

TOWNSHIP OF ABINGTON

(1) PUBLIC WORKS COMMITTEE

**October 5, 2016
7:00 P.M.**

CALL TO ORDER

ROLL CALL: HECKER – FARREN – KLINE – MYERS – ROTHMAN

**Township Manager LEFEVRE
Assistant Township Manager WEHMEYER
Township Solicitor CLARKE
Township Engineer POWERS
Director of Code Enforcement MATTEO
Director of Public Works MICCIOLO
Director of W.W.T.P. WRIGLEY**

MINUTES:

Motion to approve the minutes of the August 29, 2016 Public Works Committee Meeting.

Power Point Presentation – U.S. Army Corp of Engineers

PW1. Request for Proposals – Engineering Services

Motion to authorize Township Administration to solicit Request for Proposals for Engineering Services to be received by the close of business on November 4th.

PW2. 2016 – 2017 PennDOT – Snow and Ice Agreement

Motion to authorize the proper Township officials to enter into an agreement with PennDOT for snow and ice removal on PennDOT highways for the winter season 2016 – 2017.

PW3. U.S. Army Corp of Engineers Design/Construction Agreement – Sandy Run Environmental Project

Motion to approve the Design/Construction Agreement with the U.S. Army Corp. of Engineers, including the project management plan, for the Abington Environmental Improvement Project to provide for an improved riparian buffer and stream corridor improvements along Sandy Run Creek.

PW4.

Grant of Sanitary Sewer Easement from AQUA PA, Inc.

Motion to accept a Grant of Sanitary Sewer Easement from AQUA Pennsylvania, Inc. in and along the rear property line of Montgomery County Tax Parcel No. 300016440009 including Block/Unit No. 30195-010 and No. 30195-011.

BOARD ACTION REQUEST

PUBLIC WORKS COMMITTEE

October 5, 2016
DATE

PW 1
AGENDA ITEM NUMBER

DEPARTMENT

AGENDA ITEM

TOWNSHIP MANAGER

Administration

Request for Proposals
Engineering Services



PREVIOUS ACTIONS

None

RECOMMENDED BOARD ACTION

Motion to authorize Township Administration to solicit Request for Proposals for Engineering Services to be received by the close of business on November 4th.

COMMENTS

**PUBLIC WORKS
BOARD ACTION REQUEST**

October 5, 2016
DATE

AGENDA ITEM NUMBER
PW 2

DEPARTMENT

AGENDA ITEM

TOWNSHIP MANAGER

Public Works



2016 - 2017
PennDot
Snow & Ice Agreement



PREVIOUS ACTIONS

We entered into a five year renewable agreement last year. It has to be mutually agreed upon each year.

RECOMMENDED BOARD ACTION

Motion to authorize the proper officials to enter in to an agreement with PennDot for snow and ice removal on PennDot highways for the winter season 2016 - 2017.

COMMENTS

- 1.) We have had an agreement with PennDot for snow and ice removal for many years. We were able to renegotiate our contract for a higher payment to offset our increased costs. We have over seventy five lane miles of roadway that we salt & plow for PennDot and we have increased our payments from \$873.00 to \$1100.00 per lane mile. We have also included as part of the agreement an increased payment for winters where our costs exceed our payments.

PUBLIC WORKS COMMITTEE

BOARD ACTION REQUEST

October 5, 2016

DATE

PW3

AGENDA ITEM NUMBER

DEPARTMENT

AGENDA ITEM

TOWNSHIP MANAGER

Administration

U.S. Army Corp of Engineers
Design/Construction Agreement
Sandy Run Environmental Project



PREVIOUS ACTIONS

June 9, 2016 – Board of Commissioners accepted the Federal appropriation of \$200,000.00 through the U.S. Army Corp of Engineers Section 566 Program for Design and Project Development Assistance to facilitate environmental infrastructure improvements to the Sandy Run Watershed.

RECOMMENDED BOARD ACTION

Motion to approve the Design/Construction agreement with the U.S. Army Corp of Engineers, including the project management plan, for the Abington Environmental Improvement Project to provide for riparian buffer and stream corridor improvements along Sandy Run Creek.

COMMENTS

Total projected cost for the Abington Environmental Improvement Project is estimated to be \$2,650,000.00 with \$1,987,500.00 coming from Federal Act 566 Funds and a Township match of \$662,500.00.

The Township match of \$662,500.00 has been factored in our debt service obligation and included in the 2017 Budget.

**ABINGTON ENVIRONMENTAL IMPROVEMENT
ABINGTON TOWNSHIP, MONTGOMERY COUNTY
PENNSYLVANIA**

**SOUTHEASTERN PA ENVIRONMENTAL INFRASTRUCTURE
IMPROVEMENT PROGRAM SECTION 566**

PROJECT MANAGEMENT PLAN

**Philadelphia District
North Atlantic Division
28 SEPTEMBER 2016**



**US Army Corps
of Engineers®**
Philadelphia District

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

**ABINGTON ENVIRONMENTAL IMPROVEMENT
ABINGTON TOWNSHIP, MONTGOMERY COUNTY,
PENNSYLVANIA
PROJECT MANAGEMENT PLAN**

TABLE OF CONTENTS

1.0 - INTRODUCTION	2
2.0 - BACKGROUND	2
2.1 STUDY AUTHORITY.....	2
2.2 FUNDING	2
2.3 PROJECT AREA	3
2.4 STUDY SPONSOR.....	4
2.5 FORMAT OF THE PROJECT MANAGEMENT PLAN.....	4
2.6 SCOPE OF PROJECT.....	4
3.0 – SCOPES OF WORK.....	12
3.1 - ESTABLISH EXISTING CONDITIONS.....	12
3.2 - EA DEVELOPMENT AND COMPLETION.....	17
3.3 - FINAL DESIGN	17
3.4 – ACQUISITION STRATEGY.....	19
3.5 – PROJECT CONSTRUCTION.....	19
3.6 - ONGOING ACTIVITIES	19 20
4.0 –RESPONSIBILITY ASSIGNMENT	20
5.0 –PROJECT SCHEDULE	21 22
6.0 –STUDY COST ESTIMATE.....	22 23
7.0 - PROJECT COMMITMENTS.....	26
8.0 – PROJECT ACQUISITION PLAN.....	26
9.0 - PROJECT QUALITY CONTROL PLAN.....	26
10.0 - PERFORMANCE MEASUREMENT.....	27
11.0 – RISK ASSESSMENT	27
12.0 - CHANGE CONTROL PLAN.....	27
13.0 - COMMUNICATIONS PLAN	27 28
14.0 - REPORTING REQUIREMENTS	28
15.0 - PROJECT DELIVERY TEAM COMMITMENT.....	28
Appendix A – Project Schedule Print Out from Corps’ P2 Network Analysis System.....	32

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

**ABINGTON
ENVIRONMENTAL IMPROVEMENT PROJECT
ABINGTON TOWNSHIP, MONTGOMERY COUNTY,
PENNSYLVANIA
PROJECT MANAGEMENT PLAN**

1.0 - INTRODUCTION

Guidance contained in ER 5-1-11, dated 27 February 1998, states that each project shall be managed in accordance with a fully coordinated Project Management Plan (PMP). The Project Manager (PM) develops this PMP with the non-Federal sponsor and the other team members. The PMP will be developed and maintained at a level of detail commensurate with the size and complexity of the project. It is a living, working level document that records the history, documents commitments by the U.S. Army Corps of Engineers (USACE) and the non-Federal sponsor, and depicts the future direction of the project. It is a binding agreement among all elements supporting the project that details how the work will be executed and how resources will be utilized. It defines the baseline scope, schedule, resources, including team member's roles and responsibilities, contingencies, and provides a configuration (change) management plan for the project.

The schedule and funding levels shall be realistic and reflect overall program and budget constraints. It will consider all project requirements including real estate, planning, design, engineering, construction, environmental, operations, and other types of work whether performed by USACE, sponsor, or by contract. Major changes in the PMP will be coordinated with the Project Delivery Team (PDT) and the non-Federal sponsor.

2.0 - BACKGROUND

2.1 STUDY AUTHORITY

The authority for this study is Section 566 of the Water Resources Development Act (WRDA) of 1996 (Public Law 104-303). Section 552 of WRDA 1999 (Public Law 106-53) amended the authority to include environmental restoration as an authorized project purpose. Under this authority, the USACE is authorized to design and construct water related environmental infrastructure and resource protection and development projects in southeastern Pennsylvania. The authority is limited to the Pennsylvania Counties of Bucks, Chester, Delaware, Montgomery and Philadelphia.

2.2 FUNDING

Funding for this authority is provided by Congress to the Corps through a line item in the Energy and Water Appropriation Bill for Environmental Infrastructure and distributed to specific projects through the annual work plan. Federal funds in the amount of \$200K were provided in fiscal year 2016 to prepare a project management plan, negotiate a cost-share agreement with a non-Federal sponsor and complete an Environmental Assessment. Funding in future fiscal years will support final project designs, reviews and implementation. Abington Township is prepared to act as the

non-Federal sponsor and provide cost-share funds for the design and construction of the project. Projects are cost-shared at 75% Federal and 25% non-Federal for all phases of the project.

2.3 PROJECT AREA

The project areas are located in Abington Township, Pennsylvania adjacent to and along Sandy Run Creek (Figure 1). Sandy Run Creek, part of the Wissahickon Creek Watershed, is a stream system adversely affected by development and land use practices over the past century. Due to high levels of impervious surfaces throughout the watershed, the creek responds quickly during wet weather events; increases in stream flow and erosive forces occur almost immediately following the onset of storm events. Changes in hydrologic conditions within the watershed have caused severe channel de-stabilization within much of the watershed. The most downstream potential project location, Deal Park, drains an area of approximately 2.64 square miles, of which about 24.8 percent is impervious surface and 92 percent is urban development. The urbanized nature of the watershed causes flash flood conditions with rapid stream flows and increased streambank erosion and degraded stream conditions.



Figure 1: Location of the Sandy Run Creek Project Locations within Abington Township, Montgomery County, PA.

2.4 STUDY SPONSOR

Abington Township has provided the USACE Philadelphia District with a letter of interest to act as the non-Federal sponsor for the project, with a responsibility for 25 percent of the total costs of the project.

2.5 FORMAT OF THE PROJECT MANAGEMENT PLAN

The purpose of this Project Management Plan (PMP) is to guide activities, schedules, and budgets for the design and implementation associated with the project. This PMP covers project tasks and products including project management; environmental and cultural resource coordination; real estate coordination; hazardous, toxic, and radioactive waste (HTRW) analyses; geotechnical analysis; detailed designs and cost estimates; technical review; contract advertisement; contract award; and construction.

2.6 SCOPE OF PROJECT

The PDT visited five different potential project locations in April 2016: Roychester Park, Grove Park, Roslyn Park, Ardsley Wildlife Sanctuary, and Deal Park (Fig. 1). During the site visit, it was determined that all five sites had potential for projects under the 566 authority. Roychester Park, and Grove Park were identified as high priority project locations and will be the focus for design and construction efforts outlined within this PMP. Ardsley Wildlife Sanctuary, Deal Park, and Roslyn Park were identified as lower priority projects because of higher levels of uncertainty in defining the problem areas.

2.6.1 OBSERVED CONDITIONS

Roychester Park

Roychester Park is a municipally owned park of approximately 12.7 acres. Many recreational and community features are present in the park including a playground, baseball fields, basketball courts, tennis courts, and the Roychester Community House, which serves as a venue for community functions and gatherings.

The headwaters of Sandy Run Creek flow through Roychester Park. The park contains approximately 950 linear feet of stream, about 150 linear feet of which is currently diverted into a below ground channel. The segment of stream which has been diverted underground currently has no aquatic habitat value.

The banks of the above ground segments of Sandy Run Creek within Roychester Park are severely eroded (Fig. 2). The significant erosion of these banks disconnects the streambed from the surrounding floodplain, provides poor habitat for aquatic and wetland species, and transports sediment to downstream locations creating further aquatic habitat impairment. The municipality has performed some native vegetation plantings in the riparian buffer area the stream, but the presence of invasive species in the riparian area continue to degrade the riparian habitat by preventing the further recruitment and establishment of native species which provide vital habitat to species inhabiting the riparian buffer areas.



Figure 2: Eroded stream bank in Roychester Park, Abington Township.

Grove Park

Grove Park is a municipally owned park of approximately 2 acres. The park contains approximately 1,300 linear feet of Sandy Run Creek. About 400 linear feet of stream within the park are lined with gabion baskets on the banks and a 24 foot wide and 12 inches thick rebar enforced concrete channel on the stream bottom (Fig. 3). The concrete channel provides no useful aquatic habitat and increases the velocity and temperature of the water, which impairs downstream habitat through increased sedimentation and water temperature. Downstream of the concrete lined stream bottom, the stream banks are lined with gabion baskets (Fig. 4). The gabions provide lower quality habitat for aquatic species and prevent the stream bed from connecting to the surrounding floodplains.

The main stem of Sandy Run Creek was relocated to its current location in Grove Park. The original channel still exists, and while it does not have base flow; it serves as a high flow channel during storm events (Fig. 5). The vegetated buffer of this high flow channel has major invasive species issues, which degrade the habitat value of the riparian buffer.



Figure 3: Concrete and gabion lining of Sandy Run Creek in Grove Park, Abington Township



Figure 4: Gabion lined Sandy Run Creek downstream of concrete lined segment in Grove Park, Abington Township



Figure 5: Former location of main stem in Sandy Run Creek in Grove Park, Abington Township

Roslyn Park

Roslyn Park is a municipally owned park of approximately 17.6 acres with athletic fields, tennis and basketball courts, and a playground. The park contains approximately 1,500 linear feet of Sandy Run Creek. Riparian plantings were performed by Abington Township between 2006 and 2010. The plantings have survived; however, the presence of invasive species in the riparian buffer decreases the value of habitat in the riparian buffer by competing with native species which provide far more valuable habitat.

Deal Park

Deal Park is a municipally owned park of approximately 1.6 acres which contains about 500 linear feet of Sandy Run Creek. When the PDT visited the Deal Park location, the stream bed was dry except for remnant stagnant pools (Fig. 6). More information would be required to determine why Sandy Run Creek was dry in Deal Park, but had flow in Roslyn Park, which is immediately upstream (Fig. 7). Dead and dying fish were observed in and around the remnant pools, indicating the inhospitable conditions for aquatic life due to the drying out of the stream bed.

There is historical precedent for sink holes forming in the Sandy Run Creek watershed. A sink hole could produce conditions similar to those at Deal Park. Further information would be needed before measures could be formulated to address the dry conditions at Deal Park which eliminate aquatic habitat.



Figure 6: Sandy Run Creek in Deal Park, Abington Township



Figure 7: Sandy Run Creek in Roslyn Park, Abington Township, immediately upstream of Deal Park (Fig. 6)

Ardsley Wildlife Sanctuary

Ardsley Wildlife Sanctuary is a municipally owned undeveloped open space of approximately 81 acres which contains an intermittent stream that drains into Sandy Run Creek. Extremely eroded and undercut banks indicate that high velocities and volumes of water move through the intermittent stream and carry large loads of sediment into the downstream main stem of Sandy Run Creek (Fig. 8). To address the large amounts of sediment that are transported into Sandy Run Creek from Ardsley Wildlife Sanctuary, Abington Township has built a detention basin in Ardsley Wildlife Sanctuary which is routinely cleared of accumulated sediment (Fig. 9). Despite this structure, turbid discharge is still observed from Ardsley Wildlife Sanctuary into Sandy Run Creek, which degrades aquatic habitat. Further information would be needed to formulate measures to address the sediment transport problems at Ardsley Wildlife Sanctuary.



Figure 8: Severely eroded and undercut bank in an intermittent stream in Ardsley Wildlife Sanctuary, Abington Township

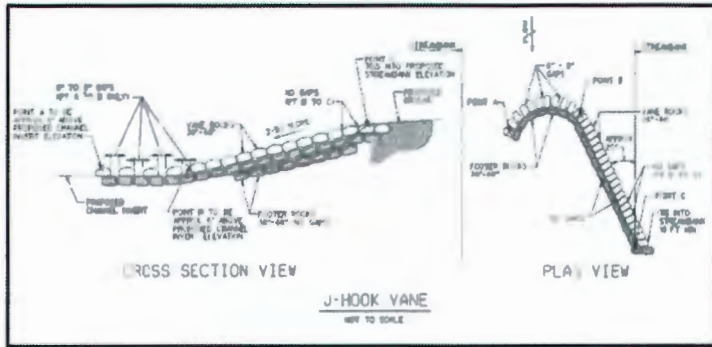


Figure 9: View of Detention Basin in Ardsley Wildlife Sanctuary, Abington Township

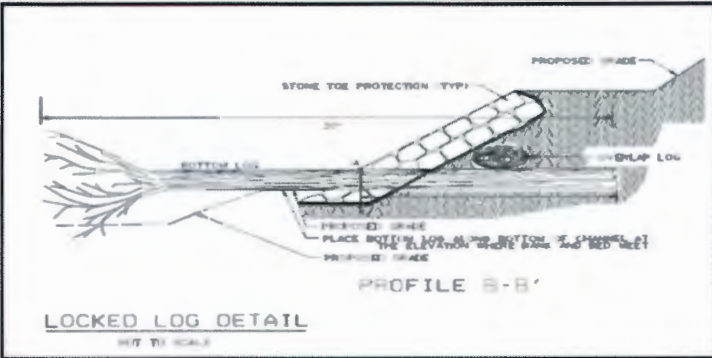
2.6.2 PROJECT GOALS

The purpose of the project is to enhance and restore aquatic, wetland, and riparian habitat, improve infiltration of flood waters, stabilize stream banks, control invasive species, and reconnect floodplains along the Sandy Run Creek in Abington Township, Pennsylvania using natural stream stabilization methods such as J-hook vanes, locked logs, cross vanes, bendway weirs, longitudinal stone toe protection, and vegetation (Fig. 10).

