



# Monthly Report

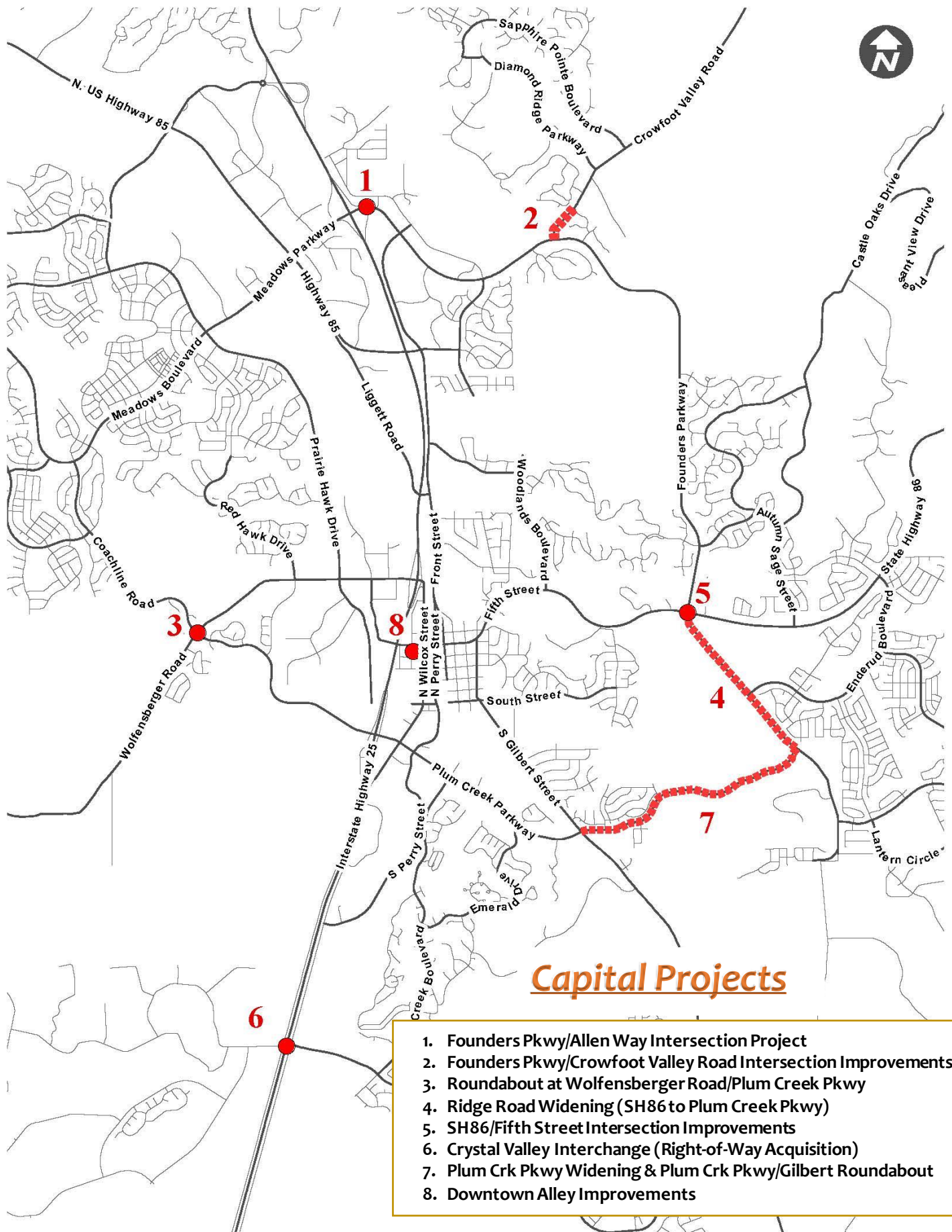
May 2020

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)
7. Plum Crk Pkwy Widening & Plum Crk Pkwy/Gilbert Roundabout
8. Downtown Alley Improvements

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 – Close out phase. The following is a summary of the construction activities that took place during this month:

- The Town, contractor and property manager met on-site and finalized the landscaping restoration plan at the Panera Bread. This is the final punchlist item and is scheduled to be complete within the next several weeks.

