

CIEG 461 – 2007-2008
REQUEST FOR PRELIMINARY ENGINEERING SERVICES
Pomeroy Branch Rail to Trail Project – Phase I
Newark, Delaware

Newark Park Commission
Newark, Delaware

The Newark Park Commission (NPC or the Owner) is seeking engineering services, and proposals for the same, for the preliminary engineering of the Pomeroy Branch Rail to Trail Project (the Project) located in the City of Newark (the City), Delaware.

Schedule

Proposals are due by noon, Wednesday, October 24, 2007 or another date stipulated in advance by the NPC. Presentations in support of the proposals are scheduled for Monday evening, October 29, 2007, starting at 6:00 pm.

Given the complex nature of the project and the desire of the NPC to consider a range of creative designs, the NPC intends to select more than one firm to execute the preliminary engineering, with the understanding that only one firm will be selected to execute the final engineering based on the quality of the preliminary submissions. Notice to proceed with the preliminary engineering will be given at the conclusion of the presentations on October 29, 2007.

The preliminary engineering studies are due by noon, Wednesday, April 23, 2008. Presentations that highlight the preliminary designs are scheduled for Monday evening, April 28, 2008, starting at 6:00 pm.

Background

The NPC, a non-profit authority, is a quasi-governmental public-private partnership that has an ambitious program for the expansion and enhancement of the trail system in and around the City of Newark. The Pomeroy Branch Rail to Trail Project is the long awaited, next phase in the trail system development. Simply stated, the objective of the Project is to greatly improve the mobility of pedestrians and bicyclists throughout the City and to provide a north-south link from the south side of Delaware Avenue to Creek Road and the University of Delaware Laird Campus.

The proposed alignment of the trail follows an abandoned corridor of the Pomeroy and Western Railroad, which serviced the industrial heart of the City of Newark during the late 19th and early 20th centuries. This railroad corridor presently is not utilized for any particular activity or use.

The NPC was formed in 1997 to work with City, State, and Federal officials to implement the design, construction, and operation of off-road trails throughout the City

of Newark. The NPC seeks to promote safe alternatives to automobile travel through the use of paved multi-use recreational trails. The NPC's first trail project was the James F. Hall Trail, which was opened in 2003. The long range plan of the NPC calls for the creation of an off-road pedestrian and bicyclist network that can be used by residents, commuters, and students who live, work and play in the City of Newark and surrounding communities.

In association with this phase of the Project, the NPC has received a special \$400,000 anonymous grant for the construction of an observation tower to provide panoramic views of the White Clay Creek watershed.

Project Requirements

As presently envisioned, the major elements of the Project include the following:

- A multiple-user path, approximately one mile long.
- A combination bicycle parking facility and transit station.
- Reconstruction of the five-point intersection of Cleveland Avenue, Chapel Street, and Margaret Street, including a new pedestrian bridge.
- An observation tower within a specified area in the trail alignment.
- Upgrades to the existing wastewater system in the area of the Project, including a new pumping station.
- Other necessary utilities for all aspects of the Project.
- Stormwater management associated with the overall Project and all of its elements, including particular improvements to Paul Run (e.g., a large earth-retaining structure and stream bank improvements).

The elements described above are expected to be located along and adjacent to the old Pomeroy and Western Railroad Corridor that extends from Delaware Avenue across the five-point intersection of Cleveland Avenue, Chapel Street, and Margaret Street to Creek Road. The NPC owns the right-of-way of the alignment defined by the railroad corridor.

As presently understood, the main challenge of the Project is to achieve the several goals and objectives of this complex, multi-use project in a manner that minimizes adverse impacts to the traveling public (in all modes), environmental resources, and existing utilities while providing a safe and low-maintenance north-south recreational route.

Grant money for the tower may be used only for the construction of the tower. The NPC would like to receive the full amount of the grant but does not want the cost of the tower to exceed the grant value.

For the purposes of this project, "preliminary" engineering is defined to mean approximately 30% to 50% completion of engineering that would be required to produce biddable construction documents for the ultimate construction of the Project, depending on the particular discipline involved, the particular element of the Project, and the particular engineering task.

The NPC may amend or supplement the requirements for the Project at its sole discretion at any time prior to or following the submission of proposals.

Project Data

The NPC will provide the following information and documents. Unless noted otherwise, the listed items will be available in September.

