EXHIBIT A
SCOPE OF WORK AND DELIVERABLES
Preliminary Engineering for Reconstruction of TH 12 (Sibley Avenue) in Litchfield, MN

Project Scope of Work Overview
The proposed scope of work is for supplemental surveying, public involvement, traffic engineering/ICE Study, hydraulic engineering, TH 12/22 (Sibley Avenue) in the City of Litchfield.

The anticipated elements of the project are for the full reconstruction of TH 12 from 4th Street to Commercial Street on TH 22.

Contract Scope of Work Overview
The current scope of work will be for project development and will include:
1. Project Management
2. Public Involvement and Outreach
3. Supplemental Project Surveys / Data Collection
   o Obtain and review of existing survey data from DOT.
   o Traffic Data Collection
4. Utility Coordination
5. Railroad Coordination
6. Preliminary Traffic Engineering
   o ICE at the south junction of TH 12 and TH 22.
   o ICE at TH 12 and 3rd St. North
   o Review of crashes and existing traffic volumes
   o Traffic forecasts
   o Consideration for complete streets needs including on-street parking and pedestrian crossing treatments
7. Preliminary Hydraulics Engineering
   o Provide storm sewer video inspection of possible outlets from project to Jewett Creek
   o Comprehensive review of stormwater management within the TH 12 corridor.
9. Building preliminary inspections
   o Foundation and utility service reviews
   o Special needs (coal chutes, cellar openings, etc.)
   o Mapping of sewer and water services.
1. Project Management (Activity Code 1010)

Project management will include work necessary for communication and completion of the project tasks on time and within budget. The Contractor’s Project Manager or their primary duties will not be reassigned without the written consent of the State’s Project Manager. The Contractor’s staff will have the training and expertise necessary for the work tasks to which they are assigned.

1.1. Administration
Administration of the project will include meetings, progress reports, invoicing, preparation of contract amendment requests (if necessary), cost and schedule updates, billing preparation, other non-technical work, communication with the necessary project personnel, and all other work to ensure all the project tasks are completed on time, within budget, and in accordance with State and Federal laws, rules, and regulations.

1.2. Project Documentation
The State will maintain a project schedule throughout the duration of design activities while this contract is in effect. The Contractor will work with the State’s Project Manager to develop a schedule, risk register, project management plan, issues/action items list and will provide timely updates for these documents.

1.3. Kick-off Meeting
The Kick-off meeting will establish a communications protocol and discuss the project schedule. The Contractor will receive available existing information from the State. There will be State provided survey and mapping data, previous studies completed for the area, a brief discussion of known issues, and a review of the project schedule. The Contractor will prepare a meeting agenda and minutes.

1.4. Project Management Team Meetings
Meetings will be held monthly during the preliminary and detail design. With the Contractor’s Project Manager present, the project schedule and budget status will be reviewed. Issues that may affect the design, schedule, budget, or work quality will be presented and addressed. The Contractor will prepare an agenda and facilitate the Project Management Team meetings. The Contractor will also prepare and distribute draft minutes for review/comment to all meeting participants within 2 business days after each meeting and final minutes within 10 business days after each meeting.

1.5. Quality Control Management
The Contractor will maintain a Quality Management Plan (QMP) that specifies how the Contractor will perform Quality Assurance (QA) and Quality Control (QC) activities throughout the contract duration to ensure delivery of quality design in a timely manner and in conformance to contract requirements established for the project. The QMP shall be submitted to the State’s Project Manager for reference within 20 working days of the Notice to Proceed.

The Contractor Serve as the quality manager on the project by reviewing deliverables, collating comments, and ensuring comments are adequately resolved.

1.6. Develop quantities for early cost estimates.

**Deliverables**

The Contractor will:

1. Schedule and attend meetings.
2. Hold weekly conference call with State’s Project Manager.
3. Prepare meeting agendas, displays, and minutes.
4. Attend Project Management Team meetings to be held with District 8 Staff (assume 10).
5. Prepare and submit monthly progress and status reports.
6. Maintain project schedule.
7. Provide timely copies of critical correspondences and project issue data.
8. Quality Management Plan (QMP)

The State will:

1. Review and respond to submittals.
2. Coordinate internal reviews.
3. Provide copies of project correspondences, project studies, and general project information.
4. Attend meetings.
5. Approve deliverables.

### 2. Public Involvement and Outreach (Activity Code 1065)

The Contractor will provide coordination for public, agency, and stakeholder involvement meetings. Tasks will include scheduling meetings, preparing meeting notices, and coordinating venues. The Contractor will provide staff and technical project information and displays for use during public meetings.

