

**MALCOLM
PIRNIE**



Technical Proposal

Preliminary Design , Final Design and Construction Inspection Services

**Union Ship Canal Public Open Space
Buffalo, New York**

Cover Letter

Section 1 Scope of Services

Section 2 Work Schedule

Section 3 Project Team

Section 4 Statement of Qualifications

**Proof of Authority to Practice Engineering in NY
Proof of Insurance**

Submitted by:
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WENDEL DUCHSCHERER
95 John Muir Drive
Amherst, NY 14228

January 2005
A029112

**Erie County Department of Environment and Planning
In cooperation with
City of Buffalo Office of Strategic Planning**

January 27, 2005

Christopher S. Pawenski
Erie County Department of Environment and Planning
Edward A. Rath County Office Building
95 Franklin Street, Room 1056
Buffalo, NY 14202

Re: Proposal for Preliminary Design, Final Design, and Construction Inspection
Services for the Union Ship Canal Public Open Space
Buffalo, NY

Dear Chris:

We are pleased to provide ten (10) copies of our proposal for planning, design and construction services as well as the revised fee chart for the subject project. Our proposed Malcolm Pirnie / Wendel Duchscherer Team will leverage our capabilities, experience and working relationship with the NYSDEC to provide value on this assignment as follows:

- We have experience on the Union Ship Canal/BLCP site having performed investigations on Parcels 1 and 2 and having developed the Remedial Action Work Plan and Soil Management Plan for Parcel 1.
- We have already identified some preliminary park and eco-restoration concepts that can be considered by the Committee during the planning process.
- We have performed as a Team on a very similar project – the Squaw Island Landfill Closure and Park Development Project.
- We have a strong working relationship with the local NYSDEC through over 20 years of working together on hazardous waste and brownfield sites. We are focused on being advocates for Erie County and the City of Buffalo.
- We have extensive experience with projects funded under the New York State Environmental Restoration Program. We commit to maximize external funding for this project.
- We have performed a large number of projects within the City of Buffalo jurisdiction.
- We have an excellent rapport with the State Historic Preservation Office through our years of experience working on Buffalo's Olmsted Parks and other historic properties.

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Erie County Department of Environment and Planning

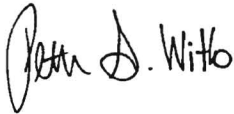
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- We are local and have a vested interest in and commitment to this project's success.

The Project Team already has an established relationship with many of the Committee members. We look forward to the opportunity to continue to strengthen these relationships.

We are excited about the opportunity to serve you on this significant project for Buffalo and would be pleased to meet with you to discuss our Team and our approach. If you have any questions on our proposal, please feel free to call.

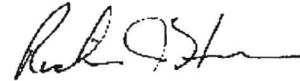
Very truly yours,
MALCOLM PIRNIE, INC.



Peter Witko, P.E.,
Vice President



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Senior Associate



Richard J. Hanavan, P.E.
Wendel Duchscherer

F/u/marketing/proposal/2005/A029112

BACKGROUND

The proposed Union Ship Canal Public Open Space Area ("Park") is located on the former Hanna Furnace steel manufacturing site in the City of Buffalo adjacent to the City of Lackawanna municipal boundary line. The proposed Park encompasses the canal and approximately 22 acres that is delineated by an approximate 200 ft. setback from the Union Ship Canal bulkheads. The Park site is adjacent to the new Buffalo Lakeside Commerce Park (BLCP), an industrial park being developed by the Buffalo Urban Development Corporation (BUDC). The Park site has also been identified as Parcel 3 in the overall development plans of the BLCP. An Urban Renewal Plan and Generic Environmental Impact Statement, for SEQR requirements, has been completed and approved for the entire Union Ship Canal/ Buffalo Lakeside Commerce Park area, including the proposed open space.

The City of Buffalo completed an environmental investigation on Parcel 3 in 2003 pursuant to the 1996 NYS Clean Air/Clean Water Bond Act. The NYS Department of Environmental Conservation (DEC) has released a Proposed Remedial Action Plan (PRPA) as a result of that investigation. Elements of the proposed remediation include:

- Stabilization of canal walls and construction of an underwater berm
- Creation of a shallow water fish habitat including a sediment cover over the canal bottom
- A requirement of two feet of clean "fill" material over designated areas
- The development of a Soil Management Plan

The Erie County Department of Environment and Planning (ECDEP) in association with the City of Buffalo Office of Strategic Planning (OSP) has issued a Request for Proposals (RFP) dated



December 16, 2004 for a two phase remedial design and construction project for the Park:

- Phase 1, which will include preliminary design and preparation of design/development documents
- Phase 2, which will include preparation of final design and construction documents, development of a Soils Management Plan (SMP) and construction inspection

The Park Steering Committee (Committee) has been formed to review and evaluate the proposals, to review and evaluate the alternative design schemes, and to review and evaluate the 75% design/development documents. The Committee is composed of representatives from Erie County, the City of Buffalo, the Erie County Industrial Development Agency, and the Buffalo Urban Development Corporation.

Project Objectives

ECDEP and OSP are seeking the services of a qualified consultant or consulting team to perform the services required to achieve the following objectives:

- A quality park design that achieves the goals of the Committee as well as the local community.
- An overall design and construction program that maximizes all available public funding mechanisms.
- A finished project that is fully compliant with all regulatory requirements and begins the restoration of the local ecological community.

To accomplish these objectives, the following work efforts are necessary:

- Development of three alternative Park design schemes ranging in varying degrees of public use, constructability, extent of eco-restoration and cost
- Setup and management of a public information session
- Preparation of a topographic and boundary survey of the Park site



- Development of 75 percent design drawings, soil management plan, schedule and cost estimates
- Regulatory permitting including compliance with the State Environmental Quality Review Act (SEQRA) the National Environmental Policy Act (NEPA), and the State Historic Preservation Act
- Preparation of final design documents – front end, technical specifications design drawings and soil management plan
- Application for maximum use of available funding with a focus on the New York Environmental Restoration Program
- Overall project management that minimizes the project costs of design, construction and long-term operation and maintenance of the Park, yet maximizes goals

Project Challenges / Considerations

This project presents a number of challenges that must be addressed in order to successfully complete the project objectives including:

- **Multiple Government Agencies** – There are multiple government agencies with either jurisdiction on or vested interest in this project including the City of Buffalo Office of Strategic Planning, ECDEP, Erie County Department of Public Works, Erie County Parks Department, U.S. Army Corps of Engineers, New York State Department of Health, New York State DEC, Buffalo Urban Development Corporation, and Erie County Industrial Development Agency. We will assume responsibility for verifying that the appropriate government agencies are informed and involved to the extent necessary, and that the planning and design activities comply with the applicable standards and requirements of these agencies. Our project team has a long-standing relationship with all of the key stakeholders.
- **Park** - The “hard edge” nature of the site must be overcome to develop a creative, useful public amenity year-round. Our planning and design process will focus on a well-thought-out park program that not only addresses the needs of the Com-

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merce Park and the public, but also complements the system of waterfront parks along Erie County's waterfront. The word "complement" is key in that the Park should neither compete with nor feel the same as other nearby parks. The Union Ship Canal Public Greenspace is an important "new" pearl to the remarkable waterfront string of pearls already in place, and we feel there is ample opportunity to make it a unique park as part of the system.

- **Program Consensus** – In developing an acceptable park program, a number of considerations are made early in the design process that are tested against the project objectives. A few preliminary thoughts by our team include, but are not limited to the following (in no particular order):
 - The public's safety at the water's edge and within the park.
 - The elevation difference between the mean water elevation and park grade.
 - Linear sight lines through the park and across the canal.
 - Balancing creative park design with budget constraints.
 - Balancing creative park design with practical operations and maintenance.
 - The interface between pedestrians, bicycles and vehicles.
 - Microclimate impacts such as the noise from Route 5, the wind off the lake and the sun angles to the east-west orientation.
 - The impacts on plantings of winter road salt spray off Route 5.
 - The size, location and potential other uses for a maintenance facility.
- **Linkage** – The system of waterfront parks and trails should be a continuum of the great Olmsted tradition of linking public open space with trails that serve as park-like experiences themselves. Our design should focus on providing key linkages not only to the waterfront, but to other potential destinations like South Park, Marilla Street, and the Hartman Play-

The Union Ship Canal Public Greenspace is an important "new" pearl to the remarkable waterfront string of pearls already in place, and we feel there is ample opportunity to make it a unique park as part of the system.



fields. Olmsted's philosophy of connectivity should be emphasized as a key design criterion that automatically complements the passive nature of the new park.

- **Concrete Pad** – The large concrete pad located on the south side of the canal is a design challenge. It will be critical to develop and incorporate creative ideas for incorporating this pad into the Park developments concepts so as to help reduce construction costs.
- **Groundwater** – Portions of the Park site have elevated pH in groundwater. The planning and design activities will focus on alternatives and approaches that minimize the costs associated with dealing with elevated-pH groundwater.
- **Eco-restoration** – Success on this project will require developing and designing the right project for the specific environmental conditions that exist at the Park site.
- **Funding** – Maximizing the use of available funding is one of the keys to success on this project. This will require knowledge of funding sources and application requirements as well as experience with preparation of invoices and reimbursement requests. The NYSDEC has published requirements for both applications and reimbursements under its Environmental Restoration Program (ERP). Our project team is intimately familiar with these funding mechanisms and has successfully achieved funding for our clients.

