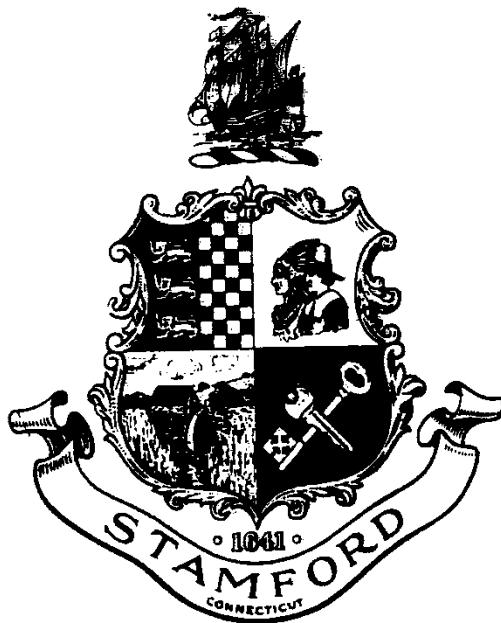


## **Agreement Schedule A - Scope of Services**

# **Main Street Bridge – Walkway Rehabilitation**

**For**



**City Of Stamford  
Engineering Bureau  
Office of Operations  
888 Washington Boulevard  
Stamford, CT 06901**

**Revised 09/04/18**

**Prepared By**

**Wengell, McDonnell & Costello  
Consulting Engineers  
87 Holmes Road  
Newington, CT 06111**

## 1.0 PROJECT DESCRIPTION

This project will consist of limited rehabilitation of the existing truss bridge in place, while still providing a safe and aesthetically improved structure for pedestrian walkway use as well as small emergency vehicles, such as Type I ambulances or police vehicles with a gross weight of 14,000 pounds or less, when complete. The rehabilitation work will be generally as determined in several City of Stamford (City) meetings in April, May and June of 2018, and described in the 05/04/18 Pedestrian Upgrade and Walkway Report prepared by WMC Consulting Engineers (WMC), which is paraphrased and summarized below.

This will be an accelerated project. The project will be designed to include engineering services for rehabilitation of the existing truss bridge for pedestrian walkway use as well as small emergency vehicles, such as Type I ambulances or police vehicles with a gross weight of 14,000 pounds or less, and landscape architectural design with walkway/streetscape amenities, lighting, plantings and plant watering system.

The project will be designed for pedestrian use as well as small emergency vehicles, such as Type I ambulances or police vehicles with a gross weight of 14,000 pounds or less. With the eight (8) existing “mini-piers” remaining, hydraulic conditions would remain the same as current conditions and this rehabilitated pedestrian use bridge is expected to have a life span of 20 to 25 years.

The existing bridge was listed on the National Register of Historic Places on May 21, 1987 and has been inventoried as part of Connecticut’s Historic American Engineering Record as possessing historic and engineering significance. All documentation of the existing bridge has been previously prepared and provided to the SHPO by Raber Associates in accordance with the proper standards imposed by the State’s Historical Commission. Any further historical communication, meetings, or preparation of materials for any historical related compliance and/or coordination will be the responsibility of the City.

It is expected that Federal permitting will be required from the Army Corps of Engineers (PCN) and a possible review by the U.S. Coast Guard. Connecticut DEEP permitting is expected including a 401 Water Quality Review. City regulatory reviews are expected to include the Environmental Protection Board (EPB) for Inland Wetlands, as well as a Coastal Site Plan Review (CSPR).

The proposed rehabilitation of the bridge for walkway use as well as small emergency vehicles, such as Type I ambulances or police vehicles with a gross weight of 14,000 pounds or less, is generally described as follows;

Superstructure: The useable deck width will be reduced to about 20’, centered over the existing mini-piers with planters. A wood plank walking surface will be installed over the existing deck for the full width of the walkway. 4’ wide planters will be 8’ or so in length, and placed with spaces of 10’ between planters where two 4’ long benches (back to back facing upstream and downstream) will be placed. Decorative pedestrian railing will be installed on each side of the walkway leaving about 8’ of walkway in each direction. Ornamental light fixtures will be installed in each of the spaces between the planters as well.

