City of Washington Est. 1825

Memo

TO: Committee of the Whole
FROM: Ed Andrews, Public Works Director
DATE: August 17th, 2018
SUBJECT: West Holland Street Reconstruction Engineering Contract

At the August 13th Committee of the Whole, consideration of advancing the engineering for the reconstruction of West Holland Street from Market Street to South Main Street was discussed. Details of the estimated $488,252.52 reconstruction cost have been previously prepared and broken out by major categories of Roadway, Water, Sewer and Storm, see attachments.

Staff has followed up with both engineering firms that have been previously qualified with the City for this type of work, Mohr & Kerr Engineering and Maurer-Stutz. Both firms are comfortable with starting the project yet this summer / early Fall and would be in a position to share preliminary plans in late November / early December for public outreach in either mid-December or mid-January, respecting the holiday. This would allow for a late winter / early Spring bid letting so that construction could begin consummate with the new Fiscal Year on May 1.

This project is similar to Lawndale Avenue in that it will be one of the first City projects to address full pavement reconstruction and the renewal of underground utilities such as the 4" water main and sanitary sewer. This project would also serve as the template for addressing aging water services and sanitary laterals. It is also planned to upgrade portions of the storm sewer to include sump collection lines so that any sump pump connections to the sanitary sewer could be redirected appropriately.

Both engineering firms have provided a detailed manhour estimates under their standard T&M rates. As shown in the submittals, Mohr & Kerr's estimate includes 350 manhours and Maurer Stutz's estimate is 433 manhours. It is felt that Mohr & Kerr's current work with the Lawndale Avenue project has helped them reduce manhours for this effort.

As such it would be staff's recommendation to consider contracting with Mohr & Kerr for the design of the reconstruction of West Holland Street from Market Street to South Main Street under a time and materials contract, with a NTE price of **$34,268**.

This matter has been placed on the City Council meeting agenda of Monday, August 20th, 2018 for review and approval consideration.

cc: File

Holland Street Reconstruction

from Market St. to S. Main St

Approx Length = **525** LF

Item	Unit	Quan.	Unit Price	Project Total	Roadway Items	Sewer Items	Storm Items	Water Items
Sodding, Class 1A	SQ YD	585	$20.00	$11,700.00	$11,700.00			
Supplemental Watering	UNITS	25	$50.00	$1,250.00	$1,250.00			
Topsoil - Furnish & Place 4"	SQ YD	585	$4.00	$2,340.00	$2,340.00			
Earth Excavation	CY	525	$10.00	$5,250.00	$5,250.00			
Pav't Remv'l	SQ YD	1633	$7.50	$12,250.00	$12,250.00			
Brick Pavement Remv'l & Salvage	SQ YD	1556	$10.00	$15,555.56	$15,555.56			
Curb Remv'l	FOOT	1050	$20.00	$21,000.00			$21,000.00	
Sidewalk Remv'l	SQ FT	4200	$2.50	$10,500.00	$10,500.00			
Driveway Apron Remv'l	SQ YD	140	$4.00	$560.00	$560.00			
Inlet Demolition	EA	4	$1,250.00	$5,000.00			$5,000.00	
Agg Bse Cse - 8"	TON	850	$35.00	$29,762.96	$29,762.96			
HMA Bse Cse - 4"	TON	392	$100.00	$39,200.00	$39,200.00			
Brick Paver Installation	SQ FT	3528	$8.00	$28,224.00	$28,224.00			
PCC Sidewalk - 4"	SQ FT	4200	$7.50	$31,500.00	$31,500.00			
PCC Driveway Apron- 6"	EA	9	$2,000.00	$18,000.00	$18,000.00			
ADA Ramps	EA	6	$3,500.00	$21,000.00	$21,000.00			
PCC C&G B6.12 (Machine)	FOOT	1050	$45.00	$47,250.00			$47,250.00	
Storm Sewer - CL A, TY 1, 12"	LF	50	$85.00	$4,250.00			$4,250.00	
Trench Backfill (Storm)	CY	47	$30.00	$1,410.00			$1,410.00	
Inlets - Type G-1	EA	4	$4,500.00	$18,000.00			$18,000.00	
Inlet Protection	EA	4	$225.00	$900.00			$900.00	
Trench Backfill (San, 10' deep x 5' wide)	CY	345	$30.00	$10,350.00		$10,350.00		
Sanitary Sewer - 8" (10' to 15' Deep)	LF	230	$100.00	$23,000.00		$23,000.00		
Sanitary Lateral (Overhead)	EA	9	$3,500.00	$31,500.00		$31,500.00		
Sanitary MH 4' Dia.	EA	2	$4,250.00	$8,500.00		$8,500.00		
Remove Sanitary MH	EA	1	$1,250.00	$1,250.00		$1,250.00		
Connect to Existing Water Main	EA	2	$750.00	$1,500.00				$1,500.00
Gate Valve & Box - 6"	EA	2	$1,000.00	$2,000.00				$2,000.00
Fire Hydrant w/ 6" Gate Valve & Box	LF	2	$5,000.00	$10,000.00				$10,000.00
Fire Hydrant Removal	EA	2	$500.00	$1,000.00				$1,000.00
Water Main - 6"	LF	525	$50.00	$26,250.00				$26,250.00
Water Service - 3/4" (Complete)	EA	9	$1,250.00	$11,250.00				$11,250.00
Sump Drain Laterals (Complete)	EA	9	$750.00	$6,750.00			$6,750.00	
Sump Drain Line - 6"	LF	800	$25.00	$20,000.00			$20,000.00	
Traffic Control & Protection	LS	1	$10,000.00	$10,000.00	$10,000.00			
				$488,252.52	**$237,092.52**	**$74,600.00**	**$124,560.00**	**$52,000.00**
			Est. Cost per Foot =	$930.00	$451.60	$142.10	$237.26	$99.05
			Projected Cost per Mile =	$ 4,910,425	$ 2,384,473	$ 750,263	$ 1,252,718	$ 522,971

