

ORDINANCE NO. 23-131

AN ORDINANCE AUTHORIZING AND DIRECTING THE CITY MANAGER TO ENTER INTO AN AGREEMENT FOR PROFESSIONAL DESIGN SERVICES WITH KS ASSOCIATES, INC. OF ELYRIA, OHIO, FOR THE BENEFICIAL RE-USE OF DREDGE MATERIAL, PHASE 2 OF PROJECT 2 RELATED TO THE SANDUSKY BAY INITIATIVE; AND DECLARING THAT THIS ORDINANCE SHALL TAKE IMMEDIATE EFFECT IN ACCORDANCE WITH SECTION 14 OF THE CITY CHARTER.

WHEREAS, the City previously accepted grant funds from the State of Ohio and the Ohio Department of Natural Resources (ODNR) for the Sandusky Bay Initiative and are listed as follows:

<u>Amount</u>	<u>Ordinance No.</u>	<u>Passed</u>
\$1,000,000.00	16-231	December 27, 2016
\$240,000.00	17-079	April 10, 2017
\$140,500.00	18-183	September 10, 2018
\$4,029,500.00	20-115	August 10, 2020
\$100,000.00	21-092	June 14, 2021

WHEREAS, this City Commission approved an Agreement for Professional Services with KS Associates, Inc. of Elyria, Ohio, for the design phase and bidding services for the Cedar Point Causeway Wetland Project, Phase 1 of Project 2 of the Sandusky Bay Initiative, by Ordinance No. 21-093, passed on June 14, 2021; and

WHEREAS, the Cedar Point Causeway Wetland Project, Phase 1 of the Sandusky Bay Initiative included installation of a diked area on the northwest side of the Cedar Point Causeway in which the Army Corps of Engineers pumped material into the future wetlands from the annual dredging of the Moseley Channel and was designed to accommodate two to three cycles of dredgings with the second placement occurring in the fall of 2023; and

WHEREAS, there is a need for a second phase that will accommodate additional rounds of dredged material to ensure that the Moseley Channel can continuously accommodate the deeper drafts of commercial marine vessels that port at the salt and coal docks and part of the Beneficial Re-use of Dredge Material Project - Phase 2, includes expanding the Phase 1 site; and

WHEREAS, KS Associates Inc. of Elyria, Ohio, will be providing Professional Design Services to complete the Cedar Point Causeway Wetlands Projects and site analysis, preliminary design, permitting, design development, bidding and construction for the Beneficial Re-use of Dredge Material Project as more fully described in the Scope of Services, which is attached to this Ordinance and marked Exhibit “A” and specifically incorporated herein; and

WHEREAS, a Request for Qualifications (RFQ) was issued for the Sandusky Bay Initiative Project 2, Beneficial Re-use of Dredge Material Project in which two (2) submittals were received, evaluated and ranked by a selection committee and based upon the firm’s experience, professional expertise, technical ability necessary to complete the required tasks and past success with similar projects, it was determined KS Associates, Inc. was the most qualified; and

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WHEREAS, the total cost of the Professional Design Services is \$862,145.00 and will be paid with reimbursed grant funds awarded through the Ohio Department of Natural Resources; and

WHEREAS, this Ordinance should be passed as an emergency measure under suspension of the rules in accordance with Section 14 of the City Charter so the project can be designed, permitted, and constructed prior to future dredge cycles; and

WHEREAS, in that it is deemed necessary in order to provide for the immediate preservation of the public peace, property, health, and safety of the City of Sandusky, Ohio, and its citizens, and to provide for the efficient daily operation of the Municipal Departments, including the Department of Public Works, of the City of Sandusky, Ohio, the City Commission of the City of Sandusky, Ohio finds that an emergency exists regarding the aforesaid, and that it is advisable that this **Ordinance** be declared an emergency measure which will take immediate effect in accordance with Section 14 of the City Charter upon its adoption; and NOW, THEREFORE,

BE IT ORDAINED BY THE CITY COMMISSION OF THE CITY OF SANDUSKY, OHIO, THAT:

Section 1. The City Manager is authorized and directed to enter into an Agreement for Professional Design Services with KS Associates, Inc. of Elyria, Ohio, for the Beneficial Re-use of Dredge Material Project Phase 2 of Project 2, related to the Sandusky Bay Initiative, substantially in the same form as attached to this Ordinance, marked Exhibit "1", and specifically incorporated as if fully rewritten herein, together with any revisions or additions as are approved by the Law Director as not being substantially adverse to the City and consistent with carrying out the terms of this Ordinance, at an amount **not to exceed** Eight Hundred Sixty Two Thousand One Hundred Forty-Five and 00/100 Dollars (\$862,145.00).

Section 2. If any section, phrase, sentence, or portion of this Ordinance is for any reason held invalid or unconstitutional by any Court of competent jurisdiction, such portion shall be deemed a separate, distinct, and independent provision, and such holding shall not affect the validity of the remaining portions thereof.

Section 3. This City Commission finds and determines that all formal actions of this City Commission concerning and relating to the passage of this Ordinance were taken in an open meeting of this City Commission and that all deliberations of this City Commission and of any of its committees that resulted in those formal actions were in meetings open to the public in compliance with the law.

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Section 4. That for the reasons set forth in the preamble hereto, this Ordinance is hereby declared to be an emergency measure which shall take immediate effect in accordance with Section 14 of the City Charter after its adoption and due authentication by the President and the Clerk of the City Commission of the City of Sandusky, Ohio.



RICHARD R. BRADY
PRESIDENT OF THE CITY COMMISSION



ATTEST:

CATHLEEN A. MYERS
CLERK OF THE CITY COMMISSION

Passed: June 12, 2023

AGREEMENT
FOR
PROFESSIONAL DESIGN SERVICES

This Agreement for Professional Design Services (this “Agreement”), made as of _____, 2023, by and between the City of Sandusky (the “City”), whose contact person shall be the Director of Public Works designated below or successor (the “City Engineer”), and KS Associates, Inc. (the “Architect/Engineer”), whose contact person and address are set forth below.

WHEREAS, the City is operating under its Charter, ordinances, and regulations, and it is the intention of the City, in the exercise of its powers, to obtain professional design services for the following project (the “Project”):

Project Name:	Sandusky Bay Initiative Project 2 Beneficial Re-Use of Dredge Material
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Director of Public Works:	Aaron Klein, P.E.
Address:	Department of Public Works City of Sandusky 240 Columbus Ave Sandusky, Ohio 44870

Architect/Engineer:	KS Associates, INC
Contact:	Mark Cencer
Address:	260 Burns Road, Suite 100 Elyria, OH 44035

WHEREAS, the compensation of the Architect/Engineer set forth herein is determined to be fair and reasonable to the City and the Architect/Engineer; and

WHEREAS, the Architect/Engineer desires, and is licensed and capable, to provide professional design services for the Project;

WHEREAS, the Architect/Engineer has previously provided certain professional design services for the Project;

NOW, THEREFORE, in consideration of the mutual promises herein contained, the City and the Architect/Engineer agree as follows:

ARTICLE 1. RESPONSIBILITIES OF ARCHITECT/ENGINEER

1.1. Architect/Engineer’s Services

1.1.1. Scope of Services; Applicable Law. The Architect/Engineer shall provide professional design services, including, without limitation, services customarily furnished in accordance with generally-accepted architectural or engineering services, for the Project in accordance with the terms of this Agreement. The Architect/Engineer shall provide such services in accordance with the applicable Sections of the Ohio Revised Code and any applicable state rules and regulations, any applicable federal and local statutes, ordinances, rules and regulations and the Contract Documents.

1.1.2. Timeliness; Standard of Care. The Project Schedule shall be established by mutual agreement between the City and the Architect/Engineer within thirty (30) days after the execution hereof. The Architect/Engineer shall perform the Architect/Engineer's services in accordance with professional standards of skill, care, and diligence in a timely manner in accordance with the Project Schedule so as to cause no delay, interference, disruption, or hindrance in the Work, and so that the Project shall be completed as expeditiously and economically as possible within the Construction Budget and in the best interests of the City.

1.1.3. Non-Discrimination. The Architect/Engineer represents that the Architect/Engineer is in compliance with all applicable equal employment opportunity requirements under law, if required by Section 153.59 of the Ohio Revised Code or any other applicable state or federal law.

1.1.4. Consultants. The Architect/Engineer may provide services through one or more consultants employed by the Architect/Engineer (the "Consultants"); provided, however, the Architect/Engineer shall remain responsible to the City for all duties and obligations of the Architect/Engineer under this Agreement. Unless waived or otherwise modified in writing by the City upon written request of the Architect/Engineer, no Consultant shall be retained upon terms inconsistent with this Agreement. The Architect/Engineer shall provide the City Engineer with the names and qualifications of any other proposed Consultant, together with a description of the services to be provided by such Consultant for approval. Once approved by the City Engineer, the identity of any Consultant and the extent of such Consultant's participation in performing the Architect/Engineer's services shall not be altered without the written consent of the City Engineer. Upon the request of the City, the Architect/Engineer shall terminate the employment of any Consultant. The City may communicate with any Consultant either through the Architect/Engineer or directly to the Consultant with notice to the Architect/Engineer.

