

VILLAGE OF DOWNERS GROVE
Report for the Village
1/14/2020

SUBJECT:	SUBMITTED BY:
Engineering Services Contract for Village Level of Service Master Plan - Phase 2	John Welch Acting Director of Public Works

SYNOPSIS

A resolution has been prepared authorizing the award of a contract for engineering and survey services to Hey and Associates, Inc. of Chicago Illinois, in the amount of \$203,357 for engineering services for Phase 2 of the Drainage and Stormwater Master Plan. This includes a 10% contingency.

STRATEGIC PLAN ALIGNMENT

The goals for 2019-2021 include *Top Quality Infrastructure*.

FISCAL IMPACT

The FY20 Budget includes \$256,845 in the Stormwater Fund for this project.

RECOMMENDATION

Approval on the January 14, 2020, consent agenda.

BACKGROUND

The Stormwater Capital Projects Plan is a Priority Action Item for 2019-2021.

The Village is nearing completion of the projects identified in the 2014 Stormwater Project Analysis (SPA). By 2020, all non-floodplain projects identified in the SPA will be completed. In the SPA, the Village established a recommended level of service for the stormwater management system to all properties within the Village, and identified improvements to areas that experienced flooding in the 2013 flooding event. The recommended level of service was identified as the “Service Level Drainage Event”, and accounts for an estimated 95% of the rainfall events that occur on average in a given year.

Phase 1 of the project was completed at the end of 2019 and further refined the definition of the Service Level Drainage Event, developed a GIS tool to depict the current level of service in areas throughout the Village and created an evaluation and prioritization framework for future stormwater improvement projects.

The Village Council authorized a comprehensive study of areas within the Village to identify and prioritize remaining areas that do not meet the Service Level Drainage Event. Phase 2 of this project will assist Village Council in creating a proposed multi-year stormwater capital projects plan that prioritizes areas of the Village which do not meet the recommended level of service, identifies the capital projects to be constructed to

achieve the recommended level of service, provides preliminary cost estimates for the capital projects and includes a financing plan to pay for the projects aligned with the Stormwater Utility Fee Plan.

ATTACHMENTS

Resolution

Contract

RESOLUTION NO. ____**A RESOLUTION AUTHORIZING EXECUTION OF AN AGREEMENT
BETWEEN THE VILLAGE OF DOWNERS GROVE
AND HEY AND ASSOCIATES, INC.**

BE IT RESOLVED by the Village Council of the Village of Downers Grove, DuPage County, Illinois, as follows:

1. That the form and substance of a certain Agreement (the "Agreement"), between the Village of Downers Grove (the "Village") and Hey and Associates, Inc. (the "Consultant"), for Phase 2 of the Downers Grove Drainage and Stormwater Management Master Plan, as set forth in the form of the Agreement submitted to this meeting with the recommendation of the Village Manager, is hereby approved.

2. That the Village Manager and Village Clerk are hereby respectively authorized and directed for and on behalf of the Village to execute, attest, seal and deliver the Agreement, substantially in the form approved in the foregoing paragraph of this Resolution, together with such changes as the Manager shall deem necessary.

3. That the proper officials, agents and employees of the Village are hereby authorized and directed to take such further action as they may deem necessary or appropriate to perform all obligations and commitments of the Village in accordance with the provisions of the Agreement.

4. That all resolutions or parts of resolutions in conflict with the provisions of this Resolution are hereby repealed.

5. That this Resolution shall be in full force and effect from and after its passage as provided by law.

Mayor

Passed:

Attest: _____
Village Clerk

AGREEMENT

This Agreement is made this _____ day of _____, 2020, by and between Hey and Associates, Inc. ("Consultant") and the Village of Downers Grove, Illinois, an Illinois municipal corporation with offices at 801 Burlington Avenue, Downers Grove, Illinois 60515, ("Village").

WHEREAS, the Village wishes to retain the services of the Consultant to provide drainage and stormwater management study/design services for Phase 2 of the Downers Grove Drainage and Stormwater Management Master Plan, which builds on the information and analyses prepared in Phase 1 to evaluate and rank problem areas and then to develop and prioritize concept solutions.

WHEREAS, the Consultant is willing to perform these services for compensation and in accordance with the terms and conditions described in this Agreement.

NOW, THEREFORE, in consideration of the mutual benefits that will result to the parties in carrying out the terms of this Agreement, it is agreed as follows:

I. Scope of Services

See attached Proposal dated December 23, 2019 attached hereto and incorporated herein by reference as Exhibit B.

