



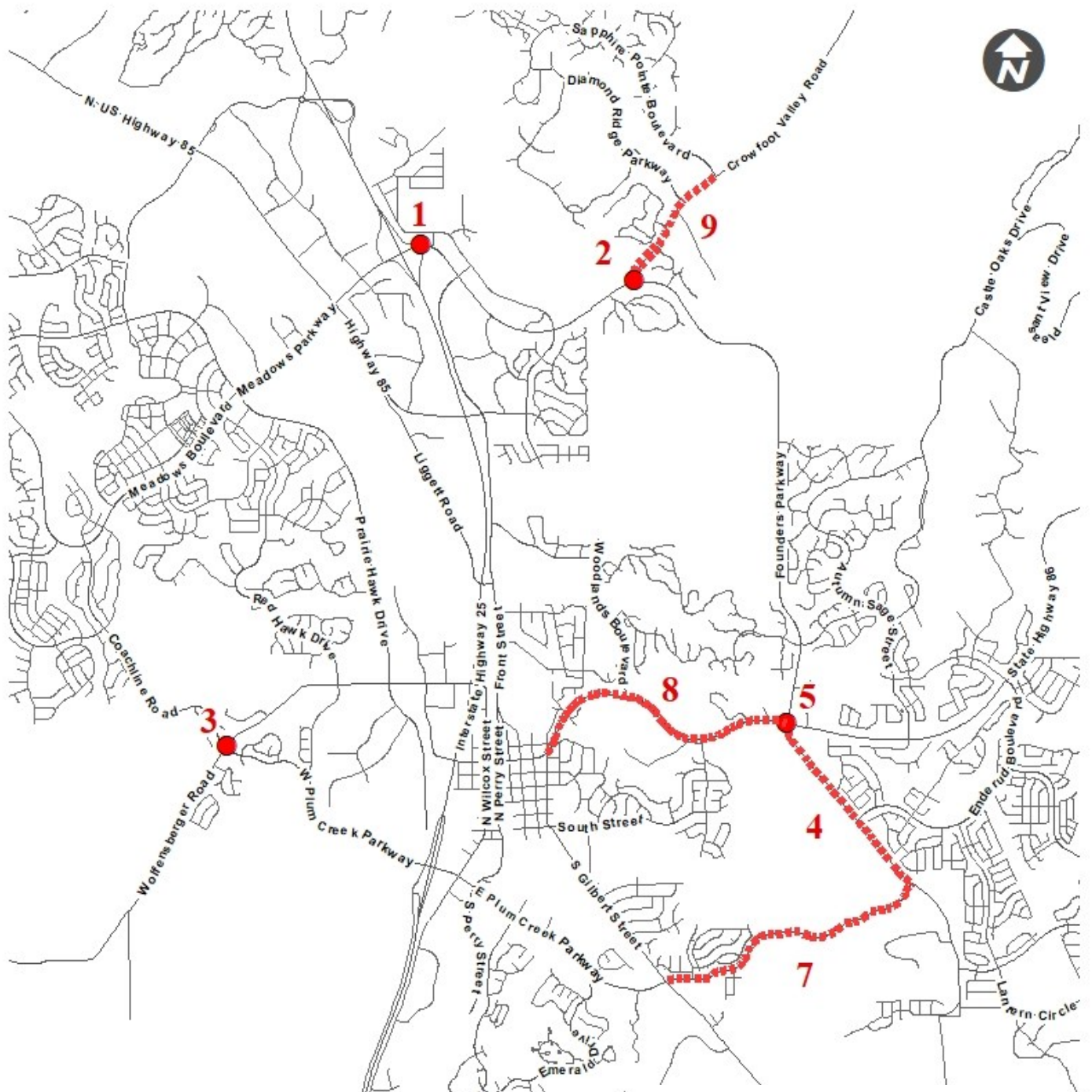
Monthly Report

January 2022

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

1. Founders Pkwy/Allen Way Intersection Improvement Project – This project will address the need for the following improvements:

- An additional eastbound left turn lane from Founders Parkway to Allen Way
- A dedicated right turn lane from Founders Parkway to Allen Way
- An additional southbound right turn lane from Allen Way to westbound Founders Parkway
- An additional I-25 northbound on-ramp lane
- A second through lane at Allen Way and Allen Street

Phase: Construction – Closeout- Work continues on the closeout phase with CDOT. All final paperwork was submitted to CDOT by the end of November 2021, and this project is awaiting CDOT acceptance.

Budget: \$2.64M

Close Out: Complete

2. Founders Pkwy (SH86)/Crowfoot Valley Road Intersection Improvement Project and Crowfoot Valley Road Widening Project – This project will address the need for the following improvements:

- An additional eastbound left turn lane from Founders Parkway to Crowfoot Valley Road
- An additional northbound lane on Crowfoot Valley Road between Founders Parkway and Knobcone Drive
- A southbound free right turn lane from Crowfoot Valley Road to westbound Founders Parkway
- Widen Founders Parkway both eastbound and westbound between the Crowfoot Valley Road and Woodlands Boulevard
- Widen Crowfoot Valley Road from Founders Parkway to Knobcone Drive

Phase: Construction: Closeout - Awaiting CDOT formal closeout of project. The Grading, Erosion, and Sediment Control permit remains open to monitor vegetation coverage and growth. Inspections will be performed until the requirements of the permit are achieved.

Budget: \$3,550,000

Close Out: Complete

3. Wolfensberger Road/Plum Creek Parkway Roundabout Project - This project will accomplish the design and construction of a roundabout at this intersection to improve operations and minimize accident potential.

Phase: Substantial completion was issued in Spring 2019. Punch list items are complete. The Town was working with the adjacent property owners to complete the final landscape tie-ins and adjustments. The work completed this month in progression to project closeout is as follows:

Completed irrigation and landscaping work on adjacent property

Remaining Budget: \$137,000

Final Completion: Complete

4. 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: Design: Acquisition continues with the property easements. The Town is moving forward with condemnation on the other property.

Stanley Consultants is the design firm for the project. The following is a summary of the activities performed this month:

- Subsurface Utility Engineering (SUE) continues, Consultant is applying the field information to the plans
- Construction plans have been submitted for Town final review
- Initial coordination with the Four Corners project and new adjacent developer
- Bertelsen Property – Bertelsen Trust submitted a counter offer, Town is reviewing
- McWilliams Property – Town accepted owner's counter offer and the easement documents have been executed

Budget: \$900,000

Design completion: Winter 2021-2022

ROW Acquisition: Late Spring 2022

Construction: Summer 2022

Targeted Construction Completion: Fall 2022

5. 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:

- Southbound traffic – add left turn lane, add a free right turn lane, convert right turn lane to through/right
- Eastbound traffic – convert right turn lane to through right, add free right turn lane
- Northbound traffic – add left turn lane, add second through lane, add a free right lane
- Westbound traffic – add through lane, add a free right turn lane

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

- Continue working on meeting water quality standards, accesses, geotechnical analysis for the retaining wall design, right-of-way, and 90% plans
- Approval of the IGA with Douglas County scheduled to be presented to Town Council has moved from February to March 2022 for approval. This IGA is for a contribution to the project of 1 million dollars from Douglas County
- Test holes for the SUE work has started
- Coordination with the Fifth Street and Ridge Road projects is on-going

- Working on finalizing the pavement design typical section
- Starting the test holes for the utility locations for Quality Level A plans

Budget: \$1,200,000 for design in 2021 with DRCOG Grant Reimbursement (Town share \$240,000)

