



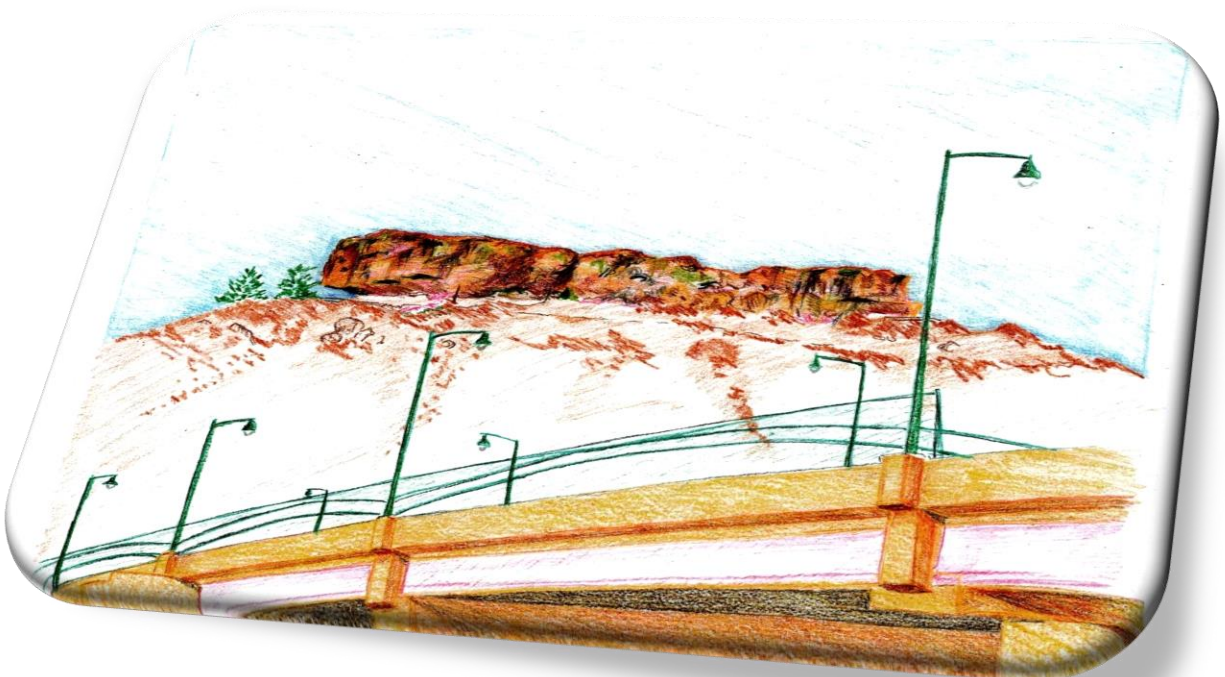
The Public Works Department operates under the CAN DO philosophy
- We are committed to doing the job right with a positive attitude
while staying dedicated to meeting the needs of our Town values
and continually searching for opportunities to improve.

