

**TOWN OF TIMNATH, COLORADO
RESOLUTION NO. 30, SERIES 2025**

**A RESOLUTION APPROVING THE WORK ORDER WITH
MULLER ENGINEERING COMPANY, INC FOR THE INTELLIGENT
TRANSPORTATION SYSTEMS PLAN**

WHEREAS, the Town Council of the Town of Timnath (the “**Town**”) pursuant to C.R.S. § 31-15-103, has the power to pass resolutions; and

WHEREAS, the Town entered into a Professional Services Master Agreement for Traffic Engineering Services dated June 11, 2024 with Muller Engineering Company, Inc; and

WHEREAS attached hereto as **Exhibit A** is the Work Order 2 pursuant to the Professional Services Master Agreement for Traffic Engineering for the Intelligent Transportation Systems Plan with Muller Engineering Company, Inc, dated April 22, 2025; and

WHEREAS, the Town Council is familiar with the Work Order pursuant to the Professional Services Master Agreement for Traffic Engineering and finds it to be in the best interest of the Town, its residents, and the general public to enter into the agreement.

NOW, THEREFORE, BE IT RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF TIMNATH, COLORADO AS FOLLOW:


Section 1. Approval

The required purchase proposal and expenditure of funds up to \$82,214.00 is hereby approved, authorized, and ratified to enter into a Work Order with Muller Engineering Company, Inc for the Intelligent Transportation Systems Plan. The required agreements may be finalized by the Town Manager, in consultation with the Public Works Director, Legal Counsel, and other applicable staff or consultant. Any actions taken prior to the execution of this Resolution, that are within the authority conferred hereby, are ratified, confirmed, and approved by the Town Council.

INTRODUCED, MOVED, AND ADOPTED BY THE TOWN COUNCIL OF THE TOWN OF TIMNATH, ON APRIL 22, 2025.

TOWN OF TIMNATH, COLORADO





Robert Axmacher, Mayor

ATTEST:

Milissa Peters-Garcia

Milissa Peters-Garcia, MMC

Town Clerk

WORK ORDER NUMBER 2

PURSUANT TO PROFESSIONAL SERVICES MASTER AGREEMENT FOR TRAFFIC
ENGINEERING BETWEEN
THE TOWN OF TIMNATH
AND
MULLER ENGINEERING COMPANY, INC

**MASTER AGREEMENT: Professional Services Master Agreement for Traffic
Engineering between the Town of Timnath (the “Town”) and Muller Engineering
Company (the “Consultant”)**

MASTER AGREEMENT EFFECTIVE DATE: June 11, 2024

PROJECT TITLE: Intelligent Transportation Systems Plan

WORK ORDER COMMENCEMENT DATE: April 22, 2025

WORK ORDER COMPLETION DATE: April 22, 2026

NOT-TO-EXCEED FEE FOR THIS WORK ORDER: \$82,214

PROJECT DESCRIPTION/SCOPE OF SERVICES: _____

Consultant agrees to perform the services identified above and on the attached Scope and Fee Proposal dated January 20, 2025 (the “forms”) in accordance with the terms and conditions contained herein and in the Professional Services Master Agreement for Traffic Engineering (the “Master Agreement”) between the parties. In the event of a conflict between or ambiguity in the terms of the Master Agreement and this Work Order (including the attached forms) the Master Agreement shall control.

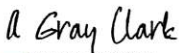
The attached forms consisting of six (6) page(s) are hereby accepted and incorporated herein, by this reference, and Notice to Proceed is hereby given after all parties have signed this document.

The Town affirms that it has appropriated sufficient funds to cover the additional work set forth in this Work Order, up to the not to exceed amount set forth above, in addition to any work under Master Agreement or prior Work Orders thereto; and that such funds shall be available prior to performance of the additional work.

[Remainder of page intentionally left blank. Signature page follows.]

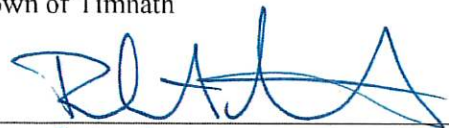
IN WITNESS WHEREOF, The parties have executed this Work Order as of the date last written below. By the signature of its representative below, each party affirms that it has taken all necessary action to authorize said representative to execute this Work Order.