**Budget:** \$2.64M

**Construction Complete:** Spring 2020

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, Intersection Improvements**  
The following is a summary of the construction activities performed this month:

- The contractor continues to work on general punchlist items (site cleanup, etc...).
- The Traffic Signal punchlist items were complete, and the signal was accepted by CDOT

- The contractor works on seeding as weather allows.
- All paving and pavement marking operations were completed.

**Budget:** \$3,550,000

**Construction Completion:** Spring 2020

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: Closeout – Substantial completion was issued in Spring 2019. Punch list items are complete. The Town is working with the adjacent property owners to complete the final landscape tie-ins and adjustments. The final landscaping work is anticipated to be complete by fall 2021.

**Remaining Budget:** \$120,000

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:** 100% plans have been provided. The consultants continue to work on ROW acquisition. Staff submitted the project construction plans to IREA to initiate their design for relocation of facilities and providing power to the streetlights.

**Budget:** \$400,000

**ROW Acquisition:** Winter 2020

5. **Founders Parkway (SH86)/Fifth Street Intersection “Four Corners” Improvements** – With new traffic studies submitted, the Town, and CDOT will continue to investigate multiple alternatives to address safety concerns and capacity issues at this intersection.

**Phase: Design –**

- The DRCOG grant was awarded to the Town.
- Project will be designed per Federal requirements/standards.
- Town staff has been directed to move forward with soliciting a consultant to complete the

design and provide construction management.

**Budget:** \$1,200,000 for design in 2020 with DRCOG Grant Reimbursement (Town share \$240,000)

**Design Completion:** Late 2021

6. **Crystal Valley Interchange – Right-of-Way**

**Acquisition** – The purpose of this project is to achieve acquisition of remaining right-of-way 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 – Offers continue to be sent out. Several properties are in the negotiation phase. The tenant at 1532 S. I-25 has been relocated.
  - West Side of I-25 – Appraisals are targeted for completion in May and June, 2020. Town staff and consultants are preparing notices of intent for several property owners.

**Phase:** Preparations to begin Interchange Access Request and Environmental Assessment Reevaluations

- Town staff continues to meet with CDOT and FHWA to establish priority activities for the interchange approval.
- Town staff has begun working with consultants to get proposals for initial activities for interchange concept approvals. A formal RFP for design and environmental services will be released later this summer with selection to follow.

**Budget:** \$4,600,000, and Development Escrow

**Completion:** Winter 2020

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 2 lanes, but also bicycle and pedestrian multi use lanes. It will also include roundabout modifications at Ridge Road.

**Phase 1A: Drainage design package: Construction**

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

- The contractor completed the installation of improvements.
- The contractor is working on punchlist items.
- Anticipated completion date, with the contractor completely mobilized out is Mid-June 2020.

**Budget:** \$1,158,300

**Construction Completion:** Spring 2020

**Phase 1B: Plum Creek Pkwy Widening and Roundabouts: Construction** - The following is a summary of activities performed this month:

- Contractor Jalisco completed fine-grading for the future detention pond.
- A temporary signal at the intersection of S. Gilbert was constructed to reduce traffic delays through the intersection by more than 600%.
- Pavement removal was completed at the intersection of S. Gilbert Street.
- Storm drainage was constructed (6%)
- IREA completed around 35% of their relocations
- Black Hills mobilized to the site to begin utility relocation work
- Casting began for storm drainage structures

**Budget:** \$6,817,145

**Construction Completion:** Winter 2020

**Phase 2: Widening Plum Creek Parkway from Eaton to Ridge Road – Designer Kimley-Horn, ROW Acquisition Western States** – The following is a summary of design activities performed this month:

- Town staff continued efforts to progress phase 2 design including:
  - Scoping to define constraints of future development considerations
  - Worked with Kimley-Horn to refine a proposal for additional design efforts required to complete design
  - Began evaluating required environmental permitting.



- Began evaluation of typical section in order to make adjustments to fit improvements within current Town ROW.