II. Term of Agreement

The term of this Agreement shall be until October 31, 2020 or until the services as set forth in Exhibit B have been completed, whichever shall occur first.

III. Compensation

A. Basic Fees:

Fees for these services are One Hundred Eighty-Four Thousand Eight Hundred Seventy Dollars and no cents (\$184,870.00) plus a 10% contingency of \$18,487.00 for a total not-to-exceed fee of \$203,3757.00. Any additional work performed that will increase the agreement price in excess of this amount must be approved in writing by both parties.

B. Consultant Invoices:

The Consultant shall prepare invoices that contain a reference number, the billing period, the classifications and/or names of staff, numbers of hours billed to the project (with clear itemization for hours spent), all reimbursable expenses and a total reimbursable amount for the billing period including receipts therefor, amounts billed to date, and amounts received to date.

C. Prompt Payment Act:

The Village will comply with the Local Government Prompt Payment Act, 50 ILCS 505/1 et seq., in that any bill approved for payment must be paid or the payment issued to the Consultant within 60 days of receipt of a proper bill or invoice. If payment is not issued to the Consultant within this 60 day period, an interest penalty of 1.0% of any amount approved and unpaid shall be added for each month or fraction thereof after the end of this 60 day period, until final payment is made.

The Village shall review in a timely manner each bill or invoice after its receipt. If the Village determines that the bill or invoice contains a defect making it unable to process the payment request, the Village shall notify the Consultant requesting payment as soon as possible after discovering the defect pursuant to rules promulgated under 50 ILCS 505/1 et seq. The notice shall identify the defect and any additional information necessary to correct the defect.

IV. General Terms and Conditions

A. Relationship Between the Consultant and the Village

The relationship between the Village and the Consultant is that of a buyer and seller of professional services and it is understood that the parties have not entered into any joint venture or partnership with the other.

B. Equal Employment Opportunity

In the event of the Consultant's non-compliance with the provisions of this Equal Employment Opportunity Clause, the Illinois Human Rights Act or the Rules and Regulations of the Illinois Department of Human Rights ("Department"), the Consultant may be declared ineligible for future contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations, and the contract may be canceled or voided in whole or in part, and such other sanctions or penalties may be imposed or remedies invoked as provided by statute or regulation. During the performance of this Agreement, the Consultant agrees as follows:

1. That it will not discriminate against any employee or applicant for employment because of race, color religion, sex, marital status, national origin or ancestry, age, physical or mental handicap unrelated to ability, or an unfavorable discharge from military service; and further that it will examine all job classifications to determine if minority persons or women are underutilized and will take appropriate affirmative action to rectify any such underutilization.
2. That, if it hires additional employees in order to perform this Agreement or any portion thereof, it will determine the availability (in accordance with the Department's Rules and Regulations) of minorities and women in the area(s) from which it may reasonably recruit and it will hire for each job classification for which employees are hired in such a way that minorities and women are not underutilized.

3. That, in all solicitations or advertisements for employees placed by it or on its behalf, it will state that all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, marital status, national origin or ancestry, age, physical or mental handicap unrelated to ability, or an unfavorable discharge from military service.
4. That it will send to each labor organization or representative of workers with which it has or is bound by a collective bargaining or other agreement or understanding, a notice advising such labor organization or representative of the consultant's obligations under the Illinois Human Rights Act and the Department's Rules and Regulations. If any such labor organization or representative fails or refuses to cooperate with the consultant in its efforts to comply with such Act and Rules and Regulations, the consultant will promptly so notify the Department and the contracting agency and will recruit employees from other sources when necessary to fulfill its obligations thereunder.
5. That it will submit reports as required by the Department's Rules and Regulations, furnish all relevant information as may from time to time be requested by the Department or the contracting agency, and in all respects comply with the Illinois Human Rights Act and the Department's Rules and Regulations.
6. That it will permit access to all relevant books, records, accounts and work sites by personnel of the contracting agency and the Department for purposes of investigation to ascertain compliance with the Illinois Human Rights Act and the Department's Rules and Regulations.
7. That it will include verbatim or by reference the provisions of this clause in every subcontract it awards under which any portion of the contract obligations are undertaken or assumed, so that such provisions will be binding upon such subconsultant. In the same manner as with other provisions of this Agreement, the consultant will be liable for compliance with applicable provisions of this clause by such subconsultants; and further it will promptly notify the contracting agency and the Department in the event any subconsultant fails or refuses to comply therewith. In addition, the Consultant will not utilize any subconsultant declared by the Illinois Human Rights Commission to be ineligible for contracts or subcontracts with the State of Illinois or any of its political subdivision or municipal corporations.

