# **OIL CITY MARINA**

# **Master Site Development Plan**



## FINAL REPORT February 2016

Project No. 5072



#### **Funding Assistance**

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#### Acknowledgements

The following individuals and agencies participated in the completion of this project:

Members of the Master Site Plan Study Committee were:

- Kristin Arendash, Director of Community Development, City of Oil City
- John Noel Bartlett, City Council Member, City of Oil City
- Dale Black, Owner, Black Knight Industries
- Marilyn Black, Vice President for Heritage Development, Oil Region Alliance
- Debbie Frawley, Coordinator, Council on Greenways & Trails
- Jayson Hoovler, Firefighter & Water Rescue Team Member, Oil City Fire Department
- James Jones, City of Oil City Public Works
- Mark Kerr, Waterways Conservation Officer, Pennsylvania Fish and Boat Commission
- Christina Sporer, City Engineer, City of Oil City

#### Approved by the City of Oil City, on the date \_\_\_\_\_

Mayor William P. Moon Council Members: Ron Gustafson, Michael Poff, Isaiah Dunham, Dale Massie

#### **Completed By**

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## Introduction

The Master Site Development Plan is a tool to be used as a guide for short and long-term construction development based on the project sponsor and project stakeholder objectives for the marina park facility.

The actual implementation of the plan may be phased over a number of years to correlate with current public demand, available funding and volunteer support for labor, materials and in-kind services.

## **Project Purpose**

The Master Site Development Plan for the Oil City Marina Park has been created to provide the site's stakeholders, including the City of Oil City, with a planning tool to help guide future development of the Marina. This Master Plan will enhance existing facilities, improve the boat launch area, conserve and preserve sensitive environmental features and meet the current and future recreational needs of the community. The master site development plan also considers improvements for the entire marina park, including wayfinding into the marina (from the roadways and from the Allegheny River), and provides for bike trail and water trail connections.

Additionally, the plan proposes to promote coordinated efforts with agencies and organizations, engage other interested stakeholders, and provide a platform to search out a variety of funding sources for implementation of projects. Project types range from infrastructure and earthwork, to river access and fishing, motorized and non-motorized water craft, wildlife habitat restoration, bicycling and walking, outdoor recreation and leisure activities, overnight parking for motorized campers, and tent camping.

## Process

The plan has been developed through a series of steps to ensure that the final document will meet the needs of the stakeholders and the community, and provide the community with a realistic long term vision for the marina park. The process includes meetings with the steering committee and the public to gather information and background data; develops a needs assessment; determines types of activities & facilities; analyzes and reviews the conceptual and preliminary plan; reviews and edits the plan; and then completes the final plan.

## **Site Analysis**

A site analysis was conducted, including utility and property boundary review. The existing mapping was provided by the City of Oil City, and the data was analyzed to determine the site's natural features, on site and surrounding land uses, and how the site currently functions. This analysis was used to identify opportunities and constraints that exist on the site. The PNDI report and agency response letters can be found in the Appendix. Additionally, the FIRM-FEMA mapping indicates a floodplain boundary and a base flood elevation on the site at elevation 989. The boundary is shown on the site plan C100, C101, C102 and the FIRM map can be



found in the Appendix.

## Community Involvement and Conceptual Designs

The second step in the Master Planning process consisted of comparing stakeholder and community feedback with the opportunities and constraints of the site to create conceptual plans. The conceptual plans were then presented, reviewed and analyzed; feedback received during this process was used to refine details of the conceptual plan and development of the master plan.

The following list of objectives was formulated during steering committee meetings and through additional discussions between committee members and with project stakeholders.

