CITY of NOVI CITY COUNCIL



Agenda Item 8 June 17, 2019

SUBJECT: Approval to award the construction contract for shoreline protection, erosion control and streambank stabilization improvement projects associated with Pavilion Shore Park, Lakeshore Park, and Thornton Creek to Anglin Civil, LLC, the sole bidder, in the amount of \$318,930.10.

SUBMITTING DEPARTMENT: Department of Public Works, Engineering Division

Parks, Recreation and Cultural Services

CITY MANAGER APPROVAL: PA

EXPENDITURE REQUIRED	\$ 105,270.75 Pavilion Shore Park Shoreline Protection				
	\$ 167,212.85 Lakeshore Park Shoreline Protection				
	\$ 46,446.00 Thornton Creek Streambank Stabilization				
	\$ 318,930.10 Total				
AMOUNT BUDGETED	\$ 239,082 Pavilion Shore Park Shoreline Protection				
	\$ 245,509 Lakeshore Park Shoreline Protection				
	\$ 86,253 Thornton Creek Streambank Stabilization				
APPROPRIATION REQUIRED	\$ 0				
LINE ITEM NUMBER	400-691.00-977.026 Pavilion Shore Park Shoreline Protection				
	400-691.00-977.025 Lakeshore Park Shoreline Protection				
	210-211.00-865.150 Thornton Creek Streambank Stabilization				

BACKGROUND INFORMATION:

Novi Parks, Recreation and Cultural Services (PRCS) and the DPW Engineering Division met with a representative from the Michigan Department of Environmental Quality (DEQ) in June 2017 to review the erosion status on the Walled Lake shorelines at both Lakeshore Park and Pavilion Shore Park.

When Pavilion Shore Park was developed in 2013, several trees with 2-3-inch trunk diameters were removed along the shoreline. Coir logs were installed with the intent to slow erosion and spur the growth of new shoreline plants. Coir logs are tube-shaped; erosion-control devices filled with straw, flax, rice, coconut fiber material or composted material. Each roll is wrapped with UV-degradable polypropylene netting with 100-percent biodegradable materials like burlap, jute or coir. Unfortunately, the logs failed due to wave action and the down current of the lake. Additionally, the winter ice flow has contributed to the breakdown of the logs and plantings.

Lakeshore Park has also experienced erosion of the shoreline due to wave action and ice flow. While sand is added to the beach area annually, a long-term stabilization solution is necessary for the rest of the park's lakefront areas.

During the site visit with the DEQ, staff was informed that concrete retaining walls would not be acceptable and the use of stone and natural features was preferred. The Engineering Division worked in collaboration with City Engineering Consultant AECOM to provide a shoreline repair design as well as additional park improvements. The shoreline will be designed to protect against erosion with these repairs. Included in the park improvements are ADA ramps, concrete slabs under the picnic tables, and an

emergency boat launch. AECOM assisted the City in acquiring MDEQ permits for construction of these improvements.

Pavilion Shore Park

- Restore shoreline erosion using techniques such as soil wrapped in geotextile liner, heavy riprap over geotextile liner, cobble blocks, etc.
- Use new slope protection system to deter geese.

Lakeshore Park

- Shoreline restoration as listed for Pavilion Shore Park.
- Add handicap-accessible ramp to beach at end of sidewalk on east end.
- Improve the emergency vehicle/park maintenance access ramp to the beach. No docks are included.

Thornton Creek

Another project that is incorporated as part of this contract is a streambank stabilization project of a portion of the Thornton Creek, which is located at the southwest corner of 9 Mile and Center Street. Over the last five years, this portion of the Thornton Creek has experienced severe erosion of the upper banks and within the creek, which has led to the ultimate failure of the concrete apron located within the 9 Mile and Center Street Right-of-Way. The repairs will focus on the removal of the existing concrete apron and replace it with articulating concrete block system protection known as Geoweb/Armorflex Channel Liner (along the upper banks of the creek). This fairly new stabilization material and technique is a more environmentally-friendly material that is aesthetically more pleasing and fits better within its surroundings. The bottom portion of the creek will also be cleaned-out and additional rip-rap will be installed to help aid with stabilization (towards the apartment complex to the south). These repairs will protect the creek's streambank from future erosion.