#### 2.1 Public Meetings

The Contractor will organize and conduct up to four (4) Public Information Meetings in the City of Litchfield, upon direction from the State Project Manager, to disseminate project information to the General Public. The Contractor will arrange for adequate
facilities, prepare, print, and mail meeting notices, and prepare exhibits and presentations. The Public Information Meetings (PIMs) will be open house type and no formal, extended presentation will be required.

The Contractor will develop public and agency contact lists, draft correspondence, and prepare displays for public meetings and agency coordination, serve as the owner's representative in coordinating the project with external stakeholders, provide ongoing project leadership and support for the Resident Office during construction.

2.2 Agency Involvement
The Contractor will prepare for and attend four Council meetings. The purpose of these meetings will be to discuss and answer questions on the progress of project. The content and timing of the meeting will be at the discretion of the State’s Project Manager.

2.3 Stakeholder Coordination Meetings
The Contractor will hold up to 7 stakeholder coordination meetings with the State’s Project Manager, other State staff, City staff and stakeholders, as needed. These are supplemental meetings beyond those explicitly called for elsewhere in this Scope of work. The Contractor will prepare agendas and facilitate the coordination meetings. The Contractor will also prepare and distribute draft minutes within 2 business days after each meeting and final minutes within 10 business days after each meeting.

Develop a project contact list (identify property owners and renters), and discuss project impacts with impacted residents and businesses along corridor. Work will include up to 3 mailers and some phone calls with individual stakeholders (if impacted by project R/W acquisition or access changes).

Develop public and agency contact lists, draft correspondence, and prepare displays for public meetings and agency coordination.

Serve as the owner's representative in coordinating the project with external stakeholders.

2.4 Public and Media Contact
The Contractor, at the discretion of the State’s Project Manager, will manage all public and media contacts (if any) for the project and will be responsible for disseminating information regarding public messaging to the relevant media venue.

The Contractor will be responsible for drafting any public notices or advertisements that are required for Public Information Meetings.

Deliverables
The Contractor will:
1. Organize and facilitate up to four (4) Public Information meetings and up to seven (7) Stakeholder Coordination Meetings.
2. Provide and mail meeting notices for Public Information Meetings.
3. Provide agendas and minutes for Stakeholder Coordination meetings.

The State will:
1. Assist in the distribution of Media releases of the Public Information Meeting for media distribution.
2. Attend Public Information meeting and Stakeholder Coordination meetings.
3. Manage Public and Media contacts and provide public messaging to relevant parties/venues.

3. Field Surveys / Data Collection (Activity Code 1040)
Contractor will supplement existing surveys to collect all survey data necessary to complete tasks contained in this contract beyond that provided at contract execution. The tasks will be in conformance with the current standards and specifications of the State Survey & Mapping Manual, unless otherwise specified.

3.1 Design/Location Surveys
The State will furnish previously completed Digital Terrain Mapping (DTM) files, survey control point information, and other previously completed mapping files. The Contractor will review the supplied survey information and will identify where supplementary survey work is required to complete the design deliverables, acquire additional data/information, or demonstrate the location of proposed features.

The Contractor will perform supplementary design/location surveys. Supplementary survey work completed by the Contractor will use the same datum(s) and project controls that are identified in the State supplied mapping files. The Contractor will notify the State’s Project Manager at least five (5) business days before performing any supplementary survey work in the field.

The Contractor will verify survey datums used for data furnished by Third Parties (if any), such as hydraulic models or affected utilities. The Contractor will ensure that third party information (if any) is consistent with datums in use by the Project and consistent with Quality Control checks detailed in the QMP.

The Contractor will update the base mapping to incorporate the supplemental survey information.

**Deliverables**

The Contractor will:
1. Provide supplemental survey information as needed to complete tasks listed in this contract

The State will:
1. Digital Terrain Model including building access.
2. Utility locations – SUE contract results are anticipated to be available by December 1, 2016.

4. Railroad Coordination (Activity Code 6040)

The Contractor will perform railroad coordination for the project for the Burlington Northern Santa Fe (BNSF) railroad crossing.

4.1 Field Review
The Contractor will organize and conduct a field review of the crossing with the BNSF, MnDOT and City to determine issues or deficiencies. The Highway 22 crossing has cantilever signals with gates. Pedestrians and sidewalks issues will be addressed in the crossing area.

4.2 Deliverables
The Contractor will:
1. Arrange up to four meeting with State, Railroad, City and any other affected parties.
2. Develop a preliminary plan for the railroad crossing that meets current ADA requirements.

The State will:
1. Provide representation and participate in the process.

5. Preliminary Traffic Engineering

Contractor will perform the following tasks according to the State’s District 8 Traffic Guidelines, the Traffic Engineering Manual, and other applicable guidance.

