

REQUEST FOR PROJECT AND COST PROPOSALS FOR THE SOUTHEASTERN WISCONSIN ONLINE TRANSPORTATION IMPROVEMENT PROGRAM PROJECT

Release Date: October 10, 2023

I. GENERAL

The Southeastern Wisconsin Regional Planning Commission is seeking project and cost proposals from selected qualified Vendors for the development of a web-based transportation improvement program (TIP) for Southeastern Wisconsin. The online TIP project will develop and implement a new web-based portal for the management and reporting of the TIP for the seven-county Southeastern Wisconsin Region. The implementation of this project should be seamlessly integrated with and consistent with the Commission's recent website update within the Titan Content Management System v7.x.

II. TIP DATABASE

The current MS Access TIP database was first developed in the early 2000s and houses a wide array of information related to construction projects in Southeastern Wisconsin, including project details, financials, scheduling, and various codes and categorizations. An analysis of the database structure, coding, maintenance, and reporting revealed opportunities for improvement. A copy of the TIP database can be found at [TIP Database Materials](#). The current TIP and online TIP can be found at [Regional Transportation Improvement Program: 2023-2026 \(sewrpc.org\)](#). Entire dataset replacements during amendments and a moving 4-year window for financials present challenges in tracking changes and maintaining historical records. Strategies such as storing financial data individually for each year, introducing per-year fact tables or dynamic queries, and implementing a versioning system for amendments could provide more flexibility in reporting and better management of historical, current, and draft information. These potential modifications could contribute to a more robust and transparent data management system, aligning with the complex needs of the TIP database.

The current flat data structure also presents challenges in data integrity, consistency, and maintainability. Several fields exhibit "magic number" patterns, and there are multiple instances of data redundancy. The analysis highlights the need to normalize the data, organize it into well-defined tables, and establish clearer relationships.

The database contains extensive financial information spread across various fields, including federal and state funding, local contributions, and yearly budgeting. Formalizing these financial details is critical to enhance transparency, accuracy, reporting, and compliance.

III. PROPOSAL REQUIREMENTS

A. General

The intent of this request for project and cost proposals is to evaluate Vendor qualifications and obtain cost estimates for the deliverable products described herein. Minimum product specifications have been provided for each deliverable, and it is expected that responses to this request will provide significant information about how the Vendor proposes to prepare each product. Vendors should explain how they propose to conduct this project and carry out the

procedures necessary to deliver each of the described products. It is in the Vendor's best interest to provide as much information as possible.

B. Proposal Specifics

The project proposal and cost proposals should address the deliverable products of TIP Access Database Review and Update, Automation of Project Data Migration Process, Creation and Formalization of Project PDF Reports, and Integration with ArcGIS Online. The Vendor may provide information and costs for other products that may be offered to provide equivalent functionality.

1. TIP Access Database Review and Update

Objective: Analyze and improve the existing TIP Access database to enhance data integrity, readability, and business value. Streamline the database for efficient data migration to Titan CMS and facilitate the generation of reports and PDF documents.

Deliverables

- a. Existing Database Evaluation: Inventory and document the existing database structure, identify areas for data normalization, integrity, and efficiency. Include an inventory of non-data artifacts such as queries, forms, reports, and scripts.
- b. Financial Data Formalization: Replace the current 4-year moving window approach with a relational database structure and dynamic queries for financial data.
- c. Lookup Table Implementation: Design and implement lookup tables where needed improve data readability.
- d. Data Integration Inventory: Document and align the data export/transform/import processes for website reporting and PDF generation; ensure compatibility with both the current and upcoming versions of Titan CMS.
- e. Data Versioning Assessment: Evaluate the need for versioning of the database, particularly for financial data and draft work-in-process data; implement versioning as needed based on findings.
- f. Approval and Documentation: Facilitate the review and approval by Commission staff, and provide documentation outlining all changes, reasons for changes, and any new procedures needed.

2. Automation of Project Data Migration Process

Objective: Replace manual migration process from Access TIP database to Titan CMS

Deliverables:

- a. Provide automated data transfer adhering to existing and upcoming Titan CMS data structures.
- b. Design a solution compatible with Titan CMS v7.x, launching in Q4 2023.
- c. Develop an approval workflow to allow drafts of a report based on latest set of changes or amendments, not live until approved and published.
- d. Procure a report that summarizes latest project or amendments.

3. Creation and Formalization of Project PDF Reports

Objective: Automate the creation of the annual projects PDF

Deliverables

- a. Create a system to compile project data, freeform text, images, aggregated data summary tables, maps, a table of contents, a cover page, and appendices into a standardized PDF.
- b. Provide the capability to generate smaller more specialized PDFs, for example by region or even by project.

4. Integration with ArcGIS Online

Objective: Enhance GIS/mapping functionality within the Titan CMS website

Deliverables

- a. Design user-friendly interfaces for selecting and filtering active TIP projects from database through both tabular and map elements, including providing interconnectivity between the two elements.
- b. Develop an interactive map that allows users to view, explore, and interact with various construction projects.
- c. As the interactive projects map must be hosted from the Commission website, ensure seamless integration, optimal performance, and adherence to security protocols.
- d. Provide a method for filtering projects displayed on mapping, and tabular elements based on project characteristics.

C. Document Instructions

The cost proposals and product information provided by the Vendor will be used by the project participants to determine the scope of the regional project. The information will also help to determine Vendor selection for all or portions of the online TIP Project.

Please provide one digital copy of the project and cost proposal by 4:00 PM Tuesday, October 31, 2023 to:

Elizabeth A. Larsen, SPHR, SHRM-SCP
Director of Administration
elarsen@sewrpc.org

After receipt of all project and cost proposals, Commission staff will review each proposal on the basis of the ability to provide deliverables requested in items B(1) through B(4), along with the cost for each item and in total.

Any questions concerning this matter should be directed to
Mr. Christopher T. Hiebert at chiebert@sewrpc.org or Mr. Ryan W. Hoel at rhoel@sewrpc.org.