1.1.5. Ethics Laws. The Architect/Engineer represents that it is familiar with all applicable ethics law requirements, including without limitation Sections 102.04 and 3517.13 of the Ohio Revised Code, and certifies that it is in compliance with such requirements.

1.1.6. Limitation of Authority. The Architect/Engineer shall not have any authority to bind the City for the payment of any costs or expenses without the express written approval of the City. The Architect/Engineer shall have authority to act on behalf of the City only to the extent provided herein. The Architect/Engineer's authority to act on behalf of the City shall be modified only by an amendment in accordance with Subparagraph 9.5.2.

ARTICLE 2. SCOPE OF ARCHITECT/ENGINEER'S BASIC SERVICES

2.1. General

2.1.1. Basic Services to be provided by the Architect/Engineer shall consist of the services set forth in Exhibit A attached hereto and incorporated by reference herein as if fully rewritten.

ARTICLE 3. ADDITIONAL SERVICES

3.1. General

3.1.1. Any services related to the Project not included in Basic Services are Additional Services. Additional Services shall be provided only if requested by the City in writing. Additional Services shall be paid for as provided in this Agreement in addition to the compensation for Basic Services; provided, however, the Architect/Engineer shall not be compensated for any of the following services

made necessary by the act or omission of the Architect/Engineer or any Consultant. Unless waived by the City in writing, authorization to provide Additional Services must be obtained prior to providing the Additional Services.

ARTICLE 4. RESPONSIBILITIES OF THE CITY

4.1. Required Actions. The City shall review, approve, or take such actions as are required of the City by this Agreement and applicable law in a reasonable and timely manner.

4.2. Instructions to Contractors. All instructions of the City to Contractors shall be through, or in consultation with, the Architect/Engineer.

4.3. City's Requirements. The City shall provide full information regarding its requirements for the Project, any agreements related to the Project, and any design and construction standards and work rules which set forth the City's use, design, time and financial objectives, constraints and criteria, including space requirements and relationships, flexibility and expandability, time constraints imposed by fiscal and budgetary considerations, special equipment, systems and site requirements. The Architect/Engineer shall be entitled to rely upon the accuracy and completeness of information provided by the City under this paragraph which the City represents in writing is complete and accurate; provided, however, the City makes no representation for, and the Architect/Engineer may not rely upon, information from third parties.

4.4. Authorized Representative. The City has designated the City Engineer or successor to be the City's Authorized Representative, i.e., a person authorized to act on the City's behalf with respect to the Project to the extent provided in the Contract Documents. If the City Engineer is absent or unavailable, the City's Project Engineer shall serve as the City's Authorized Representative.

4.5. Notice to Architect/Engineer. If the City observes or otherwise becomes aware of any Defective Work or other fault or defect in the Project, prompt notice thereof shall be given to the Architect/Engineer.

4.6. Legal Representation. The City shall not be responsible to provide, or pay for, any legal representation of the Architect/Engineer.

ARTICLE 5. COMPENSATION

5.1. Direct Personnel Expense

5.1.1. Definition. Direct Personnel Expense shall mean the portion of direct salaries and wages of all personnel of the Architect/Engineer or any Consultants, as applicable, including professional, technical, management, administrative and clerical employees, and principals engaged on the Project related to their time devoted to the Project and the portion of the cost of their mandatory and customary contributions and benefits related thereto such as employment taxes and other statutory employee benefits, social security contributions, insurance, sick leave, holidays, vacations, pension and profit sharing pursuant to plans qualified under federal law and similar benefits related to their time devoted to the Project. Direct Personnel Expense shall not include any bonus or similar plan or arrangement related to the Architect/Engineer's performance on, or profit from, the Project.

5.1.2. Records. Direct Personnel Expense for the Architect/Engineer's employees for such hours of their time as are devoted to performing services to the Project shall be evidenced by time records certified by the Architect/Engineer.

5.1.3. Limit. The Architect/Engineer shall use all reasonable means to minimize Direct Personnel Expense.

5.2. Reimbursable Expenses

5.2.1. Definition. Reimbursable Expenses means actual expenditures incurred by the Architect/Engineer or its Consultants in the interest of the Project approved by the City for travel (if approved in advance) in accordance with City policies, transportation between the office of the Architect/Engineer and the Project, long-distance telephone, facsimile communications, reproduction, mailing, computer time, supplies and materials and Consultants. No other expenditures shall be Reimbursable Expenses unless so provided in an amendment in accordance with Subparagraph 9.5.2.

5.2.2. Limits. The Architect/Engineer shall use all reasonable means to minimize Reimbursable Expenses.

5.3. Basis of Compensation

5.3.1. Basic Fee. For Basic Services provided by the Architect/Engineer and all Consultants, the City shall pay the Architect/Engineer a Basic Fee in accordance with Paragraph 5.4 hereof in the amount of _____. A change in the Basic Fee may be made only by an amendment in accordance with Subparagraph 9.5.2.

5.3.2. Additional Fees. For Additional Services provided by the Architect/Engineer and any Consultants in accordance with Article III, the City shall pay the Architect/Engineer Additional Fees in an amount negotiated to the mutual reasonable satisfaction of the City and the Architect/Engineer, but in all events, such Additional Fees shall not exceed two and half (2.5) times the Direct Personnel Expense and any applicable Consultant in providing those Additional Services. Additional Fees may be approved only by an amendment in accordance with Subparagraph 9.5.2.

5.3.3. Extent of Basic Fee. The Architect/Engineer's Basic Fee includes all compensation for Basic Services, including without limitation, for salaries or other compensation of the Architect/Engineer's employees at the principal office, branch offices and the field office, general operating expenses of the Architect/Engineer's principal office, branch offices and the field office, any part of the Architect/Engineer's capital expenses, including interest on the Architect/Engineer's capital employed for the Project, overhead or expenses of any kind, except Reimbursable Expenses, any costs incurred due to the negligence of the Architect/Engineer, the Architect/Engineer's general advertising, federal, state or local income, sales or other taxes, state franchise taxes and qualification fees, and membership in trade, business or professional organizations.

5.3.4. Total Compensation. The total compensation of the Architect/Engineer and all Consultants shall consist of the Basic Fee, any Additional Fees, and Reimbursable Expenses.

5.4. Method and Terms of Payment

5.4.1. Basic Fee. Payment of the Basic Fee shall be made monthly upon invoice of actual services performed. The Basic Fee shall be subject to all setoffs in favor of the City for claims against the Architect/Engineer.

5.4.2. Additional Fees, Reimbursable Expenses. Payments of Additional Fees for Additional Services in accordance with Article III and Subparagraph 5.3.2 and for Reimbursable Expenses as set

forth in Paragraph 5.2 shall be made monthly based upon services performed or expenses incurred, as applicable, and as shown by a properly completed and supported invoice of the Architect/Engineer. Invoices shall be sufficiently detailed and supported to permit review by the City for approval or disapproval of any amounts set forth in the invoice.

5.4.3. Payments by Architect/Engineer. Within ten (10) business days of receipt of payment made pursuant to this Agreement, the Architect/Engineer shall pay all portions thereof due to Consultants and to persons who provided items the expenses of which are Reimbursable Expenses.

5.4.4. Compensation for Extension of Project Time. If the Architect/Engineer notifies the City not less than thirty (30) days prior to the time for completion of the Project set by the Project Schedule established pursuant to Subparagraph 1.1.2, that such time for completion is reasonably expected to be exceeded by more than ten percent (10%) through no fault of the Architect/Engineer, the compensation, if any, for Basic Services to be rendered during such extended period shall be negotiated to the mutual reasonable satisfaction of the City and the Architect/Engineer. If, as a result of such negotiation, the City agrees that the Architect/Engineer shall be paid additional compensation, an amendment to that effect shall be executed in accordance with Subparagraph 9.5.2 before the Architect/Engineer renders any services made necessary by such extension of the time of completion, unless otherwise agreed in writing by the City.

ARTICLE 6. INSURANCE AND INDEMNIFICATION

6.1. Insurance

6.1.1. Casualty Insurance. Except when a modification is requested in writing by the Architect/Engineer and approved in writing by the City, the Architect/Engineer shall carry and maintain at the Architect/Engineer's cost, with companies authorized to do business in Ohio, all necessary liability insurance (which shall include as a minimum the requirements set forth below) during the term of this Agreement:

- a. Workers' Compensation and employer's liability insurance to the full extent as required by applicable law;
- b. Commercial general liability coverage for bodily injury and property damage, including limited contractual liability coverage, in not less than the following amounts:
 - i. General Aggregate Limit: \$2,000,000
 - ii. Each Occurrence Limit: \$1,000,000 each occurrence;
- c. Commercial automobile liability coverage, including non-owned and hired, in an amount not less than \$1,000,000.