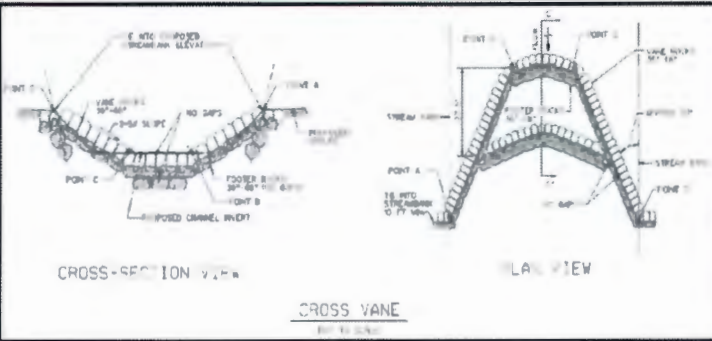
The project will result in an improved riparian buffer and stream corridor. Improvements to the stream bed and channel would improve habitat for benthic species such as dragonflies (spp.), which function as an important food resource in stream ecosystems. Riparian buffers and stream corridors are key habitat and migration routes for many species, including migratory birds, reptiles and amphibians, and local resident mammalian species. Migratory birds likely to benefit from the project include: red eye vireo, eastern bluebird, American robin, gray catbird, hawk (spp.), and warblers (spp.). In addition, many native resident bird species will also benefit from an improved riparian area, including: northern cardinal, blue jay, dark eyed junco, and black capped chickadee. Reptiles and amphibians likely to benefit from the project include: common garter snake, northern racer, snapping turtle, eastern painted turtle, and green frog. Mammals that will potential benefit are: white-tailed deer, eastern chipmunk, woodchuck, opossum, striped skunk , red fox, eastern cottontail, big brown bat, little brown bat, and the gray squirrel.



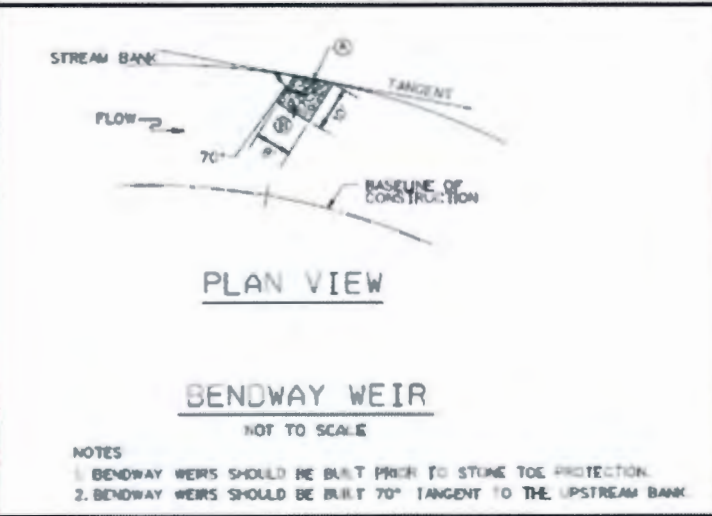
J-Hook Vanes: Redirect higher velocity flows away from outside banks reducing erosion and create aquatic habitat through riffle formation



Locked Logs: Dissipate energy, reduce near-field scour, provide toe protection, and provide aquatic habitat complexity



Cross vanes: Redirect water away from stream banks and into the center of the channel, decreasing stress on unstable banks and forming pool habitat in the channel center. Double cross vanes (W weirs) area variation suitable for wider channels.



Bendway Weirs: Redirect flow from the outside streambank as the water moves through a bend in the channel.

Figure 10: Conceptual Examples of Natural Stream Stabilization Structures

3.0 – SCOPES OF WORK

For each task that is included in the work breakdown structure (WBS) (See Appendix A for WBS), a scope of work will be developed that describes the work that is to be performed, including specific activities to be accomplished in narrative form. The scopes of work will be developed by the project delivery team (PDT) which includes the non-Federal sponsor. A brief synopsis of tasks follows:

3.1 - ESTABLISH EXISTING CONDITIONS

Determine Project Area Limits: Conduct field visits and review all available data to confirm the study area limits.

Perform Topographic Surveys in Project Area(s): Perform topographic survey for reaches of interest and 25 ft outside of top of bank, including centerline of the existing channels for each area, edges of any features (gabion baskets, etc.), channel edges, coordinates/locations of the existing manholes nearest to the channels, and any features that extend into or cross the channel (culverts, utility lines, etc.).

Geotechnical Site Reconnaissance: A site reconnaissance will be conducted to gather information to develop a subsurface investigation plan and obtain information to be utilized in the design analysis and report preparation. Subsurface investigation plans, locations, and associated costs will be strongly influenced by the potential solutions. Specific scopes of work will be developed following the initial reconnaissance and after the most likely potential solutions have been identified.

Hazardous, Toxic, and Radioactive Waste (HTRW) Site Inspection Report: The study area will be subjected to detailed review of present and historic maps, aerial photos, community records, database records, etc.; visual site surveys will be conducted; and owners, operators and knowledgeable individuals will be interviewed. If it is determined that there are no suspected HTRW problems, the investigation and findings to support this determination will be clearly documented. If it is determined that there is a potential HTRW site in the study area, recommendations will be provided to address this situation.

Sediment Sampling and Testing (Geotech and HTRW) (HTRW only necessary if an HTRW issue is found): Soil and/or sediment samples will be obtained from borings, test pits, or other subsurface explorations for both geotechnical and environmental testing (if necessary). Select samples will undergo detailed examination, analysis and laboratory testing. Selected soil and sediment samples will be subjected to index and physical property testing to confirm the field visual classifications and obtain additional information on the moisture content, index properties and strength parameters of the materials encountered. Geotechnical test samples will be forwarded to a USACE validated geotechnical testing laboratory for analysis. Recovered sediment samples will also be subjected to environmental evaluation and monitoring to determine if any suspected contamination is present in the samples. Selected sediment samples may also be subjected to chemical analysis to assist in evaluating environmental conditions in the investigated areas. If necessary, samples will be obtained from the explorations to assist with the HTRW study and the

selected samples forwarded to a USACE validated chemical testing laboratory for analysis.

Existing Utilities Investigation: A detailed investigation into existing utilities will be performed within the project area. This will consist of collecting available mapping of existing utilities in the study area, including electric, telephone, water, sanitary, storm water, cable, etc. Field investigations and coordination with utility providers will be necessary to determine the existence and location of utilities when no mapping is available.

Cultural Literature Search (Phase IA): The cultural resource investigations to be conducted are required to comply with the National Historic Preservation Act of 1966, as amended, and its implementing regulations, 36 Code of Federal Regulations Part 800, Protection of Historic Properties. The National Historic Preservation Act requires that all Federal undertakings be subjected to a review process to determine whether the undertaking may affect historic properties, and if historic properties are found, that the Federal agency take actions to avoid or minimize the effects of the undertaking on the historic property. The results of the cultural resource investigations will be used in project planning to minimize the potential effects of this project on significant cultural resources. For Phase IA, a records search, historical land use documentation, and State Historic Preservation Office (SHPO) consultation will be conducted to identify known and expected cultural resources in the study area. This cultural assessment will identify high, medium, and low culturally-sensitive areas, in addition to identifying the existing condition, landscape, and disturbed areas. The assessment report will identify a Phase IB field strategy, if necessary.

NEPA Scoping: Prepare a scoping letter and scoping summary which is coordinated with State and Federal agencies; as well as, other potential interested parties. This scoping letter gives early notice of a potential project to agencies and the public allowing any potential issues to be identified early on in the process. Scoping efforts will include coordination with Federal and State resource agencies, and appropriate local groups and interested individuals to identify environmental issues and concerns to be addressed during the NEPA process. Scoping efforts will include letters requesting information, telephone contacts, meetings and field visits, as appropriate.

Fish and Wildlife Coordination Act (FWCA) and Endangered Species Act (ESA): Due to the small size of the Abington Project and the shortage of staff in the U.S. Fish and Wildlife Service, Pennsylvania Field Office (PAFO), NAP will have an abbreviated process under the FWCA for this project. NAP will coordinate the draft NEPA document with the PAFO and then request an official Section 2(b) letter as legally required under the FWCA, as well as consultation for the project under Section 7 of the ESA. There will be no official scope of work, funding transfer, or planning aid report for this project.

Perform General Environmental Studies: Environmental data gathered during the scoping process will be compiled to address environmental issues and concerns. The information will be used to document both “with-“and “without-project” environmental conditions, and to provide environmental technical support during design. Additional information will be collected, as necessary, throughout the course of the project to ensure that all environmental issues are adequately addressed.

Hydrologic and Hydraulic Analysis:

The overall objective of H&H analyses for this project is to inform restoration design and project goals, with focus on assessment of ecosystem benefits throughout the reaches of interest, and demonstrating no adverse impacts to flooding, as a result of proposed restoration designs. A solid understanding of driving ecological and geomorphic processes will be integral to this analysis, with modeling results utilized to guide restoration approaches, and optimize ecosystem benefits.

Data Collection and Analysis

Several previous studies have been completed for the Wissahickon Creek, which encompass the Sandy Run reaches of interest. Previous study results, and modeling data, will be compiled and reviewed during this task, and will ultimately serve as the base for subsequent tasks. Other data sources include review of aerial photography, both current and historic, and the collection of pertinent fluvial geomorphologic data, e.g. substrate data (pebble counts), bankfull indicators, pool/riffle spacing, step/pool structure, etc., to inform potential design of adjustments to channel dimension, pattern, and profile.

Hydrology

Previously completed HEC-HMS modeling, completed by Temple University for the Wissahickon Creek Act 167 Plan, will be obtained and used as the basis for a site specific hydrologic model. Given the scale, and focus of the Temple effort (entire Wissahickon watershed), it will be necessary to update/modify/refine the HEC-HMS model to account for any watershed changes since completion, and serve as a baseline for analysis of hydrologic effects of proposed design alternatives. In the absence of observed flow data, hydrologic modeling will be calibrated to the extent practicable, likely in conjunction with hydraulic modeling and observed high water marks. Frequency discharges for a range of conditions (e.g. 1- through 500-yr) will be determined for both existing and with project conditions. Given the full scale of the original Temple HMS model, if necessary or warranted, effects of the localized Sandy Run restoration projects could be carried downstream with the modeling domain to estimate extent of project benefits. Additional pertinent stream flow data, including baseflow, and low flow statistics, will be compiled to further inform restoration design efforts over the natural range of hydrologic variability.

Hydraulics

Previously completed HEC-RAS modeling, completed for a FEMA FIS update in 2012 and incorporating results from the Temple hydrologic modeling effort, will be obtained and utilized as a basis for an updated site specific hydraulic model. Similar to the HMS model, the scale of the existing HEC-RAS model will require refinement to serve as an adequate baseline for analysis of hydraulic effects of proposed restoration projects. Anticipated modifications include incorporation of updated site topography, cross-section spacing refinement, and any other necessary updates to accurately depict the site specific hydraulics through the reaches of interest. Hydraulic modeling will be used to inform restoration design alternatives, likely in an iterative manner. This could include stable channel design, velocity/shear stress/stream power analysis, bank stability assessment, simplified sediment transport analysis, substrate framework/matrix sizing, large woody debris (LWD) stability calculations, etc.

Review of Existing Conditions Environmental Studies: Environmental data will be compiled and documented to provide a “without-project” description of the study area. This information will be included in the NEPA document, and will serve as the basis for making decisions regarding development of the design elements.

Finalize Existing Conditions: Compile and review all the without project information. Prepare write-up for existing and without project condition, which will be part of the NEPA document. Conduct meetings with the PDT, sponsor management, independent technical review team and other interested parties to discuss the information and verify that the information is accurate and sufficient to accomplish plan formulation and optimization.

Perform Cultural Studies (Phase IB): Phase IB cultural resource investigations will be conducted. Phase IB investigations will consist of reconnaissance field investigations (ground-truthing and shovel testing, as necessary) on all selected properties that will be impacted by proposed construction activities to identify the level and nature of disturbance. Limited field testing (shovel test pits) will be conducted on locations of high integrity. Phase IB investigations may be conducted either by hired labor or contract labor, dependent upon staffing and workload. Phase IB studies will be conducted concurrently with the plan formulation phase of the study. ER 1105-2-100, Section 7-50 requires that Phase I investigations be conducted during the feasibility phase and that the results of the Phase I be used during plan selection.

Perform Contaminant Testing (optional, depending on project design): Depending on the alternatives carried forward, testing would be required of the existing sediment on site (receiving site); as well as, from the borrow site.

Determine Social and Cultural Impacts: Project areas potentially affected by construction of the project will be evaluated to identify project impacts on cultural resources. Mitigation plans will be developed as necessary to avoid, minimize or compensate for project impacts. These plans will be coordinated with the SHPO and other agencies, as appropriate. If no cultural resources are located in the proposed project area, the Philadelphia District will prepare a cultural resources report and Finding of No Effect letter to the SHPO to complete the Section 106 historic preservation act coordination requirements.

Coordinate Rights of Entry: Preliminary real estate field survey to estimate the number of parcels affected by any proposed project and to obtain right-of-entry for all field work such as subsurface explorations, cultural and sediment testing.

Prepare Real Estate Plan

The Corps will obtain tax maps for the study area identifying affected property owners and alert interested parties to any problems and complete a Real Estate Plan (REP) that contains the following:

- Description of the area
- Acreage and proposed estates, including non-standard estates, and reasons therefore

- Discussion of any land owned by the Federal government, the Non-Federal Sponsors or public entity, and number of private interests to be acquired;
- Estimate of PL 91-646 relocations
- Baseline Cost Estimate for Real Estate
- Discussion of the Non-Federal Sponsor's ability to acquire lands, easements, rights-of-way, relocations and disposal areas (LERRD)
- Discussion of mineral activity, if any
- Attitude of the community concerning the project, especially anticipated landowners;
- Detailed schedule of land acquisition
- Preliminary assessment of potentially relocated facilities/utilities
- Status of environmental clearance
- And, any other relevant real estate information appropriate for the project based on the alternatives selected for detailed study.

The Corps will also evaluate the lands required for the project in preparation for conducting a Gross Appraisal. The Corps will also perform a detailed, supported appraisal of the collective real estate requirements and impact of the project, including review and approval, as required by ER 405-1-12 and policy guidance. Integral to this work is the preparation of a Baseline Cost Estimate for Real Estate in MCACES format.

The Corps will prepare a set of maps and drawings that delineate the real estate acquisition lines based on the technical design drawings. Maps and drawings will reflect the minimum real estate required for the project. This activity will require collection of Tract Ownership Data and deed investigation and review. The maps will be included in the Real Estate Plan and when refined, made available to the Non-Federal Sponsors for land acquisition purposes.

Abington Township will provide all lands, easements, rights-of-way, relocations, and disposal (LERRDs) areas required for the project.

Gross Appraisal: A qualified Real Estate Appraiser will evaluate the LER required for detailed study in preparation for conducting a Gross Appraisal. A qualified Real Estate Appraiser will also perform a detailed, supported appraisal of the collective real estate requirements and impact of the potential project, or selective portions thereof, including review and approval, as required by ER 405-1-12 and policy guidance. Integral to this work is the preparation of a Baseline Cost Estimate for Real Estate in Micro-Computer Aided Cost Estimating System (MCACES) format.

Real Estate Acquisition Maps: The PDT will prepare a set of maps and drawings that delineate the real estate acquisition lines based on the technical design drawings. Maps and drawings will reflect the minimum real estate required for the project. This activity will require collection of estate acreages and tract ownership data. The maps will be included in the REP and when refined, made available to the Non-Federal Sponsor for land acquisition purposes.

Prepare Preliminary Design and Costs: Prepare preliminary designs and cost estimates for plans developed by the project delivery team including the non-federal sponsor.

3.2 - EA DEVELOPMENT AND COMPLETION

Prepare Draft EA: Compliance requirements are outlined within the provisions of NEPA, the Council on Environmental Quality regulations 40 Code of Federal Regulations 1500-1508, and the Corps ER 200-2-2, Procedures for Implementing NEPA, 1988. A NEPA document will be prepared, including an alternatives analysis, in order to evaluate the project alternative that is proposed for implementation. The analysis will investigate engineering and environmentally feasible alternatives and evaluate the beneficial and adverse impacts the proposed solution will have on the environment. Tasks include documenting and assessing the effects of the proposed Federal action and alternatives on significant natural resources and completing the EA. The focus of NEPA compliance will be to provide information to other agencies, the public, and decision-makers on the study and to ensure that the report adequately addresses environmental requirements. Coordination, compliance, and documentation of other laws and regulations that require environmental compliance actions will be completed. This includes Sections 401 and 404 of the Clean Water Act, Section 7 of the Endangered Species Act, Clean Air Act, U.S. Fish and Wildlife Coordination Act, Section 106 of the National Historic Preservation Act, Prime and Unique Farmlands, and National Pollutant Discharge Elimination System Act. All appropriate environmental documentation (e.g., water quality certificate) must be obtained and included as part of the final EA. The final EA and all NEPA compliance documentation will be submitted to USACE North Atlantic Division (NAD) for approval prior to construction.

