



US 50 and CO 231 (36th Lane) Intersection Improvements

► What is the purpose of this project?

The purpose of the evaluation was to improve safety by increasing sight distance and reducing crossing distance to allow for safe motorist crossing of US 50 and to improve overall pedestrian and motorist safety near schools on US 50 Business and CO 231 (36th Lane). The study included an analysis of the intersection against Federal and State guidelines included in the Manual of Uniform Traffic Control Devices (MUTCD) criteria for signal warrants. These included:

- Analysis of the safety performance of the intersection
- Analysis of the operational performance of the intersection
- Cost-effective countermeasures to address identified problems
- Provide guidance on how to reduce severe crash occurrences

This traffic study looked at two separate buckets of information:

Operational considerations

- The volume of traffic during peak periods and non-peak periods
- Geometry of the intersections
- Placement of signage and types of signage
- Speed limits in the affected area
- Existing roadway pavement marking

Safety considerations

- Crash-type data
- Directions of travel
- Road conditions
- Time of day
- Behavioral attributes of drivers

► What intersections are being evaluated?

The Colorado Department of Transportation (CDOT) has been evaluating intersection improvements at both US 50 and CO 231 (36th Lane) and at US 50 Business and CO 231 (36th Lane).

► What types of safety improvements are planned?

Based on this study and at the recommendations of the engineers, the new improvements will not include a signal. The following improvements will be made to enhance safety at both intersections:

US 50 & CO 231 (36th Lane) Improvements

- Moving the eastbound right turn lane on US 50 further south into the shoulder by grading to adjust the eastbound approach right turn deceleration lane.
- Installation of an intersection conflict warning system on US 50 and on CO 231 (36th Lane). The system recognizes approaching traffic and illuminates the warning signs alerting motorists of approaching vehicles to the intersection on both US 50 and on CO 231 (36th Lane).
- Moving the stop line of CO 231 (36th Lane) at US 50 up to the eastbound lane of travel so the right turn lane will not impact the view of motorists trying to cross the intersection. This will also reduce the crossing distance for northbound left turning vehicles.





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- Installation of raised islands that allow the stop line to be moved up and improves sight distance when crossing the intersection.

US 50 Business & CO 231 (36th Lane) Improvements

- Moving the stop line of CO 231 (36th Lane) at US 50 Business up to the travel lanes of US 50 Business to reduce the crossing distance for northbound and southbound left turning vehicles.
- Installation of raised islands that allow the stop line to be moved up and improves sight distance when crossing the intersection.

► Have some of these improvements already been initiated?

Yes. While CDOT was awaiting the intersection study result, the following improvements have already been made:

- Reduced speed limit approaching the intersection on US 50 Business and CO 231 (36th Lane)
- Repositioned existing signage to improve sight distance at both intersections
- Advanced guide signs were relocated ¼ mile before the US 50 and CO 231 (36th Lane) intersection
- Updated and replaced pedestrian signs at US 50 Business and CO 231 (36th Lane) and added a rapid flashing beacon sign to alert motorists of pedestrians

► Why isn't a traffic signal being installed at both intersections?

After an extensive study was completed at each intersection, the engineer's recommendations include the intersection improvements listed above instead of installing a signal. In the study, the safety of these intersections did not warrant a signal installation. Of the many warrants for a signal, only one was met at US 50 and that was for the operations of the signal. This showed the intersection could benefit from reduced wait times at the intersection if a signal was installed.

A signal can help reduce the number of angled collisions at an intersection but can increase other types of crashes. Specifically rear-end collisions are increased when installing a signal. In this instance, a signal at this intersection likely would cause an overall deterioration in safety at the intersection. Traffic engineers do a risk-benefit analysis as part of determining whether to install a traffic signal. They weigh both the advantages and disadvantages of traffic signals, and at this intersection it was determined that a signal would decrease the overall safety of the intersection.

► What is a Conflict Warning System?

Intersection conflict warning systems (ICWSs) are used to warn drivers on the through road of the presence of traffic at stop-controlled cross streets and to warn drivers at stop-controlled approaches of the presence of traffic on the through lanes. According to the Federal Highway Administration, ICWS can reduce severe crashes at intersections by 20% to 30%.

► How is stakeholder input being incorporated and how can I get involved?

CDOT invites the public to attend an in-person open house to go over the proposed safety improvements at each intersection. If you are unable to attend, the information presented at this event will be available on the project website. There will also be digital surveys to provide your input to the project team. Those links can also be found on the project website and below.

The in-person open house will be held on March 7, 2023 at Vineland Middle School, 1132 36th Lane, Pueblo, CO 81006 from 5:00 PM to 7:00 PM. More information regarding this event can be found on the project website.

Participation for the online virtual open house will run from March 7, 2023 to March 21, 2023. The project team will gather any input from the virtual open house and respond to all questions and comments after March 21, 2023.





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▶ How much is the project going to cost and where is the funding coming from?

At this time, we are currently at the public input stage and CDOT has begun to design the improvements. More information will be available as the project moves closer to completion.

▶ How will you keep us informed?

The project team is available for any additional questions or input you might have. Your input is important to CDOT. All interested community members should keep up to date on the project in one of the following ways:

- **Project Website:** www.codot.gov/projects/us50-co231-intersection-improvements
- **Project Email:** us50intersectionimprovements@gmail.com
- **Project Hotline:** 719-691-7106
- **Digital Online Survey for Input:** <https://forms.office.com/r/Y92rQD1q2n>