6.1.2. Professional Liability Insurance. Subject to the City's waiver or modification of Professional Liability Insurance upon written request of the Architect/Engineer, the Architect/Engineer shall maintain insurance to protect against claims arising from the performance of the Architect/Engineer's services caused by any negligent acts, errors, or omissions for which the Architect/Engineer is legally liable ("Professional Liability Insurance"). Except when a waiver is approved by the City upon written request of the Architect/Engineer, such Professional Liability Insurance shall be in an amount not less than \$1,000,000 per claim and in the annual aggregate. The Architect/Engineer shall

endeavor to keep such insurance in effect for so long as the Architect/Engineer may be held liable for its performance of services for the Project. If the Professional Liability Insurance is written on a claims-made basis, such insurance shall have a retroactive date no later than the date on which the Architect/Engineer commenced to perform services relating to the Project. The insurance company issuing the Professional Liability Insurance policy must be authorized to do business in Ohio and have a rating of at least A status as noted in the most recent edition of the Best's Insurance Reports.

6.1.3. Certificates. The Architect/Engineer shall provide the City with certificates of insurance evidencing the required coverages and amounts, including without limitation any certificates of renewal of insurance. The certificates of insurance shall contain a provision that the policy or policies will not be canceled without thirty (30) days' prior written notice to the City.

6.2. Indemnification

6.2.1. Indemnification by Architect/Engineer Generally. To the fullest extent permitted by law, the Architect/Engineer shall and does agree to indemnify and hold harmless the City and its members, officers, officials, employees, and representatives from and against insurable damages, losses, and expenses (including reasonable attorney's fees and other reasonable costs of defense), of any nature, kind or description, which (a) arise out of, are caused by, or result from performance of the Architect/Engineer's services hereunder and (b) are attributable to bodily injury, personal injury, sickness, disease or death of any person, or to damage to or destruction of property, including the loss of use resulting therefrom, but (c) only to the extent they are caused by any negligent acts, errors, or omissions of the Architect/Engineer, anyone directly or indirectly employed by the Architect/Engineer or anyone for whose acts the Architect/Engineer is legally liable. This Subparagraph is intended to be, and shall be construed as consistent with, and not in conflict with, Section 2305.31 of the Ohio Revised Code, to the fullest extent permitted.

6.2.2. Intellectual Property Indemnification. To the fullest extent permitted by law, the Architect/Engineer shall and does agree to indemnify and hold harmless the City and its members, officials, officers, employees, and representatives from and against insurable damages, losses, and expenses (including reasonable attorney's fees and other reasonable costs of defense), of any nature, kind or description, which result from infringement of any copyright, patent, or other intangible property right to the extent caused by the negligent act, errors, or omissions of the Architect/Engineer, anyone directly or indirectly employed by the Architect/Engineer or anyone for whose acts the Architect/Engineer is legally liable. The Architect/Engineer shall not be required to indemnify and hold harmless such persons for such matters when the claimed infringement occurs in materials provided by the City.

ARTICLE 7. DISPUTE RESOLUTION PROVISIONS

7.1. Mediation. Instead of, or in addition to, the procedures set forth below, the City and the Architect/Engineer may, by written agreement, submit any claims, requests, disputes, or matters in question between or among them to mediation upon such terms as shall be mutually reasonably agreeable.

7.2. Notice and Filing of Requests. Any request by the Architect/Engineer for additional fees or expenses shall be made in writing to the Authorized Representative and filed prior to the final payment of the Basic Fee. Failure of the Architect/Engineer to timely make such a request shall constitute a waiver by the Architect/Engineer of any request for such fees and expenses.

7.3. Request Information. In every written request filed pursuant to Paragraph 7.2, the Architect/Engineer shall provide the nature and amount of the request; identification of persons, entities and events responsible for the request; activities on the Project Schedule affected by the request or new activities created by any delay and the relationship with existing activities; anticipated duration of any delay; and recommended action to avoid or minimize any future delay.

7.4. Meeting with Authorized Representative. If the Architect/Engineer files a written request with the Authorized Representative pursuant to Paragraph 7.2, the Authorized Representative shall, within thirty (30) days of receipt of the request, schedule a meeting in an effort to resolve the request and render a decision on the request promptly thereafter or render a decision on the request without a meeting, unless a mutual agreement is made to extend such time limit. The meeting scheduled by the Authorized Representative shall be attended by Persons expressly and fully authorized to resolve the request on behalf of the Architect/Engineer. The Authorized Representative shall render a decision on the request within thirty (30) days of the meeting unless a mutual agreement is made to extend the time for decision.

7.5. Appeal to City Manager. If the efforts of the Authorized Representative do not lead to resolution of the request within sixty (60) days of receipt of the request provided pursuant to Paragraph 7.2 the Architect/Engineer may appeal to the City Manager by written notice to the Authorized Representative who shall provide the Architect/Engineer an opportunity to present the claim to the City Manager. The City Manager shall render a decision on the request within thirty (30) days of receipt of the claim unless a mutual agreement is made to extend the time for decision. The decision of the City Manager shall be final and conclusive, subject to litigation in a court of competent jurisdiction.

7.6. Delegation. No provision of this Paragraph shall prevent the Authorized Representative or the Commission from delegating the duties or authorities of the Authorized Representative or the City to any other Person selected at the discretion of the Authorized Representative.

7.7. Performance. The Architect/Engineer shall proceed with the Architect/Engineer's performance of this Agreement during any dispute resolution process, unless otherwise agreed by the Architect/Engineer and the City in writing. The City shall continue to make payment, in accordance with this Agreement, of any amounts not in dispute pending final resolution of any dispute in accordance with this Paragraph.

ARTICLE 8. TERMINATION AND REMEDIES

8.1. Termination of Agreement

8.1.1. Means of Termination. This Agreement may be terminated by either party upon seven (7) days written notice should the other party fail to perform in accordance with the terms of this Agreement; provided, however, the Architect/Engineer shall not terminate this Agreement for non-payment if the City initiates the payment process by preparing, executing, and submitting a voucher

for all reasonably undisputed amounts due to the Architect/Engineer within ten (10) days of receipt of the Architect/Engineer's written notice to terminate. This Agreement may be terminated by the City in whole or in part, without cause upon fifteen (15) days written notice to the Architect/Engineer. This Agreement may be terminated in whole or in part, at any time upon the mutual consent of the City and the Architect/Engineer.

8.1.2. Architect/Engineer's Remedies Upon Termination by City Without Cause or Upon Termination by Architect/Engineer. In the event of a termination which is not due to the failure of the Architect/Engineer to perform in accordance with the terms of this Agreement, the Architect/Engineer shall be compensated for all Basic Services of a completed phase performed prior to the termination date in accordance with the percentages set forth in Subparagraph 5.4.1, together with Reimbursable Expenses incurred prior to the termination date. In such event, for services rendered prior to the termination date in an uncompleted Part and for Additional Services, the Architect/Engineer shall receive compensation based on the percentages of completion of that Part or those Additional Services, as applicable, and as reasonably determined by the City, together with Reimbursable Expenses incurred prior to the termination date.

8.1.3. Architect/Engineer's Remedies Upon Termination by City for Cause. In the event of a termination which is due to the failure of the Architect/Engineer to perform in accordance with the terms of this Agreement, the Architect/Engineer shall be compensated only for Basic Services performed and paid for prior to the termination date in accordance with the actual time at billing rates as set forth in 5.3.1., together with Additional Services completely performed prior to the termination date. In such event, the Architect/Engineer shall be reimbursed only for Reimbursable Expenses incurred prior to the date of the notice of termination, unless the City consents in writing to the payment of Reimbursable Expenses incurred after that date.

8.1.4. Architect/Engineer's Remedies Upon Termination by Mutual Consent. In the event of a termination upon the mutual consent of the City and the Architect/Engineer, any compensation for Basic Services or for Additional Services or payment of Reimbursable Expenses shall be negotiated and set forth in an amendment to this Agreement in accordance with Subparagraph 9.5.2 prior to such termination.

8.1.5. Post-Termination Matters. If the City and the Architect/Engineer agree that any services are to be performed for the Project by the Architect/Engineer after any termination date, the amount of any compensation and the method and terms of payment of such compensation or any Reimbursable Expenses related to such services shall be negotiated and set forth in an amendment to this Agreement in accordance with Subparagraph 9.5.2 prior to the commencement of such services. Such amendment and any relevant provisions of this Agreement shall survive termination of this Agreement.

8.2. Remedies

8.2.1. Cumulative Remedies. No remedy conferred upon the City by the terms of this Agreement is intended to be exclusive of any other remedy provided at law or in equity. Each and every remedy of the City shall be cumulative and shall be in addition to any other remedy given to the City hereunder or now or hereafter existing. Except as otherwise provided in this Agreement, no remedy conferred upon the Architect/Engineer by the terms of this Agreement is intended to be exclusive of any other remedy provided at law or in equity. Except as otherwise provided in this Agreement, each and every remedy of the Architect/Engineer shall be cumulative and shall be in addition to any other remedy given to the Architect/Engineer hereunder or now or hereafter existing.