**Budget:** \$794,375

**Design & ROW Completion:** Summer 2020

8. **Downtown Alley Improvements:** Four alleyways in the downtown area are beyond their service life and are not providing an appropriate level of service. Design for all four alleys is underway right now. Reconstruction of alley pavement in addition to drainage improvements and sanitary sewer system replacement will renew the service life of both the pavement and sanitary sewer in the area. The construction will be phased over two years. The four alleys currently under design are:

- 2 Alleys (Westerly Alleys) – Located West of Jerry St. between 5<sup>th</sup> and 3<sup>rd</sup> streets
- 2 Alleys (Easterly Alleys) – Located East of Perry St. between 6<sup>th</sup> and 4<sup>th</sup> streets

#### **Monthly Progress & Status**

- Final utility investigation is scheduled to begin in the coming month.
- 90% plans were issued to utility stakeholders and a utility kickoff meeting was scheduled.

#### **Target Milestones**

1. Advertise Phase 1 Construction Contract (western alleys): 6/30/2020
2. Phase 1 Construction – Late Summer 2020

**Budget:** \$400,000

#### **Traffic Signal System Upgrades –**

This project is a multi-year signal system upgrade 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.

- CDOT has the Town purchased travel time monitoring devices for Meadows/Founders Pkwy and Wolfensberger and I25 signals and is working on gathering network and server information for device programming. CDOT is responsible for installation, and is experiencing slow work time frames due to COVID-19.
- Vehicle detection equipment replacements are complete on Wolfensberger Road. Meadows Parkway is delayed due to

construction issues, and is now scheduled for early June.

- We are scheduling vehicle detection replacements at Plum Creek Parkway and Plum Creek Boulevard, to remove the detection equipment that the Town was trialing and replace it with the Town standard system. There have been regular detection reliability issues with the trial equipment that the vendor is unable to resolve.
- Town staff submitted a letter of intent for the DRCOG traffic signal system call for technology projects for fiscal years 2021-2023. Our project is upgrading to advanced vehicle detection on regional corridors, and amplify the use of traffic signal performance metrics on more of the system to improve operational efficiency and safety.

**Budget:** \$125,000

**Construction Completion:** Winter 2020

#### **2020 Intersection Signalization Construction Project –**

This project is the construction of one new signal in 2020 at Meadows Boulevard & Cherokee Drive.

- Due to pandemic impact to Town revenues, this project has been postponed until later in the year but will be advertised for bids in late Summer.

**Budget:** \$305,000

**Construction Completion:** Winter 2020

#### **Rectangular Rapid Flashing Beacon (RRFB) 2020 Project –**

This project addresses the requested pedestrian beacon crossing locations that staff received in 2019 at the 10 highest priority locations.

- In May, we routed a contract for construction for approval and a purchase order for Lanelight beacon equipment.
- We coordinated with Community Relations regarding an outreach plan for the project
- A pre-construction meeting with all Town stakeholders and the contractor for installation was held.
- A work order for installing advance pedestrian crossing signs for lower priority locations was created.

**Budget:** \$305,000

**Construction Completion:** Late Summer 2020

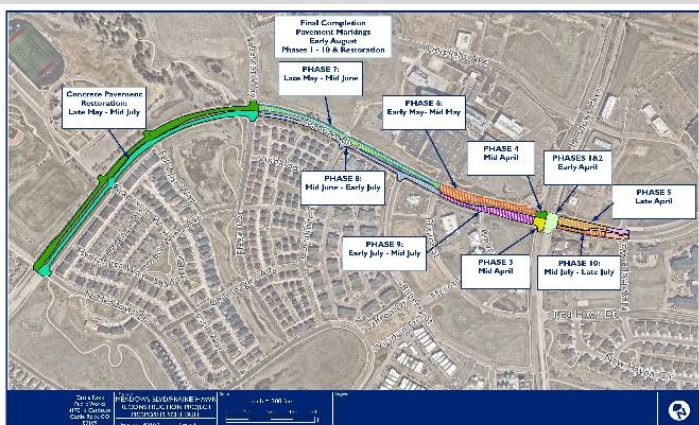
## 2020 Pavement Maintenance Program (PMP)

The 2020 PMP is focusing its efforts in the Central PMP area with additional work taking place on primary streets (Meadows Boulevard, Prairie Hawk Dr., Factory Shops Blvd., and Park Street).