CONSULTANT:
Muller Engineering Company, Inc


Signed by:

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Name: A. Gray Clark, PE
Title:
Date: April 24, 2025


TOWN:
Town of Timnath


Name: Robert Axmacher
Title: Mayor
Date: April 22, 2025

ATTEST


Name: Melissa Peters-Garcia
Title: Town Clerk
Date: April 22, 2025

DEPARTMENT APPROVAL

Signed by:

C7B6019E06ED401...
Name: Justin Stone
Title: Public Works Director
Date: April 24, 2025

SCOPE OF WORK
TIMNATH ITS PLAN
Original Scope Date: July 3, 2024
Scope Revision 1: January 20, 2025

BACKGROUND

The Town of Timnath is seeking to develop an Intelligent Transportation Systems (ITS) Plan. The purpose of the ITS Plan will be to evaluate Timnath's existing traffic signal and ITS devices and systems, consider how traffic technologies can effectively assist with meeting the Town's objectives and priorities, and to develop recommendations for future ITS improvements.

The plan will focus on several areas including traffic signal systems, ITS communications, traffic management centers and software, and funding sources and opportunities. The plan will also consider the documentation needs for the Federal Highway Administration's System Engineering Analysis process to provide the early stages of documentation and plan for future project documentation needs.

SCOPE OF WORK

Task 1 Project Management and Administration

Subtask 1.1: Project Management

Prepare monthly progress report and invoices; conduct general coordination with the Town. Prepare a project schedule for review and approval by the City, and update schedule monthly.

Subtask 1.2: Project Meetings

Prepare for and attend project kick-off meeting and project progress meetings. Prepare draft and final meeting summary and distribute to meeting attendees.

Deliverable(s) for Task 1:

- Monthly Project Progress Reports
- Project Schedule
- Meeting Summaries

Task 2 – Existing Conditions and Future Needs

Muller will conduct an existing conditions and future needs review to gain an understanding of the traffic signal system and ITS devices and systems that Timnath currently deploys and to obtain input from the Town on their transportation goals, needs, and priorities so the project team can assess what types of traffic technologies would be most suitable for the Town.

Subtask 2.1: Existing Conditions Review

Conduct a review of the Town's existing traffic signal and other traffic management devices to understand the needs they serve and operational challenges. Planning documentation, such as the *Timnath Transportation Plan* will also be reviewed to understand the transportation goals of the Town and how ITS can help meet these goals.

Subtask 2.2: Field Review

A field visit will be conducted to obtain a more comprehensive understanding of the Town's traffic signals, operational and maintenance challenges and the operational environment.

Subtask 2.3: Engagement

Muller will obtain input from Town staff involved in the management, operation and maintenance of traffic signals and ITS devices to gain a greater understanding of the devices, operational needs and challenges, and priorities. This task may be conducted in parallel with Subtask 2.2.

Deliverable(s) for Task 2:

- Summary and locations map of traffic signals and traffic management devices in Town for inclusion in ITS plan documentation
- Summary of Town operations and maintenance of ITS devices and systems and needs and operation priorities for inclusion in ITS plan documentation.

Task 3 - Traffic Signal System and Other ITS Field Devices

Based on the findings of Task 2, a comprehensive review of the traffic signal system and future traffic signal needs assessment and consideration for other types of ITS field devices will be conducted.

The task will consider:

- Path forward for traffic signal control types considering existing and future operational needs.
- Signal controller needs
- Detection needs
- CCTV surveillance needs
- Other ITS systems that may be considered in the future, including RWIS
- Advanced types of control such as adaptive including software and hardware needs and the feasibility including operational need and benefits and challenges with this type of control. A technical memorandum will be developed that assesses the need and requirements for adaptive signal control on Harmony Road.
- Traffic signal performance measures and data needs to support future operation.
- Operations and maintenance staffing and training needs and partnering opportunities, to align with future growth in field infrastructure.

The task will include a project meeting focusing on this task. The task will also include outreach with traffic signal and ITS vendors to understand alternatives that may be considered. Outreach with peer and adjacent operating agencies will also be included to inform the task.

The outcomes of this task will be used to develop a Concept of Operations (ConOps) for Timnath's Transportation Management Systems. The ConOps will include an overarching vision, goals and objectives of the system, system components, identifying the operational needs and stakeholders, and considering future needs.

