000
5	Develop Approach to Identify Private I/I	4.0*	\$4,500
6	Estimate Impacts of I/I Reduction Levels	0.5	\$2,600
7	Project Management	NA	\$2,000
	Total	8.0	\$24,900

* Task Element #5 will require approximately 3 days of HDR effort, but it is expected that coordination with the City could last over roughly 4 weeks.

PART 6.0 OTHER:

None.

This Task Order is executed this _____ day of _____, 20__.

HENNINGSON, DURHAM &
RICHARDSON ARCHITECTURE AND
ENGINEERING, P.C.

"OWNER"

"ENGINEER"

BY: _____

BY: _____

NAME: _____

NAME: _____

TITLE: _____

TITLE: _____

ADDRESS: _____

ADDRESS: _____
