TASK ORDER NO. 06

STATEMENT OF WORK

WASTEWATER MASTER PLAN/STORM SEWER MASTER PLAN

TOWN OF THORNTOWN

This Statement of Work is executed as of the_____ day of _____, 2023 by and between the Town of Thorntown ("Owner") and ms consultants, inc. ("Consultant"). Owner and Consultant agree that all of the Services authorized by this Statement of Work shall be subject to the terms and conditions set forth within the master Agreement for General Engineering Services between Owner and Consultant dated November 15, 2022 (the "Master Agreement"). Upon execution of this Statement of Work, the master Agreement shall be incorporated into and be considered a part of this Statement of Work as if set forth herein in its entirety. Any capitalized terms which are not defined herein shall have the meanings defined in the master Agreement.

1. Description of Project. The Project which is covered by this Statement of Work is described as follows: Completion of a combined Wastewater and Storm Sewer Master Plan.

2. Consultant's Scope of Services. The Services to be performed by Consultant under this Statement of Work includes all of the following:

   Consultant will complete a Storm Sewer Master Plan. The typical tasks involved in the process of updating an ordinance are listed in Exhibit 6.A. and Exhibit 6.B.

3. Consultant's Deliverables. As part of the Services to be performed by Consultant, Consultant shall provide to Owner the following Deliverables:

   Storm Sewer Master Plan/Wastewater Master Plan as detailed in Exhibit 6.A. and Exhibit 6.B.

4. Consultant's Schedule. Consultant shall perform the Services in accordance with the attached Schedule for the Services or in accordance with the following time limits (if any):

   The work will be completed 6 months after contract signing.

5. Contract Documents. The following Contract Documents are incorporated into and shall be a part of this Statement of Work as if fully stated herein:

   A. This Statement of Work;
   B. The Master Agreement;

6. Method of Payment. Consultant shall be paid for performance of the Work related to the Project on the following basis:

> Thorntown will pay ms consultants, inc. a lump sum of $140,000.00 as authorized by signing of this task order by the Town Council President.

7. Effective Date. The Effective Date for this Agreement shall be the date as stated at the top of the Task Order No. 6 to the Master Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Statement of Work to be effective as of the Effective Date listed on first page.

OWNER:	CONSULTANT:
Town of Thorntown	ms consultants, inc.
By: _____	By: _____
Name: _____	Name: Daniel R. Cutshaw, P.E.
Title: _____	Title: Vice President – Indiana
ATTEST:	ATTEST:
Town of Thorntown	ms consultants, inc.
By: _____	By: _____
Name: _____	Name: Dax Norton
Title: _____	Title: Project Manager

EXHIBIT 6.A STORM SEWER MASTER PLAN

The following is the proposed Scope of Work to develop a Storm Sewer Master Plan for the Town of Thorntown, Indiana. The following are the work items associated with the Storm Sewer Master Plan:

1. Compilation and Review of Existing Data and Reports

Numerous reports for individual projects have been developed in the past. Engineer will identify, collect, review, and assess all available reports. Additionally, Engineer will meet with Thorntown and review all existing data as it pertains to the Storm sewer system throughout the town. Other data may include Storm sewer mapping, historical flow data, etc. "Chasing the Rain" will be performed to identify areas of localized flooding and where the rain water is going vs. where it should.

2. Flow Projection Development

Growth projections will be identified through reliable census and county data. These same projections will be utilized to develop flow projections for the Storm sewer system. Any additional information regarding industrial, commercial, and residential developments that may have any bearing on the projections will be integrated. The growth projections will include average daily dry-weather flow (ADF), peak daily dry-weather flow (PDF) and sewer shed area (acreage) for which rainfall dependent inflow and infiltration (RDII) could occur.

3. Level of Service

The level of service required to develop the project will include well established performance criteria for Storm system components. The following are examples of performance measures to be included for Storm collection systems:

- Dry weather flow
- Wet weather flow
- Flow allocation
- Flow depth
- Number of CSOs
- Number of backups
- Customer service calls
- Rainfall derived infiltration and inflow (RDII)
- RDII per linear foot of pipe
- Percentage of problems cleared per month
- Percentage of system cleaned annually
- Value of capital additions/net asset value

4. Develop Collection System Alternatives

Engineer shall develop an updated set of Storm sewer projects to expand the existing service area for future development. The collection system alternatives shall include, at a minimum, the development of 2-3 interceptor alternatives for areas of deficiency within the existing system. The Engineer shall rank the alternatives based on LOS goals, preliminary project cost estimate, etc.