SCOPE OF SERVICES FOR CONSULTING ENGINEERING SERVICES

MOHR & KERR ENGINEERING & LAND SURVEYING, PC

HOLLAND STREET

This Exhibit forms an integral part of the agreement between the City of Washington (hereinafter referred to as the CITY) and Mohr & Kerr Engineering & Land Surveying, PC (hereinafter referred to as the CONSULTANT) relative to the transportation facility described as follows:

Description: Holland Street, from Market Street to Main Street

1 PURPOSE

The purpose of this Exhibit is to describe the scope of work and the responsibilities of the CONSULTANT and the CITY in connection with the design and preparation of a complete set of construction contract plans and special provisions, if necessary, for:

Reconstruction of Holland Street, including reconstructed pavement, new combination curb/gutter/sidewalk, driveways, storm sewer and inlets, watermain and services, sanitary sewer and laterals, a sump drain system and other related construction items.

The general objective is for the CONSULTANT to prepare a set of plans to be used by the successful contractor to build the project, and by the CITY to ensure the project is built as designed and to specifications.

The Scope of Services establishes which items of work are specifically included in this contract, and also which of the items of work will be the responsibility of the CONSULTANT or the CITY.

All plans and design documents are to be prepared with Standard English values in accordance with all applicable CITY manuals and guidelines.

The CONSULTANT shall be aware that as a project is developed, certain modifications and/or improvements to the original recommendation may be required. The CONSULTANT is to incorporate these refinements into the design and will consider this effort to be an anticipated and integral part of the work. This will not be a basis for any supplemental fee request.

The CONSULTANT shall demonstrate good project management practices while working on this project. These include communication with the CITY and others as necessary, management of time and resources, and documentation.

The CITY will provide contract administration, management services, and technical reviews of all work associated with the development and preparation of the contract plans.

2 PROJECT DESCRIPTION

The CONSULTANT shall investigate the status of the project and become familiar with concepts and commitments developed. The CONSULTANT shall use approved concepts as a basis for the design unless otherwise directed by the City.

General Scope includes reconstruction of Holland Avenue, including reconstructed pavement, new combination curb/gutter/sidewalk, driveways, storm sewer and inlets, watermain and services, sanitary sewer and laterals, a sump drain system and other related construction items.

2.1 Roadway

Specification Package Preparation: CONSULTANT will prepare specification/bid package in accordance with CITY standards and requirements. Project is intended to be a unit price contract.

Plan Type: Roadway Plans will be typical Plan & Profiles drawn at a scale of no less than 1" = 20'. Cross Section will be prepared every 50' and at all driveway locations. Sidewalks and sidewalk crossings will be designed to meet current ADA standards.

Limits: Holland Street, from Market Street to Main Street.

Typical Section: Typical Sections will be created for any significant changes in section.

Pavement Design: CONSULTANT shall coordinate borings and pavement design with a geotechnical engineer if requested by City. City shall pay for geotechnical engineer directly.