Malcolm Pirnie has performed investigations on Parcels 1 and 2 of the BLCP and developed the Remedial Action Work Plan (RAWP) and Soil Management Plan (SMP) for Parcel 1. Malcolm Pirnie's work also served as the basis for the RAWP and SMP for Parcel 2. In addition, Malcolm Pirnie is currently planning the investigation of Parcel 4 for BUDC under the NYSDEC ERP. Consequently, we are confident that we understand the challenges associated with the Park site.

In addition, the Malcolm Pirnie / Wendel-Duchscherer Team (Team) members have worked together on a similar project for the City of Buffalo: closure of the Squaw Island landfill as a passive



waterfront park. The project involved many similar elements to the planned Union Ship Canal Park project, including:

- Review of alternative passive park concepts in public meetings
- Placement of a soil cap over portions of the site
- In-place closure of contaminated sediments in two large ponds on the site
- Landscape plantings, wetland mitigation and pond shoreline enhancements
- Design and construction of bike paths
- Planning, design and construction under NYSDEC oversight
- Funding assistance under the New York State Bond Act

The Team will leverage the experience and lessons learned on the Squaw Island Park project to meet the challenges identified above and to complete development of the Union Ship Canal Park project at minimal cost.

TECHNICAL APPROACH

The Team has a strong working relationship with NYSDEC Region 9 hazardous waste and brownfield personnel based on over 20 years of local projects, as well as a strong working relationship. Our Team is committed to being advocates for ECDEP and OSP when dealing with the NYSDEC. Based on our experience on similar projects, keeping the NYSDEC and other involved agencies informed, through progress meetings and/or conference calls, is the key to achieving the project objectives.

Our overall technical approach is focused on partnering with ECDEP and OSP to minimize questions and comments from the NYSDEC and other involved agencies, to streamline approvals, and to minimize costs. As delineated in the RFP, we have prepared our basic scope of services with the following task breakdown:

- Phase 1:
 - Task 1 - Development of Three Alternative Design Schemes
 - Task 2 – Topographic and Boundary Survey

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- Task 3 – 75% Design/Development for Park Remediation and Construction, Canal Remediation and Bulkhead Stabilization
- Task 4 – 75% Design/Development for Eco-Restoration
- Task 5 – Regulatory Permitting (including SEQRA/NEPA Compliance)
- Task 6 – SHPO Coordination
- Phase 2:
 - Task 7 – 100% Design and Construction Documents
 - Task 8 – Construction Services

SCOPE OF WORK

Task 1 - Development of Three Alternative Design Schemes

This task will include a project kick-off meeting to review the project scope and documents, agreements and regulations controlling the Park site. Upon notification to proceed with this project, the Team will set up a kick-off meeting with the Committee to review cost reimbursement requirements, outline the proposed schedule, identify potential funding sources, identify project milestones and delivery dates, and identify all stakeholders. In addition, a preliminary list of Park program elements will be developed and reviewed for direction to move forward with Park concepts based on a preferred vision. Thus, our effort will include assisting ECDEP and OSP with preparation of the necessary funding application forms and supporting documents.

Once the site reconnaissance and site evaluation have been completed, the Team will develop a list of design concepts for park development, canal remediation/bulkhead stabilization, and eco-restoration. We approach each master planning project with no preconceived ideas. We begin with a clean slate to insure that the best design ideas move forward with no bias. For the purpose of this proposal, however, we have listed below just a few preliminary ideas or concepts worthy of consideration as the project moves forward:

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- **Park Development** – The significance of the site, its setting within the community and the enormous opportunities it offers require sensitivity and sensibility. Sensitivity is needed to be able to address Park development within the Commerce Park setting while balancing business and community needs with environmental concerns. Sensibility is a must, to be able to develop a practical Master Plan that would allow the City and County to implement the plan for this valuable site and maintain/operate the Park in context of limited resources. One of the most significant aspects of our team is being able to leverage our many years in the park building business to develop and deliver a sensible and sensitive Master Plan. Preliminary design concepts include but are not limited to:
 - The creation of a formal (linear/symmetrical) or informal (linear/organic) design juxtaposed against the straight canal edge and the 200' setback lines. Our sense is there is little cause for the entire park to be either formal or informal. More appropriate would be a mix of the two styles that would allow for flexibility of design yet respect the formality of the canal. The combination could occur in a number of ways; as one example, perhaps a more formal, structural design along the canal edge (as a promenade) and a more natural, looser design as one moves away from the canal edge.
 - The sight lines from Route 5 set up a dramatic view of the park and should be capitalized on to draw attention to the facility. The canal could be treated as a large reflective pool with a variety of design elements:
 - Construct four pedestrian bridges that arch over the canal and are well lit at night. The linkage between park halves is improved and an aesthetic, repetitive theme aids in establishing "place".
 - Construct a major Park icon or focal point at the east end of the canal that can be seen from all around. This will establish the image/landmark status of the Park.
 - A well designed restaurant on axis at the east end to serve the Commerce Park and community in general: create a point of



interest, serve the users of the space and promote economic development all at once.

- The long stretch of canal bulkhead could be interrupted by periodic cantilevered platforms that would be used as extension of the promenade for fishing or just sitting to enjoy the views.
- The bulkhead, particularly at the northeast end, could be re-configured to allow for a different water experience within the Park.....creation of mini-canal, "beachfront", or opportunities for a canoe/kayak car top launch.
- Waterside improvement will impact upland park design such as the introduction of floating docks to accommodate transient boaters, (low power boats can fit under the bridges). The Park has to be equally attractive from the canal side to encourage interface between land and water. Grade changes between the two make accessibility for people with disabilities a challenging concern. If docks are pursued, we have a number of options that have worked for us successfully in the past.
- Floating docks and/or wood piers strategically placed in the shallower areas of a newly designed canal can accommodate a number of users. We feel access for fisherman will be as important as access for other users. Year round activities could also include accommodations for ice fishing and possibly ice skating in select areas of the canal.
- It will be important to be efficient and sensitive while deciding the size, location and character of any park structure. A maintenance building is most likely needed for the Erie County Parks Department to maintain the facility. Perhaps this use can be combined with a winter warming hut use or even with the restaurant idea mentioned earlier. Creative and efficient design will keep the facility costs within reason.
- Creative re-use of the concrete slabs will hinge, in part, on the State Historic Preservation's input on the eligibility of the canal. We believe the concrete slab should stay in place for the most part in order for this to be a viable project. The slab could be covered with informal earth berms and plantings or more formal planters. The surface could be treated and used



for the hard surface needs of the Park or it could be incorporated as foundation support for designated building structures or free standing public art exhibitions.

- Public art could be incorporated into the park design for purpose of aesthetics, interpretation or even as play structures.
- The Park will be large enough to incorporate a variety of passive recreational activities. In addition to the usual picnicking, fishing, sunning, hiking, etc. activities, we believe the Park should have a space for the not-so-usual. One suggestion is to make accommodations for hobbyist to gather and demonstrate their passion; such as radio controlled, miniature boat cruising in the canal or model airplane flying and radio controlled cars on the uplands.
- Perhaps one of the most important concepts we will explore in developing the Park plan will be the introduction of park improvements/amenities that the adjacent businesses at the Commerce Park would be willing to "adopt". This will ease the operation and maintenance burden the park will place on an already stretched maintenance department. Through the design process involving the local stakeholders and businesses, if they are part of the design decisions the businesses will have more ownership to the Park and perhaps be more willing to share the maintenance aspects.
- Canal Remediation and Bulkhead Stabilization – Our preliminary concept for canal remediation and bulkhead stabilization includes removal of cars, trucks, motorcycles and other large debris from the canal bottom, installation of a cover system over the sediment layer and the construction of a stabilization/aquatic habitat berm. The PRAP for the Hanna Furnace Subparcel 3 prepared by the New York State Department of Environmental Conservation in November 2004 indicates that sections of the canal wall in the northeast area were found to be bowed or tilted inward and that concrete caps to the walls were missing. Our approach to mitigate the structural deficiencies in this area includes first covering the entire canal bottom with a geotextile membrane and a layer of stone. The ex-



isting sediment layer will essentially be capped in place. Next, to stabilize the canal wall, a berm approximately 1300 feet in length and 150 feet in width would be constructed of stone and soil or sand. The berm would be designed to not only provide structural support for the canal walls, but also to serve as a habitat for aquatic life.

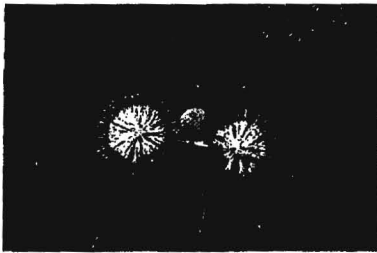
Based on our experience on similar projects and discussions with contractors, the installation of the geotextile will likely be accomplished by first pre-sowing geotextile sheets into 250 by 50 feet pieces. The pieces would then be laid across the entire width (200 feet) of the canal and weighted down by a layer of stone. Once the geotextile and stone layer are placed, the stabilization berms could be constructed. The construction of the berms would be coordinated with the work proposed under the Eco-Restoration phase to provide a dual benefit for the berms. The shallow water created by the berms will allow for underwater plant life and fish habitats.