Design Completion: 3rd quarter 2022

ROW Acquisition: 2nd quarter 2022

Targeted Construction Completion: Winter 2023

6. **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

- Acquisition Services
 - East side of I-25 – Town Staff is moving forward with the condemnation process for the Boone Family property. The remaining properties are in various states of negotiation
 - West side of I-25 – The remaining property is in negotiation

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

- A public information meeting was held on January 27 with overall positive feedback
- Traffic modeling methods and assumption report was submitted with comments; consultant will be addressing for review; traffic model for forecasting is completed
- Environmental/NEPA – environmental field work is complete; the team will begin working on air quality, noise, wetlands, Preble Jumping Mouse habitat and historic elements
- Conceptual design was completed
- Town received six CMGC proposals; the evaluation panel, which includes stakeholder from CDOT, Douglas County and the Town will make short list selection and interviews are tentatively scheduled for mid-February
- Boone Property – Final Stipulation and proposed Order has been submitted to the Courts, waiting for court date

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

Completion: Summer 2023

Targeted Construction Completion: Summer 2025

7. **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 Roundabout Construction - The following is a summary of activities performed this month:

- Continued contract procurement activities for Baldwin Park restoration
- Contract closeout activities to complete final change orders and final payment

Roadway and roadside improvements are complete. The project continues procurement activities to restore Baldwin Park. Remaining work includes: Baldwin Park irrigation and landscaping restoration work

Budget: \$7,507,723

Construction Completion: Complete

Phase 2: Design and ROW Acquisition – The following is a summary of design activities performed this month:

- Continued appraisal research for property offers
- Completed title research for property interests
- Completed revisions to construction plans/design from 100% submittal review
- Completed specifications package for construction contract
- Continued coordination and contract development with CORE Electric for relocation and lights
- Coordinated with Development Services Division along with developers regarding sanitary sewer utility scope proposed in ROW (within improvement zone)

Budget: \$794,375

Design Completion: 1 qtr 2022

ROW Completion: 2nd qtr 2022

Targeted Construction Completion: Winter 2022-2023

8. **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:

- Implementation of on-street bike lane/shoulder from South Gilbert Street to Ridge Road
- Addition of sidewalk from Woodlands Blvd. to Ridge Road along south side of Fifth Street

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

- Held an open house and received community input on alternative designs

- o High participation (76 community members attended)
- Completed 50% of geotechnical borings
- Continued progression of roadway design
- Began integrating community feedback through context sensitive design decisions
 - o Expanded sidewalks to 10-12 feet to become multi-use paths, eliminate on-street bike lanes
- Various department coordination to confer design decisions

Budget: \$1,500,000

Design Completion: December 2022

Right-of-way acquisition: Winter 2022-2023

Targeted Construction Completion: Winter 2023-2024

10. **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: Town submitted IGA comments to Douglas County for review. The consultant continues with data research, including drainage report review and typical section review. Douglas County will be submitting comments, along with cross sections and a roll plot for Town review and comments.

Budget: \$2,000,000 (Town contribution to construction funding; IGA to be executed with County)

ROW Acquisition: Spring 2022

Design Completion: Summer 2022

Targeted Construction Completion: Spring 2023

11. **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 – Contract with CORE Engineering has been executed. Staff and the consultant held the kickoff meeting.

Budget: \$299,000

Design Completion: December 2022

Targeted Construction Completion: Fall 2023

12. **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 June, 2022, bid in June, 2022, and constructed by Summer 2023.

Phase: Design -

- Kick-off meeting with S.E.H was conducted along with a site visit
- Started right-of-way survey
- Project charter outline completed
- All traffic counts have been received
- Started traffic analyses and preliminary roundabout design
- Started contacting all utility providers

Budget: \$400,000

Design Completion: June 2022

Targeted Construction Completion: Summer 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 and Meadows Parkway, as well as six abutting Town signals. The adaptive system is delayed but should be operational by March 2022.
- The Town’s ATSPM project is broken into two phases. Phase I includes detection purchase and installation at 15 intersections. Adiona Transportation Solutions is currently installing detection at 15 intersections Town wide and is targeted to be complete in three weeks. Phase II includes software development and signal timing. A Resolution to contract with Kimley-Horn will be presented at the February Public Works Commission and Town Council meetings for approval.
- Additionally, the Town has purchased replacement advance detection units for four intersections which include N Meadows and Meadows, Front and Ligget, Front and Sam Walton, and Front and Scott. Detection will be installed by our on call signal maintenance contractor.

