



**Work Session**

**WS**

**Milwaukie City Council**



MILWAUKIE CITY COUNCIL  
WORK SESSION

City Hall Conference Room  
10722 SE Main Street  
www.milwaukieoregon.gov

**REVISED AGENDA**  
**SEPTEMBER 6, 2016**  
(Revised September 2, 2016)

A light dinner will be served.

Page #

- |           |                  |   |            |
|-----------|------------------|---|------------|
| <b>1.</b> | <b>4:00 p.m.</b> | <b>Library Construction Manager Update</b><br>Staff: Katie Newell, Library Director<br>(Staff Report Added September 2, 2016) | <b>0-1</b> |
| <b>2.</b> | <b>4:30 p.m.</b> | <b>Update on Triangle Site Food Cart Pod Waiver Requests</b><br>Staff: Alma Flores, Community Development Director            | <b>1</b>   |
| <b>3.</b> | <b>4:45 p.m.</b> | <b>County Wastewater System Rights and Responsibilities</b><br>Presenter: Karin Power, City Councilor                         |            |
| <b>4.</b> | <b>5:15 p.m.</b> | <b>Riverfront Park Beach Repair</b><br>Staff: Charles Eaton, Engineering Director<br>(Added to the Agenda September 2, 2016)  | <b>3</b>   |
| <b>5.</b> | <b>5:45 p.m.</b> | <b>Adjourn</b>  |            |

### Meeting Information

- The time listed for each item is approximate; the actual time each item is considered may change due to the length of time devoted to the previous item. The Council may vote in Work Session on non-legislative issues.
- Executive Sessions: The Milwaukie City Council may meet in executive session immediately following adjournment pursuant to ORS 192.660(2).
  - All Executive Session discussions are confidential and those present may disclose nothing.
  - Representatives of the news media are allowed to attend Executive Sessions as provided by ORS 192.660(3) but must not disclose any information discussed.
  - Executive Sessions may not be held for the purpose of taking final actions or making final decisions.
  - Executive Sessions are closed to the public.
- For assistance/service per the Americans with Disabilities Act (ADA), please dial TDD 503-786-7555. During meetings the Council asks that all pagers and cell phones be set on silent mode or turned off.



MILWAUKIE CITY COUNCIL  
**STAFF REPORT**

**WS 1.**  
**Sept. 6, 2016**  
**Added Sept. 2, 2016**

To: Mayor and City Council  
Through: Bill Monahan, City Manager  
Subject: **Library Project Manager Update**  
From: Katie Newell, Library Director  
Date: September 1, 2016

**ACTION REQUESTED**

Review selection of Library Construction Manager.

**HISTORY OF PRIOR ACTIONS AND DISCUSSIONS**

On May 17, 2016, the Citizens of Milwaukie voted to authorize the City to issue up to \$9,200,000 of general obligation bonds for improvements of the Ledding Library. The Library is ready to move forward with these improvements.

**BACKGROUND**

A RFP for Project Management and Owner's Representative Services was issued by the City of Milwaukie on July 14, 2016. Proposal due date was August 5, 2016. Five proposals were received in response to the RFP.

On August 9, 2016, Scott Churchill, City Councilor; Karin Power, City Councilor; Bill Monahan, City Manager; Chuck Eaton, Engineering Director; and Katie Newell, Library Director selected three firms to interview.

The criteria listed in the RFP:

- Proposal submitted on time
- Introductory Letter
- Team Capacity and Relative Experience
- Historic Building Experience
- CM/GC Experience and Qualifications
- Relocation Experience
- Proposed Cost
- Personal Services Agreement
- Overall quality of response and conformance with RFP requirements
- Interview and Presentation

After follow up site visits with two of the firms to ascertain the best fit for our team, there are still a few more questions to be answered before making a recommendation to Council.

**CONCURRENCE**

Library Director concurs with this.

**FISCAL IMPACTS**

This will be determined by the firm selected.

**WORK LOAD IMPACTS**

Once selected, the project manager will be working closely with the Library Director throughout the Library improvements project.

**ATTACHMENTS**

None.



MILWAUKIE CITY COUNCIL  
STAFF REPORT

Agenda Item: **WS 2.**  
Meeting Date: **September 6, 2016**

To: Mayor and City Council  
Through: Bill Monahan, City Manager  
Subject: **Update on Triangle Site Food Cart Pod and Request for System Development Charge, Permit Fee, and Service Connection Cost Waiver**  
From: Alma Flores, Community Development Director  
Date: August 23, 2016

### **ACTION REQUESTED**

Listen to an update on the Food Cart Pod at 11301 SE 21<sup>st</sup> Street and consider approval of a waiver of the System Development Charges (SDC) of \$1,788, permit fee of \$150, and service connection costs of \$2,800 totaling \$4,738 related to the installation of a 3/4 inch meter and 1 inch water line at the site.