Solicit Appropriate State Approvals: The draft EA will be used as technical documentation to solicit preliminary State approvals including any necessary permits.

Respond to Public Comments on EA: Address all comments received on the Draft Environmental Assessment. All comment letters will be included in an appendix to the final report, and all comments and recommendations will be addressed in a comment/response format.

Prepare Final EA: Following review of the draft report and receipt of public coordination comments, the final NEPA document will be prepared. It will serve as the decision document for project implementation.

Brief DE and Obtain Signature: Brief the District Engineer regarding the project conclusions and recommendations. Obtain the District Engineer's signature on the Environmental Assessment.

3.3 - FINAL DESIGN

Report Preparation: This task includes writing, editing, typing, drafting, reviewing, reproducing, and assembling the environmental assessment and other related documentation.

Prepare Project Design: Prepare detailed design, including preliminary drawings, for the selected project alternative(s).

Prepare Project Design Cost: Prepare cost estimates for project alternatives.

Prepare Mitigation Design and Cost Estimate: If necessary, this task will involve the layout and

design of any necessary mitigation measures required by the project alternatives. Plans to mitigate significant adverse environmental impacts will be prepared where necessary. The appropriate application of mitigation is to formulate plans that (1) avoid impacts, (2) minimize impacts, and (3) compensate for remaining impacts. Mitigation plans will be coordinated with the appropriate Federal and State resource agencies to insure conformance with their policies and regulations.

Finalize Design: The Corps will develop final Plans and Specifications for implementation of the selected project. This shall include the development of all necessary plans, procedures and other necessary information to obtain permits, verify costs and proceed to construction. Drawings will show general layout and construction details necessary for clear and concise preparation of the work contained in the recommended plan. The specifications will cover all parts of construction shown on the drawings.

Value Engineering Study: Value Engineering is a management technique applied to reduce project costs and to improve productivity and cost effectiveness while maintaining the integrity of the project. The Water Resources Development Act of 1986 (PL 99-662) requires Value Engineering (VE) on Corps Water Resources Projects. The Office of Management and Budget (OMB) Circular A-131 requires Federal agencies to apply VE procedures to all projects with estimated costs of \$2 million or more.

Finalize Cost Estimates: Cost estimates will be developed in accordance with the guidance contained in ER 1110-2-1302, Civil Works Cost Engineering using the MII (MCACES Second Generation) cost estimating system. Cost estimates will be prepared for all items that are required for project construction for both Federal and non-Federal costs, including mitigation, operation and maintenance. Calculate maintenance costs and schedules for the selected project alternative (and any associated costs). Provide text sections on cost estimates, including tables of cost estimates in Civil Works Breakdown Structure (CWBS). Include in the cost estimates any real estate requirements.

Biddability, Constructability, Operability, Environmental and Sustainability (BCOES)

Reviews: The Corps will complete a biddability, constructability, operability and environment review to ensure efficient construction that is environmentally sound, to minimize cost and time growth, to avoid unnecessary changes and claims, to ensure safe efficient operations after completion of the project and to ensure that the construction activities and projects are sufficiently sustainable. This requirement is in compliance with Engineering Regulation 415-1-11.

Independent Government Estimate: The Corps will develop an independent government estimate in accordance with the guidance contained in ER 1110-2-1302, Civil Works Cost Engineering, using the MCACES cost estimating system. Cost estimates will include both Federal and non-Federal costs for construction, real estate, engineering and design, construction management, and environmental and historic review.

Detailed cost estimates will include documentation to explain the assumed construction methods, crews, productivities, sources of materials, and other specific information with labor costs based on the prevailing Davis-Bacon wage rates for each trade. EP 1110-1-8, Construction Equipment

Ownership and Operation Expense Schedule will serve as the basis for equipment costs. Potential areas of uncertainty require the development and application of contingencies, as necessary. The appropriate project team members will provide detailed costs for all non-construction cost items (lands and damages, construction management, PE&D) for incorporation into the estimate.

Finalize Designs and NEPA Package for Agency Technical Review (ATR): Following the internal District Quality Control and Agency Technical reviews, comments received on the draft Environmental Assessment will be addressed, and appropriate changes will be incorporated into the documents. A Quality Control Report will be developed based on this review.

3.4 – ACQUISITION STRATEGY

The Corps will develop an acquisition plan in accordance with applicable instructions contained in Federal Acquisition Regulation (FAR) Part 7.105; Defense Federal Acquisition Regulation Supplement (DFARS) 207.105, and the format further specified in DFARS Procedures, Guidance and Information (PGI) 207.105, and UAI 7.102-100; and their applicable supplements. The U.S. Army Corps of Engineers, through its Philadelphia District, proposes to issue a sealed bid – Invitation for Bid (IFB) to efficiently meet the needs of Abington Township.

3.5 – PROJECT CONSTRUCTION

Construction Management and Oversight: The Corps will implement the construction of this project through Corps issued contracts in accordance with all District policy and guidance. The Corps will provide Contract Administration and Construction management of those contracts. The Corps will provide any necessary technical oversight during construction and will perform periodic site inspections during the course of construction to ensure work is allowable and allocable as described in the statement of work. Abington Township will participate in field inspections, acceptance inspections and tests. At the completion of the construction, the Corps and Abington Township will complete a final inspection and certify that the work completed was allowable and allocable as described in the statement of work.

3.6 - ONGOING ACTIVITIES

Project Management

This effort includes frequent coordination with technical elements, responses to congressional or other study related inquiries, maintaining open dialogue with the sponsor and others, allocating funds, coordinate schedules, advising the sponsor of funding required. Considerable effort will be placed on coordinating team efforts; meeting with the sponsor and potential partner agencies and organizations. This task includes coordinating, arranging, and facilitating regular team meetings and briefing Corps of Engineers staff and the non-federal sponsor on study progress. The project manager will also ensure that all data collection activities are proceeding as scheduled and that the information collected is properly disseminated. In addition, a fully coordinated work plan

including schedules, scopes of tasks, and management and financial reports for the Corps' network analysis (P2) and financial management systems (CEFMS) will be developed and maintained.

District Quality Control/ATR

The District will conduct an internal review of all products developed as part of this project. An ATR will be conducted on the final EA, plans and specifications and cost estimate. The ATR Team will be identified outside of the District. This review will be conducted to satisfy quality assurance and quality control guidance and regulations.

Coordination with Sponsor Management

Coordinate each phase in the development with the sponsor. Secure a letter of intent from the sponsor on the project. The letter should indicate support for the recommended plan; acknowledge review of the model Project Partnership Agreement and state capability to provide all necessary items of local cooperation.

4.0 –RESPONSIBILITY ASSIGNMENT

Team Member Identification and Responsibilities

Following receipt of initial funding for the project, an inter-disciplinary study team will be formed to evaluate the problems and needs in the project area and to coordinate the development the project management plan. The team will include personnel from all technical and other disciplines necessary to complete the project in compliance will all necessary policies and regulations. Team members will meet on a periodic basis to discuss specific work tasks, schedules, progress, and overall project status, as required. The Project Delivery Team (PDT) which includes the sponsor will also participate in field trips and meetings with stakeholders, the public and other agencies, as required.

In addition, an Agency Technical Review (ATR) Team will be formed. ATR team members will be selected based on their experience and technical expertise, relevant to the needed project components. All ATR Team members will have extensive experience and be considered senior specialists. The ATR Team will be provided with complete project development documentation, and conduct their reviews with complete independence. It is anticipated that the ATR Team will have six members.

PROJECT DELIVERY TEAM		
Discipline	Name	Office/Agency
Hydrology & Hydraulics	TBD	CENAP-EC-EH
Environmental	TBD	CENAP-PL-E
Civil Engineering	TBD	CENAP-EC-EC
Cost Engineering	TBD	CENAP-EC-EE
Geotechnical	TBD	CENAP-EC-EG

PROJECT DELIVERY TEAM		
GeoEnvironmental	TBD	CENAP-EC-EV
Construction	TBD	CENAP-EC-C
Real Estate	TBD	CENAB-RE-C
Design Manager/Technical Lead	TBD	TBD
Project Manager	TBD	CENAP-PL-PS
Survey	TBD	CENAP-OP-TS
Specifications	TBD	CENAP-EC-ES
Cultural Resources	TBD	CENAP-PL-E
Counsel	TBD	CENAP-OC
Non Federal Sponsor	TBD	Abington Township
Non Federal Sponsor	TBD	Abington Township
DQC Team		
Hydrology & Hydraulics	TBD	CENAP-EC-EH
Environmental	TBD	CENAP-PL-E
Civil Engineering	TBD	CENAP-EC-EC
Cost Engineering	TBD	CENAP-EC-EE
Geotechnical	TBD	CENAP-EC-EG
GeoEnvironmental	TBD	CENAP-EC-EV
Real Estate	TBD	CENAB-RE-C
ATR Team		
ATR Team Lead	TBD	TBD
Hydrology & Hydraulics	TBD	TBD
Environmental	TBD	TBD
Civil Engineering	TBD	TBD
Cost Engineering	TBD	TBD
Real Estate	TBD	TBD

5.0 –PROJECT SCHEDULE

Schedule Development

A preliminary schedule will be developed and entered into the Corps’ P2 Network Analysis System. This schedule will be revised and updated as needed based on receipt of necessary study funds. See Appendix A for a copy of the preliminary schedule entered into the Corps’ P2 Network Analysis System.

Project Milestone Schedule

The project schedule is developed by the PM in conjunction with the Project Delivery Team

(PDT). Basic project milestones for each phase of the project are presented in the table below.

<u>Major Project Milestones</u>	<u>Estimated Completion Date</u>
Design Agreement	Nov 2016
Environmental Assessment	Jul 2017
Complete 90% Plans & Specs	Jun 2017
Complete 90% Cost Estimate	Jun 2017
Initiate VE Study	Jun 2017
Finalize VE Study	Jun 2017
ATR & Concurrent USFWS Review	Jul 2017
Finalize ATR & Concurrent USFWS Review	Jul 2017
Initiate BCOE	Jul 2017
Finalize BCOE	Jul 2017
Finalize 100% Design/Plans	Aug 2017
Finalize 100% Specifications	Aug 2017
Revise Cost Estimate	Aug 2017
Finalize Specs/Bid Package	Aug 2017
Initiate Permit Process	Aug 2017
Complete FEMA Coordination	Aug 2017
Sources Sought	Feb 2017
FedBizOpps Memo to Contract Div/Request Wage Rates	Jul 2017
100% Complete-RTA/EPS File Complete	Oct 2017
Notice Appears in FedBizOpps	Oct 2017
Advertise	Oct 2017
Last Mailing Date for Minor Amendments	Nov. 2017
Open Bids	Nov 2017
Award Contract	Jan 2018
Notice to Proceed	

6.0 –STUDY COST ESTIMATE

Budget

The project budget was developed by the PM with input from the PDT. As the project progresses through each of the three phases outlined above, the budget will be updated. “Appendix C” contains the most recent project Work Breakdown Structure and Budget as provided in the Corps of Engineers Financial Management System (CEFMS).

FUNCTION	MAJOR TASKS	COST
----------	-------------	------

Project Management	<ul style="list-style-type: none"> • Schedule and budget management • Meeting with the sponsor and potential partner agencies and organizations • Coordinating, arranging, and facilitating regular team meetings and briefing Corps of Engineers staff and the non-federal sponsor on study progress • Monitor data collection activities • Disseminate information collected 	\$50,000
Engineering Management	<ul style="list-style-type: none"> • Serve as Design Manager • Oversee technical review and finalization of plans and specifications • CADD Management • DQC, ATR and BCOE Participation 	\$25,000
Environmental Resources	<ul style="list-style-type: none"> • FWCA/ESA Coordination • Environmental Assessment • State Approvals • CAA Analysis • Site Visits • ATR/NAD/Public Comment Review and Response • Public Meetings • Wetland delineation, if needed (contractor) • DQC, ATR and BCOE Participation 	\$90,000
Cultural Resources	<ul style="list-style-type: none"> • Determine the impacts of the project alternatives on historical, architectural, and archaeological resources • Complete a Phase 1a Reconnaissance • Compile a current list of properties listed on the National Register of Historic Places. • Conduct additional research through the Bureau of Historic Preservation, Pennsylvania Historical and Museum Commission • Conduct Phase 1b Survey • DQC, ATR and BCOE Participation 	\$10,000

Civil Design	<ul style="list-style-type: none"> • Obtain and analyze existing mapping and topography (site plan and contours) • Define limits of any demolition required in order to facilitate plan implementation • Locate any proposed site features on the site map (culverts, utility relocations, plantings, riprap, etc.) • Define an alignment and corresponding channel features (width, slopes, etc.) with input from H&H • Create a grading plan that depicts the proper channel features outlined above • Provide input to Spec writer for items pertaining to Civil (riprap, etc.) • 90% to 100% Design Finalization • DQC, ATR and BCOE Participation 	\$55,000
Specification	<ul style="list-style-type: none"> • 90% to 100% Specs Finalization • DQC, ATR and BCOE Participation 	\$75,000
Cost Engineering	<ul style="list-style-type: none"> • Site Visit with Contractors • Prepare 100% Current Working Estimate • Update Wage Rates • Amendments • Prepare Bid Package • Bid Opening/Negotiations • DQC, ATR and BCOE Participation 	\$50,000
Hydrology & Hydraulics	<ul style="list-style-type: none"> • Data Collection • Hydrologic and hydraulic model review, modification, calibration • Restoration design input • Team and Public Meetings • DQC, ATR and BCOE Participation 	\$130,000
Survey	<ul style="list-style-type: none"> • Perform topographic survey of project areas 	\$20,000

Geotechnical	<ul style="list-style-type: none"> Assist in design details of in stream structures DQC, ATR and BCOE Participation 	\$20,000
Geo-environmental	<ul style="list-style-type: none"> Hazardous, Toxic, Radioactive Waste (HTRW) Preliminary Assessment 	\$5,000
Construction	<p>Design Phase</p> <ul style="list-style-type: none"> Organize and Conduct Plan-In-Hand Review at 90% design Lead and participate in BCOE review and back checking DQC, ATR and BCOE Participation If needed, participate in any Source Selection Process <p>Construction Phase</p> <ul style="list-style-type: none"> Construction Phase acts as the Construction Agent providing ACO, COR, Contract Administration, Project Engineering, and Quality Assurance for the duration of the contract Contact Award 	<p>\$10,000</p> <p>\$2,000,000</p>
Real Estate	<ul style="list-style-type: none"> Develop Real Estate Plan DQC, ATR and BCOE Participation 	\$15,000
Project Control	<ul style="list-style-type: none"> Construct and help maintain detailed project schedule in P2 	\$5,000
Contracting Support	<ul style="list-style-type: none"> Contract Award 	\$5,000
Value Engineering	<ul style="list-style-type: none"> Value Engineering review of designs and report 	\$20,000
Agency Technical Review	<ul style="list-style-type: none"> Technical Review of EA, Plans and Specifications 	\$25,000
Inkind Services	<ul style="list-style-type: none"> Collect and provide data Local project coordination Sponsor public meetings as necessary Participate as part of PDT Local representative for construction oversight 	\$25,000
TOTAL PROJECT COST:		\$2,635,000 (rounded to \$2,650,000)

7.0 - PROJECT COMMITMENTS

Abington Township has indicated their interest in pursuing a cost-shared project and has indicated their willingness to commit 25 percent of the estimated total project costs totaling \$2,650,000 (excludes the cost of IEPR if required). Therefore, the total commitment required by Abington Township is \$662,500.

8.0 – PROJECT ACQUISITION PLAN

An acquisition plan will be prepared by the Philadelphia District in accordance with Federal Acquisition Regulations (FAR) and EFAR once in the Plan and Specifications phase to assure that services and construction required as part of the project are accomplished in a timely manner and at a reasonable cost using full and open competition. It is anticipated that a construction contract will be a fixed price, competitive procurement. Plans and Specifications will be prepared by in-house hired labor. If additional contract work is anticipated following the feasibility phase the acquisition plan will be revised and updated.

9.0 - PROJECT QUALITY CONTROL PLAN

The District will follow processes and procedures as outlined in ER 1110-1-12 and EC 1165-2-214 to ensure proper quality control. All products require review with Agency Technical Review (ATR) performed by Corps' personnel external to the Philadelphia District and the Project Delivery Team. The Agency Technical Review confirms the proper selection and application of clearly established criteria, regulations, laws, codes, principles, and professional procedures. The ATR also confirms the utilization of clearly justified and valid assumptions.

