



SECTION 2

SCOPE OF WORK



Project Details

BACKGROUND



The Tinley Creek in the Village limits is a private creek that is owned by private homeowners and Homeowners' Associations located along the creek. In 2012, the Village and the Metropolitan Water Reclamation District of Greater Chicago (MWRDGC) collaborated and initiated a project to stabilize Tinley Creek streambanks. The MWRDGC retained Michael Baker Jr., Inc. of Chicago to prepare the design, specifications and costs estimates (referred in this RFP as Baker's Plan). The Baker's Plan was completed in 2014 (98% complete). The Baker's Plan is attached with this RFP for proposer's review and use. The 2014 design was reviewed and approved by MWRDGC. However, at the time, most of the impacted property owners did not accept easement conditions needed to construct the project. This caused the project to stall for several years.

Now, based on continued erosion of streambanks and risks to existing properties, the Village and MWRDGC are collaborating again to restart and complete the project. In late 2020, the Village organized an in-person public meeting to explain to the residents the erosion issues and Village's/MWRDGC's continued interest to complete the project. The MWRDGC representatives attended and participated in the meeting as well. The outcome of the public meeting shows that there is an overall interest by most residents to complete the project. Additionally, the project was presented to the Village Board of Trustees and the Village leadership is in support of restarting the project, if the impacted property owners accept the easement requirements and pay for the long-term maintenance of improvements.

One of the requirements that came out of the public meeting is that the property owners want to see the details of what will be done to their individual properties to stabilize the streambanks. Therefore, one of the deliverables of this RFP will include preparing separate exhibits that will be shared with each impacted property owner.

The selected consultant will be required to prepare permanent and temporary easement documents that can be used to execute easement agreements with individual property owners and Homeowners' Associations. The easement agreements will be prepared and executed by the Village. It is Village's opinion that a property acquisition consultant will not be needed for the project.

The selected consultant will also be required to identify properties that are not critical for the successful stabilization of streambanks. This possibility will only be utilized if some impacted property owners do not agree to easement conditions. In that case, those properties will be removed from the project.



The Village and MWRDGC are providing engineering and construction funding for this project with the Village leading the project including consulting and construction contracts and project management services. There are project elements that are paid through MWRDGC funds and other elements are entirely Village's responsibility. The selected consultant will be required to prepare cost estimates that separately show the two elements for the two government agencies (Village and MWRDGC).

It is required that the selected consultant performs a detail review of Baker's Plan. This will include review of 2014 design and specification documents, confirmation/update of topographic surveys, field observations to confirm if previously proposed improvements are still applicable, develop updated or new improvement details, and all other related work. It is important and advantageous for the consultants to use Baker's Plan, to the extent possible, to reduce design and engineering efforts and costs.



PROJECT LIMITS

The entire creek within the Village limits is included in this project. Refer to the attached Figure 1 as a guide. In general, the project limits of the Baker's Plan are from 151st Street at the northern end to 162nd Street and Laurel Drive at the southern end. The original Baker plan included approximately 0.9 miles of Tinley Creek. Now, the overall project limit is approximately 1.4 miles long, an additional 0.4 miles of Tinley Creek is added to the project for potential streambank stabilization improvements.

Incremental additions to the scope of services include the portion of Tinley Creek between Wheeler Drive and 86th Avenue and a portion from Crystal Creek Drive to 162nd Street south of 159th Street. It is Village's opinion that the Wheeler Drive to 86th Avenue may not threaten structures; it does impact the Orland Brook Condominium Association's property and the pool area. Additionally, the erosion in this area may be severe, continues to degrade streambanks, and impacting the quality of water in the creek. The Crystal Creek Drive area may also have areas with steep slopes and eroding banks.



SCOPE OF SERVICES

The following is the proposed V3 scope of services based on the Village's RFP.

1. Provide overall project management and coordination services. This includes review of ongoing activities, monitor schedule and budget, and communicate with the Village and where needed, with MWRDGC.

V3 concurs with this scope item and will provide the project management and coordination tasks.

2. Lead and manage project kick off and coordinate meetings. This include conducting monthly (or bi-monthly meetings if recommended by the selected consultant) throughout the design to update on progress and to bring issues to the Village's attention for timely action.

V3 will prepare for and attend up to seven (7) monthly project meetings through the duration of the project, which is anticipated to take approximately 6 months, not including the permitting review and response.

3. Review previously completed design documents prepared by Michael Baker Jr., Inc., of Chicago, Illinois (attached with the RFP). These design documents were 98% complete. These include but not limited to design plans, environmental, and geotechnical data.

V3 will review and utilize to the extent possible, the Michael Baker Jr., Inc. plans for Tinley Creek Bank Stabilization. These 98% construction documents cover 0.9 miles of the 1.4 miles total anticipated project.