### **HISTORY OF PRIOR ACTIONS AND DISCUSSIONS**

**August 2, 2016:** Council accepted a contract with Richard Johnson of Johnson Group to manage the City's Food Cart Pod.

**June 23, 2016:** Council received an update on the status of the food cart pod during the June 23, 2016 study session.

**September 22, 2015:** In addition to an online survey, a public forum was held to discuss food carts on publicly-owned land and whether or not the city should introduce a food cart pod to the publicly owned "Triangle site" as an interim use (prior to any development that may occur on the site).

### **BACKGROUND**

During the past seven years, City staff has received a number of inquiries about locating food carts in Milwaukie, specifically downtown.

Based on the positive results from the September 2015 public outreach effort, staff issued a Request for Qualifications seeking letters of interest from qualified parties to develop and manage a food cart pod on the Triangle site. Two responses were received. The Johnson Group, from Portland, who recently developed and manages the *Piknik Park* food cart pod in Sellwood was selected to develop and manage the Triangle site food cart pod.

Since that time, staff has been working through logistics and infrastructure issues regarding development of food cart pod on the site and through the transaction of the site acquisition with TriMet. Concurrently, staff submitted a 2016 Metro District Transformation Grant seeking funds to purchase aesthetic elements for the food cart pod, such as seating, decorative planters, and trash and recycling receptacles. Staff was notified May 2016 that the city would receive \$10,000 for implementation of the project.

Water, sewer, and electrical connections were not brought to the site as previously required at the time of construction of the Milwaukie/Main Max Station. While these connections would be required for any future development of the site, they are not typically infrastructure improvements that would be required for an interim use such as a food cart pod. Based on project proposals and contract negotiations, installation of these connections were not costs that The Johnson Group expected to incur as part of this public/private partnership. To minimize construction costs and permit and SDC fees at this time, the food cart pod only requires water hook-up at the site. The Johnson Group will pay for the directional bore for installation of the water line as well as install a Reduced Pressure Back Flow system and plans to hire a wastewater disposal service to properly empty and dispose of all wastewater generated by the food carts. The Johnson Group is also hiring an electrical contractor to install electricity to the site.

This request for a SDC and permit fee waiver for the construction and installation of a 3/4 inch meter and 1 inch water line to this site is a one-time request due to the nature of the public/private partnership and the interim use.

### **CONCURRENCE**

Community Development Director, Public Works Director, City Attorney, and the City Manager concur.

### **FISCAL IMPACTS**

The Community Development budget includes a line item for fee waivers related to economic development for the next bi-annual budget cycle that could absorb the cost incurred by the City as a result of a waiver of SDC fees for this interim project.

### **WORK LOAD IMPACTS**

Public Works will manage the subcontractor to complete the water line installation.

### **ALTERNATIVES**

None.

### **ATTACHMENTS**

None.



MILWAUKIE CITY COUNCIL  
**STAFF REPORT**

Agenda Item: **WS 4.**  
Meeting Date: **Sept. 6, 2016**  
**Added Sept. 2, 2016**

To: Mayor and City Council  
Through: Bill Monahan, City Manager

Subject: **Riverfront Park Beach Repair**

From: Charles Eaton, Engineering Director

Date: August 31, 2016

### **ACTION REQUESTED**

Provide direction on the extent of repairs and financial commitment the City is willing to commit for the repair of the Riverfront Park Beach area.

### **HISTORY OF PRIOR ACTIONS AND DISCUSSIONS**

July 19, 2016 City Council authorized the City Manager or his designee to negotiate and execute a contract with the most qualified consultant, Environmental Services Associates (ESA), for the Riverfront Park Beach Repair work.

This project and the work required to correct the erosion that resulted due to the storm event of December 6-23, 2015 has also been discussed with City Council during several other work sessions relating to the damages incurred due to the storm.

### **BACKGROUND**

The beach area of Riverfront Park was severely damaged during the storm event of December 6-23, 2015. Staff submitted for FEMA designation on the beach damages in addition to the damages at the park bridge and the south bank of Kellogg Creek as part of the Clackamas County disaster declaration.

Staff met with FEMA on May 26, 2016 to come to an agreement on damages for each FEMA project. Based upon those damage determinations, staff prepared a Request for Proposals from engineering firms to restore the facility to pre disaster condition.