#### **Objectives:**

- 1. Improve boat launch and access routes
- 2. Plan for ADA accessibility (universal design for all)
- 3. Minimize and manage vandalism and maintenance to the facility
- 4. Winterize and upgrade bathrooms; or provide new facility that accomplishes objective
- 5. Consider construction and long-term maintenance and operation costs
- 6. Improve traffic flow and parking at facility
- 7. Improve lighting
- 8. Integrate pedestrian-bike trail into park and provide trail wayfinding- plan connections to city businesses, services and shops
- 9. Integrate water trail into park and provide wayfinding- plan connections to city

The project kick off meeting was held in January of 2015. The meeting discussions included the following improvements:

- 1. Two lanes for the ramp launch or a one-way loop traffic pattern
- 2. The need to generate revenue to cover costs
- 3. The creation of a jetty to slow the current at the launch site
- 4. Waterless restrooms
- 5. Moving the restroom building to a more suitable location
- 6. Creation of a concession that could offer bike/kayak rental, fix it station, bait shop, food, etc.
- 7. If a concession were built, the city could create an agreement with a private vendor to operate and maintain it.
- 8. Additional parking
- 9. RV Camping
- 10. Primitive Campsites
- **11**. Connections to town through information kiosk
- **12**. Historical information



- 13. Motion sensor lighting near the ramp/launch
- 14. Maintain natural areas along riverbanks

The marina site plan is shown below and is in the Appendix; this plan indicates the layout for the above list of items. The master site plan study included several boat trailer turning movement diagrams, verses total number of boat trailer parking spaces, in order to provide the best alternative for the boat launch and parking area. The selected design provides a one-way loop system with a 'boat ready area' and 'boat tie-down area' to speed the launch process.





An alternative design offers only a one-way access driveway to the launch with no 'ready or tie-down area'. The cost savings for the alternative design is estimated at \$34,000 with less earthwork and pavement. Refer to Alternative Plan and Alternative Budget.



The above Marina Park Master Site Plan considers daily marina users; ADA compliance at the parking area, sidewalk from parking to launch and the launch itself; bicycle trail traffic; fishing competition events; overnight campers; birders; recreational vehicle parking; and space for a future vendor of the concession- bike rental, and/or fishing gear- for revenue generation.

#### Public meeting comments generated some the following recommended improvements found in the plan:

- 1. Build new concession building large enough or with extended roof to be able to store and hold kayak lock ups
- 2. Keep restroom open through fishing/boating season from April 1<sup>st</sup> to December 15<sup>th</sup>-Year-round use of restrooms is vital
- 3. Install motion sensor lighting at ramp and restroom
- 4. Motion Sensor lighting and security cameras are needed at marina
- 5. Provide dog clean-up bags on posts; like in some campgrounds



- 6. Need better signage at First Street pointing to the Marina
- 7. Coordinate kiosk design with Oil Creek Memorial Landing, Justus Park and Town Square

#### The Marina Improvements include:

- 1. Dual Launch with maneuvering area
- 2. Improved circulation route for launch, parking and automobile parking
- 3. Pull through parking for boat trailers
- 4. Accessible and separated 'ready and tie-down' landings to improve launching times and access
- 5. New Lighting at launch and bathrooms
- 6. Renovated bathroom building
- 7. Slope stabilization adjacent to protect launch ramp
- 8. ADA accessible ramp/landing and sidewalk to launch
- 9. No-mow slopes, and limited lawn mow areas
- **10**. Kiosk information for facility, region and wayfinding (business, services, shops)
- **11**. Additional signage for interpretation to be placed in Marina and Beach/Camping area- along walks and trails.

#### Additional Property Improvements include:

- 1. Provides wayfinding from the road, marina entrance signage, and marina wayfinding
- 2. Creates parking for overnight motorized campers and for day use cars using bike trail
- 3. Separates marina-trailer parking from daily parking for bike trail
- 4. Plans for a New Concession/ Fishing Supplies/Bike Rental Building near entrance- this can be used as an access and control building, as well as a recreation service and food facility.
- 5. Trail Improvements
  - a. Separates trail and ends near a future rental building/concession
  - b. Provides wayfinding signage to direct trail users to access City bike route
  - c. Trail moved to open up lawn space- improves safety (separates cyclist from peds and eliminates cross traffic), provides more play space for games and open play
- 6. Provides overnight camping areas
  - a. Shade trees at camping sites- limits hot summer suns from SW
  - b. Location of camping platforms can be policed from Marina parking
- 7. Improves walking trail access to fishing areas
- 8. Maintains current Beach area
- 9. Provides Kayak launch/tie-down areas for water trail campers and day recreation users
- 10. Birder view area with educational/interpretive signage



#### **Earthwork and Grading**

The site plan increases the elevation of the former launch area from elevation 980 to 986 to ease the driveway slope, provide for the proper launch slope into the water (ADA accessibility and 'dry feet' launching of boats from the trailer), and provide for ADA access between the upper parking lot and the launch site. The project will require approximately 5,500 CY of earth fill. A PA DEP permit will be necessary for fill placement; refer to appendix for PA DEP phone notes– conversation with Mr. Karl Gross.