4. Meet with MWRDGC to understand and collect streambank stabilization design requirements and criteria. All designs and improvements (update/revise or new) must meet MWRDGC requirements or guidelines and streambank stabilization best practices.

V3 has extensive experience with MWRDGC design requirements, permitting standards and construction guidelines. V3 has done multiple projects for MWRDGC in the past 5 years – both from a design and self-perform construction aspect. V3 will meet with the MWRDGC to confirm permitting, design/CAD standards, bid specifications, MWRDGC formatted cost estimating, and other special project requirements that may apply to this Tinley Creek Bank Stabilization project.

5. Perform visits to each impacted site where improvements were proposed in Baker's Plan. The intent of these visits is to review site features for consistency with the Baker's Plan.

V3 will complete a full Tinley Creek walk down of the anticipated stabilization area to visually assess and photo document existing conditions in 2021. This walk down is critical to understand the modifications required for the Baker plans and identify critical design issues, such as at-risk structures, power poles, fences, sewer lines and other potentially failing public and private infrastructure. These critical areas will receive additional design attention, and potentially additional detailing, during the stabilization design process.

6. Update and/or replace existing topographic surveys as needed. It is Village's opinion that a significant update or complete replacement of topographic survey would be required due to the substantial increase in banks erosion and slope failures which the Baker's Plan may neither captured nor contemplated.

V3 will complete a full topographic survey update of the Baker section (0.9 miles), along with completing new topography along the 0.4 mile new section identified as part of this project.

Topographic survey includes all tree locations which are 6" in diameter and larger. However a tree survey (size, type, condition) is not included in this scope of services and can be provided as an additional service if required by the Village or a regulatory agency.



7. Develop a photographic record of the existing conditions of streambanks (both sides). This record will be used as a baseline and will be compared with any future, unauthorized changes to the banks by the residents, Homeowners' Associations, or other entities. It is consultants' choice how they collect and provide this information to the Village. All of the properties (with addresses) along the creek and photographs must correlate to each other.

Given the timing of this design contract, V3 believes that tree leaf cover will cause visual impact for the ability to perform a drone flight of the Tinley Creek corridor. In addition, V3 engineers and scientists will be best suited to identify design constraints through a full creek walk. Therefore, V3 plans to achieve this photographic record by traditional means of field walk and photo documentation. The photos will be geospatially located in GIS to quickly and efficiently tag them to each of the property addresses along the creek and create photo exhibits. V3 has extensive experience in this documentation process for similar bank stabilization projects and GIS exhibit creation.

Topographic survey will include location and size of trees equal to or larger than 6" diameter, but does not include individual tree survey for tree tagging, type and condition. This can be provided for an additional fee, if requested by the Village or a regulatory agency.

8. Update/revise streambank stabilization design included in Baker's Plan. Prepare new designs, if needed. The design elements should include extension of streambank, additional streambank treatment, and reduction or elimination of in-stream practices not focused on addressing or minimizing erosion.

V3 concurs with this scope item and will update the Baker Plans accordingly.

9. Add missing creek section (identified in blue in Figure 1) and complete design of streambank stabilization.

V3 will apply similar bank stabilization methods through the new 0.4 mile section of Tinley Creek.

10. Update/revise and/or develop new specifications including general notes and other related information. The specifications must meet MWRDGC requirements and design guidelines.

V3 has extensive experience with MWRDGC design requirements, permitting standards and construction guidelines. V3 has done multiple projects for MWRDGC in the past 5 years – both from a design and self-perform construction aspect. We will update or develop new specifications as needed for this Tinley Creek Bank Stabilization project.

11. Submit design documents to the Village and MWRDGC at 30%, 60%, and 90% design stages for reviews. Incorporate comments as appropriate. The 60% and 90% documents should also include estimated construction costs. The cost estimates shall include separate bid items for project elements within MWRDGC scope (identified in red in Figure 1) and those that are entirely Village's responsibility (identified in blue in Figure 1).

V3 will provide design plan review at the required stages and incorporate comments from both MWRDGC, the Village and permitting agencies. V3 is familiar with the MWRDGC format of cost estimating and will provide the required detail. We will also break out the bid line items between MWRDGC and Village within the estimate. V3's professional construction estimators provide contractor-level cost estimates. Our contract-level construction estimates are unique to V3 as we utilize our expertise in contractor bids for earthwork and underground utilities of similar projects. Working with V3's cost estimators during engineering design provides real-world cost estimates for Village's planning purposes and allows the project to more closely match the project budget. This allows for proper identification of bid alternates to maximize scarce public funding and any grant dollars and reduces the need for re-design or re-bidding after a project is let.



12. Prepare separate exhibits for impacted property owners. The exhibits must show details of improvements including permanent and temporary easement limits. These exhibits will be shared with the property owners, comments will be collected, and designs will be adjusted if needed and approved by the Village and MWRDGC.

