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June 21, 2013

Mr. Hunter Kelly, P.E.
Division of Sewerage and Drainage
Sewer System Engineering Section
1250 Fairwood Avenue, Room 1021
Columbus, Ohio 43206

Re: Fountain Square Stormwater System Improvements
Capital Improvement Project No. 610050-100000
(2259 – Contract Modification – Northland Park Drainage Investigation)

Dear Mr. Kelly:

As requested, we are pleased to submit this proposal for a contract modification to provide additional consulting civil engineering and surveying services in connection with the Fountain Square Stormwater System Improvements. As discussed at our June 19th Business Case Evaluation (BCE) meeting, the City would like to expand the original scope of this project to investigate the drainage conditions of Northland Park (Former Northland Mall site) and its' effect on the storm sewer systems within the project area. This modification will involve the investigation and modeling of the existing storm water system for Northland Park and the modeling and design of the necessary improvements to meet the City of Columbus Stormwater Design requirements.

A. Background

The City of Columbus, Department of Public Utilities (DPU) contracted with Pomeroy & Associates, Ltd in 2012 to the study, design, and construction of stormwater improvements necessary to mitigate street flooding along the Morse Road Service Road in the vicinity of the Fountain Square shopping center and Ohio Department of Natural Resources (ODNR) entrance drive. This project will also establish flood routing for the project area. The project tributary area is comprised of 640 acres; of which approximately 185 acres is tributary to the Northland Park Retention Basin and 273 acres is tributary to the Morse Road/Huntington Bank Storm sewer system. The entire tributary area is tributary to a 78" storm sewer located near the intersection of Belcher Drive and Cleveland Avenue.

During our investigation of the project tributary area we determined that the basin at Northland Park (Former Northland Mall site) discharges a significant volume of water into the existing ODNR storm sewer and basin and towards Shanley Road during all rainfall events.

This basin was recently modified as part of the redevelopment of the Northland Park site. The design study for the modification of the basin appears to have significantly underestimated the stormwater runoff for the designed tributary area; this contributes to significant downstream capacity issues.

B. Project Statement

Currently, the exact scope and impact of the excessive discharge from Northland Park is not known. This excessive discharge directly affects the design of the storm sewer system necessary to correct the original stated project deficiency. The purpose of this contract modification is to identify all existing and proposed stormwater flows within the 185-acre Northland Park Basin tributary area and to design the necessary corrective storm sewer improvements to provide storm sewer systems designed per the current City of Columbus Stormwater Design Manual.

C. Existing Conditions

The existing 185-acre Northland Park basin tributary area is comprised of the following:

Area #1A – This is a 99.1-acre area located north of Morse Road between Tamarack Boulevard and Karl Road that is tributary to the study area via an overflow structure (0300T1369) which divides the flow with a 24” storm sewer headed south (towards the former Northland Mall property) and a 15” overflow sewer headed east towards the Huntington Bank facility at Cleveland Avenue. In addition, there are twin 45”x29” elliptical pipes under Morse Road which discharge into a 60” storm sewer along the south side of Morse Road.

Area #1B – This is an 85.8-acre area that includes the former Northland Mall property. The basins on the old Northland Mall property are directly tied into the ODNR storm sewer system & basins with an 18” diameter overflow pipe located between structure 0300T1343 and structure 0300T0418 (CC2778).

The current configuration directs flow from the old Northland Mall tributary area into the system we are studying, when the flow in the adjacent 72” pipe exceeds the spring line of the pipe. The existence of this overflow causes more volume and higher peak flows to enter the study area storm system during rainfall events with a frequency of 1-year and greater. The Northland Park basin also has a secondary outfall which is an 18" pipe that discharges to an existing storm sewer system at Shanley Road.

D. Scope of Services

Based on the above information, we propose to provide the following services to incorporate the evaluation, design and construction of this additional project area into the Fountain Square Stormwater System improvement plans.

The additional services consists of researching existing public and private utilities, reviewing background information, interviewing City staff, field surveying and investigations, hydraulic and hydrologic modeling, design report preparation, modifying proposed improvements according to field information, preparing final design plans and preparation of easements, if necessary.

A detailed description of the additional scope of service items to be completed is as follows:

1. Review Existing Information

We will provide services for this project as described in the City's original scope of services Task A1 with the following clarifications:

- Review available data such as reports, construction plans, drainage studies and calculations along with all information that could assist in preparing final design and construction plans for each project location.
- Interview City of Columbus, Division of Sewerage and Drainage employees who are familiar with area flooding and drainage problems.
- Research existing sanitary, water, storm sewer and private utilities located within the proposed improvement area.