#### Lighting, Safety and Security System

The success and longevity of all the proposed improvements will be directly influenced by Oil City's ability to police the Oil City Marina. New elements should be designed to allow unimpeded views into the park. Potential hiding spaces should be avoided by installing low growing plant material, and the park's pathways and trails should be well lit to minimize 'dark' areas.

Security cameras should be strategically located at the buildings and central to the marina to allow for remote policing; the security cameras could contain live streaming video for real-time surveillance. Coordination for who would monitor and manage this system is paramount to its success.

Security and Policing- A management plan to monitor security cameras and to run surveillance at the park is recommended to be created and coordinated between the City Department of Public Works (DPW) and the local police department. Eliciting help from a 'Friends or Neighbors of the Park' organization could also provide more 'eyes on the park' and help with security.

#### **Riverbank Stabilization**

Stabilization of the riverbank and the former marina hillside slope will not only mitigate damage to the park during flood events, but will also provide important habitat for fish and wildlife along the river.

The installation of bank stabilization takes time and effort, and can be very expensive. It is recommended that the City of Oil City and the park stakeholders take time to understand the characteristics off the river's edge and the processes that affect that edge before bank stabilization methods and techniques are chosen.

Some examples of bank stabilization that may be employed at the park include:

- » Bioengineered woven fabric with interspersed groupings of riparian (wet-tolerant) plant species
- » Rock armoring this option should not be considered on its own, but should include plantings to maintain a positive aesthetic.
- » Vegetated Benches (level terraced pads separated by steeper slopes)
- » Bioengineered Geo-cells or Gabion Baskets filled with stone.

There are areas within the park that have existing vegetation along the river's edge. In all cases, this existing vegetation should be protected.

#### **Floodplain and Winter Ice Flows**

Due to the damage caused by flooding and winter ice floes, all of the improvements below the floodplain elevation are proposed as durable and washable materials. These items include pavements, curbs, and moorings to tie off canoes and kayaks.



Any vertical elements such as future kayak storage lockers or racks, are proposed to be removable installations that can be relocated during the winter season. Note that the marina motion sensor security light is planned to be outside of the floodplain and the ice flow area.

#### Water Trail

This project was completed in conjunction with the Oil Creek Water Trail Project. This marina site is situated south of Oil Creek along the Allegheny River. The Allegheny River is registered as a Pennsylvania Fish and Boat Commission (PFBC) Water Trail and Oil Creek is looking to become a PFBC water trail connecting to the Allegheny River.

The PFBC web site describes the Oil City area as part of the Middle Allegheny River Water Trail per the below excerpt:

Oil City today is a full-service community, and a short walk from the boat launch. Located at the confluence of Oil Creek and the Allegheny River, Oil City offers much to visitors. Attractions include Hasson Municipal Park, the National Transit Building and art gallery, and the Venango Museum of Art, Science & Industry. Several districts of Oil City are listed on the National Register of Historic Places. Telephones, restaurants and lodging are available in Oil City.

Oil City Rapids. The Oil City Rapids, considered class II rapids, are the most technical/difficult section of the river trail. This section is located just below the Veterans Bridge at the Holiday Inn, where Oil Creek enters the Allegheny River in Oil City. Novice or inexperienced canoeists should portage around this area around the shallower river bank. Experienced canoeists should wear their life jackets if they attempt to canoe these rapids.

Oil City Access. This formal, developed boat access site is located a half-mile downriver of the rapids, along the left bank, and is operated by the PA Fish & Boat Commission. Free parking is available, along with seasonal restroom facilities.

