CITY of NOVI CITY COUNCIL



Agenda Item 3 February 25, 2019

SUBJECT: Approval of Change Order No. 3 to L.J. Construction, Inc., for Phase 2 of the 2018-2019 Boardwalk Repair Program in the amount of \$316,390, and amend the budget.

SUBMITTING DEPARTMENT: Department of Public Works, Engineering Division

CITY MANAGER APPROVAL:

EXPENDITURE REQUIRED	\$ 316,390.00
AMOUNT BUDGETED	\$ 506,750
APPROPRIATION REQUIRED	\$ 425,616
LINE ITEM NUMBER	400-204.00-974.476

BACKGROUND INFORMATION:

A program to refurbish and restore the City's boardwalk network was implemented in fall of 2018. The boardwalk network was evaluated and categorized for maintenance, repair, or replacement based on condition and usage. The first categorization was to determine which boardwalks could be maintained with in-house Field Operations staff and which boardwalks were considered for a more extensive rehabilitation method and required the expertise of a qualified contractor. This categorization developed a list of fourteen (14) boardwalks that needed special attention from a structural engineering standpoint.

On October 22, 2018, City staff brought to City Council a recommendation to award a contract to L.J. Construction, Inc., in the amount of \$544,847.00. Based on the approved budget at the time, this contract concentrated on the six (6) worst rated boardwalks (Boardwalk No.'s 1, 3, 4, 11, 14 and 17) out of the 14, for immediate repair or replacement (a map of those boardwalk locations is attached).

A seventh boardwalk (Boardwalk No. 20), located on the west side of Beck Road, just south of the Bellagio Subdivision entrance was added to the contract. Monies appropriated to repair Boardwalk No. 20 were obtained from an insurance settlement, when a driver under the influence had struck the boardwalk in March 2018. The City did not acquire these funds in time before bidding the original contract; so, Boardwalk No. 20 was added via Change Order No. 2.

Boardwalk No. 10, located on the west side of Beck Road, along the south property frontage of the Kirkway Place development (which was also on the list of 14), was previously added to the 8 Mile Pathway (Garfield to Napier) contract and contractor (Koala-T Construction). This boardwalk was in such poor condition, that it had been closed for a long period of time. Due to the amount of usage this boardwalk receives, the City decided to immediately issue a change order to another contract in order to accelerate its reopening.

This leaves six boardwalks remaining of the fourteen that require a qualified contractor (Boardwalk No.'s 5, 8, 9, 15, 16 & 33). L.J. Construction, Inc., specializes in boardwalk construction. In 2016, they very successfully completed Phase 1 of the ITC Trail (Garfield/9 Mile to ITC Community Sports Park). Phase 1 of the boardwalk repair program with L.J. Construction, Inc. has gone extremely well. Not only the quality of workmanship, but also the competitive pricing L.J. Construction, Inc. has to offer.

In order to continue with this proven contractor and exceptional unit pricing, City staff requests approval to appropriate additional funding toward this program to extend the longevity of these boardwalks along these often used pathway corridors. Attached is a draft construction Change Order No. 3 in the estimated amount of \$316,390.00 to L.J. Construction, Inc. to begin Phase 2 construction spring of 2019. The total appropriation requested (\$425,616) includes costs associated with construction engineering, geotechnical material testing, crew days, and a construction contingency for any unforeseen issues with the substructure of these proposed boardwalks.

Awarding additional engineering services to the City Engineering Consultant AECOM for this project is proposed elsewhere on the agenda.

RECOMMENDED ACTION: Approval of Change Order No. 3 to L.J. Construction, Inc., for Phase 2 of the 2018-2019 Boardwalk Repair Program in the amount of \$316,390, and amend the budget.

