

Scope of Services: Preliminary Design and Design Development at "Stormwater Park" at CMC Shops – June 4, 2003

This scope includes two Phases of work: Preliminary Design and Design Development. The Stormwater Park design will have its basis in Wenk Associates conceptual design, which was the winning entry in the 2002 Menomonee River Valley Design Competition.

The Preliminary Design Phase is focused on assuring the functionality of the site as a whole in terms stormwater management and allocating area within the park for specific uses or activities. The Design Development Phase is focused on detailed design within the park.

Work to be completed includes the following.

- Park preliminary design, including land-use or allocation of space for a variety of possible program items any of which must be developed in coordination with roadway design, site redevelopment, and stormwater management design for the site as a whole.
- Stormwater Management design, including flood management, site drainage and water quality measures are linked by the "Stormwater Treatment Train" (STT), proposed in the Wenk Associates competition entry. The STT is made up of a sequence of landscape types built upon a specific series of soil profiles and is central to the success of both the park and redevelopment design. Engineered elements of the STT include, culverts, level spreaders, and related elements of the stormwater management system including design and stabilization at the river's edge. This scope includes close coordination with highway and redevelopment design and especially with proposed demolition and removals and environmental mitigation plans at the CMC Shops.
- Revegetation design will be closely integrated with park program and design for the STT.

Design Team

Prime consultant/Landscape Architects, *Wenk Associates (WA)*
Environmental Engineering/Civil Engineering, *Applied Ecological Services (AES)*

The design team will coordinate closely with *HNTB*, Civil/Environmental Engineers (*HNTB*) in their role as designers with The Milwaukee Transportation Partners (*MTP*) in both design for the Canal Street Extension and Final Design at the CMC Shops Site. All work by *MTP* referenced in this document will be done under the Canal Street Design contract or the Redevelopment at the CMC Shops contract.

Schedule:

- Preliminary Design: *Will take place over the summer of 2003 commencing immediately upon approval of this contract with completion in early to mid September.*
- Design Development: *Will take place subsequent to completion of preliminary design with completion prior to the current scheduled start of construction for Canal Street in April of 2004*

Preliminary Design:

Because of the interrelated nature of the park, the area for redevelopment, the stormwater system, and the roadway, it is necessary to refine elements of the park design as part of developing a surface stormwater management system for the redevelopment areas and the roadway. Preliminary design forms a basis for preparation of design development documents for the stormwater system and provides refined conceptual design for park development based on design requirements for the extension of Canal Street, redevelopment of the CMC shops site and as yet undetermined standards for Park development.

This work will be done in close coordination with *MTP* through the offices of *HNTB* under *MTP*'s contract for design of the Canal Street Reconstruction/Extension and their May 2nd 2003 "Proposed Scope of Work for Final Design at the CMC Shops Site." Products will serve as documentation of this extensive coordination effort and will be equivalent to approximately 30% complete construction documents.

Tasks

- Prepare alternate park program diagrams and final park program diagram. *Diagrams to delineate proposed park boundaries and illustrate proposed land use within the park.* (WA)
- Prepare draft park plan and cross sections and final park plan and cross sections. *Plan and cross sections to show proposed park grading, design for park improvements at the rivers edge, land use, roads and walks and landscape or revegetation concept.* (WA, AES)
- Prepare draft and final memo describing in general terms:
 - The proposed park boundaries (WA)
 - Proposed park uses and activities (WA)
 - Program for landscape establishment maintenance. (WA, AES)
- Prepare draft and final water quality and hydrologic models for design of the STT water quality treatment elements and stormwater detention system. *Modeling will utilize P-8 and Pond Tech software.* (AES)
- Prepare a draft STT plan and cross sections and final STT plan and cross sections. *Plan and cross sections to show proposed CMC shops site overlot grading and profile of backfill above cap or contaminated soil. We assume that base topographic, existing structure and environmental remediation information will be supplied by MTP under their proposed contract for Redevelopment at the CMC Shops area.* (WA, AES)
- Prepare a draft set of STT system details and a preferred set of STT System details. *The draft set of details will show alternative approaches to constructed details within the system including: grade control structures, level spreaders, headwalls, culverts and inlets. The preferred set of details will serve as guidelines for final design of the system by MTP.* (WA, AES)
- Prepare a draft and final report establishing flood control, drainage and water quality design criteria and demonstrating how the proposed STT will meet those criteria for the CMC Shops redevelopment including the Stormwater Park. *The report will include design calculations, document precedents for the Construction of an STT and provide outline specifications for backfill and revegetation requirements.* (WA, AES)
- Prepare draft and final illustrative site plan and up to 3 supporting illustrative site cross sections or perspective sketches. (WA)
- Coordinate with the Department of City Development (DCD) and Menomonee Valley Partners (MVP) and MTP to identify the future owner or agency responsible for long-term maintenance of the park, park boundaries, park program and park maintenance and operations program. *Coordination will be by phone, e-mail and up to three meetings in Milwaukee. Meetings to be scheduled by DCD, MVP or MTP. Wenk Associates or AES to provide draft design drawings as exhibits for review in meetings. If ownership is not determined under this contract Wenk Associates and AES propose that the "maintenance for establishment program" to be prepared in the Design Development Phase be used to serve as a guide for maintenance and operations to be contracted out.* (WA)
- Coordinate with DCD, MVP, State DNR and MTP to determine permit requirements for work at the river's edge. *Coordination will be by phone, e-mail and up to three meetings in Milwaukee. Meetings with DNR to be scheduled by DCD, MVP or MTP. Wenk Associates or AES to provide draft design drawings as exhibits for review in meetings.* (WA, AES)
- Coordinate with DCD, WisPark, the Department of Public Works (DPW), MTP and State Department of Natural Resources (DNR) to determine design criteria for stormwater management. *Coordination*