#### Green Technologies and Sustainable Practices - Design Elements to Consider

Green alternatives are suggested to reduce energy use, lower maintenance and operation costs, reduce storm water runoff, and promote low impact design techniques. Recycled materials should be considered for new construction, LED lighting for less maintenance and energy conservation, reuse and recycling of materials, use of native plant species in the park, and evaluating long-term life cycle costs of materials for new projects.

Green Technologies and Sustainable Maintenance Practices can be researched at the following sources:

- 1. Creating Sustainable Community Parks and Landscapes PA DCNR
- 2. Sustainable SITES Initiative, Standards and Guidelines ASLA, www.sustainablesites.org
- 3. LEED design best practices USGBC
- 4. Institute for Sustainable Infrastructure ISI

#### Waste Reduction

- Reuse and repurpose materials for building items (for the new site improvements and the buildings)
- Use recycled materials for new products and design items
- Use locally manufactured and processed materials for construction; and for longer-term operations & maintenance practices
- Provide recycling bins for park users



- Include on-site Composting as part of maintenance practice
- Use quality products that are durable and can be recycled
- Capture and reuse water for plants and garden areas

#### Storm Water Management

- Capture storm runoff from roof tops, parking lots, and driveways
- Reuse water for plants and gardens; limit salt from parking lots by using other products for de-icing
- Reduce runoff to storm pipe, reduce pollution and increase water quality by directing run off to enter bio-swales, rain gardens, infiltration cisterns/tanks prior to municipal storm system
- Reduce impervious surfaces with porous pavements and permeable pavers

#### **Maintenance Practices**

- Use native plant species and avoid invasive plant species
- Reduce pruning needs by allowing plants to grow to their natural form and space plantings to allow for growth
- Consider lawn substitutes by planting meadows, wildflowers, no-mow slopes/2x year mow areas
- Use organic mulch to retain water and suppress weeds
- Use organic fertilizers and composts (compost on-site)
- Discontinue the use of pesticides or herbicides where possible and employ integrated pest management practices instead
- Reduce and then eliminate the use of calcium chloride de-icing materials

#### **Social Capital**

- Plan park with accessible routes- universal accessibility- (ADA compliant ramps, walks, signs)
- Design social spaces for small and large groups (using universal design standards)
- Incorporate interpretive sign design that 'tells the story' of the sites/regions history, culture and environment
- Provide bicycle and pedestrian connectivity to the community
- Plan for the inclusion of public art

#### **Building Design and Construction**

- Repurposed Materials: Consider reusing building products for construction- wood, stone, fixtures, and appliances, interior trims and finishes- steps, walls, doors, outdoor deck and arbor, etc.
- Recycled Materials: Use recycled materials for building products- site furniture
- Low Energy to Cool: Plan for natural or low energy ventilation and circulation systems to cool the building rather than relying on air conditioning. Consider shades on the south and southwestern sides. Solar powered ceiling fans, shade trees, window shades, low-e glazing on windows.
- Conserve Electricity: use LED lighting and motion detectors on switches; plan building for natural lighting; install ceiling window or skylights in bathrooms for added light.
- Conserve Water: use low flow or waterless toilets or consider a compost toilet systems. Collect and reuse water from the rooftop for flushing, watering plants, and cooling the air.



## **Budget**

Refer to the Appendix for the Master Site Plan Budget. These figures are opinions of probable costs based on past unit bid prices for similar projects that were federally funding and publicly bid. This data should be used as budget numbers for development.

Actual bid prices will be the result of final design, specifications, quality of materials, and the quantity of items for construction. Bid pricing is dependent on many variables including material costs and quantities for the job, oil prices, supply and demand for work at the current bid date, and the labor market.

The budget for the total marina and the park project, (including 15% contingency) is estimated at \$816,333. An alternative design offers only one driveway to access the launch with no 'ready or tie-down area' for boat trailer parking. The cost savings for the alternative design is estimated at \$34,000 including less earthwork and less pavement.

Other project costs include: field survey, design, engineering and permitting; they can be budgeted per the below percentages of the total construction for the project.

