

## Project Information

1. Project Title		Longmont Smart Signals to Schools	
2. Project Location <i>Provide a map, as appropriate (see Page 1)</i>		Start point: Click or tap here to enter text. End point: Click or tap here to enter text. OR Geographic Area: Existing signalized intersections along Pace St, 17 <sup>th</sup> Ave, Nelson Rd, Airport Rd, 3 <sup>rd</sup> Ave, 9 <sup>th</sup> Ave, Francis St, and Mountain View Ave, and Sunset Blvd.	
3. Project Sponsor <i>(entity that will be financially responsible for the project)</i>		City of Longmont	
4. Project Contact Person:			
Name: Kyle Haworth		Title: Traffic Engineering Administrator	
Phone: 303-651-8737		Email: Kyle.Haworth@Longmontcolorado.gov	
5. Required Concurrence and Project Support: Does this project touch CDOT Right-of-Way, involve a CDOT roadway, connect to a CDOT system, access RTD property, or request RTD involvement to operate service? Does this project directly involve other local agency partners.			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If yes, provide a completed Peer Agency Support Form for each partner.</i>
6. What planning document(s) identifies this project?  <i>Provide link to document(s) and referenced page number if possible, or provide documentation in the supplement</i>	If this project is listed in the <a href="#">DRCOG 2050 Metro Vision Regional Transportation Plan (2050 MVRTP)</a> , provide the staging period: Pace St is designated at a 2020-2029 staging corridor		
	Local/Regional plan:	Planning Document Title: <a href="#">Envision Longmont</a> Adopting agency (local agency Council, CDOT, RTD, etc.): <a href="#">City of Longmont</a> Provide date of adoption by council/board/commission, if applicable: <a href="#">June 28, 2016</a>	
	Please describe public review/engagement to date:	<a href="#">Transportation Advisory Board and various residents submitting concerns about improving intersections for improved pedestrian safety</a>	
	Other pertinent details:	<a href="#">Longmont adopted Vision Zero on April 26, 2023 to create action plan and multimodal safety improvements in 2024 to reduced serious injuries and fatalities to zero.</a>	
7. Identify the project's <b>key phases and the anticipated schedule of phase milestones.</b> (phases and dates should correspond with the "Phase to be Initiated" in the Funding Breakdown table below)			
Phases to be included:	Major phase milestones:		Anticipated completion date (based on October 2023 DRCOG approval date): (MM/YYYY)
<input type="checkbox"/> Preconstruction <input checked="" type="checkbox"/> Construction <input type="checkbox"/> Both			
<b>REQUIRED FOR ALL PHASES</b>	Intergovernmental Agreement (IGA) executed with CDOT/RTD (Assumed process is 4-9 months; any work performed before execution is NOT reimbursable)		<a href="#">2/2023</a>
<input type="checkbox"/> Design	Design contract Notice to Proceed (NTP) issued (if using a consultant):		Enter Date
	Design scoping meeting held with CDOT (if no consultant):		Enter Date
	FIR (Field Inspection Review):		Enter Date

	FOR (Final Office Review):	Enter Date
<input type="checkbox"/> Environmental	Environmental contract Notice to Proceed (NTP) issued (if using a consultant):	Enter Date
	Environmental scoping meeting held with CDOT (if no consultant):	Enter Date
<input type="checkbox"/> Right-of-Way	Initial set of ROW plans submitted to CDOT:	Enter Date
	Estimated number of parcels to acquire: Enter Number	
	ROW acquisition completed:	Enter Date
<input checked="" type="checkbox"/> Construction	Required clearances:	4/2024
	Project publicly advertised:	Enter Date
<input type="checkbox"/> Study	Kick-off meeting held after consultant NTP (or internal if no consultant):	Enter Date
<input checked="" type="checkbox"/> Equipment Purchase (Procurement)	RFP/RFQ/RFB (bids) issued:	5/2024
<input checked="" type="checkbox"/> Other Phase not Listed Describe: Describe	First invoice submitted to CDOT/RTD:	8/2024

8. **Problem Statement:** What specific subregional problem/issue will the transportation project address?  
The intent of this project is to upgrade existing traffic signal detection along corridors that serve as major routes to schools within the city. The new detection cameras will provide multimodal features to improve safety and mobility for non-motorized traffic and pedestrians such as dedicated pedestrian detection and buffer zones to insure intersections are clear before conflicting traffic receives a green indication. New hardware will provide speed, volume, and safety analytics for pedestrians, bicyclists, and motorized traffic. Addition of PTZ cameras will allow staff and emergency responders to evaluate incidents prior to being dispatched. Will also allow for better coordination and adaptability for more efficient and safer travel times. This can be done by enabling improved coordination plans and high resolution traffic data to continuously evaluate and update timing plans to accommodate different needs throughout the day. Data can be easily shared to local jurisdictions through existing API modules. Funds will be used for equipment only and installation by existing on-call professional services to insure compliance with city standards and specifications.

9. Identify the project's **key elements**. A single project may have multiple project elements.

#### Roadway

- ☒ Operational Improvements
- ☐ General Purpose Capacity (2050 MVRTP)
- ☐ Managed Lanes (2050 MVRTP)
- ☐ Pavement Reconstruction/Rehab
- ☐ Bridge Replace/Reconstruct/Rehab

#### Grade Separation

- ☐ Roadway
- ☐ Railway
- ☐ Bicycle
- ☐ Pedestrian

#### ☒ Safety Improvements

#### Active Transportation Improvements

- ☒ Bicycle Facility
- ☒ Pedestrian Facility

#### ☒ Air Quality Improvements

#### ☐ Improvements Impacting Freight

#### Multimodal Mobility (i.e., accommodating a broad range of users)

- ☒ Complete Streets Improvements

**Regional Transit<sup>1</sup>**

- ☐ Rapid Transit Capacity (2050 MVRTP)
- ☐ Mobility Hub(s)
- ☒ Transit Planning Corridors
- ☐ Transit Facilities (Expansion/New)

☐ **Study**

☒ **Other**, briefly describe: Data collection for ADT counts, classifications of various types of vehicles, pedestrians, and bicycles.

<sup>1</sup>For any project with transit elements, the sponsor must coordinate with RTD to ensure RTD agrees to the scope and cost. Be sure to include RTD's concurrence in your application submittal.

**10.** Define the **scope** and **specific elements** of the project (including any elements checked in #9 above).

*DO NOT include scope elements that will not be part of the DRCOG funded project or your IGA scope of work (i.e., adjacent locally funded improvements or the project merits and benefits). Please keep the response to this question tailored to details of the scope only and no more than five sentences.*

Purchase and installation of traffic detection cameras and PTZ cameras for all approaches at intersections along main routes to public schools. Installation of traffic detection cameras will provide dedicated pedestrian and bicycle detection within and outside of the intersection. This project is for purchase of equipment and installation. Project will not require any excavation or disturbance of the surrounding area.

**11.** What is the current status of the proposed scope as defined in Question 10 above? *Note that overall project readiness is addressed in more detail in Section E below.*

Current traffic signals are capable and are able to be upgraded immediately with the approval of this project.

**12.** Would a smaller DRCOG-allocation than requested be acceptable, while maintaining the original intent of the project?

☐ Yes ☒ No

*If yes, smaller meaningful limits, size, service level, phases, or scopes, along with the cost, **MUST** be defined.*

Smaller DRCOG funding request: Click or tap here to enter text.

Outline the differences between the scope outlined above and the reduced scope: Click or tap here to enter text.