- Eco-Restoration – Eco-restoration concepts could include designs that enhance the bulkhead stabilization berm to include emergent and submergent vegetation plantings, micro-topography to provide an array of water depths to support different types of plants and preferred habitats for different kinds of fish, and non-linear berm edge construction techniques. Habitat requirements will be determined for the local/preferred fish species to achieve optimal habitat to support these fisheries.

A shallow water fish habitat created as an embayment at the northeast corner of the canal as suggested by the NYSDEC could be an expensive undertaking due to the need to handle/dispose of potentially contaminated soil/fill in accordance with the soil management plan. A substantial amount of soil/fill might need to be removed and either graded into the site, used to create a perimeter berm or disposed off site. The cost impact to Erie County and the City would be minimized if the NYSDEC agrees to fully fund the effort despite the fact it is on the land portion of the Park site. The cost impact could



also be minimized if the NYSDEC would allow placement of the fill in the canal. In any case, the approach and cost/funding implications of this and other concepts will need



to be fully analyzed to minimize costs to Erie County and the City.

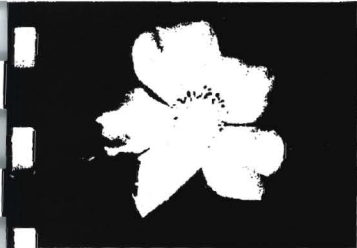
Another concept that we will explore is the need/approach/cost to reduce the potential for sediment (located west of the

Route 5 bridge which will not be covered) to migrate back into the remediated portion of the canal. This could be accomplished by constructing an underwater berm or driving sheet pile at the bridge end of the canal as part of the project.

The following photograph shows an example of a project completed by Malcolm Pirnie on a 2,000 ft x 200 ft linear storm water basin in which an underwater sloping berm was created to provide variable water depths to support aquatic life within a highly industrialized port site.

Riparian/edge-of-water design features which will be considered include those that could provide additional habitat opportunities and aesthetic enhancements. These might include undercut banks, rootwads, and overhanging woody vegetation. Consideration will also be given to saturated (non-aquatic) scrub-shrub or forested wetlands around the periphery of the shallow water habitats. This approach would provide valuable habitat diversity, water quality improvements, and, if the correct species are selected, aesthetic enhancements. For example:



Swamp Rose (*Rosa palustris*)Buttonbush (*Cephalanthus occidentalis*)Spicebush (*Lindera benzoin*)

Enhancements for wildlife species will also be considered. These might include duck boxes and small islands.

The Team will then schedule a meeting with the stakeholders to discuss the design concepts, select the preferred concepts and, in a workshop environment, outline three alternative design schemes. Once the three alternative design schemes have been agreed upon, the Team will develop the following information for each alternative design scheme:

- Total cost and amount eligible for funding under state and federal sources. Each cost estimate will be separated into three categories:
 - Landside park development and remediation

- Canal remediation and bulkhead stabilization
- Eco-restoration
- Visual Graphics for review and evaluation by the Committee and for presentation to the public including:
 - Site Plan renderings at an approximate scale of 1" = 50'
 - Supporting graphics to include one enlargement and two cross sections for each alternative design scheme.
 - Canal plan and cross sections
 - Conceptual eco-restoration plans and typical cross sections
- A preliminary construction schedule

As part of Task 1, the Team will meet and/or consult with NYSDEC during development of the three alternatives to verify that each alternative meets the requirements of the ROD and the ERP. Once the alternatives have been reviewed with NYSDEC and approved by the Committee, the Team will set up and manage a public information session to review the alternative design schemes.

The Team will then meet with the Committee to review the public comments and to select a preferred design scheme.

For Task 1, we have allowed time for one kick-off meeting, three committee meetings, two meetings with the stakeholders and one public information meeting.

Deliverables:

- Attendance at seven meetings
- Design Concept Report
- Cost estimate and schedule

Task 2 – Topographic and Boundary Survey

Under this task, we will collect existing survey data from the ECDEP, BUDC and the City of Buffalo along with existing utility information. A topographic and survey will then be conducted by Wendel Duchscherer with support from Deborah A. Naybor, PLS, PC to obtain and verify location and elevation of the ground to-



pography, to establish top of sediment locations in the canal, to locate large debris in the canal and to develop base mapping for the project. As requested in the RFP, a minimum of six permanent benchmarks will be established and original copies of the survey will be provided to the ECDEP, the City of Buffalo and BUDC.

The base map will be performed using AutoCAD 2002 and the latest versions of survey software for AutoCAD and Soft Desk utility tools package. Upon preparation of all base mapping, a site visit will be made by our engineers and surveyors to edit and update any differences or changes in the field mapping.

Deliverables:

- Complete topographic and boundary survey
- Field verification

Task 3 – 75% Design/Development for Park Remediation and Construction, Canal Remediation and Bulkhead Stabilization

Under Task 3, the Team will prepare 75% design documents (visual graphics, drawings, technical specifications and a soil management plan) for review by the Committee. All engineering drawings will be prepared in AutoCAD 2004.

We have assumed the following visual graphics will be prepared:

- One rendered site plan @ 1"=60' with approximately two enlargement areas.
- Two cross-sections and two rendered photosimulations (1 birdseye and 1 eyelevel).
- Canal plan and cross sections
- Conceptual eco-restoration plans and typical cross sections

We have assumed the following engineering drawings will be prepared:

- Cover and Title Sheet
- Existing Site Plan

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- Proposed Plan
- Canal Cross Sections (two sheets)
- Miscellaneous Details (two sheets)
- Landside Plans: We have assumed that engineering drawings will be prepared at a scale of 1" = 40' which will necessitate a matchline in the middle of the canal (east & west).
- Site Preparation Plans (two sheets)
- Site Layout & Utilities (two sheets)
- Grading & Drainage Plans (two sheets)
- Planting Plans (two sheets)
- Site Details (two sheets)
- Site Enlargement Plans (two sheets) @ various scales.

The technical specifications will be based on Malcolm Pirnie standard technical specifications in CSI format. The soil management plan will be prepared using the Parcel 1 Soil Management Plan prepared by Malcolm Pirnie as the base document. A draft 75% design package will be submitted to the Committee for appropriate reviews and will include the following in addition to the visual graphics, drawings, technical specifications and soil fill management plan:

- A detailed cost estimate including a chart indicating the amount eligible for funding under state and federal sources. Each cost estimate will be separated into three categories:
 - Landside park development and remediation
 - Canal remediation
 - Bulkhead stabilization
- A preliminary construction schedule

A review meeting will then be held to receive and discuss comments and to explain design rationale. Review comments received will then be incorporated into the 75% design package and it will then be submitted to the NYSDEC for review. Again, we will then hold a meeting to receive and discuss comments from



the NYSDEC and other involved agencies. Once we receive regulatory comments, we will finalize the 75% design package for approval by NYSDEC and public display.

Deliverables

- Draft 75% design documents for the selected design scheme for Park and Canal Remediation and Construction
- Cost estimate
- Construction schedule
- One Review Meeting
- Finalized 75% design documents

Task 4 – 75% Design/Development for Eco-Restoration

Under Task 4, the Team will prepare 75% design documents (drawings and technical specifications) for review by the Committee. All engineering drawings will be prepared in AutoCAD 2004.

We have assumed the following engineering drawings will be prepared:

- Planting and Underwater Habitat Plan Sheets (two sheets)
- Planting and Underwater Habitat Detail Sheets -(two sheets)

The technical specifications will be based on Malcolm Pirnie standard technical specifications in CSI format. A draft 75% design package will be submitted to the Committee for appropriate reviews and will include the following:

- A detailed cost estimate including a chart indicating the amount eligible for funding under state and federal sources.
- A preliminary construction schedule

A review meeting will then be held to receive and discuss comments and to explain design rationale. Review comments received will then be incorporated into the 75% design package and it will then be submitted to the NYSDEC for review. As part of the meeting in Task 3, we receive and discuss comments from the NYSDEC and other involved agencies. Once we receive regula-



tory comments, we will finalize the 75% design package for approval by NYSDEC.

Deliverables:

- 75% design documents for eco-restoration

Task 5 –Regulatory Permitting (including SEQRA/NEPA)

An Urban Renewal Plan and Generic Environmental Impact Statement (GEIS) has been completed and approved for the entire Union Ship Canal/Buffalo Lakeside Commerce Park area. However, supplemental State Environmental Quality Review Act (SEQRA) work will be necessary. In addition, we anticipate that the following state and federal permits will be required:

- NYSDEC 401 Water Quality Permit
- NYS Office of General Services Application for Use of Land Underwater pursuant to Article 6 Section 75 of the Public Lands Law.
- NYSDEC General Permit for Storm Water Discharge during a Construction Activity.
- USEPA 404 Water Quality Permit

SEQRA/NEPA

New York's State Environmental Quality Review Act (SEQRA) requires all state and local government (i.e., lead) agencies to consider environmental impacts equally with social and economic factors during discretionary decision-making. Lead agencies must assess the environmental significance of all actions they have discretion to approve, fund or directly undertake. SEQRA requires the agencies to balance the environmental impacts with social and economic factors when deciding to approve or undertake an action.