Prior to installing the actual walkway (as described above), superstructure alterations and repairs will be required. The existing concrete deck between the proposed pedestrian railing and the existing trusses on both sides of the bridge will be removed, providing space for relocation of the existing utilities. Note that it is assumed that utility owners will move and support these utilities at no expense to the City. The existing wooden sidewalks on the outside of the trusses will be removed, the utilities relocated and the floor beams removed up to the outside of the existing trusses. The lenticular trusses and supporting floor beams will see limited structural repairs, as well as limited rust and corrosion removal, and then sealed with a rust inhibitor and a two (2) finish coats of paint.

Substructure: Before the superstructure, walkway and emergency vehicle access work can be implemented, the existing substructure will need significant work. The west abutment will be repaired by removing the failed section in the middle and replacing it with a new section of reinforced concrete abutment and then making limited repairs and re-aligning the salvageable portions of the existing stone masonry abutments to either side. The stone masonry (failed section) portion of the center pier will be completely removed and replaced with a reinforced concrete pier essentially matching the existing concrete pier section (which will be retained). As with the west abutment, the footings for the repaired section of pier will essentially match the elevation and width of the existing substructure element. The east abutment will be retained in its entirety, with modifications and repairs. All stone masonry retained will be re-chinked and re-pointed. All eight of the existing so-called mini-piers are to remain with no significant repairs or alterations proposed.

Approaches: Limited approach work, installation of removable/collapsible bollards and potentially installing some chain link fence on the channel walls closest to the bridge would be done as well.

The bridge is currently closed to vehicular traffic but is open to limited pedestrian and cycling traffic. The bridge will be closed to all traffic during construction, however a temporary pedestrian bridge may be installed and at this time, is included in the proposed work, as set forth in greater detail in Task 3.2.C.1, below.

## **2.0 DESIGN CRITERIA**

The design goal for the structure and walkway is meet applicable standards for pedestrian bridges wherever possible, including Section 5 of the AASHTO LRFD Guide Specifications for the Design of Pedestrian Bridges, however it is understood that this may not be possible given the age and condition of the existing bridge. The Live Load will be for Pedestrian Loads and small emergency vehicles, such as Type I ambulances or police vehicles with a gross weight of 14,000 pounds or less. A load analysis shall be included in the Scope of Services and shall be completed within the time frame set forth in the Agreement between the parties.

The plans, specifications and engineers' estimate shall generally conform to ConnDOT format. The construction contract will be paid using pay items with the governing specifications of ConnDOT Standard Specifications for Roads, Bridges and Incidental Construction - Form 817, including current supplements thereto. Special provisions for any modified item or items required but not covered in Form 817 will be prepared and furnished in standard ConnDOT specification format.

Hydraulic and scour evaluation will generally conform with the ConnDOT Drainage Manual, as well as FHWA's HEC-18, HEC-20, HEC-23 and HEC-25, unless otherwise approved by the City.

Nddb – A Connecticut DEEP Wildlife Nddb Request Form shall be prepared and submitted.

WMC's project engineering manager shall meet with the Engineering Bureau, Land Use Bureau for additional design criteria, prior to the commencement of this contract.

## **3.0 SCOPE OF SERVICES**

In general, this scope of services covers contract documents for rehabilitation of the existing truss bridge for pedestrian walkway as well as small emergency vehicle, such as Type I ambulances or police vehicles with a gross weight of 14,000 pounds or less, use with minimal improvements at the approaches. Also included will be maintenance and protection of pedestrian access across the river during construction, utility coordination, State and City permitting, right-of-way mapping and construction related activities. To accomplish the Main Street Bridge rehabilitation for walkway use, WMC, and their sub-consultants, will provide the services more specifically listed below.

