



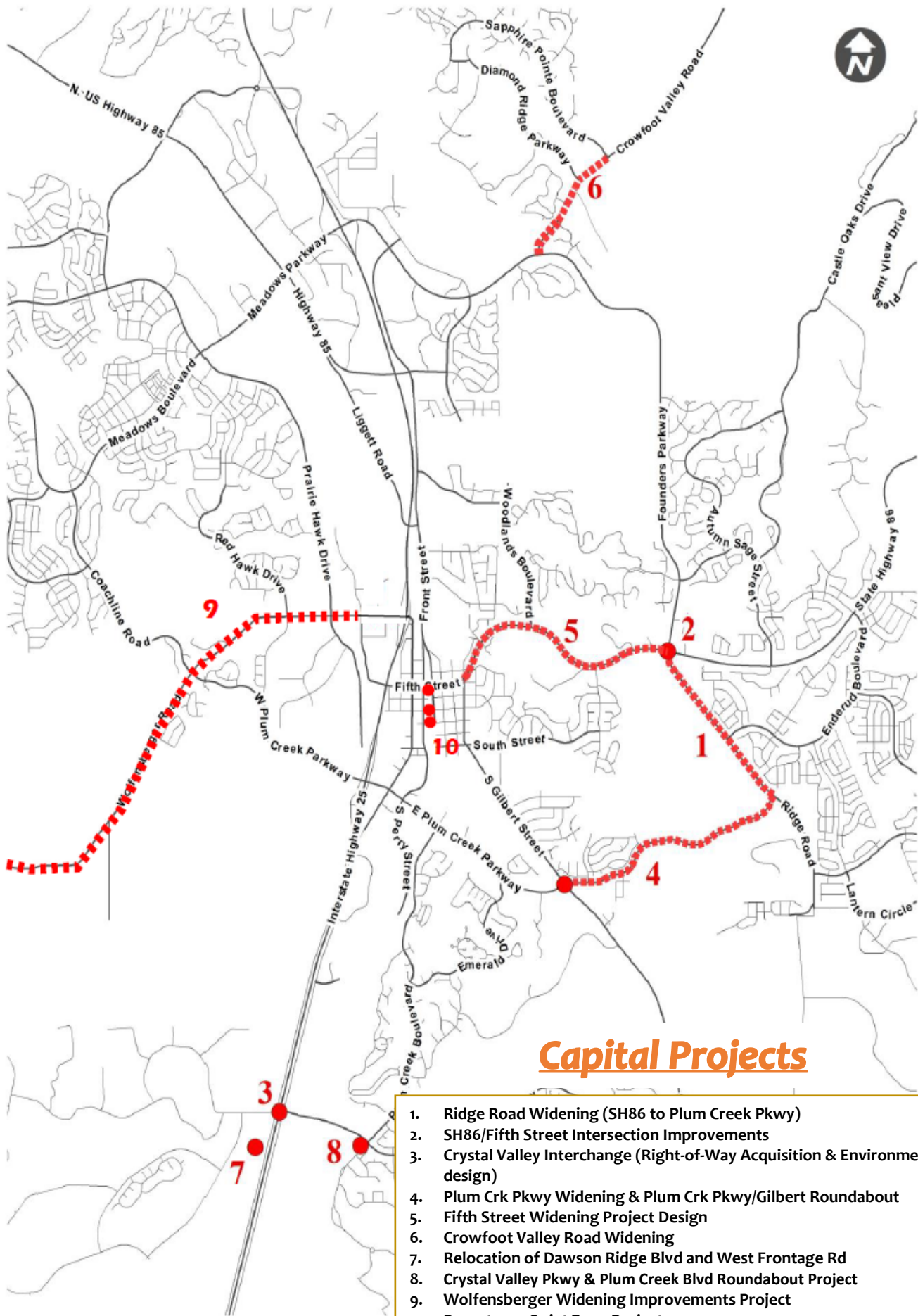
# Monthly Report

May 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.





