



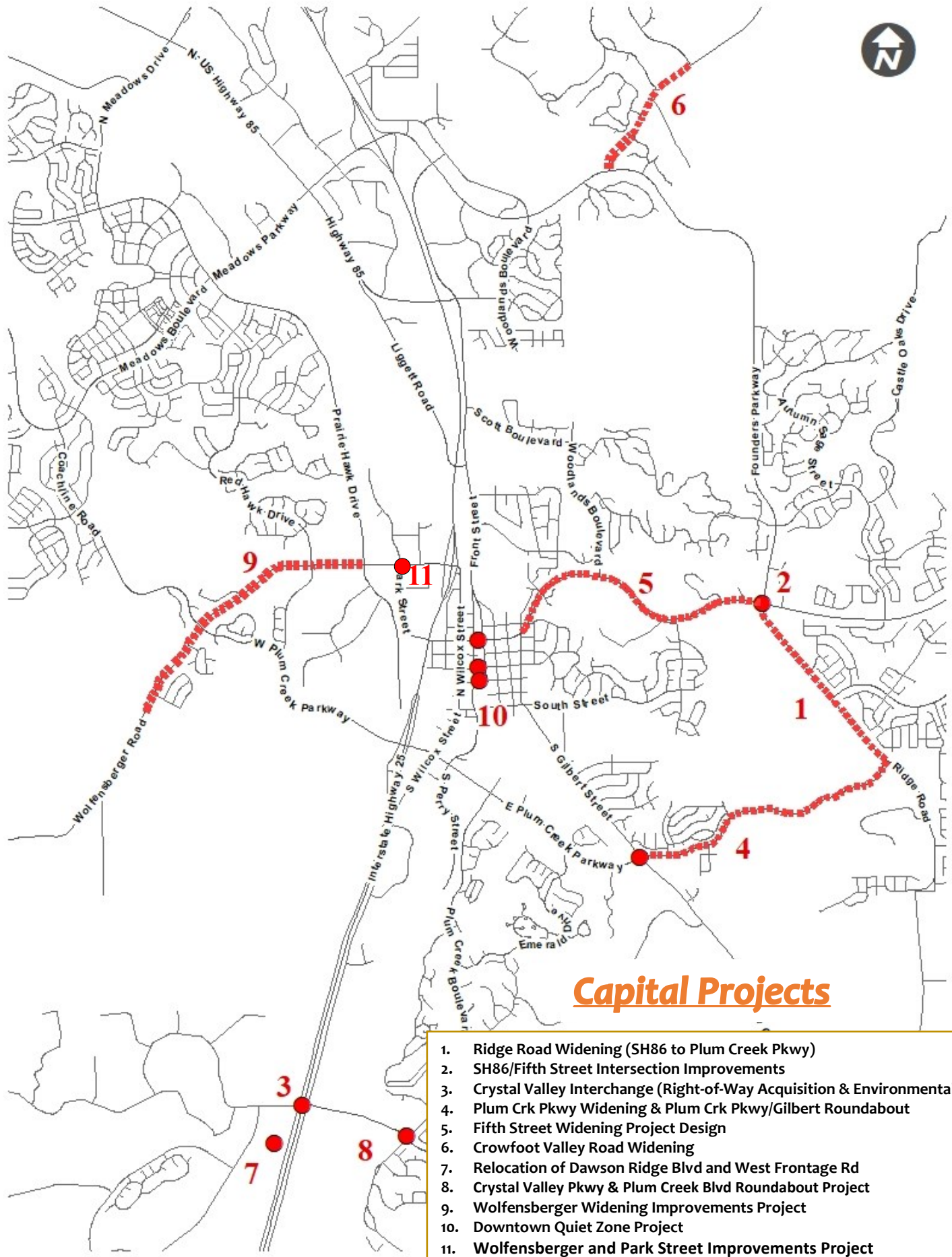
# Monthly Report

January 2023

The Public Works Department operates under the **CAN DO** philosophy – We are committed to doing the job right with a positive attitude while staying dedicated to meeting the needs of our Town values and continually searching for opportunities to improve.

