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**E L M H U R S T P A R K D I S T R I C T**  
**B O A R D O F P A R K C O M M I S S I O N E R S**  
**M E M O R A N D U M**

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**DATE:** June 27, 2022

**TO:** Board of Park Commissioners

**FROM:** James W. Rogers, Executive Director  
Brian McDermott, Director of Enterprise Services

**RE: SUGAR CREEK RESTORATION PROJECT**

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**ISSUE**

The objective of this project is to improve the Sugar Creek waterway through the golf course by addressing issues related to shoreline erosion, loss of property, sediment deposit accumulations, degraded water quality, and other impacts. Improvements to the Sugar Creek are essential for accomplishing the Vision 2020 Strategic Theme of Meeting Community Need for Parks, Open Space, and Outdoor Amenities.

**DISCUSSION**

On September 10, 2018, the Park Board approved the project to restore the eroding Creek (memo with plan attached) and staff worked with a consultant on grant submittals, final engineering and permit applications. In March 2021, Sugar Creek Golf Course was notified of being awarded the DuPage County Water Quality Improvement Program Grant. The acceptance of this grant was predicated on receiving the Illinois Environmental Protection Agency Grant 319 which occurred in September 2021.

Funding to temporarily advance the Sugar Creek Restoration project was approved at the January 24, 2022 meeting in the amount of \$1,225,031.38 with \$672,515.68 from Tier 2 Cash and Investments to later be reimbursed from grant funding and \$552,515.70 in equal thirds to be funded by the Sugar Creek Golf Course Fund, Recreation Fund, and Village of Villa Park (memo attached).

Requests for sealed bids were advertised through a legal notice in the Elmhurst Suburban Life on April 8, 2022 and a mandatory pre-bid meeting was held on April 20, 2022. Seventeen contractors requested bid packets and six contractors attended the mandatory pre-bid meeting. A public bid opening was held on May 12, 2022 with four contractors submitting sealed bids. The bid tally sheet is attached.

Working with project engineers, staff then identified the alternates to accept (101-105, 110-121) and applied these alternates to each bidder's bid list resulting in Semper Fi Land, Inc. submitted the lowest, responsible bid of \$1,164,960.81 (spreadsheet attached with recommended alternates highlighted). Positive reference checks for Semper Fi Land, Inc. were received from

the Village of Glenview, Libertyville Township and Forest Preserve District of Will County who have completed similar projects. Staff also met with Semper Fi staff to do a scope review of the project. A records search has been completed with the Illinois Department of Labor (IDOL) and Dun & Bradstreet, Inc. with no violations found.

The following summarizes the base bid and highlights of the major alternates:

Base Bid ..... \$ 737,031.95

- Offsite storage vs.onsite storage

Major Alternate Highlights

a) General Site/Pond/Wetland/Stream Restoration

- Offsite Disposal
- Import of Clean Structural Clay

b) Additional Rock Toe for Relatively Steeper Pond Shoreline Areas

- Not to exceed quantity

c) Far West Inlet Channel

Sub-total Alternates ..... \$ 427,928.86

**TOTAL..... \$1,164,960.81**

At its meeting on June 8, 2022, the Sugar Creek Golf Course Administrative Board approved a recommendation that the Board of Park Commissioners approve the proposed contract.

**RECOMMENDATION**

That the Board of Park Commissioners (1) award the base bid of the Sugar Creek Restoration Project in the amount of \$737,031.95 to Semper Fi Land, Inc.; (2) accept alternate items numbered 101-105, 110-121 in the amount of \$427,928.86; and (3) authorize the Executive Director to execute said contract accordingly.

Thank you.

Attachments: Engineering Proposal Memo with Plans 09.10.18  
Project Funding Memo 01.24.22  
Bid Tally  
Semper Fi Detailed Bid Costs

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**E L M H U R S T P A R K D I S T R I C T**  
**B O A R D O F P A R K C O M M I S S I O N E R S**  
**M E M O R A N D U M**

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**DATE:** September 10, 2018

**TO:** Board of Park Commissioners

**FROM:** James W. Rogers, Executive Director  
Brian McDermott, Director of Enterprise Services  
David Anderson, Division Manager - Golf Course

**RE: FUNDING FOR PROFESSIONAL ENGINEERING SERVICES AGREEMENT –  
SUGAR CREEK RESTORATION**

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**ISSUE**

In order to prepare cost estimates and construction documents to apply for grants to aid in funding the potential restoration of Sugar Creek at the golf course, engineering and design work must be completed. This project addresses the Board's Strategic Work Plan Theme, Meet community need for parks, open space, and outdoor amenities, Goal PA1: Maintain and update existing parks, open space and amenities.

**DISCUSSION**

The body of water named Sugar Creek that runs through the golf course is an extremely valuable resource that provides open space, aquatic habitat, flood storage, runoff conveyance, recreational opportunities, and other benefits for the community. Unfortunately, the value of the water resource has been compromised due to shoreline erosion, loss of property, sediment deposit accumulations, degraded water quality, carp populations, algae blooms, impaired aesthetics, loss of water volume, and other impacts. The creek contains a dam at the east end of the golf course to create an irrigation source with an open water feature. The shoreline retaining wall is failing in many areas. Failure to address these issues may result in paying for irrigation when the current irrigation source fails and up to five holes will need to be changed or possibly closed due to unsafe shorelines.

Based on the identified needs for Sugar Creek Golf Course, funding requirements to complete this work is expected to approach \$1,500,000. However, grant opportunities are available (particularly through the Illinois Environmental Protection Agency) that could potentially fund a large portion of the costs.

***Action Plan***

In demonstrating its commitment to investing in the future of Sugar Creek and the golf course, staff will present the following plan (see attached) that has been developed by Living Waters Consultants to undertake a long term solution.

**Concept Plan/Preparation of Grant Application –  
Completed FY2017/2018** **\$10,200**

**Final Engineering Plans/Permitting Process –  
FY2018/19** **\$120,000**

1. Mapping and Studies
  - a. Watershed Evaluation
  - b. Storm water Studies
  - c. Golf Course Plans
  
2. Field Assessment
  - a. Field-based stream and riparian corridor investigation
  - b. Pond shoreline and inlet channel survey
  - c. Pond sediment survey
  - d. Existing irrigation intake equipment and installation review
  - e. Site surveying
  
3. Final Engineering Plans
  - a. Base map preparation
  - b. Final Engineering Plans and Specifications shall be prepared
  - c. Details and Specifications shall be provided.
  - d. Engineering Plans shall be reviewed by Sugar Creek Golf Course
  - e. Engineer’s Opinion of Probable Construction Costs
  
4. Permitting Submittals
  
5. Other Grant Funding Opportunities

**Construction –  
FY2019/20** **\$1,400,000**

***Funding***

Sugar Creek Golf Course is jointly owned by the Elmhurst Park District and the Village of Villa Park with both entities participating equally in regards to gains, losses and mutually agreed upon capital improvements. As the Board is aware, the golf course fund does not currently have Tier 2 Cash and Investments available for an undertaking of this magnitude. Therefore, initially any costs related to this project must be shared equally by the two entities with the funds to be noted as an accounts payable for the golf course to repay to the parent bodies.

**Total Cost Projection:**

Final Engineering Plans/Permitting Process	\$ 120,000
Restoration Project Cost	<u>\$1,400,000</u>
Total Cost	<u>\$1,520,000</u>

**Proposed Funding:**

Grant Fund (up to 85% of construction)		\$1,190,000
Elmhurst Park District		
<b>Final Engineering Plans/Permitting Process</b>	<b>\$60,000</b>	
Restoration Project	<u>\$105,000</u>	\$ 165,000
Village of Villa Park		
Final Engineering Plans/Permitting Process	\$60,000	
Restoration Project	<u>\$105,000</u>	\$ <u>165,000</u>
Total Funding		<u>\$1,520,000</u>

Given the importance of addressing the creek conditions before they deteriorate further and the potential to fund 85% of the project cost through grant funding, staff believes that it is appropriate for the Park District to advance these funds to the golf course to proceed.