RESOLUTION

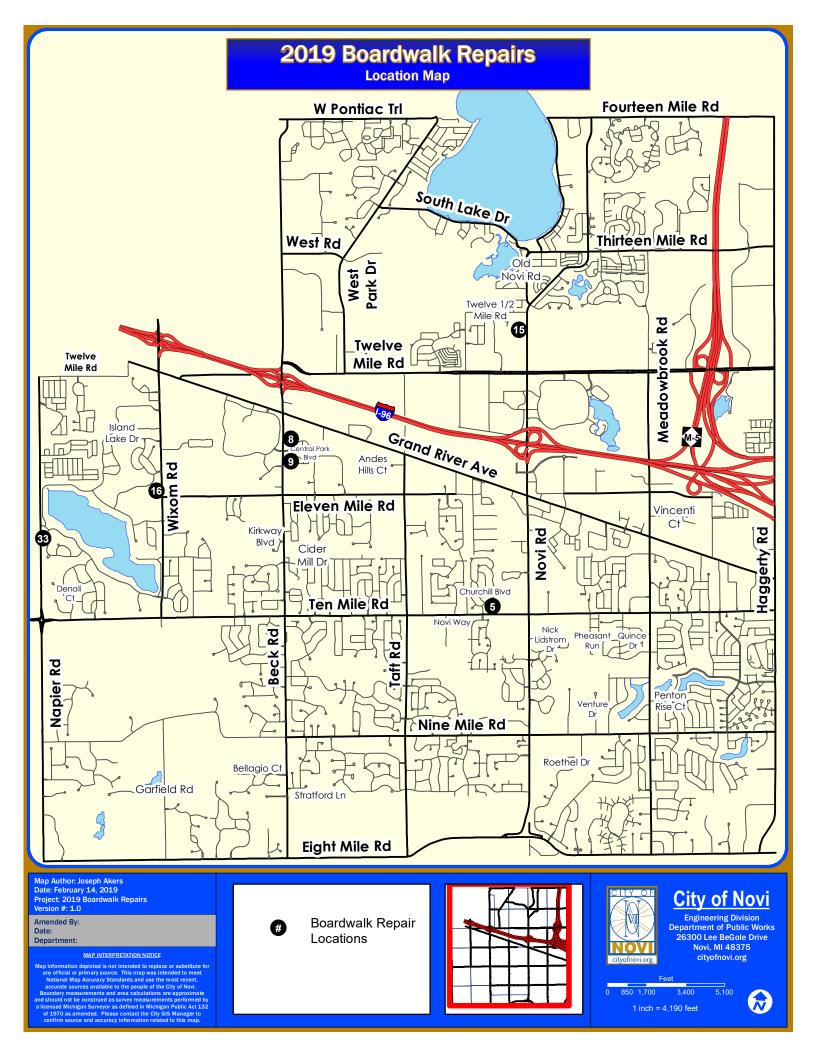
NOW, THEREFORE BE IT RESOLVED that the following Budget Amendment for change order No. 3 to L.J. Construction, Inc., for the construction associated with the Phase 2 of the 2018-2019 Boardwalk Repair Program is authorized:

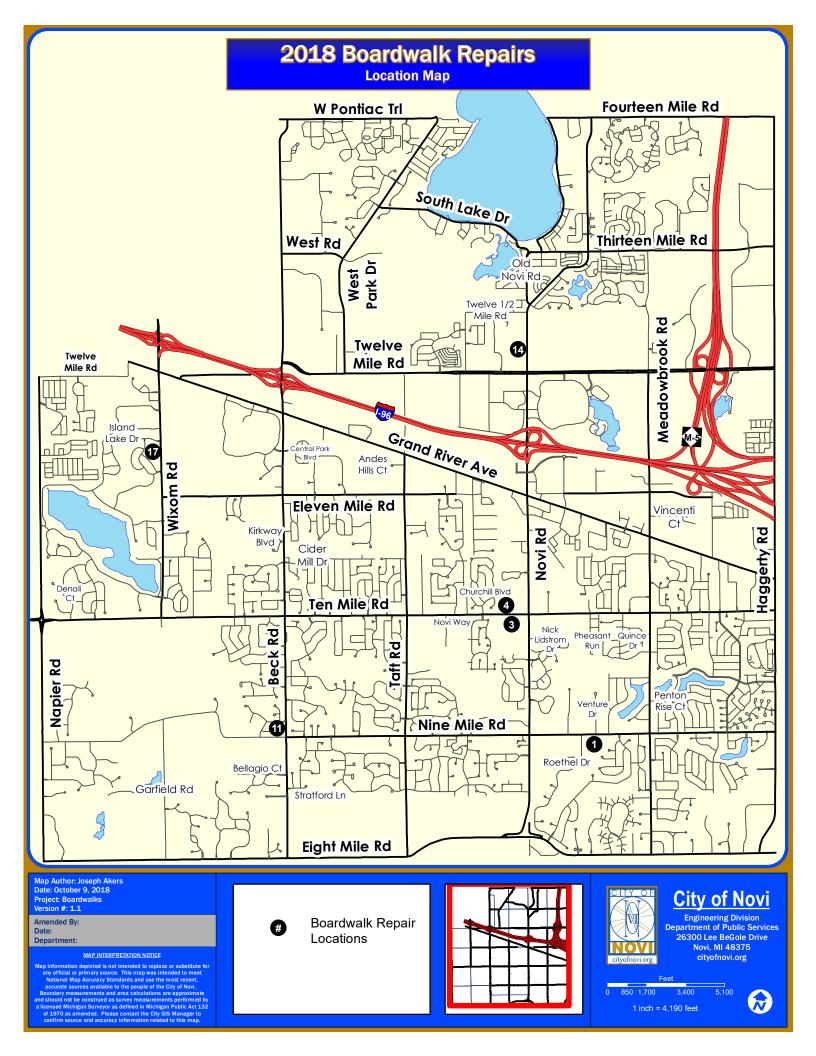
INCREASE (DECREASE)