Responsibilities of the Project Manager

- Develop the PMP and the Peer Review Plan with the PDT and the ATR Team Leader
- Keep the PDT and the ATR Team Leader informed concerning project progress and the availability of items and findings to be reviewed
- Ensure that ATR review team comments are addressed in a timely manner by the appropriate PDT member
- Elevate unresolved comments up the chain of command for resolution
- Maintain a documented record of comment resolution

Responsibilities of the Project Delivery Team

- Develop and evaluate project design
- Address ATR review comments in a timely manner
- Assist the Project Manager and Agency Technical Review Team Leader

Responsibilities of the ATR Team Leader

- Develop the Peer Review Plan with the Project Manager
- Facilitate requests for review team members through the functional chiefs
- Verify the expertise and experience of the review team nominees and assure their independence

- Evaluate review team comments before forwarding to the project manager to ensure that they are: clearly stated; based on guidance, regulation, or scientific/engineering principles; significant; and contain specific action to resolve the concern
- Ensure that reviews are promptly completed and forwarded to the project manager in a timely manner

Responsibilities of the District Branch/Section Chiefs

- Select technical review team members
- Assist in the resolution of review comments elevated by the project manager

Responsibilities of the Chief of Planning

- Approve selection of technical review team members
- Final arbiter of unresolved issues between the study and review teams
- Certifies the District Engineer's Statement of Technical Review

Responsibility of District Counsel – Legal review/certification

Responsibility of the District Commander - Certifies Statement of Technical Review.

10.0 - PERFORMANCE MEASUREMENT

Government performance will be measured monthly and at the conclusion of the FY with respect to identified milestones, Command Management Review indicators are used for Civil Works studies, and CEFMS/P2 schedules for fiscal execution with a goal of attaining a green rating in all indicators.

11.0 – RISK ASSESSMENT

There is some risk that the parties will be unable to agree to an acceptable scope for the project within the timeframe specified. However, it is expected that Federal and non-Federal funds will be available in Federal fiscal years 2016 and 2017 to proceed with the project.

12.0 - CHANGE CONTROL PLAN

If, at any time, during the execution of this project, it becomes apparent that a commitment by either the Corps or the sponsor will not be met, or that the completion of a task will be delayed, or there is a change in the estimated cost which exceeds the contingencies available, the PDT will assess whether the delay can be recovered, or the costs recouped. The recovery plan will be documented in a revision to the PMP. If the completion schedule or cost estimate cannot be maintained, a revised schedule and/or cost estimate will be documented in the PMP.

13.0 - COMMUNICATIONS PLAN

Throughout project design and construction, the District will be in contact with the non-Federal

sponsor and other entities with potential interest in the project to apprise them of project status and receive input on problems and needs of interest for Federal consideration. During the conduct of the project design and construction, regular meetings and coordination will occur to review the progress of project efforts and to conduct public involvement activities as outlined in this PMP.

14.0 - REPORTING REQUIREMENTS

Informal reporting of field trips, telephone conversations, meeting minutes, etc. will be recorded by the project manager and coordinated and distributed as necessary. Formal communication will be documented in Memorandums or letters as appropriate. Monitoring results and project status will be reported to the District Project Review Board monthly. All upward reporting will be in accordance with ER 5-7-1.

15.0 - PROJECT DELIVERY TEAM COMMITMENT

This PMP has been prepared in accordance with District standard operating procedures and guidance: ER 5-1-11 Program and Project Management and ER 5-7-1 Project Management. PDT members are committed to accomplishing the goals of the project.

PROJECT MANAGEMENT PLAN

SIGNATURES

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

Appendix A – Project Schedule Print Out from Corps' P2 Network Analysis System

AGREEMENT
BETWEEN
THE DEPARTMENT OF THE ARMY
AND
ABINGTON TOWNSHIP
FOR
DESIGN AND CONSTRUCTION
ASSISTANCE
FOR THE
ABINGTON TOWNSHIP ENVIRONMENTAL IMPROVEMENT PROJECT

THIS AGREEMENT is entered into this _____ day of _____, 2016, by and between the Department of the Army (hereinafter the "Government"), represented by the U.S. Army Engineer, Philadelphia District and Abington Township (hereinafter the "Non-Federal Sponsor"), represented by the Township Manager.

WITNESSETH, THAT:

WHEREAS, the Secretary of the Army is authorized to provide design and construction assistance, which may be in the form of grants or reimbursements of the Federal share of project costs, for water-related environmental infrastructure and resource protection and development projects in southeastern Pennsylvania (hereinafter the "Section 566 Program") pursuant to Section 566 of the Water Resources Development Act of 1996, Public Law 104-303, as amended (hereinafter "Section 566");

WHEREAS, Section 566 provides that the Secretary of the Army may provide assistance for a water-related environmental infrastructure and resource protection and development project only if the project is publicly owned;

WHEREAS, Section 566 provides that \$25,000,000 in Federal funds are authorized to be appropriated for design and construction assistance for the Section 566 Program;

WHEREAS, the U.S. Army Engineer, Philadelphia District (hereinafter the "District Engineer") has determined that the Abington Township Environmental Improvement Project in Montgomery County, Pennsylvania (hereinafter the "*Project*", as defined in Article I.A. of this Agreement) is eligible for implementation under Section 566;

WHEREAS, Section 566 provides that the Secretary of the Army shall not provide assistance for any water-related environmental infrastructure and resource protection and development projects until each non-Federal sponsor has entered into a written agreement to furnish its required cooperation for the project;

WHEREAS, the Government and the Non-Federal Sponsor desire to enter into an agreement (hereinafter the "Agreement") for the provision of design and construction assistance for the *Project*;

WHEREAS, Section 566 specifies the cost-sharing requirements applicable to the *Project* including that the Secretary of the Army shall afford credit, not to exceed 6 percent of the *total construction costs of the Project*, for the reasonable costs of design completed by the non-Federal interest before entering into a written agreement with the Secretary;

WHEREAS, Section 102 of the Energy and Water Development Appropriations Act, 2006, Public Law 109-103, provides that credits and reimbursements afforded for all applicable general authorities and under specific project authority shall not exceed \$100,000,000 for all applicable programs and projects in each *fiscal year*;

WHEREAS, the Non-Federal Sponsor desires to perform certain work (hereinafter the “*non-Federal design and construction work*” as defined in Article I.O. of this Agreement) which is a part of the *Project*;

WHEREAS, the Government and the Non-Federal Sponsor have the full authority and capability to perform as hereinafter set forth and intend to cooperate in cost-sharing and financing of the *Project* in accordance with the terms of this Agreement; and

WHEREAS, the Government and the Non-Federal Sponsor, in connection with this Agreement, desire to foster a partnering strategy and a working relationship between the Government and the Non-Federal Sponsor through a mutually developed formal strategy of commitment and communication embodied herein, which creates an environment where trust and teamwork prevent disputes, foster a cooperative bond between the Government and the Non-Federal Sponsor, and facilitate the successful implementation of the *Project*.

NOW, THEREFORE, the Government and the Non-Federal Sponsor agree as follows:

ARTICLE I - DEFINITIONS

A. The term “*Project*” shall mean developing final designs, plans and specifications, cost estimates, environmental and geotechnical analyses, real estate plans and construction as generally described in the Project Management Plan for the Abington Township Environmental Improvement Project, dated September 28, 2016 and approved by Commander, Philadelphia District on September XX, 2016. The term includes the *non-Federal design and construction work* described in paragraph O. of this Article.

B. The term “*total project costs*” shall mean the sum of all costs incurred by the Non-Federal Sponsor and the Government in accordance with the terms of this Agreement directly related to design and construction of the *Project*. Subject to the provisions of this Agreement, the term shall include, but is not necessarily limited to: the costs of the Non-Federal Sponsor’s *pre-Agreement design work* determined in accordance with Article II.B.4. of this Agreement but not to exceed 6 percent of *total construction costs of the Project*; the Government’s design costs not incurred pursuant to any other agreement for the *Project*; the Government’s costs of

preparation of environmental compliance documentation in accordance with Article II.A.2. of this Agreement; the Government's engineering and design costs during construction; the Non-Federal Sponsor's and the Government's costs of investigations to identify the existence and extent of hazardous substances in accordance with Article XIV.A. of this Agreement; the Government's costs of historic preservation activities in accordance with Article XVII.A. and Article XVII.C.1. of this Agreement; the Government's actual construction costs; the costs of the *non-Federal design and construction work* determined in accordance with Article II.B.6. of this Agreement; the Government's supervision and administration costs; the Non-Federal Sponsor's costs of identification of legal and institutional structures in accordance with Article II.H. of this Agreement not incurred pursuant to any other agreement for the *Project*; the Non-Federal Sponsor's and the Government's costs of participation in the Project Coordination Team in accordance with Article V of this Agreement; the Government's costs of contract dispute settlements or awards; the value of lands, easements, rights-of-way, *relocations*, and permit costs for which the Government affords credit in accordance with Article IV of this Agreement but not to exceed 25 percent of total project costs; and the Non-Federal Sponsor's and the Government's costs of audit in accordance with Article X.B. and Article X.C. of this Agreement. The term does not include any costs for operation, maintenance, repair, rehabilitation, or replacement of the *Project*; any costs of establishment and maintenance of legal and institutional structures in accordance with Article II.H. of this Agreement; any costs of *betterments* under Article II.J.2. of this Agreement; any costs of dispute resolution under Article VII of this Agreement; the Government's costs for data recovery activities associated with historic preservation in accordance with Article XVII.C.3. and Article XVII.C.4. of this Agreement; or the Non-Federal Sponsor's costs of negotiating this Agreement.

C. The term "*period of design and construction*" shall mean the time from the effective date of this Agreement to the date that construction of the *Project* is complete, as determined by the Government, or the date that this Agreement is terminated in accordance with Article II.C. or Article XIII or Article XIV.C. of this Agreement, whichever is earlier.

D. The term "*financial obligations for design and construction*" shall mean the financial obligations of the Government and the costs for the *pre-Agreement design work* and the costs for the *non-Federal design and construction work*, as determined by the Government, that result or would result in costs that are or would be included in *total project costs* except for obligations pertaining to the provision of lands, easements, and rights-of-way; the performance of *relocations*; and obtaining permits necessary for construction, operation, and maintenance of the *Project* on publicly owned or controlled land.

E. The term "*non-Federal proportionate share*" shall mean the ratio of the sum of the costs included in *total project costs* for the *pre-Agreement design work* and the *non-Federal design and construction work*, as determined by the Government, and the Non-Federal Sponsor's contribution of funds required by Article II.B.2. of this Agreement to *financial obligations for design and construction*, as projected by the Government.

F. The term "*highway*" shall mean any highway, roadway, street, or way, including any bridge thereof, that is owned by a public entity.

G. The term “*relocation*” shall mean providing a functionally equivalent facility to the owner of a utility, cemetery, *highway*, railroad, or public facility when such action is authorized in accordance with applicable legal principles of just compensation. Providing a functionally equivalent facility may take the form of alteration, lowering, raising, or replacement and attendant demolition of the affected facility or part thereof.

H. The term “*betterment*” shall mean a difference in the design or construction of an element of the *Project* that results from the application of standards that the Government determines exceed those that the Government would otherwise apply to the design or construction of that element. The term does not include any design or construction for features not included in the *Project* as defined in paragraph A. of this Article.

I. The term “*Federal program funds*” shall mean funds provided by a Federal agency, other than the Department of the Army, plus any non-Federal contribution required as a matching share therefor.

J. The term “*Section 566 Program Limit*” shall mean the amount of Federal funds authorized to be appropriated for the Section 566 Program. As of the effective date of this Agreement, such amount is \$25,000,000.

K. The term “*fiscal year*” shall mean one year beginning on October 1 and ending on September 30.

L. The term “*pre-Agreement design work*” shall mean the work performed prior to the effective date of this Agreement by the Non-Federal Sponsor that is directly related to design of the *Project* and that was not performed pursuant to any other agreement for the *Project*.

M. The term “*total construction costs of the Project*” shall mean *total project costs* minus: the value of lands, easements, rights-of-way, and *relocations* and the costs of permits that are included in *total project costs* as determined in accordance with Article IV of this Agreement; and the costs attributable to design of the *Project* that are included in *total project costs* as determined in accordance with the provisions of this Agreement.

N. The term “*Section 102 Limit*” shall mean the annual limit on credits and reimbursements imposed by Section 102 of the Energy and Water Development Appropriations Act, 2006, Public Law 109-103.

O. The term “*non-Federal design and construction work*” shall mean design, construction, supervision and administration, and other activities associated with design and construction of the *Project* that are performed by the Non-Federal Sponsor after the effective date of this Agreement and after written approval by the District Engineer. The term does not include the design or construction of *betterments* or the provision of lands, easements, rights-of-way, *relocations*, or permits obtained for construction, operation, and maintenance of the *Project* on publicly owned or controlled lands that are associated with the non-Federal design and

construction work.

P. The term “*Section 102 Limit*” shall mean the annual limit on credits and reimbursements imposed by Section 102 of the Energy and Water Development Appropriations Act, 2006, Public Law 109-103.

Q. The term “*fiscal year of the Non-Federal Sponsor*” shall mean one year beginning on January 1 and ending on December 31.

ARTICLE II - OBLIGATIONS OF THE GOVERNMENT AND THE NON-FEDERAL SPONSOR

A. The Government, subject to receiving funds appropriated by the Congress of the United States (hereinafter the “Congress”) and using those funds and funds provided by the Non-Federal Sponsor, expeditiously shall design and construct the *Project*, except for the *pre-Agreement design work* and the *non-Federal design and construction work*, applying those procedures usually applied to Federal projects, in accordance with Federal laws, regulations, and policies. The Non-Federal Sponsor expeditiously shall perform the *non-Federal design and construction work* in accordance with applicable Federal laws, regulations, and policies.

1. The Government shall not issue the solicitation for the first contract for design of the *Project*, commence design of the *Project* using the Government’s own forces, or commence review of the *pre-Agreement design work* provided by the Non-Federal Sponsor, until the Non-Federal Sponsor has confirmed in writing its willingness to proceed with the *Project*.

2. The Government shall develop and coordinate as required, an Environmental Assessment and Finding of No Significant Impact or an Environmental Impact Statement and Record of Decision, as necessary, to inform the public regarding the environmental impacts of the *Project* in accordance with the National Environmental Policy Act of 1969 (42 U.S.C. 4321-4347; hereinafter “NEPA”). However, neither the Government nor the Non-Federal Sponsor shall issue the solicitation for the first construction contract for the *Project* or commence construction of the *Project* using its own forces until all applicable environmental laws and regulations have been complied with, including, but not limited to NEPA and Section 401 of the Federal Water Pollution Control Act (33 U.S.C. 1341).

3. The Government shall afford the Non-Federal Sponsor the opportunity to review and comment on the solicitations for all Government contracts, including relevant plans and specifications, prior to the Government’s issuance of such solicitations. To the extent possible, the Government shall afford the Non-Federal Sponsor the opportunity to review and comment on all proposed contract modifications, including change orders. In any instance where providing the Non-Federal Sponsor with notification of a contract modification is not possible prior to execution of the contract modification, the Government shall provide such notification in writing at the earliest date possible. To the extent possible, the Government also shall afford the Non-Federal Sponsor the opportunity to review and comment on all contract claims prior to

resolution thereof. The Government shall consider in good faith the comments of the Non-Federal Sponsor, but the contents of solicitations, award of contracts or commencement of design or construction using the Government's own forces, execution of contract modifications, resolution of contract claims, and performance of all work on the *Project*, except for the *pre-Agreement design work* and the *non-Federal design and construction work*, shall be exclusively within the control of the Government.

4. At the time the District Engineer furnishes the contractor with the Government's Written Notice of Acceptance of Completed Work for each contract awarded by the Government for the *Project*, the District Engineer shall furnish a copy thereof to the Non-Federal Sponsor.

5. The Non-Federal Sponsor shall afford the Government the opportunity to review and comment on the solicitations for all contracts for the *non-Federal design and construction work*, including relevant plans and specifications, prior to the Non-Federal Sponsor's issuance of such solicitations. To the extent possible, the Non-Federal Sponsor shall afford the Government the opportunity to review and comment on all proposed contract modifications, including change orders. In any instance where providing the Government with notification of a contract modification is not possible prior to execution of the contract modification, the Non-Federal Sponsor shall provide such notification in writing at the earliest date possible. To the extent possible, the Non-Federal Sponsor also shall afford the Government the opportunity to review and comment on all contract claims prior to resolution thereof. The Non-Federal Sponsor shall consider in good faith the comments of the Government but, except as otherwise required in paragraph B.6. of this Article, the contents of solicitations, award of contracts or commencement of design or construction using the Non-Federal Sponsor's own forces, execution of contract modifications, resolution of contract claims, and performance of all work on the *non-Federal design and construction work* shall be exclusively within the control of the Non-Federal Sponsor.

6. At the time the Non-Federal Sponsor furnishes a contractor with a notice of acceptance of completed work for each contract awarded by the Non-Federal Sponsor for the *non-Federal design and construction work*, the Non-Federal Sponsor shall furnish a copy thereof to the Government.

7. Notwithstanding paragraph A.3. and paragraph A.5. of this Article, if the award of any contract for design or construction of the *Project*, or continuation of design or construction of the *Project* using the Government's or the Non-Federal Sponsor's own forces, would result in *total project costs* exceeding \$3,000,000, the Government and the Non-Federal Sponsor agree to defer award of that contract, award of all remaining contracts for design or construction of the *Project*, and continuation of design or construction of the *Project* using the Government's or the Non-Federal Sponsor's own forces until such time as the Government and the Non-Federal Sponsor agree in writing to proceed with further contract awards for the *Project* or the continuation of design or construction of the *Project* using the Government's or the Non-Federal Sponsor's own forces, but in no event shall the award of contracts or the continuation of design or construction of the *Project* using the Government's or the Non-Federal Sponsor's own

forces be deferred for more than three years. Notwithstanding this general provision for deferral, in the event the Assistant Secretary of the Army (Civil Works) makes a written determination that the award of such contract or contracts or continuation of design or construction of the *Project* using the Government's own forces must proceed in order to comply with law or to protect human life or property from imminent and substantial harm, the Government, after consultation with the Non-Federal Sponsor, may award a contract or contracts, or continue with design or construction of the *Project* using the Government's own forces.