Engineering staff advertised the plans for public bids on May 7, 2019. Following the solicitation period, one (1) bid was received and opened on May 29, 2019. The bid submitted by Anglin Civil, LLC, is recommended as being in the best interest of the City as it is responsive and complies with all of the requirements of the bidding instructions. Attached in the packet is the award recommendation letter and bid tabulation. The summary of the bid tabulation is as follows:

Contractor	Base Bid (including Crew Days)		
Anglin Civil, LLC	\$ 332,929.60**		

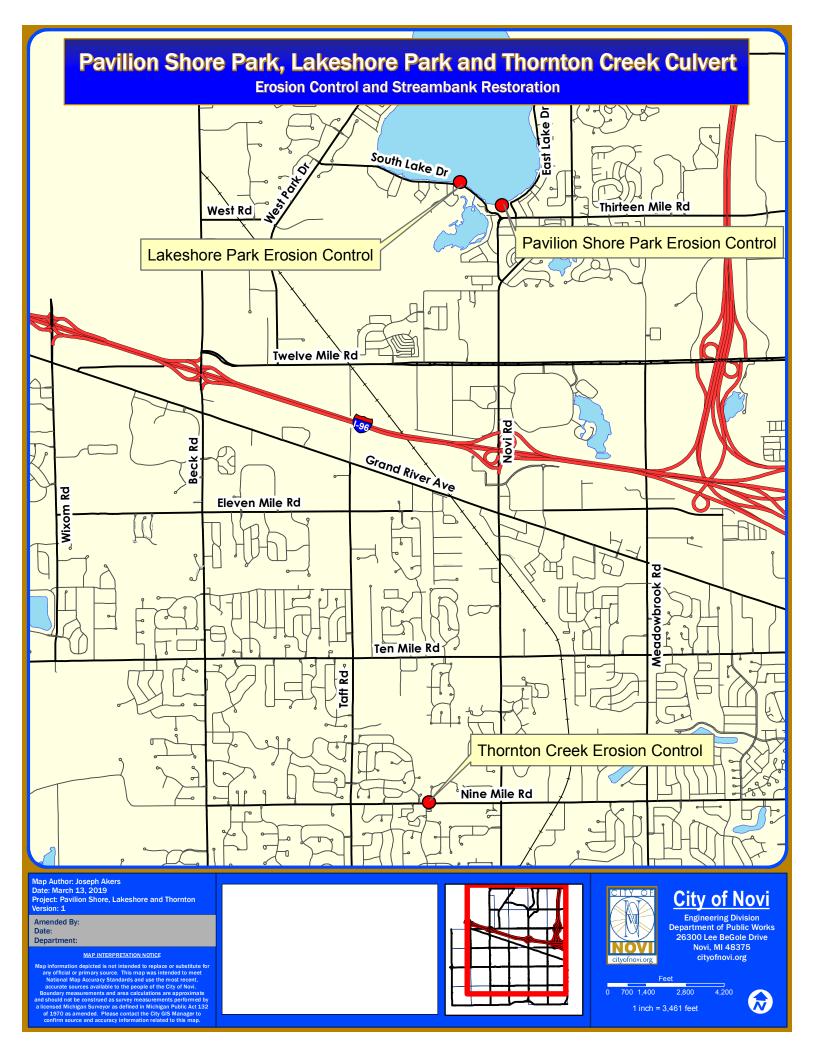
^{*}Crew Days are included to compare bids, but are not included in the award.

The construction engineering related to this project will be awarded to the following prequalified firm using the fee percentages in the Agreements for Professional Engineering Services for Public Projects. There are no geotechnical engineering services are required for these projects.

AECOM		
Contract Administration	7.25% of the construction award	\$ 23,122.43
Crew Days	\$700 daily inspection fee x 20 days	\$ 14,000.00

It is anticipated the project will be substantially complete in the fall 2019.

RECOMMENDED ACTION: Approval to award the construction contract for shoreline protection, erosion control and streambank stabilization improvement projects associated with Pavilion Shore Park, Lakeshore Park, and Thornton Creek to Anglin Civil, LLC, the sole bidder, in the amount of \$318,930.10.





May 31, 2019 Mr. George Melistas City of Novi Engineering Department 26300 Lee BeGole Drive Novi, MI 48375

Reference: Bid Analysis and Contract Award Recommendation

Shoreline Erosion Control and Miscellaneous Improvements

AECOM Project Number 60586000

Dear Mr. Melistas:

Attached is the Bid Tabulation for the above referenced project. Only one bid was received and opened on May 29, 2019. There was one minor arithmetic error noted in the bid which reduced the low bid by \$1.00 after correction.