5. Hydraulic Modeling

Engineer shall develop a hydraulic model of the existing Storm sewer collection system. This model will be used to evaluate the existing system for deficiencies and limiting service factors. Future growth projections will be included in the model to develop future growth areas and identify restrictions in the existing collection system.

6. Project Prioritization and Cost Estimates

The Engineer shall develop preliminary cost estimates for projects recommended in the STMP. These estimates will be used, in conjunction with other factors, to prioritize projects in the STMP. Projects will be prioritized as short term (1-5 years), intermediate term (5-10 years) and long term (10-20 years). This will aid Thorntown in the identification and development of future funding mechanisms for the projects.

7. Storm Sewer Master Plan (STMP) Report

The Storm Sewer Master Plant (STMP) report shall include the following components:

a. Evaluation of the Existing System Condition
b. Evaluation of the Future Flow Projections for the System
c. Proposed Collection System Projects w/ exhibits
d. Project Schedules and Estimated Costs

EXHIBIT 6.B SANITARY SEWER MASTER PLAN

The following is the proposed Scope of Work to develop a Sanitary Sewer Master Plan for the Town of Thorntown, Indiana. The following are the work items associated with the Sanitary Sewer Master Plan:

1. Compilation and Review of Existing Data and Reports

Numerous reports for individual projects have been developed in the past. Engineer will identify, collect, review, and assess all available reports. Additionally, Engineer will meet with Thorntown and review all existing data as it pertains to the sanitary sewer system throughout the town. Other data may include sanitary sewer mapping, historical flow data, lift station pump times.

2. Flow Projection Development – Lift Stations

Growth projections will be identified through reliable census and county data. These same projections will be utilized to develop flow projections for the sanitary sewer system. Any additional information regarding industrial, commercial, and residential developments that may have any bearing on the projections will be integrated. The growth projections will include average daily dry-weather flow (ADF), peak daily dry-weather flow (PDF) and sewer shed area (acreage) for which rainfall dependent inflow and infiltration (RDII) could occur.

3. Level of Service

The level of service required to develop the project will include well established performance criteria for sanitary system components. The following are examples of performance measures to be included for sanitary collection systems:

- Dry weather flow
- Wet weather flow
- Flow allocation
- Flow depth
- Number of SSOs
- Number of backups
- Customer service calls
- Rainfall derived infiltration and inflow (RDII)
- RDII per linear foot of pipe
- Percentage of problems cleared per month
- Percentage of system cleaned annually
- Value of capital additions/net asset value

4. Develop Collection System Alternatives

Engineer shall develop an updated set of sanitary sewer projects to expand the existing service area for future development. The collection system alternatives shall include, at a minimum, the development of 2-3 interceptor alternatives for areas of deficiency within the existing system. The Engineer shall rank the alternatives based on LOS goals, preliminary project cost estimate, etc.

5. Develop Wastewater Treatment Plant Alternatives

Engineer shall develop alternatives based on the newly renovated wastewater treatment plant. Additional flow options and projections will be reviewed as well as other treatment plant options. The Engineer shall rank the alternatives based on LOS goals, preliminary project cost estimate, etc.

6. Hydraulic Modeling

Engineer shall develop a hydraulic model of the existing sanitary sewer collection system. This model will be used to evaluate the existing system for deficiencies and limiting service factors. Future growth projections will be included in the model to develop future growth areas and identify restrictions in the existing collection system.

7. Project Prioritization and Cost Estimates

The Engineer shall develop preliminary cost estimates for projects recommended in the SSMP. These estimates will be used, in conjunction with other factors, to prioritize projects in the SSMP. Projects will be prioritized as short term (1-5 years), intermediate term (5-10 years) and long term (10-20 years). This will aid Thorntown in the identification and development of future funding mechanisms for the projects.

8. Sanitary Sewer Master Plan (SSMP) Report

The Sanitary Sewer Master Plant (SSMP) report shall include the following components:

a. Evaluation of the Existing System Condition including lift stations
b. Evaluation of the Future Flow Projections for the System
c. Proposed Collection System Projects w/ exhibits
    i. Including regionalization of lift stations
d. Proposed Wastewater Treatment Plant Options.
e. Project Schedules and Estimated Costs