**Sidewalk, curb and gutter** repairs were completed this month. The residents & businesses within the Central PMP area were notified via letters as well as the use of variable message boards, that repair and maintenance work was to begin. All punchlist items were completed as well.

In general, work progressed through the Central PMP area in a clockwise manner, starting in an area off of Red Hawk Ridge Drive. The Town's contractors will be preparing the streets to receive crack seal and mastic as well as asphalt patching. Sidewalk, curb and gutter repairs are expected to run through June and asphalt patching is scheduled to begin in mid-June and run through July. The asphalt slurry seal that is typically included with the PMP each year has been canceled. This was done to reduce 2020 expenditures given the expected revenue shortfall related to the COVID pandemic.

**Meadows Blvd/Prairie Hawk** reconstruction project began on Monday, April 6. The contractor was able to complete existing concrete removal and pave the intermediate and bottom mats in phases 1-7. Subgrade will be cement treated in remaining phases 8,9&10 in preparation of asphalt paving. The contractor will schedule final top mat paving at night as they are doing all phases at once. The overall phase map is below.



The **Asphalt Overlay** project began construction with concrete repairs on April 6 on Factory Shops Blvd. The contractor has been progressing quickly due to good weather so the project is approximately 80% completed. The project will wrap up the month of June.

The Traffic Engineering Division was able to have our contractor construct pedestrian refuges, ADA ramps and place a new striping pattern in some of the overlay streets.



**Full Depth Reclamation** project was completed in May. The contractor completed all punchlist items. The project came in well under contract time and budget.

## 2020 Facilities Parking Lot Improvements Program

This contract saw the reduction to the scope of work that was originally bid. Due to impacts to Town revenue associated with the pandemic, maintenance to certain facility parking lots have been deferred.

However, Castle Rock Water decided to go forward with their parking lot improvements. The parking lots include the following:

- Milestone Pump Station (Founders Pkwy)
- Miller Treatment Plant (Plum Creek Blvd)
- Prairie Hawk Well Field (A7)
- Castle Oaks Lift Station

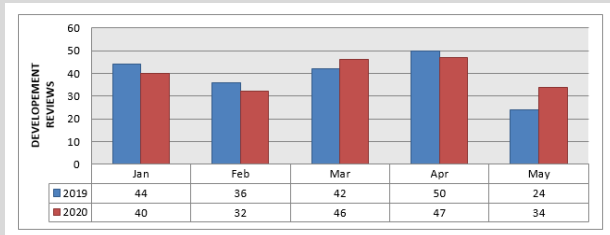
Work is schedule to begin in August and continue through September.

## 2020 Bridge Maintenance Program (BMP)

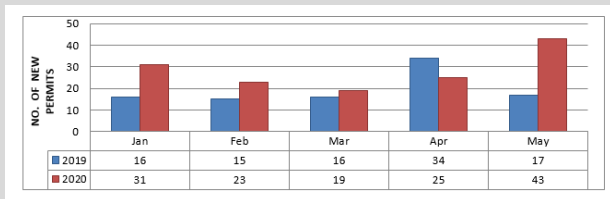
Bids for the 2020 Bridge Rehabilitation for the 5<sup>th</sup> Street Bridge over I-25, will be submitted for competitive bids upon the Colorado Department of Transportation's completion of the proper paperwork and environmental studies. The project is expected to start in June and be complete by the end of July 2020, pending weather.

## Development Review and Permitting

**Development Review** - All 34 reviews were completed on or before the due date by the PW Development Services Team.



**Permitting & Inspection** - 43 right-of-way permits were issued and over 200 inspections were conducted.



## Transportation Planning & Traffic Engineering Division

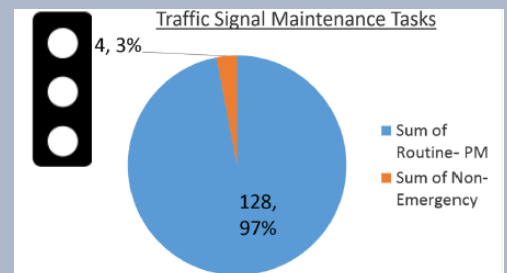
### Taxi Voucher Program

For the month of May, the Taxi Voucher Program funded 104 rides; this was slightly less than last year's May total of 111 rides. Ridership in May did not significantly drop from last month, in fact rides were only down 7 in total. 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, 19 individuals used the Town's Taxi service. Of those that used the service, 75% of the rides were for work, 11% were for shopping trips, and 14% for medical appointments. There was one new rider that registered for the service raising the total of registered riders to 437 in the Taxi Voucher Program.