This task will involve complying with the requirements of the State Environmental Quality Review Act (SEQRA) under 6NYCRR Part 617. The scope of work includes preparation of a full Environmental Assessment Form (full EAF), coordination of

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the review of the EAF by the lead agency, involved agencies and interested parties, determination of significance and publication of the declaration.

NYSDEC 401 Water Quality Permit

Water Quality Section 401 certification is required if the facility discharges into waters of the United States. The requirement of a Section 401 certification is dependent upon the location of the facility and could include wetland delineation, bank delineation, mitigation planning, mitigation monitoring, fish studies, and anti-degradation reporting. We do not anticipate that special studies will be required and have assumed for cost estimating purposes that no special studies will be required for the permit applications. The requirement for a Section 401 certification is negotiated with both the US Corps of Engineers and the NYSDEC. Our scope includes preparation of the Section 401 certification.

NYS Office of General Services Application for Use of Land Underwater pursuant to Article 6 Section 75 of the Public Lands Law.

The State of New York is sovereign owner of the beds of navigable bodies of water in the State. Various activities relating to the use of this land underwater requires permission from the State. In order to obtain permission for the use of the land underwater, we will prepare an application to be filed with the NYSOGS.

NYSDEC General Permit for Stormwater Discharge during a Construction Activity.

Section 402 of the Clean Water Act requires permits for storm water discharges from construction activities that disturb one or more acres of land to obtain a permit. To implement the law, on January 8, 2003, the New York State Department of Environmental Conservation (DEC) issued the General Permit GP-02-01 for Storm Water Discharges from Construction Activities. We will prepare the Notice of Intent (NOI) which is the means to obtain coverage under this General Permit. We have assumed that the storm wa-



ter pollution prevention plan (SWPPP) will be prepared by the contractor during construction.

Federal 404 Water Quality Permit

Federal Water Quality Section 404 permits are required to determine surface water impacts from construction. The proposed permanent impacts to waters such as discharge of fill materials into surface waters or placement of a structure in navigable waters will determine the type of Section 404 permit required to complete the project and will determine if the project will be authorized through either a Nationwide or Individual permit. The Team will prepare the Section 404 permit. The requirement for a Section 404 permit is negotiated with both the US Corps of Engineers and NYSDEC.

Deliverables:

- Prepare for and attend a pre-application meeting
- Draft permit application (client pays fees)
- Respond to one round of Agency's comments
- Find permit application

Task 6 – NYS Office of Parks, Recreation and Historic Preservation (SHPO) Coordination for Review and Approval

We understand the Union Ship Canal is eligible to be listed as a historical feature. SHPO review and approval of the project design is required because NY State money is invested in this initiative. The Peebles Island Office will be responsible for the review, which will be coordinated through SHPO representative Mr. Richard Lord with assistance, as needed, from Ms. Chris Capella Peters.

Our scope of services to facilitate a coordinated review includes:

- Obtain and review the SHPO's eligibility document on the canal that will explain the extent of the eligible features and the supporting justification.



- Conduct an informal phone conference with Mr. Rick Lord to flush out comments, concerns and questions relating to the “do’s and don’ts” of preliminary design concepts developed. A SHPO reference number will most likely be assigned to the project at this point.
- Incorporate the understanding of the Canal’s eligibility into the preliminary design alternatives. Once reviewed and approved by the Committee, prepare a formal submittal package to SHPO requesting review and comment on the alternatives. The SHPO package will include an explanatory cover letter, plan views and supporting graphics to clearly explain the design intent.
- Receive and respond to SHPO’s review comments. Difficult design issues, if any, will be reviewed with the Committee for approval. Prior to re-submitting a response package to SHPO, a teleconference with Rick Lord to discuss details of the comments may be necessary.
- Prepare and submit a response package to SHPO.
- Receive and review comments, if any, with the Committee for future consideration as the project moves forward into Phase II design.

Please Note: If a second response is warranted, this effort could be conducted as part of Phase II work.

Deliverables:

- Submittal package to SHPO
- Response to one round of comments by the Committee and SHPO
- Final submittal package to SHPO

Task 7 – 100% Design and Construction Documents

Under Task 7, the 75% design documents will be incorporated into the final bid package contract documents (i.e. drawings, specifications and front end). We will utilize ECDPW’s boiler



plate as the basis for the contract documents. The measurement and payment section will be developed either as a series of lump sum units or by generating a series of unit price items (or combination thereof) in a contract bid proposal with estimated quantities associated with each contract bid item. The technical specifications will be based on Malcolm Pirnie's standard technical specifications in CSI format where applicable. State prevailing wage rates, affirmative action requirements and M/WBE participation requirements will also be incorporated in the contract documents. We also will prepare a final soil management plan for review and approval by NYSDEC and an updated cost estimate based on the detailed design quantity takeoffs.

We will prepare 20 copies of the contract documents with full size drawings for the bid process and additional six sets of contract documents with half-sized drawings.

Upon receipt of bids by the ECDPW, the Team will assist with analyzing the bids received, investigating the apparent low bidder's experience and qualifications as well as past project performance and make appropriate recommendation for the award and execution of this contract.

Deliverables:

- 100% design documents
- Assistance with contractor selection

Task 8 – Construction Services

Under this task, the Team will provide construction administration services. The duties and responsibilities of the Resident Project Representative (Resident) will be reviewed with Erie County, prior to execution of the contract.

The expressions Contract Documents, Shop Drawing, and Change Order shall have the meanings given in the Construction Contract between the Erie County Department of Public Works (ECDPW, the Client) and the Contractor. Our construction administration efforts will include:

A029112 / BUF

Erie County Department of Environment and Planning
In Cooperation With The City of Buffalo Office of Strategic Planning
Union Ship Canal Public Open Space



- **General Administration of Construction Contract.** The Team will consult with and advise ECDPW and act as ECDPW's representative. ECDPW's instructions to Contractor will be issued through the Team.
- **Defective Work.** During its visits, the Team may disapprove of or reject the Work while it is in progress if the Team believes that the Work will not produce a completed Project that conforms generally to the Contract Documents or that it will prejudice the integrity of the design concept of the Project as reflected in the Contract Documents.
- **Interpretations and Clarifications.** The Team shall issue interpretations and clarifications of the Contract Documents and in connection therewith prepare Change Orders for execution by the ECDPW, if necessary and appropriate.
- **Shop Drawings.** The Team shall review and approve (or take other appropriate action) Shop Drawings, samples and other data which Contractor is required to submit. Such reviews shall be for conformance with the design concept of the Project as a functioning whole and compliance with the information given in the Contract Documents. Any approvals or other actions associated with the reviews shall not extend to means, methods, techniques, sequences or procedures of construction or to safety precautions and programs incident thereto.
- **Applications for Payment.** Based on the Team's on-site observations, on information provided by the Resident and on review of monthly applications for payment and the accompanying data and schedules, the Team shall:
 - Recommend in writing payments to Contractor. Such recommendations of payment will constitute a representation to ECDPW that the Work has progressed to the point indicated and that, to the best of the Team's knowledge, information and belief, the quality of the Work is generally in accordance with the Contract Documents subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for



in the Contract Documents and to any other qualifications stated in the recommendations.

- In the case of unit price Work, include final determinations of quantities and classifications of the Work in the recommendations of payment, subject to any subsequent adjustments allowed by the Contract Documents.
- **Contractor's Completion Documents.** The Team shall receive and review maintenance and operating instructions, schedules, guarantees, bonds and certificates of inspection, tests, approvals, and record documents which are to be assembled by Contractor in accordance with the Contract Documents. Such review is limited to determining that their content complies with the requirements of the Contract Documents. The Team shall transmit the documents to ECDPW with written comments.
- **Record Drawings.** The Team shall review record drawings prepared by the Contractor prior to submission to the ECDPW.
- **Resident Services.** The Team will also provide resident inspection services in connection with observations of the work of Contractor while it is in progress. The Team shall make visits to the site at intervals appropriate to the various stages of construction as Malcolm Pirnie deems necessary to observe, as an experienced and qualified design professional, the progress and quality of the Contractor's work (Work). In addition, Malcolm Pirnie shall provide the services of a Resident Project Representative (Resident) at the site to provide more extensive inspection of the Work. Based on information obtained during such visits and on its inspections, Malcolm Pirnie shall endeavor to determine whether the Work is proceeding in accordance with the intent of the Contract Documents. Malcolm Pirnie shall keep Client informed of the progress of the Work. This is based on an assumed construction period of ten months.

The Resident will be the Team's agent or employee and under the Team's supervision. The duties and responsibilities of the



Resident are set forth below under "Duties, Responsibilities and Limitation of Authority of Resident Project Representative".

The purpose of the Team's visits to and representation by the Resident at the site will be to provide for Client a greater degree of confidence that the completed Work will conform generally to the Contract Documents and that the integrity of the design concept as reflected in the Contract Documents has been implemented and preserved by Contractor.