C. Sexual Harassment

Consultant, as a party to a public contract, has a written sexual harassment policy so that it:

1. Notes the illegality of sexual harassment;
2. Sets forth the State law definition of sexual harassment;
3. Describes sexual harassment utilizing examples;
4. Describes the Consultant or supplier's internal complaint process including penalties;
5. Describes the legal recourse, investigative and complaint process available through

- the Illinois Department of Human Rights and the Human Rights Commission and how to contact these entities, and;
6. Describes the protection against retaliation afforded under the Illinois Human Rights Act.

D. Drug Free Work Place

Consultant, as party to a public contract, certifies and agrees that it will provide a drug free workplace by:

1. Publishing a statement: (1) Notifying employees that the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance, including cannabis, is prohibited in the grantee's or Consultant's workplace. (2) Specifying the actions that will be taken against employees for violations of such prohibition. (3) Notifying the employee that, as a condition of employment on such contract or grant, the employee will: abide by the terms of the statement; and notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five (5) days after such conviction.
2. Establishing a drug free awareness program to inform employees about: (1) the dangers of drug abuse in the workplace; (2) the grantee's or consultant's policy of maintaining a drug free workplace; (3) any available drug counseling, rehabilitation, and employee assistance programs; (4) the penalties that may be imposed upon employees for drug violations.
3. Providing a copy of the statement required by subparagraph (1) to each employee engaged in the performance of the contract or grant and to post the statement in a prominent place in the workplace.
4. Notifying the contracting or granting agency within ten (10) days after receiving notice of a criminal drug statute conviction from an employee or otherwise receiving actual notice of such conviction.
5. Imposing a sanction on, or requiring the satisfactory participation in a drug abuse assistance or rehabilitation program by, any employee who is so convicted as required by Section 5 of the Drug Free Workplace Act.
6. Assisting employees in selecting a course of action in the event drug counseling, treatment, and rehabilitation is required and indicating that a trained referral team is in place.
7. Making a good faith effort to continue to maintain a drug free workplace through implementation of the Drug Free Workplace Act.

E. Non-Discrimination

Consultant, its employees and subconsultants, agree not to commit unlawful

discrimination and agree to comply with applicable provisions of the Illinois Human Rights Act, the Public Works Employment Discrimination Act, the U.S. Civil Rights Act and Section 504 of the Federal Rehabilitation Act, and rules applicable to each. The equal opportunity clause of the Department of Human Rights rules is specifically incorporated herein.

The Americans with Disabilities Act (42 U.S.C. 12101) and the regulations thereunder (28 CFR 35.130)(ADA) prohibit discrimination against persons with disabilities by the State, whether directly or through contractual arrangements, in the provision of any aid, benefit or service. As a condition of receiving this Agreement, the undersigned vendor certifies that services, programs and activities provided under this Agreement are and will continue to be in compliance with the ADA.

F. Campaign Disclosure Certificate

The Consultant shall submit an executed Campaign Disclosure Certificate, attached hereto. The Campaign Disclosure Certificate is required pursuant to the Village of Downers Grove Council Policy on Ethical Standards and is applicable to those campaign contributions made to any member of the Village Council. By signing this Agreement, the Consultant agrees to refrain from making any campaign contributions as defined in Section 9-1.4 of the Election Code (10 ILCS 5/9-1.4) to any Village Council member and any challengers seeking to serve as a member of the Downers Grove Village Council.

G. Patriot Act Compliance

The Consultant represents and warrants to the Village that neither it nor any of its principals, shareholders, members, partners, or affiliates, as applicable, is a person or entity named as a Specially Designated National and Blocked Person (as defined in Presidential Executive Order 13224) and that it is not acting, directly or indirectly, for or on behalf of a Specially Designated National and Blocked Person. The Consultant further represents and warrants to the Village that the Consultant and its principals, shareholders, members, partners, or affiliates, as applicable are not, directly or indirectly, engaged in, and are not facilitating, the transactions contemplated by this Agreement on behalf of any person or entity named as a Specially Designated National and Blocked Person. The Consultant hereby agrees to defend, indemnify and hold harmless the Village, and its elected or appointed officers, employees, agents, representatives, engineers and attorneys, from and against any and all claims, damages, losses, risks, liabilities and expenses (including reasonable attorney's fees and costs) arising from or related to any breach of the foregoing representations and warranties.