## Project Financial Information and Funding Request

(All funding amounts in \$1,000s)

*To update the formulas below, enter your information, highlight the formulas, and press F9 or right-click and select Update Field.*

<b>Total amount of Federal Funding Request (in \$1,000's)</b> (Not to exceed 82.79% of the total project cost)	<b>\$1,580</b>	<b>79.0%</b> of total project cost
<b>Match Funds (in \$1,000's)</b> List each funding source and contribution amount.	<b>Contribution Amount</b>	<b>% Contribution to Overall Project Total</b>
City of Longmont	\$420	21.0%
Click or tap here to enter text.	\$Match Amount	0.0%
Click or tap here to enter text.	\$Match Amount	0.0%
Click or tap here to enter text.	\$Match Amount	0.0%

Click or tap here to enter text.	\$Match Amount	0.0%
Click or tap here to enter text.	\$Match Amount	0.0%
<b>Total Match</b> <i>(private, local, state, regional, or federal)</i>	<b>\$ 420</b>	<b>21.0%</b>
<b>Project Total</b>	<b>\$2,000</b>	

**Funding Breakdown (in \$1,000s) (by program year)**<sup>1</sup> (Total funding should match the Project Total from above)

*To update the formulas below, enter your information, highlight the formulas (or Ctrl-A), and press F9. OR close and reopen the file.*

	FY 2024	FY 2025	FY 2026	FY 2027	Total
DRCOG Requested Funds	\$790	\$790	\$Enter Amount	\$Enter Amount	\$1,580
CDOT or RTD Supplied Funds <sup>2</sup>	\$Enter Amount	\$Enter Amount	\$Enter Amount	\$Enter Amount	\$ 0
Local Funds (Funding from sources other than DRCOG, CDOT, or RTD)	\$210	\$210	\$Enter Amount	\$Enter Amount	\$ 420
Total Funding	\$1,000	\$1,000	\$ 0	\$ 0	\$2,000
Phase to be Initiated	Equipment Purchase (Procurement)	Equipment Purchase (Procurement)	Select Phase	Select Phase	
Notes:	<ol style="list-style-type: none"><li>1. Fiscal years are October 1 through September 30 (e.g., FY 2024 is October 1, 2023 through September 30, 2024). The proposed funding plan is not guaranteed if the project is selected for funding. While DRCOG attempts to accommodate applicants' requests, final funding will be assigned at DRCOG's discretion. Funding amounts must be provided in year of expenditure dollars using a recommended 3% inflation factor.</li><li>2. Only enter funding in this line if CDOT and/or RTD specifically give permission via concurrence letters or other written source.</li></ol>				
Affirmation:	By checking this box, the applicant's Chief Elected Official (Mayor or County Commission Chair/City or County Manager/Agency Director) has certified it allows this application to be submitted for potential DRCOG-allocated funding and will follow all local, DRCOG, state, and federal policies and regulations if funding is awarded. <input checked="" type="checkbox"/>				

## Evaluation Questions

### A. Deployment of RTO&T Initiatives in RTO&T Strategic Plan

WEIGHT

**30%**

Select the initiatives to be deployed or advanced by this proposed project. It is possible to select more than one initiative.

#### Primary initiatives

- |  |                                     |
|--|-------------------------------------|
| Develop a Regional Situational Awareness platform.   | <input checked="" type="checkbox"/> |
| Develop processes to share traffic camera view and control between jurisdictions and public safety.          | <input checked="" type="checkbox"/> |
| Develop a Regional Performance Monitoring Data Archive platform.   | <input checked="" type="checkbox"/> |
| Develop strategies and processes to coordinate performance-based management.                                 | <input checked="" type="checkbox"/> |
| Deploy additional supporting transportation surveillance and control systems and infrastructure.             | <input checked="" type="checkbox"/> |
| Develop Traffic Incident Management standard operating procedures.   | <input type="checkbox"/>            |
| Standardize and implement transit signal priority performance management and system optimization procedures. | <input type="checkbox"/>            |

#### Secondary initiatives

- |   |                                     |
|---|-------------------------------------|
| Develop evacuation and recovery plans and exercises.                              | <input type="checkbox"/>            |
| Develop processes to coordinate traveler information messaging across the region. | <input checked="" type="checkbox"/> |
| Develop active work zone monitoring and management in the field.                  | <input checked="" type="checkbox"/> |
| Deploy additional safety-focused technology applications                          | <input checked="" type="checkbox"/> |
| Expand the Regional Performance Monitoring Data Archive platform.                 | <input checked="" type="checkbox"/> |
| Expand the Regional Situational Awareness platform.                               | <input checked="" type="checkbox"/> |
| Expand transit signal priority deployment.  | <input type="checkbox"/>            |

#### Tertiary initiatives

- |   |                                     |
|---|-------------------------------------|
| Develop a Regional Multimodal Traveler Information platform.                      | <input checked="" type="checkbox"/> |
| Develop a process to monitor regional parking availability, capacity and pricing. | <input type="checkbox"/>            |
| Develop a multimodal trip planner and reservation/ payment system.                | <input type="checkbox"/>            |
| Develop and deploy dynamic ride-sharing.  | <input type="checkbox"/>            |
| Develop and implement curbside management standards.                              | <input type="checkbox"/>            |
| Develop continuity of operations plans.   | <input checked="" type="checkbox"/> |

Describe how this project will deploy, advance or achieve the selected initiatives.

This project will enable every intersection to collect travel data for vehicles, pedestrians, and bicyclists. This includes travel time, speed, origin-destination, vehicle miles driven, emissions, congestion index, and classifications. Data can be natively shared to organizations in the region. Cameras can be accessed remotely to monitor traffic operations and assess conditions prior to deploying maintenance crews or EMS response. Safety improvements can provide additional flexibility for non-vehicle traffic as dedicated detection can extend crossing times and provide reliable vulnerable road user phases to reduced conflicts with vehicles.

The Regional Transportation Operations and Technology Strategic Plan emphasizes a data management concept that requires interagency information sharing. Describe in detail how this project will share data with other regional entities.

Data can be shared directly through an existing website API that can be embedded in a webpage or can be directly downloaded in CSV format for use in other applications or databases. Type of data is being shared with current users of Acylica platform and can be readily shared via web browser.



## B. Regional Impact of Proposed Project

WEIGHT

**25%**

Provide **qualitative and quantitative** responses to the following questions on the subregional impact of the proposed project. Be sure to provide all required information for each question. Quantitative data from is available from the [DRCOG Data Tool](#).

1. Why is this project regionally important? *Relevant quantitative data in your response is required.*

Every road user should be able to transverse their city in a safer and effective manner. This includes vulnerable road users such as pedestrians, bicyclists, and youths commuting to school. In the project area there has been a total of 727 accidents involving pedestrians or bicyclists. 120 of which have involved persons under the age of 18. Providing adequate detection and data analytics is the first step to protect vulnerable roadway users. Intersections have been selected to provide safety enhancements along major routes to schools. Implementation of new detection can provide additional buffer times and timing flexibility to give extra crossing times or dedicated phasing for non-vehicles.

2. How will the proposed project address the specific transportation problem described in the **Problem Statement** (as submitted in Project Information, #8)? *Relevant quantitative data in your response is required.*

Longmont is similar to many municipalities in Colorado as driving behaviors and community patience has resulted in unwanted driving behaviors and it has increased accident rates throughout the state and country. Implementing safety measures and modern detection this project aims to mitigate the upward trend in accidents involving vulnerable roadway users. This can be done in a multidirectional approach through reducing vehicle user frustrations by experiencing unnecessary stops, but also providing additional flexibility to timing plans for protected or advanced phases for pedestrians or bicyclists.

3. Does the proposed project benefit multiple municipalities and/or subregions? If yes, which ones and how? Also describe any funding partnerships (other subregions, regional agencies, municipalities, private, etc.) established in association with this project.

This project benefits multiple departments within Longmont. Such as Traffic Engineering and Police Department. Additionally this project can interconnect with surrounding areas to provide roadway use data and origin-destination data to coordinate public transit or other programs that provide service for non-vehicle motorists.