**PW Mission:** To provide outstanding service, safety and support for transportation infrastructure and maintenance.





## Capital Projects

1. Ridge Road Widening (SH86 to Plum Creek Pkwy)
2. SH86/Fifth Street Intersection Improvements
3. Crystal Valley Interchange (Right-of-Way Acquisition & Environmental/design)
4. Plum Crk Pkwy Widening & Plum Crk Pkwy/Gilbert Roundabout
5. Fifth Street Widening Project Design
6. Crowfoot Valley Road Widening
7. Relocation of Dawson Ridge Blvd and West Frontage Rd
8. Crystal Valley Pkwy & Plum Creek Blvd Roundabout Project
9. Wolfensberger Widening Improvements Project
10. Downtown Quiet Zone Project
11. Wolfensberger and Park Street Improvements Project

1. **Ridge Road Widening** – Ridge Road will be widened from two to four lanes between the Founders Parkway (SH86)/Fifth Street/Ridge Road intersection and Plum Creek Parkway. The goal is to reduce traffic congestion on the Ridge Road corridor.

**Phase: Construction**

- Continue to maintain TESC BMPs
- Winter *Shutdown*

**Budget:** \$5,225,000

**ROW Acquisition:** A valuation hearing for the Bertelsen property is scheduled for March 2023

**Targeted Construction Completion:** Spring 2023

2. **Founders Parkway (SH86)/Fifth Street Intersection “Four Corners” Improvements** – With new traffic studies submitted, the consultant will investigate multiple alternatives to address safety concerns and capacity issues at the intersection. Improvements under evaluation include:

- Intersection will remain a full movement four-way intersection. Additional turn lanes and acceleration lanes will be added.
- Traffic signal improvements will be made to incorporate the larger intersection.
- Pedestrian and bicycle improvements will be constructed on all four sides of the project.
- Stormwater detention and water quality improvements will be constructed to capture the additional surface volume from the new intersection.

**Phase:** Design— David Evans & Associates (DEA) is the design consultant for this project. The following is a summary of the activities performed this month:

- DEA delivered bid package to CDOT for review
- Once revisions are received from CDOT, set will be sent to FHWA
- Awaiting lien release on Haddad property to complete ROW acquisitions
- All utility relocations have been completed, protect in place is all that remains for dry utilities
- Consultant for Construction Management Services was approved by Town Council, RockSol consulting will provide services
- Working on long lead item submittal for signal poles due to 9-month lead time

**Budget:** \$1,275,676, with DRCOG Grant Reimbursement

**Targeted Construction Completion:** Winter 2023-2024

3. **Crystal Valley Interchange – Pre-construction Activities** – The purpose of this project is to achieve acquisition of remaining right-of-way, complete design, and set aside future project funding allowing potential funding partnerships to assist with advancing construction.

**Phase:** Right-of Way Acquisition

- West Side of I-25 – The Town will begin the Notice of Intent (NOI) process and make offer to the new owners of all remaining parcels to be acquired; Westside Investments has purchased all remaining parcels to be acquired from Douglas County Development Company and the MSP Corporation

- East Side of I-25 – NOI has been sent to the Hyperion Property owner; the Town has completed the full take appraisal of the Hyperion property; Hyperion property owner is electing to have an appraisal done; ownership of the Dawson Ridge Metro District parcel has been transferred to the Douglas County Development Company; Town is in the process of preparing a NOI and offer

**Phase:** Design— Interchange Access Request and Environmental Assessment Reevaluation, and Design

- Transportation demand managements letter to be sent to CDOT Director for signature/approval
- Design firm continues working on design for package 1 and for package 2
- Environmental/NEPA – CDOT staff plan to approach CDOT Executives first part of February
- Construction management services contract to be entered into in February
- Maintenance agreement with CDOT draft submitted for Town review – still pending drainage/water quality items. Town is developing comments.