Staff solicited proposals, in accordance with 70.015 of the City of Milwaukie Public Contracting Rules, from interested firms to perform design and construction management services for the work identified in the damage determination agreements. Staff reviewed the proposals and selected Environmental Science Associates (ESA) as the most qualified firm based on the written materials and interviews. Staff has negotiated a final scope of work and cost for the proposed work (See Attached).

Staff has not yet executed a contract to perform the proposed work due to lack of FEMA verification of eligible cost to repair the beach area to a pre disaster condition. Currently FEMA has calculated the cost of the project at \$24,775 of which FEMA would pay 75% (18,581). An IFA grant may be available to reimburse the City for the remaining portion of the \$24,775 FEMA estimate. ESA estimates the cost to repair the area to pre disaster condition at \$169,680.

However this will more than likely be damaged again during the next major event. ESA estimates the cost to repair and mitigate the area to protect it against future events at \$213,435. Both of these costs include \$20,350 to provide temporary protection measures to prevent further degradation during this winter till work can be completed next summer. This temporary work could be eliminated if the city is willing to risk potential additional damage this winter.

This leaves the city with a choice of basically using the FEMA funds to provide temporary repairs for an extended duration or funding the additional repairs using City funds. The in water window for work this summer ends October 31, 2016 which is when the temporary repair work would need to be completed by.

Staff is seeking council direction of the extent of repairs and financial commitment they wish to pursue for this project prior to execution of an agreement with ESA to perform the work.

### **FISCAL IMPACTS**

This project has \$20,000 of City funds within the FY 16-18 budget.

The proposed work would require a city funding level between \$130,749 and \$194,854. An additional \$20,000 would be required if the City chose the retaining wall option which has been recommended by the consultant due to the severity of the existing slope.

### **WORK LOAD IMPACTS**

Project was scheduled during this time frame, no additional impacts are anticipated

### **ALTERNATIVES**

1. Provide long term temporary mitigation
2. Provide repairs to a pre damage condition without mitigation to alleviate future damage
3. Provide repair and mitigation to the Riverfront Park Beach area, with or without the proposed retaining wall.

### **ATTACHMENTS**

1. Scope of work



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**Attachment 1**  
**Added Sept. 2, 2016**

# Attachment A

date July 21, 2016  
to Rick Buen, PE, City of Milwaukie  
from Ken Vigil, PE and Ryan Makie, PE, Environmental Science Associates (ESA)  
subject Riverfront Park Beach Repair Scope of Services

Thank you for asking ESA to provide this scope and fee estimate for design services to repair the existing beach erosion at Riverfront Park in Milwaukie. The purpose of this memorandum is to outline a general scope and budget to complete the work.

## UNDERSTANDING

The City of Milwaukie is currently redeveloping Riverfront Park, providing an improved boat ramp, parking area, pedestrian paths, and other site amenities. The redevelopment project has been broken into several phases and construction of Phase 2 was recently completed. With the completion of Phase 2, the previous boat ramp was removed and a new boat ramp was constructed further south on the eastern bank of the Willamette River. A new beach area was constructed in the area of the previous boat ramp, and the beach provides easy access to the Willamette River for uses including hand-carry boat launching. Construction of Phase 2 was completed in late summer of 2015.

During the time period of December 6, 2015 to December 23, 2015, a prolonged intense rainfall event resulted in substantial erosion on the bank of the Willamette River at Riverfront Park. During the storm, the bank erosion was likely caused by a combination of a sanitary sewer manhole that overflowed across the new path down to the new beach area, runoff from the grass slope between the new sidewalk and road, and Willamette River flows or wave action.

The sanitary sewer manhole overflow was caused by substantial inflow/infiltration into the system that increased pressures and displaced the sanitary manhole lid. City maintenance crews have since replaced the lid and it is now properly locked and grouted. It is still possible that another intense and prolonged rainfall event could displace the sanitary manhole lid again in the future.

It will not be possible for the project team to secure the various permits required for work within ordinary high water (OHW) prior to the end of this year's in-water work period for the Willamette River (July 1 – Oct. 31). To manage this constraint, the beach repair project will be broken up into two phases. Initially, ESA to provide a brief memorandum that will describe a temporary fix using hand tools, erosion control fabric, and new plantings that will not require any additional permitting. For the second phase, ESA will design a more durable restoration project that will include work within OHW, which will require permit approvals from the Oregon Department of State Lands (DSL) and U.S. Army Corps of Engineers.