Intersections/Ramps: Intersection/ramp details will be provided at intersection of all side streets as required.

Retaining Walls: If required, retaining walls shall be designed to replace any existing walls that conflict or require reconstruction.

2.2 Drainage

CONSULTANT will analyze existing drainage system and design storm sewer system and sump drain system for the improvement.

2.3 Water and Sanitary Utility Plans

Plan Type: Utility Plans will be typical Plan & Profiles drawn at a scale of no less than 1" = 20' with all information required to obtain IEPA permits.

Limits: Holland Street, from Market Street to Main Street

Design: CONSULTANT will develop concept designs and estimates for a total reconstruction of the sanitary sewer and a project that would line the existing main

and laterals. The final design will be determined based on cost, quality and impact to the construction schedule. Water will be designed sized based on the City model.

2.4 Utility Coordination

CONSULTANT will coordinate the following utility relocation/adjustments:

Gas and Electric with Ameren

Telecomm with Frontier, MTCO and Comcast

2.5 Post Office Coordination

CONSULTANT will coordinate relocation of mail boxes during construction with US Postal Service.

2.6 Permits

CONSULTANT will apply for the following Permits in the name of the CITY:

IEPA – Consultant will prepare SWPP, City will apply for NOI for Storm Water Discharge

IEPA – Water Main Construction and Operating Permit

IEPA – Sewer Main Construction and Operating Permit

2.7 Survey

CONSULTANT will provide a topographic and right of way survey of the project limits.

2.8 Project Schedule

Within ten (10) days after the Notice-To-Proceed, and prior to the CONSULTANT beginning work, the CONSULTANT shall provide a detailed project activity/event schedule for CITY and CONSULTANT scheduled activities required to meet the desired bid date. The schedule shall indicate all required submittals.

Periodically, throughout the life of the project, the schedule shall be reviewed and, with the approval of the CITY, adjusted as necessary to incorporate changes in the work concept and progress to date.

2.9 Submittals

The CONSULTANT shall furnish plans and documents as required by the CITY to adequately control, coordinate, and approve the plans. The CONSULTANT shall

distribute phase submittals as directed by the CITY. The CITY will determine the specific number of copies required prior to each submittal.

2.10 Provisions for Work

All maps, plans and designs are to be prepared with English values in accordance with all applicable current manuals, memorandums, guidelines including but not limited to:.

General

- IDOT Standard Specifications for Road and Bridge Construction in Illinois
- IDOT Drainage Manual
- Illinois Accessibility Code
- Standard Specifications for Water and Sewer Construction in Illinois

3 PROJECT COMMON and PROJECT GENERAL TASKS

Project Common Tasks

Cost Estimates: The CONSULTANT shall be responsible for producing a construction cost estimate and reviewing and updating the cost estimate when scope changes occur and/or at milestones of the project. Once the quantities have been developed the CONSULTANT shall be responsible for preparing a cost estimate.

Technical Special Provisions: The CONSULTANT shall provide Technical Special Provisions for all items of work not covered by the Standard Specifications for Road and Bridge Construction.

Field Reviews: Includes all trips required to obtain necessary data for all elements of the project.

Technical Meetings: Includes meetings with CITY and/or Agency staff, between disciplines and subconsultants, such as local governments, progress review meetings (phase review), and miscellaneous meetings. The CONSULTANT shall prepare, and submit to the CITY's Project Manager for review, the meeting minutes for all meetings attended by them. The meeting minutes are due within five (5) days of attending the meeting.

Quality Assurance/Quality Control: The CONSULTANT shall be responsible for the professional quality, technical accuracy and coordination of all surveys, designs, drawings, specifications and other services furnished by the CONSULTANT under this contract.

Supervision: Includes all efforts required to supervise all technical design activities.

Coordination: Includes all efforts to coordinate with all disciplines of the project to produce a final set of construction documents.

Project General Tasks

Project General Tasks, described in Sections 3.1 through 3.3 below, represent work efforts that are applicable to the project as a whole and not to any one or more specific project activity. The work described in these tasks shall be performed by the CONSULTANT when included in the project scope.

3.1 Public Meeting Attendance and Follow-up

The CONSULTANT shall attend public meeting(s), assist with meeting setup and take down. The CONSULTANT shall also prepare a summary of the public meeting that includes all copies of all materials shown or provided at the public meeting. The summary shall also include a listing of all written comments made during or after the meeting and responses to those written comments.