The bid received for the base project is approximately 3% under the Engineer's Estimate. The bid for the alternate project is approximately 2.5% over the Engineer's estimate.

Anglin Civil, LLC, the low bidder, has completed similar projects for the city and has performed well. Their bonding company listed in the Statement of Qualifications has an AM Best rating that exceeds the minimum requirements.

We recommend award of the alternate bid contract to Anglin Civil, LLC for \$318,930.10. (Thorton Creek Portion is \$46,446.00, Lakeshore Portion is \$167,212.85, and Pavilion Shores Portion is \$105,271.25). The amount bid for Inspection (Crew Days) is not included in the award amounts.

Please feel free to contact me if you need anything else or wish to discuss the project.

Sincerely,

Sean Kelsch, P.E. Project Manager

cc: Mark Koskinen, AECOM

City of Novi Shoreline Erosion Control and Misc Improvements Tabulation of Bids 5/29/2019

				Engineers Estimate			Anglin Civil, LLC				
Item	Item Description	Unit	Quan	U	nit Price		Cost	ı	Jnit Price		Cost
	Lakeshore Park Portion Base Bid	-		Ť							
1	Mobilization (Max 10%) (Lakeshore)	LSUM	1	¢	11,280.70	\$	11,280.70	\$	15,000.00	\$	15,000.00
2	Pre-Construction Audio Visual (Lakeshore)	LSUM	1	\$	1,500.00	\$	1,500.00	\$	3,306.25	\$	3,306.25
3	Maintaining Traffic (Lakeshore)	LSUM	1	\$	1,000.00	\$	1,000.00	\$	2,875.00	\$	2,875.00
4	Surface Restoration (Lakeshore)	LSUM	1	\$	4,000.00	\$	4,000.00	\$	14,375.00	\$	14,375.00
5	Excavation, Earth (Lakeshore)	Cyd	66	\$	15.00	\$	990.00	\$	23.00	\$	1,518.00
6	Remove Existing Boat Access Ramp, In Water	LSUM	1	\$	5,000.00	\$	5,000.00	\$	17,250.00	\$	17,250.00
7	Conc Pavt, Nonreinf, 9 inch	Sft	600	\$	30.00	\$	18,000.00	\$	23.00	\$	13,800.00
	Concrete Planks, 6" x 6' x 15'	Sft	1,260	\$	30.00	\$	37,800.00	\$	46.00	\$	
	Aggregate Base, 21AA Limestone, 8 inch	Syd	261	\$	12.00	\$		\$			57,960.00
	Geotextile, Separator	Syd	261	\$	5.00	\$	3,132.00 1,305.00	\$	21.85 5.75	\$	5,702.85
I	Concrete Pad for Picnic Table	Sft	220	\$				<u> </u>			1,500.75
11	Sidewalk, Rem	Syd	12	\$	10.00	\$	2,200.00	\$	28.75	\$	6,325.00
		Sft	100	-	15.00	-	180.00	\$	57.50	\$	690.00
13	Sidewalk, Conc, 6 inch			\$	8.00	\$	800.00	\$	23.00	\$	2,300.00
	Sidewalk Ramp, Conc, 6 inch Shoreline Erosion Control (Lakeshore)	Sft	50	\$	10.00	\$	500.00	\$	23.00	\$	1,150.00
-	,	Syd	324	\$	100.00	\$	32,400.00	\$	92.00	\$	29,808.00
	Erosion Control, Silt Fence (Lakeshore)	Ft	200	\$	2.00	\$	400.00	\$	3.45	\$	690.00
	Riprap, Heavy, Mod (Lakeshore)	Syd	10	\$	60.00	\$	600.00	\$	172.50	\$	1,725.00
_	Turbidity Curtain (Lakeshore)	Ft	200	\$	15.00	\$	3,000.00	\$	9.20	\$	1,840.00
	Timber Retaining Wall	Sft	280	\$	50.00	\$	14,000.00	\$	23.00	\$	6,440.00
20	Crew Days (Lakeshore)	Day	700		20	\$	14,000.00		9	\$	6,300.00