will be by phone, e-mail and up to three meetings in Milwaukee. Meetings to be scheduled by DCD or MTP. AES to provide draft design drawings as exhibits for review in meetings. (AES)

- Attend up to 9 full day coordination meetings in Milwaukee as described in coordination items listed above to meet with city and/or state agencies, MTP or others. (WA, AES, *in part*)
- Attend up to two full day or two-day workshops to review draft and final draft products with city and/or state agencies, MVP or others. (WA, AES) *The first workshop will provide DCD, MVP and other interested parties an opportunity to review, draft products. The second workshop will allow DCD, MVP and other interested parties to review final draft products and to confirm that work under MTP's contracts for design is coordinated with the work described in this scope. (WA, AES)*
- Prepare minutes documenting coordination meetings and workshops. (WA)
- Prepare brief summary report including final products and brief project narrative. (WA, AES)

Products:

- Up to three draft alternative park programming diagrams and final park-programming diagram. *Diagrams to be bubble diagrams on AutoCAD base hand rendered or rendered in Illustrator at 100 scale identifying use by area. (WA)*
- One draft illustrative park master plan and one final illustrative park master plan. *Plans to be on AutoCAD base hand rendered or rendered in Illustrator at 100 scale identifying park grading based on site overlot grading developed for the STT, walks, trails, potential reuse of the chimneys and building foundations that remain on the site, design for park improvements at the river's edge and concepts for landscaping. (WA)*
- Up to three draft illustrative site sections and up to three final illustrative site sections. *Sections to be drawn in AutoCAD and hand rendered or rendered in Illustrator at appropriate scale. Sections to show proposed program including walks and paths, landscape types and proposed modifications to the river's edge. (WA)*
- Up to three draft perspective sketches and up to three final perspective sketches. *Sketches to be hand drawn and rendered over an AutoCAD wire frame base to illustrate design intent at specific locations in the park. (WA)*
- One draft STT plan and Cross sections and one final STT plan and cross sections. *Plan to be AutoCAD at 100 scale showing overlot grading top one foot contour interval for the entire CMC Shops site, designate areas for specific backfill requirements and preliminarily illustrate the mechanics of the system including identifying all structural elements. Cross sections to show depth of finish grade in relation to undisturbed subgrades and proposed cap construction. (WA, AES)*
- Draft STT alternative details and preferred STT details. *Details to be drawn in AutoCAD and hand rendered or rendered in Illustrator at appropriate scale. (WA, AES)*
- Draft and final report establishing flood control, drainage and water quality design criteria. The report will demonstrate how the proposed STT will meet those criteria for the CMC Shops redevelopment including the Stormwater Park. *The report will be in the form of a detailed memo to be distributed electronically and include design calculations, water quality and hydrologic model analysis results, document precedents for the Construction of STT and provide outline specifications for backfill and revegetation requirements. (WA, AES)*

- Opinion of Probable Cost. *Opinion of Probable Cost will be an Excel document delivered as hard copy or electronically. The document will include unit quantities and costs for improvements within the park. (WA, AES)*
- Final summary report on preliminary design for the Stormwater Park. *The report will be in the form of an 11x17 booklet of not more than 10 pages. It will outline project process and use final plan, section and perspective products listed above to illustrate Preliminary park design and confirm coordination with Canal Street and CMC Shops design. (WA)*
- Meeting minutes from all coordination meetings and workshops. *Minutes will be Word documents to be distributed electronically. (WA)*
- We assume 15 person trips at \$1,200.00 per person per trip for travel expenses including airfare, rental car, hotel and meals. We assume up to \$3,500.00 for direct expenses related to preparation of products and deliveries.