B. The Non-Federal Sponsor shall contribute 25 percent of *total project costs* in accordance with the provisions of this paragraph.

1. In accordance with Article III of this Agreement, the Non-Federal Sponsor shall provide all lands, easements, and rights-of-way, including those required for *relocations*, the borrowing of material, and the disposal of dredged or excavated material, and shall perform or ensure performance of all *relocations* that the Government determines to be required or to be necessary for construction, operation, and maintenance of the *Project*. The Non-Federal Sponsor also shall obtain all permits necessary for construction, operation, and maintenance of the *Project* on publicly owned or controlled lands.

2. If the Government projects at any time that the collective value of the Non-Federal Sponsor's contributions listed in the next sentence will be less than the Non-Federal Sponsor's required share of 25 percent of *total project costs*, the Government shall determine the amount of funds that would be necessary to meet the Non-Federal Sponsor's required share. The Government shall determine the amount of funds that would be necessary by subtracting from the Non-Federal Sponsor's required share of 25 percent of *total project costs* the collective value of the following: (a) the value of the Non-Federal Sponsor's contributions under paragraph B.1. of this Article that does not exceed 25 percent of *total project costs* as determined in accordance with Article IV of this Agreement; (b) the costs of the Non-Federal Sponsor's *pre-Agreement design work* that do not exceed 6 percent of *total construction costs of the Project* as determined in accordance with paragraph B.4. of this Article; (c) the costs of the *non-Federal design and construction work* as determined in accordance with paragraph B.6. of this Article; and (d) the value of the Non-Federal Sponsor's contributions under paragraph H. of this Article and Article V, Article X, and Article XIV.A. of this Agreement. In accordance with Article VI.B. of this Agreement, the Non-Federal Sponsor shall provide funds in the amount determined by the Government to be necessary to meet the Non-Federal Sponsor's required share of 25 percent of *total project costs*.

3. The Government, subject to the conditions set forth below, shall refund or reimburse to the Non-Federal Sponsor any contributions in excess of 25 percent of *total project costs* if the Government determines at any time that the collective value of the following has exceeded 25 percent of *total project costs*: (a) the value of the Non-Federal Sponsor's contributions under paragraph B.1. of this Article that does not exceed 25 percent of *total project costs* as determined in accordance with Article IV of this Agreement; (b) the Non-Federal Sponsor's contribution of funds required by paragraph B.2. of this Article; (c) the costs of the Non-Federal Sponsor's *pre-Agreement design work* that do not exceed 6 percent of *total*

construction costs of the Project as determined in accordance with paragraph B.4. of this Article; (d) the costs of the *non-Federal design and construction work* as determined in accordance with paragraph B.6. of this Article; and (e) the value of the Non-Federal Sponsor's contributions under paragraph H. of this Article and Article V, Article X, and Article XIV.A. of this Agreement. Any refund or reimbursement by the Government shall be subject to the following conditions:

a. the Government, subject to the availability of funds and as limited by the *Section 566 Program Limit*, shall refund or reimburse to the Non-Federal Sponsor the portion of such excess contributions that are attributable to the Non-Federal Sponsor's contributions under paragraph B.2. and paragraph H. of this Article and Article V, Article X, and Article XIV.A. of this Agreement; and

b. the Government, subject to the availability of funds and as limited by the *Section 566 Program Limit* and the *Section 102 Limit*, shall reimburse to the Non-Federal Sponsor the remaining portion of such excess contributions that are attributable to the *pre-Agreement design work* and the *non-Federal design and construction work*.

4. The Government shall determine and include in *total project costs* the reasonable costs incurred by the Non-Federal Sponsor for *pre-Agreement design work* for which credit will not be afforded pursuant to any other agreement for the *Project* but not to exceed 6 percent of *total construction costs of the Project*, subject to the conditions and limitations of this paragraph. The Non-Federal Sponsor in a timely manner shall provide the Government with such documents as are sufficient to enable the Government to determine the amount of costs to be included in *total project costs* for *pre-Agreement design work*.

a. Acceptance by the Government of the *pre-Agreement design work* shall be subject to a review by the Government to verify that the work was accomplished in a satisfactory manner and in accordance with applicable Federal laws, regulations, and policies, and to verify that the *pre-Agreement design work* is necessary for the *Project*.

b. The Non-Federal Sponsor's costs for *pre-Agreement design work* that may be eligible for inclusion in *total project costs* pursuant to this paragraph shall be subject to an audit in accordance with Article X.C. of this Agreement to determine the reasonableness, allocability, and allowability of such costs.

c. The Non-Federal Sponsor's costs for *pre-Agreement design work* that may be eligible for inclusion in *total project costs* pursuant to this paragraph are not subject to interest charges, nor are they subject to adjustment to reflect changes in price levels between the time the *pre-Agreement design work* was completed and the time the costs are included in *total project costs*.

d. The Government shall not include in *total project costs* any costs for *pre-Agreement design work* paid by the Non-Federal Sponsor using *Federal program funds* unless the Federal agency providing the Federal portion of such funds verifies in writing that

expenditure of such funds for such purpose is expressly authorized by Federal law.

e. The Government shall not include in *total project costs* any costs for *pre-Agreement design work* in excess of the Government's estimate of the costs of the *pre-Agreement design work* had the work been accomplished by the Government.

5. The Government, in accordance with this paragraph, shall afford credit toward the Non-Federal Sponsor's required share of 25 percent of *total project costs* for the costs of the *pre-Agreement design work* determined in accordance with paragraph B.4. of this Article. Further, the Government, in accordance with paragraph B.3. of this Article, shall reimburse the Non-Federal Sponsor for any costs of the *pre-Agreement design work* determined in accordance with paragraph B.4. of this Article and included in *total project costs* that exceed the amount of credit afforded.

6. The Government shall determine and include in *total project costs* the costs incurred by the Non-Federal Sponsor for *non-Federal design and construction work*, subject to the conditions and limitations of this paragraph. The Non-Federal Sponsor in a timely manner shall provide the Government with such documents as are sufficient to enable the Government to determine the amount of costs to be included in *total project costs* for *non-Federal design and construction work*.

a. The Non-Federal Sponsor shall not commence construction of the *non-Federal design and construction work* until the designs, detailed plans and specifications, and arrangements for the prosecution of such work have been approved by the Government. Changes proposed by the Non-Federal Sponsor to approved designs and plans and specifications also must be approved by the Government in advance of the related construction. Upon completion of the *non-Federal design and construction work*, the Non-Federal Sponsor shall furnish to the Government a copy of all final as-built drawings for the construction portion of such work.

b. *Non-Federal design and construction work* shall be subject to an on-site inspection and certification by the Government that the work was accomplished in a satisfactory manner and in accordance with the provisions of this Agreement, and is suitable for inclusion in the *Project*.

c. The Non-Federal Sponsor's costs for *non-Federal design and construction work* that may be eligible for inclusion in *total project costs* pursuant to this Agreement shall be subject to an audit in accordance with Article X.C. of this Agreement to determine the reasonableness, allocability, and allowability of such costs.

d. The Non-Federal Sponsor's costs for *non-Federal design and construction work* that may be eligible for inclusion in *total project costs* pursuant to this Agreement are not subject to interest charges, nor are they subject to adjustment to reflect changes in price levels between the time the *non-Federal design and construction work* is completed and the time the costs are included in *total project costs*.

e. The Government shall not include in *total project costs* any costs for *non-Federal design and construction work* paid by the Non-Federal Sponsor using *Federal program funds* unless the Federal agency providing the Federal portion of such funds verifies in writing that expenditure of such funds for such purpose is expressly authorized by Federal law.

f. The Government shall not include in *total project costs* any costs for *non-Federal design and construction work* in excess of the Government's estimate of the costs of the *non-Federal design and construction work* had the work been accomplished by the Government.

g. In the performance of the construction portion of the *non-Federal design and construction work*, the Non-Federal Sponsor must comply with applicable Federal labor laws covering non-Federal construction, including, but not limited to, 40 U.S.C. 3141-3148 and 40 U.S.C. 3701-3708 (revising, codifying and enacting without substantive change the provisions of the Davis-Bacon Act (formerly 40 U.S.C. 276a *et seq.*), the Contract Work Hours and Safety Standards Act (formerly 40 U.S.C. 327 *et seq.*), and the Copeland Anti-Kickback Act (formerly 40 U.S.C. 276c)). Costs for the construction portion of *non-Federal design and construction work* may be excluded from *total project costs* by the Government, in whole or in part, as a result of the Non-Federal Sponsor's failure to comply with its obligations under these laws.

7. The Government, in accordance with this paragraph, shall afford credit toward the Non-Federal Sponsor's required share of 25 percent of *total project costs* for the costs of the *non-Federal design and construction work* determined in accordance with paragraph B.6. of this Article. Further, the Government, in accordance with paragraph B.3. of this Article, shall reimburse the Non-Federal Sponsor for any costs of the *non-Federal design and construction work* determined in accordance with paragraph B.6. of this Article and included in *total project costs* that exceed the amount of credit afforded.

C. Notwithstanding any other provision of this Agreement, Federal financial participation in the *Project* is limited by the following provisions of this paragraph.

1. As of the effective date of this Agreement, \$13,337,712 of Federal funds have been provided by Congress for the Section 566 Program of which \$200,000 is currently projected to be available for the *Project*. The Government makes no commitment to request Congress to provide additional Federal funds for the Section 566 Program or the *Project*. Further, the Government's financial participation in the *Project* is limited to the Federal funds that the Government makes available to the *Project*.

2. In the event the Government projects that the amount of Federal funds the Government will make available to the *Project* through the then-current *fiscal year*, or the amount of Federal funds the Government will make available for the *Project* through the upcoming *fiscal year*, is not sufficient to meet the Federal share of *total project costs* and the Federal share of costs for data recovery activities associated with historic preservation in accordance with Article XVII.C.3. and Article XVII.C.4. of this Agreement that the Government

projects will be incurred through the then-current or upcoming *fiscal year*, as applicable, the Government shall notify the Non-Federal Sponsor in writing of such insufficiency of funds and of the date the Government projects that the Federal funds that will have been made available to the *Project* will be exhausted. Upon the exhaustion of Federal funds made available by the Government to the *Project*, future performance under this Agreement shall be suspended and the parties shall proceed in accordance with Article XIII.B. of this Agreement.

3. If the Government determines that the total amount of Federal funds provided by Congress for all projects implemented pursuant to Section 566 has reached the *Section 566 Program Limit*, and the Government projects that the Federal funds the Government will make available to the *Project* within the *Section 566 Program Limit* will not be sufficient to meet the Federal share of *total project costs* and the Federal share of costs for data recovery activities associated with historic preservation in accordance with Article XVII.C.3. and Article XVII.C.4. of this Agreement, the Government shall notify the Non-Federal Sponsor in writing of such insufficiency of funds and of the date the Government projects that the Federal funds that will have been made available to the *Project* will be exhausted. Upon the exhaustion of Federal funds made available by the Government to the *Project* within the *Section 566 Program Limit*, the parties shall terminate this Agreement and proceed in accordance with Article XIII.E. of this Agreement.

D. When the District Engineer determines that the entire *Project*, or a portion thereof, is complete, the District Engineer shall so notify the Non-Federal Sponsor in writing and furnish the Non-Federal Sponsor with a final Operation, Maintenance, Repair, Rehabilitation, and Replacement Manual (hereinafter the "OMRR&R Manual") or, if the final OMRR&R Manual is not available, an interim OMRR&R Manual for the entire *Project* or such completed portion. Upon such notification, the Government also shall furnish to the Non-Federal Sponsor a copy of all final as-built drawings for the portion of the *Project* for which the Government awarded a construction contract, or the Government constructed using its own forces, if such drawings are available. Not later than 6 months after such notification by the Government that the entire *Project* is complete, the Government shall furnish the Non-Federal Sponsor with all final as-built drawings for the portion of the *Project* for which the Government awarded a construction contract, or the Government constructed using its own forces, and also shall furnish the Non-Federal Sponsor with the final OMRR&R Manual for the entire *Project*. In the event all final as-built drawings for the portion of the *Project* for which the Government awarded a construction contract, or the Government constructed using its own forces, or the final OMRR&R Manual for the entire *Project* cannot be completed within the 6 month period, the Government shall provide written notice to the Non-Federal Sponsor, and the Government and the Non-Federal Sponsor shall negotiate an acceptable completion date for furnishing such documents. Further, after completion of all contracts for the *Project*, copies of all of the Government's and Non-Federal Sponsor's Written Notices of Acceptance of Completed Work for all contracts for the *Project* that have not been provided to the other party previously shall be provided to the Non-Federal Sponsor and/or the Government, as appropriate.

E. Upon notification from the District Engineer in accordance with paragraph D. of this Article, the Non-Federal Sponsor shall operate, maintain, repair, rehabilitate, and replace the

entire *Project*, or the completed portion thereof as the case may be, in accordance with Article VIII of this Agreement.

F. Upon conclusion of the *period of design and construction*, the Government shall conduct an accounting, in accordance with Article VI.C. of this Agreement, and furnish the results to the Non-Federal Sponsor.

G. The Non-Federal Sponsor and the Government, in consultation with appropriate Federal and State officials, shall develop a facilities or resource protection and development plan. Such plan shall include necessary design, completion of all necessary environmental coordination and documentation, preparation of appropriate engineering plans and specifications, preparation of an OMRR&R Manual, and any other matters related to design and construction of the *Project* in accordance with this Agreement.

H. The Non-Federal Sponsor shall identify, establish, and maintain such legal and institutional structures as are necessary to ensure the effective long-term operation of the *Project*. The Non-Federal Sponsor shall provide to the Government a written description of such legal and institutional structures for inclusion in the OMRR&R Manual. The Non-Federal Sponsor's costs of identification of such legal and institutional structures shall be included in *total project costs* and shared in accordance with the provisions of this Agreement, subject to an audit in accordance with Article X.C. of this Agreement to determine reasonableness, allocability, and allowability of such costs. The Government shall have no obligation under this Agreement for any costs of establishment and maintenance of such legal and institutional structures.

I. The Non-Federal Sponsor shall not use *Federal program funds* to meet any of its obligations for the *Project* under this Agreement unless the Federal agency providing the Federal portion of such funds verifies in writing that expenditure of such funds for such purpose is expressly authorized by Federal law.

J. The Non-Federal Sponsor may request the Government to perform or provide, on behalf of the Non-Federal Sponsor, one or more of the services (hereinafter the "additional work") described in this paragraph. Such requests shall be in writing and shall describe the additional work requested to be performed or provided. If in its sole discretion the Government elects to perform or provide the requested additional work or any portion thereof, it shall so notify the Non-Federal Sponsor in a writing that sets forth any applicable terms and conditions, which must be consistent with this Agreement. In the event of conflict between such a writing and this Agreement, this Agreement shall control. The Non-Federal Sponsor shall be solely responsible for all costs of the additional work performed or provided by the Government under this paragraph and shall pay all such costs in accordance with Article VI.D. of this Agreement.

1. Acquisition of lands, easements, and rights-of-way or performance of *relocations* for the *Project*. Notwithstanding acquisition of lands, easements, and rights-of-way or performance of *relocations* by the Government, the Non-Federal Sponsor shall be responsible, as between the Government and the Non-Federal Sponsor, for any costs of cleanup and response in accordance with Article XIV.C. of this Agreement.

2. Inclusion of *betterments* in the design or construction of the *Project*. In the event the Government elects to include any such *betterments*, the Government shall allocate the costs of the *Project* features that include *betterments* between *total project costs* and the costs of the *betterments*.

ARTICLE III - LANDS, EASEMENTS, RIGHTS-OF-WAY, RELOCATIONS,
AND COMPLIANCE WITH PUBLIC LAW 91-646, AS AMENDED

A. The Government, after consultation with the Non-Federal Sponsor, shall determine the lands, easements, and rights-of-way required for construction, operation, and maintenance of the *Project*, including those required for *relocations*, the borrowing of material, and the disposal of dredged or excavated material. The Government in a timely manner shall provide the Non-Federal Sponsor with general written descriptions, including maps as appropriate, of the lands, easements, and rights-of-way that the Government determines the Non-Federal Sponsor must provide, in detail sufficient to enable the Non-Federal Sponsor to fulfill its obligations under this paragraph, and shall provide the Non-Federal Sponsor with a written notice to proceed with acquisition of such lands, easements, and rights-of-way. Prior to the issuance of the solicitation for each Government contract for construction of the *Project*, or prior to the Government initiating construction of a portion of the *Project* using the Government's own forces, the Non-Federal Sponsor shall acquire all lands, easements, and rights-of-way the Government determines the Non-Federal Sponsor must provide for that work and shall provide the Government with authorization for entry thereto. Furthermore, prior to the end of the *period of design and construction*, the Non-Federal Sponsor shall acquire all lands, easements, and rights-of-way required for construction, operation, and maintenance of the *Project*, as set forth in such descriptions, and shall provide the Government with authorization for entry thereto. The Non-Federal Sponsor shall ensure that lands, easements, and rights-of-way that the Government determines to be required for the *Project* and that were provided by the Non-Federal Sponsor are retained in public ownership for uses compatible with the authorized purposes of the *Project*.