8.2.2. Remedies Not Waived. No delay, omission, or forbearance to exercise any right, power, or remedy accruing to the City or the Architect/Engineer hereunder shall impair any such right, power, or remedy or shall be construed to be a waiver of any breach hereof or default hereunder. Every such right, power, or remedy may be exercised from time to time and as often as deemed expedient.

ARTICLE 9. MISCELLANEOUS PROVISIONS

9.1. Ownership and Use of Documents

9.1.1. Property of City. Drawings and other documents prepared by, or with the cooperation of, the Architect/Engineer or any Consultant pursuant to this Agreement, including all copyrights, are the property of the City whether or not the Project for which they are prepared is commenced or completed. The Architect/Engineer or Consultant, as applicable, may retain copies, including reproducible copies of such drawings and other documents for information and reference. Such drawings or other documents may be used by the City or others employed by the City for reference in any completion, construction, correction, remodeling, renovation, reconstruction, alteration, modification of or addition to the Project, without compensation to the Architect/Engineer or Consultant. Such drawings or other documents shall not be used by the City, or be given or sold by the City to be used by others, on other projects except by agreement in writing and with agreed upon appropriate compensation to the Architect/Engineer or Consultant, as applicable. If an event occurs for which the Architect/Engineer or Consultant may be liable, the City shall notify the Architect/Engineer or Consultant of such event as soon as practical after such event and shall provide access to the Project to the Architect/Engineer or Consultant and their representatives. This Subparagraph shall survive termination of this Agreement.

9.1.2. Architect/Engineer's Intellectual Property. All inventions, patents, design patents, and computer programs acquired or developed by the Architect/Engineer in connection with or relation to the Project shall remain the property of the Architect/Engineer and shall be protected by the City from use by others except by agreement in writing with appropriate and agreed upon compensation to the Architect/Engineer.

9.2. Public Relations. Prior to completion of the Project, any public relations or publicity about the Project shall be solely within the control and with the consent of the City. The Architect/Engineer shall not use the City's name or seal, nor any adaptation thereof, for any advertising or trade purposes, including without limitation press releases, without the express written consent of the City.

9.3. Records. The records of all of the Architect/Engineer's Direct Personnel Costs, Reimbursable Expenses and payments to Consultants pertaining to the Project shall be kept on a generally recognized accounting basis and shall be available to the City at all times and shall be maintained for seven (7) years after final acceptance of the Project by the City. All other records kept by the Architect/Engineer related to the Project shall be available to the City at all times and shall be maintained for six (6) years after final acceptance of the Project by the City. Records related to any claim or dispute shall be retained for any longer period necessary to finally resolve the claim or dispute.

9.4. Successors and Assigns. The City and the Architect/Engineer, each bind themselves, their successors, assigns and legal representatives, to the other party to this Agreement and to the successors, assigns and legal representatives of the other party with respect to all terms of this Agreement. The Architect/Engineer shall not assign, or transfer any right, title or interest in this Agreement without the prior written consent of the City.

9.5. Extent of Agreement

9.5.1. Entire Agreement. This Agreement represents the entire and integrated agreement between the City and the Architect/Engineer and supersedes all prior negotiations, representations or agreements, either written or oral.

9.5.2. Amendments. This Agreement may be amended only by an amendment prepared by the City and signed by both the Architect/Engineer and the City.

9.5.3. Multiple Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be regarded as an original and all of which shall constitute but one and the same instrument.

9.5.4. Captions. The captions or headings in this Agreement are for convenience only and in no way define, limit, or describe the scope or intent of any provisions or sections hereof.

9.5.5. Conditions to Validity. None of the rights, duties, and obligations contained in this Agreement shall be binding on any party until all legal requirements have been complied with.

9.6. Governing Law

9.6.1. Law of Ohio. This Agreement shall be governed by the law of the State of Ohio to the exclusion of the law of any other jurisdiction and the Erie County, Ohio Court of Common Pleas shall have jurisdiction over any action hereunder or related to the Project to the exclusion of any other forum.

9.6.2. Capitalized Terms. Capitalized terms in this Agreement shall have the same meaning as those in the Standard Conditions, unless otherwise defined herein or unless another meaning is indicated by the context.

9.7. Notices

9.7.1. Addresses. All notices, certificates, requests, or other communications hereunder shall be in writing and shall be deemed to be given if delivered in person to the individual or to a member of the company or organization for whom the notice is intended, or if delivered at or mailed by registered or certified mail, postage prepaid, to the appropriate address listed on the first page hereof.

9.7.2. Facsimiles. For convenience of communication only, notices, certificates, requests, or other communications hereunder of fewer than ten (10) pages, except requests for payment, may be sent by facsimile transmission to the City at (419) 627-5933 and to the Architect/Engineer at _____. Notices, certificates, requests, or other communications sent by facsimile transmission shall not be deemed to be given unless a counterpart is received or mailed in accordance with Subparagraph 9.7.1. Requests for payment may be sent to the City by facsimile transmission only upon specific direction from the City.

9.7.3. Emergencies. In the event of an emergency involving the Project, including, without limitation, a fatality, serious injury, fire, collapse, flood, utility or power loss to occupied facilities, explosion, or environmental damage, the Architect/Engineer shall immediately notify the City by telephone.

9.7.4. Change of Address. The City or the Architect/Engineer may, by notice given hereunder, designate any further or different addresses telephone numbers or facsimile numbers to which subsequent notices, certificates, requests, or communications shall be sent.

9.8. Severability. If any provision of this Agreement, or any covenant, obligation or agreement contained herein is determined by a court of competent jurisdiction to be invalid or unenforceable, such determination shall not affect any other provision, covenant, obligation or agreement, each of which shall be construed and enforced as if such invalid or unenforceable provision were not contained herein. Such invalidity or unenforceability shall not affect any valid and enforceable application thereof, and each such provision, covenant, obligation or agreement, shall be deemed to be effective, operative, made, entered into, or taken in the manner and to the full extent permitted by law.

9.9. Independent Contractor. The Architect/Engineer and any Consultant is an independent contractor with respect to any services performed hereunder. Neither the Architect/Engineer, nor any Consultant, shall be deemed to be servants, employees, or agents of the City.

EXHIBIT "1"

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date and year first above written.

KS Associates, INC

By: _____

By: _____

CITY OF SANDUSKY, OHIO

By: _____
John Orzech
Interim City Manager

APPROVAL:

The legal form and correctness of the within instrument is hereby approved.

Brendan Heil
Law Director

EXHIBIT "1"

CERTIFICATE OF FUNDS

In the matter of:

Sandusky Bay Initiative Project 2
Beneficial Re-Use of Dredge Material

IT IS HEREBY CERTIFIED that the moneys required to meet the obligations of the City of Sandusky, Ohio under the foregoing Agreement have been lawfully appropriated for such purposes and are in the treasury of the City of Sandusky or are in the process of collection to the appropriate fund, free from any previous encumbrances. This certificate is given in compliance with Sections 5705.41 and 5705.44, Ohio Revised Code (ORC)

Dated: _____, 2023

EXHIBIT "1"
CITY OF SANDUSKY, OHIO

By: _____
Michelle Reeder, CPA
Finance Director

Account Number

Not to Exceed Amount



Civil Engineers + Surveyors

May 24, 2023

260 Burns Road, Suite 100
Elyria, Ohio 44035
P 440 365 4730
F 440 365 4790
www.ksassociates.com

Aaron Klein, P.E.
Director, Public Works
City of Sandusky
240 Columbus Avenue
Sandusky, Ohio 44870

**RE: Sandusky Bay Initiative Project 2 Beneficial Re-Use of Dredge Material
KS Project #22171**

Dear Mr. Klein:

Please accept this proposal for professional engineering and surveying services that may be required to meet your objective.

Project Objective:

We understand that the City of Sandusky (Client), in partnership with the Ohio Department of Natural Resources (ODNR), wishes to complete the initial Phase of the Sandusky Bay Initiative Project at the Cedar Point Causeway Wetlands (Project 1) and develop a second project to restore coastal habitat through the beneficial re-use of dredge material (Project 2). Completion of the Cedar Point Causeway Wetlands will require modification of the current design to accommodate additional dredge material, updating the existing permits for the project, coordination with the U.S. Army Corps of Engineers (USACE) for placement of the additional dredge material, coordination with Cedar Point, monitoring settlement of dredge material, developing construction drawings for the final grading and habitat establishment, and bidding and construction phase services. The development of Project 2 will require stakeholder engagement and site selection, site conditions analysis, preliminary design, coordinating with upland property owners at the project site, regulatory permitting, design development and bidding and construction phase services. To accomplish this objective, we recommend the following scope of services:

Project 1 – Completion of the Cedar Point Causeway Wetlands

Task 1: Management and Monitoring prior to Second Dredge Placement

- A. Temporary Seeding: KS will engage RES to provide ecological review of the project planting plans, schedules, and related details to determine if temporary seeding is warranted prior to the second dredge placement or after the second dredge placement but prior to final establishment of wetlands. RES will develop a temporary seeding plan if it is determined that seeding would be beneficial or that vegetation could be established prior to the second dredge placement. Placement of temporary seeding is not included in this scope item as it will be dependent on the seeding plan.
- B. Invasive Species Control: Based on monitoring of the project site and the anticipated timing of the second dredge placement, invasive species control is not expected to be required prior to second

dredge placement.