2. Field Investigations

Under the direction of a professional surveyor, we will provide a field investigation of the project areas as described in the City's RFP original scope of services Task A2 with the following clarifications:

- Obtain all pertinent data necessary to supplement the proposed stormwater improvements in order to investigate, evaluate, and confirm the alignment of proposed improvements.
- Establish right-of-way, field survey invert and top of casting for primary storm sewer structures, confirm adjacent utility locations and identify any existing easements.
- Stake the proposed centerlines for all proposed alignments for field evaluation of the proposed improvements.
- The project manager will conduct a site visit to access the overall conditions present and identify any potential issues. The Project Manager (Christopher

M. Tebbe, P.E.) has extensive experience assessing existing sewer systems and is NASSCO, MACP and PACP certified. We will utilize the site visit to identify any deficient items, which will require immediate correction or inclusion in the final project design.

- For proposal purposes, we have assumed an allowance of $500 for the use of Law Enforcement Officers (LEO's) during field investigation and/or other work in the field, if it is deemed necessary for worker safety.

In order to prepare a cost proposal for this project, we have assumed that the investigation of the Northland Park Basin tributary area will require the survey of the primary storm sewer paths (and larger trunk storm sewer lines) coming into and out of the basin.

The following quantities were used to prepare this proposal:

- Locate the main storm and sanitary sewer structures from the culverts under Morse Road to the Northland Park basin (2,000'), the Northland Park Basin to the intersection of Dresden Street and Ward Road (2,000'), and the Northland Park basin to the ODNR Basin (including Belcher Drive storm sewer) (1,500'). Provide top of casting, pipe type, sizes and inverts. (Approximately 52 structures for the contract modification.)

- All other utilities will be shown on preliminary topographic exhibits based upon record plans from utility companies and governmental agencies.

- Locate minimum amount of survey control in order to approximate street right-of-ways.

- Topographic survey of the Northland Park basin, ODNR basin and ODNR subcatchments, including outlet structures and overflow configurations.

3. Sewer Cleaning and Televising (Not Required)

4. Hydrologic and Hydraulic Analysis

We will provide hydrologic and hydraulic analysis for the analysis of the existing and proposed storm sewer and drainage facilities related to the function of the Northland Park basin as described in the City's RFP scope of services Task A4 with the following clarifications:

- We assume that the City of Columbus will request copies of the Stormwater Management Reports from the design consultants, for our use, for the following projects:

    - FRA-Morse Road Improvements - Phase 2 by MS Consultants (2008)

    - Northland Park by EMH&T (2008)

- Prepare a master drainage plan utilizing the Franklin County Auditor's aerial mapping, supplemented with the field surveyed information.

- Provide recommendations to ensure that the Northland Park stormwater infrastructure meets the design requirements in the current City of Columbus Stormwater Design Manual.

5. Business Case Evaluation (BCE) Report

We will provide engineering alternative and cost-benefit analyses for the Business Case Evaluation (BCE) Report, per Task A5 with the following clarifications:

- Prepare a Problem Statement for the project that details the existing issues the project is suppose to mitigate. This problem statement will describe the social and economic costs and benefits of the existing Northland Park basin and stormwater infrastructure improvements and the risks and impacts to Levels of Service if the improvements are not performed.

- Prepare construction cost estimates for the proposed infrastructure alternatives that include the cost for any "grey" infrastructure necessary to implement the improvements.

- Determine the service life for the infrastructure to aid in calculating the total capital costs for the improvements over the 30-year analysis time frame.

- Prepare life cycle cost analyses to aid in calculating total capital costs.

- Determine whether there is adequate right-of-way / easements to construct the proposed improvements. If additional easements are necessary, then determine the costs for acquiring the necessary easements.

- Incorporate the results for Northland Park into the Fountain Square BCE Report.

- We will write the Final BCE Report for the entire project, for the City to review. This was not part of our original scope.

6. Preliminary Design Report (PDR)

We will prepare a preliminary Design for the proposed storm sewer project described in the City's RFP scope of services Task A6 with the following clarifications:

- Incorporate the recommendations for the Northland Park Basin tributary area into the project letter report that includes a summary of our findings, calculations, available improvement options and construction cost estimates.

- Incorporate the findings from the BCE Report performed as part of Task A5 into the Preliminary Design Report.

- Provide a summary of existing conditions, proposed improvements and construction methodologies and requirements.

- Conduct a site visit with City of Columbus personnel to discuss the proposed recommendations and to highlight the key design issues.

- Submit two copies of the report for review along with a digital PDF copy of the report on a CD-ROM.

7. Construction Plan Surveying

After the Preliminary Design Report and preliminary alignments are approved for the project, we will provide field surveying under the direction of a professional surveyor, as necessary, to prepare the detailed construction plans for the approved improvements according to the City's RFP scope of services Task A7 with the following clarifications:

- Prepare topographic survey utilizing research and field data previously obtained.

- Obtain street cross-sections at 25-foot intervals and property ground elevations as necessary to prepare a topographic survey of the proposed improvement area. Locate all physical features on the properties where improvements will be made.