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:**

- Town Council approved construction contract with Schmidt for project general contractor
- Construction is anticipated to begin in early June and be completed by end of October 2022
- Prairie dogs had migrated into the Town right of way within the construction zone, so the Town coordinated with the contractor to delay construction activities to allow for a passive relocation technique to be completed
- Utilities continue to be relocated, including CORE Electric

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

**Targeted Construction Completion:** Fall 2022

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:

- 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:

- Anticipating FOR 90% plans from consultant for review in May
- Utility coordination with CORE, Zayo and Town for relocations
- IGA with Douglas County approved by Town Council on April 5

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

**Design Completion:** 3rd quarter 2022

**ROW Acquisition:** 2nd quarter 2022

**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

- Acquisition Services
  - Finalize survey for right of way plan revisions
  - Revise the right of way acquisition as a result of the preferred alternative configuration of the project

on the Hyperion property

- West side of I-25 – the remaining property is in negotiation

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

- Traffic forecasting report was submitted for review
- Environmental/NEPA – Team continues to work on developing impacts and mitigations section of the technical memorandum, continues to work on developing the noise verification and air quality memorandum
- Design firm continues working on preliminary design
- Initial TDM strategies memo was submitted to CDOT for comments
- ICE service agreement was approved by Town Manager
- The construction management services RFP was submitted for review and comments to Town staff and CDOT and is anticipated to be posted in July

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

**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 (100% Complete)** - The following is a summary of activities performed this month:

- Completed new sod and irrigation at Baldwin Park
- Advertised for final payment to close out construction contract
- Roadway and roadside improvements are complete; the department continues to monitor roadside areas for establishment of vegetation/native seeding

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

**Completion:** Complete

**Phase 2: Plum Creek Pkwy Widening (Eaton to Ridge): Design and ROW Acquisition (98% Complete)** – The following is a summary of design activities performed this month:

- Acquired easements for construction of improvements
- Continued design coordination with adjacent stakeholders/developers
- Executed contract with CORE electric for lighting and electrical relocations



- Competitively bid construction contract and selected low bidder
- Recommending construction contract approval at June Town Council

**Design & ROW Completion:** Design—Complete; ROW—May 2022

**Targeted Construction Completion:** Winter 2022-2023

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:

- Widening to accommodate future traffic demand
- Intersection improvements at Valley Drive and Woodlands Boulevard
- 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 (15% Complete)**

Continue design progression of roadway elements and began plan preparation

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

**Design Completion:** December 2022

**Right-of-way acquisition:** Winter 2022-2023

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

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 submitted IGA comments to Douglas County for review; Douglas County submitted conceptual design elements for the Town to review; Town staff is developing conceptual design based off of Douglas County and Town comments; Town staff anticipates to present design to community HOA's in June 2022

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

**ROW Acquisition:** Spring 2022

**Design Completion:** Fall 2022

**Targeted Construction Completion:** Spring 2023

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:

- The project continues design
- Geotech work continues on the boring and development of pavement design
- Working through drainage concept and earthwork

**Budget:** \$299,000

**Design Completion:** December 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 June 2022, bid in June 2022, and constructed by Summer 2023.

**Phase: Design -**

- 30% plan review has been completed
- Town is in the process of reviewing requested variances to the design criteria due to Right of Way and the existing roadway slopes
- The Geotech and pavement recommendations report have been submitted to the Town for review
- Town has received the WB 50 and 67 Truck Autoturn exhibits for Town review
- Working on the 90% design set sheets based on the Towns 30% review comments
- Working with CORE on their relocation of existing power lines

**Budget:** \$400,000

**Design Completion:** June 2022

**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 at Red Hawk/Auburn
- Stormwater drainage improvements
- Implementation of on street bike lanes west/east bound

**Phase— Planning/Design—**

- Design proposals were received and evaluated by review team
- Selected consultant service agreement will be presented to PWC on July 11 and TC on July 19