PUBLIC WORKS DEPARTMENT

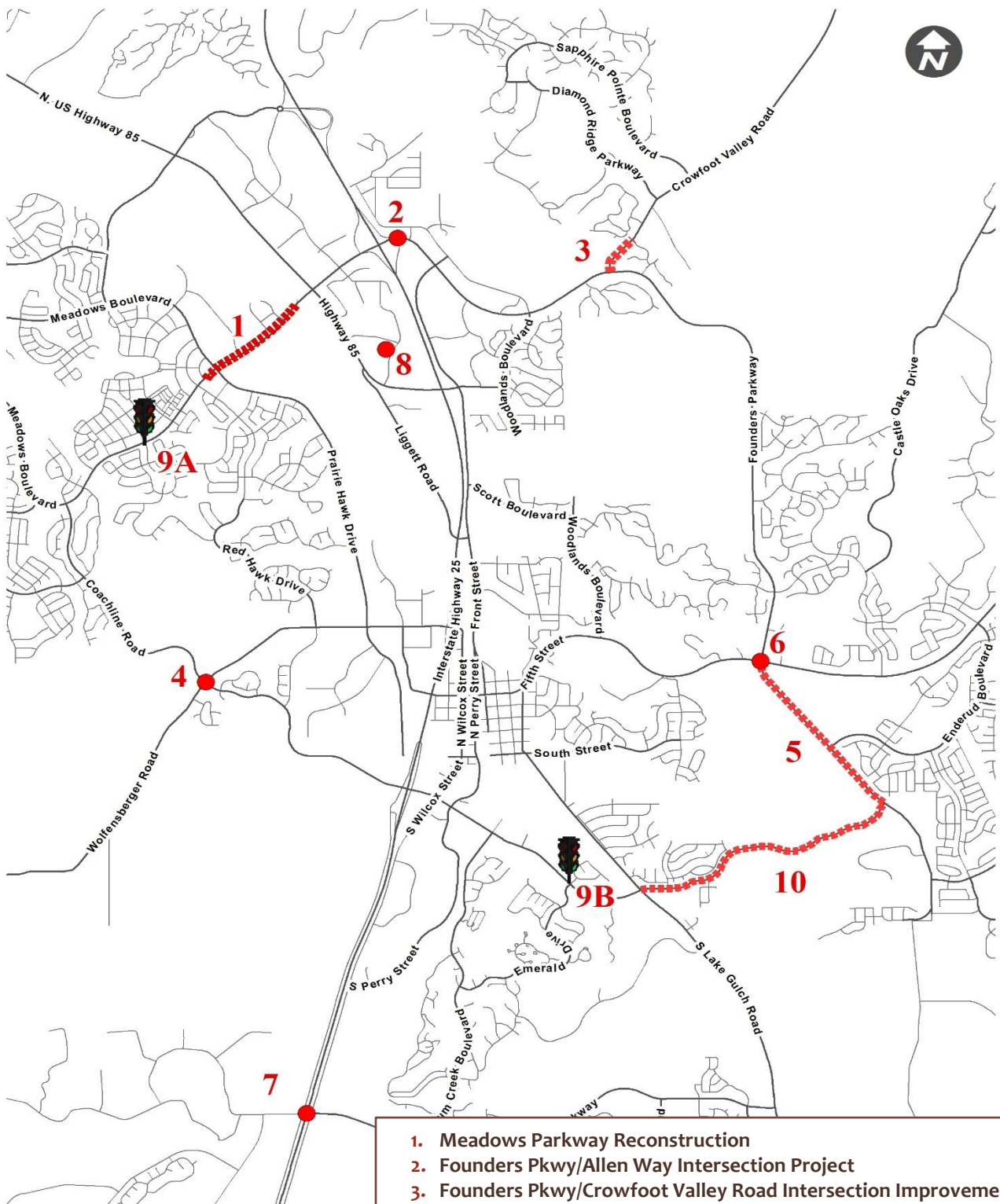


*Our Mission: To provide
outstanding service, safety
and support for
transportation infrastructure
and maintenance.*

MONTHLY REPORT – MARCH 2018



CAPITAL PROJECTS



1. Meadows Parkway Reconstruction
2. Founders Pkwy/Allen Way Intersection Project
3. Founders Pkwy/Crowfoot Valley Road Intersection Improvements
4. Roundabout at Wolfensberger Road/Plum Creek Pkwy
5. Ridge Road Widening (SH86 to Plum Creek Pkwy)
6. SH86/Fifth Street Intersection Improvements
7. Crystal Valley Interchange (Right-of-Way Acquisition)
8. Public Works Facility Expansion
9. 2018 Traffic Signal (9A & 9B)
10. Plum Crk Pkwy Widening & Plum Crk Pkwy/Gilbert Roundabout

1. Meadows Parkway Reconstruction - This improvement project will consist of the reconstruction of the existing 4-lane roadway of Meadows Parkway from the intersection of Meadows Parkway and Prairie Hawk Drive to the railroad overpass over Plum Creek near US 85. This reconstruction will also replace any broken curb/gutter, sidewalk, and add on-street bike lanes. **Phase:** Construction – The project was awarded to Schmidt Construction Company at the February 20 Town Council meeting. Felsburg, Holt, and Ullevig (FHU) will assist the Town with construction management. The Town has begun community outreach and will hold an Open House on April 12th at the Grange in the Meadows Subdivision. Construction will occur in the summer of 2018. **Budget:** \$2,467,000 **Construction Completion:** Late Summer 2018

2. 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: Design & ROW Acquisition – Felsburg, Holt & Ullevig is the design consultant for this project. The following is a summary of the design activities that took place during this month:

- Continued to work on right-of-way appraisals
- Final Office Review (FOR) plans are complete and has been provided to the Town and CDOT for review.
- The FOR is currently scheduled with CDOT for April 17th

Budget: \$760,000 **Design Completion:** Summer 2018 **ROW Completion:** Fall 2018

Construction: 2019 (Tentative)



Founders Parkway/Allen Way Proposed Intersection Layout

3. 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: Design and ROW Acquisition – Kimley-Horn is the design consultant for this project. The following is a summary of the design activities performed this month:

- Design plans are at 99% completion

- Town's Legal and Public Works staff continue to work on right-of-way and easement agreements with neighboring properties
- A revised right-of-way agreement has been submitted to CDOT for review
- Town staff has walked the site with neighboring HOA's

Budget: \$650,000 (2016-17) Design Completion: 2nd Quarter 2018 ROW Completion: Summer 2018 Construction: Fall 2018

4. 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 potential accidents. **Phase: Construction** – Short Elliott Hendrickson Inc. (SEH) is the consultant for this project. The following is a summary of the activities performed this month:



- The Town opened bids on March 15th (7 bids were received). Staff is analyzing all bids with an anticipated selection early April.
- Staff is continuing to work with Castle Rock Development Company on finalizing right-of-way and temporary easements

Budget: \$1.14M Construction: Summer 2018

5. 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: Stanley Consultants, Inc.,** has been awarded the design contract for this project. Design is currently at 30% awaiting design of the Founders Parkway/Fifth Street roundabout for tie-in location. **Budget: \$400,000 Design Completion: 2018 Construction: 2021 (Tentative)**

6. Founders Parkway (SH86)/Fifth Street Intersection Improvements – The consultant investigated multiple alternatives to address safety concerns and capacity issues at the intersection and it was determined that a roundabout will be constructed at this location. **Phase: Design** –Short Elliott Hendrickson, Inc. (SEH) is the design consultant for this project. SEH has begun design and will have it completed by December 31st. Town staff met with the consultant in late March to discuss traffic impacts of preliminary design. Consultant is making changes per the meeting discussion before presenting results to CDOT. **Budget: \$340,000 Design Completion: 2018 Construction: 2021 (Tentative)**

7. 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: Town of Castle Rock** entered into a service agreement with Woolpert, Inc. to provide land surveying services for the Crystal Valley Interchange east and west side Right-of-Way Plan Review (ROWPR). The following is a summary of the activities performed this month:

- Continue to work on the full right-of-way plan sets and legal descriptions

Budget: Development Escrow

8. Public Works Facility Expansion – This project will complete design plans for the Service Center building expansion. **Phase: Design** - The following is a summary of the design activities that took place during this month:

- Continuing to work on the final design and bid documents
- Town staff, including the Water & Parks departments, is working on the Xeriscape landscaping design which promotes water efficiency.

Budget: \$220,000 Design Completion: Spring 2018



9A&9B. 2018 Intersection Signalization Project - There are two new signalized intersections planned for construction in the summer of 2018. These intersections include, Meadows Parkway/Low Meadows Boulevard, Plum Creek Parkway/Emerald Drive. The 5th Street/Valley Drive intersection was also a part of the

design project, and will be restriped to accommodate a westbound acceleration lane on 5th Street.

Phase: Construction – Bid advertisement is complete with WL Contractors being the responsible low bidder for the two signalized intersections (Schedule A) and the Fire Department's emergency signal (Schedule B). The Town's striping maintenance contractor, Colorado Barricade, was the responsible low bidder for the restriping of 5th Street/Valley Drive (Schedule Alternate A). Additional contractor work for supplying and installing illuminated street name signs at the new signalized intersections will be change-ordered into the project. Town Staff will present the construction contract to Public Works Commission on April 2 and to Town Council on April 17. The target date for notice-to-proceed is mid-May, pending Council approval. **Construction Budget: \$600,000 Construction Completion: Fall 2018**

Town Staff finalized orders for long lead time items of signal poles, mast arms, signal controllers, and signal cabinets. These are Town supplied, contractor installed items. Due to changes in federal tariffs on steel, the delivery time for signal poles and mast arms has been delayed 8 weeks with anticipated notice of delivery by mid-to-late July. Other long lead time items are scheduled for delivery well before signal poles.

10. Plum Creek Parkway Widening and Plum Creek Parkway/Gilbert Street Roundabout Project – This project will address the need for the following improvements:

- Convert Plum Creek Parkway/Gilbert Street intersection into a roundabout
- Reconstruct the existing 2-lane section of Plum Creek Parkway from Gilbert Street to Eaton Street
- Widen Plum Creek Parkway from Gilbert Street to Eaton Street
- Widen Plum Creek Parkway from Eaton Street to Ridge Road

Phase: Design and ROW Acquisition – Staff completed its review of four proposals received from design consultants and has selected Kimley-Horn. The scope of work and contract will be presented to the Public Works Commission on April 2 and Town Council on April 3. **Budget: \$794,375 Design & ROW Completion: 4th Quarter 2018**

Traffic Signal System Upgrades (Phase 3) – This project is the third and final phase of a multi-year project that was approved as part of the Town's Strategic Plan early in 2015. The two main components of the Phase 3 project are; installation of CCTV, and travel time monitoring devices at key intersections. In the month of March, Traffic Division staff (TD) and DoIT staff met to discuss best practices for evaluating and locating CCTV cameras. TD created a reconnaissance evaluation table to determine viewing capability at all proposed camera locations, including remote locations, similar to the "Rock" camera we are evaluating, in conjunction with Water Department's existing electrical power and communication connectivity at water tank high points around Town. In April, a field evaluation of these locations will be conducted. Public Works gained access to CDOT's NiceVision (video management software) that provides pan, tilt, zoom (PTZ) access to CDOT COtrip cameras in Town and across the State. These CDOT cameras will be included in our field evaluation.