H. Cooperation with FOIA Compliance

Consultant acknowledges that the Freedom of Information Act may apply to public records in possession of the Consultant. Consultant shall cooperate with the Village in its efforts to comply with the Freedom of Information Act. 5 ILCS 140/1 et.seq.

I. Copyright or Patent Infringement

The Consultant agrees to indemnify, defend, and hold harmless the Village against any suit, claim, or proceeding brought against the Village for alleged use of any equipment, systems, or services provided by the Consultant that constitutes a misuse of any proprietary or trade secret information or an infringement of any patent or copyright.

J. Standard of Care

Services performed by Consultant under this Agreement will be conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions. No other representations express or implied, and no warranty or guarantee is included or intended in this Agreement, or in any report, opinions, and documents or otherwise.

If the Consultant fails to meet the foregoing standard, Consultant will perform at its own cost, and without reimbursement from the Village, the professional services necessary to correct errors and omissions caused by Consultant's failure to comply with the above standard and reported to Consultant within one (1) year from the completion of Consultant's services for the Project.

V. Insurance and Indemnification of the Village

A. Insurance

The Consultant shall be required to obtain, from a company or companies lawfully authorized to do business in the jurisdiction in which the project is located, such general liability insurance which, at a minimum, will protect the Consultant from the types of claims set forth below which may arise out of or result from the Consultant's operations under this Contract and for which the Consultant may legally liable:

Claims under workers compensation, disability benefit and other similar employee benefit acts which are applicable to the operation to be performed;

Claims for damages resulting from bodily injury, occupational sickness or disease, or death of the Consultant's employees;

Claims for damages resulting from bodily injury, sickness or disease, or death of any person other than the Consultant's employees;

Claims for damages insured by the usual personal injury liability coverage which are sustained: (1) by a person as a result of an offense directly or indirectly related to employment of such person by the Consultant, or (2) by another person;

Claims for damages, other than to the work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom;

Claims for damages because of bodily injury, death of a person or property damage arising out of ownership, maintenance or use of a motor vehicle;

Claims for damages as a result of professional or any other type of negligent action by the Consultant or failure to properly perform services under the scope of the agreement between the Consultant and the Village.

The Consultant shall demonstrate having insurance coverage for a minimum of \$2 million for professional liability (errors and omissions).

As evidence of said coverages, Consultant shall provide the Village with certificates of insurance naming the Village of Downers Grove as an additional insured and include a provision for cancellation only upon at least 30 days prior notice to the Village.

B. Indemnification

The Consultant shall indemnify, keep and save harmless the Village and its agents, officers, and employees, against all injuries, deaths, losses, damages, claims, suits, liabilities, judgments, costs and expenses, which may arise directly or indirectly from any negligence or from the reckless or willful misconduct of the Proposer, its employees, or its subcontractors, and the Consultant shall at its own expense, appear, defend and pay all charges of attorneys and all costs and other expenses arising therefrom or incurred in connection therewith, and, if any judgment shall be rendered against the Village in any such action, the Consultant shall, at its own expense, satisfy and discharge the same. This agreement shall not be construed as requiring the Proposer to indemnify the Village for its own negligence. The Consultant shall indemnify, keep and save harmless the Village only where a loss was caused by the negligent, willful or reckless acts or omissions of the Consultant, its employees, or its subcontractors.

VI. Miscellaneous Provisions

A. Termination

In the event of the Consultant's nonperformance, breach of the terms of the Agreement, or for any other reason, including that sufficient funds to complete this Agreement are not appropriated by the Village, the Agreement may be canceled, in whole or in part, upon the Village's written notice to the Consultant. The Village will pay the Consultant's costs actually incurred as of the date of receipt of notice of termination. Upon termination, the Consultant will deliver all documents and products of whatever kind, and their reproducible originals related to the project, which have been produced to the date of the notice of termination.

B. Governing Law

This Agreement will be governed by and construed in accordance with the laws of the State of Illinois. Venue is proper only in the County of DuPage.

C. Successors and Assigns

The terms of this Agreement will be binding upon and inure to the benefit of the parties and their respective successors and assigns; provided, however, that neither party will assign this Agreement in whole or in part without the prior written approval of the other.

