



August 29, 2023

David Kratzer, Manager
Lower Makefield Township, Bucks County
1100 Edgewood Road
Yardley, PA 19067

RE: Proposal of Services
Flood Mitigation Assessment
LSI Proposal #PD-1938.1-23

Dear David,

Thank you for the opportunity to prepare a scope of work to perform a tributary assessment to address flood mitigation along an unnamed tributary located upstream of Maplevale neighborhood that drains to the Delaware Canal in the southeast corner of the Township. We understand that a recent large storm event caused catastrophic flooding within the drainage area. This assessment will help the Township prioritize next steps and develop a scope of work necessary to reduce flood related damage to property and infrastructure.

LandStudies (LSI) proposes the following scope of work:

SCOPE OF WORK

Task 1 – Background and Mapping..... \$2,565

Utilize available GIS data, stormwater drainage plans, and previously prepared reports or studies of the Unnamed Tributaries to the Delaware Canal along the drainage corridor from Merrick Road to the confluence at interstate 295 and the Delaware Canal to develop existing conditions maps that will be used to identify issues, threats and opportunities for flood reduction and erosion control. Additionally, LandStudies will identify and prepare reference maps of the stream corridors that will be used as a base for field verification in Task 3, below. These maps will, to the extent information is available in GIS or published form, identify:

- the location of existing easements, utility crossings, outfalls, etc.
- stormwater facilities, outfalls, and other features relevant to the restoration planning.
- Detailed FEMA studies if available
- Land ownership - parcel boundaries
- Hydrologic features
- Topography
- Construction drawings or plans that provide the size and location of waterway crossing of roads, if available.
- Photos available of the flooding from the Township or residents

Task 2 – Kick-off and Information Gathering Meeting \$2,480

As part of a two-day site visit to the watershed, we will meet with the Township and residents to obtain more detailed information on the flooding. This may also include a catalog of photographs and videos of previous floods.

Task 3 – Visual Assessment..... \$3,835

Desktop and in-person visual assessments will be conducted to identify potential restoration opportunities, with consideration for flood hazard mitigation, infrastructure protection, long-term stability, constructability, ecological uplift, nutrient and sediment load reductions, and other objectives identified by Lower Makefield Township. The assessment reaches and approach will

be determined to gain the most efficient and comprehensive understanding of the issues to help prioritize restoration.

- Geo-referenced photographic visual assessment of constrictions, floodplain encroachments, potential areas for debris build-up, high water marks.
- Verify drainage areas for the tributaries.
- 2-day site visit for LSI staff along with virtual coordination, as necessary.

Task 4 – Summary Narrative..... \$9,120

- A summary report of the visual assessment will be developed. The assessment will be provided in a written format along with photographs to document the findings.
- The summary report will address locations that increase flood elevations, flood prone areas, key locations for flood storage or more critical locations where supplemental conveyance of flood flows may be feasible, and other means of improvements to reduce the flooding.
- A visual plan of the watershed suitable to inform the future flood reduction and erosion control opportunities.
- Document existing, planned and potential watershed improvements.
- One (1) on-site meeting with the Township will be facilitated as an information gathering session to present the assessment findings and further define and prioritize the list of potential restoration opportunities and target specific areas of issue (flooding, erosion, drainage, etc.)

Task Deliverables

- Visual Assessment narrative
- Graphic representation of key locations identified within the narrative
- Presentation of the findings to the Township

Estimated Scope of Work Time & Materials NTE..... \$18,000

Estimated expenses (lodging, meals & mileage for the 2-day assessment) \$1,000

Estimated Total Time & Materials NTE \$19,000

EXCLUSIONS

- Landowner coordination to permit access to sites or stakeholder meetings
- Detailed design, permit and construction drawings
- Permitting and permitting fees
- Additional Meetings outside of those listed in each task
- Anything not specifically described in the scope of work

ADDITIONAL SERVICES AVAILABLE

Upon Request, LandStudies will provide a proposal for the following additional services associated with this scope of work:

- Grant writing services for the design & permitting of priority projects
- Design & Permitting
- Construction Management
- Resource Monitoring & Maintenance

SCHEDULE

Upon authorization of this scope of work, LandStudies, Inc. and the client will establish a mutually acceptable project schedule.

TERMS AND CONDITIONS

By authorizing this contract, LandStudies, Inc. and the client agree to the provisions outlined by the attached 'Terms and Conditions'.