4. Disproportionately Impacted and Environmental Justice Communities  
This data is available in the [DRCOG Data Tool](#). *Completing the below table and referencing relevant quantitative data in your response is required.*

**To update the formulas below, enter your information, highlight the formulas (or Ctrl-A), and press F9. OR close and reopen the file.**

	DI & EJ Population Groups	Number within ½ mile	% of Total	Regional %
Use 2015-2019 American Community Survey Data  (Use a 0.5 mile buffer distance) [Equity data tab]	a. Total population	113155	-	-
	b. Total households	44618	-	-
	c. Individuals with low-income	22697	20%	20%
	d. Individuals of color	33182	29%	33%
	e. Adults age 60 and over	26687	24%	13%
	f. Youth under 18	24278	21%	16%
	g. Individuals with limited English proficiency	5711	5%	3%
	h. Individuals with a disability	11524	10%	9%
	i. Households that are housing cost-burdened	13718	31%	32%
	j. Households without a motor vehicle	1864	4%	5%

For Lines c. – i. use definitions in the [DRCOG Title VI Implementation Plan](#). For Line j., as defined in C.R.S. 24-38.5-302(3)(b)(I): “‘cost-burdened’ means a household that spends more than thirty percent of its income on housing.”



Describe how this project will improve access and mobility for each of the applicable disproportionately impacted and environmental justice population groups identified in the table above, *including the required quantitative analysis:*

Current signal systems only operate for vehicles and are only actuated for pedestrian movements via a pedestrian push button. Upgrading to modern detection will provide additional options for non-vehicle traffic to transverse the city. Providing enhanced service by providing buffer times for slower moving persons eliminates the frequent events of vulnerable roadway users being exposed to oncoming traffic due to the signal cycling for oncoming traffic. For distracted motorists this can cause fatal results for non-vehicle traffic.

5. How will this project move the subregion toward achieving the shared [regional transportation outcomes](#) established in [Metro Vision](#) in terms of...

- Land Use, community, urban development, housing, employment? *(Improve the diversity and livability of communities. Contain urban development in locations designated for urban growth and services. Increase housing and employment in urban centers. Diversify the region's housing stock. Improve the region's competitive position.)*
  - Enhancements to vehicle detection would enable city staff to create a safe and predictable operation of traffic patterns. Currently the detection works as an actuated system that does not provide safety checks for users within intersections and will send conflicting traffic movements without question. Providing additional safety features encourages alternative multimodal travel. With new high density developments planned throughout the city. This would be an opportune time to alter the culture of movement within the city.
- Multimodal transportation, safety, reliability, air quality? *(Improve and expand the region's multimodal transportation system, services, and connections. Operate, manage, and maintain a safe and reliable transportation system. Improve air quality and reduce greenhouse gas emissions. Reduce the risk of hazards and their impact.)*
  - Creating a smart and flexible roadway network is essential for optimized movements throughout the city. Dedicated phases and advanced detection for all modes of transportation enable optimize of connected corridors. Roadways can be continuously monitored and improved versus waiting for evaluation periods. This will provide a better level of service throughout the day as well as into the future.
- Connection/accessibility to particular locations supporting healthy and active choices? *(Connect people to natural resource and recreational areas. Increase access to amenities that support healthy, active choices. Improve transportation connections to health care facilities and service providers. Improve access to opportunity.)*
  - This project targets school facilities primarily to provide safe and predictable routes to schools. City facilities and parks are frequently located near school areas. Providing better access to schools also provides safer access and additional options to access parks, public facilities, and urban centers.

6. Items marked with an asterisk (\*) below are available in the DRCOG Data Tool.

- Is there a DRCOG designated urban center within ½ mile of the project limits?\*
- ☒ Yes ☐ No If yes, please provide the name: CBD of Longmont, Twin Peaks Activity Center, North Main Street AC, SH66 Mixed Use Corridor
- Does the project connect two or more urban centers?\*
- ☒ Yes ☐ No If yes, please provide the names: CBD of Longmont, Twin Peaks Activity Center, North Main Street AC, SH66 Mixed Use Corridor
- Is there a transit stop or station within ½ mile of the project limits?\*
- Bus stop: ☒ Yes ☐ No If yes, how many:133
- Rail station: ☐ Yes ☒ No If yes, how many: Click or tap here to enter text.
- Is the project in a locally-defined priority growth and development area and/or an area with zoning that supports compact, mixed-use development patterns and a variety of housing options?
- ☐ Yes ☒ No

If yes, provide a link to the relevant planning document:

If yes, provide how the area is defined in the relevant planning document:

Provide households and employment data* [Population and Employment tab]	2020	2050
Jobs within ½ mile	49,217	62,445
Households within ½ mile	37,376	48,825

Describe how this project will improve transportation options in and between key geographic areas including DRCOG-defined urban centers, multimodal corridors, mixed-use areas, Transit Oriented Development (transit near high-density development), or locally defined priority growth areas, *including the required quantitative analysis:*

This project provides connections to 3 major urban centers and promotes better use of the existing bike lanes and sidewalks along the roadway.

7. Describe how this project will improve **access** and **connections** to key employment centers or subregional destinations. In your answer, define the key destination(s) and clearly explain how the project improves **access** and/or **connectivity**.

Providing safer and multimodal focused infrastructure will encourage more frequent use of non-vehicle travel. The primary objective of this project is to create safer routes to school which benefits the younger population. The second objective is to provide safety improvements for multimodal travel to city centers, which this project connects 4 urban centers within the city.

8. Congestion Mitigation Process Mobility Score

Completing the below table and referencing relevant quantitative data in your response is required. **In the DRCOG Data Tool, use a 0.02 mile buffer distance.**

Provide congestion mobility parameters* [Congestion Mobility Score tab]	2021
Sum: length-weighted score	148.73
Sum: miles	39.66
Congestion Mobility Score	13.59

(The Congestion Mobility Score will automatically calculate based on values entered. If this has not updated, select the box and click F9)

## C. Metro Vision Regional Transportation Plan Priorities

WEIGHT

**25%**

- **Qualitative and quantitative** responses are **REQUIRED** for the following items on how the proposed project contributes to the project and program investment priorities in the adopted 2050 Metro Vision Regional Transportation Plan. **To be considered for full points, you must fully answer all parts of the question, including incorporating quantitative data into your answer.** (see scoring section for details). Quantitative data from is available from the [DRCOG Data Tool](#).
- Checkboxes and data tables help to provide context and guide responses, but do not account for the full range of potential improvements and are not directly scored, but are required to be completed.
- Not all proposed projects will necessarily be able to answer all questions, however it is in the applicant's interest to address as many priority areas as possible.

### Multimodal Mobility

#### Provide improved travel options for all modes.

(drawn from [2050 MVRTP priorities](#); [federal travel time reliability, infrastructure condition, & transit asset management performance measures](#); & [Metro Vision objective 4](#))

Examples of Project Elements: combinations of improvements that support options for a broad range of users, such as complete streets improvements, or an interchange project that incorporates transit and freight improvements, etc.

- What modes will project improvements directly address?  
☒ Walking ☒ Bicycling ☐ Transit ☐ SOV ☐ Freight ☐ Other: [Click or tap here to enter text.](#)
- List the elements of this project which will address the above modes (i.e., sidewalk, shared use path, bus stop improvements, new general purpose or managed lanes, etc.): [Improvements between shared use path, sidewalks, and bike lanes provide improved safety interaction at intersections where majority of accidents occur.](#)
- Will the completed project be a complete street as described in the [Regional Complete Streets Toolkit](#)? [Complete Streets Typology](#) is available in the [DRCOG Data Tool](#).  
☒ Yes ☐ No If yes, describe how it implements the Toolkit's strategies in your response. [Streets are currently defined as neighborhood connector streets.](#)
- Does this project improve travel time reliability and reduce delay?  
☒ Yes ☐ No
- Does this project improve asset management of roadway infrastructure, active transportation facilities, and/or transit facilities or vehicle fleets?  
☐ Yes ☒ No
- Does this project implement resilient infrastructure that helps the subregion mitigate natural and/or human-made hazards?  
☒ Yes ☐ No

Question: Describe how this project will help increase mobility choices for people, goods, and/or services. Please include quantitative information, including any items referenced above, in your response. *Note that the proposed roadway operational improvements must be primarily on the DRCOG [Regional Roadway System](#) and/or [Regional Managed Lanes System](#).*

29 of the 39 signals are currently on the DRCOG regional roadway network or directly adjacent to signals on the roadway network. 9 of off network signals are located on 9<sup>th</sup> Ave. 9<sup>th</sup> Ave is classified as a minor arterial in the city and is 1 of 4 east-west corridors that connects Airport Rd to County Line Rd. 9<sup>th</sup> Ave and Mountain View Dr are the top 4 intersections that experience the most pedestrian and bicycle crashes. 9<sup>th</sup> Ave has experienced 31 pedestrian or bicycle crashes between 2017-2021. Mountain View Ave experiences the 5<sup>th</sup> most incidents at 19 within the same time period.