**Budget:** \$6,500,000, and Development Escrow

**Design Completion:** Summer 2023

**Targeted Construction Completion:** Summer 2025

4. **Plum Creek Parkway Widening and Plum Creek Parkway/Gilbert Street Roundabout Project** – This project will implement the Transportation Master Plan’s identified improvements for this corridor. The addition of the remaining two lanes of the master planned four-lane roadway on Plum Creek Parkway between Eaton Street and Ridge Road. Not only will it include the addition of two lanes, but also bicycle and pedestrian multi use lanes. It will also include roundabout modifications at Ridge Road. The improvement has been broken out into three phases in order to meet the department’s objectives. Phase 1A included portions of storm sewer improvements between Gilbert and Eaton. Phase 1B includes all roadway/utility/pedestrian access improvements between Gilbert and Eaton, including the implementation of roundabouts at the intersections of Gilbert and Eaton. Phase 2 includes all roadway/utility/pedestrian access improvements between Eaton and Ridge Road.

**Phase 1B: Plum Creek Pkwy Widening and Roundabouts Gilbert to Eaton):**

**Construction Budget:** \$7,507,723

**Completion:** Complete

**Plum Creek Parkway Widening Phase 2** – This project will implement the Transportation Master Plan’s identified improvements for this corridor. The addition of the remaining two lanes of the master planned four-lane roadway on Plum Creek Parkway between Eaton Street and Ridge Road. Not only will it include the addition of 2 lanes, but also bicycle and pedestrian multi use lanes. It will also include roundabout modifications at Ridge Road.

**Phase 2: Plum Creek Pkwy Widening (Eaton to Ridge): Construction** – The following is a summary of design activities performed this month:



- Continued installation of the block retaining wall
- Continue the maintenance of erosion control
- Continued the installation of headwall for storm drain
- Completed the relocation of utilities
- Continued installation of conduit for street lighting

**Budget:** \$7,530,000

**Targeted Construction Completion:** Fall 2023

5. **Fifth Street Widening Project Design** – Fifth Street is a major arterial connecting local and regional travel between the easterly portions of Town and I-25. Roadway and pedestrian improvements for Fifth Street have been identified within the 2017 Transportation Master Plan (TMP) that will maintain adequate capacity and ensure efficient road network connections for future development.

The Fifth Street Widening project will complete all design elements for implementation of the full build-out transportation network from South Gilbert Street to Ridge Road as identified in the TMP. The improvements include:

- Widen to 4-lanes from Woodlands Boulevard to Ridge Road
- Add on-street bike lanes between Gilbert Street and Ridge Road
- Add sidewalks from Sixth Street to Ridge Road
- Roundabout and signal light construction at Woodlands Boulevard and Valley Drive respectively.

**Phase:** Design

- Completed 90%/FOR design

**Budget:** \$1,500,000

**Design Completion:** February 2023

**Right-of-way acquisition:** Fall 2023

**Targeted Construction Completion:** 2024-2025

6. **Crowfoot Valley Road Widening** – Crowfoot Valley Road will be widened between the Knobcone Drive and Macanta Blvd. Currently, this section of Crowfoot Valley Road is a two lane transition section of asphalt roadway with portions in the Town of Castle Rock and in Douglas County. Recent improvements have been completed at both ends of this project along Crowfoot Valley Road, and the intent of this project is to complete improvements to the “gap” between these improvements. The proposed roadway will be a four-lane section, including painted median/turn lanes, with bike lanes in both directions.

**Phase:** Design—

- Town Council gave direction for project to move forward with completing design of project with left acceleration lanes at non-signalized intersections and wide medians with a vertical element where feasible along with a new traffic signal at Sapphire Pointe Boulevard
- The Town and Douglas County continue to refine the IGA defining County funding contributions for the project
- Town continued refinement of a design “scope of work” to move forward with procurement activities to obtain consultant designer

**Budget:** \$2,500,000 (Town contribution to construction

funding; IGA to be executed with County)

**ROW Acquisition:** Late 2023

**Design Completion:** Fall 2023

**Targeted Construction Completion:** Fall 2024

7. **Relocation of Dawson Ridge Blvd and West Frontage Rd** – The purpose of this project is to relocate the I-25 West Frontage Rd to the west of the BNSF Railroad tracks to provide access to the surrounding neighborhoods and residents after the Crystal Valley Interchange is complete.