-	Lakeshore Park Total Base Bid					\$	152,087.70	_		\$	190,555.85
<u> </u>	Lakeshore Park Portion Alternate Bid	1.01.114		_		_		_		_	
1	Mobilization (Max 10%) (Lakeshore)	LSUM	1	\$	9,240.70	\$	9,240.70	\$,	\$	15,000.00
_	Pre-Construction Audio Visual (Lakeshore)	LSUM	1	\$	1,500.00	\$	1,500.00	\$	3,306.25	\$	3,306.25
-	Maintaining Traffic (Lakeshore)	LSUM	1	\$	1,000.00	\$	1,000.00	\$	2,875.00	\$	2,875.00
4	Surface Restoration (Lakeshore)	LSUM	1	\$	4,000.00	\$	4,000.00	\$	14,375.00	\$	14,375.00
5	Excavation, Earth (Lakeshore)	Cyd	66	\$	15.00	\$	990.00	\$	23.00	\$	1,518.00
6	Remove Existing Boat Access Ramp, In Water	LSUM	1	\$	5,000.00	\$	5,000.00	\$	17,250.00	\$	17,250.00
_	Conc Pavt, Nonreinf, 9 inch	Sft	600	\$	30.00	\$	18,000.00	\$	23.00	\$	13,800.00
8	Concrete Planks, 6" x 6' x 15'	Sft	1,260	\$	30.00	\$	37,800.00	\$	46.00	\$	57,960.00
9	Aggregate Base, 21AA Limestone, 8 inch	Syd	261	\$	12.00	\$	3,132.00	\$	21.85	\$	5,702.85
	Geotextile, Separator	Syd	261	\$	5.00	\$	1,305.00	\$	5.75	\$	1,500.75
11	Concrete Pad for Picnic Table	Sft	220	\$	10.00	\$	2,200.00	\$	28.75	\$	6,325.00
12	Sidewalk, Rem	Syd	12	\$	15.00	\$	180.00	\$	57.50	\$	690.00
	Sidewalk, Conc, 6 inch	Sft	100	\$	8.00	<u> </u>	800.00	\$	23.00	\$	2,300.00
	Sidewalk Ramp, Conc, 6 inch	Sft	50	\$	10.00	\$	500.00	\$	23.00	\$	1,150.00
	Shoreline Erosion Control (Lakeshore)	Syd	0	\$		\$	-			\$	-
	Erosion Control, Silt Fence (Lakeshore)	Ft	200	\$	2.00		400.00	\$	3.45		690.00
	Riprap, Heavy, Mod (Lakeshore)	Syd	210	\$		\$	12,600.00	\$	69.00		14,490.00
	Turbidity Curtain (Lakeshore)	Ft	200	\$	15.00	\$	3,000.00	\$	9.20	\$	1,840.00
	Timber Retaining Wall	Sft	280	\$	50.00	\$	14,000.00	\$	23.00	\$	6,440.00
20	Crew Days (Lakeshore)	Day	700		20	\$	14,000.00		9	\$	6,300.00
	Lakeshore Park Total Alternate Bid					\$	129,647.70			\$	173,512.85
	Pavilion Park Portion Base Bid										
1	Mobilization (Max 10%) Pavilion)	LSUM	1	\$	663.20	\$	663.20	\$	12,000.00	\$	12,000.00
2	Pre-Construction Audio Visual (Pavilion)	LSUM	1	\$	1,500.00	\$	1,500.00	\$	3,306.25	\$	3,306.25
3	Maintaining Traffic (Pavilion)	LSUM	1	\$	1,000.00	\$	1,000.00	\$	1,150.00	\$	1,150.00
4	Surface Restoration (Pavilion)	LSUM	1	\$	4,000.00	\$	4,000.00	\$	14,375.00	\$	14,375.00
5	Excavation, Earth (Pavilion)	Cyd	264	\$	15.00	\$	3,960.00	\$	23.00	\$	6,072.00
6	Erosion Control, Silt Fence (Pavilion)	Ft	800	\$	2.00	\$	1,600.00	\$	3.45	\$	2,760.00
7	Shoreline Erosion Control (Pavilion)	Syd	1296	\$	100.00	\$	129,600.00	\$	92.00	\$	119,232.00
8	Turbidity Curtain (Pavilion)	Ft	800	\$	15.00	\$	12,000.00	\$	9.20	\$	7,360.00
9	Riprap, Heavy, Mod (Pavilion)	Syd	10	\$	60.00	\$	600.00	\$	172.50	\$	1,725.00
10	Masonry and Conc Structure, Rem	Cyd	110	\$	50.00	\$	5,500.00	\$	46.00	\$	5,060.00
11	Crew Days (Pavilion)	Day	700		35	\$	24,500.00		7	\$	4,900.00