Staff has met and discussed this with staff from the Village of Villa Park and the Village Board is currently considering the same.

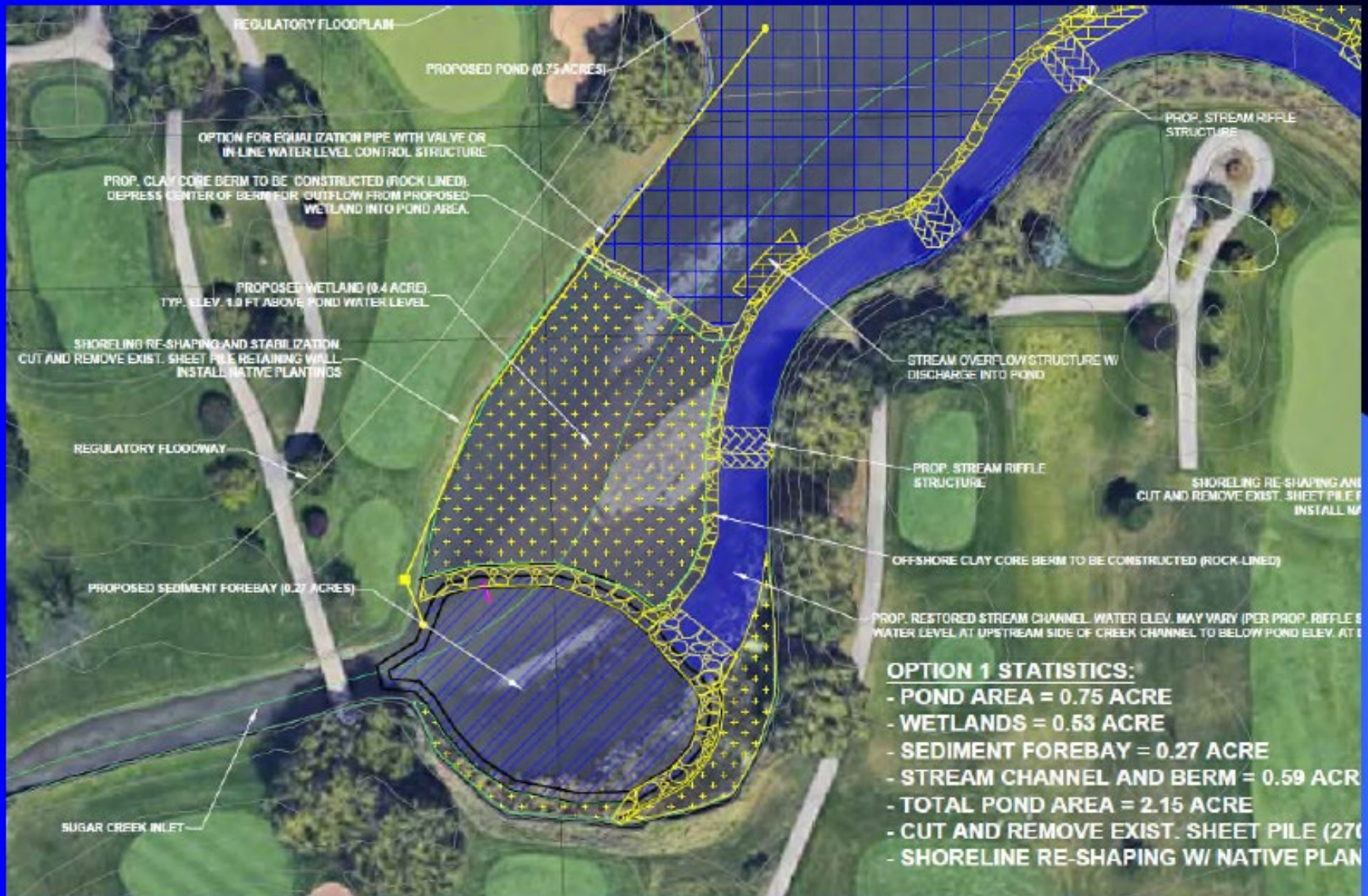
**RECOMMENDATION**

That the Board of Park Commissioners (1) approve advancing \$60,000 from Tier 2 Cash & Investments in the Recreation Fund to the Golf Course Fund for Final Engineering & Permitting Services for the restoration of Sugar Creek and (2) authorizes the Executive Director to execute the Professional Services Agreement with Living Waters Consultants, Inc.

Thank you.

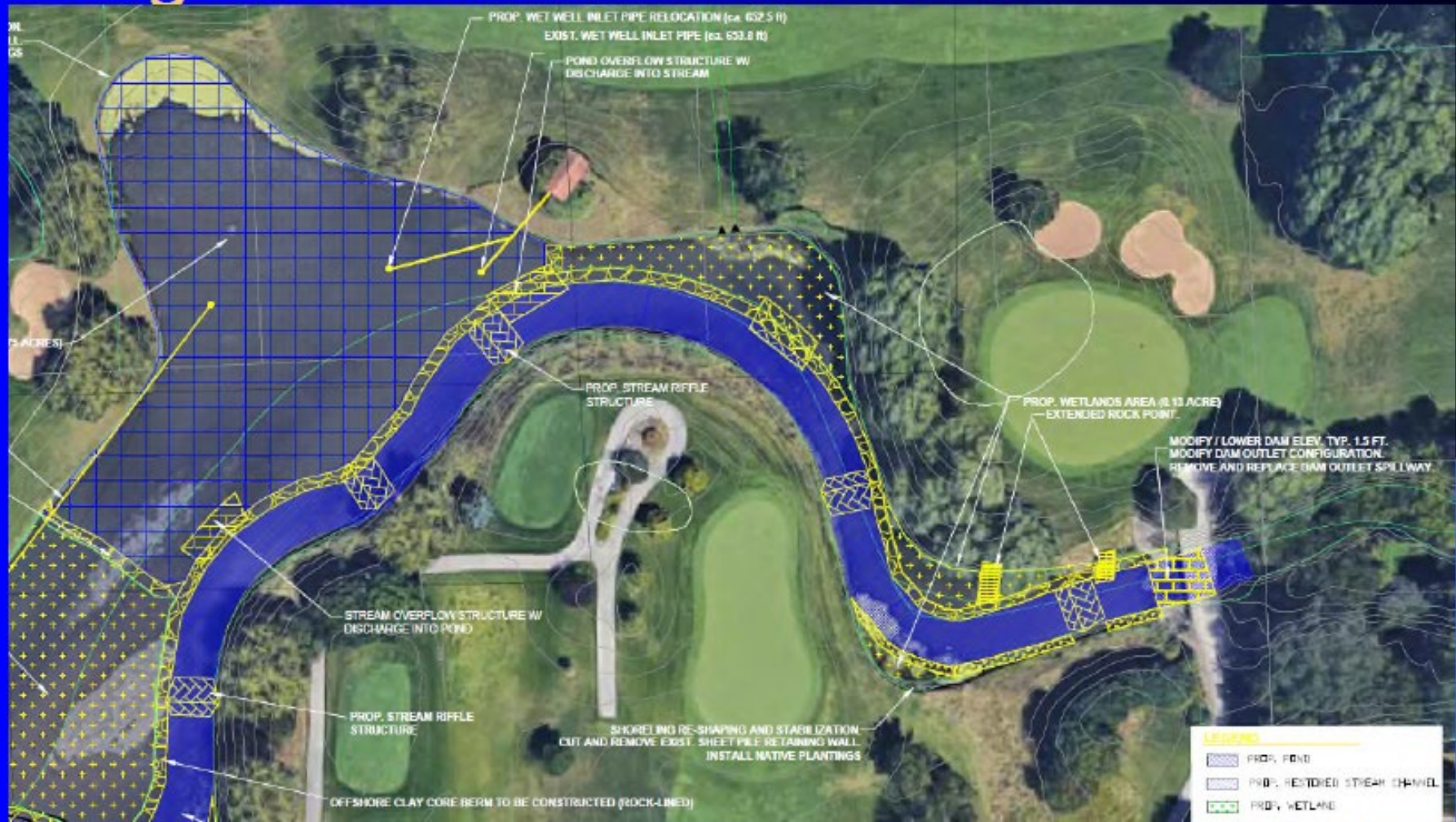
Attachment: Living Waters Consultants, Inc. - Sugar Creek Restoration Plan