**Phase:** Design – CORE Consultants is the design consultant for this project. The following is a summary of the activities performed this month:

- 100% plans are in review process with Town; Bid documents are in review with Town

**Budget:** \$299,000

**Design Completion:** Fall 2022

**Targeted Construction Completion:** Summer of 2025 in conjunction with Crystal Valley Interchange

8. **Crystal Valley Pkwy & Plum Creek Blvd Roundabout Project**

This intersection is a major arterial currently controlled by stop signs in two directions. As the traffic volumes increase and with ongoing residential development and future construction of the new Crystal Valley Interchange, this existing traffic control will not be the most efficient and could contribute toward increased accidents. This project will accomplish the design of a roundabout intersection in order to improve the traffic capacity of the intersection, help to manage speeds along Crystal Valley Parkway, and to accommodate the growth in traffic that is expected to increase once the Crystal Valley Interchange has been constructed. This project is scheduled to be designed by September mid-October 2022, bid in October 2022, and constructed by Summer 2023.

**Phase:** Design

- 100% Complete

**Phase – Construction**

- KNA started the submittal on material documents for long lead items
- Started meeting with dry utilities for utility relocations
- Submitted construction phasing plans
- KNA procured property for material stockpile
- Started initial permitting process for the project

**Budget:** \$3,500,000

**Targeted Construction Completion:** Summer 2023

9. **Wolfensberger Widening Improvements Project**- Wolfensberger Road is a major arterial connection for local and regional travel between the westerly portions of Town and I-25. Roadway and pedestrian improvements for Wolfensberger have been identified within the 2017 Transportation Master Plan (TMP) that will maintain adequate capacity and ensure efficient road network connections for future development.

The Wolfensberger Widening Improvements Project will complete all design elements for the implementation of the

full build out transportation network from the western Town limits to Prairie Hawk Drive.

- Widening roadway to a full 4-lane arterial section
- Addition of sidewalk along both sides of Wolfensberger
- Roundabout construction at Red Hawk/Auburn and Wolfensberger Intersection
- Removal of existing traffic signal
- Storm water drainage improvements
- Implementation of on street bike lanes West/East bound

**Phase:** Planning/Design

- Design survey complete and being compiled
- Ongoing design work with adjacent developers to accommodate and incorporate their ingress/egress into project design
- Design efforts/coordination is under way to possibly utilize developer stormwater infrastructure to avoid ROW acquisition
- Design efforts to utilize existing Town property for stormwater improvements underway
- Utility coordination meetings with CORE and CRW ongoing
- Wall design under way for pedestrian bridge crossing
- SUE investigation 99% complete, compiling into matrix and plan sheets
- 30% Design submittal scheduled for end of April 2023

**Budget:** \$2,500,000

**Design Completion:** October 2023

**Right of Way Acquisition:** 2023

**Targeted Construction Completion:** 2024

- 10. Downtown Quiet Zone Project** - This project is to implement a quiet zone through the downtown Castle Rock area. In order to implement the quiet zone, improvements must be constructed at three railway crossings: Second Street, Third Street and Fifth Street. The scope of the improvements to be constructed with this project include: additional crossing gates, pedestrian crossing improvements, ADA improvements, sign and marking improvements, curb and gutter additions and general railroad (Union Pacific or UP) coordination. The benefits of this project will be improved safety for vehicles and pedestrians and improved quality of life for downtown businesses, residents and patrons.

**Phase:** Construction - The following is a summary of activities performed this month:

- Coordinate construction impacts (closures) with project stakeholders/community
- Performed Union Pacific scope of work to replace track at Second and Third Street
- Provided roadway closures for Union Pacific to perform track improvements
- Widened crossing widths (concrete landings) at Second and Third Street
- Obtained approval for Town's Right-of-Entry permit

**Budget:** \$1,800,000

**Targeted Construction Completion:** Spring 2023

- 11. Wolfensberger and Park Street Improvements Project**- Wolfensberger Road is a major arterial connection for local and regional travel between the westerly portions of Town and I-25. Roadway and pedestrian improvements for Wolfensberger and Park Street have been identified to increase intersection operations and provide better pedestrian access to the Downtown area.