It is estimated for this project there will be 2 Public meetings during the design.

3.2 Specifications Package Preparation

The CONSULTANT shall prepare and provide a specifications package prepared in accordance with the CITY's requirements. The specifications package shall address all items and areas of work and include any Mandatory Specifications, Modified Special Provisions, and Technical Special Provisions. The CITY will provide an applicable example to be used to prepare the specifications package.

The specifications package must be submitted for review at least 30 days prior to the contract package advertisement date. The submittal shall consist of (1) the complete specifications package, and (2) a copy of the final project plans.

3.3 Electronic Delivery

The CONSULTANT shall deliver final contract plans in electronic format.

4 ROADWAY & UTILITY PLANS

The CONSULTANT shall prepare Roadway, Utility, Drainage, Traffic Control, Utility Adjustment Sheets, plan sheets, notes, and details. The plans shall include the following sheets necessary to convey the intent and scope of the project for the purposes of construction.

4.1 Cover Sheet

4.2 Schedule of Quantities

4.3 Typical Section Sheets

4.4 General Notes/Pay Item Notes

4.5 Summary of Quantities

4.6 Plan/Profile Sheet showing proposed Utilities and Drainage

4.7 Intersection/Ramp Layout Details

4.8 Miscellaneous Detail Sheets

4.9 Highway Standards

4.10 Cross Sections

4.11 Traffic Control Plan Sheets

4.12 Utility Adjustment Sheets

4.13 Erosion Control Plan/SWPPP

5 DRAINAGE ANALYSIS

The CONSULTANT shall be responsible for designing a drainage system. The work will include the engineering analysis for any or all of the following:

5.1 Design of Storm Drains

Develop a "working drainage map", determine runoff, inlet locations, and pipe sizes. Calculate hydraulic losses (friction, utility conflict and, if necessary, minor losses). Determine Design Tailwater and, if necessary, outlet scour protection.

6 UTILITIES

The CONSULTANT shall identify utility facilities ensuring no conflicts exist between utility facilities and the CITY's construction project.

6.1 Identify Existing Utilities

Identify all utilities in the corridor; check Existing Plans and visual observation.

6.2 Make Utility Contacts

Send letters and two sets of plans to each utility.. Includes contact by phone for meeting coordination. Request type, size, location, easements, any cost relocation, and justification for any utility relocation. Include the design schedule.

6.3 Relocation Coordination

The CONSULTANT shall be responsible for transmitting/coordinating the appropriate plans to each utility in order to identify any condition that may require a Utility relocation.

6.4 Preliminary Utility Meeting

The CONSULTANT shall schedule (time and place), notify participants, and conduct a preliminary utility meeting with all affected utilities for the purpose of presenting the project, review the current design schedule, evaluate the utility information collected, provide follow-up information, and discuss any future design issues that may impact utilities. This is also an opportunity for the utilities to present proposed facilities. The CONSULTANT shall keep accurate minutes and distribute a copy to all attendees.

6.5 Individual/Field Meetings

The CONSULTANT shall meet with each Utility separately throughout the project design duration to provide guidance in the interpretation of plans, review changes to the plans and schedules, and assist in the development of the Utilities plans and work schedules.

6.6 Collect and Review Plans and Data from Utilities

Make Determinations (Compensable Interest, Easements, Coordinate, Analyze). Ensure information (utility type, material and size) is sent to the designer for inclusion in the plans.

6.7 Review Utility Markups and Work Schedules and Processing of Schedules and Agreements

Review utility marked up plans individually as they are received for content and coordinate review with the designer. Send color markups and schedules to the appropriate CITY office(s) for review and comment if required.

6.8 Utility Constructability Review

Review utility schedules against construction contract time, and phasing for compatibility.

Mohr & Kerr Engineering & Land Surveying, P.C
Man Hour Estimate
City of Washington - Holland
8/17/2018