D. Waiver of Contract Breach

The waiver by one party of any breach of this Agreement or the failure of one party to enforce at any time, or for any period of time, any of the provisions hereof will be limited to the particular instance and will not operate or be deemed to waive any future breaches of this Agreement and will not be construed to be a waiver of any provision except for the particular instance.

E. Amendment

This Agreement will not be subject to amendment unless made in writing and signed by all parties.

F. Severability of Invalid Provisions

If any provisions of this Agreement are held to contravene or be invalid under the laws of any state, country or jurisdiction, contravention will not invalidate the entire Agreement, but it will be construed as if not containing the invalid provision and the rights or obligations of the parties will be construed and enforced accordingly.

G. Notice

Any notice will be in writing and will be deemed to be effectively served when deposited in the mail with sufficient first class postage affixed, and addressed to the party at the party's place of business. Notices shall be addressed to designated representatives of both parties as follows:

**Village Manager
Village of Downers Grove
801 Burlington Ave.
Downers Grove, IL 60515**

Hey and Associates, Inc.
8755 W. Higgins Road
Suite 835

Chicago, IL 60631

H. Village Ordinances

The Consultant will strictly comply with all ordinances of the Village of Downers Grove and laws of the State of Illinois.

I. Use of Village's Name

The Consultant is specifically denied the right of using in any form or medium the name of the Village for public advertising unless express permission is granted by the Village.

IN WITNESS WHEREOF, the Parties have executed this Agreement on the date indicated above.

Hey and Associates, Inc.

By: Jeffrey Whelan

Title: Vice President

Date: 12/26/2019

Village of Downers Grove

By: _____

Title: _____

Date: _____

**Exhibit A
Campaign Disclosure Certificate**

The Campaign Disclosure Certificate is required pursuant to the Village of Downers Grove Council Policy on Ethical Standards and is applicable to those campaign contributions made to any member of the Village Council.

Said Campaign Disclosure Certificate requires any individual or entity bidding to disclose campaign contributions, as defined in Section 9-1.4 of the Election Code (10 ILCS 5/9-1.4), made to current members of the Village Council within the five (5) year period preceding the date of the bid or proposal release.

By signing this Agreement, Consultant agrees to refrain from making any campaign contributions as defined in Section 9-1.4 of the Election Code (10 ILCS 5/9-1.4) to any Village Council member and any challengers seeking to serve as a member of the Downers Grove Village Council.

Under penalty of perjury, I declare:

- Consultant has not contributed to any elected Village position within the last five (5) years.

Jeffrey A. Wickenkamp
Signature

Jeffrey A. Wickenkamp
Print Name

- Consultant has contributed a campaign contribution to a current member of the Village Council within the last five (5) years.

Print the following information:

Name of Contributor: _____
(company or individual)

To whom contribution was made: _____

Year contribution made: _____ Amount: \$ _____

Signature

Print Name

Exhibit B

Hey and Associates, Inc.

Engineering, Ecology and Landscape Architecture

*MILWAUKEE, WISCONSIN**8755 W. HIGGINS ROAD, SUITE 835**CHICAGO, ILLINOIS 60631**PHONE (773) 693-9200**FAX (773) 693-9202**VOLO, ILLINOIS*

December 23, 2019

Ms. Kerry Behr
Stormwater Administrator
Village of Downers Grove
5101 Walnut Avenue
Downers Grove, IL 60515

Re: Downers Grove Stormwater Master Plan Phase 2
Project No.: 19-0004

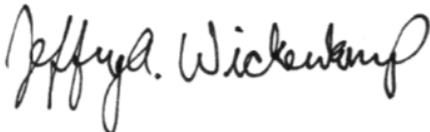
Dear Ms. Behr:

Hey and Associates, Inc. (Hey) is pleased to submit this proposed scope of work and cost for Phase 2 of the Downers Grove Drainage and Stormwater Management Master Plan. Phase 2 of the Stormwater Management Plan builds on the information and analyses prepared in Phase 1 to evaluate and rank problem areas and then to develop and prioritize concept solutions.

The scope of work for this project is included in Attachment A. Attachment A also includes the proposed hours and cost spreadsheet. Phase 2 of this project is expected to have proposed concept projects for Village concurrence in June 2020 with the final report and deliverables to be completed by the end of July 2020.