BILLING

Scope of work on this contract will be provided up to the awarded NTE (Not to Exceed) budget on a time and materials basis at our hourly billing rates listed on the attached rate sheet. Rates are reviewed on a yearly basis and may be adjusted as the project progresses. LandStudies, Inc. makes every attempt to include these future adjustments in the cost estimate if schedule is known. Upon approaching NTE budget, LandStudies, Inc. will review project and notify client if any additional work is recommended to be completed and will issue a change order or new contract if requested.

Payment not received within thirty (30) days will be deemed delinquent and will become subject to a penalty charge of 21% per year on the unpaid balance. Fees, terms, and conditions are valid for 30 days. If the Scope of Work and fees are acceptable to you, please acknowledge so by signing, dating, and returning this contract to our office within the 30 day-period.

It is important that any questions with respect to matters outlined above be addressed and resolved promptly. Please do not hesitate to discuss them with us at any time. We look forward to working with you on this project and appreciate the opportunity to serve your needs. If you have any questions or comments, please feel free to call me at 717-627-4440 at your convenience.

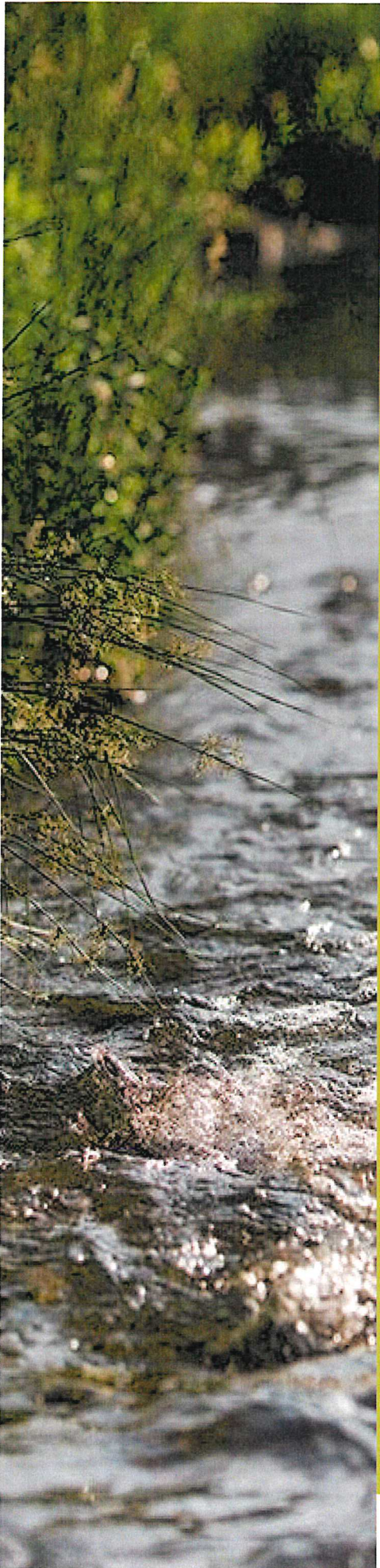
Sincerely,



Ward Oberholtzer
Project Manager / Senior Engineer

Proposal of Services: **Lower Makefield Township – Flood Mitigation Assessment**
Proposal Number: **PD-1938.1-23**
Contract Submittal Date: **August 29, 2023**
Contract Amount: **Estimated T&M (NTE) \$19,000**

Accepted and approved by: *D. W. Kratzer Jr.* Date: *9-6-23*
Print Name: *David W. Kratzer Jr.*
Company Name: *Lower Makefield Township*
Title: *Township Manager*
Name & Email address to send invoices to: *David W. Kratzer Jr. dkratzer@lmt.org*
PO and/or Job Number (if applicable):