Budget: \$868,700

Targeted Construction Completion: End of year 2023

2022 Safety Projects – This project includes installing Rectangular Rapid Flashing Beacons (RRFBs) at five locations, roadway improvements at five locations, and safety improvements on Gilbert Street.

- RRFBs will be installed at South St and Wilcox St, Blackfeather Tr and Trail Boss Ln, Meadows Blvd and Shane Valley Tr, South St and Burgess Dr, and at Gilbert St and First St.
- Roadway improvements include pedestrian refuges at

Blackfeather Tr and Trail Boss Ln and South St and Burgess Dr, median enhancements at Front St and Milestone Ln, and sidewalk extensions on Mickelson Blvd and Turnstone Ave, and Mickelson Blvd and Bonner St.

- As part of the Gilbert Street PMP full depth replacement project, traffic staff have proposed several traffic calming options for increasing safety and reducing speeds. These options were presented to the public at the Public Meeting on January 20. The majority of residents supported implementing traffic calming measures on the corridor. Town staff are preparing a budget amendment request to include these measures in the 2022 PMP project.

2022 Budget: \$100,000, requesting additional funds in budget amendment

Construction Completion: Fall 2022

Illuminated Street Name Signs – Illuminated street name signs have been delivered for Meadows Blvd and Prairie Hawk Dr, Wolfensberger Rd and Prairie Hawk Dr, Meadows Pkwy and Hwy 85, and Meadows Pkwy and Factory Shops Blvd. Scheduling the install is underway and will be completed by our traffic signal maintenance on-call contractor.

- 2022 illuminated street name signs are currently in the planning phase and are proposed at four locations throughout the Town. The signs purchased for the 2021 program will be installed in the first part of 2022.

2021 Budget: \$57,000

Construction Completion: Summer 2022

2022 Budget: \$58,000

Construction Completion: Fall 2022

Engineering Division

2022 Pavement Maintenance Program (PMP)

Six (6) project bid packages were opened January 19 & 20. 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. Staff will also begin the process of contract award recommendations.

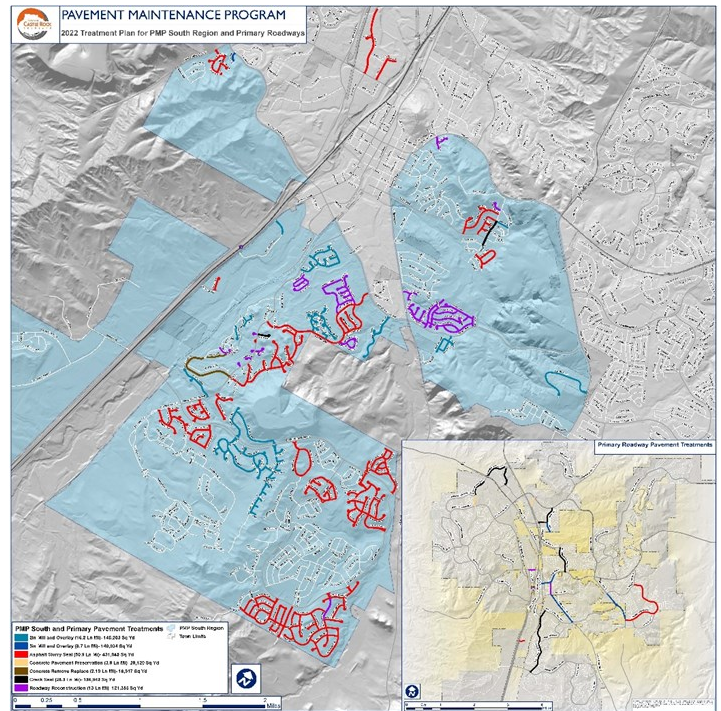


Staff will also begin the process of contract award recommendations.