# Sugar Creek Restoration Plan

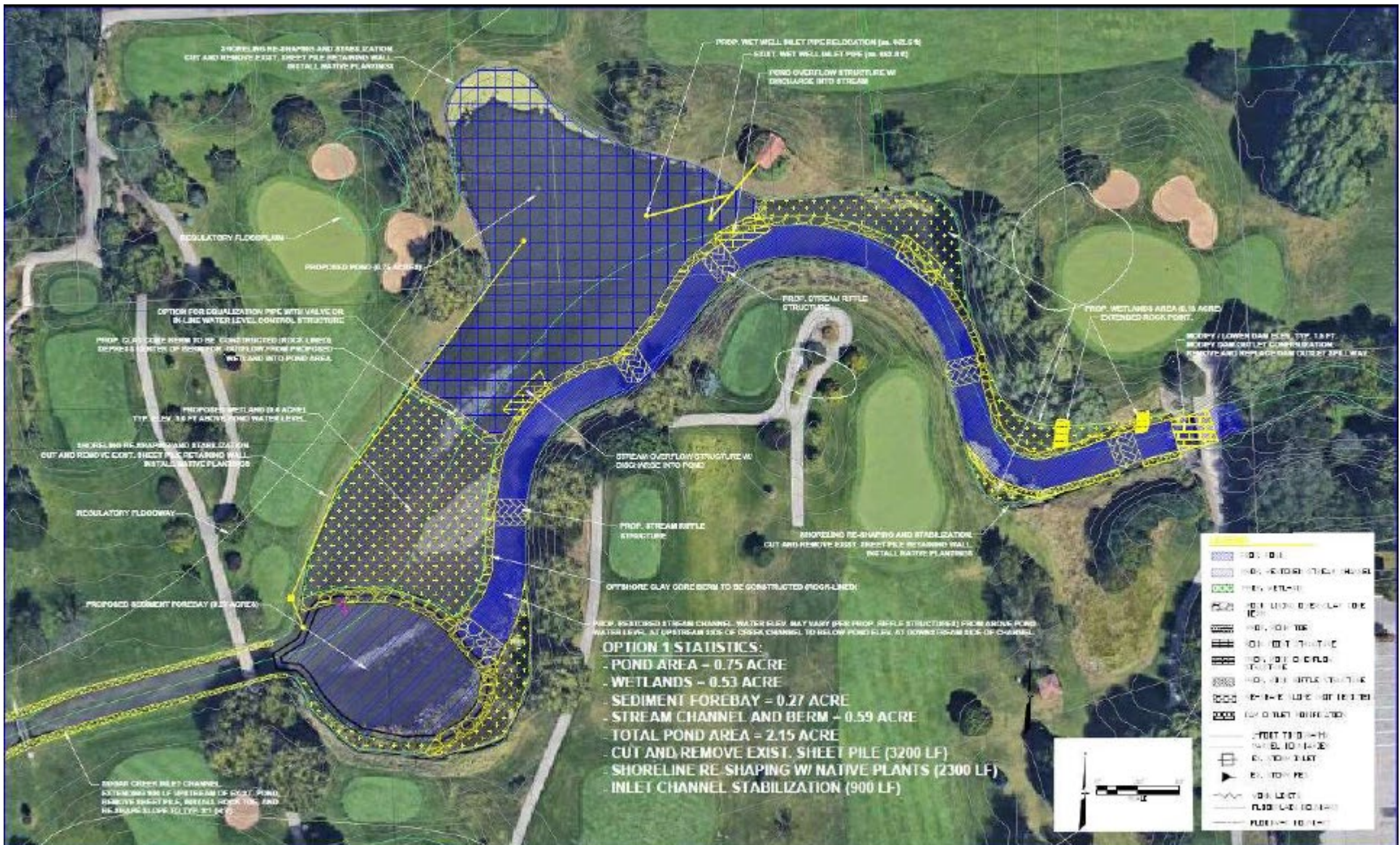




# Sugar Creek Restoration Plan







**OPTION 1 STATISTICS:**  
 - POND AREA - 0.75 ACRE  
 - WETLANDS - 0.53 ACRE  
 - SEDIMENT FOREBAY - 0.27 ACRE  
 - STREAM CHANNEL AND BERM - 0.59 ACRE  
 - TOTAL POND AREA = 2.15 ACRE  
 - CUT AND REMOVE EXIST. SHEET PILE (3200 LF)  
 - SHORELINE RE-SHAPING W/ NATIVE PLANTS (2300 LF)  
 - INLET CHANNEL STABILIZATION (900 LF)

	POUND AREA
	WETLANDS
	STREAM CHANNEL
	SEDIMENT FOREBAY
	STREAM BERM
	STREAM RITZLE STRUCTURE
	CLAY GORD BERM
	ROCK LINER
	SHEET PILE
	NATIVE PLANTINGS
	FLOOD LINE 10 YEAR
	FLOOD LINE 100 YEAR



Living Waters Consultants, Inc.  
 1-800-882-0123

DATE	DESCRIPTION	BY	DATE
07/26/2014	ISSUE FOR PERMIT	WLD	07/26/2014
07/26/2014	ISSUE FOR PERMIT	WLD	07/26/2014

Living Waters  
 CONSULTANTS  
 www.lwd-inc.com | P: 600-821-1192

SUGAR CREEK  
 19 SC 75

Elmhurst  
 Park District

Villa Park  
 THE VILLAGE OF VILLA PARK

**SHEET 1: PROPOSED CONCEPT PLAN**  
 SUGAR CREEK RESTORATION PROJECT  
 ELMHURST PARK DISTRICT & VILLAGE OF VILLA PARK  
 SHEET 1 OF 2



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**E L M H U R S T P A R K D I S T R I C T  
B O A R D O F P A R K C O M M I S S I O N E R S  
M E M O R A N D U M**

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**DATE:** January 24, 2022

**TO:** Board of Park Commissioners

**FROM:** James W. Rogers, Executive Director  
Brian McDermott, Director of Enterprise Services  
David Anderson, Division Manager - Golf Course

**RE: SUGAR CREEK RESTORATION PROJECT FUNDING**

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**ISSUE**

With grant funding now able to be secured, the Sugar Creek Restoration Project can proceed with review and approval from the Board. This project addresses the Board's Strategic Work Plan Theme, Meet community need for parks, open space, and outdoor amenities.

**DISCUSSION**

On September 10, 2018, the Park Board approved the project to restore the eroding Sugar Creek (memo attached) and staff worked with a consultant on grant submittals, final engineering and permit applications. In March 2021, Sugar Creek Golf Course was notified of being offered the DuPage County Water Quality Improvement Program Grant. The acceptance of this grant was predicated on receiving the Illinois Environmental Protection Agency Grant 319 which occurred in September 2021. On the following pages are cost projections and proposed funds to be allocated to complete restoration of the creek.

**Total Cost Projection:**

Final Bidding/Construction Observation/Grant Administration	\$ 75,000.00
Restoration Project Cost	<u>1,150,031.38</u>
<b>Total Cost</b>	<b><u>\$1,225,031.38</u></b>

**Proposed Funding:***Grant Acceptance – FY2021/22*

DuPage County Water Quality Improvement (WQIP) Grant	<b>\$ 60,000.00</b>
Illinois Environmental Protection Agency (IEPA) Grant 319	<b>\$ 612,515.69</b>

*Elmhurst Park District*

Consulting	\$12,500.00	
Restoration Project	<u>\$171,671.90</u>	
<b>Sub-total:</b>		<b>\$ 184,171.90</b>

*Village of Villa Park*

Consulting	\$ 12,500.00	
Restoration Project	<u>\$171,671.90</u>	
<b>Sub-total:</b>		<b>\$ 184,171.90</b>

*Sugar Creek Golf Course*

Consulting	\$ 12,500.00	
Restoration Project	<u>\$171,671.90</u>	
<b>Sub-total:</b>		<b>\$ <u>184,171.90</u></b>

**Total Proposed Funding: \$1,225,031.39**

In addition to, but separate from, the advance funding noted above to be added to the receivables owed to the Park District by the golf course, staff also recommends the District temporarily advance an additional \$672,515.68 from Tier 2 Cash Investments in the Recreation Fund to the Sugar Creek Golf Course fund to be reimbursed by the grants noted above once the project is completed. Attached are the FY2022 projections for Cash and Investments from the 2022 Budget illustrating that funds are available as recommended in the Recreation and Golf Course funds (page 53). All project funds will be accounted for in a restricted line item in the Golf Course Cash and Investments Fund.