B. The Government, after consultation with the Non-Federal Sponsor, shall determine the *relocations* necessary for construction, operation, and maintenance of the *Project*, including those necessary to enable the borrowing of material or the disposal of dredged or excavated material. The Government in a timely manner shall provide the Non-Federal Sponsor with general written descriptions, including maps as appropriate, of such *relocations* in detail sufficient to enable the Non-Federal Sponsor to fulfill its obligations under this paragraph, and shall provide the Non-Federal Sponsor with a written notice to proceed with such *relocations*. Prior to the issuance of the solicitation for each Government contract for construction of the *Project*, or prior to the Government initiating construction of a portion of the *Project* using the Government's own forces, the Non-Federal Sponsor shall prepare or ensure the preparation of plans and specifications for, and perform or ensure the performance of, all *relocations* the Government determines to be necessary for that work. Furthermore, prior to the end of the *period of design and construction*, the Non-Federal Sponsor shall perform or ensure performance of all *relocations* as set forth in such descriptions.

C. The Non-Federal Sponsor shall comply with the applicable provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, Public Law 91-646, as amended (42 U.S.C. 4601-4655), and the Uniform Regulations contained in 49 C.F.R. Part 24, in acquiring lands, easements, and rights-of-way required for construction, operation, and maintenance of the *Project*, including those required for *relocations*, the borrowing of material, or the disposal of dredged or excavated material, and shall inform all affected persons of applicable benefits, policies, and procedures in connection with said Act.

ARTICLE IV - CREDIT FOR VALUE OF LANDS, EASEMENTS, RIGHTS-OF-WAY, AND RELOCATIONS AND FOR COSTS OF PERMITS

A. The Government shall include in *total project costs* and afford credit toward the Non-Federal Sponsor's share of *total project costs* for the value of the lands, easements, and rights-of-way that the Non-Federal Sponsor must provide pursuant to Article III.A. of this Agreement and for the value of the *relocations* that the Non-Federal Sponsor must perform or for which it must ensure performance pursuant to Article III.B. of this Agreement. The Government also shall include in *total project costs* and afford credit toward the Non-Federal Sponsor's share of *total project costs* for the reasonable costs incurred by the Non-Federal Sponsor that are associated with obtaining permits pursuant to Article II.B.1. of this Agreement that are necessary for construction, operation, and maintenance of the *Project* on publicly owned or controlled lands. However, no amount shall be included in *total project costs*, no credit shall be afforded, and no reimbursement shall be provided for the value of any lands, easements, rights-of-way, or *relocations* that have been provided previously as an item of cooperation for another Federal project. In addition, no amount shall be included in *total project costs*, no credit shall be afforded, and no reimbursement shall be provided for the value of lands, easements, rights-of-way, or *relocations* that were acquired or performed using *Federal program funds* or the costs of obtaining permits paid using *Federal program funds* unless the Federal agency providing the Federal portion of such funds verifies in writing that affording credit for the value and costs of such items is expressly authorized by Federal law. Finally, no amount shall be included in *total project costs*, no credit shall be afforded pursuant to this Article, and no reimbursement shall be provided to the Non-Federal Sponsor, for any value or costs in excess of 25 percent of *total project costs*.

B. The Non-Federal Sponsor in a timely manner shall provide the Government with such documents as are sufficient to enable the Government to determine the value of any contribution provided pursuant to Article III.A. or Article III.B. of this Agreement and to determine the reasonable costs incurred by the Non-Federal Sponsor that are associated with obtaining permits pursuant to Article II.B.1. of this Agreement. Upon receipt of such documents, the Government in a timely manner shall determine the value of such contributions and the reasonable costs for obtaining such permits and include in *total project costs* the amount of such value and costs that does not exceed 25 percent of *total project costs*.

C. For the purposes of determining the value to be included in *total project costs* and the

amount of credit to be afforded in accordance with this Article and except as otherwise provided in paragraph F. of this Article, the value of lands, easements, and rights-of-way, including those required for *relocations*, the borrowing of material, and the disposal of dredged or excavated material, shall be the fair market value of the real property interests, plus certain incidental costs of acquiring those interests, as determined in accordance with the provisions of this paragraph.

1. Date of Valuation. The fair market value of lands, easements, or rights-of-way owned by the Non-Federal Sponsor on the effective date of this Agreement shall be the fair market value of such real property interests as of the date the Non-Federal Sponsor provides the Government with authorization for entry thereto. However, for lands, easements, or rights-of-way owned by the Non-Federal Sponsor on the effective date of this Agreement that are required for the *non-Federal design and construction work*, fair market value shall be the value of such real property interests as of the date the Non-Federal Sponsor awarded the first construction contract for the *non-Federal design and construction work*, or, if the Non-Federal Sponsor performed the construction with its own forces, the date that the Non-Federal Sponsor began construction of the *non-Federal design and construction work*. The fair market value of lands, easements, or rights-of-way acquired by the Non-Federal Sponsor after the effective date of this Agreement shall be the fair market value of such real property interests at the time the interests are acquired.

2. General Valuation Procedure. Except as provided in paragraph C.3. or paragraph C.5. of this Article, the fair market value of lands, easements, or rights-of-way shall be determined in accordance with the provisions of this paragraph.

a. The Non-Federal Sponsor shall obtain, for each real property interest, an appraisal that is prepared by a qualified appraiser who is acceptable to the Non-Federal Sponsor and the Government. The Non-Federal Sponsor shall provide the Government with the appraisal no later than 6 months after the Non-Federal Sponsor provides the Government with an authorization for entry for such real property interest. The appraisal must be prepared in accordance with the applicable rules of just compensation, as specified by the Government. The fair market value shall be the amount set forth in the Non-Federal Sponsor's appraisal, if such appraisal is approved by the Government. In the event the Government does not approve the Non-Federal Sponsor's appraisal, the Non-Federal Sponsor may obtain a second appraisal, and the fair market value shall be the amount set forth in the Non-Federal Sponsor's second appraisal, if such appraisal is approved by the Government. In the event the Government does not approve the Non-Federal Sponsor's second appraisal, the Non-Federal Sponsor chooses not to obtain a second appraisal, or the Non-Federal Sponsor does not provide the first appraisal as required in this paragraph, the Government shall obtain an appraisal, and the fair market value shall be the amount set forth in the Government's appraisal, if such appraisal is approved by the Non-Federal Sponsor. In the event the Non-Federal Sponsor does not approve the Government's appraisal, the Government, after consultation with the Non-Federal Sponsor, shall consider the Government's and the Non-Federal Sponsor's appraisals and determine an amount based thereon, which shall be deemed to be the fair market value.

b. Where the amount paid or proposed to be paid by the Non-Federal

Sponsor for the real property interest exceeds the amount determined pursuant to paragraph C.2.a. of this Article, the Government, at the request of the Non-Federal Sponsor, shall consider all factors relevant to determining fair market value and, in its sole discretion, after consultation with the Non-Federal Sponsor, may approve in writing an amount greater than the amount determined pursuant to paragraph C.2.a. of this Article, but not to exceed the amount actually paid or proposed to be paid. If the Government approves such an amount, the fair market value shall be the lesser of the approved amount or the amount paid by the Non-Federal Sponsor, but no less than the amount determined pursuant to paragraph C.2.a. of this Article.

3. Eminent Domain Valuation Procedure. For lands, easements, or rights-of-way acquired by eminent domain proceedings instituted after the effective date of this Agreement, the Non-Federal Sponsor, prior to instituting such proceedings, shall submit to the Government notification in writing of its intent to institute such proceedings and an appraisal of the specific real property interests to be acquired in such proceedings. The Government shall have 60 calendar days after receipt of such a notice and appraisal within which to review the appraisal, if not previously approved by the Government in writing.

a. If the Government previously has approved the appraisal in writing, or if the Government provides written approval of, or takes no action on, the appraisal within such 60 day period, the Non-Federal Sponsor shall use the amount set forth in such appraisal as the estimate of just compensation for the purpose of instituting the eminent domain proceeding.

b. If the Government provides written disapproval of the appraisal, including the reasons for disapproval, within such 60 day period, the Government and the Non-Federal Sponsor shall consult in good faith to promptly resolve the issues or areas of disagreement that are identified in the Government's written disapproval. If, after such good faith consultation, the Government and the Non-Federal Sponsor agree as to an appropriate amount, then the Non-Federal Sponsor shall use that amount as the estimate of just compensation for the purpose of instituting the eminent domain proceeding. If, after such good faith consultation, the Government and the Non-Federal Sponsor cannot agree as to an appropriate amount, then the Non-Federal Sponsor may use the amount set forth in its appraisal as the estimate of just compensation for the purpose of instituting the eminent domain proceeding.

c. For lands, easements, or rights-of-way acquired by eminent domain proceedings instituted in accordance with paragraph C.3. of this Article, fair market value shall be either the amount of the court award for the real property interests taken, to the extent the Government determined such interests are required for construction, operation, and maintenance of the *Project*, or the amount of any stipulated settlement or portion thereof that the Government approves in writing.

4. Incidental Costs. For lands, easements, or rights-of-way acquired by the Non-Federal Sponsor within a five year period preceding the effective date of this Agreement, or at any time after the effective date of this Agreement, the value of the interest shall include the documented incidental costs of acquiring the interest, as determined by the Government, subject to an audit in accordance with Article X.C. of this Agreement to determine reasonableness,

allocability, and allowability of such costs. In the event the Government modifies its determination made pursuant to Article III.A. of this Agreement, the Government shall afford credit for the documented incidental costs associated with preparing to acquire the lands, easements, or rights-of-way identified in the original determination, subject to an audit in accordance with Article X.C. of this Agreement to determine reasonableness, allocability, and allowability of such costs. Such incidental costs shall include, but not necessarily be limited to, closing and title costs, appraisal costs, survey costs, attorney's fees, plat maps, mapping costs, actual amounts expended for payment of any relocation assistance benefits provided in accordance with Article III.C. of this Agreement, and other payments by the Non-Federal Sponsor for items that are generally recognized as compensable, and required to be paid, by applicable state law due to the acquisition of a real property interest in accordance with Article III of this Agreement. The value of the interests provided by the Non-Federal Sponsor in accordance with Article III.A. of this Agreement also shall include the documented costs of obtaining appraisals pursuant to paragraph C.2. of this Article, as determined by the Government, and subject to an audit in accordance with Article X.C. of this Agreement to determine reasonableness, allocability, and allowability of such costs.

5. Waiver of Appraisal. Except as required by paragraph C.3. of this Article, the Government may waive the requirement for an appraisal pursuant to this paragraph if it determines that an appraisal is unnecessary because the valuation is uncomplicated and that the estimated fair market value of the real property interest is \$10,000 or less based upon a review of available data. In such event, the Government and the Non-Federal Sponsor must agree in writing to the value of such real property interest in an amount not in excess of \$10,000.

D. After consultation with the Non-Federal Sponsor, the Government shall determine the value of *relocations* in accordance with the provisions of this paragraph.

1. For a *relocation* other than a *highway*, the value shall be only that portion of *relocation* costs that the Government determines is necessary to provide a functionally equivalent facility, reduced by depreciation, as applicable, and by the salvage value of any removed items.

2. For a *relocation* of a *highway*, the value shall be only that portion of *relocation* costs that would be necessary to accomplish the *relocation* in accordance with the design standard that the Commonwealth of Pennsylvania would apply under similar conditions of geography and traffic load, reduced by the salvage value of any removed items.

3. *Relocation* costs shall include, but not necessarily be limited to, actual costs of performing the *relocation*; planning, engineering and design costs; supervision and administration costs; and documented incidental costs associated with performance of the *relocation*, as determined by the Government. *Relocation* costs shall not include any costs due to *betterments*, as determined by the Government, nor any additional cost of using new material when suitable used material is available. *Relocation* costs shall be subject to an audit in accordance with Article X.C. of this Agreement to determine reasonableness, allocability, and allowability of such costs.

4. Any credit afforded under the terms of this Agreement for the value of *relocations* performed within the *Project* boundaries is subject to satisfactory compliance with applicable Federal labor laws covering non-Federal construction, including, but not limited to, 40 U.S.C. 3141-3148 and 40 U.S.C. 3701-3708 (revising, codifying and enacting without substantive change the provisions of the Davis-Bacon Act (formerly 40 U.S.C. 276a *et seq.*), the Contract Work Hours and Safety Standards Act (formerly 40 U.S.C. 327 *et seq.*), and the Copeland Anti-Kickback Act (formerly 40 U.S.C. 276c)). Notwithstanding any other provision of this Agreement, credit may be withheld, in whole or in part, as a result of the Non-Federal Sponsor's failure to comply with its obligations under these laws.

E. The costs to be included in *total project costs* and the amount of credit to be afforded in accordance with this Article for the reasonable costs incurred by the Non-Federal Sponsor pursuant to Article II.B.1. of this Agreement that are associated with obtaining permits necessary for construction, operation, and maintenance of the *Project* on publicly owned or controlled lands, shall be subject to an audit in accordance with Article X.C. of this Agreement to determine reasonableness, allocability, and allowability of such costs.

F. Subject to the limitations described in paragraph A. of this Article, where the Government, on behalf of the Non-Federal Sponsor pursuant to Article II.J.1. of this Agreement, acquires lands, easements, or rights-of-way, or performs *relocations*, the value to be included in *total project costs* and the amount of credit to be afforded in accordance with this Article shall be the costs of such work performed or provided by the Government that are paid by the Non-Federal Sponsor in accordance with Article VI.D. of this Agreement. In addition, the value to be included in *total project costs* and the amount of such credit to be afforded in accordance with this Article shall include the documented costs incurred by the Non-Federal Sponsor in accordance with the terms and conditions agreed upon in writing pursuant to Article II.J.1. of this Agreement subject to the limitations described in paragraph A. of this Article and an audit in accordance with Article X.C. of this Agreement to determine reasonableness, allocability, and allowability of such costs.

ARTICLE V - PROJECT COORDINATION TEAM

A. To provide for consistent and effective communication, the Non-Federal Sponsor and the Government, not later than 30 calendar days after the effective date of this Agreement, shall appoint named senior representatives to a Project Coordination Team. Thereafter, the Project Coordination Team shall meet regularly until the end of the *period of design and construction*. The Government's Project Manager and a counterpart named by the Non-Federal Sponsor shall co-chair the Project Coordination Team.

B. The Government's Project Manager and the Non-Federal Sponsor's counterpart shall keep the Project Coordination Team informed of the progress of design and construction and of significant pending issues and actions, and shall seek the views of the Project Coordination Team on matters that the Project Coordination Team generally oversees.

C. Until the end of the *period of design and construction*, the Project Coordination Team shall generally oversee the *Project*, including matters related to: design; completion of all necessary environmental coordination and documentation; plans and specifications; scheduling; real property and *relocation* requirements; real property acquisition; contract awards and modifications; contract costs; the application of and compliance with 40 U.S.C. 3141-3148 and 40 U.S.C. 3701-3708 (revising, codifying and enacting without substantive change the provisions of the Davis-Bacon Act (formerly 40 U.S.C. 276a *et seq.*), the Contract Work Hours and Safety Standards Act (formerly 40 U.S.C. 327 *et seq.*), and the Copeland Anti-Kickback Act (formerly 40 U.S.C. 276c)) for *relocations* and the construction portion of the *non-Federal design and construction work*; the investigations to identify the existence and extent of hazardous substances in accordance with Article XIV.A. of this Agreement; historic preservation activities in accordance with Article XVII of this Agreement; the Government's cost projections; the performance of and scheduling for the *non-Federal design and construction work*]; final inspection of the entire *Project* or completed portions thereof; preparation of the proposed OMRR&R Manual; anticipated requirements and needed capabilities for performance of operation, maintenance, repair, rehabilitation, and replacement of the *Project* including issuance of permits; and other matters related to the *Project*. This oversight of the *Project* shall be consistent with a project management plan developed by the Government after consultation with the Non-Federal Sponsor.

D. The Project Coordination Team may make recommendations to the District Engineer on matters related to the *Project* that the Project Coordination Team generally oversees, including suggestions to avoid potential sources of dispute. The Government in good faith shall consider the recommendations of the Project Coordination Team. The Government, having the legal authority and responsibility for design and construction of the *Project* except for the *non-Federal design and construction work*, has the discretion to accept or reject, in whole or in part, the Project Coordination Team's recommendations. On matters related to the *non-Federal design and construction work*, that the Project Coordination Team generally oversees, the Project Coordination Team may make recommendations to the Non-Federal Sponsor including suggestions to avoid potential sources of dispute. The Non-Federal Sponsor in good faith shall consider the recommendations of the Project Coordination Team. The Non-Federal Sponsor, having the legal authority and responsibility for design and construction of the *non-Federal design and construction work*, has the discretion to accept or reject, in whole or in part, the Project Coordination Team's recommendations except as otherwise required by the provisions of this Agreement, including compliance with applicable Federal, State, or local laws or regulations.

E. The Non-Federal Sponsor's costs of participation in the Project Coordination Team shall be included in *total project costs* and shared in accordance with the provisions of this Agreement, subject to an audit in accordance with Article X.C. of this Agreement to determine reasonableness, allocability, and allowability of such costs. The Government's costs of participation in the Project Coordination Team shall be included in *total project costs* and shared in accordance with the provisions of this Agreement.