Scope Item	Professional Engineer			Professional Land Surveyor			Senior Design Engineer			Engineering Technician			1 Man Survey Crew			Senior Construction Inspector			
	Hours	Rate	Total	Hours	Rate	Total	Hours	Rate	Total	Hours	Rate	Total	Hours	Rate	Total	Hours	Rate	Total	Total
2.5 Post Office Coordination	6	$112.00	$672.00		$112.00	$0.00		$101.00	$0.00		$69.00	$0.00		$118.00	$0.00		$76.00	$0.00	$672.00
2.6 Permits	12	$112.00	$1,344.00		$112.00	$0.00	4	$101.00	$404.00		$69.00	$0.00		$118.00	$0.00		$76.00	$0.00	$1,748.00
2.7 Survey		$112.00	$0.00	12	$112.00	$1,344.00		$101.00	$0.00		$69.00	$0.00	32	$118.00	$3,776.00		$76.00	$0.00	$5,120.00
2.8 Project Schedule	4	$112.00	$448.00		$112.00	$0.00		$101.00	$0.00		$69.00	$0.00		$118.00	$0.00		$76.00	$0.00	$448.00
2.9 Submittals	4	$112.00	$448.00		$112.00	$0.00		$101.00	$0.00		$69.00	$0.00		$118.00	$0.00		$76.00	$0.00	$448.00
3.1 Public Meeting Attendance	8	$112.00	$896.00		$112.00	$0.00	8	$101.00	$808.00		$69.00	$0.00		$118.00	$0.00		$76.00	$0.00	$1,704.00
3.2 Specifications Preparation	12	$112.00	$1,344.00		$112.00	$0.00	4	$101.00	$404.00		$69.00	$0.00		$118.00	$0.00		$76.00	$0.00	$1,748.00
3.3 Electronic Delivery		$112.00	$0.00		$112.00	$0.00	4	$101.00	$404.00		$69.00	$0.00		$118.00	$0.00		$76.00	$0.00	$404.00
4.1 Cover Sheet	2	$112.00	$224.00		$112.00	$0.00	4	$101.00	$404.00		$69.00	$0.00		$118.00	$0.00		$76.00	$0.00	$628.00
4.2 Schedule of Quantities	8	$112.00	$896.00		$112.00	$0.00	12	$101.00	$1,212.00		$69.00	$0.00		$118.00	$0.00		$76.00	$0.00	$2,108.00
4.2 Typical Sections	2	$112.00	$224.00		$112.00	$0.00	8	$101.00	$808.00		$69.00	$0.00		$118.00	$0.00		$76.00	$0.00	$1,032.00
4.4 General Notes	4	$112.00	$448.00		$112.00	$0.00	4	$101.00	$404.00		$69.00	$0.00		$118.00	$0.00		$76.00	$0.00	$852.00
4.5 Summary of Quantities	4	$112.00	$448.00		$112.00	$0.00	4	$101.00	$404.00		$69.00	$0.00		$118.00	$0.00		$76.00	$0.00	$852.00
4.6 Plan & Profiles	16	$112.00	$1,792.00		$112.00	$0.00	26	$101.00	$2,626.00		$69.00	$0.00		$118.00	$0.00		$76.00	$0.00	$4,418.00
4.7 Intersection Ramp Layouts	8	$112.00	$896.00		$112.00	$0.00	8	$101.00	$808.00		$69.00	$0.00		$118.00	$0.00		$76.00	$0.00	$1,704.00
4.8 Misc Details	4	$112.00	$448.00		$112.00	$0.00	6	$101.00	$606.00		$69.00	$0.00		$118.00	$0.00		$76.00	$0.00	$1,054.00
4.9 Highway Standards	2	$112.00	$224.00		$112.00	$0.00		$101.00	$0.00		$69.00	$0.00		$118.00	$0.00		$76.00	$0.00	$224.00
4.10 Cross Sections	8	$112.00	$896.00		$112.00	$0.00	16	$101.00	$1,616.00		$69.00	$0.00		$118.00	$0.00		$76.00	$0.00	$2,512.00
4.11 Traffic Control Plans	6	$112.00	$672.00		$112.00	$0.00	8	$101.00	$808.00		$69.00	$0.00		$118.00	$0.00		$76.00	$0.00	$1,480.00
4.12 Utility Adjustment Plans		$112.00	$0.00		$112.00	$0.00	4	$101.00	$404.00		$69.00	$0.00		$118.00	$0.00		$76.00	$0.00	$404.00
4.13 Erosion Control Plan/SWPPP	4	$112.00	$448.00		$112.00	$0.00	8	$101.00	$808.00		$69.00	$0.00		$118.00	$0.00		$76.00	$0.00	$1,256.00
5.1 Drainage Analysis	4	$112.00	$448.00		$112.00	$0.00	12	$101.00	$1,212.00		$69.00	$0.00		$118.00	$0.00		$76.00	$0.00	$1,660.00
6 Utility Coordination	16	$112.00	$1,792.00		$112.00	$0.00		$101.00	$0.00		$69.00	$0.00		$118.00	$0.00		$76.00	$0.00	$1,792.00
TOTAL			$15,008.00			$1,344.00			$14,140.00			$0.00			$3,776.00			$0.00	$34,268.00