In addition to the services outlined in this scope of services, WMC will attend meetings with federal, state, local, and private agencies, which are necessary to complete the project and to obtain required approvals and permits. WMC will prepare minutes of meetings for which WMC is responsible to coordinate or otherwise conduct, which will be submitted for approval by the City. Also, WMC will coordinate their services with the City's consultants currently working on the proposed Mill River Corridor.

**IMPORTANT NOTICE:** The bridge may contain lead based paint. This scope of services includes testing of the paint and preparation of contract documents addressing the necessary precautions associated with the handling and disposal of lead based paint (including requirements for modification of structures containing lead-based paint).

The following is a detailed description of tasks to be performed:

### **Task 3.1 - SURVEY**

All field survey and base mapping for design and property rights for the project shall be provided by the City of Stamford. Mapping for easements and taking shall be prepared by WMC.

#### **A. WETLANDS EVALUATION**

The City of Stamford will retain the services of a certified soil scientist to examine the project area to identify and flag state and federal wetland limits per State and Army Corps of Engineers requirements including Army Corps of Engineers Data Form Sheets. Ordinary High Water Line and Ordinary High Tide line will be field located and flagged for location by City survey.

Additionally, this task will include a wetlands report detailing findings of the soil scientist, as well as including a subaqueous vegetation study (with listing of all tidal wetland plants) and an assessment of wetland functions and values and potential project impacts.

### **FIELD SURVEY & BASE MAPPING**

WMC will review and field verify survey provided by the City. City survey is expected to conform to/include the following:

In conformance with Class A-2 standards for horizontal Control, Class V-2 for vertical control, and Class T-2 for topography as set forth in the Standards for Surveys and Maps in the State of Connecticut, Sections 20-300b-1 through 20-300b-20 of the Regulations of Connecticut State Agencies. All survey and mapping will be based upon CGS datum (NAD 83) for horizontal control and NAVD88 datum for vertical control.

Limits for this survey (project limits) will be as follows:

300 feet east from the east end of bridge along West Main Street.

200 feet radially from the west end of existing bridge extending along River Road, Greenwood Hill Road, Smith Street and West Main Street.

300 feet upstream and downstream from bridge fascias for hydraulic river sections, extending a minimum of 50 feet from each stream bank. If necessary to satisfy FEMA floodplain limit requirements, existing City topographic or other mapping will be used to extend the limits of survey, interpolating as necessary.

Topographic survey shall have sufficient individual shots such that the existing roadway profile and sections can be prepared from the resulting cadd file.

Locate and map inland and tidal wetland area limits (state and federal) and Ordinary High Water.

Stream channel sections suitable for hydraulic modeling, in accordance with HEC-RAS guidelines, will be performed. The surveyor shall notify WMC in advance of hydraulic stream survey so that the approximate location and line (direction) of these hydraulic sections can be staked and reviewed with the survey team in the field in advance. Where available and appropriate for the purpose of hydraulic evaluation, existing USGS topographic, municipal topographic, State of Connecticut LIDAR, FEMA or other mapping may be utilized to supplement field survey for use in hydraulic modeling.

Boundary survey provided by the City will meet City accuracy requirements and within Class D requirements as a minimum.

## B. PROPERTY MAPPING

Not expected to be required. If needed, mapping will be performed as an additional service.

## **TASK 3.2 - PRELIMINARY DESIGN**

To the extent practical, previous analyses, studies and design information shall be utilized, however it is noted that much of the information is outdated and not particularly useful for design of this rehabilitation project.

## A. INFORMATION ON EXISTING STRUCTURE

Review available information regarding the original structure. Evaluate the need for testing of the existing structure in regards to yield strength, weldability of wrought/cast iron, lead based paint, etc.

Visit the site to make measurements of existing conditions and document locations and sizes of areas of expected substructure and superstructure repairs as will be required for the intended use (pedestrian walkway) of the rehabilitated trusses.