<u>Fees for: Preliminary Design</u>	Wenk Associates subtotal:	\$140,795.00
	AES subtotal:	\$54,980.00
	Total:	\$195,775.00

Design Development:

Design Development will focus on detailed design of Stormwater Park. It will include access to the river's edge, playing fields, integration of existing structures to remain, integration of the preliminary design for the STT with recreational elements, walks and trails, designating a site for a future pedestrian bridge location across the Menomonee River, gathering spaces, landscape and site furnishings. Products will serve as documentation of this extensive coordination effort and be equivalent to 50% complete construction documents.

Tasks:

- Prepare grading and drainage plan, layout and materials plan, detail site plans at Community Green, River Overlook and River's Edge, site sections, typical construction details, landscape plans and typical planting details. *Plans will be based on and develop, in detail, the preliminary Plans completed in the previous phase. Plans will indicate design intent throughout the park site including site preparation, coordination with ongoing design adjacent to the park and maintaining a stable condition at the river's edge. We assume that MTP will continue to supply updated site topographic and environmental remediation information under their proposed contract for Redevelopment at the CMC Shops. (WA, AES)*
- Prepare Outline Specifications for all proposed improvements. *Specifications will be in CSI format. It is assumed that the DCD will provide contract general conditions for review and inclusion as appropriate. (WA, AES)*
- Prepare an Opinion of Probable Cost. *The opinion of probable costs will be in a unit cost format. (WA, AES)*
- Coordinate with MTP, DCD, DPW and DNR in developing park design in coordination with final design for the Canal Street Extension, and design for the redevelopment of the entire CMC Shops site including STT design. *Issues for ongoing coordination will include: Site grading and drainage as it relates to site demolition, site remediation, and design for Canal Street. Design of interior roads for*

access to redevelopment sites and redevelopment sites themselves. The interface of infrastructure for site drainage from Canal Street and redevelopment sites to park improvements. The detailed design for park improvements at the river's edge. The interface of landscape improvements within the Canal Street ROW and at sites for redevelopment and landscape improvements within the park. (WA, AES)

- Coordinate with DCD, MVP and other interested parties in developing a detailed park use and maintenance for establishment program. (WA)
- Attend up to six full day meetings for coordination and design review. (WA, AES)

Products:

- Grading and Drainage Plans, Layout and Materials Plans, and Landscape plans. *Plans to be AutoCAD at 50scale showing proposed grades at a one-foot contour interval and including erosion control measures. (WA, AES)*
- One illustrative site plan and up to four supporting illustrative site cross sections or perspective sketches. *Plan and Sections to be drawn in AutoCAD and hand rendered or rendered in Illustrator at an appropriate scale. Sections to show proposed program elements including walks and paths, landscape types and proposed modifications to the river's edge. Sketches to be hand drawn and rendered over an AutoCAD wire frame base to illustrate design intent at specific locations in the park. (WA)*
- Detailed Site Plans: Prepare up to three detailed area plans including site grading, layout and materials plans for special use areas within the Park. Plans to be AutoCAD at 20 scale. *Examples of possible areas for detailed design include the Community Green, the River Overlook and the River's Edge as described in the Wenk Associates Competition entry. (WA)*
- Typical sections and details. *Sections and details to be AutoCAD at an appropriate scale. Sections and details will document proposed Stormwater Management System details including all pipe, culvert and level spreader connections as well as paving, walls, connections, and site stabilization and erosion control measures. (WA, AES)*
- Outline specifications. *Specifications will be a Word document and be delivered as hard copy or electronically. The document will include a table of contents listing all relevant sections with each section describing work material and required maintenance for establishment. (WA, AES)*
- Opinion of Probable Cost. *Opinion of Probable Cost will be an Excel document delivered as hard copy or electronically. The document will include unit quantities and costs for improvements within the park. (WA, AES)*
- Meeting minutes from all coordination meetings. *Minutes will be Word documents to be distributed electronically.*
- We assume 9 person trips at \$1,100.00 per person per trip for travel expenses including airfare, rental car, hotel and meals. We assume up to \$3,500.00 for direct expenses related to preparation of products and deliveries.

Fees for Design Development:

Wenk Associates Subtotal: \$81,330.00

AES Subtotal: \$21,700.00

Total: \$103,030.00

Total for combined Preliminary and Design Development:

\$298,805.00

Exclusions:

This scope does not include design of any improvements in the Airline Yards or Final Design of the Stormwater Park within the CMC Shops Area. This scope of services does not include design of pedestrian bridges, repair or modifications to existing structures, electrical or lighting design, irrigation design or architectural design for structures within the park. This scope of services does not include a public design review process beyond the two design review workshops described under Preliminary Design.