TD staff have met with two different product vendors regarding travel time monitoring, Acyclica (Wi-Fi) and Trafficast's BlueToad (Bluetooth). An evaluation criteria has been established for desired system performance and an evaluation period for each has been scheduled for deployment by late-April that will run through May. Devices are intended to provide real time and historic data monitoring of travel time on Town's primary arterial corridors, share the travel time info to public via web based viewer and with CDOT's COtrip information service, as well as provide a management center analysis

data for origin and destination, and route finding. Other technologies have been explored, and these two products have been found to be the front runners in terms of the reliability, interaction by a traffic management team, sharing with CDOT and the public, data analysis, and forward thinking for next generation technology capability. The two corridors to be evaluated include Plum Creek Parkway with downtown origin and destination tracking devices on 5th Street, and Wolfersberger corridor with a downtown and Meadows origin and destination device. Budget: \$520,000 Project Completion: Late Fall 2018

Engineering Division

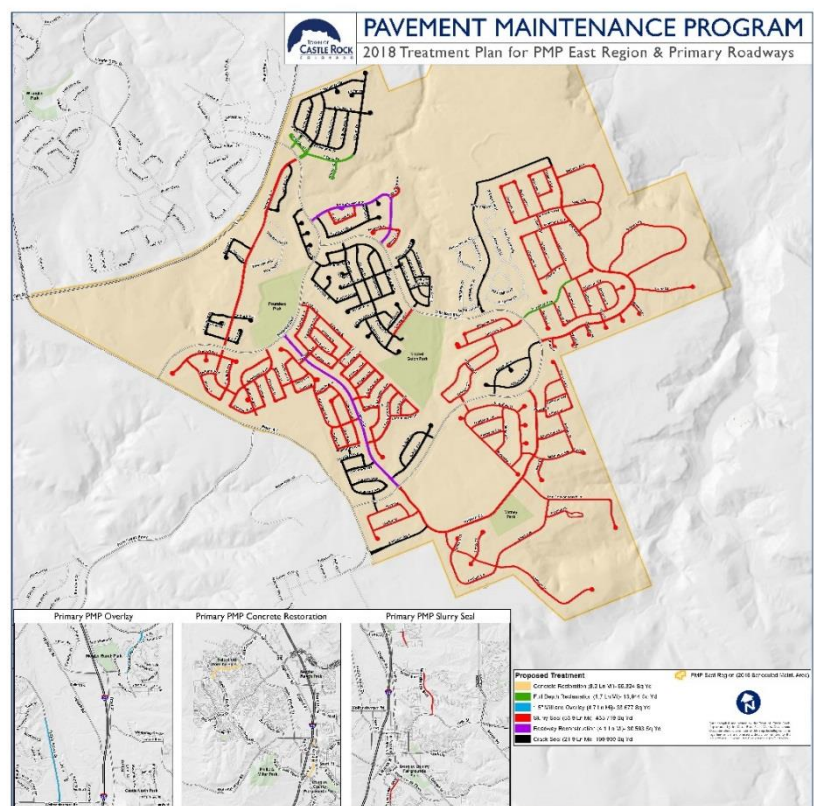
2018 Pavement Maintenance Program (PMP) - The 2018 PMP will focus its efforts in the East PMP area with additional work taking place on primary streets (Woodlands Boulevard, Wilcox Street, Prairie Hawk Drive, Plum Creek Boulevard, and Meadows Boulevard). Town Council approved all eight contracts at their March 6 meeting. Approved contracts this year are:

- Asphalt Overlay and Full Depth Reclamation Project
- Meadows Boulevard Concrete Pavement Restoration Project
- Wilcox Street Concrete Pavement Restoration Project
- Slurry Seal Project
- Mastic and Crack Seal Project
- Curb, Gutter & Sidewalk Replacement Project
- Lantern Trail Reconstruction
- Wagonwheel Trail Reconstruction

Notice of Award documents have been sent to the contractors and staff is preparing to review the performance and material bonds as well as the insurance documents. Staff is also setting up pre-construction meetings with several of the projects tentatively scheduled to start in April.

A March 27 Public Outreach Open House is held at the Founders Village Pool House. This open house provided staff the opportunity to brief residents and businesses on the maintenance activities, and schedules including night work for the 2018 PMP.

The PMP map indicates the proposed scheduled treatments for street within the East PMP area and Primary Streets.