MAURER-STUTZ
ENGINEERS SURVEYORS

mstutz.com

TRANSPORTATION
ROADWAY UPGRADE

CLIENT
City of Farmer City, Illinois

CONTACT
Sue McLaughlin, ICMA-CM
City Manager
(309) 928-3412

SERVICES
Conceptual Planning
Engineering Design
Bidding Phase Assistance

ESTIMATED CONSTRUCTION COST
$575,000.00

ESTIMATED COMPLETION
2018

PROJECT STAFFING
Project Manager - Rick Anderson, PE
Project Engineer - George Merkle, PE
Design/GIS Engineer – Baylor Wagehoft, EIT

Water Street Improvements
Farmer City, Illinois

In 2017, the City began planning efforts to reduce intersection flooding and separate the combination storm/sanitary sewers at the intersection of Water and Washington Streets.

Maurer-Stutz, Inc. provided planning and engineering design phase services. Conceptual planning included whether the intersection could be drained to an existing storm water outfall. Roadway improvements consist of pavement replacement, inlet and storm sewer installation, driveway aprons, gutter placement, seeding, and sidewalk upgrades. Sidewalk ramps were designed following the latest ADA/PROWAG Guidelines. The project also included extension of the sanitary sewer and relocation of the water main. Design process also included a public meeting with residents to discuss the project and traffic and access management. Much of the survey was completed with an Unmanned Aerial Vehicle and engineering design plans were developed utilizing state of the art CADD software.

The knowledge, skills and ability of the experienced multi-discipline Maurer-Stutz staff will allow the City to bid and complete the project under one contract.

CLIENT
City of Canton, Illinois

CONTACT
Kent McDowell, Mayor
309-647-0065

SERVICES
Conceptual Planning
Hydraulic Modeling
Topographic Survey
Grant Assistance and coordination
EDA-ARRA, DCEO-CDAP, IDOT-EDP
Engineering Design
Permitting Assistance
Bidding Assistance
Construction Administration
Construction Layout Staking
Construction Observation

CONSTRUCTION COST
$4,000,000

COMPLETION
2011

PROJECT TEAM
Project Manager: Keith Plavec, PE
Project Engineer: Scott Hobart, PE
Project Surveyor: Steve Ford, PLS

3rd Avenue and Maple Street Improvements

Canton, Illinois

The City of Canton retained Maurer-Stutz, Inc. to undertake Survey, Design and Construction Phase Services for the extension of 3rd Avenue and Maple Streets in Canton, Illinois. The roadways were constructed on a former Brownfield site to provide an engineered barrier and access to future developments.

Both roadways were built on an abandoned heavy industrial site in conjunction with new industrial development. The project consisted of 2,000 lineal feet of new concrete roadway including curb and gutter, entrances and sidewalk. New utilities included storm sewer, sanitary sewer and water main and street lighting. Additionally, the project incorporated 400' of reconstruction of existing roadway, and the installation of a centrally located underground stormwater detention system.

CLIENT
City of Macomb, Illinois

CONTACT
Dean Torreson, City Administrator
309-837-0501

SERVICES
Topographic Survey
Pavement Coring
Pavement Condition Assessments
Phase II Plans, Specs and Estimates
Construction Resident Engineering

CONSTRUCTION COST
$0.9 Million

COMPLETION
2013

PROJECT MANAGER
Rick Anderson, PE

DESIGN ENGINEER
Curtis Lynn, PE

RESIDENT ENGINEER
Curtis Lynn, PE

Carroll Street Reconstruction

Macomb, Illinois

The City of Macomb retained Maurer-Stutz, Inc. to undertake the planning, design and construction engineering for the reconstruction of an 8 block urban section of Carroll Street utilizing local funding.

This project consisted of pavement condition assessments that included pavement coring of the existing street to determine the stability and type of the existing pavement structure. A 4" concrete overlay was designed and built along with new storm sewer, curb and gutter and sidewalks. Sidewalk ramps were designed and constructed following the latest ADA/PROWAG Guidelines. Design process also included a public meeting with residents to discuss pavement and sidewalk treatments and traffic and access management.

The knowledge, skills and ability of the experienced Maurer-Stutz staff allowed the City to rehabilitate the maximum number of streets by working out the most cost effective treatments possible.