**Project Construction Timeline**

Project begins	Oct/Nov 2022
Majority of Work Completed by	March 2023
Finalize Project	July 2023

Staff have met and discussed the project and proposed funding with staff from the Village of Villa Park and the Village Board is currently considering the same recommendations.

## **RECOMMENDATION**

That the Board of Park Commissioners

1. Approve funding \$184,171.90 from Cash & Investments in the Sugar Creek Golf Course Fund for the restoration of Sugar Creek;
2. Approve advancing \$184,171.90 from Tier 2 Cash & Investments in the Recreation Fund to the Golf Course Fund for the restoration of Sugar Creek;
3. Approve advancing \$672,515.68 from Tier 2 Cash & Investments in the Recreation Fund to be reimbursed by grant proceeds;
4. Approve an Intergovernmental Agreement with DuPage County for WQIP grant;
5. Authorize the acceptance of the IEPA Grant 319;
6. Approve the Professional Services Agreement with Living Waters Consultants, Inc.;
7. Authorize the Executive Director to execute all documents accordingly.

Thank you.

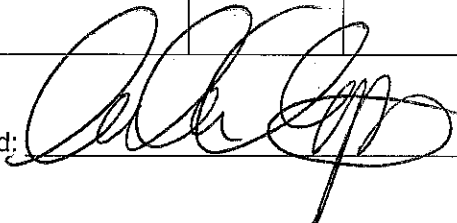
Attachments: September 2018 Park Board Memo  
DuPage County IGA  
Professional Service Agreement  
2022 Cash and Investment Target Summary



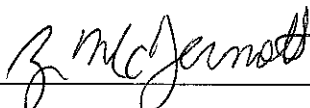
ELMHURST PARK DISTRICT

2022 Sugar Creek Restoration Project / Bid Opening - Thursday, May 12, 2022

Submitted By	Bid Submission Checklist	Bid Security Attachment Required	Bid Proposal Form	Contractor Reference Sheet	Sub Contractor List	Sexual Harassment Policy	Substance Abuse Prevention Program Certification	Prevailing Wage Act	Contractor Compliance & Certification Attachment	Bid Proposal Required	TOTAL COST
HGS/RES	✓	✓	✓	✓	✓	?	✓	✓ not signed	✓	Base Bid \$ 1,198,944.44 Bid Alternate \$ 649,118.61	\$ 1,848,063.05
ILM	✓	✓	✓	✓	✓	✓	✓	✓	✓	Base Bid \$ 961,570.00 Bid Alternate \$ 577,969.00	\$ 1,539,539.00
Semper Fi	✓	✓	✓	✓	✓	✓	✓	✓	✓	Base Bid \$ 948,000.00 Bid Alternate \$ 599,771.00	\$ 1,547,771.00
V3	✓	✓	✓	✓	✓	✓	✓	✓	✓	Base Bid \$ 1,577,660.50 Bid Alternate \$ 674,375.36	\$ 2,252,035.86
										Base Bid \$ Bid Alternate \$	\$

Witnessed: 

Date: 05/12/2022

Witnessed: 

Date: 5/12/2022

**SEMPER FI - REVISED BID COSTS RECEIVED 5-24-2022**  
**SUGAR CREEK RESTORATION PROJECT BID FORM**  
**LIVING WATERS CONSULTANTS, INC.**  
**24-May-22**