Professional Service Rates

Rates Valid Through 12/31/2023



<u>Professional</u>	<u>Rate</u>
Engineering Technician I	\$95/hour
Engineering Technician II	\$105/hour
Engineer II	\$115/hour
Engineer III	\$140/hour
Engineer IV	\$170/hour
Senior Engineer	\$195/hour
Geomorphologist II	\$110/hour
Geomorphologist III	\$135/hour
Geomorphologist IV	\$170/hour
Senior Geomorphologist	\$180/hour
CADD Technician I	\$75/hour
CADD Technician II	\$90/hour
CADD Technician III	\$110/hour
Environmental Scientist I	\$80/hour
Environmental Scientist II	\$90/hour
Environmental Scientist III	\$115/hour
Environmental Scientist IV	\$130/hour
Environmental Designer I	\$85/hour
Environmental Designer II	\$95/hour
Landscape Architect II	\$100/hour
Landscape Architect III	\$120/hour
Landscape Architect IV	\$150/hour
Field Operations Labor	\$65/hour
Field Operations Foreman	\$80/hour
Field Operations Supervisor	\$95/hour
Field Operations Manager	\$110/hour
Maintenance Technician	\$75/hour
Maintenance Foreman	\$85/hour
Maintenance Manager	\$110/hour
Maintenance Consultant	\$110/hour
Project Coordinator	\$70/hour
Project Manager	\$135/hour
Senior Project Manager	\$170/hour
Program Specialist/Analyst	\$165/hour
Principal Specialist	\$190/hour
Administrative	\$80/hour
Sustainable Design Coordinator	\$85/hour

LandStudies, Inc. (Sometimes “LandStudies”)

Terms and Conditions

Professional Services

Fixed Fee Projects: Unless otherwise agreed, payment schedule is based on the percent of work completed for each phase of work.

Time and Material (T&M) Projects: Billings are based on the hours worked, including travel time, and actual expenses incurred plus profit. Where an estimated total has been given, unless specifically noted, it is not a guaranteed figure but is provided solely to assist in project planning.

Overtime: Overtime service will be provided only upon authorization at 1.5 times the hourly rate.

Equipment Usage – Costs for use of company equipment on a project site will be billed at a set rate, rates are available upon request. Direct expenses will be charged at cost plus profit.

Proposals

Proposals are open for thirty (30) days, unless withdrawn within that time. If work begins upon Client's request prior to execution of an agreement or engagement letter, these terms will govern the terms of the engagement. When an agreement or engagement letter is executed, these terms will supplement the agreement. If there is a conflict between these terms and conditions and the terms of any such agreement or engagement letter, the terms of this agreement or engagement letter will prevail. These terms and conditions will apply to the agreement between LandStudies and the Client, unless otherwise expressly agreed, notwithstanding contrary terms or conditions contained in any purchase order, engagement letter, agreement, or other document which Client uses to accept LandStudies' proposal.

Client's Responsibility

In addition to other agreed upon obligations, the Client must assure access to the site and suitable storage areas for LandStudies' tools, equipment, and materials. Client must timely provide complete physical information about the site and/or buildings, including but not limited to surveys, maps, elevations, flow rates, hazardous substances, and the like, necessary or desirable for LandStudies to complete its work. Client must also timely provide access to legal, accounting, and insurance advice as LandStudies may require, and Client must timely review proposals, schedules, plans, and specifications prepared by LandStudies, and cooperate with LandStudies so that LandStudies may complete its work in a timely fashion. Client further agrees to credit LandStudies, Inc. in any publicity referencing the project design. Unless otherwise agreed in writing, Client shall obtain at its expense all permits and authorizations necessary for performance of LandStudies' work or for the project of which LandStudies' work is a part.

Invoices

Unless otherwise agreed, Clients will generally be invoiced monthly for services performed during the previous month. Payment is due on receipt. Interest will be added after 30 days at the rate of 1.5% per month or partial month overdue. LandStudies, Inc. may suspend or terminate its work upon ten days notice if any invoice is not paid when due. Client will reimburse LandStudies its reasonable attorney's fees and litigation costs incurred in pursuing collection of any amount due from Client.

Reimbursable Expenses

In addition to payment of fees, Client must reimburse LandStudies for its out-of-pocket expenses incurred in performing the work, such as, but not limited to, prints, reproducible, photocopies, travel related expenses, mileage, deliveries, long distance communications, fax transmissions, photography, outside consultants, approval and permit fees, and any supplemental insurance requested. Reimbursable expenses will be billed at LandStudies' standard rates plus 10 percent. If LandStudies engages any subcontractor to perform work for Client, or a portion of LandStudies' work, then Client shall reimburse LandStudies the subcontract cost, plus 15%. Reimbursement will be provided at cost for any sales tax which may be assessed in the course of providing professional services.