- C. **Pre-Placement Grading Plans and Support:** The dredge placement plans for the second dredge cycle may require grading to manipulate the material from the first dredge placement in order to facilitate and expedite dewatering and consolidation. KS will coordinate future dredge placement plans with the USACE. If required, KS will develop bidding documents for selecting a contractor to grade the existing dredge material. KS will attend a pre-bid meeting with potential contractors, answer questions and issue addenda (if required) during the bidding process, and assist the City with selecting a contractor to complete the grading. KS will coordinate with the contractor during construction, attend construction observation site visits (as required), and provide engineer of record services during construction (respond to contractor requests for information, review submittals, and review contractor pay applications).
- D. **Structure and Settlement Inspections:** KS will perform bi-weekly drone surveys to monitor the condition of the perimeter breakwater and settlement of dredge material. KS will also perform monthly site visits to inspect the condition of the breakwater. The site visit will include a visual inspection for damage, displaced stone, and potential areas of washout. KS will also take measurements of the free water above the dredge material at ten (10) locations to track settlement.
- E. **Hydrographic Survey:** KS will perform a hydrographic survey of open-water areas inside the perimeter breakwater, including the dredge placement area, and outside the perimeter breakwater, including the channel at the north culvert under the Cedar Point Causeway. The purpose of the survey will be to map consolidation of the dredge material placed in 2022, determine if dredge material migrated through the perimeter breakwater during placement (resulting in a decrease of water depths outside the perimeter breakwater), and to determine if sediment from Sandusky Bay is collecting in the channel to the Cedar Point Causeway culvert.

Task 2: Design Modification and Permitting

- A. KS updated the dredge placement plans and proposed grading to accommodate an additional 140,000 cubic yards of dredge material within the perimeter breakwaters (a second dredge cycle) under a previous contract. The updated grading generally increases the elevation around the perimeter of the project but preserve the footprint of the proposed creek in the current design. The placement of additional dredge material requires authorization from the U.S. Army Corps of Engineers pursuant to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act. The project may also require authorization from the Ohio Department of Natural Resources pursuant to Ohio Revised Code Section 1506. KS prepared updated permit application documents for submittal to the USACE and ODNR to obtain authorization for the placement of an additional 140,000 cubic yards of dredge material under the previous contract. The updated permit application documents include a transmittal letter, updated application forms (ENG Form 4345, Coastal Permits and Lease Application, ODNR Consistency Certification Statement), updated application drawings, photo sheets, and an updated Adaptive Management Plan.
- B. Authorization is anticipated to be required from the Ohio Environmental Protection Agency (OEPA) for the placement of additional dredge material. Once the USACE publishes a public notice or provides a provisional authorization for the placement of additional dredge material, KS will prepare an application for a Section 401 Water Quality Certification or Director's Authorization for the project. The application package will include:
 - a. Application Form
 - b. Lake impacts table
 - c. Statement regarding waters delineation (with site photos)

- d. Correspondence with the USACE, ODNR and U.S. Fish and Wildlife Service documenting requests for environmental review comments
- e. Statement regarding jurisdictional determination
- f. Narrative alternative and antidegradation analysis
- g. Project mapping (with application drawings)
- h. Proposed mitigation and monitoring plan
- i. Statements regarding wetland characterization and stream use attainability.

OEPA application fees are dependent on the proposed impacts but the project is anticipated to require the maximum application fee of \$5,000 for a public project. An initial application fee, up to \$2,600, is due at the time the application is submitted. The remaining fee is due once the permit is issued. Public notice publication fees are anticipated to be approximately \$1,000. OEPA application and public notice fees will be paid by KS as project expenses and included on monthly invoices for the project.

- C. Regulatory Coordination: The design team will coordinate with the ODNR, USACE, and OEPA during the review of the permit applications. We will answer questions and provide clarifications to the regulatory reviewers, as required. We will coordinate any requests for design revisions with the City and make any revisions required by the agencies. KS anticipates scheduling monthly regulatory coordination meetings for the first 3-4 months of the permit review period, then increasing frequency to bi-weekly meetings until permits are issued.
- D. Modifications to the Proposed Design: The permit documents prepared under Task 2A (under a previous contract) for the second dredge placement assume that the channel for the culvert at the north end of the Cedar Point Causeway will be left open following the second dredge placement. This approach is intended to expedite permit submittal, initiate permit reviews, and start coordination with the regulatory agencies but will need to be studied during the permit review period. KS recommends using numerical modeling to evaluate circulation and flushing in the project area. This will require updating the wave transformation modeling using the Simulating Waves Nearshore Model (SWAN 41.31A, Delft University of Technology, 2020, 2003). Circulation and flushing will be evaluated using the Delft3D-FLOW model, which simulates flow and the dispersion of tracers given the water levels and wave conditions from the SWAN model. Circulation and flushing will be evaluated for two alternatives - leaving the channel to the culvert open, or closing off the channel to increase circulation in the stream and wetland. The deliverable for this item will be a technical memorandum summarizing the modelling procedures, results, and recommendations for selecting an alternative.

Task 3: Bidding and Construction Phase Services During Dredge Placement

- A. KS previously prepared dredge placement plans for inclusion in the USACE bid documents for the dredging of the Sandusky Harbor Federal Channel. The plans were submitted to the USACE on March 31, 2023.
- B. Bidding Phase Services: KS will coordinate with the USACE to answer questions from potential contractors during the bidding period and provide updated plans, if required, for inclusion in bid addenda to be prepared by the USACE.
- C. Construction Phase Services: KS will attend the preconstruction meeting with the USACE and the selected contractor to discuss the dredge material placement requirements. KS will coordinate with the USACE to respond to contractor requests for information (RFIs) related to the dredge placement. KS will coordinate and attend regular construction status meetings and site visits during the duration of the dredge contract and material placement.

- D. KS will perform weekly drone inspections to monitor the placement of dredge material and the condition of the perimeter breakwater for the duration of the USACE dredging contract.

Task 4: Management and Monitoring During Consolidation and Settlement

- A. Temporary Seeding: KS will engage RES to provide ecological review of the project planting plans, schedules, and related details to determine if temporary seeding is warranted prior to the second dredge placement or after the second dredge placement but prior to final establishment of wetlands. RES will develop a temporary seeding plan if it is determined that seeding would be beneficial or that vegetation could be established prior to the second dredge placement. Placement of temporary seeding is not included in this scope item as it will be dependent on the seeding plan.
- B. Invasive Species Control: If required, RES can apply an EPA approved aquatic herbicide aerially using an unmanned aircraft system (UAS) to the project area. The EPA aquatic herbicide is effective for control of common reeds (*Phragmites australis*) and other noxious species. The estimated fee for this item assumes treatment will be required for 18 total acres. The fee would be reduced if lesser areas require treatment. The scope for this item includes one spraying event and one follow-up site visit to observe and provide guidance on the treatment effectiveness. RES will prepare a memorandum following the treatment to document the herbicide records and map the treated areas.
- C. Structure and Settlement Inspections: KS will perform periodic drone surveys to monitor the condition of the perimeter breakwater and settlement of dredge material. We anticipate collecting drone photos and videos bi-weekly for approximately 2 months after dredge placement, then monthly until final habitat establishment. KS will also perform monthly site visits to inspect the condition of the breakwater. The site visit will include a visual inspection for damage, displaced stone, and potential areas of washout. KS will also take measurements of the free water above the dredge material at ten (10) locations to track settlement.

Task 5: Future Dredge Cycles and Final Habitat Establishment

- A. Planning for any potential future dredge cycles (beyond the second dredge material placement), and design of final habitats are not included in this scope of services and will be performed under a future authorization.

Project 2 – Beneficial Re-use of Dredge Material

Task 1: Stakeholder Engagement and Site Selection

- A. KS will attend a project Kickoff Meeting with the City of Sandusky and ODNR to review the scope of services, design requirements, site conditions and schedule requirements.
- B. KS will request and review copies of construction contracts from the 2022 dredging of the Sandusky Harbor Federal Navigation Channel and placement of the dredge material into the Cedar Point Causeway Wetlands project to aid in cost planning and establishing budgets for future dredge placement.
- C. The Design Team will assist the City and ODNR with selecting up to three locations for consideration as sites for Project 2. Potential sites include the shore along the Norfolk Southern Railroad (west of the Sandusky Coal Dock) and the shore of the Cedar Point Causeway.
- D. The Design Team will assist the City with engaging and coordinating with property owners at each of the potential project sites to gauge their support of the project and interest in participating.