TABLE 1: BASE BID				SEMPER FI	
Item	Descriptions	Unit	QUANTITY	Unit Cost	EXTENDED COST
<b>Off-Bank Berms for Stream Channel, Wetland, Forebay</b>					
1	Off-Bank Clay Core Berms, Compaction to the Extent Practicable (If Conditions Allow to At Least 85% Standard Proctor Density), Excavate As Needed to Key Bottom of Berm Into Competent Subgrade Materials, Topsoil Placement (Typ. 3 CY/LF Clay Earthwork). Includes Final Grading, NAG SC150BN Erosion Control Blanket on All Off-Bank Berm Areas, and Native Plant Seed. Total Approx. 2,000 CY Measured In Place / "In Situ." Per Detail # 3.	LF	600	\$80.00	\$48,000.00
2	Rock Lining on Both Sides of Prop. Clay Core Berm (Approx. 600 LF) Per Details / Rock Lining Typ. 1.5-ft Thick x 4-ft Long Over Filter Fabric on Stream Channel Side and Typ. 1.0-ft Thick x 3-ft Long on Prop. Pond Side (Typ. 0.5 Ton/LF Including Both Sides of Berm). Per Detail # 3.	TON	300	\$93.00	\$27,900.00
<b>Pond, Forebay, Stream, and Wetland Earthwork</b>					
3	Pond, Sediment Forebay, Stream, and Wetland Earthwork (Earthwork and Sediment Excavation From Pond and Forebay, With Onsite Disposal Location per Plans). See Other Bid Items for Onsite Soil Disposal, Shoreline Re-Shaping, Erosion Blanket, Native Plant Seeding, Restoration, etc.			SEE BELOW	
3a	Cut Earthwork (Approx. 6,000 CY Cut as Measured In Place / "In Situ." This Does Not Include Over-Excavation. See Bid Addendum # 1). Dispose of Excess Soil in Prop. Onsite Soil Disposal Area or Offsite at No Additional Cost to Owner or Engineer. See Notes Below Re. Reuse of Concrete, Onsite Disposal, and/or Offsite Disposal of Concrete, Rubbish, and Rubble To Be Included Per Each Bid Item Unit Cost.	LS	1	\$59,000.00	\$59,000.00
3b	Fill Earthwork (Approx. 1,000 CY as Measured in Place / "In Situ." This Does Not Include Over-Excavation. See Bid Addendum # 1). Contractor to Provide Min. 80% Compaction to Standard Proctor Density Unless Noted Otherwise.	LS	1	\$11,000.00	\$11,000.00
3c	After Pond Grading, Contractor Shall Install Pipe Trench Approx. 25-Ft Long X 2-Ft Wide X 1-Ft Avg. Depth Below Prop. Grade Extending Out From Shoreline. Trench Location To Be Det. By Golf Course Supt. For Pipe Work By Owner. Pipe to be Located Approx. 30 ft of Prop. Shoreline, Southwest of Irrigation Pump House. (Owner To Provide Pipe Materials And Labor To Install 12-In. Diam. Cmp Pipe Along The Prop. Pond Bottom. ). See Also Bid Item 3d for Aggregate Placement.	LF	30	\$100.00	\$3,000.00
3d	After Pond Grading, Contractor Shall Install 3 Tons Grade 8 Aggregate At Location Det. By Golf Course Supt. For Pipe Work By Owner. Stone Location Approx. 20 ft from Prop. Shoreline, Southwest of Irrigation Pump House.	TON	3	\$250.00	\$750.00
<b>Pond Shoreline / Restored Stream Channel</b>					
4	Re-Shape Shoreline to Typ. 3:1 or Flatter (or Per Plans), Including NAG SC150BN Erosion Control Blanket, Native Plant Seed per Plans, Details and Specifications. (Note: Bid Item Does Not Include Native Plant Plugs. Bid Item Does Not Include Re-Shape Adjacent to Both Sides of Prop. Riffle Structures - Which Shall be Incidental to Cost of Prop. Rock Riffle Structures.) Dispose of Excess Soil in Prop. Onsite Soil Disposal Area or Offsite at No Additional Cost to Owner or Engineer. See Notes Below Re. Reuse of Concrete, Onsite Disposal, and/or Offsite Disposal of Concrete, Rubbish, and Rubble To Be Included Per Each Bid Item Unit Cost.	LF	2,236	\$18.60	\$41,589.60
5	Rock Toe at Pond Shoreline (Typ. 0.25 Ton / LF. See Re-Shape Slope Bid Item for Erosion Blanket, Seeding, etc.). See Notes Below Regarding Re-Use of Max. 0.1 Ton/LF Concrete Within Rock Sizes Specified on Detail, or Onsite Disposal. See Notes Below Re. Reuse of Concrete, Onsite Disposal, and/or Offsite Disposal of Concrete, Rubbish, and Rubble To Be Included Per Each Bid Item Unit Cost.	LF	502	\$68.00	\$34,136.00
6	Cut and/or Remove Exist. Sheet Pile Wall, Tieback Structures, Deadman Structures, or Other Appurtenances to Min. 1-ft below Proposed Grade. Remove and Dispose Either Offsite or in Prop. Onsite Disposal Area Exist. Debris, Rubbish, or Other Materials Including But Not Limited to Sheet Pile Wall, Wall Tiebacks, Deadman Structures, Debris, Rubbish or Rubble Encountered During Proposed Excavation. All Debris and Rubbish Placed in Onsite Disposal Area Shall be Buried Min. 1 Ft Below Prop. Grade. See Notes Below Re. Reuse of Concrete, Onsite Disposal, and/or Offsite Disposal of Concrete, Rubbish, and Rubble To Be Included Per Each Bid Item Unit Cost.	LF	2,236	\$23.00	\$51,428.00
<b>Rock Overflow Structure From Pond to Stream - With Clay Core Berm</b>					
7	Pond Outlet Overflow Structure - Rock Lining Tonnage Over Clay Core Berm and Filter Fabric. 45% IDOT Class R5 and 45% IDOT Class R6 Size Range and 10% CA-7 infill across top of crest. Per Detail # 6.	TON	208	\$80.00	\$16,640.00
8	Clay Core Berm for Pond Overflow Structure From Pond Outlet to Stream. Excavate As Needed to Key Bottom of Berm Into Competent Subgrade Materials. Compaction to the Extent Practicable (If Conditions Allow to At Least 85% Standard Proctor Density). Approx. 250 CY. Per Detail # 6.	LS	1	\$8,800.00	\$8,800.00
<b>Rock Lining - No Clay Core Berm</b>					
9	Rock Lining for Overflow From Stream to Pond - Rock Lining Only (No Clay Core Berm). 1 Structure. 50% IDOT Class R5 and 50% IDOT Class R6 Size Range.	TON	48	\$108.00	\$5,184.00
10	Rock Lining East of Bridge at Far East / Downstream Property Boundary. 60% IDOT Class R5 and 40% IDOT Class R6 Size Range.	TON	130	\$108.00	\$14,040.00
<b>Grade Control Including Structure at Dam</b>					
11	Rock Riffle Special -In Upstream Part of Pond (1 Structure). Includes Cut and Remove Exist. Sheet Pile Wall and Includes Re-Shape Slope Adjacent.	TON	117	\$113.00	\$13,221.00
12	Rock Riffle Typ. At New Stream Channel (4 Structures). Includes Cut and Remove Exist. Sheet Pile Wall and Includes Re-Shape Slope Adjacent.	TON	144	\$113.00	\$16,272.00
13	Rock Riffle Special -Downstream Structure at Dam (1 Structure). Includes Cut and Remove Exist. Sheet Pile Wall and Includes Re-Shape Slope Adjacent.	TON	136	\$113.00	\$15,368.00
<b>Other Dam Modification</b>					
14	Dam Outlet Structure Demolition, Removal, and Offsite Disposal. Includes Removal and Disposal of Concrete Apron / Concrete Revetment, Concrete Walls, Headwalls and Related Structures. Intact Concrete (Not Concrete Revetment) or Rock Rubble May Be Re-Used at Dam Modification Area to Receive Rock Lining Per Bid Item # 13 (Max. 1.25 Ton Concrete / LF of Stream Channel, Distributed Across Width of Stream Channel, Within Rock Size Ranges Specified on Details for Rock Toe) as Base of Prop. Rock Toe in Any Locations Provided Concrete is Min. 1 Ft Below Prop. Grade. Remove Exposed Wire Mesh, Rebar, Revetment, or Other Unsuitable Materials.	LS	1	\$12,350.00	\$12,350.00
<b>Stream Channel West of Pond to Westerly Bridge Near Maint. Bldg.</b>					
15	Stream Channel West of Pond to Westerly Bridge: Re-Shape Streambank to 3:1 or Flatter (or Per Plans), Including NAG SC150BN Erosion Control Blanket, Native Plant Seed, and Native Plant Plugs per Plans, Details and Specifications. Dispose of Excess Soil in Prop. Onsite Soil Disposal Area or Offsite at No Additional Cost to Owner or Engineer.	LF	730	\$26.00	\$18,980.00
16	Rock Toe at Stream Channel West of Pond to Westerly Bridge. (Typ. 0.3 Ton / LF. See Re-Shape Slope Bid Item for Erosion Blanket, Seeding, etc.). See Notes Below Re. Reuse of Concrete, Onsite Disposal, and/or Offsite Disposal of Concrete, Rubbish, and Rubble To Be Included Per Each Bid Item Unit Cost.	LF	455	\$65.00	\$29,575.00
17	From West of Pond to Westerly Bridge: Cut and Remove Exist. Sheet Pile Wall, Tieback Structures, Deadmen Structures, or Other Appurtenances to Min. 1-ft below Proposed Grade. Remove and Dispose Either Offsite or in Prop. Onsite Disposal Area Exist. Debris, Rubbish, or Other Materials Including But Not Limited to Sheet Pile Wall, Wall Tiebacks, Deadman Structures, Debris, Rubbish or Rubble Encountered During Proposed Excavation. All Debris and Rubbish Placed in Onsite Disposal Area Shall be Buried Min. 1 Ft Below Prop. Grade. See Notes Below Re. Reuse of Concrete, Onsite Disposal, and/or Offsite Disposal of Concrete, Rubbish, and Rubble To Be Included Per Each Bid Item Unit Cost.	LF	730	\$28.00	\$20,440.00
<b>Invasive Species Removal</b>					
18	Removal of Trees As Needed for Contractor Construction and/or Invasive Shrub Species Within Work Limits. (Owner Shall Provide Substantial Project Tree Removal. Stumps Shall Be Removed Except for Streambank Slopes. At Streambanks, Stumps Shall Remain Intact at Cutting and Subsequently Stumps Shall Be Removed As Needed by Contractor During Streambank Re-Grading and Streambank Stabilization Activities Per Plans.) Additional Trees Not Removed by Owner that are Required to be Removed by Contractor For Any Purpose Shall Be Removed at No Additional Cost to Owner or Engineer.	LS	1	INCIDENTAL TO PROJECT COST	
19	Invasive Herbaceous Species Removal Throughout Work Limits.	LS	1	INCIDENTAL TO PROJECT COST	
<b>Native Plant Materials</b>					
20	Wetland Native Plant Seed	AC	0.51	\$6,500.00	\$3,315.00
21	Shoreline Native Plant Seed at Pond and Restored Stream Channel	AC	0.62	\$7,500.00	\$4,650.00
22	Middle / Upper Slope Native Plant Seed at Pond and Restored Stream Channel	AC	0.87	\$7,500.00	\$6,525.00
23	Shoreline Native Plant Seed - Along Inlet Stream Channel. However, Omit Tall species, S. pectinata, Elymus spp..	AC	0.08	\$15,000.00	\$1,200.00