2018 Facilities Parking Lot Improvements Program - The bid opening for this program is complete with Straight Line Sawcutting Inc. being the apparent low bid. The process of checking and verifying the bid documents is currently underway. Staff plans to present the contract to the Town Manager by early April for approval. This contract will see needed improvements to three parking lots at Town parks, and one parking lot in the downtown area as follows:

- Parking Lot at 4th Street and Perry Street
- Metzler Park Parking Lot next to the In-line Skating Rink
- Metzler Park Main Parking Lots
- Rock Park Parking Lot

Maintenance will be performed on the Castle North Park parking lot, and the Town of Castle Rock Museum parking lot under a separate contract due to the nature of the treatment

2018 Bridge Maintenance Program (BMP) – Staff has received the proposal from the on-call consulting engineer, Felsburg, Holt & Ullevig for the design of structural repairs. Staff plans to present the contract to the Town Manager by early April for approval. The following locations have been identified for the 2018 BMP:

Structural Bridge Repair

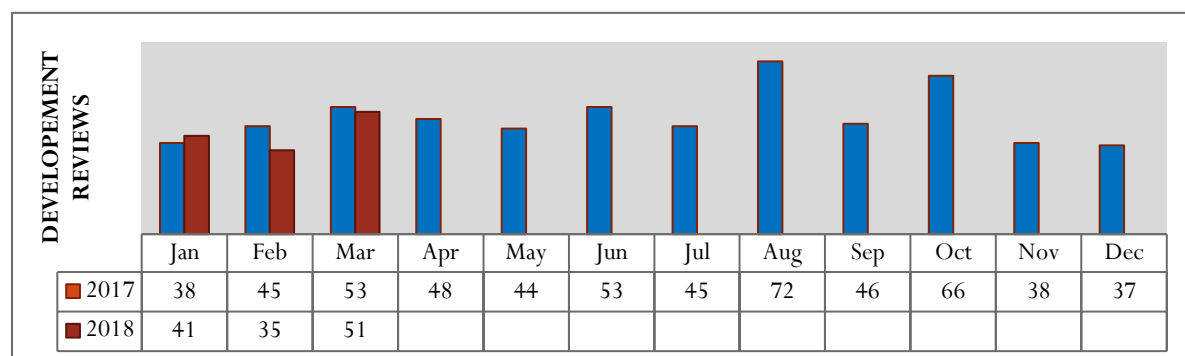
- Castle Oaks Bridge at Rocky View Road
 - ✓ Girder repairs
- Fifth Street Bridge over I-25
 - ✓ Place riprap at column and repair spalled areas
- Perry Street Bridge over Sellers Gulch
 - ✓ Repair girder and girder bearing and upgrade approach rail

Bridge Surface Treatment

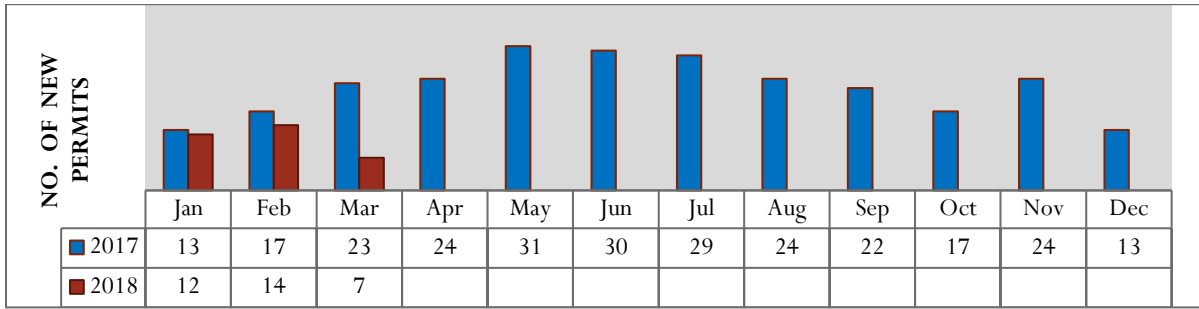
- Front Street Flyover
 - ✓ Mill and overlay wearing surface

Development Review and Permitting

Development Review - Included in the 51 submittals are 25 first time applications with three pre-applications. All reviews were completed on or before the due date assigned by the Development Services Project Manager.

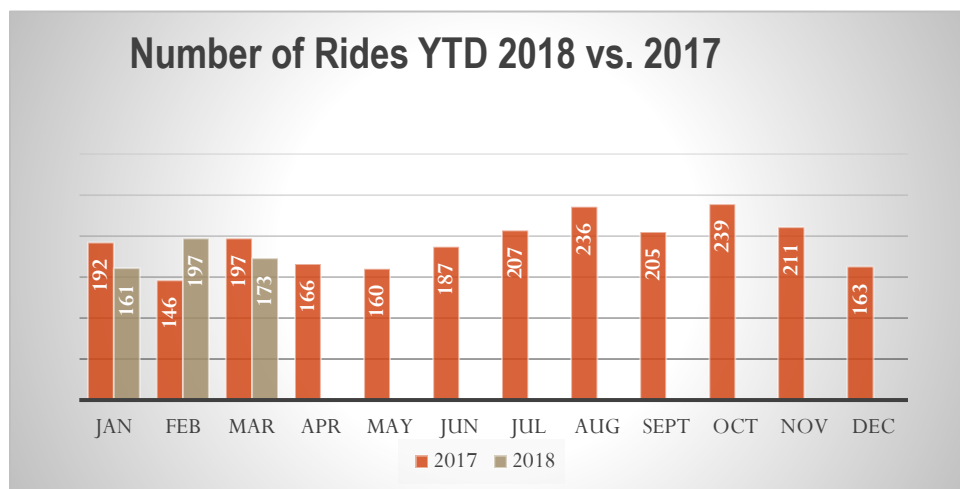


Permitting - Included in the 7 permits are: 3 – Commercial (CVS Pharmacy [Meadows], 7-Eleven [Promenade], and Plum Creek Golf Club). The remainder are for work within the public right-of-way.



