



Task Order No. 24-02
City of Manitowoc (CITY)
and Strand Associates, Inc.® (ENGINEER)
Pursuant to Agreement for Technical Services dated December 21, 2023

Project Information

Project Name: Rubick Field Dry Detention Basin and Grand Avenue Storm Sewer Improvements

Services Description: Provide design services for the Rubick Field Dry Detention Basin and Grand Avenue Storm Sewer Improvements including the reconstruction of Grand Avenue, lowering of sanitary sewers, and watermain offsets to avoid conflicts.

Scope of Services

ENGINEER will provide the following services to CITY.

Task 1–Administration and Meetings

1. Participate in one kickoff meeting, three progress meetings at roughly the 30, 60, 90 percent completion level, and one public meeting or school district meeting. All meetings will be virtual.
2. Assist CITY by providing information for CITY’s submittal of up to two grant reimbursement requests and up to four quarterly progress update forms to Wisconsin Emergency Management.

Task 2–Data Collection

Request data from CITY for existing stormwater-related reports, existing design or record drawings for streets and utilities (public and private) along the project corridor, and existing Geographical Information System files. Review relevant existing reports and findings.

Task 3–Geotechnical

1. Assist CITY in procurement of geotechnical engineering services. CITY shall contract directly with geotechnical consultant.
2. Communicate with CITY regarding the results of the geotechnical investigation and report.
3. Incorporate the geotechnical investigation findings and considerations, as appropriate, in the design.

Task 4–Design Services

1. Perform topographic survey along the project corridor. The project corridor includes Grand Avenue from the intersection of South 21st Street and Grand Avenue to a point 250 feet west of the intersection of South 15th Street and Grand Avenue, South 18th Street from the intersection of South 18th Street and Grand Avenue to a point approximately 275 feet north, South 21st Street

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from the intersection of South 21st Street and Grand Avenue to a point approximately 800 feet north, South 23rd Street from a point approximately 450 feet north of the intersection of South 23rd Street and Grand Avenue to a point approximately 250 feet south of the intersection of South 23rd Street and Division Street, the intersection of South 23rd Street and Grand Avenue, the parking lot located northwest of the intersection of South 21st Street and Grand Avenue, and approximately 5 acres of green space which includes the practice field north of Rubick Field and corridor just south of the tennis courts. Correspond with utility marking company to locate buried utilities prior to topographic survey. Survey low entry elevations for up to 50 structures.

2. Update the existing and proposed condition modeling from the CITY's 2023 Stormwater Hydrology and Hydraulics Study. For existing conditions, storm sewer information from the topographic survey will be updated in CITY's XPSWMM model. For proposed conditions, the 100-year designed storm sewer and dry detention basin will be updated in CITY's XPSWMM model. Provide a copy in portable document format (PDF) of a technical memorandum in draft and final format summarizing the modeling results in comparison to the results of the 2023 study prepared by ENGINEER.
3. Provide design of a dry detention basin south of Washington Middle School to function as a practice high school football field in accordance with the National Federation of State High School Associations Football Field Diagram.
4. Provide design of storm sewer and storm sewer inlets along the project corridor.
5. Provide design of curb extensions for traffic management and stormwater management at the following locations:
 - a. The eastern half of 23rd Street and Grand Avenue intersection.
 - b. Three locations along 23rd Street from Grand Avenue to Division Street.
 - c. The southern half of the 21st Street and Grand Avenue intersection.
 - d. The northeast quadrant of the 21st Street and Grand Avenue intersection.
6. Provide design of permeable pavement for stormwater management along the northern edge and southeast edge of the parking lot located northwest of the 21st Street and Grand Avenue intersection.
7. Provide design for 1,450 feet of sanitary sewer and laterals along Grand Avenue from a point approximately 100 feet east of the intersection of South 21st Street and Grand Avenue to a point appropriately 200 feet west of the intersection of South 15th Street and Grand Avenue and along South 18th Street from the intersection of South 18th Street and Grand Avenue to a point approximately 250 feet north.
8. Provide design of up to three water main offsets on Grand Avenue to accommodate the proposed storm sewer.