The Federal Emergency Management Agency (FEMA) declared December 6, 2015 to December 23, 2015 as a severe weather related disaster. The City is applying for FEMA disaster relief funding to repair the damage to the beach that was caused during the December 2015 event. To support the FEMA disaster relief application, this scope and budget will include both design and anticipated construction costs for both phases of the project.

## **SCOPE OF SERVICES**

### **Project Management**

ESA will work to maintain good communication for the duration of the project. This communication is expected to include routine phone calls and emails. We will manage our consultant team by directing their work and incorporating their deliverables into the project deliverables submitted to the City. Project Management also involves the preparation of monthly invoices. The invoices will be sent to the City for review and approval.

Deliverables: Monthly invoices

### **Task 1. Temporary Stabilization Memorandum – Summer 2016**

ESA will complete a brief Temporary Stabilization Memorandum that will propose several work items to be completed by a landscape contractor. The proposed work items will temporarily stabilize the beach to limit erosion from progressing further over the winter of 2016/2017. The memorandum will be written with the intent of instructing a landscape contractor on the work to be done, but will not include bid documents (construction plans and specifications).

The work items to be completed in summer 2016 will only include limited regrading of the site and no work will occur within OHW. This work will not require any additional permit approvals.

ESA will provide a draft of the memorandum to the City for review and comment before finalizing.

Deliverable: Draft and Final Temporary Stabilization Memorandum

### **Task 2. 30% Design Development**

ESA has teamed with Statewide Surveying who will provide site survey. The survey will be conducted after the summer 2016 work has been completed. The site survey will be limited to topographic ground shots. The topographic ground shots will extend into the Willamette River a reasonable distance that is accessible to crews wearing waders. Detailed bathymetric survey beyond wading in a short distance is not included in this scope of work. It is assumed that the City can provide survey of property boundaries and key underground utilities.

ESA will develop the detailed restoration design to a 30% level of detail. The design will focus on restoring the Willamette River bank that has eroded. If feasible, the design will also include a pathway from the existing sidewalk to the beach area that meets ADA requirements. We do not propose any work on the riverbed. The 30% design drawings will include approximately 8 sheets. ESA will also complete a 30% construction cost estimate.

The 30% Design Development deliverable will be submitted to the City for review and comment. ESA will meet with the City to discuss the 30% comments.

Deliverables: Site survey, 30% Design Submittal (construction plans and cost estimate)

### **Task 3. 60% Design Development**

ESA will incorporate all comments received on the previous submittal and develop the detailed restoration design to a 60% level of detail. The 60% design drawings will include approximately 8 sheets (10 if a retaining wall is required). ESA will also complete a 60% technical specification outline and a construction cost estimate.

We understand that the City will take the lead on completing the project environmental permit applications. ESA will provide the city with quantity calculations and key permit figures that show the impact areas and work to be completed. The City will incorporate these items into the project environmental permit applications.

One draft copy of the permit figures will be submitted to the City for review and comment before finalizing. The 60% Design Development Package will be submitted to the City for review and comment. ESA will meet with the City to discuss the 60% comments.

Deliverables: Permit quantities, draft and final permit figures, 60% Design Submittal (construction plans, technical specification outline, and cost estimate)

#### **Task 4. 90% Design Development**

ESA will incorporate all comments received on the previous submittal and develop the detailed restoration design to a 90% level of detail. The 90% design drawings will include approximately 8 sheets (10 if a retaining wall is required). ESA will also complete 90% technical specifications and construction cost estimate.

The 90% Design Development Package will be submitted to the City for review and comment. If needed, ESA will meet with the City to discuss the 90% comments.

Deliverables: 90% Design Submittal (construction plans, technical specifications, and cost estimate)

#### **Task 5. Final Construction Documents**

ESA will incorporate all comments received on the previous submittal and finalize the project construction documents (plans, technical specifications, and cost estimate). The construction plans and technical specifications will be stamped by an engineer licensed in the State of Oregon.

Deliverables: Final Construction Documents

### **SCHEDULE**

After receiving notice to proceed (NTP), we will work diligently to complete the Temporary Stabilization Memorandum to facilitate the completion of the landscape contractor work before the start of the rainy season (approximately the end of September). The following is a list of the project deliverables with anticipated completion dates. These completion dates are approximate for planning purposes assuming we receive notice to proceed by Thursday July 21, 2016.