- 1. Field Survey budget between 2% and 5%
- 2. Permitting budget between 4% and 6%
- 3. Design and Engineering budget between 8% and 12%
- 4. Construction Inspection Services budget between 5% and 10% (part-time vs. full-time)

## **Priority Projects**

The Marina is the priority project, including access drives, parking and walkways supporting the function of the launch. Marina priority projects may consider bidding out the bulk earthwork in phases based in municipal budget allowances. Once the site earthwork is prepared, then other projects such as: utilities, facility improvements and landscaping can occur using either professional, DPW, and/or volunteer labor forces.

Some projects may be accomplished with in-kind labor, services, and materials- depending on the local labor market, skill set of personnel, and the project itself.

Other phased work items may include Marina Park paving installation, new building construction, and landscaping; refer to below and to Appendix, Master Site Plan Construction Budget for marked items.

The top five (5) priority project recommendations are listed below. Refer to attached Master Site Plan Construction Budget in Appendix for remaining items and their budget costs:

The Marina project is recommended to be phased– consider earthwork first, then utilities, followed by paving—all based on budget allowances and work that can be accomplished by DPW.

- 2. Motion sensor lighting at Marina (Phase 1/Year 1-2) ...... \$2,500
- 3. Improved wayfinding signage to Marina from the roadway, including Entrance Sign (Phase 1/Year 1-2) \$8,000



- 4. Shade Tree plantings- \$5,000 (Phase 2/Year 3-4) ......\$5,000
- 5. Rehabilitation of Existing Restroom Building (Phase 2/Year 3-4) .....\$15,500
- 6. New Concession—Bike Rental Building (Phase 3/Year 4-5)......\$108,650

The New Concession-Bike Rental Building may also be phased— consider phasing based on municipal budget allowance and work that can be completed by in-house or volunteer services.

Phases 1-3 are recommended to be completed first to improve access and function, ADA accessibility, safety, and wayfinding; and to begin to generate revenue for the facility.

THE REMAINING PHASED PRIORITY PROJECTS INCLUDE-

- 6. Additional Shade Tree plantings- \$5,000 (Phase 3/Year 4-5)
- 7. Internal- marina park wayfinding signage (*different from wayfinding signs to get to the park*)-\$8,500 (Phase 3/Year 4-5)
- 8. Trail relocation and re-connections- \$24,500 and \$7,440 (Phase 4/Year 5-7)
- 9. Remaining paving for driveways and parking areas- \$90,000 (Phase 4/Year 5-7)
- 10. Tent sites and Adirondack Shelters– create usable sites of approximately 15'x15' on lawn covered/ earth pads- \$1,800 and \$7,000 (Phase 5/Year 7-9)
- 11. Other park appurtenances and property related projects- \$25,000 (Phase 5/Year 7-9)
- 12. Complete the Shade Tree plantings- \$11,000 (Phase 5/Year 7-9)

### **Maintenance and Operations Costs and Revenue**

Maintenance- One way to reduce maintenance time and costs is to reduce the amount of lawn moving required. Limit the amount lawn mowing and pruning of trees and shrubs; and install interpretive signs to educate the public about the park environment and its maintenance practices. Use native plant species in a naturalized planting arrangement and develop wildflower meadows along wooded borders, steep slopes, and riverbanks.

We recommend utilizing the building materials, construction practices, and maintenance tasks listed in the section- **Green Technologies and Sustainable Practices** to conserve energy, reduce maintenance, and promote a native environment. Maintenance tasks to be considered include:

- 1. Limit lawn mowing to perimeter of parking and driveways, the walk and trail shoulders; and to areas designated as picnic and play spaces.
- 2. Allow warm season grasses to grow on steep slopes, meadows, rivers edge, and along wooded buffer yards
- 3. Educate the public to keep the park clean and to pick up after themselves- including dog waste
- 4. Run the park as a business- measure and account for 'everything'; that means rentals of facilities, participation in park and recreation programs, and educational classes.

Operations- the Marina is owned by the City of Oil City. The city will maintain ownership and control of the site and all of its facilities. The Marina is a public facility but also provides an opportunity for a private vendor to



provide additional recreational services and/or food. All agreements must be approved by the city, all facilities will remain owned and controlled by the city, and marina park shall remain as a public use venue.