The Design Team will make reasonable efforts to engage each property owner (including Norfolk Southern Railway) but cannot guarantee participation from private property owners.

- E. The Design Team will engage local stakeholders and host a community engagement event to present, confirm, and refine the projects goals and discuss the benefits of each site identified. Integrating input from project partners and engaging stakeholders and the community directly in the planning process is crucial to building public support for the project, which can aid in obtaining regulatory authorizations and funding for the project.
- F. Following the community engagement event, the KS Team will develop a matrix comparing the benefits of each project location with consideration of property ownership support for the project, metocean characteristics, ease of permitting, potential negative impacts at each location, potential capacity for placement of dredge material, budgetary cost opinions, and proximity to the Federal Channel. The KS Team will assist the City and ODNR with final selection of the location for Project 2.

Task 2: Site Conditions Analysis

Once the project location is selected, the following site investigations will be performed.

A. Inspection of Existing Structures

KS will review historical documents and as-built drawings of the existing structures in the project area, and research and collect available record data related to the existing structures at the project site from the USACE and ODNR. Following the record research, KS will perform a visual inspection of the above-water portions of the existing waterfront infrastructure within the project area. The waterfront structures will be inspected for visible deterioration or damage that may affect the design or construction of new site features. The stone breakwaters will be inspected for signs of deterioration, stone displacement or settling. Visible and accessible portions of the sheet pile bulkheads will be inspected for signs of corrosion and damage. We will inspect areas adjacent to the shore structures for signs of settlement, cracked or uneven pavement, spalling, and exposed reinforcement. Where required, we will also measure sheet pile thicknesses near the cap and waterline to estimate remaining sheet pile sections.

B. Hydrographic, Topographic and Boundary Surveys

KS will perform a hydrographic survey of the project area with a GPS enabled single beam echo sounder (Seafloor Systems Hydrolite- TM Milspec) from a survey boat. The hydrographic survey will measure lakebed bathymetry in a detailed grid within the project area and will measure lakebed bathymetry in a wider grid in areas required to supplement existing bathymetric data to develop a model grid for nearshore wave transformation modeling.

KS will perform a limited topographic survey to map the existing structures, grades, and elevations along the shore of the project area. Survey data will be collected using standard survey methods in U.S. Survey Feet referencing Ohio State Plane, North Zone NAD83(2011) as a horizontal datum and IGLD 1985 as a vertical datum. The survey will be limited to features of existing shoreline structures (steel sheet piling, stone revetments, concrete caps, outfall structures, breakwaters, etc. as required for incorporation of the existing structures into the project.

KS will perform limited boundary surveys of the upland parcels adjacent to the project area. The boundary surveys will be limited to collection of data required to prepare Submerged Lands Lease plats and descriptions for the proposed project features extending lakeward of the natural shoreline.

KS will coordinate with the ODNR Office of Coastal Management and will delineate the natural shoreline throughout the project area and prepare littoral partitions for each lakefront parcel. KS will also map any existing Submerged Lands Leases and the limits of the Sandusky Harbor Federal Navigation Channel in the project area.

C. Geotechnical Investigations

In order to characterize subsurface conditions for the design of the new shore protection, KS will engage a qualified subconsultant to advance two soil borings along the proposed alignment of the restored shoreline. A geotechnical report will be provided containing the soil boring logs and any general comments and recommendations for bank stabilization at the bore hole locations.

KS will review the information provided in the geotechnical report and make a determination that the borings were acquired per plan and will serve as the basis of design. If KS determines that the borings were not acquired per plan or indicate unusual conditions, KS may recommend additional services which may include additional geotechnical investigations. Additional services are the financial responsibility of the Client and would be authorized only upon the Client's written consent. The Client is specifically alerted to the fact that boring logs and related information depict subsurface conditions only at the specific location of the soil boring and at the particular time designated on the logs. Soil conditions at other locations may differ from conditions occurring at this boring location.

The design of the subject facility will be based on site conditions as they existed at the time of the drilling and assume that the exploratory borings are representative of the subsurface conditions of the whole site. If, during construction, subsurface conditions are found which are significantly different from those observed in the exploratory boring, KS should be advised at once so that we can review these conditions and reconsider our designs where necessary. If there is a substantial lapse of time between the submission of the design and the start of work at the site, or if conditions have changed due to natural causes or construction operations at or adjacent to the site, KS should be advised at once so that we can review these conditions and reconsider our designs where necessary, considering the changed conditions and/or time lapse.

Unanticipated soil conditions are commonly encountered on construction sites and cannot be fully anticipated by merely taking soil borings. Such unexpected conditions frequently require that additional expenditures be made to attain a properly constructed project. It is recommended that the Client consider providing a construction contingency fund in the project budget to accommodate such potential extra costs.

D. Level 1 Ecological Survey

KS will engage RES to perform Level 1 Ecological Survey of the project area in accordance with the Ohio Department of Transportation (ODOT) Ecological Manual (ODOT 2014) to help determine impacts to water resources, endangered species populations, and suitable habitats for endangered species. The Level 1 ESR will include a Literature Review, an Ecological Resources Field Survey and an Ecological Survey Report. We will share the results of the Ecological Survey with the USACE, OEPA and ODNR.

E. Review of Reference Sites

KS will engage RES to research, identify, and field evaluate potential sites to be used as references for habitat restoration or creation within the proposed project. Natural resources and existing facilities data will be collected at the reference sites. RES will evaluate the sites for correlation to possible habitats for the proposed project. The Design Team does not anticipate the

need to generate an individual report for each reference site. The data collected will be compiled and used for analysis to develop habitat ecotypes for the proposed project. One reference site will be selected and evaluated for each type of habitat or habitat zone anticipated to be included in the project (open water, wetland, emergent wetland, and scrub/shrub).

F. Metocean Analysis and Modeling

KS will perform a meteorological and oceanographic analysis to develop the design water level and wave conditions for the project site (metocean analysis). The metocean analysis will include a detailed water level analysis utilizing historical and recent water level records to determine the frequency of occurrence of extreme water level events. The statistics will summarize the results for 2, 5, 10, 25, 50 and 100-year design return events. Based on the range of design water levels and historical wind data, KS will perform a nearshore wave analysis to determine fetch and depth limited wave characteristics and will select a range of design waves to be considered. The metocean analysis will also include a qualitative regional sediment transport analysis to determine the sedimentation and littoral drift patterns in the project area. The results of the metocean analysis will be used to select design conditions for the new shore protection and develop the wave and shoreline response modeling.

The proposed new features will impact littoral processes in the project area. Numerical modeling will be used to evaluate the design wave conditions and the circulation and flushing in the project area. Wave transformation modeling will be conducted using the Simulating Waves Nearshore Model (SWAN 41.31A, Delft University of Technology, 2020, 2003). SWAN estimates the refraction, diffraction, breaking, dissipation, and wind growth of nearshore waves using a spectral approach, where each wave case is treated as a combination of wave components covering a range of frequencies and directions. SWAN may be run in time dependent or stationary mode, where the waves are assumed to vary slowly with time. Inputs to the SWAN model include the bottom bathymetry, winds, and offshore wave conditions in either spectral format or in terms of height, period, and direction only. Outputs to the model include the wave height, period, and direction across the entire model grid or mesh and wave spectra at specific locations. The SWAN model will be calibrated using existing wave measurements from the National Oceanographic and Atmospheric Administration (<https://www.ndbc.noaa.gov/>). The SWAN model will then be used to evaluate the nearshore design waves given the existing conditions and post-construction conditions with impacts of the proposed project.

Circulation and flushing will be evaluated using the Delft3D-FLOW model, which simulates flow and the dispersion of tracers given the offshore water levels and wave conditions from the SWAN model. Delft3D-FLOW is specifically designed to run concurrently with SWAN, where information exchanged between the two models to estimate the contribution of waves to flow and the effects of currents and varying water levels on wave propagation. Circulation and flushing will be evaluated for the existing and design conditions given a low water level scenario (near Low Water Datum, 569.2 feet IGLD 1985) and a high-water level scenario (above Ordinary High Water, 573.4 feet IGLD 1985).

The deliverable for this item will be a technical memorandum summarizing the results of the metocean analysis, modelling procedures, results, and design implications.

Task 3: Preliminary Design

- A. The KS Team will develop three to four conceptual alternatives for creating or restoring coastal habitat through the beneficial re-use of dredge material at the selected project location. The alternatives will be developed with consideration of the refined project goals identified in the initial stakeholder engagement. The KS Team will prepare preliminary conceptual design drawings and renderings for each alternative. We will prepare a narrative alternative analysis describing each

alternative and key advantages or disadvantages.