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9. Provide street design for 720 feet along South 23rd Street, 775 feet along South 21st Street, 1,730 feet along Grand Avenue, and 250 feet along South 18th Street. Street reconstruction will be concrete and will match existing street widths and elevations. Only sidewalk at intersections and curb ramps at intersections will be designed as part of the project. Up to 22 curb ramps are anticipated.
10. Provide a list of potential funding sources for construction of the infrastructure.
11. Provide a potential project phasing plan to allow the project to occur over multiple years for budgeting purposes. The demarcation lines for phasing may change slightly during design depending on the opinion of probable construction cost (OPCC). The deliverable will be a potential project phasing sheet in the plan set and OPCC for each phase.

Task 5–Prepare Bidding Documents

1. Provide the following design drawings for the project in digital format. Plan and profile drawings will be at one inch equals 20 feet horizontal scale and one inch equals four feet vertical scale.
 - a. Cover/title page
 - b. Potential project phasing sheet
 - c. Existing survey and control sheet
 - d. Site access and traffic control sheet
 - e. Dry detention basin grading plan
 - f. Curb extension sheets
 - g. Porous pavement sheets
 - h. Erosion control plan
 - i. Restoration plan
 - j. Detention basin cross section plan
 - k. Notes and details sheets
 - l. Street typical section detail sheets
 - m. Street plan and profile sheets with public utility improvements
 - n. Street cross section sheets
 - o. Intersection details with sidewalk ramp details
2. Submit preliminary design drawings to private utility companies. Communicate with private utility companies regarding work plans for potential conflicts with CITY’s project. Utilities shall review and resolve all conflicts with the proposed design. Conflict resolution by the utility companies that causes design changes shall be considered additional services.
3. Prepare preliminary technical specifications, engineering drawings, and bid form and submit to CITY in PDF format for review.
4. Prepare a prebid OPCC for the project as a whole and per the potential phasing plan selected by CITY and submit to CITY.
5. Modify preliminary documents to address comments from CITY and update OPCC, as appropriate, and submit as final documents to CITY.

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Task 6–Benefit-Cost Analysis (BCA)

1. Conduct a preliminary and final BCA using the Federal Emergency Management Agency (FEMA) Benefit Cost Calculator (Version 6.0). The BCA evaluation will include up to 50 potential flood-impacted buildings.
2. Summarize the results of the BCA in a report providing supporting documentation, including a project narrative, hydrologic and hydraulic study results for existing and proposed conditions, OPCCs, and summary of low building floor and low entry elevations.
3. Provide the BCA preliminary and final report to the CITY in PDF format.

Service Elements Not Included

In addition to those items listed in the associated Agreement for Technical Services, the following services are not included in this Task Order.

1. Additional Grant Administration and Submittals: Additional CITY-required grant administration or submittals will be provided through an amendment to this Task Order.
2. Permitting: Any regulatory agency-required permitting will be provided through an amendment to this Task Order or a future task order when the project moves forward into bidding.

Compensation

CITY shall compensate ENGINEER for Services under this Task Order a lump sum of \$329,500.

Schedule

Services will begin upon execution of this Task Order, which is anticipated the week of August 19, 2024. Services are scheduled for completion on July 1, 2025.

CITY’s Responsibilities

In addition to those items listed in the associated Technical Services Agreement, CITY shall be responsible for the following items.

1. Provide the specification front-end documents, including Advertisement to Bid when the project moves forward into bidding. Require the contractor to name ENGINEER as an additional insured on contractor’s General Liability and Automobile Liability insurance policies and to indemnify ENGINEER to the same extent that the contractor insures and indemnifies CITY.
2. Provide bidding-related services including bidding document distribution, preparing addenda, answering questions during bidding (with consultant assistance), bid opening, tabulation of and analyzing the bid results, awarding the construction contract, and preparation of contract documents for signature.
3. Provide grant administration (reimbursement requests and quarterly reports) for the project.