The Wolfensberger and Park Street Improvements Project will complete all design elements for the implementation of pedestrian and transportation improvements.

- Relocate Traffic Signal Pole
- Increase sidewalk width
- Replace existing ADA ramps
- Construct Additional Turn lane on Park Street

**Phase- Planning/Design**

- Design survey complete and being compiled
- ROW plans are being drafted
- Utility coordination meetings with CORE and Comcast ongoing
- SUE investigation to start February 6th
- 90% Design submittal scheduled for end of April 2023

**Budget:** \$600,000

**Design Completion:** April 2023

**Right of Way Acquisition:** April-May 2023

**Construction:** June 2023

**Traffic Signal System Upgrades** – This project is a multi-year signal system upgrade project that began in 2015 and is ongoing as funds are available. The project has included proven technology advances at signalized intersections, for our daily operations, and for communications between the center and each intersection.

- Staff is a part of the CDOT managed, adaptive signal system project that will implement adaptive signal timing on Founders Parkway, and Meadows Parkway, and Factory Shops Boulevard. Eight abutting Town signals will be included in the system. In January, Kimley-Horn resolved CDOT's detection issues, and the system was turned on for brief periods to verify functionality. More regular system operation will be implemented on a more frequent basis when detection is functioning reliably on a regular basis.
- Phase II of the Town's ATSPM project includes software development and signal timing. Traffic signal timing changes on regionally significant roadways were checked in January. A few coordination issues have been determined and timing adjusted. Kimley-Horn is currently checking the new software for bugs and will be updating the Town's software once the bugs are fixed. ATSPM Dashboard will be implemented in February 2023.
- Town Staff have received three new traffic signal cabinets and four new detection systems as part of inventory and replacement maintenance. The last two intersection's new detection orders will be made in 2023 as a part of a five year replacement project. Two sets of inventory detection will be ordered for emergency

maintenance purposes.

**Budget:** \$868,700

**Construction Completion:** End of year 2023

**2023 Safety Projects** – This project includes concrete safety devices in conjunction with the Pavement Maintenance Program, installation of pedestrian crossing beacons at four locations, Intelligent Transportation System on Meadows Blvd to warn drivers of signal changes, intersection safety improvements, and missing sidewalk connections.

- Bidding of the projects occurred in January and the project received four competitive bids
- Public feedback, as well as bid award will occur in February and March.

**Budget:** \$410,000

**Construction Completion:** Winter 2023

**Illuminated Street Name Signs** – 2023 illuminated street name signs have begun the planning and purchase order process for four locations throughout the Town budget depending, including: Founders Pkwy and Copper Cloud, Founders Pkwy and Ridge Road (Four Corners), Wolfensberger and Park St, and Wolfensberger and Caprice.

- CDOT will be re-wiring the entire signal intersection at Meadows Pkwy and Hwy 85. This project will create a power feed for two remaining unlit signs. This project will also bring the street lights currently owned by CDOT into Town operation and maintenance along Meadows Parkway and US-85 north of Meadows Parkway.
- 2022 illuminated street name signs have been purchased and staff are awaiting delivery for five locations across Town, including: Plum Creek Pkwy and Plum Creek Blvd, Plum Creek Pkwy and Perry St, Founders Pkwy and Front St, Wilcox St and I25 northbound, and Wolfensberger and I25 southbound.

**2022 Budget:** \$39,105

**Construction Completion:** Spring 2023

**2023 Budget:** \$60,000

**Construction Completion:** Winter 2023

**Rectangular Rapid Flashing Beacons (RRFB)** – Town staff are currently in the process of selecting four locations budget depending to install RRFBs in 2023. The RRFBs will be installed in locations in which they are the most effective and beneficial to the traveling public. Equipment order will be made by the first week of March.