We are excited to continue working with the Village and to develop a Plan that will guide stormwater management over the next decade. Please do not hesitate to contact me if you require any additional information jwickenkamp@heyassoc.com or 773-693-9200.

Sincerely,



Jeff Wickenkamp, PE, CFM, D.WRE
Vice President

Attachment A
Downers Grove Stormwater Master Plan Phase 2
Scope of Services

SCOPE OF SERVICES

Task 1: Coordination, Meetings and Project Management

We will attend seven monthly project meetings with staff between January and July. We also are budgeting for up to two additional meetings to be held on an as-needed basis with staff and/or the Village Manager. This task also includes project management duties and other routine updates to be provided to the Village of Downers Grove (Village).

Task 2: XPSWMM 2D Modeling and Inundation Mapping

The LOS tool and rating system developed in Phase 1 evaluates the degree to which each pipe or ditch segment in the Village provides LOS drainage. It also identifies the areas which lack pipes or ditches in the ROW altogether. Previous modeling initiatives have focused on the 100-year flood levels or identification of LPDA areas. A pilot area was evaluated using XPSWMM 2D as part of the phase 1 study. This undertaking resulted in the creation of a process that would allow for the development of 10-year inundation mapping across the Village.

We will import the previously prepared hydraulic modeling into XPSWMM. There are 29 existing SWMM models (both XPSWMM and EPA SWMM). Some of these may need to be geo-referenced and combined into larger groupings. The goal will be to set up the smallest number of models that cover the entire Village but can also be executed efficiently. This will likely be in the range of 15 to 25 models. We will also extend the models as needed in select locations to represent connections into LPDA areas or into known key problem areas if they have not been previously modeled. These models will also include large diameter sewers or ditches that serve as trunk sewers or the outlets to subwatersheds.

The approach to hydrology will use an innovative process that employs a large number of small subbasins. These will be loaded onto the 2D modeling surface and allowed to run overland until they reach an inflow point to the sewer network. This will allow for inundation mapping associated with flowpaths at a low threshold of just several acres of tributary area.

Datasets necessary to execute the 2D portion of the XPSWMM model will be prepared from the Village GIS data. These will include the ground surface and the at-grade impervious areas. The initial model runs will not include areas of blocked flow, but after the initial results are complete, we may refine model by adding areas of blocked flow as appropriate.

The results of the XPSWMM 2D modeling task will be 10-year flood depths for the entire Village. These will then be used in conjunction with the LOS ratings to rank and evaluate problem areas as described in the following task.

Attachment A
Stormwater Master Plan Phase 2
Scope of Services
Page 2

Task 3: Subbasin and Problem Area Ranking and Evaluation

The results of the LOS evaluation completed in Phase 1 will be combined with the inundation mapping prepared in Phase 2 to be used in a ranking and evaluation system. This system will use criteria such as: LOS, 10-year inundation depths at structures and roads, and trunk sewer or subwatershed outlet capacity. Final criteria to be approved by Village staff.

Subbasins previously prepared for WIIP modeling ranged from less than 1 acre to over 100 acres. For ranking and evaluation, subwatersheds will be divided into subbasins that are approximately 50 acres (ranging from 25 to 75 acres depending on the area). We will work closely with staff throughout the process of establishing and applying the scoring system. The result of this task will be to establish a ranking system that distinguishes the severity of problems and the degree that the LOS is met in each subbasin. They will compile a table and maps of identified shortcomings and deficiencies of the drainage system.

Task 4: Concept Project Development

Task 3 will culminate in a comprehensive ranking of the subbasins in the Village and a rating of subbasins and/or problem areas. The rating will indicate the severity of the deficiencies relative to criteria using the 10-year storm event. Working with Village staff, we will work to identify the top 20 locations for which solutions should be developed. These solutions should result in the provision of LOS drainage and resolution of the identified deficiencies for the 10-year event. They should also ensure that there are no adverse impacts in the 10-year or 100-year event to adjacent or downstream properties.

For each location, we will first diagnose and identify the causes of the drainage deficiency. Most problems areas are likely due to a lack of conveyance at the immediate location or at the outlet from the subwatershed. Other problem areas may result from excessive stormwater leaving the ROW and flowing onto or across private property.

Once the cause of the problem has been identified, we will prepare and evaluate potential solutions. This could include a combination of one or more strategies such as conveyance, storage, and property acquisition. We will work with staff to identify the preferred solution for each problem area. While this is expected to primarily be based on cost, it will also incorporate considerations that relate to the feasibility of implementation.