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AECOM Corporation

	Pavilion Shore Park Total Base Bid					\$	184,923.20			\$ 177,940.25
	Pavilion Shore Park Portion Alternate Bid									
1	Mobilization (Max 10%) Pavilion)	LSUM	1	\$	663.20	\$	663.20	\$	12,000.00	\$ 12,000.00
2	Pre-Construction Audio Visual (Pavilion)	LSUM	1	\$	1,500.00	\$	1,500.00	\$	3,306.75	\$ 3,306.75
3	Maintaining Traffic (Pavilion)	LSUM	1	\$	1,000.00	\$	1,000.00	\$	1,150.00	\$ 1,150.00
4	Surface Restoration (Pavilion)	LSUM	1	\$	4.000.00	\$	4,000.00	\$	14,375.00	\$ 14,375.00
5	Excavation, Earth (Pavilion)	Cyd	264	\$	15.00	\$	3,960.00	\$	23.00	\$ 6,072.00
6	Erosion Control, Silt Fence (Pavilion)	Ft	800	\$	2.00	\$	1,600.00	\$	3.45	\$ 2,760.00
7	Shoreline Erosion Control (Pavilion)	Syd	0	\$	100.00	\$	-	\$		\$ -
8	Turbidity Curtain (Pavilion)	Ft	800	\$	15.00	\$	12,000.00	\$	9.20	\$ 7,360.00
9	Riprap, Heavy, Mod (Pavilion)	Syd	925	\$	60.00	\$	55,500.00	\$	57.50	\$ 53,187.50
10	Masonry and Conc Structure, Rem	Cyd	110	\$	50.00	\$	5,500.00	\$	46.00	\$ 5,060.00
9	Crew Days (Pavilion)	Day	700	Ţ	35	\$	24,500.00		7	\$ 4,900.00
	Pavilion Shore Park Alternate Bid Total					\$	110,223.20			\$ 110,171.25
	Thornton Creek Portion									
1	Mobilization (Max 10%) Pavilion)	LSUM	1	\$	4,790.00	\$	4,790.00	\$	5,000.00	\$ 5,000.00
2	Pre-Construction Audio Visual (Thornton)	LSUM	1	\$	1,000.00	\$	1,000.00	\$	2,282.75	\$ 2,282.75
3	Maintaining Traffic (Thornton)	LSUM	1	\$	2,000.00	\$	2,000.00	\$	1,150.00	\$ 1,150.00
4	Surface Restoration (Thornton)	LSUM	1	\$	2,000.00	\$	2,000.00	\$	5,175.00	\$ 5,175.00
5	Maintaining Stream Flow	LSUM	1	\$	1,000.00	\$	1,000.00	\$	2,300.00	\$ 2,300.00
6	Erosion Control, Silt Fence (Thornton)	Ft	100	\$	2.00	\$	200.00	\$	3.45	\$ 345.00
7	Embankment CIP	Cyd	3	\$	20.00	\$	60.00	\$	28.75	\$ 86.25
8	Subgrade Undercutting, Type II	Cyd	10	\$	40.00	\$	400.00	\$	28.75	\$ 287.50
9	Pavt, Rem	Syd	44	\$	15.00	\$	660.00	\$	23.00	\$ 1,012.00
10	Riprap, Plain, Mod	Syd	51	\$	60.00	\$	3,060.00	\$	115.00	\$ 5,865.00
11	Riprap, Heavy, Mod (Thornton)	Syd	17	\$	60.00	\$	1,020.00	\$	115.00	\$ 1,955.00
12	Articulating Conc Block System, 6 inch	Syd	146	\$	250.00	\$	36,500.00	\$	143.75	\$ 20,987.50
13	Crew Days (Thornton)	Day	700		10	\$	7,000.00		4	\$ 2,800.00
	Thornton Creek Total					\$	59,690.00			\$ 49,246.00
	Base Bid Subtotal					\$	396,700.90			\$ 417,742.10
	Construction Contingency for Engineers Estimate					\$	35,120.09			
	Base Bid Total					\$	431,820.99			\$ 417,742.10
	Alternate Bid Subtotal					\$	299,560.90			\$ 332,930.10
	Construction Contingency for Engineers Estimate					\$	25,406.09			_
	Alternate Bid Total					\$	324,966.99			\$ 332,930.10
	Total Base Award Amount (Excludes Crew Days								Days	\$ 403,742.10
							t (Excludes 0			\$ 318,930.10
	Thornton Award Amount (Excludes Crew Days Lakeshore Alternate Award Amount (Excludes Crew Days									\$ 46,446.00
										\$ 167,212.85
Pavilion Alternate Award Amount (Excludes Crew Days									ew Days	\$ 105,271.25