**2023 Total Safety Budget:** \$90,000

**Construction Completion:** Summer 2023

# Engineering Division

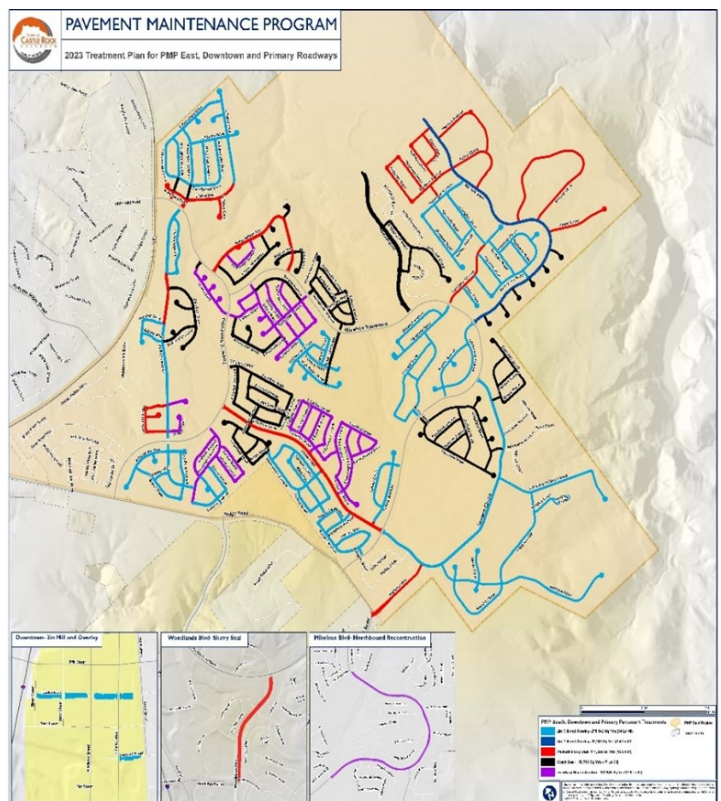
## 2023 Pavement Maintenance Program (PMP)

Five (5) project bid packages were opened January 19. The staff is in the process of evaluating the bids submitted, checking and verifying all bid proposals as well as doing follow up on contractor references. The staff will also begin the process of contract award recommendations.

2023 PMP Contracts under consideration are:

- Asphalt Overlay
- Full Depth Reclamation
- Curb, Gutter and Sidewalk Replacement
- Slurry Seal
- Town Facilities Parking Lot Improvements

The PMP map (shown below) indicates the proposed scheduled treatments for street within the East PMP area and Primary Streets. This map may change based on maintenance treatments and resources available



## 2023 Facilities Parking Lot Improvements Program

The project bid openings were completed on January 19. The staff is in the process of evaluating bid submitted, prior to contract award recommendations. This process includes checking and verifying all bid proposals and contractor references.



Facilities under recommendation for 2023 are:

Founder's Fire Station #153	Gemstone Park Parking Lot
Prairie Hawk Fire Station #154	Ray Waterman Treatment Plant
Wrangler Park Parking Lot	Founder's Treatment Plant
Weaver II Well Field	Bison Park Parking Lot
Butterfield Park (Concrete off Meadows Blvd)	

**2023 Bridge Maintenance Program (BMP)**

The staff is working with a bridge consultant for 2023 Bridge Maintenance and will be supporting the Engineering Department. The consultant has delivered a Bridge Program maintenance schedule for planning, design and maintenance activity recommendations for the Plum Creek Parkway over Sellars Gulch Bridge (CAS PLMCKPW-.1). The staff is working to secure a new service agreement with the contractor. This project is expected to go out for competitive bids in the Spring, with construction beginning late Summer/early Fall.