Revenue may be created through service rentals for bicycles, kayaks, RV parking, and camping space. Revenues may also be generated from food sales and fishing bait sales; along with nominal fees for programs such as fishing lessons, boating lessons, and guided bird tours and bicycle tours.

## **Resources for Reference**

http://www.fish.state.pa.us/watertrails/alleg/trailguide.htm#con1

ADA Boat Dock and Launch Design

http://www.access-board.gov/guidelines-and-standards/recreation-facilities/guides/boating-facilities http://www.adachecklist.org/doc/rec/boating/boating.pdf http://www.dbw.ca.gov/PDF/Reports/DBW\_2010\_ADA\_Booklet-Dec\_2012.pdf

EZ Dock

http://www.ez-dock.com/?gclid=COyDu56X0sICFaHm7AodZmkA\_A

National Park Services-Boat Launch <u>http://www.nps.gov/ncrc/programs/rtca/helpfultools/launchguide.pdf</u>.

Connect with River life in Pittsburgh for technical assistance, marketing partnerships <u>http://www.riverlifepgh.org/resources/</u>

## **Next Steps**

- » Agree on how the facility, security practices, and programs will be maintained, operated and managed; investigate if other agencies, or organizations can provide support
- » Delegate responsibility for priority projects; create a committee and a schedule for each project
- » Hold committee coordination meetings to stay on task and schedule
- » Other 'starter projects' may include projects that volunteer teams and the department of public works can complete. Volunteer projects may include park clean up, stream bank or park planting projects, temporary wayfinding signing project, etc.
- » Hire an experienced professional design & engineering consultant to complete the site design for the Marina Project. Work task include field survey, NDPES, PADEP, and river access permitting, utility, storm water, earthwork, paving, recreation, and landscape design.
- » The details are what will make the project safe, convenient, accessible and aesthetic. Having completed the master site plan process, Mackin Engineering Company understands the details necessary for success.



## **Funding Sources for Implementation**

Refer to the DCNR publication- '<u>Creating Sustainable Community Parks and Landscapes, a Guide to Improving</u> <u>Quality of Life by Protecting Natural Resources, 2<sup>nd</sup> Edition</u>' for funding sources for community improvements, habitat creation and restoration, environmental education, and energy efficiency.

Other funding sources include the following:

- » DCNR C2P2 Grants, <u>www.dcnr.state.pa.us/grants</u>
- » DCNR administered grants- National Land and Water Conservation Fund and the National Recreational Trail Funds Act
- » Conservation Reserve Program (CRP), Natural Resources Conservation Service Program; Designed to reduce erosion on sensitive lands, CRP also improves soil and water, and provides significant wildlife habitat. www.pa.nrcs.usda.gov/programs
- » Commonwealth Finance Authority CFA, funds (DCED Programs), ACT 13 funding
- » National Recreation and Parks Association, NRPA, <u>www.nrpa.org/contents/default.aspx</u>
- » Private Foundations
- » Corporate donations and match money for state grants
- » Pennsylvania Conservation Corps, Pennsylvania Department of Labor and Industry Program. This program provides work experience, job training, and educational opportunities to young adults while accomplishing conservation, recreation, historic preservation, and urban revitalization work on public lands. <u>http:// www.dli.state.pa.us</u>
- » Transportation Equity Act for the 21st Century (TEA21) Agency: TEA21 / ISTEA, Federal Highway Administration), <u>www.fhwa.dot.gov/tea21</u>
- » Wal-Mart Good Works Agency: Wal-Mart Foundation, www.walmartfoundation.org/wmstore/goodworks
- » Lowe's Charitable and Educational Foundation, <u>www.easy2.com/cm/lowe/foundation/intro.asp</u>
- » Single Application Grants Agency: Pennsylvania Center for Local Government Services, Department of Community and Economic Development Program, <u>www.inventpa.com</u>
- » Home Depot-KaBOOM! Challenge Grants agency: The Home Depot and KaBOOM!, a national non-profit organization supporting play spaces
  - > Program Goals: Empowering communities with the tools, knowledge and inspiration necessary to create great places to play for the children in their communities.
  - > Program Restrictions: Applications can be submitted by governmental subdivisions (states, counties, municipalities) or non-profit organizations in the United States, Canada, and Mexico.
  - Applicants must be committed to purchase between \$15,000 and \$35,000 of new playground equipment.
  - > Applicants must agree to purchase your playground equipment from one of the following five equipment manufacturers through their designated regional representatives:
    - BCI Burke: <u>http://www.bciburke.com</u>