Maurer-Stutz also provided all Phase III Resident Engineering services. Construction phase services also included close coordination with all affected residents as the project progressed.

CLIENT
Illinois-American Water Company

CONTACT
Christian Volz, PE
309-566-4114

SERVICES
Conceptual Planning
Permitting
Engineering Design
Bidding Assistance
Construction Administration
Construction Observation

CONSTRUCTION COST
$7,346,000 (Est.)

COMPLETION
2012 through Current

PROJECT MANAGERS
Daniel Good, PE
Charles (Trip) Barton, PE, GISP

2012-2017 Capital Improvements

Illinois-American Water Company, Peoria and Pekin Districts, Illinois

In an effort to update distribution areas with more adequate water service, Illinois-American Water Company has been replacing undersized water mains and making more interconnections to improve flow. Maurer-Stutz has worked on several of the projects in their Capital Improvement Program as detailed below.

Project Name	Length	Cost (Est.)
Lakeside Cemetery (Pekin)	1,740	$260,000
Missouri and Ellington (Peoria)	2,300	$276,000
Franklin and Eaton (Bartonville)	2,600	$440,000
Reservoir Boulevard (Peoria)	1,340	$155,000
Gale Avenue (Peoria)	1,160	$150,000
Jane Street (Pekin)	420	$65,000
12th and 13th Streets (Pekin)	2,300	$325,000
Highpoint Lane (Peoria)	1,900	$245,000
Allen Road (Peoria)	1,900	$432,000
Illinois 116 (Peoria)	2,000	$300,000
Stadium Booster Station (Pekin)	200	$450,000
Harvard to Grand (Peoria)	2,800	$910,000
Galena Knolls Subdivision	8,930	$660,000
Peoria – 2016 – Group 2	8,060	$1,385,000
Peoria – 2016 – Group 3	8,630	$1,293,000

Our work included design and permitting, easement acquisition, bidding, and construction observation and administration. Coordination with property owners, on behalf of Illinois-American Water Company, played a key role in the success of these projects.

CLIENT
Village of Peoria Heights

CONTACT
Matt Fick
309-686-2385

SERVICES
Conceptual Planning
Topographic Survey
Engineering Design
Permit Assistance

CONSTRUCTION COST
$213,000

COMPLETION
2012 – Design Completion

PROJECT MANAGER
Dan Good, PE

Atlantic Avenue Water Main

Peoria Heights, Illinois

As a result of numerous water main breaks and the need to improve fire flow, the Village of Peoria Heights decided to replace the existing 4" water main on Atlantic Ave. with a 6" main. The main serves a residential area within the Village.

The project involved design of 1335' of 6" DR 18 PVC main including replacement of all water services from the main to the curb box, new curb boxes, and new fire hydrants. New valves were also included to provide better isolation capability.

The Village is currently seeking funding through a CDAP grant. Construction is expected to begin in 2014.

CLIENT
City of Canton, Illinois

CONTACT
Bill Terry
Public Works Director
309-647-5022

KEY FEATURES
1,316 lf of 8" Water Main
8 Connections to other Water Mains
Downtown Business District

SERVICES
Conceptual Planning
Topographic Survey
Permitting Assistance
Engineering Design
Bidding Phase Assistance
Construction Administration

CONSTRUCTION COST
$390,000

COMPLETION
2016

PROJECT MANAGER
Keith Plavec, PE

Downtown Water Main Replacement

Canton, Illinois

Maurer-Stutz was retained by the City of Canton to replace existing water mains that were installed in the late 1800's in what would become the downtown business area.

Maurer-Stutz provided conceptual planning, topographic survey, engineering design, and permitting assistance to replace the 8-inch water main along Main Street from Locust Street to Elm Street and Elm Street from Main Street to East Side Square.

Additional responsibilities included bidding phase services and construction administration/observation.