CAPITAL IMPROVEMENT PROGRAM FUND		
APPROPRIATIONS		
Capital Outlay		425,616
TOTAL APPROPRIATIONS	\$	425,616
Net Increase (Decrease) to Fund Balance	\$	(425,616)

I hereby certify that the foregoing is a true and complete copy of a resolution adopted by the City Council of the City of Novi at a regular meeting held on February 25, 2019

Cortney Hanson City Clerk







WORK CHANGE DIRECTIVE & CHANGE ORDER No. 3

cityotnovi.org		PURCHASE ORDER NO. 95682	NOVI NO.: 18-5002 CIP NO.: ENG027
		00002	Oil No.: ENGOZY
Project:	2018 Boardwalk Repair Program		
Owner:	City of Novi	Engineer:	AECOM-Great Lakes
	26300 Lee BeGole Dr.		27777 Franklin Road, Suite 2000
	Novi, Michigan 48375		Southfield, Michigan 48034
	(248) 735-5632		(248) 204-5900
		_	
Contractor:	L. J. Construction, Inc.	This document	hereby renders changes in the Work, changes in the Contract
	5863 S. Kingston Road	Time and chang	ges in the Contract Price by adding, deducting and/or
	Clifford, Michigan 48727	balancing indiv	vidual Contract line items through a signed authorization of the
	(989) 761-0131	Prime Contract	tor, Owner, and Engineer.
Drafted Date:	February 13, 2019	٦	
		_	
Reasoning:	Adding work to boardwalks: 5, 8, 15, and 33		