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

**Design Completion:** October 2023

**Right of Way Acquisition:** 2023

**Construction:** 2024

**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. CDOT will be upgrading detection and Front and Milestone the week of June 13 and the system should be operational shortly after.
- The Town's ATSPM project has two phases. Phase I includes detection purchase and installation at 15 intersections. Adiona Transportation Solutions completed Phase I and the project is moving toward close out. Phase II includes software development and signal timing. Traffic data is being collected for signal retiming this summer, and staff and Kimley-Horn are determining desired metrics for the dashboard.
- The Town is identifying detection upgrades at four intersections in 2023.

**Budget:** \$868,700

**Targeted Construction Completion:** End of year 2023

**2022 Safety Projects** – This project includes installing RRFBs at five locations, roadway improvements, and safety improvements on Gilbert Street.

- The Butterfield Crossing Drive raised crosswalk was replaced on April 9. Town staff are conducting a before and after analysis of speeds along the corridor.
- RRFBs will be installed at South Street and Wilcox Street, Blackfeather Trail and Trail Boss Lane, Meadows Boulevard and Shane Valley Trail, South Street and Burgess Drive, and at Gilbert Street and First Street in summer 2022.

- Roadway improvements to be completed in summer 2022 include pedestrian refuges at Blackfeather Trail and Trail Boss Lane and South Street and Burgess Drive to support RRFBs, and median enhancements at Front Street and Milestone Lane identified in the recent Crash Facts Report, and sidewalk extensions on Mickelson Boulevard and Turnstone Avenue, and Mickelson Boulevard and Bonner Street to support a Safe Route to School.
- As part of the Gilbert Street PMP full depth replacement project, speed management improvements including speed cushions, a raised crosswalk, and curb extension is planned to increase safety and reduce speeds.

**2022 Budget:** \$613,000

**Completion:** Fall 2022

**Illuminated Street Name Signs** – Illuminated street name signs were installed at Meadows Blvd and Prairie Hawk Dr, Wolfensberger Rd and Prairie Hawk Dr, Meadows Pkwy and Hwy 85, and Meadows Pkwy and Factory Shops Blvd. Town staff are working with CDOT to get Meadows Pkwy and Hwy 85 a power feed for two of the signs.

2022 illuminated street name signs are currently in the planning phase and are proposed at four locations throughout the Town.

**2022 Budget:** \$58,000

**Completion:** Fall 2022

# Engineering Division

## **2022 Pavement Maintenance Program (PMP)**

The 2022 PMP will focus its efforts in the South PMP area with additional work taking place on primary streets (E. Loop Rd, Fifth St, Gilbert St, Mikelson Blvd, and Woodlands Blvd).

## **Sidewalk, Curb and Gutter**

Sidewalk, curb and gutter repairs kicked off April 11. All planned quantities within this contract was completed May 31. The contractor will be completing punchlist items through the first week of June. The project was completed within contract time.



### Concrete Pavement Remove and Replacement Reconstruction

The Concrete Pavement Remove & Replacement Reconstruction project for Mt. Royal Drive/Champions Court & Masters Ct., began April 25. The work on Mt. Royal Phase 1 consisted of saw cutting, removal and replacement of damaged curb, gutter, sidewalk, as well as complete removal of the existing concrete pavement. Bottom mat asphalt paving is scheduled to begin May 31 and continue to June 3. The contractor will then move operations to phase 2 of Mt. Royal Drive.



### Slurry Seal Project

Slurry Seal project will begin next month with asphalt patching and crack seal scheduled to begin in mid-June and run through July. The asphalt slurry seal will follow July 6, after the July 4 holiday.

### Asphalt Overlay Project

Asphalt Overlay Project began construction April 11. Night time milling and paving operations were completed May 31. Asphalt patching crews will move their operations to Gilbert Street, between South Street and Plum Creek Parkway, on Tuesday, May 13.