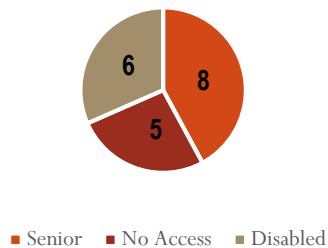
Transportation Division

Taxi Voucher – For the month of March the Taxi Voucher Program funded 173 rides, this was a 12% decrease from last March's total of 197 rides.

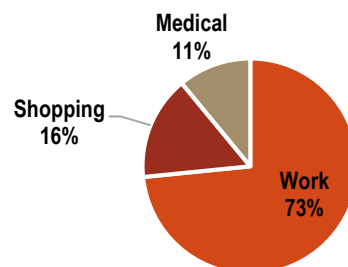


Rides are available for work, shopping or medical trips. Transportation services are provided for Castle Rock residents who are senior citizens, have a disability that prevents them from driving, or do not have access to a vehicle.

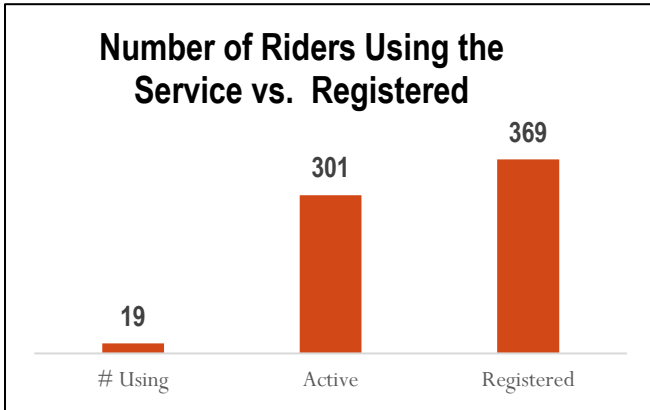
Types of Riders Using the Service



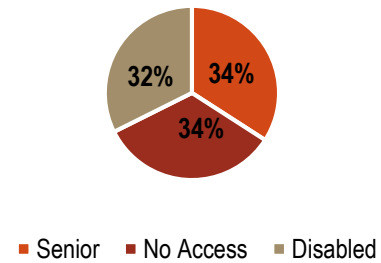
Ride Destinations



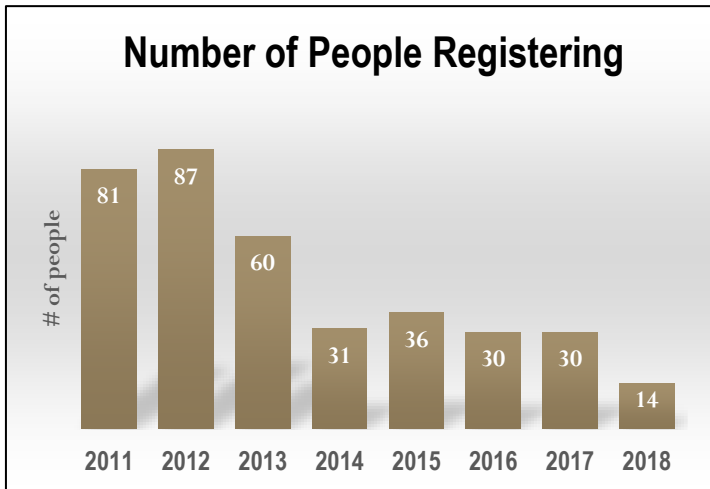
Number of Riders Using the Service vs. Registered



Percentage of the Total Rides (173) by Each Rider Type



Number of People Registering



There were three new registrants for the Taxi program this month. Since its inception, a total of 369 people have registered for the Town of Castle Rock Taxi Voucher Program. Currently 68 of these past registrants are inactive or have dropped out of the program.

Town Trolley - The **NEW** Trolley took its first trip on Town roads providing as transportation for guests attending a tour of the downtown area. Riders enjoyed the new cushioned seats, giant open windows and spacious seating on the new Trolley. The Trolley has already been scheduled for 28 different events this year so hurry and get your reservations in!



Senior Center Shuttle The Senior Center provided 728 rides in the month of March which was an increase of 15% from last month's rides of 633. The volunteer driver program provides service Monday through Friday from 9 am to 3 pm.