Question: Describe how this project will help improve asset reliability and availability. Please include quantitative information in your response (for example, reduce mean time to repair and increase mean time between failures).

Connection to updated equipment is able to communicate to existing ATSPM system. The advantage to this new system is instant communications and error detection of hardware. In the event of inadequate detection or hardware failure, an alert can be triggered to send SMS messages and emails to the appropriate staff for a proactive approach to repairing city facilities. This can save the 30 minuet requirement for staff response to traffic signal issues to a faction of that time or mitigate it completely.

Question: Describe how this project will reduce delays and improve travel time reliability. Please include quantitative information in your response (for example, vehicle-hours traveled and travel time index).

Current city data does not provide an accurate representation of travel times or travel time as existing data currently has to be subcontracted to a consulting firm. The data provided only shows on average 10 travel runs at a particular time of day and at that point in traffic. The data that would be provided by the detection system would inform city staff of travel times and delays up to 5 minutes of data resolution. Timing plans can be adjusted more frequently and impact City Budgets as funds do not need to be allocated for additional consultants. Improvements and on-going monitoring can be evaluated by city staff. Metrics such as vehicle-miles driven, congestion index, travel times, speed, volume, vehicle classification, bicycle counts, pedestrian counts, and origin-destination are natively integrated with detection upgrades. This will create a continuous monitoring network to proactively maintain or improve travel times.

<b>Air Quality</b>	<b>Improve air quality and reduce greenhouse gas emissions.</b> (drawn from <a href="#">2050 MVRTP priorities</a> ; <a href="#">state greenhouse gas rulemaking</a> ; <a href="#">federal congestion &amp; emissions reduction performance measures</a> ; <a href="#">Metro Vision objectives 2, 3, &amp; 6a</a> ) Examples of Project Elements: active transportation, transit, or TDM elements; vehicle operational improvements; electric vehicle supportive infrastructure; etc.					
	<ul style="list-style-type: none"> <li>Does this project reduce congestion?  <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No         </li> <li>Does this project reduce vehicle miles traveled (VMT)?  <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No         </li> <li>Does this project reduce single-occupant vehicle (SOV) travel?  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No         </li> </ul>					
<b>Emissions Reduced</b> (kg/day)		<b>CO</b>	<b>NOx</b>	<b>VOCs</b>	<b>PM 10</b>	<b>CO<sub>2</sub>e</b>
		6.819	.367	.255	.092	749.743
Use the <a href="#">FHWA CMAQ Calculators</a> or a similar reasonable methodology to determine emissions reduced. Base your calculations on the year of opening. Please attach a screenshot of your work (such as the FHWA calculator showing the inputs and outputs) as part of your submittal packet. Note: if not using the FHWA Calculators, please describe your methodology and sources in your narrative below.						
Question: Describe how this project helps reduce congestion and air pollutants, including but not limited to carbon monoxide, ground-level ozone precursors, particulate matter, and greenhouse gas emissions. Please include quantitative information, including any items referenced above, in your response.						
Upgraded detection provides enhanced flexibility to continually monitor traffic flows and adjust cycle times, force offs, and extensions for all modes of transportation. This would result in reduced unnecessary stops, prolonged idle times, and buffer safety features for vulnerable road users. Upgraded detection also supplies vehicle emission data, stop delay, and congestion index information at all times. Timing plans and zone detection can be altered and evaluated to insure system does not become degraded over time or is affect by timing plan changes.						

<b>Regional Transit</b>	<p><b>Expand and improve the subregion's transit network.</b>          (drawn from <a href="#">2050 MVRTP priorities</a>, <a href="#">Coordinated Transit Plan</a>, <a href="#">RTD's Regional Bus Rapid Transit Feasibility Study</a>)          Examples of Project Elements: transit lanes, station improvements, etc.  <i>Note:</i> For any project with transit elements, the sponsor must coordinate with RTD to ensure RTD agrees to the scope and cost. Be sure to include RTD's concurrence in your application submittal.</p>
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Items marked with an asterisk (\*) below are available in the [DRCOG Data Tool](#).

- Does this project implement a portion of the regional bus rapid transit (BRT) network (as defined in the [2050 MVRTP](#))?\*
- ☐ Yes ☒ No If yes, which specific corridor will this project focus on: [Click or tap here to enter text.](#)
- Does this project involve a regional transit planning corridor (as defined in the [2050 MVRTP](#))?\*
- ☒ Yes ☐ No If yes, which specific corridor will this project focus on: [Click or tap here to enter text.](#)
- Does this project implement a mobility hub (as defined in the [2050 MVRTP](#))?
- ☐ Yes ☒ No
- Does this project improve connections between transit and other modes?
- ☒ Yes ☐ No If yes, please describe in your response. Creates safer connections to bus stops.
- Does this project improve transit travel time reliability?
- ☐ Yes ☒ No If yes, please describe in your response.
- Does this project add and/or improve transit access to or within a DRCOG-defined urban center?\*
- ☒ Yes ☐ No

Question: Describe how this project improves connections to or expands the subregion's transit system, as outlined in the [2050 MVRTP](#). Also describe how this project improves transit travel time reliability. Please include quantitative information, including any items referenced above, in your response. *Note that rapid transit improvements must be on the [Regional Rapid Transit System](#).*

[Intersection improvements for safer multimodal travel creates safer routes to bus stops and will encourage more use of multimodal options and promote rapid transit for further destination options.](#)