## B. HYDROLOGY, HYDRAULICS & SCOUR

Hydrology - Existing applicable survey, hydraulic and hydrologic information will be obtained from the City, Department of Energy and Environmental Protection, ConnDOT, the Army Corps of Engineers and FEMA for the Rippowam River as needed to estimate stream discharges at the site for the expected design storms.

Field Visit: After reviewing the above material, a field visit will be conducted at the project site specifically for hydrologic/hydraulic purposes, including obtaining an overview of the drainage area and existing hydraulic conditions. At this site visit, WMC will meet with the surveyor and assist in locating locations for hydraulic stream sections. This visit will also include completing a Data Collection and Field Review Form for the crossing. Also, since a scour analysis is to be performed, grab samples of representative streambed material will be obtained and sent to a laboratory for gradation analysis.

Hydrology will be developed generally utilizing appropriate design flows determined by methods outlined in the ConnDOT Drainage Manual, including the 2 year flow, 10-year flow, 50-year flow, 100-year flow, 200 year flow and 500-year flow storm frequencies for the Rippowam River, as well as average daily and average spring flow rates.

A hydrologic summary will be prepared for inclusion in a hydraulic design report to be submitted with the initial design submittal. Comments received from the City during design review will be incorporated into the final hydrologic summary.

Hydraulics - It is anticipated that the existing structure may not be able to pass a 100-year design storm without overtopping (or at least limited freeboard) and that proposed rehabilitation will not significantly change that. Section 7.1 of the City of Stamford Zoning Regulations addresses design of structures in flood prone areas.

The hydraulic analysis for this project will be completed using hydrologic data determined above, information obtained from field survey, FEMA and USGS mapping. The hydraulics of the natural, existing, and proposed conditions of the Rippowam River will be evaluated utilizing HEC-RAS at various design flows. The HEC-RAS hydraulic model will be used to evaluate the flood plain impacts of the existing topography at the proposed structure and to satisfy City Zoning and Flood Commissions, as well as DEEP permitting requirements. The results of the analysis will be used in the evaluating hydraulic capacity of the existing structure and any changed conditions due to the proposed rehabilitation, as well as scour analyses for scour countermeasures. Computations will be done in English units and a hydraulic design report will be prepared to describe and present hydraulic conditions at the site, including hydrologic and scour summaries described elsewhere in

this scope.

Hydraulic computations will also be performed to evaluate and recommend locations, configurations and heights of temporary facilities and cofferdams for structure repair excavation and handling river flows during construction.

Comments received from the City during design review will be incorporated into the final hydraulic design report.

Scour - A scour analysis for existing and proposed structure conditions will be performed using HEC 18 and the hydrologic/hydraulic conditions determined above to assess the need for (and design) possible stream bed scour countermeasures for protection of substructure elements, including contraction and local scour. A summary of the results of this analysis, and possible impacts on proposed rehabilitation and stream area impacts, will be prepared, discussed with the City and incorporated into the proposed work as approved.

Hydraulic Design Report - Upon completion of all preliminary hydrologic, hydraulic and scour analyses, a hydraulic design report will be prepared and submitted to the City for review. This report will include hydrologic, hydraulic and scour analyses and summaries as described above, including results and evaluation for existing and proposed conditions and recommendations for the bridge rehabilitation for pedestrian walkway use.

## C. STRUCTURAL REPAIRS

Structural evaluation and design for rehabilitation of the existing truss and supporting floor beams will initiate with a site visit to document and measure areas of repair, get and record needed dimensions, and generally confirm the repair/rehabilitation strategy to be implemented. If needed, test coupons/samples may be taken for confirmation of existing structural materials and presence of lead based paint.