- Draft Temporary Stabilization Memorandum – August 1, 2016
- Final Temporary Stabilization Memorandum – August 8, 2016
- Site Survey – 1 month after completion of temporary stabilization site work (Assume complete on September 30, 2016)
- 30% Design Submittal (plans and cost) – November 1, 2016
- 60% Design Submittal (plans, spec, cost) – December 1, 2016
- Permit quantities – December 1, 2016
- Draft Permit Figures – December 1, 2016
- Final Permit Figures – December 12, 2016
- 90% Design Submittal (plans, spec, cost) – January 16, 2016
- Final Construction Documents – February 13, 2016

### **DESIGN FEES**

See attached **Table 1 - Design Fee** for staff rates and labor hours. The not-to-exceed design fee is **\$80,585**. This design fee does not include the contingency tasks itemized on the design fee table.

The purpose of this budget estimate is to outline the general level of effort associated with each task. We reserve the right to transfer labor hours between tasks, while still meeting the overall not-to-exceed budget amount for the total project.

## **ENGINEER'S ESTIMATE OF PROBABLE CONSTRUCTION COSTS (FOR PLANNING ONLY)**

**Table 2 – Engineer's Estimate of Probable Construction Costs** (attached) shows the site work that we anticipate will be needed for Phase 1 and Phase 2 of the Riverfront Beach Restoration Project. This construction cost estimate is being provided to support the FEMA disaster relief application being completed by the City. As design progresses these costs could change. The total construction cost for each project phase is summarized below and have been rounded.

- Phase 1 Construction of temporary stabilization – **\$20,000**
- Phase 2 Construction of detailed stabilization – **\$83,000** (Does not include contingency items)

## **ASSUMPTIONS/EXCLUSIONS**

- We assume the City will take the lead on completing all permit applications. If requested, ESA would be happy to provide additional scope and budget to take the lead on this work for the City.
- Detailed bathymetric survey of the Willamette River in the project vicinity is excluded from this scope of work.
- The detailed restoration design will not include any work on the riverbed.
- Engineering design of modifications to the existing sanitary and storm sewers or engineering design of additional stormwater management facilities is excluded from this scope of work.
- A number of contingency tasks have been included on Table 1 –Design Fee and these have been provided to support the FEMA disaster relief application being completed by the City. It is unclear if these professional services will be needed at this point.
- Given the time constraints for completing this scope and budget memorandum, and the uncertainty of the contingency tasks, we have not coordinated with our geotechnical and structural subconsultants. Costs for their design services are preliminary estimates that will need to be revisited if these contingency items are implemented.
- We assume the city will complete the administrative and contracting (front-end) portions of the bid package. ESA will provide the construction plans, technical specifications, and bid item list with estimated quantities.
- The temporary stabilization measures will improve existing conditions at the beach. However, these measures may not be sufficient to manage erosion if we experience severe weather conditions, prior to completing the detailed restoration design and construction.
- We are proposing a robust but practical approach for the detailed restoration design based on our understanding of the site and our previous work on the Willamette River. However, hydraulic modeling, geomorphic analysis, bathymetric survey and additional site reviews can be added to further inform the design, if desired by the City. We would be happy to provide a scope and budget for these additional reviews if requested.
- The pathway from the existing sidewalk to the beach area will be designed to American with Disabilities Act (ADA) standards, if possible. That said, it is unclear if ADA requirements would need to be met for a pathway to this beach. Since site constraints (topography) and functionality may preclude ADA design, we will review the applicability of ADA standards and potentially exclude a pathway from the design, if applicable standards cannot be met.