- Gametime, Inc.: <u>http://www.gametime.com</u>
- Landscape Structures: <u>http://www.playlsi.com</u>
- Park Structures: http://www.parkstructures.com
- Playworld Systems Inc.: http://www.playworldsystems.com

Use of Funds or Support: This program provides \$4,500 in grant assistance, a \$500 Gift Card to the Home Depot, and a training scholarship to attend a KaBOOM! University of Play (U Play) Workshop (valued at \$600). Funds are available only for community-built play spaces, including playgrounds, field refurbishments, ice rinks, and skate parks. Contact: KaBOOM!, 4455 Connecticut Avenue NW, Suite B100, Washington, D.C. 20008 Phone: (202) 659-0215, www.kaboom.org

## **Appendix:**

- » Oil City Marina Master Site Plan Construction Budget (Cost Estimates)
- » PNDI Search Results and Agency Responses
- » Property Certificate of Title and Deed
- » FEMA FIRM Panel Excerpt- Marina Site
- » Stakeholder Interviews
- » Meeting Minutes
- » Open house public comments and responses
- » DEP Phone Conversation, Contact Karl Gross
- » PFBC Aids to Navigation Floating Structure Permit- Water Trail Signs
- » Boat Trailer Parking Circulation Drawings, AT-1
- » Oil City Marina Park Master Plan, C100
- » Oil City Marina Site Plan, C101
- » Oil City Marina Site Plan– Alternate Plan, C102

## **APPENDIX**

#### **OIL CITY MARINA**

#### Master Site Plan Construction Budget

#### **Master Site Plan Budget**

Mackin Engineering Company, Project No#5072

#### 2/10/16

Budget estimates are based on similar past projects that were federally funded and publically bid. Cost savings can be achieved by completing work through in-house DPW, and through volunteer and in-kind services/materials.

The items listed below with an asterisk * are suggested to be phased projects based on municipal budget allowances.	The items marked with M in thePriority Phase column are the projects
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		totaling the Marina Budget found in the priority project list in the report.					
		Units	Quantity	Unit Price	Cost	Subtotal	Priority Phase
Site Prepa	ration					\$136,450.00	
	Clearing and Grubbing	AC	2	\$3,500.00	\$7,000.00		1- M
	Earthwork	CY	5,500	\$12.00	\$66,000.00 *		1, 2- M
	Drainage	LS	1	\$12,000.00	\$12,000.00		1- M
	Storm Water Management	LS	1	\$15,000.00	\$15,000.00		1- M
	E/S Controls	AC	2	\$5,000.00	\$10,000.00		1- M
	Utilities- New Electric and Gas Line	LS	1	\$10,000.00	\$10,000.00		1- M
	Water Line Replacement to Existing Restroom	LF	165	\$90.00	\$14,850.00		1- M
	Seeding	SF	8,000	\$0.20	\$1,600.00		1- M
Paving						\$294,415.00	
U	Resurfacing of Existing Parking Lot - Asphalt	SY	2,565	\$18.00	\$46.170.00 *	. ,	1, 2, 3, 4
	Remove and replace wearing course		,	,	, ,		, , ,
	New Driveway Construction to Launch- Asphalt Paving	SY	1,930	\$40.00	\$77,200.00 *		1, 2- M
	Reconstruct stone base and pavement		·		. ,		
	Heavy Duty Paving Boat Launch	SY	875	\$50.00	\$43,750.00		1- M
	Reconstruct stone base and pavement						
	Overflow Parking Lot- Asphalt Paving	SY	1,250	\$36.00	\$45,000.00		4
	New stone base and pavement						
	New Trail Pavement- Asphalt (adjacent to exit ramp)	SY	665	\$28.00	\$18,620.00		2, 3
	Painting of Pavement Markings	LS	1	\$3,500.00	\$3,500.00		1
	Parking Spaces, ADA Parking, Directional	LS					
	Arrows, Pedestrian Crossings						
	Concrete Sidewalk (ADA, parking to launch)	SY	385	\$75.00	\$28,875.00		1- M
	Concrete Sidewalk (ADA, launch to park)	SY	360	\$75.00	\$27,000.00		1
	ADA Signage	EA	2	\$150.00	\$300.00		1- M
	Concrete Wheel Stops	EA	2	\$2,000.00	\$4,000.00		1