Structurally, it is generally understood that the rehabilitated bridge will accommodate pedestrian access as well as small emergency vehicles, such as Type I ambulances or police vehicles with a gross weight of 14,000 pounds or less. With the walkway and emergency vehicle access placed at the center of the bridge, the mini-piers will provide most of the walkway support from below; up through the repaired floor beams. The trusses will add limited support at the fascias of the rehabilitated bridge for outside limits of the walkway and the utilities, which will be relocated inside of, and immediately adjacent to, the trusses. Weldability is assumed for all proposed repairs based on previous repairs which include welding.

A Structural Design Summary report will be prepared and submitted to the City with the preliminary design submittal, including a brief description of the proposed repairs and potential issues, repair details and structural computations.

Location and number of repairs will be determined after the initial site visit, but in order to outline what may be expected, a summary of anticipated restoration and repairs is presented as follows:

### 1. SUPERSTRUCTURE

#### Truss Restoration

- Floorbeam hanger rod assembly (assume 50%)
- Stability plates at lower panel points (assume 25%)
- Cover plates; at all at top panel points & damaged areas
- Rivet Replacement in repair areas
- End posts reinforcing (assume 4 of 8)
- Stability bracing at top chord panel points (assume 2 braces per truss)

#### Deck & Floor Beam

- Floor Beam Repairs - Web plates at holes and thinning web sections, rivet replacement with high strength bolts at repair areas & flange angle replacements
- Remove ends of floor beams after utilities are relocated
- End beam repairs (at center pier)
- Deck Detail – Deck edge detail at sawcuts
- Floor Beam To Deck - Limited pointing up. Add connections as needed.

#### Painting Trusses

- Preparation - Install Class B access and tent containment assuming lead paint and debris. Power and hand tool cleaning to remove loose paint and rust. Remove pack rust at cover plates not being replaced, coat with rust destroyer (or equivalent), and fill gaps with sealant
- Coat rusted areas with Rust Destroyer (or equivalent)
- Coat floor beams to encapsulate rust
- Paint all steel components (trusses, floor beams, end beams and exposed surfaces of deck stringers) with a standard 3-coat paint system.

#### Utility Relocation (to interior side of trusses)

- Sawcut and remove about 6 feet of existing concrete deck at interior side of each truss
- Utility Supports/Hangers - Note that it is assumed that utility owners will design utility hangers and supports and their associated details, provide design loadings for connections to floor beams and physically relocate their utilities. WMC will provide connection locations/details for utility support based information provided by utility owners, as well as reinforcing details for floor beams if required.

#### Ornamental Sidewalk Railing

- Relocate and mount existing ornamental sidewalk rail on inside faces of trusses
- Paint railings at same time and paint system used on trusses.

Temporary Pedestrian Bridge – The location will be shown on the walkway plan. For the structure to be used as a temporary pedestrian crossing during construction, a performance specification will be used to describe the use, loading, dimensional, elevation and hydraulic requirements for the construction contractor. Also a typical detail for a concrete bearing pad will be included in this specification. The City shall be responsible for contracting and paying for the specified temporary pedestrian bridge.

## 2. SUBSTRUCTURE

- Mini-Piers – Essentially to remain with only minor patching of spalled or damaged areas.

- Center Pier – Remove and replace the existing stone masonry section which has failed and fallen into the river. The existing concrete portion of the existing pier is to remain and the proposed section will generally match that of the existing concrete section in shape and foundation depth. Place new bridge seat as needed on the existing concrete section.
- Scour countermeasures – To be evaluated to determine expected scour and resulting countermeasures required. Scour countermeasures will be designed and proposed based upon potential wetland/river impacts and feedback from the City.
- West Abutment - Remove and replace the failed existing stone masonry section in the middle of the abutment with a reinforced concrete stem section, utilizing the existing abutment foundation and footing. The remaining stone masonry sections to either side of the failed section is to be repaired and re-pointed, and a new bridge seat installed as needed.
- East Abutment – Repair and repoint extsing stone masonry. Install a new bridge seat as needed.