- An aerial photograph that illustrates the proposed trail alignment.
- A topographic plan for the trail alignment. (Packaged as one or several CAD drawings. Available in early February.)
- Relevant portions of the report on the preliminary geotechnical evaluation performed for certain areas of the project, as soon as the investigation is complete. (Available no later than early February.)

Additional information may be provided as necessary and available throughout the project.

Proposal Requirements

The NPC is requesting from several engineering firms proposals and credentials that demonstrate interest in this project and qualifications that make a particular firm uniquely suited to perform the preliminary engineering for the Project. Proposals and presentations will be evaluated on the following general criteria at minimum:

1. Qualifications and organization of the engineering firm;
2. Understanding of the project;
3. Approach to the project;
4. Number of hours estimated to complete the project; and
5. Level of commitment and enthusiasm shown by the firm.

The NPC reserves the right to accept or reject any and all proposals. The NPC reserves the right to negotiate any proposal with the engineering firm that offers said proposal.

NPC Contact Information

Questions concerning the project and proposal should be submitted as brief email messages directed to the Project Coordinator, M. J. Paul, at mpaul@duffnet.com.

The address for delivery of submissions and other materials to the NPC and to which correspondence should be addressed is: NPC Project Coordinator, c/o CIEG461, 301 DuPont Hall, Newark, DE 19716.

CIEG 461 – 2007-2008
REQUEST FOR PRELIMINARY ENGINEERING SERVICES

**COURSE COMMENTARY, RECOMMENDATIONS, AND SUMMARY OF
MINIMUM REQUIREMENTS**

Recognizing the scale and complexity of the project and the challenges that may be involved, the NPC has decided to hire a multi-discipline consulting engineering firm to evaluate, plan, and perform preliminary design of the various elements of this important project. Attachments A, B, C, and D outline the recommended minimum requirements for the preparation of proposals and the execution of preliminary engineering services with respect to each discipline.

Note that the use of “percent completion” with respect to deliverables (e.g., “50% submission”) varies among the several disciplines and Attachments. Consider carefully how this terminology is used in each particular case. Also note that some disciplines recommend “conceptual” engineering for some aspects of the project.

Once selected, the successful firm will have approximately 16 weeks to develop a preliminary engineering study that includes:

1. A concept plan that illustrates the recommended project elements as described herein and in Attachments A, B, C and D.
2. Drawings, details, specifications, and other descriptions that are necessary to clearly show and define each of the major project elements (for all disciplines, as applicable), including locations on the site and how the elements relate to one another, the character of the project site, the surrounding area, the University of Delaware, and the City of Newark.
3. An analysis and discussion of how the proposed elements and locations will be integrated into existing development, the surrounding land uses, and public plans for the same.
4. An estimate of preliminary probable construction cost for the development of each element of the project.
5. Identification of zoning, land development approval, permitting, and regulatory issues that may impact the costs, feasibility, and schedule for the proposed project and a discussion of these issues, including an assessment of the likelihood of obtaining permits and approvals.
6. A schedule for final design, permitting, land development approvals, and bidding and construction of the project. The schedule should recognize the owner’s constraints and should include recommendations for phasing and schedules for

designing and constructing buildings, site structures, site improvements and transportation improvements.

Progress Presentations

A coordinated progress presentation shall be made to the owner at the end of the fall semester and early in the spring semester. (These sessions also are referred to as progress meetings.) The presentations should summarize information that the team has processed, the status but not the details of the engineering of all important elements of the project, and unforeseen problems or issues that the owner should know about or needs to consider.

No project documents or deliverables are required for the presentations per se, but, especially since the presentations are brief, it may be helpful to have exhibits.

Particular deliverables may be due on the same days as the progress presentations. These deliverables generally are interim deliverables in each discipline that are recommended or required by and submitted to the individual instructors. These interim deliverables are not to be submitted to the owner.

Further information will be provided about the nature and requirements of the progress presentations.

Preliminary Engineering Report and Presentation

Upon completion of this engineering study, the engineering firm will be required to provide a report and make a presentation to the NPC. The report will include a summary of the consultant's recommendations and detailed discussion of the preliminary design and all pertinent analyses. The presentation will include a summary of the consultant's evaluative effort and recommendations for the project. The consultant should be prepared to have suitable graphic presentation materials to support the presentation. Prior to the final presentation, the course coordinator will provide an outline of the evaluation criteria to be used in the review of the report and presentation.