r							
Boat Laur	ich					\$72,850.00	
	Concrete Pad at Launch	SY	285	\$110.00	\$31,350.00		1- M
	Boat Launch- Base, Foundation and Curbing, and Precast						
	Concrete Planks below water surface	LS	1	\$5,000.00	\$5,000.00		1- M
	Concrete Slope Protection adjacent to Launch	LS	1	\$15,500.00	\$15,500.00		1- M
	Barrier Curb at Slope Protection	LS	1	\$2,500.00	\$2,500.00		1- M
	Kayak/Canoe Moorings at Launch	LS	1	\$2,500.00	\$2,500.00		3
	Kayak Security Rack	LS	1	\$4,500.00	\$4,500.00		3
	Motion Sensor Lighting	LS	1	\$2,500.00	\$2,500.00		1
	Shade Tree Plantings	EA	15	\$600.00	\$9,000.00		1, 2
Signage						\$20,250.00	
	Entrance Sign	LS	1	\$4,500.00	\$4,500.00		1
	Relocated Kiosk	LS	1	\$250.00	\$250.00		1- M
	New Kiosk at Bike Rental-Concession	LS	1	\$3,000.00	\$3,000.00		3
	Water Trail Signs at River	LS	1	\$2,000.00	\$2,000.00		3
	Wayfinding Signs at Roadways and at Marina	LS	1	\$3,500.00	\$3,500.00		1
	Interpretive Signs at Park & Along Trail	LS	1	\$3,500.00	\$3,500.00		3
	Bird Watching Signs	LS	1	\$2,500.00	\$2,500.00		4
	Park Benches for Bird Watching	LS	1	\$1,000.00	\$1,000.00		4
New Cond	ression-Rike Rental Ruilding					\$108 650 00	
New cont	New Building	15	1	\$80,000,00	\$80,000,00 *	\$100,050.00	3
	Water Line Tan	ΕΔ	1	\$5,500.00	\$5 500.00		3
	Waterline	LF	- 60	\$90.00 \$90.00	\$5,400,00		3
	Flectric	L.	60	\$5.00	\$300.00		3
	Sanitary Sewer Line	L.	60	\$110.00	\$6,600,00		3
	Precast Pavers	SF	1 170	\$5.00	\$5,850,00		3.4
	Misc. Appurtenances	LS	1	\$5.000.00	\$5.000.00		3, 4
				+-)	+-,		
Rehabilita	ation of Existing Restroom Building					\$15,500.00	
	Painting and Minor Repairs	LS	1	\$3,500.00	\$3 <i>,</i> 500.00		2
	Security Lighting	EA	1	\$5,000.00	\$5 <i>,</i> 000.00		2
	Vandal Proof Fixtures	Units	2	\$3,500.00	\$7,000.00		2

Park Appurtenances					\$61,740.00	
ADA Compliant Adirondack Shelters	EA	2	\$3,500.00	\$7,000.00		5
ADA Compliant Tent Platforms	EA	2	\$900.00	\$1,800.00		5
	SY	875	\$28.00	\$24,500.00 *		4
New Trail Pavement- Asphalt (relocate trail at beach area)						
Seal Coat Existing Trail Pavement	SY	340	\$6.00	\$2,040.00		3
Walking Trail Construction at Camping Area	LF	150	\$20.00	\$3,000.00		5
Trail Enhancements at Fishing Area	LF	150	\$16.00	\$2,400.00		5
Shade Tree Plantings	EA	35	\$600.00	\$21,000.00 *		3, 5
				Subtotal	\$709 855 00	
			15% 0	\$105,000.00 \$106 179 25		
Grand Total				Grand Total	\$100,478.25	