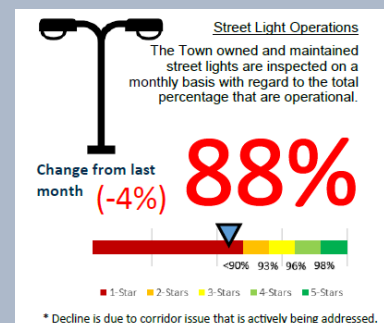
The Castle Rock Senior Center provided a total of 274 rides in May. The Senior Center continues to provide seniors reassurance calls, and grocery shopping and delivery service, as well as prescription pick up delivery service due to the COVID-19 impacts.

## Traffic Engineering and Operations

### Traffic Signal Operations and Maintenance

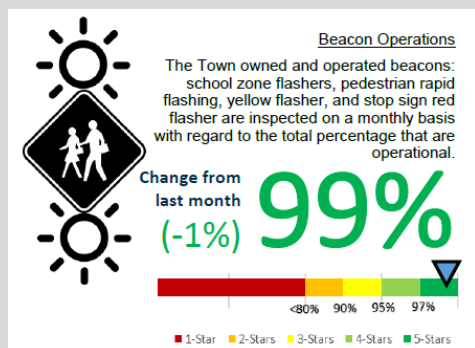


### Street Light Operations

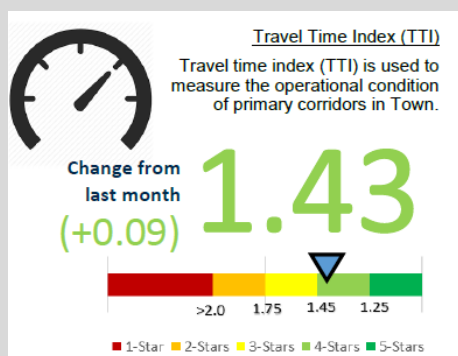




## Beacon



## Operations



## **Street Signs and Pavement Marking Maintenance**

During the month of May the crew accomplished 1,056 tasks. Of these tasks 53 of them were sign work activities related to fabrication, install, repairs and replacements. 853 of these tasks were markings work activities related to investigations, inspections, replacements, original installations and removal of some records from the database. The team also installed two new red flashing beacons on Enderud and Heritage. Finally, we completed 56 rapid flash beacon windshield inspections.

The Town's long line (double yellows and white lines) contractor is almost done with the first round of striping. Signalized intersection crosswalks, stop bars and arrows will begin by mid-June.

## **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 collector roadways. There were several new traffic calming inquiries in May. Streets with requests included Moonfire Way, Clear Sky Way, and Palmer Drive. Homeowners have been contacted and informed about the program. Support petitions were provided to the homeowners, but none have been returned at this point. Traffic calming yard signs were provided to the homeowner on Moonfire Way. The petition that was previously sent to the homeowner on Rising Moon Way about changing the existing mini circle has not been returned. The following provides updates for the two active projects:

- **Diamond Ridge Pkwy:** The Diamond Ridge Parkway traffic calming team is continuing to work with the study area's working group. A meeting has been scheduled for Wednesday June 3<sup>rd</sup> to review the plan and make any amendments before the plan is shared with the study area.
- **Bittern Street / Loon Circle:** Town staff is working to implement the neighborhood's approved plan that will replace the existing circles on each street with a speed cushion. Town staff held a pre-construction meeting in May to begin coordination of the work. Construction will be complete this summer.