EXISTING CONTRACT ITEMS

0							Contract	Price
0 ""Crew Days" - CD \$700.00 □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	Item No.	<u>Division</u>	<u>Item Description</u>		<u>Unit Price</u>			<u>Deduct</u>
0 "Crew Days": CD \$700.00	0			CD	\$700.00	34	✓	
0 "Crew Days": CD \$700.00	0		"Crew Days" -	CD	\$700.00			
0 "Crew Days" - CD \$700.00	0		"Crew Days" -	CD	\$700.00			
0 "Crew Days". CD \$700.00	0		"Crew Davs" -					
4 Silf Fence LF \$1.50 430 \$645,00 5 Boardwalk, Remove LF \$95,00 354 \$33,303,00 8 Sildewalk, Remove SY \$50,00 39.5 \$1,975,00 9 Concrete Headwall EA \$6,500,00 3 \$11,955,00 10 Boardwalk Desking Boards SY \$85,00 708 \$37,224,00 11 Boardwalk Railing LF \$853,00 708 \$37,224,00 12 Boardwalk Railing LF \$853,00 708 \$37,224,00 13 Boardwalk Railing LF \$853,00 708 \$37,224,00 14 Boardwalk Railing LF \$853,00 708 \$37,224,00 15 Boardwalk Railing LF \$853,00 355 \$42,200,00 16 Helical Pile - Add'i 5-6ot over 15 EA \$200,00 47 \$9,400,00 17 Agg Base, 21A4 Limestone, 6-inch SY \$30,00 39.5 \$1,185,00 18 Sildewalk Conc. 4-inch SF \$15,00 \$53 \$5,295,00 19 Agg Base, 21A4 Limestone, 6-inch SF \$15,00 \$353 \$5,295,00 22 Sildewalk Grading LF \$5,00 44 \$220,00			"Crew Days" -					
5 Boardwalk, Remove LF \$95.00 39.5 \$1,975.00 9 Concreto Hoadwall EA \$6,000.00 3 \$19,500.00 9 Concreto Hoadwall Bocking Boards SY \$86,000.00 3 \$19,500.00 11 Boardwalk Railing LF \$55.00 708 \$37,524.00 12 Bridwik Substructure, BeamiJoist LF \$120.00 354 \$42,480.00 15 Helical Pile - 15-feet Deep EA \$800.00 95 \$76,000.00 16 Helical Pile - Addi 15-feet Deep EA \$200.00 47 \$8,400.00 19 Ang Base, 21AA Limestone, 6-inch SF \$15.00 35.5 \$5,550.00 21 Sidewalk Core, 4-inch SF \$15.00 35.3 \$5,255.00 22 Sidewalk Grading LF \$5.00 44 \$220.00						430	\$645.00	
8 Sidewalk, Remove SY \$50.00 39.5 \$1.975.00 S Concreto Headwall EA \$6,00.00 3 3 \$1.950.00 S 10 Boardwalk Decking Boards SY \$85.00 313.6 \$26,656.00 S 11 Boardwalk Railing LF \$53.00 708 \$37,524.00 S 12 Brdwik Substructure, Beam/Joist LF \$120.00 354 \$42,480.00 S 76,000.00								
9 Concrete Headwall EA								
10							\$1,975.00	
11							\$19,500.00	
12 Brdwik Substructure, BeamJoist LF \$120.00 354 \$42,480.00 15 Helical Pile - 15-feet Deep EA \$800.00 95 \$76,000.00 16 Helical Pile - Add'l 5-foot over 15' EA \$200.00 47 \$9,400.00 19 Agg Base, 21AA Limestone, 6-inch SY \$30.00 39.5 \$1,185.00 21 Sidewalk, Conc, 4-inch SF \$15.00 353 \$5,295.00 22 Sidewalk Grading LF \$5.00 44 \$220.00			Boardwalk Decking Boards				\$26,656.00	
15 Helical Pile - 15-feet Deep EA \$800.00 95 \$76,000.00 16 Helical Pile - Addi 5-foet over 15' EA \$200.00 47 \$9,400.00 17 Agg Base, 21AA Limestone, 6-inch SY \$30.00 39.5 \$1,185.00 18 Sidewalk, Conc., 4-inch SF \$15.00 353 353 \$5,285.00 19 Sidewalk Grading LF \$5.00 44 \$220.00 10 Sidewalk Grading LF \$5.00 44 \$220.00								
16 Helical Pile - Add'l 5-foot over 15° EA \$200.00 47 \$9,400.00 19 Ag Base, 21AA Limestone, 6-inch SY \$30.00 39.5 \$1,185.00 21 Sitewalk, Conc, 4-inch SF \$15.00 353 \$5,295.00 22 Sitewalk Grading LF \$5.00 44 \$220.00			Brdwlk Substructure, Beam/Joist			354	\$42,480.00	
19 Agg Base, 21AA Limestone, 6-inch SY \$30,00 39.5 \$1,185.00 21 Sidewalk, Conc. 4-inch SF \$15,00 353 \$5,295.00 22 Sidewalk Grading LF \$5.00 44 \$229.00							\$76,000.00	
19 Agg Base, 21AA Limestone, 6-inch SY \$30.00 39.5 \$1,185.00 21 Sidewalk, Conc, 4-inch SF \$15.00 353 \$5,295.00 22 Sidewalk Grading LF \$5.00 44 \$220.00					\$200.00		\$9,400.00	
21 Sidewalk, Conc, 4-inch SF \$15.00 353 \$5,295.00 22 Sidewalk Grading LF \$5.00 44 \$220.00	19		Agg Base, 21AA Limestone, 6-inch	SY	\$30.00	39.5	\$1,185.00	
Sidewalk Grading	21		Sidewalk, Conc, 4-inch	SF	\$15.00	353	\$5,295.00	
			Sidewalk Grading				\$220.00	
Subtotals \$254,510.00 \$0.					7 - 7 - 7		Ϋ	
Subtotals \$254,510.00 \$0.							+	
Subtotals \$254,510.00 \$0.							+	
Subtotals \$254,510.00 \$0.					+		+	
Subtatals \$254,510.00 \$0.								
Subtotals \$254,510.00 \$0								
Subtotals \$254,510.00 \$0.								
Subtotals \$254,510.00 \$0.								
Subtotals \$254,510.00 \$0.								
Subtotals \$254,510.00 \$0.								
Subtotals \$254,510.00 \$0.								
Subtotals \$254,510.00 \$0.								
Subtotals \$254,510.00 \$0.								
Subtotals \$254,510.00 \$0.								
Subtotals \$254,510.00 \$0.							1	
Subtotals \$254,510.00 \$0.							 	
Subtotals \$254,510.00 \$0.							+	
Subtotals \$254,510.00 \$0.							+	
Subtotals \$254,510.00 \$0.							 	
Subtotals \$254,510.00 \$0.								
Subtotals \$254,510.00 \$0.								
Subtotals \$254,510.00 \$0.								
Subtotals \$254,510.00 \$0.								
Subtotals \$254,510.00 \$0.								
Subtotals \$254,510.00 \$0.								
Subtotals \$254,510.00 \$0.								
Subtotals \$254,510.00 \$0.								
Subtotals \$254,510.00 \$0.								
Subtotals \$254,510.00 \$0.								
Subtotals \$254,510.00 \$0.							+	
Subtotals \$254,510.00 \$0.					+		 	
Subtotals \$254,510.00 \$0.							+	
Subtotals \$254,510.00 \$0.							+	
Subtotals \$254,510.00 \$0.								
Subtotals								
Subtotals \$254,510.00 \$0.							ļ	
Subtotals \$254,510.00 \$0.								
Subtotals \$254,510.00 \$0.								
Subtotals \$254,510.00 \$0.								
Subtotals \$254,510.00 \$0.								
Subtotals \$254,510.00 \$0.								
Total #254.540		•				Subtotals	\$254,510.00	\$0.00
					}	Total	7_2 .,0 . 2 . 3	\$254 510 00