Change of Work, Delays

In fixed fee engagements, changes to the work are not covered and will be billed at LandStudies' hourly rates or in accordance with a change order. When practicable, additional work or changes to the work shall be made by written change orders submitted to and approved by Client. Notwithstanding the foregoing, Client will be bound by any changes to the work authorized by it. Among other circumstances, changes to the work should be anticipated in projects constructed by methods where design and coordination services may be out of typical sequence or scheduling. If LandStudies is delayed in commencing or completing its work due to causes beyond its control, including but not limited to Client's failure to perform any of its obligations in a timely fashion, LandStudies reserves the right to increase its fees for the work in an equitable amount as compensation for the delay.

Additional Services

Services beyond those agreed to, including among others, revisions due to adjustments in the project scope, quality, or budget are considered Additional Services and will be billed at the hourly rates referenced above.

Dispute Resolution

All claims and disputes relating to the services provided shall be resolved by arbitration under the rules of the American Arbitration Association in Lancaster County, Pennsylvania. In any litigation, arbitration, or other proceeding by which one party either seeks to enforce its rights under this Agreement or seeks a declaration of any rights or obligations under this Agreement, the prevailing party shall be awarded its reasonable attorney fees, and costs and expenses incurred. The decision of the arbitrators shall be final and binding and judgment may be entered upon any such decision in any court of competent jurisdiction. The agreement between LandStudies is considered to have been made in Lancaster County, Pennsylvania and any action or arbitration may be commenced and maintained in and only in Lancaster County, Pennsylvania. The agreement between LandStudies and Client shall be governed by and construed under Pennsylvania law.

Limitation of Liability, Indemnification

Unless expressly agreed to the contrary, damages incurred by Client, or with respect to which Client is threatened as a result of any action or failure to act arising out of LandStudies' work (whether as a breach of contract or the negligent or claimed negligence of LandStudies) shall in no event exceed the greater of \$50,000 or the total amount of LandStudies' fees paid by Client in connection with the work. Client shall indemnify, defend, and hold LandStudies harmless from and against any and all cost, damage, losses, liability and actions to which it may be subject, or with which it may be threatened as a result of anything Client or its representatives, contractors, subcontractors, employees or agents do, or fail to do, in connection with the project of which the work is a part, or as a result of any failure by Client to perform any of its obligations under this agreement.

Use of LandStudies Drawings and Photographs

The drawings and specifications provided by LandStudies belong to LandStudies. Client's rights are limited to a nontransferable license of use solely with respect to the project of which LandStudies' work is a part. LandStudies retains all rights, including but not limited to copyrights therein. Copies may be retained by the Client for reference, but may not be used on any other projects or to complete this project without consent of LandStudies. Owner grants to LandStudies and LandStudies reserves the right to utilize documents produced by LandStudies under this agreement along with photographs, prints, and/or digital images of the project before, during and after construction for their promotional use.

Termination of Agreement

In addition to LandStudies' other rights of termination, either party may terminate this agreement upon 30 days prior written notice if the other fails to perform any of its obligations in a timely manner and such failure is not cured within such thirty-day period. If commencement or performance of LandStudies work is delayed or suspended (not a result of LandStudies failure to perform its obligations) for more than sixty days, LandStudies, Inc. may either terminate this agreement upon ten days prior written notice to Client or receive delay charges from Client sufficient in LandStudies' reasonable determination to compensate it for such delay. In the event of termination of this agreement for any reason, Client shall pay LandStudies all its fees and reimbursable expenses for work performed through the date of termination, however, if termination is for any reason other than LandStudies' failure to perform its work, then Client shall pay LandStudies the greater of (a) all such fees and reimbursable expenses, plus twenty percent, or (b) ninety percent of any fixed fee agreement plus all reimbursable expenses, or (c) ninety percent of the estimated fees to be charged by LandStudies for performance of the work. If this agreement is terminated by for any reason other than because of LandStudies' failure to perform its work, it shall have no obligation whatsoever with respect to the work performed or anticipated to be performed hereunder.

Insurance

LandStudies, Inc. maintains Workman's Compensation Insurance, General Liability Insurance, Automobile Insurance, and Professional Liability Insurance. Copies of insurance certificates are available upon request.

Estimates

Any estimate of costs and expenses relating to the project of which the work is a part or of LandStudies work itself, other than in fixed fee arrangements, are estimates only. LandStudies cannot assure that actual construction or other costs will not vary from any proposal or project budget. Client should anticipate that some changes and adjustments in the project will be required either during or after construction.

Rev. 10.02.12