A concept figure depicting the solution will be prepared and a concept level cost estimate will also be prepared for each solution. We will also determine how beneficial each project is. This will be based on the number of properties that would benefit from the project using a scoring system that is reflective of the criteria already developed for rating problem areas.

The deliverable for Task 4 will include figures that depict the extent and major components of each project and a table summarizing each project including cost; a benefit score; special

Attachment A
 Stormwater Master Plan Phase 2
 Scope of Services
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considerations, unknowns or constraints; and the estimated time/duration needed for design and construction.

Task 5: Phase 2 Stormwater Management Master Plan Report

Phase 2 will culminate in the preparation of a Stormwater Master Plan Report covering Phases 1 and 2. Report will include:

- Purpose of report (guide future stormwater CIPs)
- Definitions
- Summary of the LOS tool and analysis
- Summary of the XPSWMM 2D Modeling
- Subbasin Ranking and Problem Area Analysis
- Project development and evaluation and project summary table
- Project summary figures
- Additional Exhibits to be included (or provided electronically for staff use)
 - Subbasin Ranking Figure
 - 10-year Inundation Depth Mapping
 - Village-wide depiction of proposed project locations

We will prepare 4 copies of a draft report and 8 copies of the final report.

Proposed Fees

The proposed fees for the above tasks are summarized in the following table.

TASK	FEE
1. Coordination, Meetings and Project Management	\$15,640
2. XPSWMM 2D Modeling and Inundation Mapping	\$56,250
3. Subbasin and Problem Area Ranking and Evaluation	\$14,740
4. Concept Project Development	\$82,320
5. Phase 2 Stormwater Management Master Plan Report	\$15,920
TOTAL	\$184,870

A detailed table of hours and rates by task is also provided below.

Attachment A
Stormwater Master Plan Phase 2
Scope of Services
Page 4

Phase	Description	Hey and Associates, Inc.					Total Hours	Labor	Direct Costs	Totals
		Project Principal	Project Manager	Civil Engineer IV	Civil Engineer III	Civil Engineer I				
		Wickenkamp \$195	Lach \$170	Runger \$135	Solner \$125	Adams \$105				
1	Coordination, Meetings and Project Management								\$ 15,640	
	Coordination/Meetings (9)	26	28	18		10	82	\$ 13,310	\$ 240	\$ 13,550
	Project Management		12				12	\$ 2,040	\$ 50	\$ 2,090
2	XPSWMM 2D Modeling and Inundation Mapping									\$ 56,250
	Import, convert and assemble 29 previously prepared models into 15-25 models	2		42		63	107	\$ 12,675		\$ 12,675
	Extend or construct sewer models for areas with inadequate coverage	6	1	20		32	59	\$ 7,400		\$ 7,400
	Prepare XP-SWMM 2D hydrology	8		16		16	40	\$ 5,400		\$ 5,400
	Prepare XP-SWMM 2D surface datasets	2	2	12		12	28	\$ 3,610		\$ 3,610
	Execute models, refine inputs, define areas of blocked flow as needed.	20	16	100		8	144	\$ 20,960		\$ 20,960
	Export 10-year flood depths (inundation areas)	2	2	25		20	49	\$ 6,205		\$ 6,205
3	Subbasin and Problem Area Ranking and Evaluation									\$ 14,740
	Delineate and define subbasins	1	2	8		12	23	\$ 2,875		\$ 2,875
	Prepare ranking and evaluation system and prepare initial evaluation of subbasins	6	8	32		20	66	\$ 8,950		\$ 8,950
	Refine evaluations and prepare mapping of results	1	4	12		4	21	\$ 2,915		\$ 2,915
4	Concept Project Development									\$ 82,320
	Diagnose 20 problem areas	8	10	40	4	4	66	\$ 9,580		\$ 9,580
	Develop solutions to 20 problems areas, review approaches with staff and identify preferred solutions	50	80	150	60	60	400	\$ 57,400		\$ 57,400
	Prepare figures and summary table	12	20	40		40	112	\$ 15,340		\$ 15,340
5	Phase 2 Stormwater Management Master Plan Report									\$ 15,920
	Report Preparation	12	24	40	8	20	104	\$ 14,920	\$ 1,000	\$ 15,920
	Totals:	156	209	555	72	321	1313	\$ 183,580	\$ 1,290	\$ 184,870