Traffic Engineering & Operations



Traffic Signal Operations and Maintenance - In the month of March, five requests from the public were addressed related to traffic signals and intersection operations and maintenance. A total of 17 non-routine traffic signal maintenance visits were completed by Town staff and approximately 38 visits by the Town's signal maintenance contractor. These visits included follow-up preventative maintenance tasks, non-routine maintenance, installation and repair of parts, signal troubleshooting, and work zone activities.

Street Signs and Pavement Marking Maintenance - During the month of March, the signs and markings section completed sign repair and/or replacements on 50 different tasks. The section supervisor also developed level-of-service rating categories for use in the soon to be developed Signs & Markings Asset Management Plan. Finally, the crew provided support to the Town's snow removal program during the storms that occurred during the month.



Transportation Planning

Neighborhood Traffic Calming Program (NTCP)

- Sapphire Point Boulevard: The homeowner has not returned the completed support petition.
- North Meadows Drive: The homeowner has not returned the completed support petition.
- Grady Circle: The homeowner has not returned the completed support petition.

Town staff identified projects:

- Follow-up on Butterfield Crossing: Town staff has developed a conceptual striping plan for the roadway in the immediate vicinity of Meadow View Elementary School. This striping is an interim plan until the roadway is reconstructed next year as part of the PMP.
- Follow-up on Heritage Avenue: Town staff has developed a new striping plan for Heritage Avenue that will be implemented with the PMP and developer work on the roadway this summer. The new striping plan will address the issue of cars crossing the double yellow line and provide a bike lane for students accessing Rock Ridge Elementary or the adjacent park. These restriping efforts will improve safety for all users of the street.

Development Review

- Staff reviewed and commented on five transportation impact studies during the month. All but one report was completed by the due date. The 221 Wilcox Site Development Plan (SDP) proposal was reviewed and comments provided on time. However, the Transportation Impact Analysis (TIA) comments were provided a few days later, however, this did not alter the SDP or project design.
- Staff also reviewed and commented on the Development Agreement (DA) for the "Your Storage" development/annexation proposal, two transportation corridor studies for the Meadows, and road plans for the Lanterns development proposal. All reviews were done on time.

Downtown Mobility Study - Kimley-Horn is the consultant that was selected by the Town's technical committee for the Downtown Mobility Study (DMS). The kick-off meeting was held on March 21. The meeting began with a trolley tour of the downtown study area. Town staff pointed out several new development projects either under construction or planned for the area, including a potential stop location for CDOT's Bustang commuter bus service. In addition, staff mentioned several transportation concerns such as congested intersections, and pedestrian safety issues. An extensive public outreach effort is planned to occur over the next couple of months.

I-25 / Blackfeather Trail Interchange and Founders Corridor Study - Town staff has selected Felsburg, Holt, and Ullevig (FHU) to assist the Town in conducting the I-25/Blackfeather interchange and Founders Parkway corridor study.

I-25 / Crystal Valley Parkway Interchange Study - Town staff has selected FHU to assist the Town in conducting initial traffic analysis to explore the possibility of constructing a paired interchange utilizing the existing I-25/Tomah interchange and the future I-25/Crystal Valley Parkway interchange. Key partners on the study will be CDOT and Douglas County.

DRCOG Active Transportation Plan (ATP) - The purpose of the ATP is to develop a regional active transportation vision, implementable plan, and products to support the development of a robust active transportation network in the DRCOG region. Town staff continues to work with DRCOG on the completion of this plan.

DRCOG 2021 – 2023 Transportation Improvement Program - The TIP Working Group continues to work with the DRCOG Board of Directors to establish the regional project submittal process and scoring criteria. At the sub-regional level, local staff from the Douglas County area have met to establish the technical committee that is expected to draft the sub-regional selection process, as well as the project eligibility and scoring criteria. The sub-regional effort will continue to proceed, but the criteria at the regional level is expected to be finalized first. The call for regional and sub-regional projects is still expected to be released this summer and fall.



Fleet Services

"Keeping Castle Rock on the Move"



As we drive around this Town of ours and see how busy all the different departments are with all the growth, from the Fire and Police departments along with Parks, Public Works, Water and Development Services relying on their Town issued vehicles to keep up with the first class service that we provide to the citizens of Castle Rock here at the Fleet Services Division, we take great pride in knowing that those vehicles are reliable and safe to operate!

January 2018 started off strong for the Fleet Services team. The Fleet Services Division completed 101 work orders and billed out over \$61,000 of labor & parts. Also the Fleet Services Parts was able to fill over 90% of the common parts requests.



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

Outcome: Fleet team completed 77% of the work orders within 24-hours of opening repair requests or service requests.

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 availability rate indicates 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 86%. This was one of our highest month ever – way above our benchmark of 70% compared to the standard set by the American Public Works Association (APWA).

The Fleet Division also received two new vehicles this month; a **combination vac and jet truck** for the Water Department and a **front end loader** for the Public Works Street Operations & Maintenance Division.