- All proposed structures will be located by State Plane Coordinates and these coordinates will be shown on the construction plans.

- Establish the location of the existing right-of-way lines, existing easements, and property lines as needed for the development of the construction plans and easements.

- Verify the size, depth and location of existing utilities as necessary to determine how they would impact the proposed improvements.

- Provide the City with complete electronic data of the field survey.

- Provide the City with a list of property owners whose properties will be surveyed. This list is a courtesy to allow the City to track any complaints, requests, issues the property owners may experience. Our surveyors will distribute door hanger notifications and provide notification letters to the affected properties prior to entering and surveying their parcels.

- If necessary, obtain street occupancy permits required for surveying and provide necessary traffic control/maintenance as required by these permits.

- Upon the City's selection and approval of the stormwater system improvements, the centerline of the proposed storm sewer system will be established and referenced in the field.

- In order to prepare a cost proposal for this project contract modification, we have assumed that the construction plan preparation will require the survey of the primary storm sewer path (and larger trunk storm sewer lines) from the Northland Park Basin to the intersection of Dresden Street and Ward Road (2,000') and from the Northland Park basin to the area east of the ODNR Basin (including Belcher Drive storm sewer) (1,500')..

8. Easements (If Authorized)

After the field surveying and investigation is complete, we may determine that additional easements may be required. This proposal includes the preparation of 5 easements on an "if authorized" basis. We will provide the following services:

- Prepare a property acquisition map at an appropriate scale to indicate the location of easements, adjacent properties, and properties addresses.

- Prepare legal descriptions and exhibits for the easements and submit the original document and 4 copies of the construction plans for the City's use in acquiring and recording these easements. We assume that the City will pay recording fees and easement acquisition costs.

- When authorized, field stake the easements with lath to assist the City during the easement acquisition process.

9. Geotechnical Investigations (Not Required)

10. Draft Construction Plans

We will design the proposed improvements and prepare draft construction plans as described in the City's RFP scope of services Tasks A10.1 thru A10.11, with the following clarifications:

- We will review the proposed improvements in the field with the City of Columbus Project Manager and Arborist to determine any conflicts between the proposed improvements and existing trees. This site visit will also be used to discuss critical design elements, verify required easements and identify potential design issues.

- We also assume that this phase of the project will require two meetings with the City to discuss the design progress and major design decisions.

We will design the proposed improvements and prepare draft construction plans as described in the City's RFP scope of services Tasks A10.1 thru A10.11, with the following clarifications:

Based on our previous assumption that downstream improvements will be required, we estimate the following additional (above base contract) design drawings will need to be prepared:

Northland Park Basin to the intersection of Dresden Street and Ward Road (2,000')

- 3 Sheets – Detention Design/Details
- 4 Sheets – Plan & Profiles
- 1 Sheets – Maintenance of Traffic Details

Northland Park Basin to the area east of the ODNR Basin (1,500')

- 1 Sheets – Detention Design/Details
- 3 Sheets – Plan & Profiles
- 1 Sheets – Maintenance of Traffic Details

11. Revised Construction Plans

After obtaining final City staff comments, we will finalize the construction plans and submit a title sheet tracing along with two sets of revised final construction plans for compliance review, and final approval and signatures according to Task A11 of the City's RFP scope of services, with the following clarifications:

- Our work will include the preparation of an engineer's construction cost estimate for the proposed project based on the City's construction and material specifications items and prevailing wage data provided by the City.
- Our services will also include the preparation of construction time schedule for a contractor to complete the proposed work

12. Stormwater Pollution Prevention Plan and NOI (Included in Base Contract)

13. Permits and Evaluations (Included in Base Contract)

14. Bid Documents (Included in Base Contract)

15. Bidding and Construction Services (Included in Base Contract)

16. Progress Meetings, Reports and Schedules

We will attend progress meetings, prepare progress reports and updated project schedules as described in the City RFP scope of services Task A16.

- For proposal purposes we have assumed that there will be 4 additional progress meetings, related to the Northland Park Drainage Investigation during the work on the first 14 tasks for this project.

17. Public Meetings (Included in Base Contract)

18. Engineering Services During Construction (Included in Base Contract)

19. Record Plans

We will provide engineering services, for the additional storm sewer improvements, for this project as described in the City's scope of services Task A19 with the following clarifications:

- We will prepare record plan drawings using the TIF images provided by the City along with as-built information provided by the field inspectors.

20. If Authorized (Additional Considerations) (Included in Base Contract)

Currently, there are no other known "if authorized" work items for this project.

Please advise us if there are items that are not included in this proposal that are required for this project and we will update our proposal.

We have enclosed Appendices A through C for the proposed additional consulting services described within this proposal.

Please let me know if you should have any questions or comments concerning this proposal.

Yours truly,
POMEROY & ASSOCIATES, LTD.

Christopher M. Tebbe, P.E.
Associate