**Table 1 - Design Fee**  
**Milwaukie Riverfront Beach Restoration**

July 14, 2016

| TASK  | Role<br>Hrly Rate | PM/PIC<br>\$195  | APM/PE<br>\$140 | Eng. Staff<br>\$90 | RLA<br>\$115 | Env. Staff<br>\$115 | Adm. Staff<br>\$70 | Survey<br>Crew<br>\$250 | Hour<br>Totals | Cost<br>Totals  |
|---|-------------------|------------------|-----------------|--------------------|--------------|---------------------|--------------------|-------------------------|----------------|-----------------|
| <b>Project Management</b>                                       |                   | 20               | 14              |                    |              |                     | 10                 |                         | 44             | <b>\$6,560</b>  |
| <b>Task 1. Temporary Stabilization Memorandum - Summer 2016</b> |                   |                  |                 |                    |              |                     |                    |                         |                |                 |
| Task 1.1 - Temporary Stabilization Memorandum                   |                   | 8                | 24              | 24                 | 8            |                     | 2                  |                         | 66             | \$8,140         |
| <b>Task 1 Subtotal</b>  |                   |                  |                 |                    |              |                     |                    |                         |                | <b>\$8,140</b>  |
| <b>Task 2. 30% Design Development</b>                           |                   |                  |                 |                    |              |                     |                    |                         |                |                 |
| Task 2.1 - Topographic Survey                                   |                   |                  |                 |                    |              |                     |                    | 20                      | 20             | \$5,000         |
| Task 2.2 - 30% Design and Drawings                              |                   | 8                | 30              | 36                 | 16           | 4                   |                    |                         | 94             | \$11,300        |
| Task 2.3 - 30% Construction Cost Estimate                       |                   | 1                | 8               | 8                  | 4            |                     |                    |                         | 21             | \$2,495         |
| <b>Task 2 Subtotal</b>  |                   |                  |                 |                    |              |                     |                    |                         |                | <b>\$18,795</b> |
| <b>Task 3. 60% Design Development</b>                           |                   |                  |                 |                    |              |                     |                    |                         |                |                 |
| Task 3.1 - 60% Design and Drawings                              |                   | 4                | 24              | 30                 | 12           | 2                   |                    |                         | 72             | \$8,450         |
| Task 3.2 - 60% Specification Outline                            |                   | 1                | 4               | 2                  | 1            |                     |                    |                         | 8              | \$1,050         |
| Task 3.3 - 60% Permit Drawings and Quantities                   |                   | 1                | 12              | 24                 |              |                     |                    |                         | 37             | \$4,035         |
| Task 3.4 - 60% Construction Cost Estimate                       |                   | 1                | 8               | 12                 | 3            |                     |                    |                         | 24             | \$2,740         |
| <b>Task 3 Subtotal</b>  |                   |                  |                 |                    |              |                     |                    |                         |                | <b>\$16,275</b> |
| <b>Task 4. 90% Design Development</b>                           |                   |                  |                 |                    |              |                     |                    |                         |                |                 |
| Task 4.1 - 90% Design and Drawings                              |                   | 2                | 16              | 30                 | 6            | 2                   |                    |                         | 56             | \$6,250         |
| Task 4.2 - 90% Specifications                                   |                   | 4                | 24              | 16                 | 8            |                     |                    |                         | 52             | \$6,500         |
| Task 4.3 - 90% Construction Cost Estimate                       |                   | 1                | 4               | 8                  | 2            |                     |                    |                         | 15             | \$1,705         |
| <b>Task 4 Subtotal</b>  |                   |                  |                 |                    |              |                     |                    |                         |                | <b>\$14,455</b> |
| <b>Task 5. Final Construction Documents</b>                     |                   |                  |                 |                    |              |                     |                    |                         |                |                 |
| Task 5.1 - Final Design and Drawings                            |                   | 2                | 8               | 24                 | 6            |                     |                    |                         | 40             | \$4,360         |
| Task 5.2 - Final Specifications                                 |                   | 1                | 8               | 8                  | 2            |                     |                    |                         | 19             | \$2,265         |
| Task 5.3 - Final Construction Cost Estimate                     |                   | 1                | 2               | 4                  | 2            |                     |                    |                         | 9              | \$1,065         |
| <b>Task 5 Subtotal</b>  |                   |                  |                 |                    |              |                     |                    |                         |                | <b>\$7,690</b>  |
| <b>Task 6. Bid Assistance and Construction Services</b>         |                   | 8                | 30              | 16                 | 6            |                     | 4                  |                         | 64             | <b>\$8,170</b>  |
| Total Hours without Contingency                                 |                   | 63               | 216             | 242                | 76           | 8                   | 16                 | 20                      | 641            |                 |
| Total Labor Cost without Contingency                            |                   | \$12,285         | \$30,240        | \$21,780           | \$8,740      | \$920               | \$1,120            | \$5,000                 |                | \$80,085        |
| Expenses  |                   | \$500            |                 |                    |              |                     |                    |                         |                |                 |
| <b>Total Labor and Expenses Cost w/o Cont.</b>                  |                   | <b>\$80,585</b>  |                 |                    |              |                     |                    |                         |                |                 |
| <b>Contingency Tasks (Additional Design Services)</b>           |                   |                  |                 |                    |              |                     |                    |                         |                |                 |
| <b>Retaining Wall/Railings</b>                                  |                   |                  |                 |                    |              |                     |                    |                         |                |                 |
| Geotechnical Analysis   |                   | \$10,000         |                 |                    |              |                     |                    |                         |                |                 |
| Structural Engineering  |                   | \$15,000         |                 |                    |              |                     |                    |                         |                |                 |
| Expenses (Borings/Soil Tests, etc.)                             |                   | \$5,000          |                 |                    |              |                     |                    |                         |                |                 |
| <b>Total Labor and Expense Cost with Contingency</b>            |                   | <b>\$110,585</b> |                 |                    |              |                     |                    |                         |                |                 |