24	Middle / Upper Bank Seed - Along Inlet Stream Channel Areas. However, Omit Tall Species. Act. Alt., Elymus spp.	AC	0.25		\$12,500.00	\$3,125.00
25	Wetland Native Plant Plugs	EA	2,532		\$4.99	\$12,634.68
26	Shoreline Native Plant Plugs - Pond	EA	6,708		\$4.99	\$33,472.92
27	Shoreline Native Plant Plugs - for Restored Stream Channel (Berms)	EA	720		\$4.99	\$3,592.80
28	Middle / Upper Bank Native Plant Plugs - Restored Stream Channel (Berms)	EA	2,160		\$4.99	\$10,778.40
29	Shoreline Native Plant Plugs - For Inlet Streambank Channel	EA	730		\$4.99	\$3,642.70
30	Middle / Upper Bank Plugs - For Inlet Streambank channel	EA	2,190		\$4.99	\$10,928.10
31	Goose Grid - Wetland Only	AC	0.60		\$5,000.00	\$3,000.00
32	Native Trees (2.5-In. Diam. Caliper. installed)	EA	46		\$800.00	\$36,800.00
33	Native Shrub Whips (5-gal. installed)	EA	139		\$93.00	\$12,927.00
<b>Prop. Onsite Soil Disposal Area</b>						
34	ONSITE SOIL DISPOSAL AREA TOPSOIL TEMP. STOCKPILE AND TOPSOIL RE-SPREAD: PRIOR TO EXCESS SOIL PLACEMENT, CONTRACTOR SHALL PROVIDE TOPSOIL STRIPPING, TYP. 0.5-FT TOPSOIL CUT DEPTH, AND TEMP. TOPSOIL STOCKPILE AT SOIL DISPOSAL SITE. AFTER PLACEMENT OF EXCESS SOIL FROM POND, WETLAND, AND STREAM PROJECT AREA, CONTRACTOR SHALL PROVIDE TOPSOIL RE-SPREAD, SOD INSTALLATION (SEE BID ITEM BELOW), AND RESTORATION OF ONSITE SOIL DISPOSAL AREA. HAULING AND DISPOSAL EQUIPMENT SHALL BE LOW-GROUND PRESSURE EQUIPMENT UNLESS APPROVED OTHERWISE IN WRITING BY OWNER AND ENGINEER. CONTRACTOR SHALL PROTECT EXIST. FENCING, POSTS, UTILITIES AND/OR OTHER INFRASTRUCTURE AT ALL TIMES. CONTRACTOR SHALL REVIEW DRAINAGE & IRRIGATION LAYOUT W/ GOLF COURSE SUPERINTENDENT PRIOR TO CONSTRUCTION.	CY	1,202		\$13.00	
35	ONSITE SOIL DISPOSAL AREA SOIL DISPOSAL: CONTRACTOR SHALL PROVIDE TRANSPORT AND PLACEMENT OF EXCESS SOIL TO SOIL DISPOSAL AREA, DISKING AND/OR PREP. OF EXCESS SOIL AS NEEDED FOR INSTALLATION SATISFACTORY TO OWNER, AND RE-GRADING. PLACED SOIL SHALL BE MACHINE COMPACTED TO MIN. 80% STANDARD PROCTOR DENSITY IN MAX. 1-FT LIFTS. ALL DEBRIS AND RUBBISH PLACED IN ONSITE DISPOSAL AREA SHALL BE BURIED MIN. 1 FT BELOW PROP. GRADE WITH REMOVAL OF EXPOSED MESH, REBAR, OR OTHER MATERIAL. ALTERNATIVELY, CONCRETE, RUBBLE AND DEBRIS MAY BE DISPOSED OFFSITE AT NO ADDITIONAL COST TO OWNER OR ENGINEER. HAULING AND DISPOSAL EQUIPMENT SHALL BE LOW-GROUND PRESSURE EQUIPMENT UNLESS APPROVED OTHERWISE IN WRITING BY OWNER AND ENGINEER. CONTRACTOR SHALL PROTECT EXIST. FENCING, POSTS, IRRIGATION, STORM DRAIN, UTILITIES AND/OR OTHER INFRASTRUCTURE AT ALL TIMES. CONTRACTOR SHALL REVIEW DRAINAGE & IRRIGATION LAYOUT W/ GOLF COURSE SUPERINTENDENT PRIOR TO CONSTRUCTION.	LS	1		\$33,000.00	
36	Onsite Soil Disposal Area: Double Row Silt Fence Around Soil Disposal Area Perimeter and Silt Fence Along Access Route. Outer Row Silt Fence Shall be High Visibility Material.	LF	3,916		\$3.80	
37	TURF SEED RESTORATION OF ACCESS ROUTE TO ONSITE SOIL DISPOSAL AREA TO BE SEEDED: CONTRACTOR SHALL PROVIDE RESTORATION OF DISTURBED ACCESS ROUTE AND/OR OTHER AREAS, INCLUDING BUT NOT LIMITED TO SITE CLEANUP, SEEDBED PREP. PER SPECIFICATIONS, RE-SEEDING, AND EROSION BLANKET (NAG S75 BN). Note: Golf Course Owner Shall Provide and Install Turf Grass Seed Mix Per Specifications. Contractor Shall Provide All Other Materials and Services Including But Not Limited to Installation of Erosion Blanket.	SY	1,638		\$3.00	
38	SOD RESTORATION AT GOLF COURSE DRIVING RANGE USING SOD: RESTORATION WITHIN THE FENCED PERIMETER BOUNDARIES OF GOLF COURSE DRIVING RANGE SHALL INCLUDE SODDING (NO SEEDING). SOD SHALL BE TURF TYPE TALL FESCUE FROM CENTRAL SOD OR PAYNE SOD FROM WITHIN A 200 MILE RADIUS. SOD SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY GOLF COURSE SUPT. SEE SOD RESTORATION SPECIFICATIONS. INCLUDES ONE INITIAL WATERING WITHIN TWO HOURS OF LAYING SOD, SOD SHALL BE WATERED TO THOROUGHLY SATURATE THE SOD AND THE SOIL BED USING OWNER'S SUPPLIED 40 GPM HOSE.	SY	7,214		\$17.00	
38 b	SOD WATERING: ADDITIONAL WATER SHALL BE APPLIED TO THOROUGHLY RE-WET SOD AND SOIL BED EVERY OTHER DAY FOR TWO WEEKS FOR A TOTAL OF 6 SEPARATE ADDITIONAL WATERINGS. THE SCHEDULE OF ADDITIONAL WATERINGS MAY BE ALTERED WITH THE APPROVAL OF THE ENGINEER. THE GOLF COURSE SHALL SUPPLY ACCESS TO WATER, ONE 1" HOSE WITH A 40 GPM CAPACITY TO REACH THE SODDED AREA, AND ONE HIGH FLOW NOZZLE FOR WATERING. APPROX. 5 HOURS PER ACH OF 6 WATERING EVENTS (30 HR).	HR	30		\$65.00	
<b>Other</b>						
39	Native Plant Maintenance per Specifications.	YR	3		\$8,900.00	\$26,700.00
40	Tree Protection - Per Detail # 20 (9 Trees)	LF	135		\$3.53	\$476.55
41	Double Row Silt Fence at Stockpile Areas and/or Where Indicated on Plans. Outer Row Silt Fence Shall be High Visibility Material. (See Separate Bid Item for Silt Fence Along Access Route to Soil Disposal Area and Silt Fence at Driving Range Soil Disposal Area.)	LF	508		\$8.15	\$4,140.20
42	Stabilized Construction Entrance (As Many As May Be Required by Permit Agencies)	LS	1		\$3,800.00	\$3,800.00