### Full Depth Reclamation Project

Full Depth Reclamation concrete repair work started April 11. Road work started in the Baldwin Park area. All concrete repairs and reclaiming operations were completed. Bottom mat paving on all streets was completed May 31. Top mat paving is scheduled to begin Monday, June 6.



Contractor will then move their operations to Gilbert Street between 5<sup>th</sup> Street and South Street.

### 2022 Facilities Parking Lot Improvements Program

This year's maintenance program will see needed improvement made to nine (9) parking lots from various Town Departments. These parking lots will see various improvements such as; curb, gutter & sidewalk replacement, asphalt mill and overlay, asphalt patching, slurry seal and seal coat.

Parking lots that are scheduled include the following:

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	

Work is schedule to begin in September 6, and be completed by November 9.

### 2022 Bridge Maintenance Program

Staff has secured a service agreement with BASIS Partners to provide technical support for the Bridge Maintenance Program. Basis has completed the prioritization of bridge(s) that will require maintenance. The consultant has identified the bridge on S. Wilcox for necessary repairs. These repairs consist of maintenance to the superstructure, addressing erosion on the support piers and asphalt mill and overlay on the bridge deck. Construction plans are in the process of being finalized. Staff will work with them to prepare maintenance packet for competitive bids.

## Development Division

### Review and Permitting

**Development Review** - All 43 reviews were completed. No late reviews this month.

**Permitting & Inspection** – 12 right-of-way permits were issued.

## Transportation Planning & Traffic Engineering Division

### Taxi Voucher Program

For the month of May, the Taxi Voucher Program funded 141 rides; which is a 14% increase to last year's May 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 May, 20 individuals used the

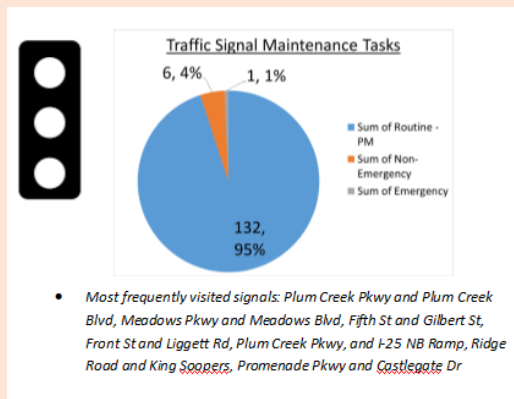


Taxi service. Of those individuals, 83% of the rides were for work, 13% for shopping trips, and 4% for medical appointments. Fifty rides were provided for people without access to a vehicle, 26 rides to seniors, and 51 rides to disabled riders.

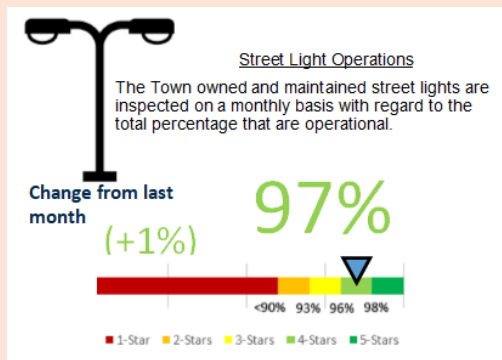
The Castle Rock Senior Center provided a total of 656 rides in May.

## Traffic Engineering and Operations

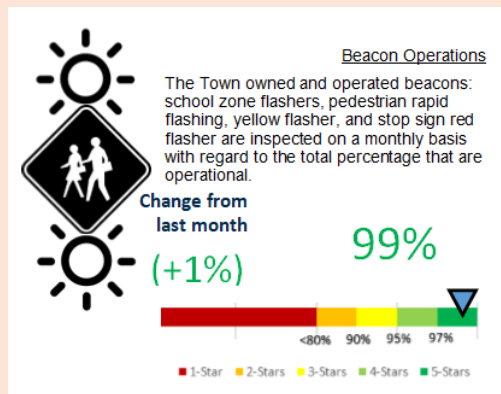
### Traffic Signal Operations and Maintenance