BID

1.01	
Shoreline Erosion Control and Miscellaneous In	nprovements
1 1 6 1 1 1 0	Provento
Bid of Anglin Civil LLC	hereinafter called
Bidder, organized and existing under the laws of or a resident of the Stat	e of Michigan, doing business as
Anglin Civil LLC	
TO THE CITY OF NOVI, MICHIGAN, hereinafter called OWNER:	·

The undersigned as Bidder hereby declares: that this Bid is made in good faith without fraud or collusion with any person or persons bidding on the same Contract; that the Bidder has read and examined the Advertisement for Bids, Instructions to Bidders, Bid, General Conditions, Supplementary Conditions, Agreement, Forms of Bond, Specifications and Drawings, as prepared by the ENGINEER, and understands all of the same; that the Bidder of its representative has made personal investigation at the sites of the work and has become fully familiar with regard to the conditions to be met in the execution of this Contract, and the undersigned proposes to furnish all labor, materials, tools, power, transportation, and construction equipment necessary for the construction of the Project and performing related work in full accordance with the aforesaid Contract Documents, including any and all Addenda officially issued, their receipt of which is hereby acknowledged:

Addendum No.	Addendum Date
#1	May 22 m
#2	may 24th

The Contract will be awarded to the lowest responsive, responsible Bidder based on the unit prices for all Work specified.

The owner will award a contract based upon either the Base Bid or the Alternate Bid. Shoreline Erosion Control is replaced with Riprap, Heavy, Mod for the Alternate bid.

The Bidder agrees to complete the Project for the following unit prices:

LAKESHORE PARK PORTION BASE BID

Item No.	Item Description	Unit	Quantity	Unit Price	Total Price
1	Mobilization (Max 10%) (Lakeshore)	LSUM	1	\$/5000	\$ 15000
2	Pre-Construction Audio Visual (Lakeshore)	LSUM	1	\$3306.25	\$ 3306.2
3	Maintaining Traffic (Lakeshore)	LSUM	1	s2875	\$2875
4	Surface Restoration (Lakeshore)	LSUM	1	\$14375	\$14375
5	Excavation, Earth (Lakeshore)	Cyd	66	\$23	\$ 1518
6	Remove Existing Boat Access Ramp, In Water	LSUM	1	\$17250	\$17250
7	Conc Pavt, Nonreinf, 9 inch	Sft	600	\$23	\$ 13800



Item No.	Item Description	Unit	Quantity	Unit Price	Total Price
8	Concrete Planks, 6" x 6' x 15'	Sft	1,260	\$46	\$ 57460
9	Aggregate Base, 21AA Limestone, 8 inch	Syd	261	\$ 21.85	\$ 5702.85
10	Geotextile, Separator	Syd	261	\$ 5.75	\$1500.75
11	Concrete Pad for Picnic Table	Sft	220	\$ 28.75	\$ (325
12	Sidewalk, Rem	Syd	12	\$ 57.5	\$690
13	Sidewalk, Conc, 6 inch	Sft	100	\$23	\$ 2300
14	Sidewalk Ramp, Conc, 6 inch	Sft	50	\$23	\$ 1150
15	Shoreline Erosion Control (Lakeshore)	Syd	324	\$ 92	\$29808
16	Erosion Control, Silt Fence (Lakeshore)	Ft	200	\$3.45	\$690
17	Riprap, Heavy, Mod (Lakeshore)	Syd	10	\$ 172.5	\$ 1725
18	Turbidity Curtain (Lakeshore)	-Ft	200	\$ 9.2	\$ 1840
19	Timber Retaining Wall	Sft	280	\$ 23	\$ 6440
20	Crew Days (Lakeshore)	Day	9	\$ 700.00	\$ 6300
	TOTAL LAKESHOR	\$ 190,5	55.85		