Safety	<b>Increase the safety for all users of the transportation system.</b> (drawn from <a href="#">2050 MVRTD priorities</a> , <a href="#">Taking Action on Regional Vision Zero</a> , <a href="#">CDOT Strategic Transportation Safety Plan</a> , & <a href="#">federal safety performance measures</a> ) Examples of Project Elements: bike/pedestrian crossing improvements, vehicle crash countermeasures, traffic calming, etc.	
	Items marked with an asterisk (*) below are available in the <a href="#">DRCOG Data Tool</a> .	
<ul style="list-style-type: none"> <li>Does this project address a location on the <a href="#">DRCOG High-Injury Network or Critical Corridors</a> or corridors defined in a local Vision Zero or equivalent safety plan?*</li> <li><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</li> <li>Does this project implement a safety countermeasure listed in the <a href="#">countermeasure glossary</a>?</li> <li><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</li> <li>Will this project result in a reduction of average roadway clearance time and incident clearance time and/or secondary incidents?</li> <li><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</li> <li>Will this project result in a reduction of first responder struck-bys?</li> <li><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</li> </ul>		
Provide the current number of crashes involving motor vehicles, bicyclists, and pedestrians* (using the 2016-2020 period – in the <a href="#">DRCOG Data Tool</a> , use a 0.02 mile buffer distance) <a href="#">[Crash Severity 2016-2020 tab]</a> NOTE: if constructing a new facility, report crashes along closest existing alternative route		Sponsor must use industry accepted crash modification factors (CMF) or crash reduction factor (CRF) practices (e.g., <a href="#">CMF Clearinghouse</a> , <a href="#">NCHRP Report 617</a> , or <a href="#">DiExSys</a> methodology).
Fatal crashes	19	
Serious Injury crashes	244	
Other: Non-Serious Injury and Property Damage Only crashes	5239	
Estimated reduction in crashes applicable to the project scope (per the five-year period used above)		Provide the methodology and sources below:
Fatal crashes reduced	15	Reduction of broadside and red light related accidents
Serious Injury crashes reduced	150	
Other: Non-Serious Injury and Property Damage Only crashes	1000	
<p>Question: Describe how this project will implement safety improvements (roadway, active transportation facility, etc.), particularly improvements in line with the recommendations in <a href="#">Taking Action on Regional Vision Zero</a>. Please include quantitative information, including any items referenced above, in your response. <i>Note that any improvements on roadways must be primarily on the DRCOG <a href="#">Regional Roadway System</a>.</i></p> <p>The project will be able to incorporate signal improvements to add buffer times for red clearing extensions, crosswalk extensions, and red hold phases for pedestrian still in the crosswalk. Additional detection will provide surety that the signal will service pedestrian and bicycle moments as actuated movements can often fail and cannot passively detect non-vehicles.</p> <p>Question: Describe how this project will reduce average incident duration, secondary incidents and first responder struck-bys. Please include quantitative information in your response. A “responder struck-by” incident is a collision between a motor vehicle in transit and a responder working a roadway incident. The responder may be a nonmotorist, an occupant of a stopped response vehicle or an unoccupied response vehicle.</p> <p>By reducing the number of incidents it frees up EMS responders for other calls and puts less stress on their current staffing requirements.</p>		

<b>Freight</b>	<p><b>Maintain efficient movement of goods within and beyond the subregion.</b></p> <p>(drawn from <a href="#">2050 MVRTP priorities</a>; <a href="#">Regional Multimodal Freight Plan</a>; <a href="#">Colorado Freight Plan</a>, <a href="#">federal freight reliability performance measure</a>; <a href="#">Metro Vision objective 14</a>)</p> <p>Examples of Project Elements: bridge improvements, improved turning radii, increased roadway capacity, etc.</p>
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Items marked with an asterisk (\*) below are available in the DRCOG Data Tool.

- Is this project located in or impact access to a [Freight Focus Area](#)?\*  
☐ Yes ☒ No If yes, please provide the name: [Click or tap here to enter text.](#)
- If this project is located in a [Freight Focus Area](#) does it address the relevant Needs and Issues identified in the Plan (see text located within each Focus Area)?  
☐ Yes ☒ No If yes, please describe in your response below.
- Is the project located on the [Tier 1 or Tier 2 Regional Highway Freight Vision Network](#)?\*  
☒ Yes ☐ No
- Check any items from the [Inventory of Current Needs](#) which this project will address:  
☐ Truck Crash Location ☐ Rail Crossing Safety ([eligible locations](#))  
☒ Truck Delay ☒ Truck Reliability ☐ Highway Bottleneck  
☐ Low-Clearance or Weight-Restricted Bridge  
Please provide the location(s) being addressed: [Click or tap here to enter text.](#)
- Does this project include any innovative or non-traditional freight supportive elements (i.e., curb management strategies, cargo bike supportive infrastructure, etc.)?  
☐ Yes ☒ No If yes, please describe in your response below.

Question: Describe how this project will improve the efficient movement of goods. In your response, identify those improvements identified in the [Regional Multimodal Freight Plan](#), include quantitative information, and include any items referenced above. *Note that any improvements on roadways must be primarily on the DRCOG [Regional Roadway System](#).*

Advanced detection and vehicle classification can improve movements of goods as the ability to detect different types of vehicles can provide flexibility for signals to insure freight movement or safe stopping distances for large trucks.



Active Transportation	<b>Expand and enhance active transportation travel options.</b> (drawn from <a href="#">2050 MVRTP priorities</a> ; <a href="#">Denver Regional Active Transportation Plan</a> ; & <a href="#">Metro Vision objectives 10 &amp; 13</a> ) Examples of Project Elements: shared use paths, sidewalks, regional trails, grade separations, etc.	
<b>Items marked with an asterisk (*) below are available in the DRCOG Data Tool.</b>		
<ul style="list-style-type: none"> <li>Does this project close a gap or extend a facility on a <a href="#">Regional Active Transportation Corridor</a> or locally-defined priority corridor?*</li> <li> <input checked="" type="checkbox"/> Yes           <input type="checkbox"/> No         </li> <li>Does this project improve pedestrian accessibility and connectivity in a <a href="#">pedestrian focus area</a>?*</li> <li> <input checked="" type="checkbox"/> Yes           <input type="checkbox"/> No         </li> <li>Does this project improve active transportation choices in a <a href="#">short trip opportunity zone</a>?*</li> <li> <input checked="" type="checkbox"/> Yes           <input type="checkbox"/> No         </li> <li>Does this project include a high-comfort bikeway (like a sidepath, shared-use path, separated bike lane, bicycle boulevard)?</li> <li> <input checked="" type="checkbox"/> Yes           <input type="checkbox"/> No           If yes, please describe in your response. Dedicated bike lanes.         </li> </ul>		
<b>Bicycle Use</b> <i>NOTE: if constructing a new facility, report bike usage along closest existing alternative route</i> <b>To update the formulas below, enter your information, highlight the formulas (or Ctrl-A), and press F9. OR close and reopen the file.</b>		
1. Current Average Single Weekday Bicyclists:	NA	
Bicycle Use Calculations	Year of Opening	2050 Weekday Estimate
2. Enter estimated additional average weekday one-way bicycle trips on the facility after project is completed.	NA	NA
3. Enter number of the bicycle trips (in #2 above) that will be diverting from a different bicycling route. (Example: {#2 X 50%} or other percent, if justified on line 10 below)	NA	NA
4. = Initial number of new bicycle trips from project (#2 – #3)	0	0
5. Enter number of the new trips produced (from #4 above) that are replacing a trip made by another non-SOV mode (bus, carpool, vanpool, walking, etc.). (Example: {#4 X 30%} or other percent, if justified on line 10 below)	NA	NA
6. = Number of SOV trips reduced per day (#4 - #5)	0.00	0.00
7. Enter the value of {#6 x 2 miles}. (= the VMT reduced per day) (Values other than 2 miles must be justified by sponsor on line 10 below)	NA	NA
8. = Number of pounds GHG emissions reduced (#7 x 0.95 lbs.)	0.00	0.00
9. If values would be distinctly greater for weekends, describe the magnitude of difference:  Click or tap here to enter text.		
10. If different values other than the suggested are used, please explain here:  Click or tap here to enter text.		
<b>Pedestrian Use</b> <i>NOTE: if constructing a new facility, report pedestrian usage along closest existing alternative route</i> <b>To update the formulas below, enter your information, highlight the formulas (or Ctrl-A), and press F9. OR close and reopen the file.</b>		
1. Current Average Single Weekday Pedestrians (including users of non-pedaled devices such as scooters and wheelchairs):	NA	
Pedestrian Use Calculations	Year of Opening	2050 Weekday Estimate
2. Enter estimated additional average weekday pedestrian one-way trips on the facility after project is completed	NA	NA
3. Enter number of the new pedestrian trips (in #2 above) that will be diverting from a different walking route (Example: {#2 X 50%} or other percent, if justified on line 10 below)	NA	NA
4. = Number of new trips from project (#2 – #3)	0	0
5. Enter number of the new trips produced (from #4 above) that are replacing a trip made by another non-SOV mode (bus, carpool, vanpool, bike, etc.). (Example: {#4 X 30%} or other percent, if justified on line 10 below)	NA	NA
6. = Number of SOV trips reduced per day (#4 - #5)	0.00	0.00
7. Enter the value of {#6 x .4 miles}. (= the VMT reduced per day) (Values other than .4 miles must be justified by sponsor on line 10 below)	NA	NA

8.	= Number of pounds GHG emissions reduced (#7 x 0.95 lbs.)	0.00	0.00
9.	If values would be distinctly greater for weekends, describe the magnitude of difference:  Click or tap here to enter text.		
10.	If different values other than the suggested are used, please explain here: Click or tap here to enter text.		