#### D. BORINGS AND SOILS INVESTIGATIONS

The City will retain boring contractor to perform borings through the center pier in order to determine the depth of the existing footing and design the repairs (extension). Previously completed boring logs will be utilized initially for the project, where practical.

WMC will retain a geotechnical engineer to provide an evaluation of foundation conditions and recommendations for footing design parameters and construction operations. A letter summarizing the subsurface investigations, evaluation and recommendations will be prepared, however, a formal geotechnical report will not be needed.

#### E. SITE INVESTIGATION – CONTAMINATED SOIL/GROUNDWATER

None required.

#### F. INVESTIGATIVE SURVEY - S (LEAD BASED PAINT TASK 710)

None required. It will be assumed that the paint is lead-based and that specifications will need to be included to deal with this during structural repairs and painting. Samples will be taken and tested to confirm prior to completion of design and bidding.

#### G. LINEAR PARK PROJECT COORDINATION

With the City's assistance, WMC will coordinate the bridge rehabilitation project with the Mill River Park Collaborative, which is overseeing the linear park to the north and south of the structure.

#### H. UTILITY COORDINATION

Attend and participate in a preliminary utility coordination meeting to be held by the City prior to, or during the early stages of preliminary design.

## I. PRELIMINARY DESIGN PLANS & ESTIMATE

Concurrent with the preliminary studies being performed above, and in addition to the associated hydraulic design report and structural design summary, WMC will prepare preliminary design plans for submittal to the City for review and approval prior to proceeding into the final design and preparation of bid documents.

Preliminary Design drawings will essentially consist of the following:

- Walkway Plan - Including existing topography and property boundaries, rehabilitation work proposed on the bridge, proposed walkway approach improvements, temporary pedestrian bridge, E&S control measures and potential property impacts.
- Drainage - Other than installation of new catch basin tops (if required), no drainage modifications or design will be required.
- Profile - Walkway approach & bridge
- Limited Walkway Cross Sections (as may be needed)
- Structure Plan/Elevation/Section Sheet – Including layout of walkway amenities, seating and planters.
- Abutment and Pier Elevation & Section Views – Depicting preliminary layout of proposed repair work
- Limited Structural Repair Details
- Truss Elevations – Identifying locations and types of restoration will be performed on the truss.

Cost Opinion – Perform estimate of quantities to install proposed restorations, repairs and improvements and prepare a cost opinion based upon these quantities

## J. PUBLIC INFORMATION MEETING

WMC will prepare visual presentation materials for, attend and make a formal presentation of the project at a public information meeting to be organized, advertised and held by the City. The City will prepare meeting minutes if required

**TASK 3.3 - SEMI-FINAL DESIGN SUBMITTAL (70%)** - There will be no semi-final design phase.

## **TASK 3.4 - FINAL DESIGN (90% & 100%)**

A. Final Plans For Review - 90% - Based upon City review and public feedback from the preliminary design phase and Public Information meeting, a final design (90%) submittal of the proposed rehabilitation of the bridge for walkway use will be prepared for City review, including detailed construction drawings, specifications and opinion of costs. More specifically this shall include the following.

- 1) Walkway and structure plans submitted in the preliminary design phase, progressed to 90% and addressing City reviewing comments and direction.