V3 will prepare separate exhibits for each impacted property owner along the Tinley Creek Bank Stabilization corridor. The exhibits will include easements and proposed bank stabilization improvements.

13. Prepare permanent and temporary easement documents that can be used to execute easement agreements with individual property owners and Homeowners' Associations. The easement agreements will be prepared and executed by the Village. It is Village's opinion that a property acquisition consultant will not be needed for the project.

V3 will prepare one (1) survey document of the permanent and temporary easement per impacted property owner. It is our understanding that these documents do not include legal document preparation or involve any exhibit revisions for easement revisions that may be requested by the property owner or the Village during property owner negotiation.

14. Identify properties that are not critical for the successful stabilization of streambanks.

V3 will identify properties within the corridor that are not critical for successful stabilization.

15. Prepare and attend one public meeting to share and discuss streambank stabilization improvements.

V3 will prepare for and attend one (1) public meeting with the Village and community participants.

16. Prepare and attend meetings with individual property owners and Homeowners' Associations to discuss and share improvements and impacts to their properties.

Based on the Village's response to Q&A 2, it is V3's understanding that five (5) individual property owner meetings are anticipated for this project. In addition, V3 has provided a per meeting price in the fee for any additional meetings requested.

17. Prepare estimated construction costs for improvements. The overall construction budget of this project is approximately \$6million. If the cost estimate exceeds project budget, work with the Village and MWRDGC to implement Value Engineering (VE) elements to bring the costs within the available budget.

V3 will prepare total project cost estimating to achieve the \$6million budget. V3's professional construction estimators provide contractor-level cost estimates. V3's professional construction team and professional cost estimators will work directly with the MWRDGC and Village to implement Value Engineering (VE) if required to more closely match the project budget and the anticipated construction costs. V3 is unique in the industry to have this in-house expertise in self-perform bank stabilization to accomplish these VE tasks.

18. Prepare annual Operation and Maintenance (O&M) costs of the streambank improvements over a 20-year period.

V3's Ecological Restoration group is annually involved with over 50 native area maintenance projects. The V3 Team is well versed in bank stabilization maintenance and vegetative control for similar projects and we will prepare the O&M requirements and cost estimate for this Tinley Creek Bank Stabilization project.

19. Prepare and present the project to the Village Board of Trustees, if requested by the Village.

V3 will prepare for and attend one (1) public meeting with the Village Board of Trustees.



20. Update or submit new permit applications, and acquire all applicable permits from various government agencies including MWRDGC and Army Corps of Engineers.

V3's permitting approach is discussed in detail within the Project Understanding section. We will assist the Village and MWRDGC in obtaining permits from the IDNR-OWR, MWRDGC, USACE, SWCD, Village of Orland Park and IEPA for this bank stabilization project. It should be noted that the USACE permit will be an Individual Permit, based on the length of hard armor protection and amount of stream impacts associated with this project. Individual Permits through the USACE Chicago District have been taking approximately 12-15 months, and will likely be the critical path for the approvals and construction start of this project.

21. Prepare a complete PS&E document that will be used by the Village to solicit bids from qualified contractors.

V3 will prepare the PS&E document for soliciting bids from qualified contractors.

22. Assist the Village staff in developing the Invitation for Bids including developing criteria for contractors' qualifications and selection.

V3 will prepare the Invitation to Bids and develop contractor qualification criteria for this specific bank stabilization project.

23. Prepare an estimated construction schedule for improvements. Include Gantt charts for graphical presentation.

V3 will prepare a construction schedule in Gantt chart format.

24. Include other scope of services needed to complete the project and deliver all of the required deliverables.

Hydraulic Modeling: V3 understands that sections of the Baker Plans include fill associated with hard armoring and structural walls where the typical acceptable fill associated with IDNR-OWR floodway construction permitting (1 CY per running foot) is likely violated. This additional fill to accomplish wall construction and handle critical infrastructure/structure protection will need to be modeled in HEC-RAS. V3 will obtain prior hydraulic modeling from the MWRD or Village and update based on new topography. V3 will use this updated hydraulic modeling to accomplish the regulatory floodway construction model that is required for IDNR-OWR and MWRD floodway/floodplain permitting.

Wetland Delineation & Verification: V3 understands that the entire stream corridor requires a new wetland delineation in order to update the prior wetland boundary which has expired. V3 will complete the field data, establish wetland and Water's delineation boundary and write the Delineation Report. V3 will coordinate with USACE and MWRD to obtain wetland & Water's boundary verification for Tinley Creek streambank stabilization project area. This wetland delineation has been included in our services fee. Tree identification survey and archeology survey are specifically excluded from this scope of services and not anticipated to be required for the project. V3 can provide these services if required by the Village or regulatory agency.