2022 PMP contracts under consideration are:

- Asphalt Overlay
- Full Depth Reclamation
- Curb, Gutter and Sidewalk Replacement
- Slurry Seal
- Concrete Remove & Replace Reconstruction
- Town Facilities Parking Lot Improvements

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



2022 Facilities Parking Lot Improvements Program

Two (2) contractors submitted bids for this year's improvements. The project's bid opening was completed on January 20. Staff is in the process of evaluating all bids submitted, prior to contract award recommendations. This process includes checking and verifying all bid proposals and contractor references.

Facilities scheduled for 2022 are:

- | | |
|--------------------------------|----------------------------|
| Perry St. Fire Station #151 | Meadows Treatment Plant |
| Police Department | Diamond Ridge Pump Station |
| Centennial Park (Burgess Pool) | Matney Park |
| Butterfield Park Parking Lot | Coachline Parking Lot |
| PCWPF Treatment Plant | |

2022 Bridge Maintenance Program

Staff is working with new consultants to for 2022, and beyond, for bridge maintenance support and support to the Engineering Department. The new consultant will deliver a Bridge Program

to include: bridge program management and administration; expertise in the Town's current asset management system Car-tegraph; and a staff of bridge experts that are fully experienced in providing bridge construction, planning, assessments, prioritization, and maintenance activity recommendations.

Development Division

Review and Permitting

Development Review - All 45 reviews were completed. No late reviews this month.

Permitting & Inspection – 23 right-of-way permits were issued.

Transportation Planning & Traffic Engineering Division

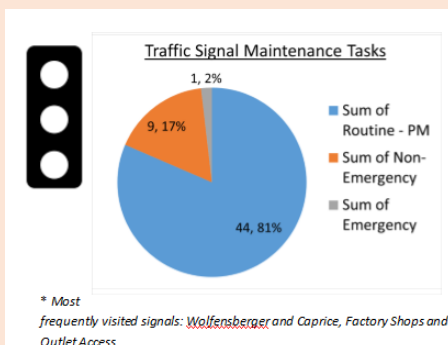
Taxi Voucher Program

For the month of January, the Taxi Voucher Program funded 141 rides; which is a 14% increase to last year's January total of 127 rides, and a 25% decrease 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, 20 individuals used the Taxi service. Of those individuals, 83% of the rides were for work, 13% for shopping trips, and 4% for medical appointments. Fifty rides were provided for people without access to a vehicle, 26 rides to seniors, and 51 rides to disabled riders.

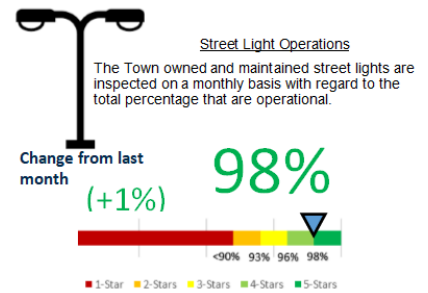
The Castle Rock Senior Center provided a total of 656 rides in January.