Page 1 of 2

						Contract F	
tem No.	<u>Division</u>	Item Description	<u>Unit</u>	<u>Unit Price</u>	Quantity	<u>Add</u>	<u>Deduct</u>
38		Boardwalk, Railing, 2 x 6 Board	LF	\$8.00		\$8,480.00	
39	 	Surface Restoration	LS				
	 			\$2,500.00	<u> </u>	\$2,500.00	
40		Pre-Construction Audio-Visual	LS	\$2,250.00	1	\$2,250.00	
41	Γ	Screw Down Top Rail	LS	\$400.00	1	\$400.00	
	1	Holical Dila Carrie Compiete et					
42	ļ	Helical Pile Equip, Furnished	LS	\$5,000.00		\$5,000.00	
43	1	Mobilization	LS	\$27,000.00	1	\$27,000.00	
44		Maintaining Traffic	LS	\$16,250.00	1	\$16,250.00	
44	ļ	Maintaining Traint	Lo	\$10,250.00	<u>'</u>	\$10,250.00	
	1					+	
	<u> </u>						
	<u> </u>					 	
	1		<u> </u>			 	
	 			+		 	
	1						
	1		1			 	
	 			+		+	
	I						
	1			†		 	
	+			+		+	
	ļ					1	
	<u>L</u>		[<u> </u>		<u> </u>	
		-				1	
	 			+		+	
	1			+		 	
	1						
	 			+		+	
	1			1		+	
	 						