Place Order

We also placed orders for 15 more new units for 2018.

Street Operations & Maintenance Division

During the month of **March**, the Street Operations & Maintenance Division (SO&MD) performed work in eight (8) maintenance operations:

- Snow & Ice Control
- Street Sweeping
- Special Operations
- Crack Sealing
- Pavement Repair
- Pothole Patching
- Equipment Maintenance
- Training



Snow & Ice Control

March brought 11 inches of snow to Castle Rock, and crews were on hand to make sure it was mitigated as quickly as possible. Staff used **51 tons** of granular de-icing materials to help keep roads safe for traffic. After each snow event, snow removal operations were completed in the downtown business areas and, with help from the warmer weather, they were nearly dry each day thereafter.

Pavement Repair

SO&MD received a few requests for asphalt repairs during the month and completed the repairs on the alley east of Wilcox between Fifth & Sixth streets using **13.5 tons** of asphalt. The staff also addressed several repairs in other alleyways in the downtown area, north of Second Street and north of Fourth Street (to name a few). Additionally, staff repaired a utility patch on Coach House Loop using **5 tons** of asphalt.



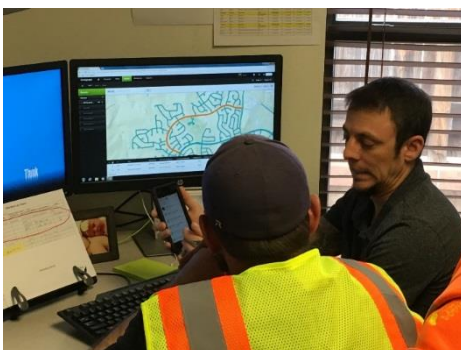
Pothole Patching

Streets O&MD received a few requests for pothole repairs during the month and completed repairs on [470 potholes](#). The major areas addressed were Meadows Boulevard, Butterfield Crossing, and a few main roads in Founders Village. Ninety-eight bags of cold mix asphalt were used on roughly 350 potholes, and 3.8 tons of hot mix asphalt were used on another 120 larger holes.



Street Sweeping

Staff executed sweeping operations subsequent to the ice and snow events in total removing of material from [435 lane miles](#) of our primary roadway network. The goal of sweeping 65% of roadways that received granular de-icing materials within four days of a snow event was exceeded by 1% during the month with staff hitting 66%, using only three sweepers. The staff also made an early morning sweep of the downtown area, as this area was accumulating a large amount of debris. Additionally, training was done to record the sweeping operations into Cartegraph software program. These operations enhance the overall health and appearance of our Town by reducing the amount of trash and debris on the streets.



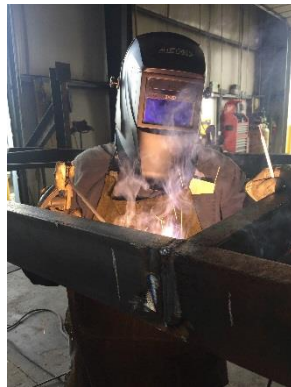
Crack Sealing

During a break in the cold weather, the staff took advantage of the time to get a jump on this year's crack seal maintenance needs. Staff completed crack sealing at the Metzler Park, Metzler Skate Park, Castle Rock Museum, and Castle Rock Park parking lots. These operations improve the life of the pavement by minimizing the deteriorating effects of any new cracks that have appeared.



Equipment Maintenance

In this line of work equipment maintenance is a necessity in order to keep things ready to go at a moment's notice. During this last month, staff worked diligently ensuring snowplows and de-icing units were ready to tackle the snow events that did and did not arrive. The staff also worked on the street sweepers and crack seal machinery, making sure that they are operational and in good working order for the upcoming season. In total, the staff completed [25 work orders](#) helping to ensure the equipment is consistently working at optimum performance and reliability.



Special Operations

The new Snow Storage/Slash & Mulch site has seen some dramatic changes as Streets O&MD staff has been working to improve the Town's lot at the north end of Caprice Street. This last month marks the completion of this phase of the project, as the access ramp, and the combined site were completed and readied for operations this spring. Staff coordinated with the Douglas County Maintenance staff and moved logs and brush piles in preparation of mulching operations. Additionally, staff has coordinated with the Engineering Division to utilize and store the asphalt millings from this year's PMP operations.





Training

Twelve staff members completed the “Roadway Safety & Work Zone Traffic Control” provided by Colorado LTAP. This course will help our staff and our operations to be the best they can be.

Looking Ahead

Looking to the month of **April**, we will continue to address snow events as they occur, followed by sweeping operations and pothole repairs as needed. We will continue to develop our personnel with ongoing training and other learning opportunities offered by Castle Rock University and Colorado LTAP, as well as shared on-the-job training. Staff will also complete the repairs to the access gate at the north end of Caprice Street.