Traffic Engineering and Operations

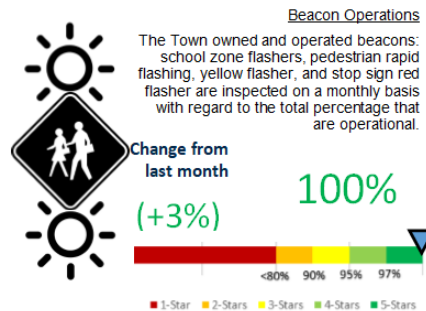
Traffic Signal Operations and Maintenance



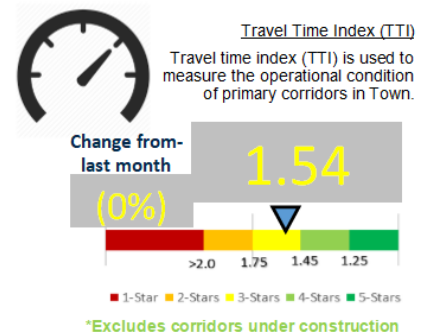
Street Light Operations



Beacon



Operations



Street Signs and Pavement Marking Maintenance

For the month of January, the crew accomplished 1988 tasks. Of these tasks, 1755 of them were sign work activities related to fabrication, install, repairs, replacements, inspections and investigations. We had 199 RRFB related tasks, including windshield inspections, and new installations. Other tasks included 31 small projects, two marking installs at the Butterfield Crossing raised crosswalk, as well as providing CDL drivers for a couple of snow storm events.

Transportation Planning

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. Two inquiries were received in January; Switch Grass Drive and South Street near South Elementary School. The Town sent the initial support peti-

Fleet Services

Keeping Castle Rock on the Move



tions to the point of contact for both inquiries. The petition for Switch Grass Drive has been received and is under review. If it meets the program criteria a speed study will be conducted. Town staff is still awaiting the petition for South Street.

Castle Rock Downtown Alley Master Plan:

The project team has entered into the design phase of the project. Conceptual ideas and designs have been shared with various Town staff and businesses along the alleys. The next public pop up event is scheduled for February 12 at the Downtown ice rink. At the meeting various design options for the alleys will be shared and public feedback collected. Three alley segments will be designed at a conceptual level as part of the project. The three alley segments are as follows;

Alley 1 - between Wilcox and Perry St. from Festival Park to 4th Street

Alley 2 - along the west side of the UP railroad line

Alley 3 - from 6th Street to just south of the Chamber of Commerce

The project is still on schedule to be completed this April.

Downtown Castle Rock Grants:

The CDOT Revitalizing Main Streets grant for \$150,000 with a local match of \$15,000 is still on-going. The schedule for the high visibility crosswalks is scheduled for the April/May timeframe as long as the material is available. Town staff is proceeding with the purchase and installation of the benches and trash cans. Town staff has also been working with the DDA on securing bids for the dining parklets. Once the bids have been received they will be discussed with Town staff and adjacent property owners before a preferred bid is selected. New discussions are occurring on whether or not two of the parklets should be constructed in concrete. This will be discussed with CDOT and other Downtown stakeholders as well as checked against the available budget.

DRCOG Transportation Improvement Program (TIP):

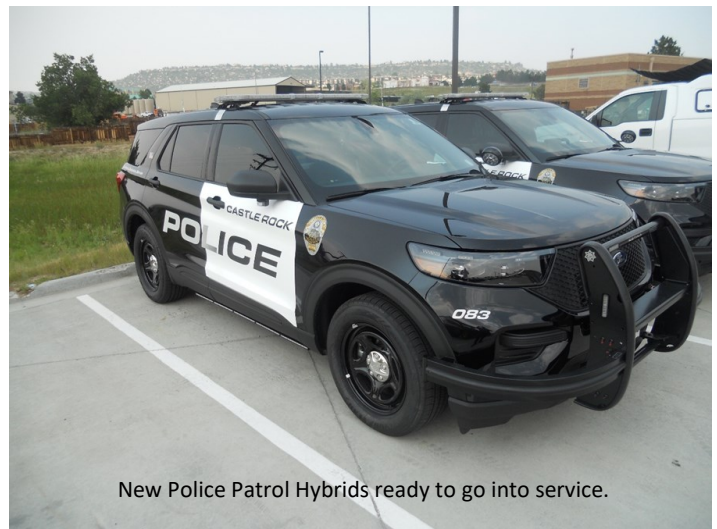
DRCOG has kicked off the next TIP cycle (2022-2027). They have recently released a call for regional projects that are bike, pedestrian, or transit focused. A total of 3 projects can be submitted from Douglas County (DC). The DC Sub-Regional Forum made up of all DC jurisdictions will meet over the couple of months to determine which projects to select. Projects may include a regional bike trail from the Terrain area in Castle Rock north through Castle Pines and connecting to the Havana Street on-street bike lanes. This project will provide bike access to the Ridgeway light rail station. Other projects could include the Lone Tree Mobility Hub, bike/ped grade separated crossings of I-25 or C-470. The sub-regional bike/pedestrian and transit call for projects is expected to be released in May. Two additional call for projects will follow later this year and will track the more traditional TIP cycle and fund all modes of transportation, including capacity projects such as the Crystal Valley Interchange.