5.1 Existing Conditions

Contractor will review and summarize crash history within project limits. Count vehicle, bicycle and pedestrian movements within the project corridor as needed for the tasks in 5.2.
5.2 Conduct an ICE study at the intersection of TH 12 and 3rd Street and at the southern intersection of TH 12 and TH 22. Prepare a traffic forecast for TH 12 within project limits for vehicles, pedestrians and bicycles. Traffic forecast will include an ESAL forecast.

5.3 **Intersection Control Evaluation Manual** is located on the State’s Web site at the following address:


5.4 Deliverables

The Contractor will provide:

- Relevant traffic data for the ICE, including but not limited to: traffic volume (AADT, turning movement) data, crash data, and traffic forecasts.

- Aerial imagery – Images from internet mapping sources will be considered adequate for the ICE, subject to the approval of the State.

The State will provide:

- Existing construction plans

- Prompt review and comment on draft versions of the ICE Report.


This project will analyze storm sewer within the boundaries of the attached map. The study will provide recommended storm sewer sizes, preferred route for adequate outlet, outlet rate control options, coordination with local units of government, coordination with permitting agencies, and what options exist to reduce flooding at the sag located on US 12 at the intersection of Holcomb Avenue.

Contractor will invoice all work using the State’s Source Type Codes as follows:

A. Source Type Code 1141 for all tasks and deliverables associated with hydraulics

**Section 6.0 – Scope of Work**

6.0.1 General
The services to be provided under this contract are for storm sewer design, construction limits due to storm sewer, rate control structures/ponding, coordination with the City of Litchfield, and agency coordination.

6.0.2 Storm Sewer Design

The Contractor shall size all new storm sewer meeting current design standards. The scoping assumption is to bring water south of RR tracks north to US 12 Reconstruct and then westerly to Jewett Creek.

6.0.3 Coordination with the City of Litchfield

This project includes storm sewer for MnDOT's reconstruct, storm sewer for an adequate outlet, and City of Litchfield storm sewer. The contractor shall also coordinate with the City of Litchfield to determine a preferred adequate outlet path, cost splits, rate control options, and any other potential efficiency.

6.0.4 Rate Control

The natural outlet for storm water in this part of Litchfield is Jewett Creek. Jewett Creek is a DNR stream and it is assumed that the DNR will not want any rate increase.

6.0.5 Hydraulics/Drainage Coordination with Other Agencies and Disciplines

Multiple other local agencies will need to be coordinated with for construction, storm water, or permitting related reasons

6.0.6 Construction Limits

The contractor shall identify all construction limits relating to storm sewer and rate control infrastructure

6.0.7 Referenced Documents

The MnDOT Drainage Manual is available on the web at:
http://www.dot.state.mn.us/bridge/hydraulics/drainagemanual.html

MnDOT Technical Memoranda available on the web at:
http://techmemos.dot.state.mn.us/techmemo.aspx

Section 6.1 - Contract Tasks and Deliverables

6.1.1 Storm Sewer Design
A. Complete a preliminary design and hydraulic analysis for proposed storm sewer for the urban roadway. Peak discharges shall be determined by using the rational method and Atlas 14 data. A drainage area map with contours shall be prepared for new storm sewer. It is assumed for scoping purposes that the impervious area will not increase as a result of this project. Storm Sewer network will include City storm water.

B. The assumed upsized storm sewer will require an adequate outlet to Jewett Creek. An analysis will be performed identifying potential adequate outlet routes. Contractor will make adequate outlet route recommendation after considering all variables.

C. Provide all spread calculations

6.1.2 Coordination with the City of Litchfield

A. Coordinate with the City of Litchfield to: obtain existing storm sewer infrastructure, determine what City storm water will utilize the proposed system, determine cost splits, and identify potential routes for an adequate outlet.

6.1.3 Rate Control

A. Jewett Creek will need to be analyzed to the DNRs satisfaction as far as increased rate to Jewett creek. The contractor will identify potential rate control options. Coordinate with the DNR on determining acceptable outlet rates, and recommend rate control infrastructure for consideration. Infiltration is preferred if applicable.

6.1.4 Hydraulics/Drainage Coordination with Other Agencies and Disciplines

A. The Contractor will coordinate all water resource issues with regulatory agencies. The Contractor will document the resolutions of issues for the correspondence file, including meeting minutes and memoranda for the record.

B. The Contractor will comply with and document the permit requirements, modifications, and contacts with the permitting agencies.