- B. The KS Team will coordinate and host a stakeholder engagement event to solicit input for the preliminary design. The purpose of the event will be to provide an update on the site selection (following the first outreach event) and present the conceptual alternatives. Engagement approaches will be geared toward identifying common objectives, opportunities, preferences, and priorities. The engagement strategy will seek to maximize opportunities for the stakeholders and the community to participate, review, and comment on conceptual designs to continue to build public and regulatory authority support for the project.
- C. The KS Team will compile the input from the stakeholder event and technical alternative analysis to prepare a matrix comparing the alternatives. KS will meet with the City and ODNR to review the alternatives and aid in selecting a preferred alternative.
- D. Once a preferred alternative is selected, the KS Team will develop preliminary designs and an engineer's preliminary opinion of probable construction costs for the project. The preliminary design drawings will depict perimeter containment structures, dredge material placement, grading, planting, and habitat features. The preliminary drawings will be developed to "permit-level" for submission to the USACE, ODNR, and OEPA in Task 4.
- E. Coastal Modeling: KS will update and re-run the models to incorporate the design of the new structures and habitat areas. KS will also perform storm erosion modeling, long-term erosion and beach fill performance modeling, and shoreline response modeling if required to validate the preliminary design.

KS will use the Kriebel and Dean (1993) analytical model or another suitable analytical model to estimate erosion during coastal storms. The storm erosion model will be applied to the 50%, 10%, 2%, and 1% annual chance (2-, 10-, 50-, and 100-year) extreme storm conditions. Outputs from the model will include the estimated shoreline recession and representative beach profiles.

KS will use historic retreat rates based on past surveys and analytical models developed by USACE (1987) and the University of Florida (1998) to evaluate erosion, beach fill performance, and the effects of proposed structures over the next 5 to 10 years. Outputs from the model will include the estimated shoreline changes for all scenarios and equilibrium beach profiles for alternatives that include beach fill.

KS will provide the results in an addendum to the technical memorandum developed in Task 2.

Task 4: Regulatory Permitting

The proposed project will require authorization from the U.S. Army Corps of Engineers pursuant to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act. The project will also require authorization from the Ohio Environmental Protection Agency pursuant to Section 401 of the Clean Water Act. The project will also require a Shore Structure Permit, Submerged Lands Lease and Federal Consistency Certification from the Ohio Department of Natural Resources (ODNR) pursuant to Ohio Revised Code Section 1506 and 16 USC 1456. Authorization for Private Aids to Navigation are also likely to be required from the U.S. Coast Guard. Coordination will also be required with the U.S. Fish and Wildlife Service, ODNR Division of Wildlife, and Ohio History Connection.

- A. Upon approval of the preliminary design, we will prepare applications for authorization from the USACE and ODNR. The application package will include
 - a. USACE Application (Eng Form 4345)
 - b. ODNR Coastal Permits and Lease Application form

- c. Application drawings
 - d. Site photos and photo key map
 - e. Design calculations documenting the ability of the perimeter breakwater/dredge containment structures to dissipate wave energy, preserve the dredge material within the containment structure, and prevent resuspension and related turbidity or loss of dredge material into the littoral system. The design calculations will include a summary of the metocean studies and coastal modeling documenting design conditions and demonstrating water circulation through the project area to reduce the risk of eutrophication or reduced water quality within the project area.
 - f. An alternatives analysis including a narrative of alternatives considered, conceptual level design drawings of each alternative, calculations for potential fill volumes for each alternative, a conceptual level engineer's opinion of probable construction costs for each alternative, and a summary of relative benefits and disadvantages of each alternative justifying the selection of the preferred alternative with consideration of fill volumes, dredge placement capacities, habitat improvements, costs, and social and economic benefits to the surrounding communities and region.
 - g. An engineering memo regarding environmental impacts and restrictions such as impacts to threatened or endangered species and in-water work restrictions.
- B. The design team will prepare the application packages and provide them to the City for signature. Once the applications are signed, KS will compile the required documents and submit them to the USACE and ODNR on behalf of the City.

Because the project is located along the shore of Lake Erie, the USACE jurisdiction is known. Individual and cumulative impacts to the human environment are also assumed to be minimal for typical projects on Lake Erie. Therefore, a Jurisdictional Determination should not be required and is not included in this scope of services. If these documents are required by the USACE or for project funding, we can prepare them for an additional fee.

We do not anticipate that the proposed project will have adverse effects to historic properties. The KS Team will prepare a project summary form to be submitted to the USACE to assist with their coordination with the Ohio Historic Preservation Office (pursuant to Section 106 of the Historic Preservation Act). This scope of services does not include historical or archaeological investigations, coordination, evaluations, or data recovery. If additional historical or archaeological coordination is required, the design team can perform as additional services for an additional fee.

- C. Once the USACE publishes a public notice for the project, the design team will prepare an application for an Individual Water Quality Certification from the Ohio Environmental Protection Agency pursuant to Section 401 of the Clean Water Act. The application will include:
- a. Application Form;
 - b. Lake impacts table
 - c. Statement regarding waters delineation (with site photos)
 - d. Correspondence with the USACE, ODNR and U.S. Fish and Wildlife Service documenting requests for environmental review comments
 - e. Statement regarding jurisdictional determination
 - f. A narrative alternative and antidegradation analysis

- g. Project mapping (with application drawings)
- h. A proposed mitigation and monitoring plan
- i. And statements regarding wetland characterization and stream use attainability.

OEPA application fees are dependent on the proposed impacts but the project is anticipated to require the maximum application fee of \$5,000 for a public project. An initial application fee, up to \$2,600, is due at the time the application is submitted. The remaining fee is due once the permit is issued. Public notice publication fees are anticipated to be approximately \$1,000. OEPA application and public notice fees will be paid by KS as project expenses and included on monthly invoices for the project.

D. Additional documents are anticipated to be required during the USACE, ODNR and OEPA review of the initial applications. The following documents are anticipated to be created and submitted during the permit reviews based on coordination with regulatory review staff:

- a. Once the USACE and ODNR permit reviews have progressed and it is determined that design revisions are not anticipated as a result of their technical reviews, KS will prepare a Submerged Lands Lease Plat and Description for the proposed lease modification. KS will also request a resolution from the local authority to complete the ODNR application.
- b. A dredge placement plan documenting plans for the placement and consolidation of dredge material during the duration of the project.
- c. Detailed summaries of anticipated construction operations with explanations of items that will be required by the construction documents and items that will be left for the contractor to plan as means and methods. The USACE and OEPA will likely require an explanation of constructability, schedule, and cost risks associated with dictating contractor means and methods for items within the purview of their permit reviews.
- d. Adaptive management plans including plans for:
 - i. Definition of the monitoring periods and anticipated project duration.
 - ii. Performance metrics for dredge material placement, establishment of habitat zones, stability and performance of the perimeter breakwater/dredge containment structure, invasive species management, quality of vegetation (based on Vegetative Index of Biotic Integrity scores), and establishment of indicator species.
 - iii. Establishment of thresholds when performance metrics are not met that will require corrective actions to be performed. The plan will also include potential corrective actions such as repairs to the perimeter breakwater/dredge containment structure, re-grading dredge material affected by wave energy or storm events, invasive species management, and repairs or enhancements to temporary or permanent vegetation or habitat areas.
 - iv. Requirements for performance monitoring, including frequency of inspections and reporting. Monitoring reports are anticipated to require: site photographs, topographic and hydrographic surveys, structural assessments of the perimeter breakwater/dredge containment structures, vegetation assessments (VIBI-FQ), and habitat assessments. Requirements for monitoring and reporting will likely be required for the time period between permit approval and project completion. The Adaptive Management Plan will likely include detailed requirements for reporting to each permitting agency.
 - v. Contingency plans will likely be required for adaptive management of the project

if performance metrics are not met throughout the duration of the project.

- vi. The permitting agencies are likely to require financial assurances or documentation that the agency or agencies responsible for the project have the financial ability to meet the performance metrics, including potential modifications to the project, throughout the duration of the project.
- E. The ODNR, USACE, or OEPA may require a mussel survey to preclude impacts to endangered or threatened freshwater mussel species. Due to the location, the type of project, and anticipated impacts, a mussel survey is not anticipated to be required and is not included in the fee for this item. If a mussel survey is required, we will engage a qualified subconsultant to perform the mussel survey as an additional service for an additional fee. Completion of a mussel survey is not included in this scope of services.
- F. The design team will coordinate with the ODNR, USACE, and OEPA during the review of the permit applications. We will answer questions and provide clarifications to the regulatory reviewers, as required. We will coordinate any requests for design revisions with the City and make any revisions required by the agencies. KS anticipates scheduling monthly regulatory coordination meetings for the first 6-9 months of the permit review period, then increasing frequency to bi-weekly meeting until permits are issued.