DUTIES, RESPONSIBILITIES, LIMITATIONS OF AUTHORITY OF RESIDENT PROJECT REPRESENTATIVE

The duties and responsibilities of the Resident Project Representative (Resident) are as follows:

- **General.** The Resident is the Team's agent at the site, will act as directed by and under the supervision of the Team, and will confer with the Team regarding Resident's actions. Resident's dealings in matters pertaining to the on-site Work shall in general be with the Team and Contractor, while keeping ECDPW fully advised. Resident's dealings with subcontractors shall only be through or with the full knowledge and approval of Contractor. Resident shall generally communicate with ECDPW with the knowledge of and under the direction of the Team.
- **Duties and Responsibilities.** The Resident shall:
 - **Schedules:** Review the progress schedule, schedule of Shop Drawing submittals and schedule of values prepared by Contractor and consult with the Team concerning acceptability.
 - **Conferences and Meetings:** Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences and other project-related meetings, and prepare and circulate copies of minutes thereof.
 - **Liaison:** Serve as the Team's and ECDPW's liaison with Contractor, working principally through Contractor's superintendent and assist in explaining the intent of the Contract



Documents as necessary. Assist the Team in serving as ECDPW's liaison with Contractor when Contractor's operations affect ECDPW's on-site operations. Assist in obtaining from ECDPW additional details or information, when required for proper execution of the Work.

- **Shop Drawings and Samples:** Record date of receipt of Shop Drawings and samples. Receive samples which are furnished at the site by Contractor and notify the Team of availability of samples for examination. Advise the Team and Contractor of the commencement of any Work requiring a Shop Drawing or sample if the submittal has not yet been received and approved by the Team.
- **Review of Work, Rejection of Defective Work, Inspections and Tests:** Conduct on-site inspections of Work in progress to determine whether the Work is proceeding in general compliance with the Contract Documents. Report to the Team whenever Resident believes that any Work is unsatisfactory, faulty or defective, or does not conform to the Contract Documents, has been damaged, or does not meet the requirements of any inspection, test or approval required to be made. Advise the Team of Work that Resident believes should be corrected or rejected, should be uncovered for inspection, or requires special testing, inspection or approval. Verify that tests, equipment and systems startups, and operating and maintenance training are conducted in the presence of appropriate personnel, and that Contractor maintains adequate records thereof. Observe, record and report to the Team appropriate details relative to the test procedures and startups. Accompany visiting inspectors representing public or other agencies having jurisdiction over the Project, record the results of these inspections and report to the Team.
- **Interpretation of Contract Documents:** Report to the Team when clarifications and interpretations of the Contract Documents are needed. Transmit to Contractor clarifications and interpretations issued by the Team.



- **Modifications.** Consider and evaluate Contractor's suggested changes to Drawings or Specifications and report to the Team with Resident's recommendations. Transmit Team's decisions to Contractor.
- **Records:** Maintain at the job site orderly files for correspondence, reports of job conferences, Shop Drawings and samples, reproductions of original Contract Documents including all Addenda, Change Orders, Field Orders, additional Drawings issued subsequent to the execution of the Construction Contract, Team's clarifications and interpretations of the Contract Documents, and progress reports. Keep a diary or log book, recording Contractor hours on the job site, weather conditions, data relative to questions concerning Change Orders or changed conditions, list of job site visitors, daily activities, decisions, general observations, and specific, more detailed observations as in the case of test procedures. Send copies to the Team at appropriate intervals. Record names, addresses and telephone numbers of all Contractors, subcontractors and major suppliers of materials and equipment.
- **Reports:** Furnish reports at appropriate intervals to the Team concerning progress of the Work and of Contractor's compliance with the progress schedule and schedule of Shop Drawing and sample submittals. Consult with the Team in advance of scheduled major tests, inspections or start of important phases of the Work. Draft proposed Change Orders, obtaining supporting information from Contractor, and recommend to the Team. Report any accidents or unusual incidents to the Team and ECDPW immediately upon occurrence.
- **Payment Requests:** Review Contractor's applications for payment for compliance with the requirements of the Contract Documents and forward with Resident's recommendations to the Team. The Resident will note the relationship of the payment requested to the schedule of values, Work completed, and materials and equipment delivered at the site but not incorporated in the Work.



- **Certificates, Maintenance and Operation Manuals:** During the course of the Work, verify that certificates, maintenance and operation manuals and other data required to be furnished by Contractor are appropriate to the items actually installed and in accordance with the Contract Documents. The Resident will have this material delivered to the Team for review and forwarded to ECDPW prior to final payment for the Work.
- **Completion:** Before the Team issues a Certificate of Substantial Completion, submit to Contractor a list of observed items requiring completion or correction. Determine whether necessary inspections and approvals by public agencies having jurisdiction over the Work have been performed and advise the Team accordingly. Conduct a final inspection of the Work in the company of the Team, ECIDA, and Contractor and prepare a final list of items to be completed or corrected. Verify that all items on final list have been completed or corrected and make recommendations to the Team concerning acceptance of the Work.

■ **Limitations of Authority.** The Resident:

- Shall not authorize any deviation from the Contract Documents or substitution of materials or equipment unless authorized by the Team.
- Shall not exceed limitations of the Team's authority as set forth in the Agreement with ECDPW or the Contract Documents.
- Shall not undertake any of the responsibilities of Contractor, subcontractors or Contractor's superintendent.
- Shall not advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of construction unless such advice or directions are specifically required by the Contract Documents.



- Shall not advise on, issue directions regarding or assume control over safety precautions and programs in connection with the Work.
- Shall not accept Shop Drawings or sample submittals from anyone other than Contractor.

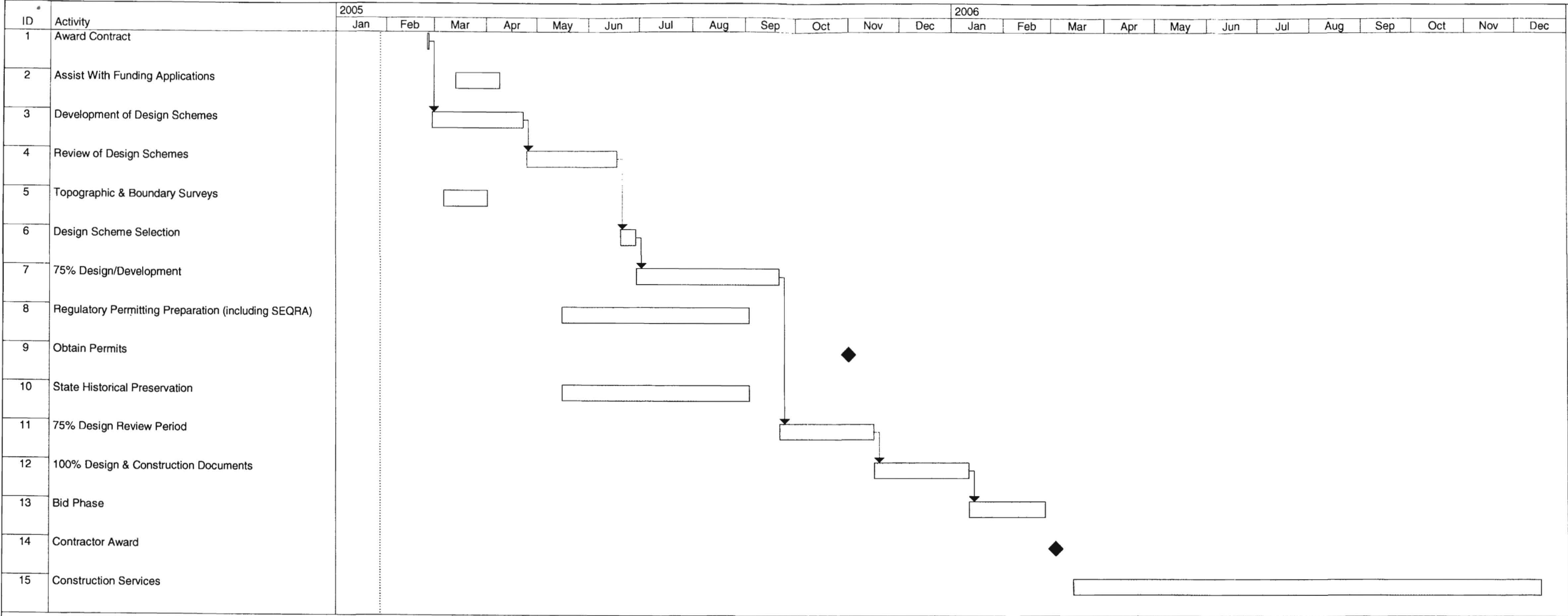


SCHEDULE

We understand how important this project is to ECDEP, OSP, the Committee and all of the involved agencies. We are committed to working with ECDEP and OSP to achieve the proposed project schedule as shown on the attached work schedule. However, we also understand that there are many stakeholders and funding issues that may dictate adjustments to the schedule. Therefore, we will work closely with ECDEP and OSP to optimize the schedule to meet the project needs. Adjustments to the schedule will only be made with the approval of ECDEP and OSP.