**Table 2 - Engineer's Estimate of Probable Construction Cost  
Milwaukie Riverfront Beach Restoration**

July 14, 2016

**Phase 1 - Temporary Stabilization**

| Item No. | Item Description | Unit Price | Unit | Estimated Quantity | Total   |
|----------|------------------|------------|------|--------------------|---------|
| 1        | Mobilization     | -          | LS   | 1                  | \$1,850 |
| 2        | Erosion Control  | -          | LS   | 1                  | \$5,000 |
| 3        | Demo             | -          | LS   | 1                  | \$5,000 |
| 4        | Grading          | -          | LS   | 1                  | \$7,000 |
| 5        | Seeding          | \$1.00     | SF   | 1500               | \$1,500 |

Total \$20,350

**Phase 2 - Detailed Restoration**

| Item No. | Item Description    | Unit Price | Unit | Estimated Quantity | Total    |
|----------|---------------------|------------|------|--------------------|----------|
| 1        | Mobilization        | -          | LS   | 1                  | \$7,500  |
| 2        | Erosion Control     | -          | LS   | 1                  | \$8,000  |
| 3        | Work Area Isolation | -          | LS   | 1                  | \$20,000 |
| 4        | Demo                | -          | LS   | 1                  | \$5,000  |
| 5        | Grading             | -          | LS   | 1                  | \$10,000 |
| 6        | Soil Wrapped Wall   | -          | LS   | 1                  | \$15,000 |
| 7        | Large Woody Debris  | \$1,500.00 | EA   | 5                  | \$7,500  |
| 8        | Pathway to Beach    | -          | LS   | 1                  | \$2,000  |
| 9        | Planting            | \$5.00     | SF   | 1500               | \$7,500  |

Base Project Total \$82,500

**Phase 2 - Contingency Items**

| Item No. | Item Description | Unit Price | Unit | Estimated Quantity | Total    |
|----------|------------------|------------|------|--------------------|----------|
| 1        | Retaining Wall   | -          | LS   | 1                  | \$20,000 |