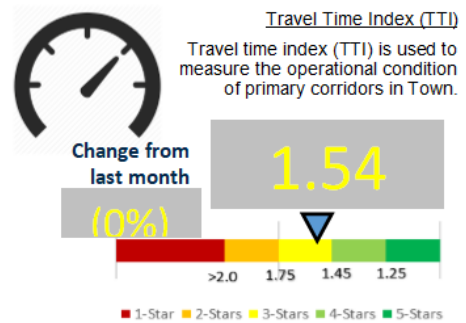
### Street Light Operations



### Beacon



### Operations



### Street Signs and Pavement Marking Maintenance

For the month of May, 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 snow storm events.

### Transportation Planning

#### 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 12th 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.

#### 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 petitions 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.

#### 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.

## 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 kept Castle Rock on the move with a very busy month of May with plenty of maintenance work and preparing new vehicles for service. We completed 119 work orders and processed 128 vehicles for the month. Total output for the month was \$87,377 parts and labor billed out. Technician productivity was also very good for the month of May coming in

at one of our best months ever at 85%. And Fleet availability came in at 97.9% also one of our best months in over a year.

Fleet is excited to announce a couple of personnel changes, we hired a new technician Ryan Stevens as our forth technician. Ryan is a graduate of Lincoln Tech and has extensive diesel experience. Also technician Eric Dena was promoted to Lead Technician. Eric has worked for the Town for over ten years and this is a well deserved promotion. Fleet also purchased a new street sweeper for the Streets Division and they are excited to put into service.



Fleet Technician Ryan Stevens

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

**Outcome:** Fleet team completed 74% 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. 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 97.9% 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 85%. 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 May, the Street Operations & Maintenance Division (SO&MD) performed work in the following maintenance operations:

- \*Snow and Ice Control
- \*Sidewalk Cleaning
- \*Pothole repair & Asphalt patching
- \* Road Shoulder Maintenance
- \*Sweeping

#### Snow and Ice control

May brought a fairly significant snowstorm and some much needed moisture. The official tally of 11.5 inches of snow fall did



not have a large impact to roadways but did overcome the melt and plow trucks were deployed. The crew managed to get the roads cleared of snow very quickly and proceeded to begin removing downed branches from the roads as well.

### **Sidewalk Cleaning**

In support of the spring sweep operation, the crews also work to clean sidewalks of the aggregate that snowplowing operations can place on the sidewalks. This is generally only on the roadways that typically get salt/sand placed during snow plowing. Crews dedicated 103 hours to cleaning 119 edge line miles of sidewalks.

### **Sweeping**

The Streets division has been undertaking the annual spring sweep to give all the Town roadways a good cleaning after the winter months. During May the team swept, and cleaned 557 lane miles of roadways, removing 176 cubic yards of material from the road and hauling 144.33 tons of material to the landfill.

### **Road Shoulder Maintenance**

The crews have been working to maintain road shoulders throughout Town. The primary focus of operations has been weed control and trash removal. In all the crews worked 310 hours to cover 207 edge line miles of road shoulders around Town, filling and hauling off 195 trash bags of garbage from the roads.

### **Pothole Repair and Asphalt Patching**

The crews spent 332 hours inspecting, repairing pot holes, as well as repairing road damage and utility cuts with full depth asphalt patches using just under 50 tons of hot mix asphalt. In support of Water Department repairs the Streets division utilized their fabrication abilities to build a functional asphalt screed to undertake patches larger than traditionally attempted. This proved very successful and is likely to enhance Divisional capability and save the Town resources in the process.

### **Looking Ahead**

The recent arrival of significant moisture in the area means that June will likely require mowing and road shoulder operations to be undertaken. The Streets division is looking to complete the Spring Sweep Operation as well as continue the scheduled morning sweeping of the Downtown and business districts. Asphalt and pot holing operations are also scheduled to continue as needed.