43	Install Rock Lining at Exist. PVC Storm Pipe Outfall and/or FES Structures At or Larger Than 12-In. Diam. Per Details. Assumes 2 Storm Outfall Pipe Locations. (No Work Proposed at Exist. RCP Storm Pipe Outfall at Villa Avenue.)	TON	4		\$250.00	\$1,000.00
44	Install and Bury Drain Tile Extensions at Exist. Drain Tile, Using ADS N-12 ST 1B Corrugated, Smooth Interior, Double Wall HDPE Drain Tile. Drain Tile Diam. Typ. 4-in. to 6-in. Diam. Extend Drain Tile to Proposed Edge of Water. Drain Tile Shall Meet AASHTO M252 Type S Standards.	LF	300		\$33.00	\$9,900.00
45	Install and Bury Drain Tile Extensions at Exist. Drain Tile, Using ADS N-12 ST 1B Corrugated, Smooth Interior, Double Wall HDPE Drain Tile. Drain Tile Diam. Typ. 8-in. to 10-in. Diam. Extend Drain Tile to Proposed Edge of Water. Drain Tile Shall Meet AASHTO M252 Type S Standards.	LF	60		\$43.00	\$2,580.00
46	Install ADS N-12 ST 1B Corrugated, Smooth Interior, Double Wall HDPE Drain Tile for All Extensions of Exist. HDPE Drain Tile. Drain Tile Diam. Typ. 12-in. Diam. Extend Drain Tile to Proposed Edge of Water. Drain Tile Shall Meet AASHTO M294 Type S standards.	LF	20		\$63.00	\$1,260.00
47	Coffer Dam and Pumping to Dewater Construction Area to Meet Requirements of Kane-DuPage SWCD and Other Permit Agencies As Required. Contractor Shall Be Responsible to Obtain Permit Approval with Kane-DuPage SWCD and Other Permit Agencies as Required.	LS	1		\$28,000.00	\$28,000.00
48	Temporary Stream Crossing(s) as Necessary and as Approved by Kane-DuPage SWCD, by Other Relevant Permit Agencies, by Owner and by Engineer for Construction Access Needed. No Additional Compensation for Stream Crossings Shall Occur. Contractor Shall Be Responsible to Coordinate w/ All Relevant Permit Agencies and to Obtain All Relevant Permit Approvals.	LS	1		\$11,550.00	\$11,550.00
49	Contractor to Obtain Final Permit Approval and Coordination for Temp. Stream Crossing, De-Watering / Cofferdams, and/or Other Soil Erosion and Sediment Control Through Kane-DuPage SWCD and/or Other Permit Agencies As Required.	LS	1			INCIDENTAL TO PROJECT COST
50	Other Than As Described for All Other Bid Items, For All Project Locations Shallow Concrete Or Rock Rubble As May Be Encountered In Shoreline Or Streambank Construction May Be Re-Used (Max. 0.1 Ton / Lf Concrete Within Rock Size Ranges Specified On Details For Rock Toe) As Base Of Prop. Rock Toe In Any Locations Provided Concrete Is Min. 1 Ft Below Prop. Grade And Any Exposed Wire Mesh, Rebar, Or Other Unsuitable Materials Are Removed. Alternatively, Concrete, Rubbish, Or Rubble May Be Disposed Onsite In The Designated Soil Disposal Area, Per Plans. All Debris And Rubbish Placed In Onsite Disposal Area Shall Be Buried Min. 1 Ft Below Prop. Grade With Removal Of Exposed Mesh, Rebar, Or Other Material. Alternatively, Concrete, Rubble And Debris May Be Disposed Offsite At No Additional Cost To Owner Or Engineer. Cost For Disposal Of Concrete, Rubbish, And Rubble As May Be Encountered Shall Be Incidental To Each Respective Bid Item Unit Cost.	LS	1			INCIDENTAL TO PROJECT COST
51	Other Than As Described for All Other Bid Items Including But Not Limited to # 6 and # 17 Above, For All Other Project Areas: Cut and/or Remove Exist. Sheet Pile Wall, Tieback Structures, Deadmen Structures, or Other Appurtenances to Min. 1-ft below Proposed Grade. Remove and Dispose Either Offsite or in Prop. Onsite Disposal Area Exist. Debris, Rubbish, or Other Materials Including But Not Limited to Sheet Pile Wall, Wall Tiebacks, Deadman Structures, Debris, Rubbish or Rubble Encountered During Proposed Excavation. All Debris and Rubbish Placed in Onsite Disposal Area Shall be Buried Min. 1 Ft Below Prop. Grade. See Notes Below Re. Reuse of Concrete, Onsite Disposal, and/or Offsite Disposal of Concrete, Rubbish, and Rubble To Be Included Per Each Bid Item Unit Cost.	LS	1			SEE RESPECTIVE BID ITEMS / INCIDENTAL TO PR
52	Other Soil Erosion and Sediment Control to Comply w/ SESC Requirements of Kane-DuPage SWCD and Other Relevant Permit Agencies as Required.	LS	1		\$1,850.00	\$1,850.00
53	Contractor to Provide Construction Access Restoration, Site Cleanup, Seedbed Prep., Erosion Blanket (NAG S75 BN) and Other Requirements per Specifications for All Native and Turf Restoration Areas. Contractor to Furnish and Install Native Plant Seed. (Note: Golf Course Supt. Shall Furnish and Install Turf Grass Seed Mix in Turf Restoration Areas Prepared by Contractor to be Seeded.) Contractor Shall Provide All Other Materials and Services for Restoration Except as Noted.	SY	3955		\$1.20	\$4,746.00
54	Contractor Shall Protect Exist. Asphalt Paths, Parking Lots, Curb, Gutter, Utilities and/or Other Areas & Repair or Replace As Needed to the Satisfaction of the Owner and Engineer at No Additional Cost to Owner or Engineer.	LS	1			INCIDENTAL TO PROJECT COST
55	Annual USACE Maintenance & Monitoring Plan by Qualified Environmental Consultant	YR	3		\$13,888.00	\$41,664.00