LAKESHORE PARK PORTION ALTERNATE BID

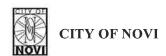
Item No.	Item Description	Unit	Quantity	Unit Price	Total Price
1	Mobilization (Max 10%) (Lakeshore)	LSUM	1	\$ 15000	\$ 15000
2	Pre-Construction Audio Visual (Lakeshore)	LSUM	1		\$ 3306.24
3	Maintaining Traffic (Lakeshore)	LSUM	1	\$2875	\$2875
4	Surface Restoration (Lakeshore)	LSUM	1	\$14375	\$ M375
5	Excavation, Earth (Lakeshore)	Cyd	66	\$23	\$ 1518
6	Remove Existing Boat Access Ramp, In Water	LSUM	1	17250	\$ 17250
7	Conc Pavt, Nonreinf, 9 inch	Sft	600	\$23	\$ 13800
8	Concrete Planks, 6" x 6' x 15'	Sft	1,260	\$46	\$ 57960
9	Aggregate Base, 21AA Limestone, 8 inch	Syd	261	\$21.85	\$ 5702. 85
10	Geotextile, Separator	Syd	261	\$5.75	\$ 1500.75



Item No.	Item Description	Unit	Quantity	Unit Price	Total Price
11	Concrete Pad for Picnic Table	Sft	220	\$28.75	\$ 6325
12	Sidewalk, Rem	Syd	12	\$57.5	\$ 690
13	Sidewalk, Conc, 6 inch	Sft	100	\$23	\$ 2300
14	Sidewalk Ramp, Conc, 6 inch	Sft	50	\$23	\$ 1150
15	Shoreline Erosion Control (Lakeshore)	Syd	0	\$ -	\$
16	Erosion Control, Silt Fence (Lakeshore)	Ft	200	\$ 3.45	\$ 690
17	Riprap, Heavy, Mod (Lakeshore)	Syd	210	. 69	\$ 14490
18	Turbidity Curtain (Lakeshore)	Ft	200	\$ 9.2	\$ 1840
19	Timber Retaining Wall	Sft	280	\$ 23	\$6440
20	Crew Days (Lakeshore)	Day	9	\$ 700.00	\$ 6300
	TOTAL LAKESHORE PARK	\$ 173	512.85		

PAVILION SHORE PARK PORTION BASE BID

Item No.	Item Description	Unit	Quantity	Unit Price	Total Price
1	Mobilization (Max 10%) Pavilion)	LSUM	1	\$12000	\$12000
2	Pre-Construction Audio Visual (Pavilion)	LSUM	1	\$ 3306.25	\$3306.25
3	Maintaining Traffic (Pavilion)	LSUM	1	\$1150	\$1150
4	Surface Restoration (Pavilion)	LSUM	1	\$14375	\$14375
5	Excavation, Earth (Pavilion)	Cyd	264	\$23	\$607a
6	Erosion Control, Silt Fence (Pavilion)	Ft	800	\$3.45	\$ 2760
7	Shoreline Erosion Control (Pavilion)	Syd	1,296	\$ 92	\$119232
8	Turbidity Curtain (Pavilion)	Ft	800	\$9.2	\$7360
9	Riprap, Heavy, Mod (Pavilion)	Syd	10	\$172.5	\$1725
10	Masonry and Conc Structure, Rem	Cyd	110	\$46	\$ 5060
11	Crew Days (Pavilion)	Day	7	\$ 700.00	\$ 4900
	TOTAL PAVILION SHOR	\$ 177,9	40.25		