	<u> </u>						
	 			+		+	
	_					1	
	<u>L</u> _			<u> </u>		<u> </u>	
	1						
				+		+ +	
						<u> </u>	
	Ī			<u> </u>		<u> </u>	
	<u></u>		-				
	<u> </u>					1	
					Subtatala	¢64.990.00	¢ı
					Subtotals	\$61,880.00	\$(
					Subtotals Total	\$61,880.00	\$(\$61,88 0
						\$61,880.00	\$(\$61,88 (
ease/Decre	ease in Co	entract Price				\$61,880.00	\$61,880
		entract Price				\$61,880.00	\$61,880 \$316,390
nal Contra	act Amour	t				\$61,880.00	\$61,880 \$316,390 \$544,847
nal Contra of Previou	act Amour s Approve	ed Change Orders				\$61,880.00	\$61,880 \$316,390 \$544,847 \$102,660
nal Contra	act Amour s Approve	ed Change Orders				\$61,880.00	\$61,880 \$316,390 \$544,847 \$102,660
nal Contra of Previou	act Amour s Approve	ed Change Orders				\$61,880.00	\$61,880 \$316,390 \$544,847 \$102,660
nal Contra of Previou sed Contra	act Amour s Approve act Amour	ed Change Orders t	EREBY ADJUSTS TI	HE CONTRACT TIM	Total	\$61,880.00	\$61,880 \$316,390 \$544,847 \$102,660
nal Contra of Previou sed Contra	act Amour s Approve act Amour	ed Change Orders	EREBY ADJUSTS TI	HE CONTRACT TIM	Total	\$61,880.00	\$61,880 \$316,390 \$544,847 \$102,660
nal Contra of Previou sed Contra	act Amour s Approve act Amour	ed Change Orders t	EREBY ADJUSTS TI	HE CONTRACT TIM	Total	\$61,880.00	\$61,880 \$316,390 \$544,847 \$102,660
nal Contra of Previou sed Contra	act Amour s Approve act Amour	ed Change Orders t	EREBY ADJUSTS TI	HE CONTRACT TIM	Total	\$61,880.00	\$61,880 \$316,390 \$544,847 \$102,660
nal Contra of Previou sed Contra	act Amour s Approve act Amour	ed Change Orders t	EREBY ADJUSTS TI	HE CONTRACT TIM	Total	\$61,880.00	\$61,880 \$316,390 \$544,847 \$102,660
nal Contra of Previou sed Contra	act Amour s Approve act Amour	ed Change Orders t	EREBY ADJUSTS TI	HE CONTRACT TIM	Total	\$61,880.00	\$61,880 \$316,390 \$544,847 \$102,660
nal Contra of Previou sed Contra	act Amour s Approve act Amour	ed Change Orders t	EREBY ADJUSTS TI	HE CONTRACT TIM	Total	\$61,880.00	\$61,880 \$316,390 \$544,847 \$102,660
inal Contra of Previou sed Contra THE	act Amour is Approve act Amour CHANGES	ed Change Orders S ADDRESSED BY THIS CHANGE ORDER HE	EREBY ADJUSTS TI	HE CONTRACT TIM	Total	\$61,880.00	\$61,880 \$316,390 \$544,847 \$102,660 \$963,897
inal Contra of Previou sed Contra THE	act Amour s Approve act Amour	ed Change Orders S ADDRESSED BY THIS CHANGE ORDER HE			Total	\$61,880.00	\$61,880 \$316,390 \$544,847 \$102,660
nal Contra of Previou sed Contra THE	act Amour is Approve act Amour CHANGES	ed Change Orders S ADDRESSED BY THIS CHANGE ORDER HE		HE CONTRACT TIM	Total	\$61,880.00	\$61,880 \$316,390 \$544,847 \$102,660
nal Contra of Previou sed Contra THE	act Amour is Approve act Amour CHANGES	ed Change Orders S ADDRESSED BY THIS CHANGE ORDER HE			Total	\$61,880.00	\$61,880 \$316,390 \$544,847 \$102,660
nal Contra of Previou sed Contra THE	act Amour is Approve act Amour CHANGES	ed Change Orders S ADDRESSED BY THIS CHANGE ORDER HE			Total	\$61,880.00	\$61,880 \$316,390 \$544,847 \$102,660
nal Contra of Previou sed Contra THE	act Amour is Approve act Amour CHANGES	ed Change Orders S ADDRESSED BY THIS CHANGE ORDER HE			Total	\$61,880.00	\$61,880 \$316,390 \$544,847 \$102,660
nal Contra of Previou sed Contra THE	act Amour is Approve act Amour CHANGES	ed Change Orders S ADDRESSED BY THIS CHANGE ORDER HE			Total	\$61,880.00	\$61,880 \$316,390 \$544,847 \$102,660
nal Contra of Previoused Contra THE	s Approvenct Amour CHANGES	ed Change Orders It S ADDRESSED BY THIS CHANGE ORDER HE	L		Total	\$61,880.00	\$61,880 \$316,390 \$544,847 \$102,660