# Development Division

**Review and Permitting**

**Development Review** - All 33 reviews were completed. No late reviews this month.

**Permitting & Inspection** – 18 right-of-way permits were issued.

# Transportation Planning & Traffic Engineering Division

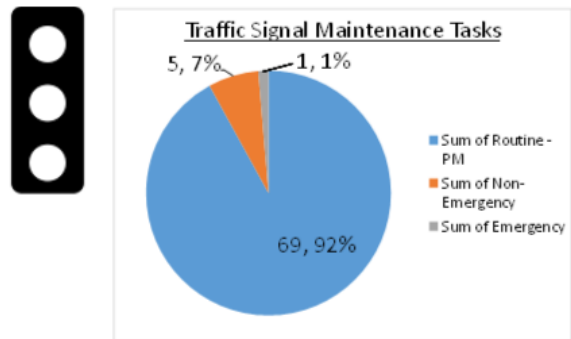
**Taxi Voucher Program**

For the month of January, the Taxi Voucher Program funded 142 rides; which is nearly the same at last year's January total of 141 and a 25% increase from last month's total rides. Transportation services are provided for Castle Rock citizens who cannot drive, have a disability that prevents them from driving, or do not have access to a vehicle. In January, 22 individuals used the Taxi service. Of those individuals, 67% of the rides were for work, 20% for shopping trips, and 13% for medical appointments. Fifty-five rides were provided for people without access to a vehicle, 41 rides to seniors, and 46 rides to disabled riders.

The Castle Rock Senior Center provided 841 rides in January.

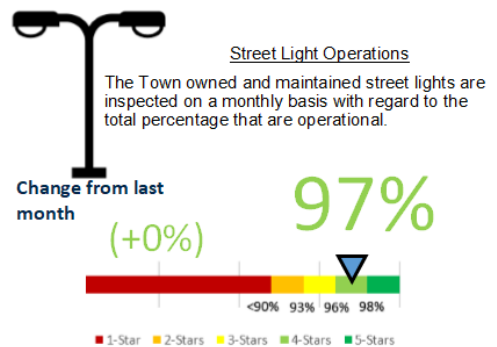
**Traffic Engineering and Operations**

Traffic Signal Operations and Maintenance

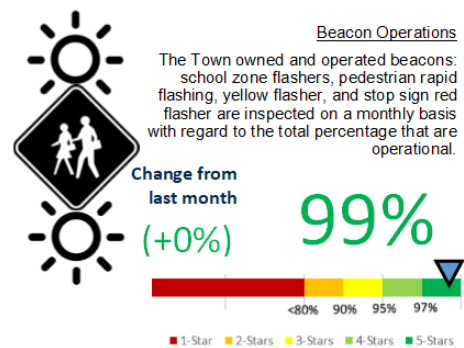


- Most frequently visited signals: Fifth St and Wilcox St

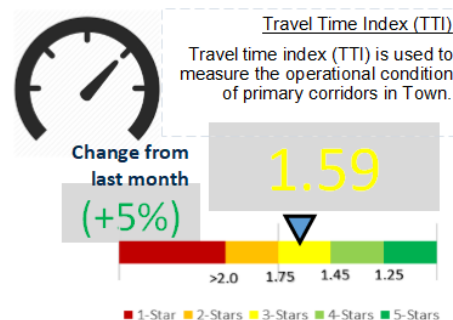
Street Light Operations



Beacon



Operations



## Street Signs and Pavement Marking Maintenance

For the month of January, the team completed 873 tasks. Of these tasks, 563 of them were sign work activities related to fabrication, install, repairs, replacements, inspections and investigations. We had 233 beacon related tasks, including windshield inspections, and repairs. Other tasks included 34 small projects, three delineator projects, one liquor license posting, and 39 admin tasks.

Pavement Maintenance Program East and Downtown Development Authority sign inspections are completed. Repairs and the change out to blue street name signs has begun. The team also supported a couple snow plow events this month.

## Transportation Planning

### Castle Rock Downtown Wayfinding Sign Plan:

The initial public survey closed in early January. There were 126 total respondents that provided feedback on the survey. A summary of the survey responses was provided and is currently under review by the project team. In addition, the consultant AECOM created a recommendations report which will be distributed to the project team for review.

### Neighborhood Traffic Calming Program (NTCP):

The NTCP exists to verify and address quality of life items associated with vehicular traffic on local neighborhood streets and certain residential collector roadways. No new inquiries were received in January. Public Works has not been able to collect speed and volume data for Valley Drive, Black Pine Trail, and N. Meadows due to poor road conditions and snowy weather.

### DRCOG Transportation Improvement Program (TIP):

Town staff completed the Crystal Valley Interchange grant application for the Sub-regional Call #4 in January. Projects will be scored and ranked in February. The Town is still awaiting news on what projects were selected by the Federal Rail Administration for the elimination of at grade crossings grant. Staff is currently working on the 2023 RAISE grant application for Crystal Valley Interchange. Applications are due February 28, 2023.