Question: Describe how this project helps expand the active transportation network, closes gaps, improves comfort, and/or improves connections to key destinations, particularly improvements in line with the recommendations in the [Denver Regional Active Transportation Plan](#). Please include quantitative information, including any items referenced above, in your response.

Project would provide pedestrian and bicyclist data for upgraded corridor to evaluate transit and environmental improvements in an accurate manner without conducting an official study period.

D. Financial Leveraging		WEIGHT	5%
What percent of outside funding sources (non-federal funds) does this project have? <i>(Match percentage will automatically calculate based on values entered in the Funding Request table. If this has not updated, select the box to the right and click F9.)</i> [*includes 100% eligible projects with no match]	Enter score:	36%+ outside funding sources .....	5
		31 - 35.9%.....	4
		26 - 30.9%.....	3
		21 - 25.9%.....	2
		17.21 - 20.9%*.....	1
		17.21%.....	0
21.0%			
E. Project Readiness		WEIGHT	15%
<i>Provide responses to the following items to demonstrate the readiness of the project. DRCOG is prioritizing those projects that have a higher likelihood to move forward in a timely manner and are less likely to experience a delay.</i>			
<b>Subsection 1. Avoiding Pitfalls and Roadblocks</b>			
a. Has a licensed engineer (CDOT, consultant, local agency, etc.) reviewed the impact the proposed project will have on utilities, railroads, ROW, historic and environmental resources, etc. and have those impacts and pitfalls been mitigated as much as possible to date before this submittal?  <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A (for projects which do not require engineering services) If yes, please type in the engineer's name below which certifies their review and that impacts have been evaluated and mitigated as much as possible before your application is submitted:  Kyle Haworth, PE  Please describe the status to date on each, including 1) anticipated/known pitfalls/roadblocks, and 2) mitigation activities taken to date: <ul style="list-style-type: none"> <li>Utilities: Known</li> <li>Railroad: Known</li> <li>Right-of-Way: Known</li> <li>Environmental/Historic: Known</li> <li>Other: Click or tap here to enter text.</li> </ul>			
b. Have additional project risks been identified?  <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A  If yes, please provide a brief description of the known risks and planned mitigation activities.  Project is equipment only procurement for existing city facilities. No additional construction is needed as there will be no disturbance to surrounding areas.			
c. Is this application for a single project phase only (i.e., design, environmental, ROW acquisition, construction only, study, equipment purchase, etc.)?  <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  If yes, are the other prerequisite phases complete? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A			
d. Will this project seek a Finding in the Public Interest as part of equipment procurement?  <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  If yes, please provide an explanation of the need for a Finding in the Public Interest. Do not reference specific products trade names.			

Intersections of HWY 66 & Pace and SH 119 & 3<sup>rd</sup> Ave would require FIPI documentation as equipment for city traffic signals is standardized for particular detection equipment for ease of maintenance and knowledge reasons.

- e. Has all required ROW been identified? ☒ Yes ☐ No ☐ N/A

Has all required ROW already been acquired and cleared by CDOT? ☐ Yes ☐ No ☒ N/A

Is existing equipment within ROW? ☒ Yes ☐ No ☐ N/A

Will subsurface utility engineering be a factor in this project? ☐ Yes ☒ No

Has subsurface utility engineering been accounted for in the project scoping, phasing and estimate? ☐ Yes ☐ No ☒ N/A

- f. Based on the current status provided in Project Information, question 11, do you foresee being able to execute your IGA by October 1 of your first year of funding (or if requesting first year funding, beginning discussions on your IGA as soon as possible), so you can begin your project on time?

☒ Yes ☐ No

Does your agency have the appropriate staff available to work on this project? ☒ Yes ☐ No

If yes, are they knowledgeable with the federal-aid process? ☒ Yes ☐ No ☐ N/A

- g. Have other stakeholders in your project been identified and involved in project development?

☐ Yes ☒ No ☐ N/A

If yes, who are the stakeholders?

[Click or tap here to enter text.](#)

Please provide any additional details on any of the items in Subsection 1, if applicable.

[Click or tap here to enter text.](#)

### Subsection 2. Local Match Availability

- a. Is all the local match identified in your application currently available and not contingent on any additional decisions, and if a partnering agency is also committing match, do you have a commitment letter?

☒ Yes ☐ No

Please describe:

[Funding will be provided under existing budgets and will become earmarked upon project selection](#)

- b. Is all funding for this project currently identified in the sponsor agency's Capital Improvement Program (CIP)?

☐ Yes ☒ No

Please describe:

[Project is dependent of additional funding. Upon approval of grant, the funds would be readily available.](#)

### Subsection 3. Systems Engineering Analysis Documentation

Systems Engineering Analysis (SEA) is a federally required process for deployment of transportation technology projects using funds from the Highway Trust Fund. CDOT established and administers a formal [SEA process](#) for transportation technology projects in the state, including local agency projects.

Please complete at least the first seven sections of the required [SEA-Local Agency Template](#). Submit the completed form with this application.

**Submit completed applications to [jluor@drcog.org](mailto:jluor@drcog.org) no later than 5pm on July 7, 2023.**

Prior to submitting, press Ctrl+A to select all, then press F9 to update all formulas. You can then print to PDF.