nal Contra of Previoused Contra THE	s Approvenct Amour CHANGES	ed Change Orders S ADDRESSED BY THIS CHANGE ORDER HE	L	J. Construction, Inc.	Total	\$61,880.00	\$61,880 \$316,390 \$544,847 \$102,660
inal Contra of Previoused Contra THE	s Approvenct Amour CHANGES	ed Change Orders It S ADDRESSED BY THIS CHANGE ORDER HE	L		Total	\$61,880.00	\$61,880 \$316,390 \$544,847 \$102,660
nal Contra of Previoused Contra THE	s Approvenct Amour CHANGES	ed Change Orders It S ADDRESSED BY THIS CHANGE ORDER HE	L	J. Construction, Inc.	Total	\$61,880.00	\$61,880 \$316,390 \$544,847 \$102,660
nal Contra of Previoused Contra THE	s Approvenct Amour CHANGES	ed Change Orders It S ADDRESSED BY THIS CHANGE ORDER HE	L	J. Construction, Inc.	Total	\$61,880.00	\$61,880 \$316,390 \$544,847 \$102,660
nal Contra of Previoused Contra THE	s Approvenct Amour CHANGES	ed Change Orders It S ADDRESSED BY THIS CHANGE ORDER HE	L	J. Construction, Inc.	Total	\$61,880.00	\$61,880 \$316,390 \$544,847 \$102,660
nal Contra of Previoused Contra THE	cepted By:	ed Change Orders S ADDRESSED BY THIS CHANGE ORDER HE	L	J. Construction, Inc.	Total	\$61,880.00	\$61,880 \$316,390 \$544,847 \$102,660
nal Contra of Previoused Contra THE	cepted By:	ed Change Orders It S ADDRESSED BY THIS CHANGE ORDER HE	L	J. Construction, Inc. AECOM-Great Lakes	Total E BY:	\$61,880.00	\$61,880 \$316,390 \$544,847 \$102,660
nal Contra of Previoused Contra THE	cepted By:	ed Change Orders S ADDRESSED BY THIS CHANGE ORDER HE	L	J. Construction, Inc.	Total E BY:	\$61,880.00	\$61,880 \$316,390 \$544,847 \$102,660
inal Contra of Previoused Contra THE	cepted By:	ed Change Orders S ADDRESSED BY THIS CHANGE ORDER HE	L	J. Construction, Inc. AECOM-Great Lakes	Total E BY:	\$61,880.00	\$61,880 \$316,390 \$544,847 \$102,660
inal Contra of Previoused Contra THE	cepted By:	ed Change Orders S ADDRESSED BY THIS CHANGE ORDER HE	L	J. Construction, Inc. AECOM-Great Lakes	Total E BY:	\$61,880.00	\$61,880 \$316,390 \$544,847 \$102,660
nal Contra of Previous sed Contra THE	cepted By:	ed Change Orders et S ADDRESSED BY THIS CHANGE ORDER HE	Aaron J. S	J. Construction, Inc. AECOM-Great Lakes	Total E BY:	\$61,880.00	\$61,880 \$316,390 \$544,847 \$102,660
nal Contra of Previou sed Contra THE	cepted By:	ed Change Orders S ADDRESSED BY THIS CHANGE ORDER HE	Aaron J. S	J. Construction, Inc. AECOM-Great Lakes Staup, Construction Engine	Total E BY:	\$61,880.00	\$61,880 \$316,390 \$544,843 \$102,660
nal Contra of Previoused Contra THE	cepted By: proved By:	ed Change Orders et S ADDRESSED BY THIS CHANGE ORDER HE	Aaron J. S	J. Construction, Inc. AECOM-Great Lakes	Total E BY:	\$61,880.00	\$61,880 \$316,390 \$544,847 \$102,660
inal Contra of Previoused Contra THE	cepted By:	ed Change Orders et S ADDRESSED BY THIS CHANGE ORDER HE	Aaron J. S	J. Construction, Inc. AECOM-Great Lakes Staup, Construction Engine	Total E BY:	\$61,880.00	\$61,880 \$316,390 \$544,847 \$102,660
Act	cepted By: proved By: and	ed Change Orders it S ADDRESSED BY THIS CHANGE ORDER HE	Aaron J. S	J. Construction, Inc. AECOM-Great Lakes Staup, Construction Engine	Total E BY:	\$61,880.00	\$61,880 \$316,390 \$544,847 \$102,660
Act	cepted By: proved By: and	ed Change Orders et S ADDRESSED BY THIS CHANGE ORDER HE	Aaron J. S	J. Construction, Inc. AECOM-Great Lakes Staup, Construction Engine stas, Engineering Senior M	E BY:	\$61,880.00	\$61,880 \$316,390 \$544,847 \$102,660
Act	cepted By: proved By: and	ed Change Orders it S ADDRESSED BY THIS CHANGE ORDER HE	Aaron J. S	J. Construction, Inc. AECOM-Great Lakes Staup, Construction Engine	E BY:	\$61,880.00	\$61,880 \$316,390 \$544,847 \$102,660