PAVILION SHORE PARK PORTION ALTERNATE BID

Item No.	Item Description	Unit	Quantity	Unit Price	Total Price
1	Mobilization (Max 10%) Pavilion)	LSUM	1	\$12000	\$ 12000
2	Pre-Construction Audio Visual (Pavilion)	LSUM	1	\$3306.75	\$ 3306.75
3	Maintaining Traffic (Pavilion)	LSUM	1	\$ 1150	\$ 1150
4	Surface Restoration (Pavilion)	LSUM	1	\$14375	\$14375
5	Excavation, Earth (Pavilion)	Cyd	264	\$23	\$ 6072
6	Erosion Control, Silt Fence (Pavilion)	Ft	800	\$3.45	\$ 2760
7	Shoreline Erosion Control (Pavilion)	Syd	0	\$	\$ _
8	Turbidity Curtain (Pavilion)	Ft	800	\$ 9.2	\$ 7360
9	Riprap, Heavy, Mod (Pavilion)	Syd	925	\$ 57.5	\$ 53/87.5
10	Masonry and Conc Structure, Rem	Cyd	110	\$ 46	\$ 5060
11	Crew Days (Pavilion)	Day	7	\$ 700.00	\$ 4900
,	TOTAL PAVILION SHORE PARK	\$ 110,17	10.75		



THORNTON CREEK PORTION

Item No.	Item Description	Unit	Quantity	Unit Price	Total Price
1	Mobilization (Max 10%) Pavilion)	LSUM	1	\$ 5000	\$ 5000
2	Pre-Construction Audio Visual (Thornton)	LSUM	1	\$2082.7	\$ 2282.75
3	Maintaining Traffic (Thornton)	LSUM	1	\$1150	\$1150
4	Surface Restoration (Thornton)	LSUM	1	\$5/75	\$5175
5	Maintaining Stream Flow	LSUM	1	\$2300	\$ 2300
6	Erosion Control, Silt Fence (Thornton)	Ft	100	\$ 345	\$ 345
7	Embankment CIP	Cyd	3	\$28.75	\$ 86.25
8	Subgrade Undercutting, Type II	Cyd	10	\$28.75	\$ 287.5
9	Pavt, Rem	Syd	44	\$23	\$ 1012
10	Riprap, Plain, Mod	Syd	51	\$ 115	\$ 5865
11	Riprap, Heavy, Mod (Thornton)	Syd	17	\$ 115	\$1955
12	Articulating Conc Block System, 6 inch	Syd	146	\$143.75	\$ 20987.5
13	Crew Days (Thornton)	Day	4	\$ 700.00	\$ 2900
	TOTAL THOR	\$ 49,246	6.00		

BASE BID SUMMARY

LAKESHORE PARK PORTION BASE BID	\$190,555.85
PAVILION SHORE PARK PORTION BASE BID	\$ 177,940.25
THORNTON CREEK PORTION	\$49,246.00
TOTAL BASE BID	\$417,742.10

ALTERNATE BID SUMMARY

LAKESHORE PARK PORTION ALTERNATE BID	\$ 173,512.85
PAVILION SHORE PARK PORTION ALTERNATE BID	\$ 110,170.75
THORNTON CREEK PORTION	\$49,246.00
TOTAL ALTERNATE BID	\$332,929.6

If the foregoing Bid shall be accepted by the OWNER, the undersigned agrees to enter into the attached form of Agreement within ten (10) days after receiving notice of such acceptance, will furnish the OWNER satisfactory bonds and certificates of insurance coverage, and will complete the Project, at the price and within the time stated in this Bid.

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The undersigned further agrees that if the foregoing Bid shall be accepted, work will commence immediately after the Contract has been awarded, the Agreement executed, and a Notice to Proceed received.

Work at any of the three sites shall not be started before July 5, 2019.

Final Completion shall be September 6, 2019.

The undersigned attaches hereto its Bid security, as required by the Advertisement for Bids and Instructions to Bidders. The undersigned agrees that in case it shall fail to fulfill its obligations under the foregoing Bid, and/or shall fail to furnish bonds, as specified, the OWNER may, at its option determine that the undersigned has abandoned its rights and interests in such Contract and that its Bid security accompanying its Bid; has been forfeited to the said OWNER, but otherwise the Bid security shall be returned to the undersigned upon the execution of the Contract and the acceptance of the bonds.

The undersigned also agrees that for each and every calendar day that he may be in default of any of the completion times listed above, the OWNER will suffer a damage of Six Hundred Dollars (\$600.00) per calendar day and said OWNER shall be compensated therefore at the rate as liquidated damages in accordance with the Agreement.

In submitting this Bid, it is understood that the right is reserved by the OWNER to accept any bid, to reject any or all Bids, and to waive irregularities in bidding in the interest of the OWNER.



^{*}Typed or printed in ink