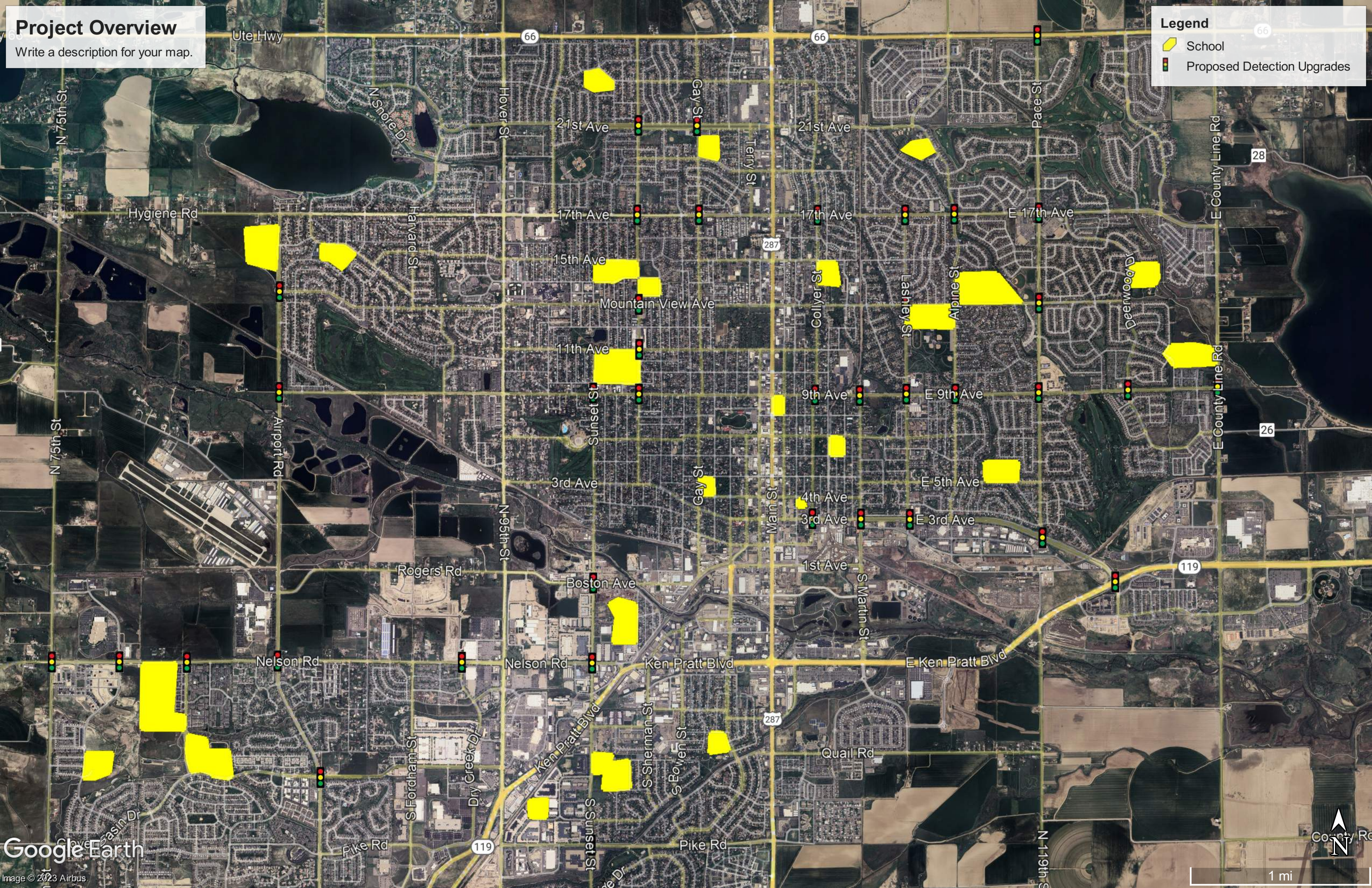
# Project Overview

Write a description for your map.

Legend

School

Proposed Detection Upgrades





## COLORADO DEPARTMENT OF TRANSPORTATION

Project Cost Estimate      \$2,000,000

Completed by:                      FY 2025

Project No:

Date of Estimate:                  July 7th 2023

Estimated Date of Advertisement:      Jun-24

Right of Way	\$	-
Utilities	\$	-
Design	\$	-
Environmental	\$	-
Miscellaneous	\$	-
Construction	\$	2,000,000

TOTAL PROJECT COST ESTIMATE	\$	2,000,000
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Note: Please view the information in the specific tab below for details on the cost estimate for each area of the project. Fill out the PCE-Total tab and any phase tab that you are requesting reimbursement for. You can change personnel titles, add personnel and adjust the wages for anticipated wage rates.

## COLORADO DEPARTMENT OF TRANSPORTATION

### Project Cost Estimate

Completed by:

Project No:

Date of Estimate:

Estimated Date of Advertisement:

#### Construction

Personnel Classification	Est. Hours	Wage	Total
Prin/Non-President		\$61.10	\$0
Project Manager		\$46.37	\$0
Senior Engineer		\$45.98	\$0
Project Engineer		\$36.64	\$0
Eng. Intern. II		\$24.42	\$0
Planner		\$44.87	\$0
			\$0
Inflation (use 3% in this example):		3.00%	\$0
		SUBTOTAL	\$0
Multiplier (including Fixed Fee)		2.85	\$0
ODC (0.5 - 1.5%)		1.00%	\$0
		SUBTOTAL	\$0
ROR (5-10%)		5.00%	\$0







**Requirement:** The [systems engineering analysis \(SEA\)](#) process is required per [23 CFR 940](#). The SEA is the project delivery process for the technology element of the project. If the project does not have technology, the project still needs documentation that the scope was evaluated and no additional SEA documentation is required beyond section two of this form. As a matter of policy, CDOT has committed to following the intent and requirements of the SEA process for all transportation projects, regardless whether the project is state or federally funded.

**Purpose:** The SEA is intended to help design a robust and sustainable technology system. The SEA prompts discussions during design with stakeholders and is intended to document those critical discussions. Since technology does require maintenance and has relatively short life cycles, the SEA also helps projects plan for how to keep the system maintained and operating after construction is completed.

**Who is responsible:** The local agency will be required to complete this form. This form shall be submitted to CDOT a minimum of two weeks prior to the FOR meeting. It must be reviewed and approved prior to receiving CDOT Concurrence to Advertise for construction. The ITS & Network Services Branch needs at least two weeks to review documents.

Section 1 - Project Overview
<p>1.1 Local Public Agency Project Manager and Contact Information</p> <p>Kyle Haworth Traffic Engineering Administrator <a href="mailto:Kyle.Haworth@Longmontcolorado.gov">Kyle.Haworth@Longmontcolorado.gov</a> 303-651-7837</p>
<p>1.2 Consultant Project Manager and Contact Information ( <input checked="" type="checkbox"/> x N/A)</p>
<p>1.3 CDOT Project Manager and Contact Information</p>
<p>1.4 Project Location, Route Beginning and Ending MM, or Nearest Intersection</p> <p>Intersections of HWY 66 &amp; Pace St and SH 119 &amp; 3<sup>rd</sup> Ave</p>
<p>1.5 Project Description, Title, and Type of Work – This should include identification of the problem and the purpose of the project</p>



1.6 CDOT Project Number and Sub Account Code	
N/A	
1.7 Federal-Aid <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
1.8 Is the project within CDOT's Right of Way (ROW)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
1.9 Funding and Source of Each (Including State and Federal)	
City of Longmont SS4A Grant (Federal)	
1.10 Fiscal Year of Funding:	FY 24-25

Section 2 - SEA Required?	
Federal Requirement: 23 CFR 940.11 Project Implementation	
<b>2.1 Are there any technology elements included in the scope of the project?</b>	
<p>The <a href="#">National Regulation (23 CFR 940)</a> defines ITS as “electronics, communications, or information processing used singly or in combination to improve the efficiency or safety of a surface transportation system.” An ITS project is “any project that in whole or in part funds the acquisition of technologies or systems of technologies that provide or significantly contribute to the provision of one or more ITS user services as defined in the National ITS Architecture.”</p> <p>Technology includes any type of device or system that is used to improve the roadways. This could include, but is not limited to, intelligent transportation systems devices. Examples are CCTV, DMS, VTMS, VSL, wrong way detection, RWIS, connected vehicles, <a href="#">non-traditional signals</a> (click on link to understand which signals projects require an SEA), on board equipment in vehicles, and anything that has to be communicated to ATMS or other traffic management systems. Additionally, creating or modifying systems and software that impacts the roadway is included in the SEA classification. If there is still confusion on what is classified as technology, please reach out to the ITS &amp; Network Services Branch.</p>	



☒ Yes ☐ No

If the answer to 2.1 is “**yes**” then a **SEA is required**.

If the answer to 2.1 is “**no**” then a **SEA is not required** and the rest of this form does not need to be completed, but Sections 1 and 2 will need to be submitted for documentation purposes.

## 2.2 Which SEA process should be followed?

☐ Yes ☒ No Will the system be owned, operated, or maintained by CDOT?

☐ Yes ☒ No Does the project involve CDOT technology assets?

☐ Yes ☒ No Will the project connect to the CDOT network?

☒ Yes ☐ No Will the project be on CDOT right of way?

☐ Yes ☒ No Does the project involve multiple municipalities?

If “**yes**” is selected for any of the above questions, then the [Robust SEA Process](#) needs to be followed and this form is no longer applicable.

If “**no**” is selected for all questions, then completing this entire form will fulfill the [23 CFR 940](#) requirements for local agency projects only.