Geotechnical Borings: Based on the proposed structural walls within the Baker section, V3 will confirm that sufficient geotechnical boring data is available to design these walls and foundations. V3 will also include an allowance for geotechnical borings for the newly added section of Tinley Creek stabilization. We do not anticipate requiring geotechnical borings through this new section, so this fee is a placeholder in case it becomes apparent through the preliminary design process that a structural wall is necessary.



CCDD Testing: Given the required bank reshaping and stabilization methods identified on the Baker plans, V3 believes that some soil material may be required to be exported from the project site. To minimize the costs of that material export, a Clean Construction Demolition Debris (CCDD) environmental form as required by Illinois EPA (either 662 or 663) should be completed for contractors to bid the soil export in this more cost-efficient manner. V3 has included hours to accomplish the CCDD testing and laboratory costs for the soil sample analysis.

CCDD testing assumes hand auger sampling (no drill rig) for a maximum of 5 samples within the project area. Analysis will include testing for VOC's, PNA's, RCRA 8 Metals and pH which are standard for most CCDD facilities in the area.

25. Develop a proposed scope of services (without professional fees) for construction engineering or construction observation services to implement the improvements. The Village may use this scope of services to solicit proposals from qualified consultants for construction engineering or construction observation services. The selected consultant for design services will be allowed to propose on the construction engineering/observation services.

V3 will develop and deliver a construction engineering scope of services for the Village to solicit proposals for these construction observation tasks.

26. Assist the Village in reviewing bids collected by the Village for the construction of the project. The bidding process will be led and managed by the Village staff.

V3 will provide a bid evaluation for the Village based on bid line item responses provided by qualified contractors. We understand that bid confirmation, reference checks, qualification verification and other responsive bid identification will be completed by the Village staff.

Special Conditions

A general design concern with the Baker's plan set is the stabilization areas that only call for regrading and blanket/seeding, but does not include toe scour protection such as riprap, coir fabric rolls, or staking. It is Village's opinion that in urban waterways, such as Tinley Creek, water velocities could reach up to 4 to 5 ft./sec. or higher multiple times a year, making it difficult for vegetation/seeds to establish in the streambanks. Also, the water quality in urban waterways is degraded due to the amount of impervious surface runoff and chlorides/road salt, as well as other pollutants, again adding to the difficulty of vegetation/seed establishing and providing a long-term erosion protection and stabilization. The selected consultant is expected to develop, recommend, and implement (if accepted by the Village and MWRDGC) structural scour protection or a combined structural and/or vegetative toe scour protection to all areas where stabilization is being proposed.

V3 acknowledges the Village's concerns related to flashy urban runoff and high velocity scour which is prevalent in so many similar stream systems across the Chicagoland area. Stone toe stabilization provides a more resilient and sustainable stabilization approach and will be incorporated into as much of the project as possible. However, in VE phases of this project, V3 may also identify the lower velocity zones (less than 4 feet per second) of Tinley Creek which may be able to be stabilized with less costly vegetated stabilization approaches (wrapped/vegetated soil lifts, bank regrading, flood plain terrace/shelf, etc.)



The selected consultant should review and consider including in the design documents brush clearing wherever non-native shrub species are present within the entire creek corridor. It is Village's opinion that the existing brush is non-native and is causing shade suppression to the banks which promotes accelerated bank erosion.

V3 acknowledges the persistent concerns associated with tree canopy and non-native/invasive trees and shrubs which act to shade the understory and banks of a stream and minimize native grass and forb species growth. Removal of these problem trees and bushes will be incorporated into the design and vegetation control aspects of the O&M Plan.

The estimated proposed budget for improvements is \$6 million. The selected consultant should consider this budget when developing and proposing streambank stabilization solutions.



V3 has extensive experience in bank stabilization and stream restoration construction. We self-perform earthwork, native vegetation installation, storm sewer installation and native vegetation maintenance. V3 is also engaged annually by the Village of Orland Park to provide restoration and maintenance on approximately 25 stormwater basins throughout the Village. We have a contractor-level understanding of the means, methods, access, equipment and costs associated with the Tinley Creek Bank Stabilization project. The Village will benefit from the involvement of our construction professionals throughout the design process to obtain a \$6million dollar construction project.

The consultants are encouraged, not required, to make a good faith effort to use qualified Minority Business Enterprise (MBE), Women Business Enterprise (WBE), Small Business Enterprise (SBE) and Veteran Business Enterprise (VBE). If these business enterprises are used, please identify in your proposals names and percentages of their share in the project. This element will not be used as a decision making factor in the proposal evaluations.

V3 is self-performing all aspects of this Tinley Creek Bank Stabilization project.



SECTION 6

PROPOSED FEE