CLIENT
City of Bloomington, Illinois

CONTACT
Russ Waller, Project Engineer
309-434-2225

SERVICES
Topographic Survey
Alternatives Identification Analysis
Engineering Design
Cost Evaluation
Regulatory Permitting
Construction Documents
Easement Development

COMPLETION
2017

PROJECT MANAGER
Charles (Trip) Barton, PE, GISP

HoJo and Wittenberg Woods Gravity Sewer

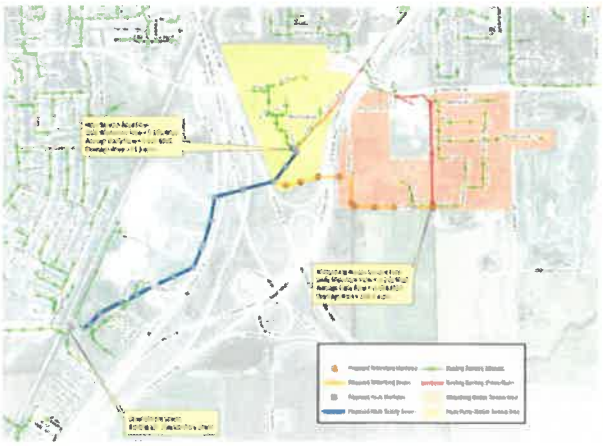
City of Bloomington, Illinois

This project is an extension of a previous study that we performed that investigated how to convert an existing 12" force main to a gravity sewer and eliminate an existing pump station. After that study was completed, we were tasked with developing construction documents to detail the force main conversion and HoJo Pump Station decommissioning.

During design, it was determined that it was also feasible to eliminate the Wittenberg Woods Pump Station by adding a sewer extension to the project. Flow metering and hydraulic modeling were performed to verify that the downstream sewers had adequate capacity for the project expansion.

Construction drawings were developed and permits were obtained from several agencies including the Illinois Environmental Protection Agency and the Illinois Department of Transportation.

The project includes two long sewer boring runs that required early coordination with contractors to verify their constructability. Construction support was also provided during construction to review shop drawings and to help answer field questions.



CLIENT
City of Marquette Heights

CONTACT
Rick Crum
309-382-3313

SERVICES
Conceptual Planning
Engineering Design
Bidding Assistance
Construction Administration
IEPA Loan Assistance

CONSTRUCTION COST
$775,000

COMPLETION
2011

Sewer Rehabilitation Project

Marquette Heights, Illinois

The majority of the sanitary sewers in the City of Marquette Heights are clay pipes dating back to around 1950. The City was experiencing numerous problems with sewer main breaks and joint problems.

In an attempt to repair the deteriorating sanitary sewers and to reduce high levels of infiltration into the sewer system the City implemented a sewer rehabilitation program. The project included preliminary cleaning and TV inspection of 34,500' of 8" to 18" sanitary sewer, installation of a cured-in-place liner, and cutting out the service taps. Post TV inspection was performed to confirm the integrity of the cured-in-place liner system.

The project was funded by a low interest IEPA loan.

MAURER-STUTZ
ENGINEERS SURVEYORS
3116 N. Dries Lane, Suite 100
Peoria, IL 61604
TEL 309-693-7615
FAX 309-693-7616

PROJECT: Washington -Holland St Reconstruction
PROJECT NO: 23018083
COMPUTATION BY: JDS Date: 8/15/2018
CHECKED BY: RJA Date: 8/16/2018

MANHOUR ESTIMATE - Phase I

ITEM	PE IX P.M.	PE VIII ENG.	PE VI ENG.	SE V Struct. ENG.	PLS VI P.L.S.	Eng II ENG.		Design TECH V	Design TECH IV	1 Person Survey Crew	2 Person Survey Crew	Clerical
Topographic Survey												
Field										16		
Survey Import/Create Base File					4				2			
Roadway Design												
Sidewalk Design/Curb Ramps			4			42						
Horizontal Alignment			1			4						
Vertical Alignment			1			4						
Cross Section Development			2			20						
Drainage Design/Calculation			1			6						
Field Visit			2			4						
Water Main Design	8					4			16			
Sanitary Sewer Design	8					4			16			
Plan Sheet Development												
Cover Sheet			1			1			8			
General Notes			2			1			4			
Summary of Quantities			1			8			4			
Schedule of Quantities	1		1			8			12			
Typical Sections			1			4			16			
Alignment, Ties, & Benchmark			1			2			16			
Removal Sheet			1			4			8			
Plan & Profile Sheets			2			8			16			
Detail Sheets			1			4			16			
Cross Section Sheets						8			4			
Highway Standards			1			4			1			
Permitting	6		1					1				
Quantity Calculations			2			8		20				
Specifications/Front End Docs	2		12			2						
Estimate of Cost	1		2									
Estimate of Time			2									
Coordination w/ City	4		4									
Public Meeting	1		2			4			8			
QC/QA		8	4									
TOTAL HOURS: 433	31	8	52	0	4	154	0	21	147	16	0	0