We have teamed with Wendel Duchscherer on previous projects and are confident on the team's ability to meet the project objectives. Malcolm Pirie will remain the point of contact for the Erie County DEP and OSP and will be responsible for ensuring that all activities are completed successfully and within the allocated budget and time frame.





Project: Project Schedule
Date: Fri 1/28/05

Activity

Progress

Summary

External Tasks

Deadline

Split

Milestone

Project Summary

External Milestone

Wendel Duchscherer Experience

Tifft Street Greenway	City of Buffalo Department of Public Works, Parks & Streets	2005	Daniel Kreuz, PE City of Buffalo Engineer (716) 851-5631
Sturgeon Point Bluffs Park Master Plan	Town of Evans, NY	Phase 1 2005	Robert R. Catalino, II, Supervi- sor Town of Evans (716) 549-5787
Erie County Parks System Master Plan	Erie County Department of Environment and Planning and the De- partment of Forestry and Parks	2003	Larry Jasinski Former Commissioner Erie County Parks Department (716) 858-8355
Tow Path Park Waterfront Ex- pansion	City of Buffalo	2001	Thomas J. Dearing, AICP Planning Coordinator Erie County Dept of Environ- ment and Planning
Martin Luther King, Jr. Park Master Plan	City of Buffalo Dept of Public Works, Parks and Streets	2005	Dennis Maloney Department of Public Works, Parks and Streets (716) 851-5013
Buffalo Olmsted Parks Master Planning & Phased Improvements	City of Buffalo Dept of Public Works, Parks and Streets	Ongoing	Dennis Maloney Department of Public Works, Parks and Streets (716) 851-5013
Squaw Island Park Master Plan & Phased Imple- mentation	City of Buffalo Dept of Public Works, Parks and Streets	Ongoing	Dennis Maloney Department of Public Works, Parks and Streets (716) 851-5013
Niagara Street Streetscape	City of Buffalo Department of Public Works, Parks & Streets	2001	Daniel Kreuz, PE City of Buffalo Engineer (716) 851-5631
Waterfront Corridor Initiative	City of Buffalo, Office of Strategic Planning & Dept of Public Works, Parks and Street	2004	Charles Thomas Deputy Director of Strategic Planning (716) 851-4901

Project Manager – Kent McManus Experience

	Reference
City of Buffalo/Squaw Island	Daniel E. Kreuz, P.E., City Engineer City of Buffalo City Hall Buffalo, NY 14202 (716) 851-5631
South Buffalo Redevelopment Plan	Peter Cammarata Director of Urban Development Buffalo Urban Development Corporation/Erie County Industrial Development Agency 275 Oak Street Buffalo NY 14203 (716) 856-6525
City of Lackawanna/Brownfield Services	Norman L. Polansky, Jr. Mayor City of Lackawanna 714 Ridge Road Lackawanna, NY 14218 (716) 827-6464 Louis P. Zicari, Jr. Associate Director State University of New York at Buffalo Center for Integrated Waste Management 207 Jarvis Hall Buffalo, NY 14260-4400 (716) 645-3446 ext. 2340
Krog Corp./Certain Teed	Peter Krog Krog Corporation 4 Centre Drive Orchard Park, NY 14127 (716) 667-1234



RELEVANT EXPERIENCE OVER PAST FIVE YEARS

Below are tables showcasing Malcolm Pirnie and Wendel
Duchschere's relevant experience during the past 5 years.

Malcolm Pirnie Experience

City of Lackawanna	Brownfield Services	Ongoing
City of Buffalo	Squaw Island	Ongoing
Krog Corporation	Brownfield Redevelopment	Ongoing
Development Downtown, Inc.	South Buffalo Redevelopment Plan	Ongoing
Albany Community Development Agency	Brownfields Pilot Project	Ongoing
Erie County Water Authority	Residuals Management	2002
US Army Corps of Engineers	Corrective Measures Study at Fort Drum	Ongoing
Albany County	Brownfields Investigation	2001
Rochester Department of Environment Services	Fire Academy Site Remediation	2000
City of Johnstown	Brownfield Site Investigation and Remedial Action Plan	2000
	Karg Brothers Tannery Brownfields Project	Ongoing
City of Schenectady	Brownfields Investigation at Ladd Service Station	2000



Table I

Malcolm Pirnie Experience in City of Buffalo Jurisdiction

Client	Project	Description
Buffalo Economic Renaissance Corporation/Development Downtown, Inc.	<i>South Buffalo Redevelopment Plan/Parcel 1 of the Buffalo Lakeside Commerce Park</i>	The South Buffalo Redevelopment Plan is one of the largest brownfield redevelopment projects in the nation and incorporates the largest environmental remediation under the NYSDEC Voluntary Cleanup Program in the state's history. The project consists of the development of over 450 acres of new industrial, office, and commercial acreage; over 970 acres of new and improved park and recreation facilities; a new marina; and a new road, water, sewer, rail, and telecommunications infrastructure
Buffalo Sewer Authority	<i>Grit Removal Improvements</i>	Investigated alternative grit removal systems (aerated grit, vortex grit removal, and detritus tanks) at a 180-mgd treatment plant, followed by detailed design of six 70-mgd vortex units.
	<i>Management Audit, SCADA System, & Energy Efficiency</i>	Conducted in-depth management audit to assess existing facilities and operations as well as future needs of a 150-mgd wastewater treatment plant; designed and implemented new SCADA system that integrates state-of-the-art computer systems with vintage-1970 equipment.
	<i>Disinfection Modifications</i>	In conjunction with the comprehensive evaluation of alternative disinfection practices, Malcolm Pirnie conducted a survey and needs assessment to define problems inherent within the existing system.
	<i>Real-Time CSOs</i>	Evaluated the use of artificial intelligence and predictive software to maximize the treatment of combined sewer overflows and reduce energy consumption.
	<i>Solids-Handling Improvements and SCADA Modifications</i>	Performed a solids-handling study to determine the most cost-effective approach to improving solids handling at the Bird Island Wastewater Treatment Plant.
	<i>Air Pollution Control System</i>	Assisted BSA with upgrading and optimizing a Continuous Emissions Control (CEMS) System for the three main boilers exhaust emissions.
	<i>Wet-Weather Operating Plan</i>	Developed wet weather operating plan for BSA's Bird Island wastewater treatment plant. The plan provided overall WWTP operational philosophy as well as detailed step-by-step instructions for operating all major process units under high flow conditions.

Table I

Malcolm Pirnie Experience in City of Buffalo Jurisdiction

Client	Project	Description
	<i>Long-Term Control Plan for CSO Abatement & Regulatory Compliance</i>	Malcolm Pirnie is the coordinating consultant for development of the BSA's LTCP for CSO abatement. The LTCP will provide the road map by which the authority will achieve economically feasible compliance with federal and state guidelines for CSO abatement.
	<i>Continuous Emission Monitoring System</i>	Designed a continuous emission monitoring system for the sludge incinerator to comply with 40 CFR Part 503.
	<i>Plant Water System & Final Effluent Pumps</i>	Evaluated the existing water and final effluent water pumps and piping system at the Bird Island Wastewater Treatment Plant, provided energy and water saving alternatives, and optimized the treatment plant final effluent process water pumping system.
	<i>Funding Support</i>	Provided professional engineering management services on an as-requested basis to assist in obtaining funding sources for water pollution abatement projects
	<i>Pump Replacement at Bird Island Wastewater Treatment Facility</i>	Prepared design report, plans, and specifications and provided construction administration and resident engineering services for the replacement of return-activated sludge and waste-activated sludge pumps, motors, and drives.
	<i>Energy Procurement</i>	Performed energy use and market analysis and contract negotiations to support BSA procurement of electricity and natural gas.
	<i>Merger of Services</i>	Evaluated feasibility of merging services provided by the Buffalo Sewer Authority and the Erie County Department of Environment and Planning; work included an evaluation of diverting flows from outside sewer districts to the authority's wastewater treatment plant.
	<i>Wet-Weather Capacity Evaluation of Buffalo Wastewater Treatment Plant</i>	Study includes evaluation of existing peak flow capacity of the WWTP primary and secondary treatment facilities and development and evaluation of alternatives to increase WWTP capacity up to 600 mgd.
	<i>Bypass Conduit</i>	Provided design and construction phase services for a bypass wastewater conduit at the Bird Avenue Wastewater Treatment Plant to reduce wet-weather overflows.