Contingency Item Total \$20,000



**Table 1A - Design Fee for FEMA**

**Milwaukie Riverfront Beach Restoration - To bring site back to pre-disaster conditions**

**July 27, 2016**

| TASK  | Role<br>Hrly Rate | PM/PIC<br>\$195 | APM/PE<br>\$140 | Eng. Staff<br>\$90 | RLA<br>\$115 | Env. Staff<br>\$115 | Adm. Staff<br>\$70 | Survey<br>Crew<br>\$250 | Hour<br>Totals | Cost<br>Totals  |
|---|-------------------|-----------------|-----------------|--------------------|--------------|---------------------|--------------------|-------------------------|----------------|-----------------|
| <b>Project Management</b>                                       |                   | 24              | 16              |                    |              |                     | 8                  |                         | 48             | <b>\$7,480</b>  |
| <b>Task 1. Temporary Stabilization Memorandum - Summer 2016</b> |                   |                 |                 |                    |              |                     |                    |                         |                |                 |
| Task 1.1 - Temporary Stabilization Memorandum                   |                   | 8               | 24              | 24                 | 8            |                     | 2                  |                         | 66             | \$8,140         |
| <b>Task 1 Subtotal</b>  |                   |                 |                 |                    |              |                     |                    |                         |                | <b>\$8,140</b>  |
| <b>Task 2. 30% Design Development</b>                           |                   |                 |                 |                    |              |                     |                    |                         |                |                 |
| Task 2.1 - Topographic Survey                                   |                   |                 |                 |                    |              |                     |                    | 20                      | 20             | \$5,000         |
| Task 2.2 - 30% Design and Drawings                              |                   | 7               | 27              | 33                 | 15           | 4                   |                    |                         | 86             | \$10,300        |
| Task 2.3 - 30% Construction Cost Estimate                       |                   | 1               | 7               | 7                  | 4            |                     |                    |                         | 19             | \$2,265         |
| <b>Task 2 Subtotal</b>  |                   |                 |                 |                    |              |                     |                    |                         |                | <b>\$17,565</b> |
| <b>Task 3. 60% Design Development</b>                           |                   |                 |                 |                    |              |                     |                    |                         |                |                 |
| Task 3.1 - 60% Design and Drawings                              |                   | 4               | 22              | 26                 | 10           | 2                   |                    |                         | 64             | \$7,580         |
| Task 3.2 - 60% Specification Outline                            |                   | 1               | 4               | 2                  | 1            |                     |                    |                         | 8              | \$1,050         |
| Task 3.3 - 60% Permit Drawings and Quantities                   |                   | 1               | 10              | 22                 |              |                     |                    |                         | 33             | \$3,575         |
| Task 3.4 - 60% Construction Cost Estimate                       |                   | 1               | 7               | 10                 | 3            |                     |                    |                         | 21             | \$2,420         |
| <b>Task 3 Subtotal</b>  |                   |                 |                 |                    |              |                     |                    |                         |                | <b>\$14,625</b> |
| <b>Task 4. 90% Design Development</b>                           |                   |                 |                 |                    |              |                     |                    |                         |                |                 |
| Task 4.1 - 90% Design and Drawings                              |                   | 2               | 15              | 26                 | 5            | 2                   |                    |                         | 50             | \$5,635         |
| Task 4.2 - 90% Specifications                                   |                   | 4               | 22              | 15                 | 7            |                     |                    |                         | 48             | \$6,015         |
| Task 4.3 - 90% Construction Cost Estimate                       |                   | 1               | 4               | 7                  | 2            |                     |                    |                         | 14             | \$1,615         |
| <b>Task 4 Subtotal</b>  |                   |                 |                 |                    |              |                     |                    |                         |                | <b>\$13,265</b> |
| <b>Task 5. Final Construction Documents</b>                     |                   |                 |                 |                    |              |                     |                    |                         |                |                 |
| Task 5.1 - Final Design and Drawings                            |                   | 2               | 7               | 22                 | 6            |                     |                    |                         | 37             | \$4,040         |
| Task 5.2 - Final Specifications                                 |                   | 1               | 7               | 7                  | 2            |                     |                    |                         | 17             | \$2,035         |
| Task 5.3 - Final Construction Cost Estimate                     |                   | 1               | 2               | 4                  | 2            |                     |                    |                         | 9              | \$1,065         |
| <b>Task 5 Subtotal</b>  |                   |                 |                 |                    |              |                     |                    |                         |                | <b>\$7,140</b>  |
| <b>Task 6. Bid Assistance and Construction Services</b>         |                   |                 |                 |                    |              |                     |                    |                         |                |                 |
|   |                   | 7               | 27              | 15                 | 6            |                     | 4                  |                         | 59             | <b>\$7,465</b>  |
| Total Hours   |                   | 65              | 201             | 220                | 71           | 8                   | 14                 | 20                      | 599            |                 |
| Total Labor Cost  |                   | \$12,675        | \$28,140        | \$19,800           | \$8,165      | \$920               | \$980              | \$5,000                 |                | \$75,680        |
| Expenses  |                   | \$500           |                 |                    |              |                     |                    |                         |                |                 |
| <b>Total Labor and Expenses</b>                                 |                   | <b>\$76,180</b> |                 |                    |              |                     |                    |                         |                |                 |



**Table 2A - Engineer's Estimate of Probable Construction Cost - For FEMA  
Milwaukie Riverfront Beach Restoration - To bring site back to pre-disaster conditions**

**July 27, 2016**

**Phase 1 - Temporary Stabilization**

| Item No. | Item Description | Unit Price | Unit | Estimated Quantity | Total   |
|----------|------------------|------------|------|--------------------|---------|
| 1        | Mobilization     | -          | LS   | 1                  | \$1,850 |
| 2        | Erosion Control  | -          | LS   | 1                  | \$5,000 |
| 3        | Demo             | -          | LS   | 1                  | \$5,000 |
| 4        | Grading          | -          | LS   | 1                  | \$7,000 |
| 5        | Seeding          | \$1.00     | SF   | 1500               | \$1,500 |

Total \$20,350

**Phase 2 - Detailed Restoration**

| Item No. | Item Description    | Unit Price | Unit | Estimated Quantity | Total    |
|----------|---------------------|------------|------|--------------------|----------|
| 1        | Mobilization        | -          | LS   | 1                  | \$6,650  |
| 2        | Erosion Control     | -          | LS   | 1                  | \$12,000 |
| 3        | Work Area Isolation | -          | LS   | 1                  | \$20,000 |
| 4        | Demo                | -          | LS   | 1                  | \$5,000  |
| 5        | Grading             | -          | LS   | 1                  | \$22,000 |
| 9        | Planting            | \$5.00     | SF   | 1500               | \$7,500  |

Total \$73,150