### Castle Rock Transit Feasibility Study:

Two presentations were provided to the Chamber of Commerce during the month of May. They were informed of the three transit options being analyzed further. The Chamber was asked if they had any comments or concerns with the options. No comments were provided. To review the three service models are;

1. Point to Point On-Demand Service
2. First/Last Mile Service
3. Local microtransit

These three service models were identified as the most feasible options for the Town while still meeting the transit needs. However, the Chamber was reminded that transit service will not begin once the study is completed. The study is a tool for Town Council to use to help aid future decisions. The next steps of the study

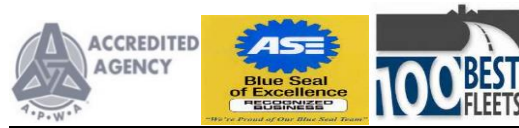


will be to develop conceptual models with service plans, costs, and budgets.

#### USDOT BUILD Grant Application:

Town staff completed a federal BUILD grant seeking \$5.4 million for pre-construction activities, such as design, environmental clearance, and right-of-way acquisition. The Town will know the outcome of the grant later this fall.

## Fleet Services



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 put into effect a program from Ford Motor Co. to disinfect our patrol vehicles using the vehicles on board computer and our shop diagnostic laptop. Big thanks to the IT Department for getting that installed so quickly on the shop computer. Fleet staff also completed a successful auction and sold two old Town vehicles for a total of \$20,000.

The Fleet Division was very productive and that shows in our benchmark comparisons listed below. The Fleet Division billed out \$62,000 of parts and labor and completed 128 work orders. As well as meeting the following objectives and benchmarks:

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

**Outcome:** Fleet team completed 84.5% 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.

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

**Outcome:** Town vehicles and equipment were available 97.6% 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 73.5%. Very high productivity well above our benchmark. .

Overall we completed 128 work orders and processed \$62,000 in parts and labor and another \$16,000 in fuel transactions. The fleet parts division returned a large number of obsolete parts and received a credit of \$2,000. Fleet technicians Chris Selheim, Eric Dena, Rod Claassen, and Caleb Wood all worked on ASE certifications and other training when at the shop.



*Technician Chris Selheim using shop laptop to disinfect patrol vehicle*

## Street Operations & Maintenance Division

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

- Pothole Repair
- Trash Pick up
- Weed Control
- Sweeping
- Roadway Shoulder Maintenance
- Crack Seal Operations

In May, the Streets crew responded to three snow events totaling 11.7 inches. Streets were cleared within 5 hours of the end of snowfall. This is one of the essential emergency services that the Streets Division provides to the town.

### Pothole repair

During May, Supervisors inspected 213 miles of roadway for potholes. This is the continuance of the proactive pothole repair program recently enacted by the Streets Division. Crews were dispatched to repair the equivalent of 99 potholes throughout the inspection area. Potholes outside the inspection area were inspected, prioritized, and repaired and concerns were called in to the Roads Mailbox.

### Trash Pick up

Crews were out cleaning trash up off the side of the roadways in preparation of the upcoming mowing season. In conjunction with the Road Rangers program, the Streets Division crews filled and picked up 224 trash bags from the road verge areas throughout Town. This enhances the appearance of the Town and prevents mowers from running it over.

### Weed Control

In May, crews were also out spraying in strategic areas to control noxious weeds along the roadsides as well as in select medians. Crews treated just over 100 edgeline miles of roadway to prevent weeds from growing and obscuring medians, fire hydrants, guardrails, and various other safety and visibility related devices.

### **Sweeping**

The Spring Sweep program continued through May to clean all of the roadways in Town, completing 344.27 lane miles. In addition to the bi-monthly business area sweeping that covered 122.19 lane miles of roadways in the downtown and business areas of Town.

### **Road Shoulder and Gravel Road Maintenance**

In May, Streets Division personnel carried out maintenance operations on Rocky View Road, which needed grading to re-establish the smooth road surface. In addition, they also completed 10 edgeline miles of road shoulder operations on Mitchell, Ridge Road, the East Frontage Road and other needed areas in Town.

### **Crack Seal Maintenance Operations**

Crack seal operations went into full swing in May, with crews completing 21.59 lane miles of 78 lane miles planned in the Founders area for this season's preventative maintenance program. This operation is carried out in close coordination with the Engineering Division and is a key portion of maintaining the lifespan of the roadway.