Task 5: Design Development

A. 60% Design Deliverable

KS will perform concept refinement and detailed design to develop 60% design documents for the proposed project. The 60% design will incorporate input from the City and ODNR's review of the permit-level design documents. KS will also coordinate with regulatory agencies and incorporate input from environmental review staff as the permit reviews progress. The 60% drawings are expected include:

- a. Title sheet and location map
- b. General notes
- c. Anticipated permit conditions
- d. Existing site plans
- e. Demolition plans identifying any existing waterfront structures planned to be demolished
- f. Site plans showing the final condition of the project area following the shoreline restoration and protection
- g. Elevations and cross sections
- h. Construction details

KS will prepare a listing of technical specifications to be included in the bid documents.

KS will prepare an updated, 60% level, opinion of probable construction costs.

KS will attend one design review meeting with the City and ODNR to present and discuss the 60% design.

B. Constructability Review and Marine Operations Planning

KS will review the site conditions, access, physical constraints and potential permit conditions to develop a plan for anticipated construction operations for construction of the perimeter breakwater or dredge containment structures, dredge placement, grading, and seeding/planting. The purpose of the constructability and marine operations planning will be to ensure that the project is constructible and that potential construction costs related to access, equipment

requirements, and production rates are appropriately planned for in the final cost opinions. The constructability review will include planning for anticipated construction operations so that specific requirements such as permit conditions can be included in the technical specifications in a manner that does not dictate contractor means and methods.

KS will solicit comments from potential contractors regarding constructability or feasibility of specific construction operations, as needed, to support the constructability review.

KS will prepare plans for temporary structures or facilities that may be required for construction or dredge placement.

KS will coordinate with the regulatory agencies to ensure short term impacts during construction are considered in their review and included in the final permits. KS will request a waiver of in-water work restrictions from ODNR and the USACE if the results of the constructability review suggest a waiver will be required for the contractor to meet the schedule requirements.

The deliverable for this item will be a matrix of potential alternatives construction operations (for example, construction using land based equipment vs. marine equipment). The narrative will list potential efficiencies or challenges with each alternative.

C. 90% Design Deliverable

KS will perform concept refinement and detailed design to develop 90% design documents for the proposed project. The 90% design will incorporate input from the City and ODNR's review of the 60% design documents and environmental review staff as the permit reviews near completion. The 90% drawings are expected to include:

- Title sheet and location map
- General notes
- Anticipated permit conditions
- Existing site plans
- Construction access plans
- Demolition plans identifying existing waterfront structures planned to be demolished
- Plans showing material stockpile locations and transport routes
- Plans for temporary facilities for unloading of material or dredge placement
- Site plans showing the final condition of the project area
- Layout and location plans showing coordinates of proposed structures
- Elevation views of proposed structures
- Cross sections of proposed structures
- Construction details for proposed structures
- Storm Water Pollution Prevention Plans (if required) or Best Management Practices.
- KS will prepare technical specifications to be included in the bid documents.

KS will prepare an updated, 90% level, opinion of probable construction costs.

KS will prepare dredge material placement plans and requirements for inclusion in USACE bid documents for the dredging of the Sandusky Harbor Federal Navigation Channel.

KS will attend one design review meeting with the City and ODNR to present and discuss the 90% design.

D. Supplemental Permitting

KS will coordinate with the U.S. Coast Guard and prepare applications for any Private Aids to Navigation required for the project.

If required, KS will prepare an application for a Floodplain Development Permit for the proposed project.

If required by the OEPA, KS will prepare an abbreviated Storm Water Pollution Prevention Plan for the in-water work and will prepare a Notice of Intent for submittal to the OEPA.

The Contractor that is hired to construct the project will be responsible for obtaining any local building permits required for the proposed construction.

E. 100% Bid Documents

After your notice to proceed or receipt of all regulatory authorizations, KS will prepare 100% construction plans, technical specifications and a final engineer's opinion of probable construction costs for the project. KS will attend one review meeting after delivering the final construction documents.

Task 6: Bidding Services for Dredge Containment Structures

- A. KS will compile the final plans, specifications, and bid forms into a final bid package and will assist the City with bid advertisement.
- B. KS will schedule, coordinate, and attend a pre-bid meeting with potential contractors.
- C. KS will answer questions from contractors during the bidding period to provide clarifications regarding design intent, permit conditions, bid items, quantities, or other items requiring additional information for submittal of the bids.
- D. KS will prepare any addenda required during the bidding period.
- E. KS will assist the City with review of bids and make a recommendation for contractor selection.
- F. I think it's worth stating that any re-bidding of the project for any reason is an additional service.

Task 7: Construction Phase Services for Dredge Containment Structures

- A. KS will coordinate and attend a preconstruction meeting with the City, ODNR and the selected contractor.
- B. KS will provide Engineer of Record services during construction, including submittal review, responding to contractor requests for information (RFIs), review of applications for payment from the contractor, and coordinating with regulatory agencies.
- C. KS will coordinate and attend regular construction status meetings during the construction phase.
- D. The KS Team will provide onsite construction observation and will track schedules, quantities, and progress throughout the construction phase.
- E. KS will assist the city with review and negotiation of any Change Order requests submitted by the contractor.

- F. KS will manage project closeout and compliance documentation including review of as-built drawings (to be prepared by the Contractor). KS will prepare and submit project completion notifications to the USACE, ODNR and OEPA upon construction completion.

Clarifications

- Please note that the preliminary drawings prepared for the purpose of demonstrating design concepts or obtaining permits are not final construction drawings and will be clearly marked "Not for Construction". The Client is cautioned and advised not to use preliminary plans for construction.
- The engineer's opinion of probable construction cost will be made based on the engineer's experience and qualifications and represent the engineer's best judgment as an experienced and qualified professional generally familiar with the construction industry. However, because the engineer has no control over the cost of labor, materials, equipment, or services furnished by others, or over contractors' methods of determining prices, or over competitive bidding or market conditions, the engineer cannot and does not guarantee that proposals, bids, or actual construction cost will not vary from opinions of probable construction cost prepared by the engineer.

Additional Services

- KS has estimated the engineering effort necessary to perform this work based on our past experience and our understanding of the prevailing requirements. We have included a modest amount for MINOR revisions that may be requested or required by the reviewing agencies. If extensive revisions are mandated by ODNR, the USACE, the OEPA, or the Client after permit drawings and applications are completed, we will seek additional compensation before beginning such out-of-scope work.
- The scope of services included above describes all services to be provided by KS under this contract. Any items not specifically listed in this proposal are not included. If the City requests additional surveying or engineering services beyond those included in this proposal, or if KS determines that additional services are required, KS will request a modification to this contract before the services are provided.

Timetable

KS will endeavor to complete each Task in accordance with the following milestone schedule:

- Task 1: Site Selection – 60 calendar days after Client authorization
- Task 2: Site Conditions Analysis – 60 days
- Task 3: Preliminary Design – **90 days**
- Task 4: Preparation of Permit Applications – 30 days
- Task 5: Design Development and Regulatory Coordination – 365 days
- Task 6: Bidding Phase Services – 60 days
- Task 7: Construction Phase Services – 180 days

KS will endeavor to perform our services as expeditiously as is consistent with the professional standard of care. However, the overall project development schedule will be dependent on the time required to obtain regulatory authorizations, which is beyond the control of the KS or the Client.

Fee & Standard Conditions

Our fee for the cited scope of services will be billed at our standard hourly rates at the time services are performed, not to exceed a maximum of \$862,145. Reimbursable expenses and subconsultant fees will be billed at cost, without markup. The fee is anticipated to be billed as follows.

Project 1 - Cedar Point Causeway Wetlands

Task 1: Management and Monitoring prior to 2nd Dredge Placement	\$38,318
Task 2: Design Modification and Permitting for 2nd Dredge Placement	\$56,240
Task 3: Bidding and Construction Phase Support Services During Dredge Placement	\$14,552
Task 4: Management and Monitoring During Consolidation and Settlement	\$35,965
Task 5: Future Dredge Cycles and Final Habitat Establishment	\$0
Total for Project 1	\$145,075

Project 2 - Beneficial Re-Use of Dredge Material (Additional Site)

Task 1: Stakeholder Engagement and Site Selection	\$49,738
Task 2: Site Conditions Analysis	\$85,482
Task 3: Preliminary Design	\$113,204
Task 4: Regulatory Permitting	\$110,534
Task 5: Design Development	\$135,196
Task 6: Bidding Services for Dredge Containment Structures	\$12,664
Task 7: Construction Phase Services for Dredge Containment Structures	\$210,252
Total for Project 2	\$717,070

Total for Contract **\$862,145**

KS will bill monthly for services rendered.

This proposal was prepared assuming all services will be performed under the terms and conditions of the Agreement for Professional Services by and between the City of Sandusky and KS Associates Inc. dated September 21, 2021.

If you have any questions or comments, please call me at 419-239-5935 or email to cencerm@ksassociates.com.

This professional services proposal is valid until July 31, 2023.

Sincerely,

KS ASSOCIATES, INC.



Mark P. Cencer, P.E.
Director of Coastal Engineering

c: Lynn S. Miggins, P.E., President, KS Associates, Inc.
Project File / Billing File

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