- 2) Walkway Amenities – General locations of areas for planters, seating, etc.. Location, configuration and installation details will be shown for the ornamental pedestrian/bicycle rail to be installed on both sides of the walkway. Streetscape details of the bollards, signage, seating, lighting, planters, planting plan, watering system, etc. will be prepared under a separate streetscape design phase.
  - 3) Temporary Pedestrian Bridge – The location will be shown on the walkway plan. For the structure to be used as a temporary pedestrian crossing during construction, a performance specification will be used to describe the use, loading, dimensional, elevation and hydraulic requirements for the construction contractor. Also a typical detail for a concrete bearing pad will be included in this specification. The contractor will be expected to provide a structure meeting these requirements, as well as approval by the City.
  - 4) Center Pier Repair – Plan, elevation and sectional views of the center pier depicting proposed replacement of the failed section and any repairs to the portion to remain, including dimensional and reinforcing details.
  - 5) West Abutment Repair – Elevation and sectional views of the west abutment depicting proposed replacement of the failed section in the center of the abutment, including dimensional and reinforcing details, and any repairs to the portions of the abutment to remain.
  - 6) East Abutment Repair - Elevation view of the east abutment showing areas for repair and re-pointing.
  - 7) Truss Rehabilitation
    - Mini-Pier and Floor Beam Repair – Elevation views depicting details and dimensioning of proposed repairs and alterations to existing floor beams and supporting mini-piers (16 views – two sides for each of 8 mini-piers).
    - Truss Repairs – Exterior elevation views of the two trusses depiction locations and dimensions of proposed repairs to the existing trusses.
    - Truss Repair Details – Section views detailing repairs indicated on the truss repair sheets.
    - Truss/floor beam attachment assembly details.
    - End Beam Repairs - Elevation views details and dimensioning of proposed repairs for the end beams at the existing center pier.
    - Truss Bearing Rehabilitation Details
  - 8) Wood decking Layout Plan & Details
  - 9) Scour Countermeasures – Details of scour countermeasures at substructure elements as determined by scour computations performed previously and approved by the City.
  - 10) Handling Water Plan – Plan and details for controlling river flow for temporary access to the center pier, as well as construction of proposed repairs to the center pier and both abutments.
  - 11) Specifications – Specifications will be the State of Connecticut Department of Transportation (ConnDOT) Form 817 - Standard Specifications For Roads, Bridges and Incidental Construction". WMC will prepare and submit special provisions to modify or supplement the Standard Specifications as needed.
  - 12) Cost Opinion – WMC will prepare and submit a detailed opinion of construction costs based upon the 90% drawings.
- B. Final Design Plans - 100% - Upon receipt of City review comments on the 90% submittal,

WMC will prepare final construction drawings, contract documents, cost opinions and related reports for final review by the City and attachment to permit applications documents.

Special Provisions, Design Statement and other word processing documents shall be furnished in Microsoft Word, version compatible with that used by the City Engineering Bureau.

Proposal Estimates and other spreadsheet documents shall be furnished in Microsoft Excel, version compatible with that used by the City Engineering Bureau.

All files shall be furnished on the least number of disks (CD or DVD) possible without the use of file compression.

### **TASK 3.5 UTILITY COORDINATION**

During design, coordination will be maintained with utilities for conformance with the proposed project design. WMC will attend and participate in potentially two (2) meetings to be held by the City with utility companies to ensure that the proposed improvements are understood and that relocated utilities are scheduled and placed in appropriate locations. Utility relocation plans and details (hangers and/or supports) are to be provided by the individual utility owners will be reviewed and inserted into the final construction plans for informational purposes. WMC will provide the structural elements required to attach the hangers or supports for utilities to be carried on the bridge. Utility supports shall be designed to be capable of withstanding flood forces (EPB Certification). If City owned utilities require design effort by WMC, this will be considered an additional service.

### **TASK 3.6 – HISTORIC AND REGULATORY APPROVALS**

#### **3.6.1 HISTORIC APPROVALS**

Any historical communication, meetings, or preparation of materials for any historical related compliance and/or coordination will be the responsibility of the City.

#### **3.6.2 – REGULATORY APPROVALS**

Upon approval of the 90% design, permits will be prepared and submitted to the various regulatory review agencies as follows;

##### **FEDERAL**

FEMA - CONDITIONAL LETTER OF MAP REVISION (CLOMR) - Not included as the need for a CLOMR will not be known until the hydraulic modeling and report are completed. If required, CLOMR and LOMR will be performed as additional services

U.S. ARMY CORPS OF ENGINEERS 404 PERMIT - Preconstruction Notification (PCN) - Due to temporary impacts for cofferdams and handling water during pier and abutments repairs, as well as potential installation of scour countermeasures, a Pre-Construction Notification (PCN) is assumed to be required, including development of wetland impact mapping and plates to support the PCN application and associated State 401 Water Quality Review.