# Fleet Services

*Keeping Castle Rock on the Move*



As you drive around Castle Rock and see many different departments providing first-class service, you will notice how they rely on their Town-issued vehicles. The Fleet Division takes great pride in knowing that those vehicles are reliable and safe to operate.

Fleet Services Division continues to make sure that Town vehicles and equipment are ready for operation. This includes public safety vehicles like Police & Fire but also other department vehicles that need to be in use to provide great service for our residents.

The Fleet Division continued to keep Castle Rock on the move in January. We opened 147 work orders and completed 133 work orders with 266 repairs. Our total cost for January was \$81,725. The Fleet consumed more than 11,000 gallons again in January at a cost of \$2.50 per gallon of unleaded and \$4.16 a gallon for diesel.

Our technicians continued to perform great work throughout the month. They completed 86 Preventative Maintenance (PM) repairs and made an additional 57 repairs found during those PM's. Our PM schedule is very important in catching repairs needed before the vehicles break down. It is critical to our asset availability for the using departments to be able to provide service to our community. Our parts department supported our operations by providing more than 2000 parts at a cost of \$21,700. Supply chain delays and labor shortages continue to delay some orders. Thank you to our team and the commitment they make to keep the Town moving.



The Vehicle Replacement Program continues to work with vendors to source vehicles due for replacement. We are finding that the cost of up fitting equipment for these vehicles are exceeding the cost of the vehicle chassis purchase. We are making adjustments to reduce these cost where we can without affecting the using departments. An example of this is the total capitalization cost for police vehicles in 2022 was \$73,000. That same patrol car in 2023 has exceeded \$90,000 for each vehicle. Fleet is exploring in house up fitting options to help reduce these cost.

**Objective/Benchmark:** Complete at least 75% of our work orders within 48-hours of coming to shop.

**Outcome:** Fleet team completed 80% of the work orders within 48-hours of opening repair requests or service requests. This benchmark number shows how quickly vehicles and equipment get serviced and repaired and back on the job.



**Objective/Benchmark:** Town vehicles and equipment available for use 95% of time.

**Outcome:** Town vehicles and equipment were available 98% of the time. This high fleet availability rate means that Town vehicles and equipment are ready when they are called upon to perform.

**Objective/Benchmark:** Technician productivity percentage of 70% (APWA standard)

**Outcome:** Technician productivity was 73%. Productivity is the measure of available billable hours by our technicians. We met our objective for the month despite some challenging repairs and weather conditions.

## Street Operations & Maintenance Division

During the month of January, the Street Operations & Maintenance Division (SO&MD) performed work in the following maintenance operations:

\*Snow and Ice Control  
\*Equipment Maintenance

\*Ice Breaking Operations

### **Snow and Ice Control**

January brought five snow events requiring a response from the Town. The crews committed a total of 930 hours to plowing Town roadways, covering a total of 9,397 miles. The sustained cold created a persistent ice problem and crews deposited 452 tons of Ice Slicer as well as 5000 gallons of magnesium chloride to try to enhance the melting on roadways. The extreme cold temperatures contributed to the inability of the roadways to recover from successive storms.

### **Roadway Icebreaking**

Between snowstorms, the crews have been devoting nearly all their time to ice breaking. The crews dedicated 837.63 hours to clearing ice off Town roadways. The persistent cold temperatures greatly contributed to the widespread and problematic icing problems experienced throughout Town.

### **Equipment Maintenance**

The crews spent 162 hours working to keep the equipment needed for snow and ice control operations running and in good working order. These operations are very hard on equipment and routine maintenance and regular changes of wear parts is vital to the ability to respond to Snow when needed.

### **Looking Ahead**

In February, the Streets Division crew will maintain vigilance for and our ability to respond to snow storms, as well as the ice and road damage that subsequently follows. Post storm street sweeping will also be a priority for the Division especially as the persistently cold temps have prohibited these operations. Equipment maintenance will also be at the forefront of Crew efforts.