Table I

Malcolm Pirnie Experience in City of Buffalo Jurisdiction

Client	Project	Description
	<i>Bond Refinancing</i>	Provided bond refinance assistance for Sewer System Revenue Bonds, Series I for \$48,375,000, including review of bond support letters.
	<i>Energy Efficiency Improvements</i>	Performed an energy efficiency assessment of major pumping and air handling equipment at the Bird Island WWTTP.
Buffalo Urban Renewal Agency	<i>Phase II Investigation</i>	Conducted 10 soil borings and collected 2 samples from each.
City of Buffalo	<i>Water Treatment Plant Rehabilitation</i>	Studies, design, and construction phase services for repairs, equipment replacement, and improvements at a 160-mgd plant; replaced filter media, rehabilitated instrumentation, and added new chemical feed systems for corrosion control and filtration.
	<i>Squaw Island Landfill Closure</i>	Conducted closure investigation and prepared closure concept for a 60-acre municipal waste landfill on an island in the Niagara River that is proposed to become a passive recreation area.
	<i>Solid Waste Rate Study</i>	The City of Buffalo, faced with increasing tipping fees to cover solid waste operating costs, has resolved to segregate solid waste collection and disposal from its general budget and establish a user fee program for city residents. The City solicited Malcolm Pirnie's help to determine if a special assessment program would be feasible, and if so, to assist the City with implementation of the program. Malcolm Pirnie researched various user fee structures available, particularly container-based pricing systems, or "bag-and-tag" systems as well as generator-based pricing. The generator-based pricing structure was selected by the City to recover its Enterprise Fund costs. A solid waste generation study was conducted to determine residential and commercial waste generation, with commercial waste generation determined by use and by square footage. Malcolm Pirnie also aided the City in determining what the user fees should be, based upon an equitable distribution analysis.
	<i>Backwash Thickener</i>	Studies, design, and construction phase services for backwash water management. Project included equipment replacement, and improvements at a 160-mgd plant; new instrumentation and chemical feed systems for water quality concerns.



Waterfront Projects

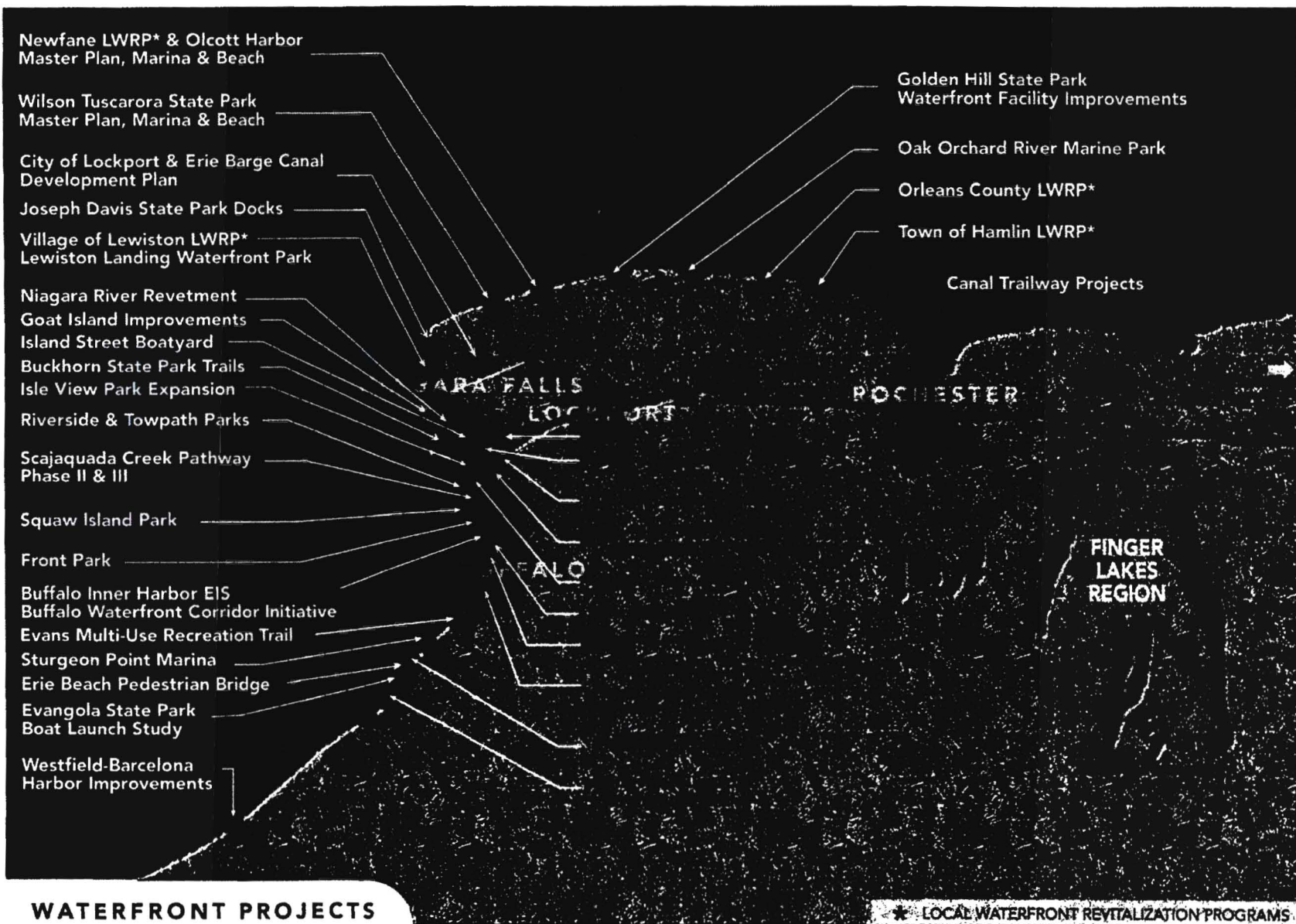


Table I

Malcolm Pirnie Experience in City of Buffalo Jurisdiction

Client	Project	Description
	<i>Central Heat Evaluation</i>	Assisted the City with evaluating proposals for incorporating the existing Central Heating Systems into a District Heating System.
	<i>Site Improvements</i>	Evaluated building envelope and site access, and recommended lighting improvements to increase facility security.
	<i>Squaw Island Supplementary Investigations</i>	Estimated snow volume hauled to two City of Buffalo sites -- LTV and The Pier.
	<i>Redistricting</i>	The census of 2000 revealed that from 1990 to 2000 the population of Buffalo had declined overall by 10 percent and that most City Council districts had lost population. This finding triggered the city's redistricting. Malcolm Pirnie was contracted by the City of Buffalo to provide GIS technical services to a People's Commission that had the task of developing a City Council district map that balanced population within the federal guidelines, maintained historic neighborhood boundaries, and addressed the changing ethnic populations of the city
	<i>Relicensing of Niagara Power Project</i>	Assisted the city in its role in the relicensing of the PASNY Niagara Power Plant; identified municipal projects and estimated their associated costs for submission to the relicensing committees for consideration as part of the relicensing process.
	<i>East Side Transfer Station</i>	Prepared an amendment to and modification of an existing permit under the Solid Waste Management Facilities Regulations for the new structure and will implement any required changes to the operations at the proposed transfer station.
	<i>Internet Maps</i>	Malcolm Pirnie staff created an Internet Mapping System for public viewing. Custom applications such as searching for a specific parcel, zooming to districts, and displaying parcels by assessment values were developed. Pirnie staff also created Internet Mapping System specifically designed for Buffalo in case of a city-wide emergency. The system quickly allows city staff to create maps of streets within the city that are closed due to an emergency.

Table I

Malcolm Pirnie Experience in City of Buffalo Jurisdiction

Client	Project	Description
	<i>Comprehensive Water Supply Services</i>	Malcolm Pirnie has provided a variety of services to the City of Buffalo regarding its water supply system. ▪ Direct Filtration Study ▪ Filter Rehabilitation Strategy ▪ Status Monitoring and Control System ▪ Lead/Copper Rule Compliance Assistance ▪ Pump Station Design/Construction
	<i>District Energy Systems</i>	Evaluated proposals submitted to the City of Buffalo regarding district energy systems.
	<i>120-W Solid Waste Disposal Procurement</i>	Providing procurement assistance including preparation of an RFP soliciting solid waste disposal services and transfer station operation sources.
Buffalo Urban Development Corporation/Erie County Industrial Development Agency	<i>Parcel 4 of Buffalo Lakeside Commerce Park</i>	Currently assisting with investigation under New York Environmental Restoration Program. Have prepared work plan and funding application.

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**MALCOLM
PIRNIE**

WENDEL DUCHSCHERER
ARCHITECTS & ENGINEERS

Fee Proposal

Preliminary Design , Final Design and Construction Inspection Services

**Union Ship Canal Public Open Space
Buffalo, New York**

Section 5 Cost & Budget

Section 6 Hourly Personnel Rates

Submitted by:

MALCOLM PIRNIE, INC.

40 Centre Drive

Orchard Park, NY 14127

WENDEL DUCHSCHERER

95 John Muir Drive

Amherst, NY 14228

January 2005

A029112

**Erie County Department of Environment and Planning
In cooperation with
City of Buffalo Office of Strategic Planning**

FEE

We have prepared a budget that reflects our understanding of Erie County Department of Environmental Protection's (ECDEP's) Request for Proposal and our proposed scope of services as detailed in Section 1 of our technical proposal. We have separated our proposed fee by our estimate of costs potentially eligible for reimbursement by NYSDEC. Our fee is summarized in the attached fee table. Also, as requested, we have not provided a fee breakdown for tasks 7 and 8. Our proposed detailed design and construction fee will be based on 6 to 8 percent of construction costs.