U.S. COAST GUARD - WMC will coordinate the project with the Coast Guard. It is anticipated

that WMC may be required to submit plans to the Coast Guard if requested and attend up to two meetings with representatives of that agency.

#### STATE

**INTERAGENCY MEETINGS** - As there is no State or Federal funding involved, it is assumed that the State of Connecticut will not schedule this project for an interagency review, so this scope does not anticipate a need for preparation of presentations and attendance at these meetings.

**FLOOD MANAGEMENT CERTIFICATION** - As no State or Federal funding is being used, this scope assumes that a State flood management certification will not be required.

**Nddb COORDINATION** - WMC will prepare an Nddb coordination/review package to the Connecticut DEEP.

**COASTAL PERMIT** – An application for a Structures, Dredging and Fill & Tidal Wetlands individual permit will be prepared and submitted to the Connecticut DEEP Bureau of Water Protection & Land Reuse. The permit will likely trigger a referral for an Army Corps of Engineers 404 permit and a DEEP 401 Water Quality Cerification review.

**401 WATER QUALITY REVIEW** – For the Army Corps of Engineers 404 and DEEP permits, a referral to the Connecticut DEEP for a 401 Water Quality Review will also be required, including a separate application and permit review package and process.

#### CITY OF STAMFORD - INLAND WETLAND PERMIT AND ENVIRONMENTAL REVIEWS

Preparation of application to the City Environmental Protection Board (EPB) and Coastal Site Plan Review (CSPR). WMC will prepare and submit the documentation required by the EPB and CSPR and present this material separately to the respective commissions. Any reasonable concerns brought up by the commission will be addressed and incorporated into the design as necessary. This work will include preparation of the application and back-up documentation, as well as hydraulic and flood safety design certifications and attendance at review and EPB meetings.

#### **TASK 3.7 - BIDDING SERVICES**

WMC will make final revisions to the plans, specifications and cost opinions to include final comments from the City's 100% review, or revisions required to address regulatory review comments or requirements, and assemble contract documents for advertising and bidding by the City. Electronic copies of bid documents will be supplied to the City.

The City will be responsible for the distribution of bidding documents and addenda, as well as the collection of bids.

WMC will attend a pre-bid walk through, respond to potential bidder's questions and prepare addenda, if required. WMC will also tabulate bids received, review bidders qualifications and make a recommendation of the lowest qualified bidder to the City.

## **4.0 DIRECT EXPENSES**

The following items are anticipated as potentially being needed for during design and permitting of the project. This list is not absolute and there may be other direct expenses required that are not on this list and will be performed as approved by the City in advance. All direct expenses, if required, will be billed as a direct expense without mark-up by WMC:

- Electrical/Mechanical Engineering for Lighting & Plant Watering Systems
- Landscape Architecture For Walkway Streetscape Design
- Metallurgical Testing of Truss Components
- Mileage associated with the project, will be reimbursed at the GSA rate current at the time of the incurrence of the mileage
- Geotechnical Evaluation
- Lead Based Paint Testing
- Subaqueous vegetation survey
- Wetland functions & values (and impacts) evaluation.
- Wetlands Planting Plan
- Identification & Mitigation Study for Rare and Endanger Species or Species of Special Concerns Studies
- LS Review & Certification for Property Maps
- Historic Documentation
- Printing costs associated with the project
- Express Mail, when requested by the City.

## **5.0 CONSTRUCTION ENGINEERING SERVICES**

WMC will provide construction administrative services as may be requested by the City of Stamford, including review of contractor submittals, inspection and administrative services. The additional scope of services and fees for these tasks will be negotiated at the completion of the design phase of the project.