Page 2 of 2

CITY OF NOVI 2019 Boardwalk Program **Probable Estimate of Cost** 2/11/2019

Boardwalk 5, 8, 15 (Option 1), and 33

Item No.	Item Description Unit Quar	Item Description Unit Quantity Unit Price (\$)			Unit Price (\$)		Unit Price (\$)		Item Cost (\$)	
1	Mobilization	LS	1.00	\$	27,000.00	\$	27,000.00			
2	Maintaining Traffic	LS	1.00	\$	16,250.00	\$	16,250.00			
4	Silt Fence	LF	430.00	\$	1.50	\$	645.00			
5	Boardwalk, Remove	LF	354.00	\$	95.00	\$	33,630.00			
8	Sidewalk, Remove	SY	39.50	\$	50.00	\$	1,975.00			
9	Concrete Headwall	EA	3.00	\$	6,500.00	\$	19,500.00			
10	Boardwalk Decking Boards	SY	313.60	\$	85.00	\$	26,656.00			
11	Boardwalk Railing	LF	708.00	\$	53.00	\$	37,524.00			
12	Brdwlk Substructure, Beam/Joist	LF	354.00	\$	120.00	\$	42,480.00			
15	Helical Pile - 15-feet Deep	EA	95.00	\$	800.00	\$	76,000.00			
16	Helical Pile - Add'l 5-foot over 15'	EA	47.00	\$	200.00	\$	9,400.00			
18	Helical Pile Equip, Furnished	LS	1.00	\$	5,000.00	\$	5,000.00			
19	Agg Base, 21AA Limestone, 6-inch	SY	39.50	\$	30.00	\$	1,185.00			
21	Sidewalk, Conc, 4-inch	SF	353.00	\$	15.00	\$	5,295.00			
22	Sidewalk Grading	LF	44.00	\$	5.00	\$	220.00			
24	Surface Restoration	LS	1.00	\$	2,500.00	\$	2,500.00			
25	Pre-Construction Audio-Visual	LS	1.00	\$	2,250.00	\$	2,250.00			
26	Boardwalk, Railing, 2 x 6 Board	LF	1060.00	\$	8.00	\$	8,480.00			
27	Screw Down Top Rail	LS	1.00	\$	400.00	\$	400.00			
	Construction Cost					\$	316,390.00			
	Right of Way Acquisition	LS	-	\$	-	\$	-			
	Design Engineering*	0.00%					\$0.00			
	Geotechnical Investigation	LS	0.00	\$	-		\$0.00			
	Design Contingency	0%					\$0.00			
	, , , , , , , , , , , , , , , , , , ,						\$0.00			
	Construction Engineering	7.00%					\$22,147.30			
	Materials Testing	0.0%					\$0.00			
	Crew Days	CD	34.00	\$	700.00		\$23,800.00			
	Construction Contingency	20%					\$63,278.00			
							\$109,225.30			
	Total Fatimeted Cook						105 015 05			
Estimate Ass	Total Estimated Cost					\$	425,615.30			

Estimate Assumptions:

Assumed no materials testing. Will VI concrete. Only replacing rail board on Boardwalk 15