The Team would be pleased to meet with ECDEP and the City of Buffalo Office of Strategic Planning (OSP) to discuss our proposed approach and budget in detail. We pride ourselves on long and successful working relationships with our clients and our scope of work for any project is flexible. We will work with ECDEP and OSP to optimize our approach and fee for this project.

ASSUMPTIONS USED TO PREPARE OUR FEE

- The construction work will be bid as one construction project.
- Front end proposal standards and boilerplate will be electronically provided by ECDPW, a nominal amount of Team time will be required to incorporate ECDPW's front end.
- We have not included characterization of soil, fill or sediment that may be required to implement the chosen concepts.
- A Full Environmental Assessment Form (Full EAF) will be prepared to satisfy SEQR/NEPA requirements.
- We have assumed that the lead agency for the SEQRA/NEPA process will issue a negative declaration and that no special studies will be required.
- The final percent of construction cost will be negotiated after the 75% design is complete.



- Biological evaluation for potentially endangered species is not included.
- No archeological studies included.



HOURLY PERSONNEL RATES

6

RATES

As requested in the Request For Proposals, we have attached standard rate schedules for both Malcolm Pirnie and Wendel Duchscherer.



This document describes the basis for compensation and terms of payment. All rates presented apply to services rendered after January 1, 2004 and will be adjusted annually thereafter.

In addition to these fees, clients will also be responsible for any sales or value-added taxes that may apply to engineering services performed.

1. **Hourly Rates:** Charges for services provided will be in accordance with the following schedule:

Conventional Services

<u>Classification</u>	<u>Hourly Rate</u>
Technician 1-3	\$ 41/hr
Technician 4-6	67
Technician 7-8	115
Engineer/Scientist/Architect 1	70
Engineer/Scientist/Architect 2	78
Engineer/Scientist/Architect 3	88
Project Engineer/Scientist/Architect 4	98
Project Engineer/Scientist/Architect 5	108
Sr Project Engineer/Scientist/Architect 6	130
Associate/Senior Associate/Officer	195

Overtime - No overtime premium is charged for project work outside of normal working hours.

2. **Other Direct Costs:** All expenses incurred for a project, except in-house services specified below and analytical subcontract services, from outside vendors will be invoiced at cost plus 10% to cover administrative expenses. These items may include, but are not limited to: shipping charges; printing; supplies; equipment; traveling expenses; special insurance; licenses; permits; or subcontractors.

In-house services consist of:

- Transportation \$0.42/mile for vehicles.
 \$0.54/mile for 4x4 vehicles and trucks
- Equipment A schedule of usage rates for specialty equipment is available for field assignments

3. **Payment:** All invoices are due and payable within 30 days of billing date. Any attorney's fees, court costs, or other related expenses incurred in collecting delinquent accounts shall be paid by the client. Delinquent bills are subject to finance charges of 1.5% per month.

LEVEL	CATEGORY	PERSONNEL TITLES	BILLING RATE RANGE \$/HOUR
11	Professional 5	Principal	\$140
10	Professional 4	Design Professional	\$125
9	Professional 3	Design Professional	\$110
8	Professional 2	Associate Design Professional	\$85
7	Professional 1	Associate Design Professional	\$65
6	Para-Professional	Design Para-Professional	\$90
5	Technician 5	Senior Designer	\$80
4	Technician 4	Designer/Survey Supervisor/Construction Observation	\$65
3	Technician 3	Draftsman, Senior/Construction Observation/Surveyor	\$60
2	Technician 2	Draftsman, Junior/Construction Observation/Surveyor	\$45
1	Technician 1	Draftsman, Junior/Construction Observation/Surveyor	\$40

PREVAILING RATES FOR DIRECT EXPENSES		
ITEM	DESCRIPTION	RATE
Printing		
<u>Prints</u>	24" x 36" and 22" x 34"	\$0.85/ft.
	8-1/2" x 11" and 8-1/2" x 14"	\$0.90/ea.
	12", 24", 30" and 36" Roll	\$1.15/ft.
<u>Color Prints</u>	8-1/2" x 11"	\$1.00/ea.
	8-1/2" x 14" or 11" x 17"	\$2.00/ea.
<u>Color Line and Map Work</u> (30% coverage)	bond	\$1.75/ft.
	glossy	\$2.83/ft.
<u>Graphic Work</u> (90% coverage)	bond	\$3.77/ft.
	glossy	\$6.52/ft.
<u>Photocopy</u>		\$0.15/copy
Postage		At Cost
Computer	CAD	\$8.00/hr.
	Total Station	\$3.96/hr.
Mileage		\$0.405/mile

The rates noted hereon are effective for twelve months from 10 / 15 / 04.
After the twelve month period, the rates noted are subject to increase based on salary adjustments.



**MALCOLM
PIRNIE**

MALCOLM PIRNIE, INC.
INDEPENDENT ENVIRONMENTAL ENGINEERS, SCIENTISTS & CONSULTANTS

March 21, 2005

Christopher S. Pawenski
Erie County Department of Environment and Planning
Edward A. Rath County Office Building
95 Franklin Street, Room 1056
Buffalo, NY 14202

**Re: Proposal for Preliminary Design, Final Design, and Construction Inspection
Services for the Union Ship Canal Public Open Space
Buffalo, New York**

Dear Chris:

Thank you for the opportunity to meet with you and the Steering Committee to discuss our proposal for the above-referenced project. We have prepared this letter to clarify some of the issues raised and to reflect the discussions which occurred during our meeting as follows:

- Our proposal includes assistance with preparation of funding applications. We are committed to both identifying potential additional funding sources and to assisting you with efforts to obtain funding for this project. We keep a table of potential state and federal funding sources (copy attached) which will facilitate this process.
- We have revised the budgets for Tasks 1, 3 and 4 to reflect the following scope changes:
 - An expedited schedule for Phase 1.
 - A reduction of the number of meetings under Task 1 from 7 to 5.
 - A reduction of the number of cross sections from 2 per scheme to 1 per scheme.
 - Elimination of photo simulations.
 - Preparation of a brief technical memorandum as the deliverable under Task 1 in lieu of a design concept report.



Christopher S. Pawenski
Erie County Department of Environment and Planning

March 21, 2005
Page 2

- Our original design fee included permitting services under Task 5. We have revised our proposal and budget to reflect performance of these services under Task 7 during Phase 2. The scope of work for Task 5 is now limited to the SEQRA effort defined in our proposal.
- We have revised the budget for Task 6 based on recent discussions with SHPO regarding the level of effort required. We have also revised the schedule to reflect performance of the SHPO work during the early portion of Phase 1.
- We have allocated for six percent MBE (CADD assistance) and six percent WBE (survey) involvement

The revised schedule and budget breakdown are attached for your review. The budget breakdown now includes hours for subcontractors. The schedule now reflects initiation of the work in mid April of this year. Please call us if you have questions regarding the revisions described herein or our proposal in general.

The Project Team already has an established working relationship with many of the Steering Committee members. We look forward to the opportunity to continue to strengthen these relationships.

We are excited about the opportunity to serve you on this significant project.

Very truly yours,

MALCOLM PIRNIE, INC.

Peter Witko, P.E.
Vice President

Kent R. McManus, P.E., DEE
Senior Associate

Richard J. Hanavan, P.E.
Wendel Duchscherer

Attachment



April 1, 2005

Christopher S. Pawenski
Erie County Department of Environment and Planning
Edward A. Rath County Office Building
95 Franklin Street, Room 1056
Buffalo, NY 14202

**Re: Proposal for Preliminary Design, Final Design, and
Construction Inspection Services for the Union Ship Canal
Public Open Space, Buffalo, New York**

Dear Chris:

Thank you for the opportunity to further discuss our proposal for the above-referenced project. We have prepared this letter to clarify some of the issues raised and to reflect the discussions which occurred during our meeting on March 30, 2005 as follows:

- As we discussed, our scope includes attending project progress and status review meetings as necessary to complete the project.
- Our scope includes scheduling and attendance at pre-application meetings with the NYSDEC and USCOE to discuss permitting requirements/issues.
- We are willing to start work at risk while the contract is finalized and the applications for funding are being reviewed by the NYSDEC.
- We will increase our MBE participation from 6 percent to 10 percent.
- We have added Anthony Catalano to the team in a QA/QC role. He will be made available to discuss his experience and lessons learned on the Irvington Waterfront Park Brownfield Project.
- One photo simulation will be prepared for the selected alternative under Task 1.
- A total of four cross sections will be prepared for the three schemes under Task 1.

As discussed at the meeting, we have agreed to reduce our total fee by \$2000 which brings our total estimated Phase 1 fee down to \$193,000. Please call us if you have questions regarding the revisions described herein or our proposal in general.

Christopher S. Pawenski
Erie County Dept. of Environment and Planning

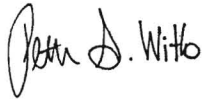
April 1, 2005
Page 2

Again, we are excited about the opportunity to serve you on this significant project.

Very truly yours,

MALCOLM PIRNIE, INC.

WENDEL DUCHSCHERER



Peter G. Witko, P.E.
Vice President



Kent R. McManus, P.E., DEE
Senior Associate



Mark Mistretta, RLA ASLA
Principal Landscape Architect

F/u/marketing/proposal/2005/A029112