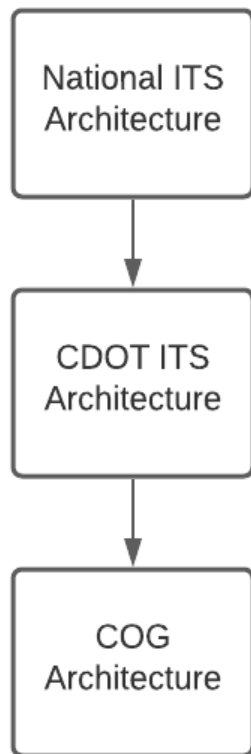
## Section 3 - ITS Architecture Conformance

Federal Requirement: 23 CFR 940.11(c)(1) - “Identification of portions of the regional ITS architecture being implemented (or if a regional ITS architecture does not exist, the applicable portions of the National ITS Architecture)”

Per [23 CFR 940](#), every project has to comply with an ITS Architecture Plan. For background information, there is a [National ITS Architecture Plan](#) that is maintained by FHWA. The National Architecture Plan consists of Service Packages that identifies a problem that needs to be solved or a certain application of a technology. A service package states the basic requirements the project must achieve to create consistency. CDOT is then required to select the service packages from the National ITS Architecture Plan that will assist in fulfilling CDOT’s technology vision and make them CDOT specific. From there the local Council of Governments (COG’s) have to make their ITS Architectures as well. The local agencies should



use the COG's architecture plan if one exists. If one does not, the CDOT Architecture Plan should be followed.



Service packages are critical to identify as part of compiling required SEA documentation. Service packages focus on how the technology is being used rather than specific devices. For example, there is no Dynamic Message Sign (DMS) service package. It will be critical to understand the intent of use for the DMS in order to determine the applicable service package(s). A DMS could fall within the TM06 Traffic Information Dissemination if the intent is to provide drivers with information. If a DMS is being installed as part of a tunnel, then it could fall under TM24 Tunnel Management. The key is focusing on what application the DMS is being used in. It is possible for a project to fall within multiple service packages. Please reach out to the ITS & Network Services Branch with any questions.

3.1 Which architecture plan will be used?

- ☐ National ITS Architecture ☒ CDOT ITS Architecture
- ☐ COG

3.2 If using a COG/MPO/TPR Architecture Plan, what COG? N/A for using the National or CDOT Architecture Plan.

3.3 List service packages that will be implemented on this project:

- 1.
- 2.



To add additional service packages click in the line item 2 box and hit enter.

#### Section 4 - Procurement

Federal Requirement: 23 CFR 940.11(c)(5) Procurement options

4.1 State the procurement method for the project.

☐ Competitively Bid

☒ Sole Source

4.2 If 4.1 is competitively bid, then what kind is the project delivery method?

☐ Design, Bid, Build

☐ Design Build

☐ Construction Manager/General Contractor

☐ Other (Please specify) \_\_\_\_\_

#### Section 5 - Alternative Analysis

Federal Requirement: 23 CFR 940.11(c)(4) - Analysis of alternative system configurations and technology options to meet requirements

Instructions: Document alternatives considered. When thinking of alternatives it is important to consider maintenance resources and costs into the selected alternative. An alternative can also include not implementing the project. More rows can be added as needed.

Alternative Title	Alternative Description	Selected (Yes/No)	Reason
Completely bid general detection systems	Issue RFP for traffic signal detection systems.	No	Longmont currently has standardized equipment to be used at traffic signals as city staff is knowledgeable and familiar with the system and operation of equipment. Alternatives would require extensive training and degradation of city network as other systems will not integrate natively.



To add additional rows, right click on a row, select "insert", select "row below"

Section 6 - Roles & Responsibilities				
Federal Requirement: 23 CFR 940.11(c)(2) - Identification of participating agencies roles and responsibilities				
Instructions: Determine roles and responsibilities of the proposed technology system throughout the entire life cycle. More rows can be added as needed.				
Agency	Role/Position	Contact Info	Phase*	Responsibility
City of Longmont	Project Manager	Kyle.Haworth@Longmontcolorado.gov	Procurement and installation	Procurement and Installation

\*Phase: Design, Construction, Operations

To add additional rows, right click on a row, select "insert", select "row below"

Section 7 - Requirements & Corresponding Standards	
Federal Requirement: 23 CFR 940.11(c)(3) Requirements definitions and 23 CFR 940.11(c)(6) Identification of applicable ITS standards and testing procedures	
Instructions: Determine the functional requirements of the system and how these requirements will be implemented. Implementation could be specifications or included in the general design of the system. More rows can be added as needed.	
Functional Requirement	How is the requirement included in the project? Spec, plan set, etc
Procurement Options	Spec



Procedures and resources necessary for operations and management of the system	Longmont Standards for Traffic Signal Equipment

To add additional rows, right click on a row, select "insert", select "row below"

Section 8 - Devices & System				
Federal Requirement: 23 CFR 940.11(c)(6) Identification of applicable ITS standards and testing procedures and 23 CFR 940.11(c)(7) Procedures and resources necessary for operations and management of the system				
8.1 Is a list or a map with all of the proposed devices attached? <input type="checkbox"/> Yes <input type="checkbox"/> No				
8.2 Determine how each device type installed or modified on the project will be specified, tested, and operation of the devices documented. If the project is a whole system, then there may need to be a system wide test as well to ensure all devices are working together properly. More rows can be added as needed.				
Device and system type included in project	Is there a supporting specification(s)? If yes, give specification title.	Is there a supporting test document? If yes, give testing procedure title.	Is this device documented in a Standard Operating Procedure (SOP) Document? If yes, give SOP title.	Is this device documented in a Maintenance Plan document? If Yes, give maintenance plan title.
FLIR Trafisense AI	FLIR ITS Infrastructure Datasheet	FLIR ITS Infrastructure Datasheet	FLIR ITS Infrastructure Datasheet	Longmont Standards for Traffic Signal Equipment

To add additional rows, right click on a row, select "insert", select "row below"





### Section 9 - FHWA Involvement

9.1 Has FHWA classified this project as a Project of Division Involvement (PODI) and requires involvement in the review of SEA documents?

☐ Yes      ☒ No

### Section 10 - Schedule

10.1 Design Start Date:

10.2 AD date:

10.3 Construction Start:      8/2024

10.4 Construction completion:      10/2025

10.5 Relationship to other Federal, State, and local projects and phases. Tip: Does this project depend on another project to operate successfully? Is this project one of a series or projects for a phased approach?

Dependent on selection of SS4A grant.

# Bicycle and Pedestrian Improvements

This calculator will estimate the reduction in emissions resulting from improvements to bicycle and pedestrian infrastructure and associated mode shift from passenger vehicles to bicycling or walking, including but not limited to sidewalks, dedicated bicycle infrastructure, improved wayfinding, mid-block crossing installations, bike share systems, and bike parking improvements.

## Navigator

### Bicycle and Pedestrian Improvements

## INPUT

(1) What is your project evaluation year?

(2) Estimate the shift in daily motorized passenger vehicle trips to non-motorized travel due to the bicycle and pedestrian project.

#### Daily Passenger Vehicle Trips

Before	After	Change
<input type="text" value="60000"/>	<input type="text" value="59000"/>	<input type="text" value="1000"/>

(3a) Select the data type used for entering the typical one-way trip distance of passenger vehicles below:

#### Trip Distance Source

(3b) If you selected "Average" above, enter the typical one-way trip distance. If you selected "Distribution" above, enter the typical distribution of one-way trip distances.

Typical Trip Distance  
(miles one way)

#### Distribution of Trip Distances (daily fraction per mileage bin)

x < 1	1 ≤ x < 2	2 ≤ x < 3	3 ≤ x < 4	4 ≤ x ≤ 5	Sum
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

## OUTPUT

### EMISSION REDUCTIONS

Pollutant	Total
Carbon Monoxide (CO)	6.819
Particulate Matter <2.5 μm (PM <sub>2.5</sub> )	0.021
Particulate Matter <10 μm (PM <sub>10</sub> )	0.092
Nitrogen Oxide (NOx)	0.367
Volatile Organic Compounds (VOC)	0.255
Carbon Dioxide (CO <sub>2</sub> )	745.743
Carbon Dioxide Equivalent (CO <sub>2</sub> e)	749.752
Total Energy Consumption (MMBTU/day)	10.075

\*Units in kg/day unless otherwise noted