In addition to assisting with the planning of Timnath's transportation management systems. The ConOps is a key component of the systems engineering analysis process that the Federal Highway Administration requires for technology projects. Establishing a ConOps will assist the Town with funding opportunities in the future that include federal funding sources.

Deliverable(s) for Task 3:

- Recommendations for future traffic signal operations and other ITS systems to be included in the ITS plan.
- Harmony Road Adaptive Signal Control assessment technical memorandum
- Concept of Operations to be included as part of the ITS plan.

Task 4 – ITS Communications Plan

This task will assess the future communications needs of the traffic signal system, facility communications needs, and any other ITS systems identified with the goal of planning for communication to existing and future traffic signals and other traffic management devices. The Town of Timnath is currently developing broadband services for Timnath with Pulse, a community-owned communications utility, which will provide opportunities to also meet the communication needs of the Town's traffic signals and ITS devices in the future.

Building on the work in Task 3, recommendations will be made related to network topology, communications equipment, and standard infrastructure needed to support the communications system. The communications plan will also consider the outcome of Task 5.

Tasks will include:

- Identifying existing transportation management system component locations and communication needs including traffic signals
- Evaluating future communication needs based on planned traffic signals, ITS systems, and devices

Deliverable(s) for Task 4:

- ITS Communication Plan including recommendations for ITS communication and graphics of proposed communication infrastructure to be included in the ITS Plan documentation.

Task 5 – Traffic Management Center and Software

Subtask 5.1: Traffic Management Center

This task will evaluate Timnath's needs for a center to manage the advanced transportation management system. The town may consider options beyond a physical traffic management center (TMC), which may include a virtual TMC or exploring partnership opportunities with nearby traffic

operations agencies. Computer/Network Room space planning and how that fits in with a future TMC may also be considered.

Subtask 5.2: Advanced Traffic Management System Software

The task will also assess software needs for the existing traffic signal system or upgrading the system to an Advanced Traffic Management System (ATMS) to support additional traffic signals and other ITS components and devices. Software functionalities considered may also adaptive traffic signal control or automated traffic signal performance measures.

Deliverable(s) for Task 5:

- TMC recommendations to be included in the ITS plan documentation.
- Traffic signal or advanced transportation management system software recommendations to be included in the ITS plan documentation.

Task 6 – System Requirements and ITS Component Option Comparison

Based on the outcomes of Tasks 3, 4, and 5, system requirements will be developed for various ITS components. This is expected to include Advanced Traffic Management System (ATMS), traffic signal controllers, CCTV cameras, and traffic signal detection, and may also include fiber switches. Using the system requirements, the ITS component options available will be assessed against the identified system requirements.

Deliverable(s) for Task 6:

- System requirements to be included in the ITS plan documentation.
- ITS component option comparison to be included in the ITS plan documentation.

Task 7 – Funding Sources and Opportunities

Based on the ITS improvements identified in the previous tasks, this task will review available funding sources and at a high-level identify opportunities the Town may consider to assist with future improvements. In addition to the Town's capital improvement program, there are different types of grants that may be considered to fund improvements including SMART, BUILD, RAISE, INFRA, TIGER, CRISI, HSIP, or MPO TIP. This task will review funding sources and identify opportunities to help fund future traffic operations and ITS improvements. The task will include input from Muller's Grant Team who will assist with identifying funding opportunities that align with the recommendations of different aspects of the ITS Plan.

Deliverable(s) for Task 7:

- Evaluation of opportunities for funding the Town's future ITS improvements to be included in the ITS plan documentation.

Task 8 – Documentation

This task will develop an ITS Plan. The ITS plan will include documentation from all previous tasks in this scope of work. Based on the outcomes of the previous tasks, a procurement plan will be developed detailing priorities for implementation of the systems and components identified in the plan. The goal of the procurement plan will be outline what can be procured in FYs 2025 and 2026 with allocated budget. The deployment plan will be included in the ITS plan.

Deliverable(s) for Task 8:

- Deployment Plan included in the ITS plan documentation
- Draft ITS Plan provided for review
- Final ITS Plan updated after Town review

Task 9 – Broadband Support

The Town of Timnath is currently developing broadband services for Timnath with Pulse. This task will provide support to the City's efforts to finalize their agreement with Pulse.

Deliverable(s) for Task 9:

- Preparation of meeting notes and review of comments

[illegible]