6.1.5 Construction Limits

A. The contractor will need to complete preliminary design of the new storm sewer system so that construction limits can be completed

B. The contractor shall include City infrastructure and connection to City infrastructure in the construction limits

C. The contractor shall include any rate control infrastructure needed in their construction limits

D. The contractor will provide storm sewer construction limits to the state for incorporation into the layout.

6.1.6 Hydraulics Deliverables and Due Dates(s) or Time Requirement
State Deliverables:

   A) Survey Data (upon contract execution)
   B) Existing Correspondence (upon contract execution)
   C) Draft Storm Water Study Map (upon contract execution)
   D) Completed SUE for existing utility information (March 3 2017)
   E) Contaminated Properties (April 25 2016)
   F) Complete review and comments (within 10 business days)

Contractor Deliverables:

   A) Coordination with City and Refinement of Storm Water Study Area Map (Dec. 15 2016)
   B) Preliminary Drainage Areas (Dec. 16 2016)
   C) Preliminary Outlet Routes for SUE contractor (Dec. 30 2016)
   D) Final Drainage Areas (Jan. 13 2017)
   E) Preliminary Storm Sewer Design (Jan. 13 2017)
   F) Preliminary Rate Control Recommendations for State and City Consideration (Feb 17 2017)
   G) Identification of Permits Needed (Feb 24 2017)
   H) Draft Outlet Options including video from proposed storm sewer to Jewett Creek (April 1 2017)
   I) Final Storm Sewer Design (May 20 2017)
   J) Final Outlet Location (May 20 2017)
   K) Draft Construction Limits (May 20 2017)
   L) Draft Cost Splits for City and State (June 3 2017)
   M) Final Construction Limits (June 10 2017)

6.1.7 Draft Study Area Map
7. Final Streetscaping and Landscaping Plan sheets

Contractor will coordinate with the City of Litchfield though the public involvement process, develop a preliminary streetscaping and landscape theme for the project, in accordance with State standards. A study has been completed for streetscaping and compliance with historical requirements.

Deliverables

Contractor will:

1. Prepare streetscape and landscape theme based on preliminary work that has already been completed
2. Conduct up to four meetings with City and affected interests
3. Attend two City Council Meetings to provide information to Council.
4. Prepare exhibits, graphics and supporting narrative to describe the design intent
5. Prepare preliminary cost estimates for Landscaping and Streetscaping improvements
6. Provide plan sheets for inclusion in construction plan showing amenities to be included with the project. This will not include lighting
plan. Lighting plan will be produced by the State.

State will:

1. Provide representation and participate in the public involvement process
2. Review and comment on streetscaping and landscape plan
3. Sign off on Visual Quality Management Plan
4. Provide a copy of the “US 12 Downtown Litchfield Study”

8. Building Preliminary Inspections

In conjunction with survey data collections, addressing ADA requirements and satisfying the environmental reporting with respect to historic buildings, it is proposed that each building fronting the project will be inspected to map, document and verify the location of utility services, conditions of foundations, and the presence of auxiliary facilities (i.e., coal chutes, extended foundations, access, etc.).

Deliverables

Contractor will:

1. Prepare property inspection documentation reports.
2. Prepare an Inventory of findings.
3. Determine the necessity to conduct further investigations based on initial findings.
4. Attend kick-off meeting with MnDOT and City to discuss work plan for securing access to buildings for proposed inspections.

Project Schedule

Late finish dates (due dates) for project deliverables are listed below.

Phase 1 (Preliminary Engineering / Preliminary Design / Project Development)

- Task 1 Project Management - Ongoing
- Task 2 Public Involvement
  - Public Meeting #1 – February 2017
  - Public Meeting #2 – September 2017
  - Public Meeting #3 – April 2018
  - Public Meeting #4 – September 2018
- Task 3 Field Surveys/Data Collection – As needed for contract tasks
- Task 4 Railroad Coordination - Ongoing
- Task 5 Traffic Engineering
  - Traffic Data Collection – 11/30/16
  - Draft ICE Report – 3/30/2017
State Deliverables
The State will provide the following information and data:

1. Historical plan information found at:
   http://dotapp7.dot.state.mn.us/cyberdocs_guest/Libraries/Default_Library/Groups/GUESTS/frameset.asp
2. Environmental investigation and clearance
3. Litchfield Transportation Plan – MnDOT, October 2008
4. US 12 Downtown Litchfield Study - 2016
5. Cultural resources review and State Historic Preservation Office coordination
6. Geometric Layout, Design Memorandum with Design Exceptions
7. State’s electronic project directory standards and file naming standards found at:
   http://www.dot.state.mn.us/caes/index.html
8. State’s ADA design standards at: http://www.dot.state.mn.us/ada/design.html
9. The State’s Standard Plans and Plates at: http://standardplans.dot.state.mn.us/ and
   http://standardplates.dot.state.mn.us/stdplate.aspx
10. SWPPP template

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