ARTICLE VI - METHOD OF PAYMENT

A. In accordance with the provisions of this paragraph, the Government shall maintain current records and provide to the Non-Federal Sponsor current projections of costs, financial obligations, contributions provided by the parties, the value included in *total project costs* for lands, easements, rights-of-way, *relocations*, and permit costs determined in accordance with Article IV of this Agreement, the costs included in *total project costs* for the *pre-Agreement design work* determined in accordance with Article II.B.4. of this Agreement, the credit to be afforded for the *pre-Agreement design work* pursuant to Article II.B.5. of this Agreement, the costs included in *total project costs* for the *non-Federal design and construction work* determined in accordance with Article II.B.6. of this Agreement, and the credit to be afforded for the *non-Federal design and construction work* pursuant to Article II.B.7. of this Agreement.

1. As of the effective date of this Agreement, *total project costs* are projected to be \$2,650,000; the value included in *total project costs* for lands, easements, rights-of-way, *relocations*, and permit costs determined in accordance with Article IV of this Agreement is projected to be \$1,000; the value of the Non-Federal Sponsor's contributions under Article II.H., Article V, Article X, and Article XIV.A. of this Agreement is projected to be \$662,500; the costs included in *total project costs* for the *pre-Agreement design work* determined in accordance with Article II.B.4. of this Agreement are projected to be \$0; the credit to be afforded for the *pre-Agreement design work* pursuant to Article II.B.5. of this Agreement is projected to be \$0; the costs included in *total project costs* for the *non-Federal design and construction work* determined in accordance with Article II.B.6. of this Agreement are projected to be \$25,000; the credit to be afforded for the *non-Federal design and construction work* pursuant to Article II.B.7. of this Agreement is projected to be \$25,000; the Non-Federal Sponsor's contribution of funds required by Article II.B.2. of this Agreement is projected to be \$637,500; the *non-Federal proportionate share* is projected to be 25 percent; the Non-Federal Sponsor's contribution of funds required by Article XVII.C.4. of this Agreement is projected to be \$0; and the Government's financial obligations for the additional work to be incurred and the Non-Federal Sponsor's contribution of funds for such costs required by Article II.J. of this Agreement are projected to be \$0. These amounts and percentage are estimates subject to adjustment by the Government, after consultation with the Non-Federal Sponsor, and are not to be construed as the total financial responsibilities of the Government and the Non-Federal Sponsor.

2. By January 1 and by each quarterly anniversary thereof until the conclusion of the *period of design and construction* and resolution of all relevant claims and appeals and eminent domain proceedings, the Government shall provide the Non-Federal Sponsor with a report setting forth all contributions provided to date and the current projections of the following: *total project costs*; the value included in *total project costs* for lands, easements, rights-of-way, *relocations*, and permit costs determined in accordance with Article IV of this Agreement; the value of the Non-Federal Sponsor's contributions under Article II.H., Article V, Article X, and Article XIV.A. of this Agreement; the costs included in *total project costs* for the *pre-Agreement design work* determined in accordance with Article II.B.4. of this Agreement; the credit to be afforded for the *pre-Agreement design work* pursuant to Article II.B.5. of this Agreement; the costs included in *total project costs* for the *non-Federal design and construction work* determined in accordance with Article II.B.6. of this Agreement; the credit to be afforded for the

non-Federal design and construction work pursuant to Article II.B.7. of this Agreement; the Non-Federal Sponsor's contribution of funds required by Article II.B.2. of this Agreement; the *non-Federal proportionate share*; the Non-Federal Sponsor's contribution of funds required by Article XVII.C.4.] of this Agreement; the total contribution of funds required from the Non-Federal Sponsor for the upcoming contract and upcoming *fiscal year*; and the Government's financial obligations for additional work incurred and the Non-Federal Sponsor's contribution of funds for such costs required by Article II.J. of this Agreement.

B. The Non-Federal Sponsor shall provide the contributions of funds required by Article II.B.2. and Article XVII.C.4. of this Agreement in accordance with the provisions of this paragraph.

1. Not less than 45 calendar days prior to the scheduled date for: (a) issuance of the solicitation for the first contract for review of the *pre-Agreement design work* provided by the Non-Federal Sponsor; (b) commencement of review of the *pre-Agreement design work* provided by the Non-Federal Sponsor using the Government's own forces; (c) issuance of the solicitation for the first contract for design of the *Project*; or (d) commencement of design of the *Project* using the Government's own forces, whichever is scheduled to first occur, the Government shall notify the Non-Federal Sponsor in writing of such scheduled date and the funds the Government determines to be required from the Non-Federal Sponsor to meet: (a) the *non-Federal proportionate share of financial obligations for design and construction* incurred prior to the commencement of the *period of design and construction*; (b) the projected *non-Federal proportionate share of financial obligations for design and construction* to be incurred for such contract; (c) the projected *non-Federal proportionate share of financial obligations for design and construction* using the Government's own forces through the first *fiscal year of the Non-Federal Sponsor*; (d) the Non-Federal Sponsor's share of the projected financial obligations for data recovery activities associated with historic preservation pursuant to Article XVII.C.4. of this Agreement to be incurred for such contract; and (e) the Non-Federal Sponsor's share of the projected financial obligations for data recovery activities associated with historic preservation pursuant to Article XVII.C.4. of this Agreement using the Government's own forces through the first *fiscal year of the Non-Federal Sponsor*. Not later than such scheduled date, the Non-Federal Sponsor shall provide the Government with the full amount of such required funds by delivering a check payable to "FAO, USAED, PHILADELPHIA DISTRICT-E5" to the District Engineer, or verifying to the satisfaction of the Government that the Non-Federal Sponsor has deposited such required funds in an escrow or other account acceptable to the Government, with interest accruing to the Non-Federal Sponsor, or by presenting the Government with an irrevocable letter of credit acceptable to the Government for such required funds, or by providing an Electronic Funds Transfer of such required funds in accordance with procedures established by the Government.

2. Thereafter, until the construction of the *Project* is complete, the Government shall notify the Non-Federal Sponsor in writing of the funds the Government determines to be required from the Non-Federal Sponsor, and the Non-Federal Sponsor shall provide such funds in accordance with the provisions of this paragraph.

a. The Government shall notify the Non-Federal Sponsor in writing, no later than 60 calendar days prior to the scheduled date for issuance of the solicitation for each remaining contract for the *Project*, of the funds the Government determines to be required from the Non-Federal Sponsor to meet: (a) the projected *non-Federal proportionate share of financial obligations for design and construction* to be incurred for such contract and (b) the Non-Federal Sponsor's share of the projected financial obligations for data recovery activities associated with historic preservation pursuant to Article XVII.C.4. of this Agreement to be incurred for such contract. No later than such scheduled date, the Non-Federal Sponsor shall make the full amount of such required funds available to the Government through any of the payment mechanisms specified in paragraph B.1. of this Article.

b. The Government shall notify the Non-Federal Sponsor in writing, no later than 60 calendar days prior to the beginning of each *fiscal year of the Non-Federal Sponsor* in which the Government projects that it will make *financial obligations for design and construction* of the *Project* using the Government's own forces or financial obligations for data recovery activities associated with historic preservation pursuant to Article XVII.C.4. of this Agreement using the Government's own forces, of the funds the Government determines to be required from the Non-Federal Sponsor to meet: (a) the projected *non-Federal proportionate share of financial obligations for design and construction* using the Government's own forces for that *fiscal year of the Non-Federal Sponsor* and (b) the Non-Federal Sponsor's share of the projected financial obligations for data recovery activities associated with historic preservation pursuant to Article XVII.C.4. of this Agreement using the Government's own forces for that *fiscal year of the Non-Federal Sponsor*. No later than 30 calendar days prior to the beginning of that *fiscal year of the Non-Federal Sponsor*, the Non-Federal Sponsor shall make the full amount of such required funds for that *fiscal year of the Non-Federal Sponsor*] available to the Government through any of the payment mechanisms specified in paragraph B.1. of this Article.

3. The Government shall draw from the funds provided by the Non-Federal Sponsor such sums as the Government deems necessary, when considered with any credit the Government projects will be afforded for the *pre-Agreement design work* pursuant to Article II.B.5. of this Agreement and for the *non-Federal design and construction work* pursuant to Article II.B.7. of this Agreement,] to cover: (a) the *non-Federal proportionate share of financial obligations for design and construction* incurred prior to the commencement of the *period of design and construction*; (b) the *non-Federal proportionate share of financial obligations for design and construction* as *financial obligations for design and construction* are incurred; and (c) the Non-Federal Sponsor's share of financial obligations for data recovery activities associated with historic preservation pursuant to Article XVII.C.4. of this Agreement as those financial obligations are incurred. If at any time the Government determines that additional funds will be needed from the Non-Federal Sponsor to cover the Non-Federal Sponsor's share of such financial obligations for the current contract or to cover the Non-Federal Sponsor's share of such financial obligations for work performed using the Government's own forces in the current *fiscal year of the Non-Federal Sponsor*,] the Government shall notify the Non-Federal Sponsor in writing of the additional funds required and provide an explanation of why additional funds are required. Within 45 calendar days from receipt of such notice, the Non-Federal Sponsor shall provide the Government with the full amount of such additional required funds through any of the payment mechanisms specified in paragraph B.1. of this Article.

C. Upon conclusion of the *period of design and construction* and resolution of all relevant claims and appeals and eminent domain proceedings, the Government shall conduct a final accounting and furnish the Non-Federal Sponsor with written notice of the results of such final accounting. If outstanding relevant claims and appeals or eminent domain proceedings prevent a final accounting from being conducted in a timely manner, the Government shall conduct an interim accounting and furnish the Non-Federal Sponsor with written notice of the results of such interim accounting. Once all outstanding relevant claims and appeals and eminent domain proceedings are resolved, the Government shall amend the interim accounting to complete the final accounting and furnish the Non-Federal Sponsor with written notice of the results of such final accounting. The interim or final accounting, as applicable, shall determine *total project costs* and the costs of any data recovery activities associated with historic preservation. In addition, for each set of costs, the interim or final accounting, as applicable, shall determine each party's required share thereof, and each party's total contributions thereto as of the date of such accounting.

1. Should the interim or final accounting, as applicable, show that the Non-Federal Sponsor's total required shares of *total project costs* and the costs of any data recovery activities associated with historic preservation exceed the Non-Federal Sponsor's total contributions provided thereto, the Non-Federal Sponsor, no later than 90 calendar days after receipt of written notice from the Government, shall make a payment to the Government in an amount equal to the difference by delivering a check payable to "FAO, USAED, PHILADELPHIA DISTRICT E5" to the District Engineer or by providing an Electronic Funds Transfer in accordance with procedures established by the Government.

2. Should the interim or final accounting, as applicable, show that the total contributions provided by the Non-Federal Sponsor for *total project costs* and the costs of any data recovery activities associated with historic preservation exceed the Non-Federal Sponsor's total required shares thereof, the Government, subject to the conditions set forth below, shall refund or reimburse the excess amount to the Non-Federal Sponsor within 90 calendar days of the date of completion of such accounting. In the event the Non-Federal Sponsor is due a refund or reimbursement and funds are not available to refund or reimburse the excess amount to the Non-Federal Sponsor, the Government shall seek such appropriations as are necessary to make the refund or reimbursement. Any refund or reimbursement by the Government shall be subject to the following conditions:

a. the Government, subject to the availability of funds and as limited by the *Section 566 Program Limit*, shall refund or reimburse to the Non-Federal Sponsor the portion of such excess amount contributed under Article II.B.2., Article II.H., Article V, Article X, Article XIV.A., and Article XVII.C.4. of this Agreement; and

b. the Government, subject to the availability of funds and as limited by the *Section 566 Program Limit* and the *Section 102 Limit*, shall reimburse to the Non-Federal Sponsor the remaining portion of such excess amount that is attributable to the *pre-Agreement design work* and the *non-Federal design and construction work*.

D. The Non-Federal Sponsor shall provide the contribution of funds required by Article II.J. of this Agreement for additional work in accordance with the provisions of this paragraph.

1. Not less than 60 calendar days prior to the scheduled date for the first financial obligation for additional work, the Government shall notify the Non-Federal Sponsor in writing of such scheduled date and of the full amount of funds the Government determines to be required from the Non-Federal Sponsor to cover the costs of the additional work. No later than 30 calendar days prior to the Government incurring any financial obligation for additional work, the Non-Federal Sponsor shall provide the Government with the full amount of the funds required to cover the costs of such additional work through any of the payment mechanisms specified in paragraph B.1. of this Article.

2. The Government shall draw from the funds provided by the Non-Federal Sponsor such sums as the Government deems necessary to cover the Government's financial obligations for such additional work as they are incurred. If at any time the Government determines that the Non-Federal Sponsor must provide additional funds to pay for such additional work, the Government shall notify the Non-Federal Sponsor in writing of the additional funds required and provide an explanation of why additional funds are required. Within 30 calendar days from receipt of such notice, the Non-Federal Sponsor shall provide the Government with the full amount of such additional required funds through any of the payment mechanisms specified in paragraph B.1. of this Article.

3. At the time the Government conducts the interim or final accounting, as applicable, the Government shall conduct an accounting of the Government's financial obligations incurred for additional work and furnish the Non-Federal Sponsor with written notice of the results of such accounting. If outstanding relevant claims and appeals or eminent domain proceedings prevent a final accounting of such financial obligations for additional work from being conducted in a timely manner, the Government shall conduct an interim accounting of such financial obligations for additional work and furnish the Non-Federal Sponsor with written notice of the results of such interim accounting. Once all outstanding relevant claims and appeals and eminent domain proceedings are resolved, the Government shall amend the interim accounting of such financial obligations for additional work to complete the final accounting of such financial obligations for additional work and furnish the Non-Federal Sponsor with written notice of the results of such final accounting. Such interim or final accounting, as applicable, shall determine the Government's total financial obligations for additional work and the Non-Federal Sponsor's contribution of funds provided thereto as of the date of such accounting.

a. Should the interim or final accounting, as applicable, show that the Government's total financial obligations for additional work exceed the total contribution of funds provided by the Non-Federal Sponsor for such additional work, the Non-Federal Sponsor, no later than 90 calendar days after receipt of written notice from the Government, shall make a payment to the Government in an amount equal to the difference by delivering a check payable to "FAO, USAED, PHILADELPHIA DISTRICT E5" to the District Engineer or by providing an Electronic Funds Transfer in accordance with procedures established by the Government.

b. Should the interim or final accounting, as applicable, show that the total contribution of funds provided by the Non-Federal Sponsor for additional work exceeds the Government's total financial obligations for such additional work, the Government, subject to the availability of funds, shall refund the excess amount to the Non-Federal Sponsor within 90 calendar days of the date of completion of such accounting. In the event the Non-Federal Sponsor is due a refund and funds are not available to refund the excess amount to the Non-Federal Sponsor, the Government shall seek such appropriations as are necessary to make the refund.

ARTICLE VII - DISPUTE RESOLUTION

As a condition precedent to a party bringing any suit for breach of this Agreement, that party must first notify the other party in writing of the nature of the purported breach and seek in good faith to resolve the dispute through negotiation. If the parties cannot resolve the dispute through negotiation, they may agree to a mutually acceptable method of non-binding alternative dispute resolution with a qualified third party acceptable to both parties. Each party shall pay an equal share of any costs for the services provided by such a third party as such costs are incurred. The existence of a dispute shall not excuse the parties from performance pursuant to this Agreement.

ARTICLE VIII – OPERATION, MAINTENANCE, REPAIR, REHABILITATION, AND REPLACEMENT (OMRR&R)

A. Upon receipt of the notification from the District Engineer in accordance with Article II.D. of this Agreement, the Non-Federal Sponsor, pursuant to Article II.E. of this Agreement, shall operate, maintain, repair, rehabilitate, and replace the entire *Project*, or a completed portion thereof as the case may be, at no cost to the Government. The Non-Federal Sponsor shall conduct its operation, maintenance, repair, rehabilitation, and replacement responsibilities in a manner compatible with the *Project's* authorized purposes and in accordance with specific directions prescribed by the Government in the interim or final OMRR&R Manual and any subsequent amendments thereto.

B. The Non-Federal Sponsor hereby gives the Government a right to enter, at reasonable times and in a reasonable manner, upon property that the Non-Federal Sponsor now or hereafter owns or controls for access to the *Project* for the purpose of inspection, if the Government determines an inspection to be necessary. If an inspection shows that the Non-Federal Sponsor for any reason is failing to perform its obligations under this Agreement, the Government shall send a written notice describing the non-performance to the Non-Federal Sponsor.

ARTICLE IX – HOLD AND SAVE

The Non-Federal Sponsor shall hold and save the Government free from all damages arising from design, construction, operation, maintenance, repair, rehabilitation, and replacement of the *Project* and any *betterments*, except for damages due to the fault or negligence of the Government or its contractors.

ARTICLE X - MAINTENANCE OF RECORDS AND AUDIT

A. Not later than 60 calendar days after the effective date of this Agreement, the Government and the Non-Federal Sponsor shall develop procedures for keeping books, records, documents, or other evidence pertaining to costs and expenses incurred pursuant to this Agreement. These procedures shall incorporate, and apply as appropriate, the standards for financial management systems set forth in the Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments at 32 C.F.R. Section 33.20. The Government and the Non-Federal Sponsor shall maintain such books, records, documents, or other evidence in accordance with these procedures and for a minimum of three years after completion of the accounting for which such books, records, documents, or other evidence were required. To the extent permitted under applicable Federal laws and regulations, the Government and the Non-Federal Sponsor shall each allow the other to inspect such books, records, documents, or other evidence.