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 started 2022 with a very busy month in January. We completed 106 work orders and processed 126 vehicles for the month. Total output for the month was \$82,253 parts and labor billed out. Technician productivity was also very good for the month of January coming in at 81.0%. And Fleet availability came in at 96.6% which is back to pre-pandemic levels and well above our benchmarks.

All four of our technicians completed extensive hybrid vehicle training which is very important as we are now up to 25 hybrid vehicles in the fleet. Fleet staff is also starting to order new vehicles for 2022 and have ordered our first all electric vehicle.



New Police Patrol Hybrids ready to go into service.

Objective/Benchmark: Complete at least 75% of our work orders within 24-hours of coming to shop.

Outcome: Fleet team completed 78% of the work orders within 24-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. This benchmark number is just under our monthly objective.

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

Outcome: Town vehicles and equipment were available 96.6% 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 80.7%. This productivity number was a very good increase considering the difficulty in getting some parts and some larger jobs that were completed.

Street Operations & Maintenance Division

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

- *Crack Seal Operations
- *Equipment Maintenance
- *Snow and Ice Control
- * Roadway Ice Breaking
- *Sweeping

Crack Seal Operations

In the month of January, Streets personnel were able to take advantage of the weather to get a jump start on crack seal operations for the 2022 year. Streets were able to devote 136 hours to crack sealing just over 26 lane miles of roadway for the maintenance program. The crew used 4200 pounds of material during these operations.

Equipment Maintenance

Streets crews dedicated 390 hours to maintaining vehicles and equipment this month. Most of these hours were dedicated to upkeep on the plow trucks. This is especially vital as overall supply delays can render a vehicle inoperable for a lengthy period of time for a minor issue. The crews have been working in conjunction with Fleet to maximize the service availability of the vehicles needed.

Roadway Icebreaking

Streets crews have been busy responding to the icing that occurs throughout Town. The crews have spent 357 hours clearing 12,854 linear feet of ice covering Town roadways. The freeze thaw cycle experienced in the Colorado Front Range makes this an ongoing issue for the first months of the year.

Sweeping

After the snow clears and the sun comes out the Streets Division

works to sweep up the sand and salt deposited on the roads during the storms. This is to mitigate air and water pollution as well as to minimize traction loss from loose gravel on the road. Street crews worked 116 hours to clean up 311 lane miles of Town roadways between snow storms.

Snow and Ice Control

The crews responded to six snow events during January, some turned into long duration icing events. These events can be more difficult as temperatures are low enough that salt ceases to melt ice. The crews spent over 1049 hours plowing and de-icing the roadways for vehicular traffic. Utilizing salt, sand, and magnesium chloride to the best effect possible. The crews worked around the clock to minimize the impact these storms have on the Town.

Looking Ahead

In February, the Streets Division will continue to respond to snow storms and the icing concerns that accompany them. Post storm street sweeping will also be a priority for the Division. The crews will continue as well to work hard to maintain the equipment that is so vital to these operations.