56	SWPPP Reporting As Required (cc: to Owner and Engineer) Throughout Construction Time Period.	LS	1		\$1,500.00	\$1,500.00
57	Pre-Construction Video per Bid Addendum # 1	LS	1		INCIDENTAL TO PROJECT COST	
58	Traffic Control, Signage, Flaggers, Closure, Traffic Control Plan (If Required) etc. As Required by Permit Agencies.	LS	1		INCIDENTAL TO PROJECT COST	
59	As-Built Survey (At Minimum Locations of Installed Treatments, Re-Graded Slopes Every 50-ft Spacing, Riffles, Weir Vicinity, and All Cross Sections) and/or Other Locations as Required by DuPage County and/or Village of Villa Park.	LS	1		\$3,600.00	\$3,600.00
					<b>BASE BID</b>	<b>\$737,031.95</b>

**TABLE 2: BID ALTERNATES**

Item	Descriptions	Unit	QUANTITY	SEMPER FI	
				Unit Cost	EXTENDED COST
	<b>General Site / Pond / Wetland / Stream Restoration</b>				
101	Option for Offsite Disposal of Excess Cut Soil at a Legal Offsite Facility. Includes Offsite Disposal of Debris, Rubbish, and/or Unusable Material (Cost is Lump Sum; Est. Net Cut In-Situ 5,000 CY x \$33.00/CY = \$165,000)	LS	1	\$162,500.00	\$162,500.00
102	CCDD Testing As Required to Allow Offsite Disposal of Dredged Sediment at a Legal Offsite Facility.	LS	1	\$3,600.00	\$3,600.00
103	Import of Clean Structural Clay Fill, Tested and Approved by Owner and Engineer, for Construction of Proposed Berms or Other Structures. Subject to Review and Approval by Owner and Engineer.	CY	2,000	\$26.77	\$53,540.00
104	Import of Clean Topsoil, Tested and Approved by Owner and Engineer, for Final Landscaping. Subject to Review and Approval by Owner and Engineer.	CY	807	\$39.58	\$0.00
105	Boulder Placement (18" - 24")	TON	15	\$388.00	\$5,820.00
106	Additional Cost per Ton for Base Bid and Bid Alt. Items For Riffles, Rock Overflow Structures, Rock Toe, Storm Pipe Outfalls, and Other Rock: Replace IDOT Class Rock with Similar Size Distribution of Joliet Boulders and Joliet Cobble from Lemke Stone or Approved Equal.	TON	1,803	\$80.00	\$0.00
107	Straw Mulch for Erosion Control	AC	0.50	\$3,800.00	\$0.00
108	Rock Points (Rock Toe Adjacent - 5 Structures - Locations at Discretion of Owner and Engineer Along Re-Meandered Channel)	TON	3	\$180.00	\$0.00
109	Streambank Native Plant Seeding, Removal of Invasive Species, Seedbed Prep., & Erosion Blanket NAG SC150 BN. (Typ. 25-Ft Wide per Streambank)	LF	1,521	\$9.00	\$0.00
110	Rock Riffle Typ. Along Sugar Creek West of Pond to Near Villa Ave. (2 Structures 1 Structure). Includes Cut and Remove Exist. Sheet Pile Wall and Re-Shape Slope Adjacent.	TON	40	\$113.00	\$4,520.00
	<b>Additional Rock Toe for Relatively Steeper Pond Shoreline Areas</b>				
111	Rock Toe Stabilization (Typ. 0.3 Ton / LF) for Relatively Steep-Sloped Pond Shoreline Areas Such As Near Exist. Irrigation Pump House, South Shoreline East of Riffle # 4, and Other Areas. See Notes Below Regarding Re-Use of Max. 0.1 Ton/LF Concrete as Subgrade for Rock Toe.	LF	796	\$93.20	\$74,187.20
	<b>Far West Inlet Channel - From Westerly Bridge Crossing Near Maint. Building to Villa Ave.</b>				
112	From Westerly Bridge to Villa Avenue: Re-Shape Streambank to 3:1 or Flatter (or Per Plans), Including NAG SC150BN Erosion Control Blanket, Native Plant Seed, and Native Plant Plugs per Plans, Details and Specifications. See Notes Below Re. Reuse of Concrete, Onsite Disposal, and/or Offsite Disposal of Concrete, Rubbish, and Rubble To Be Included Per Each Bid Item Unit Cost.	LF	725	\$43.00	\$31,175.00
113	Rock Toe (Typ. 0.3 Ton / LF. See Re-Shape Slope Bid Item for Erosion Blanket, Seeding, etc.) See Notes Below Regarding Re-Use of Max. 0.1 Ton/LF Concrete Within Rock Sizes Specified on Detail, or Onsite Disposal. See Notes Below Re. Reuse of Concrete, Onsite Disposal, and/or Offsite Disposal of Concrete, Rubbish, and Rubble To Be Included Per Each Bid Item Unit Cost.	LF	490	\$93.20	\$45,668.00
114	West of Westerly Bridge Crossing Near Maint. Building: Cut and/or Remove Exist. Sheet Pile Wall, Tieback Structures, Deadmen Structures, or Other Appurtenances to Min. 1-ft below Proposed Grade. Remove and Dispose Either Offsite or in Prop. Onsite Disposal Area Exist. Debris, Rubbish, or Other Materials Including But Not Limited to Sheet Pile Wall, Wall Tiebacks, Deadman Structures, Debris, Rubbish or Rubble Encountered During Proposed Excavation. All Debris and Rubbish Placed in Onsite Disposal Area Shall be Buried Min. 1 Ft Below Prop. Grade. See Notes Below Re. Reuse of Concrete, Onsite Disposal, and/or Offsite Disposal of Concrete, Rubbish, and Rubble To Be Included Per Each Bid Item Unit Cost.	LF	90	\$38.00	\$3,420.00
115	From Westerly Bridge to Villa Avenue: If Needed by Contractor, Remove Trees As Required to Re-Grade and Install Proposed Streambank Stabilization Treatments and Proposed Grades.	LS	1		INCIDENTAL TO PROJECT COST
116	Shoreline Native Plant Seed - Inlet Channel	AC	0.08	\$15,000.00	\$1,200.00
117	Middle / Upper Bank Seed - Inlet Channel	AC	0.33	\$15,000.00	\$4,950.00
118	Shoreline Native Plant Plugs - Inlet Channel	EA	725	\$6.00	\$4,350.00
119	Middle / Upper Bank Plugs - Inlet Channel	EA	2,175	\$6.00	\$13,050.00
120	Construction Access Restoration, Site Cleanup, and Erosion Blanket (NAG S75 BN)	SY	967	\$3.98	\$3,848.66
121	Cabled Log Habitat Structure, per Detail # 24. (Log materials to be provided by Owner.)	EA	7	\$2,300.00	\$16,100.00
				<b>BID ALTERNATES</b>	<b>\$427,928.86</b>

**SEMPER FI**  
Total Cost (Base Bid & Bid Alternates) **\$1,164,960.81**

**Bid Alternate Recommended to Add**  
Shoreline Native Plant Plugs - Inlet Channel Add # 118  
Middle / Upper Bank Plugs - Inlet Channel Add # 119

Note: See Bid Addendum # 2, Item 2.g., regarding excavation for onsite clay within or adjacent to project site.

- Services related to removal of excess soil, trees, or tree stumps associated with earthwork, stabilization practices, re-grading, or installation of other practices and disposal or placement into areas approved by Owner shall be provided by Contractor at a cost incidental to each stabilization practice unit price.
- Earthwork Including Excavation, Grading, Stockpiling, Clearing, Grubbing, Off-Site Disposal of Cleared and Grubbed Materials, Topsoil Re-Spread, Fill, Balance of Earthwork On-Site, and/or Related Items as Indicated on Plans, Details and Specifications shall be incidental to the cost of earthwork.
- Bidder is required to verify field conditions and Bid Quantities on Bid List prior to submittal of Bid.
- If Bidder is at variance with field or Plan quantities or other items, then Bidder shall inform Engineer prior to submittal of Bid.
- If the calculations of the Bidder indicate a Quantity for any Bid Item different than that indicated on the Bid List, then the Bidder's proposed Quantity shall be clearly marked on the Bidder's Proposal Response Form. Specific Quantities shall be required.
- Submittal of a qualified bid by Bidder indicates acceptance by the Bidder and approval of field conditions, quantities, details, and related conditions as depicted on Plans, Specifications, Details and/or other Bid Documents.
- Contractor provide site layout staking and shall meet with Engineer in field to review site layout prior to construction.
- Quantities as indicated may be increased or reduced by the Owner at their discretion.
- Actual quantity of rock installed in field may vary with field conditions.
- Costs provided by Contractor and/or Bidder shall include furnishing and installing all items as described above.
- Native plant maintenance costs shall be paid in increments per each seasonal site visit as described in Specifications for Native Plant Maintenance.
- Whether the As-Built Survey Bid Item is selected by the Owner or not, Contractor shall be responsible to ensure that as-built grades and sections are consistent with the proposed grades and sections to the satisfaction of the permitting agencies.
- Re-Use of Excavated Clay Soil Materials for Construction of Off-Bank Berms Is Subject to Review and Approval by Engineer and Owner.
- Shallow Concrete Or Rock Rubble As May Be Encountered In Shoreline Or Streambank or Other Construction May Be Re-Used For Rock Toe (Max. 0.1 Ton / Lf Concrete Within Rock Size Ranges Specified On Details For Rock Toe As Base Of Prop. Rock Toe In Any Locations) or Subgrade of Rock Riffle (Max. 1.25 Ton Concrete / LF of Stream Channel at Proposed Riffle Locations, Distributed Across Width of Stream Channel at Riffle), Provided Concrete Is Min. 1 Ft Below Prop. Grade And Any Exposed Wire Mesh, Rebar, Or Other Unsuitable Materials Are Removed. Alternatively, Concrete, Rubbish, Or Rubble May Be Disposed Onsite In The Designated Soil Disposal Area, Per Plans. All Debris And Rubbish Placed In Onsite Disposal Area Shall Be Buried Min. 1 Ft Below Prop. Grade With Removal Of Exposed Mesh, Rebar, Or Other Material. Alternatively, Concrete, Rubble And Debris May Be Disposed Offsite At No Additional Cost To Owner Or Engineer. Cost For Disposal Of Concrete, Rubbish, And Rubble As May Be Encountered Shall Be Incidental To Each Respective Bid Item Unit Cost.
- Contractor Shall Provide As-Built Survey for Review by Owner and Engineer to Verify As-Built Grades, Including Pond Construction, Within 45 Days of Substantial Completion of Construction and Prior to Final Payout(s).