B. In accordance with 32 C.F.R. Section 33.26, the Non-Federal Sponsor is responsible for complying with the Single Audit Act Amendments of 1996 (31 U.S.C. 7501-7507), as implemented by Office of Management and Budget (OMB) Circular No. A-133 and Department of Defense Directive 7600.10. Upon request of the Non-Federal Sponsor and to the extent permitted under applicable Federal laws and regulations, the Government shall provide to the Non-Federal Sponsor and independent auditors any information necessary to enable an audit of the Non-Federal Sponsor's activities under this Agreement. The costs of any non-Federal audits performed in accordance with this paragraph shall be allocated in accordance with the provisions of OMB Circulars A-87 and A-133, and such costs as are allocated to the *Project* shall be included in *total project costs* and shared in accordance with the provisions of this Agreement.

C. In accordance with 31 U.S.C. 7503, the Government may conduct audits in addition to any audit that the Non-Federal Sponsor is required to conduct under the Single Audit Act Amendments of 1996. Any such Government audits shall be conducted in accordance with Government Auditing Standards and the cost principles in OMB Circular No. A-87 and other applicable cost principles and regulations. The costs of Government audits performed in accordance with this paragraph shall be included in *total project costs* and shared in accordance with the provisions of this Agreement.

ARTICLE XI - FEDERAL AND STATE LAWS

In the exercise of their respective rights and obligations under this Agreement, the Non-Federal Sponsor and the Government shall comply with all applicable Federal and State laws and

regulations, including, but not limited to: Section 601 of the Civil Rights Act of 1964, Public Law 88-352 (42 U.S.C. 2000d) and Department of Defense Directive 5500.11 issued pursuant thereto; Army Regulation 600-7, entitled “Nondiscrimination on the Basis of Handicap in Programs and Activities Assisted or Conducted by the Department of the Army”; and all applicable Federal labor standards requirements including, but not limited to, 40 U.S.C. 3141-3148 and 40 U.S.C. 3701-3708 (revising, codifying and enacting without substantive change the provisions of the Davis-Bacon Act (formerly 40 U.S.C. 276a *et seq.*), the Contract Work Hours and Safety Standards Act (formerly 40 U.S.C. 327 *et seq.*), and the Copeland Anti-Kickback Act (formerly 40 U.S.C. 276c)).

ARTICLE XII - RELATIONSHIP OF PARTIES

A. In the exercise of their respective rights and obligations under this Agreement, the Government and the Non-Federal Sponsor each act in an independent capacity, and neither is to be considered the officer, agent, or employee of the other.

B. In the exercise of its rights and obligations under this Agreement, neither party shall provide, without the consent of the other party, any contractor with a release that waives or purports to waive any rights the other party may have to seek relief or redress against that contractor either pursuant to any cause of action that the other party may have or for violation of any law.

ARTICLE XIII - TERMINATION OR SUSPENSION

A. If at any time the Non-Federal Sponsor fails to fulfill its obligations under this Agreement, the Assistant Secretary of the Army (Civil Works) shall terminate this Agreement or suspend future performance under this Agreement unless he determines that continuation of work on the *Project* is in the interest of the United States.

B. In the event future performance under this Agreement is suspended pursuant to Article II.C.2. of this Agreement, such suspension shall remain in effect until such time that the Government notifies the Non-Federal Sponsor in writing that sufficient Federal funds are available to meet the Federal share of *total project costs* and the Federal share of costs for data recovery activities associated with historic preservation in accordance with Article XVII.C.3. and Article XVII.C.4. of this Agreement the Government projects will be incurred through the then-current or upcoming *fiscal year*, or the Government or the Non-Federal Sponsor elects to terminate this Agreement.

C. In the event that the Government and the Non-Federal Sponsor determine to suspend future performance under this Agreement in accordance with Article XIV.C. of this Agreement, such suspension shall remain in effect until the Government and the Non-Federal Sponsor agree to proceed or to terminate this Agreement. In the event that the Government suspends future performance under this Agreement in accordance with Article XIV.C. of this Agreement due to

failure to reach agreement with the Non-Federal Sponsor on whether to proceed or to terminate this Agreement, or the failure of the Non-Federal Sponsor to provide funds to pay for cleanup and response costs or to otherwise discharge the Non-Federal Sponsor's responsibilities under Article XIV.C. of this Agreement, such suspension shall remain in effect until: 1) the Government and Non-Federal Sponsor reach agreement on how to proceed or to terminate this Agreement; 2) the Non-Federal Sponsor provides funds necessary to pay for cleanup and response costs and otherwise discharges its responsibilities under Article XIV.C. of this Agreement; 3) the Government continues work on the *Project*; or 4) the Government terminates this Agreement in accordance with the provisions of Article XIV.C. of this Agreement.

D. If after completion of the design portion of the *Project* the parties mutually agree in writing not to proceed with construction of the *Project*, the parties shall conclude their activities relating to the *Project* and conduct an accounting in accordance with Article VI.C. of this Agreement.

E. In the event that this Agreement is terminated pursuant to this Article or Article II.C. or Article XIV.C. of this Agreement, both parties shall conclude their activities relating to the *Project* and conduct an accounting in accordance with Article VI.C. of this Agreement. To provide for this eventuality, the Government may reserve a percentage of total Federal funds made available for the *Project* and an equal percentage of the total funds contributed by the Non-Federal Sponsor in accordance with Article II.B.2. and Article XVII.C.4. of this Agreement as a contingency to pay costs of termination, including any costs of resolution of contract claims and contract modifications.

F. Any termination of this Agreement or suspension of future performance under this Agreement in accordance with this Article or Article II.C. or Article XIV.C. of this Agreement shall not relieve the parties of liability for any obligation previously incurred. Any delinquent payment owed by the Non-Federal Sponsor shall be charged interest at a rate, to be determined by the Secretary of the Treasury, equal to 150 per centum of the average bond equivalent rate of the 13 week Treasury bills auctioned immediately prior to the date on which such payment became delinquent, or auctioned immediately prior to the beginning of each additional 3 month period if the period of delinquency exceeds 3 months.

ARTICLE XIV - HAZARDOUS SUBSTANCES

A. After execution of this Agreement and upon direction by the District Engineer, the Non-Federal Sponsor shall perform, or ensure performance of, any investigations for hazardous substances that the Government or the Non-Federal Sponsor determines to be necessary to identify the existence and extent of any hazardous substances regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. 9601-9675; hereinafter "CERCLA"), that may exist in, on, or under lands, easements, and rights-of-way that the Government determines, pursuant to Article III of this Agreement, to be required for construction, operation, and maintenance of the *Project*. However, for lands, easements, and rights-of-way that the Government determines to be subject to the navigation servitude, only the

Government shall perform such investigations unless the District Engineer provides the Non-Federal Sponsor with prior specific written direction, in which case the Non-Federal Sponsor shall perform such investigations in accordance with such written direction.

1. All actual costs incurred by the Non-Federal Sponsor for such investigations for hazardous substances shall be included in *total project costs* and shared in accordance with the provisions of this Agreement, subject to an audit in accordance with Article X.C. of this Agreement to determine reasonableness, allocability, and allowability of such costs.

2. All actual costs incurred by the Government for such investigations for hazardous substances shall be included in *total project costs* and shared in accordance with the provisions of this Agreement.

B. In the event it is discovered through any investigation for hazardous substances or other means that hazardous substances regulated under CERCLA exist in, on, or under any lands, easements, or rights-of-way that the Government determines, pursuant to Article III of this Agreement, to be required for construction, operation, and maintenance of the *Project*, the Non-Federal Sponsor and the Government, in addition to providing any other notice required by applicable law, shall provide prompt written notice to each other, and the Non-Federal Sponsor shall not proceed with the acquisition of the real property interests until the parties agree that the Non-Federal Sponsor should proceed.

C. The Government and the Non-Federal Sponsor shall determine whether to initiate construction of the *Project*, or, if already in construction, whether to continue with construction of the *Project*, suspend future performance under this Agreement, or terminate this Agreement for the convenience of the Government, in any case where hazardous substances regulated under CERCLA are found to exist in, on, or under any lands, easements, or rights-of-way that the Government determines, pursuant to Article III of this Agreement, to be required for construction, operation, and maintenance of the *Project*. Should the Government and the Non-Federal Sponsor determine to initiate or continue with construction of the *Project* after considering any liability that may arise under CERCLA, the Non-Federal Sponsor shall be responsible, as between the Government and the Non-Federal Sponsor, for the costs of cleanup and response, including the costs of any studies and investigations necessary to determine an appropriate response to the contamination. Such costs shall not be considered a part of *total project costs*. In the event the Non-Federal Sponsor does not reach agreement with the Government on whether to proceed or to terminate this Agreement under this paragraph, or fails to provide any funds necessary to pay for cleanup and response costs or to otherwise discharge the Non-Federal Sponsor's responsibilities under this paragraph upon direction by the Government, the Government, in its sole discretion, may either terminate this Agreement for the convenience of the Government, suspend future performance under this Agreement, or continue work on the *Project*.

D. The Non-Federal Sponsor and the Government shall consult with each other in accordance with Article V of this Agreement in an effort to ensure that responsible parties bear any necessary cleanup and response costs as defined in CERCLA. Any decision made pursuant

to paragraph C. of this Article shall not relieve any third party from any liability that may arise under CERCLA.

E. As between the Government and the Non-Federal Sponsor, the Non-Federal Sponsor shall be considered the operator of the *Project* for purposes of CERCLA liability. To the maximum extent practicable, the Non-Federal Sponsor shall operate, maintain, repair, rehabilitate, and replace the *Project* in a manner that will not cause liability to arise under CERCLA.

ARTICLE XV - NOTICES

A. Any notice, request, demand, or other communication required or permitted to be given under this Agreement shall be deemed to have been duly given if in writing and delivered personally or sent by telegram or mailed by first-class, registered, or certified mail, as follows:

If to the Non-Federal Sponsor:

Township Manager
Abington Township
1176 Old York Road
Abington, PA 19001

If to the Government:

District Engineer
U.S. Army Engineer District, Philadelphia
Wanamaker Building
100 Penn Square East
Philadelphia, PA 19107

B. A party may change the address to which such communications are to be directed by giving written notice to the other party in the manner provided in this Article.

C. Any notice, request, demand, or other communication made pursuant to this Article shall be deemed to have been received by the addressee at the earlier of such time as it is actually received or seven calendar days after it is mailed.

ARTICLE XVI - CONFIDENTIALITY

To the extent permitted by the laws governing each party, the parties agree to maintain the confidentiality of exchanged information when requested to do so by the providing party.

ARTICLE XVII - HISTORIC PRESERVATION

A. Except as provided in paragraph B. below, the Government shall perform any identification, survey, or evaluation of historic properties that it determines is necessary for the *Project*. Any costs incurred by the Government for such work shall be included in *total project costs* and shared in accordance with the provisions of this Agreement.

B. In the event that the Government determines that any identification, survey, or evaluation of historic properties is required for construction of the *non-Federal design and construction work*, and if the Government and the Non-Federal Sponsor agree in writing that the Non-Federal Sponsor should perform such identification, survey, or evaluation of historic properties, the Non-Federal Sponsor shall perform such identification, survey, or evaluation in accordance with this paragraph and other written directions of the Government.

1. The Non-Federal Sponsor shall ensure that its studies are conducted by qualified archaeologists, historians, architectural historians and historic architects, as appropriate, who meet, at a minimum, the Secretary of the Interior's Professional Qualifications Standards. The Non-Federal Sponsor shall submit study plans and reports to the Government for review and approval and the Non-Federal Sponsor shall be responsible for resolving any deficiencies identified by the Government.

2. Any costs of identification, survey, or evaluation of historic properties incurred by the Non-Federal Sponsor pursuant to this paragraph shall be included in the costs for *non-Federal design and construction work* subject to an audit in accordance with Article X.C. of this Agreement to determine reasonableness, allocability, and allowability of such costs.

C. Except as provided in paragraph C.2. below, the Government, as it determines necessary for the *Project*, shall perform or ensure the performance of any mitigation activities or actions for historic properties or that are otherwise associated with historic preservation including data recovery activities.

1. Any costs incurred by the Government for such mitigation activities, except for data recovery activities associated with historic preservation, shall be included in *total project costs* and shared in accordance with the provisions of this Agreement.

2. In the event that the Government determines that mitigation activities or actions other than data recovery activities associated with historic preservation are required for construction of the *non-Federal design and construction work*, and if the Government and the Non-Federal Sponsor agree in writing that the Non-Federal Sponsor should perform such activities or actions, the Non-Federal Sponsor shall perform such activities or actions in accordance with the written directions of the Government. The Non-Federal Sponsor shall perform the agreed upon activities or actions prior to construction of the *non-Federal design and construction work*. Any costs incurred by the Non-Federal Sponsor in accordance with the provisions of this paragraph shall be included in the costs for *non-Federal design and construction work* subject to an audit in accordance with Article X.C. of this Agreement to determine reasonableness, allocability, and allowability of such costs.

3. As specified in Section 7(a) of Public Law 86-523, as amended by Public Law 93-291 (16 U.S.C. 469c(a)), the costs of data recovery activities associated with historic preservation for this *Project* and all other projects implemented pursuant to Section 566 shall be borne entirely by the Government up to the statutory limit of one percent of the total amount authorized to be appropriated to the Government for implementation of projects pursuant to Section 566. None of the costs of data recovery activities associated with historic preservation up to such one percent limit shall be included in *total project costs*.

4. The Government shall not incur costs for data recovery activities associated with historic preservation that exceed the statutory one percent limit specified in paragraph C.3. of this Article unless and until the Assistant Secretary of the Army (Civil Works) has waived that limit and the Secretary of the Interior has concurred in the waiver in accordance with Section 208(3) of Public Law 96-515, as amended (16 U.S.C. 469c-2(3)). Any costs of data recovery activities associated with historic preservation that exceed the one percent limit shall not be included in *total project costs* but shall be shared between the Non-Federal Sponsor and the Government consistent with the cost sharing requirements for Section 566, as follows: 25 percent will be borne by the Non-Federal Sponsor and 75 percent will be borne by the Government.

D. If, during its performance of *relocations* in accordance with Article III of this Agreement or performance of the *non-Federal design and construction work*, the Non-Federal Sponsor discovers historic properties or other cultural resources that have not been evaluated in accordance with this Article, the Non-Federal Sponsor shall provide prompt written notice to the Government of such discovery. The Non-Federal Sponsor shall not proceed with performance of the *relocation* or performance of the *non-Federal design and construction work* that is related to such discovery until the Government provides written notice to the Non-Federal Sponsor that it should proceed with such work.

ARTICLE XVIII - THIRD PARTY RIGHTS, BENEFITS, OR LIABILITIES

Nothing in this Agreement is intended, nor may be construed, to create any rights, confer any benefits, or relieve any liability, of any kind whatsoever in any third person not party to this Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement, which shall become effective upon the date it is signed by the U.S. Army Engineer, Philadelphia District.

DEPARTMENT OF THE ARMY

ABINGTON TOWNSHIP

BY: _____
Michael A. Bliss
Lieutenant Colonel, Corps of Engineers
District Commander

BY: _____
Michael LeFevre
Township Manager
Abington Township

DATE: _____

DATE: _____

CERTIFICATE OF AUTHORITY

I, _____, do hereby certify that I am the principal legal officer of the Township of Abington, that the Township of Abington is a legally constituted public body with full authority and legal capability to perform the terms of the Agreement between the Department of the Army and the Township of Abington in connection with the Abington Township Environmental Improvement Project, and to pay damages, if necessary, in the event of the failure to perform in accordance with the terms of this Agreement and that the persons who have executed this Agreement on behalf of the Township of Abington have acted within their statutory authority.

IN WITNESS WHEREOF, I have made and executed this certification this _____ day of _____ 2016.

[SIGNATURE]
[TYPED NAME]
[TITLE IN FULL]

CERTIFICATION REGARDING LOBBYING

The undersigned certifies, to the best of his or her knowledge and belief that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

[SIGNATURE OF PCA SIGNATORY]

[TYPED NAME]

[TITLE IN FULL]

DATE: _____

PUBLIC WORKS COMMITTEE

BOARD ACTION REQUEST

October 5, 2016
DATE

PW4
AGENDA ITEM NUMBER

DEPARTMENT

AGENDA ITEM

TOWNSHIP MANAGER

Wastewater Utilities

SW

Grant of Sanitary Sewer
Easement from AQUA PA, Inc.

Michael LeFevre

ML

PREVIOUS ACTIONS

AQUA Pennsylvania, Inc. will be replacing their Hillside Tank OHGS Chemical Building at their Edge Hill road facility with a larger building to expand their water analysis and conditioning capabilities. The water discharges from the expanded equipment will be required to connect into the sanitary sewer system, which will be extended by AQUA.

RECOMMENDED BOARD ACTION

Motion to accept a Grant of Sanitary Sewer Easement from AQUA Pennsylvania, Inc. in and along the rear property line of Montgomery County Tax Parcel No. 300016440009 including Block/Unit No. 30195-010 and No. 30195-011.

COMMENTS

In association with AQUA's extension of the existing sanitary sewer system at the end of Kirk Avenue into their property, AQUA has agreed to provide a 20 foot wide easement for the future potential to further extend the sewer system along the rear of their property to reach the adjacent eight residential properties located to the south of the AQUA property.