



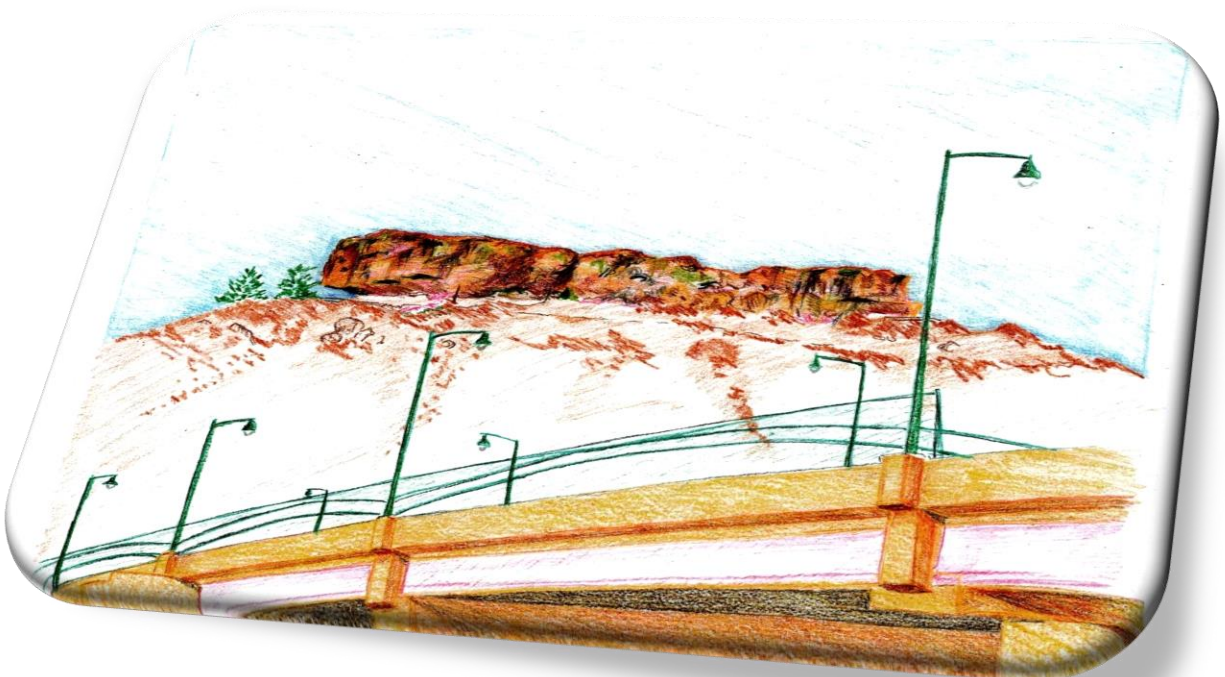
The Public Works Department operates under the CAN DO philosophy
- We are committed to doing the job right with a positive attitude
while staying dedicated to meeting the needs of our Town values
and continually searching for opportunities to improve.

PUBLIC WORKS DEPARTMENT

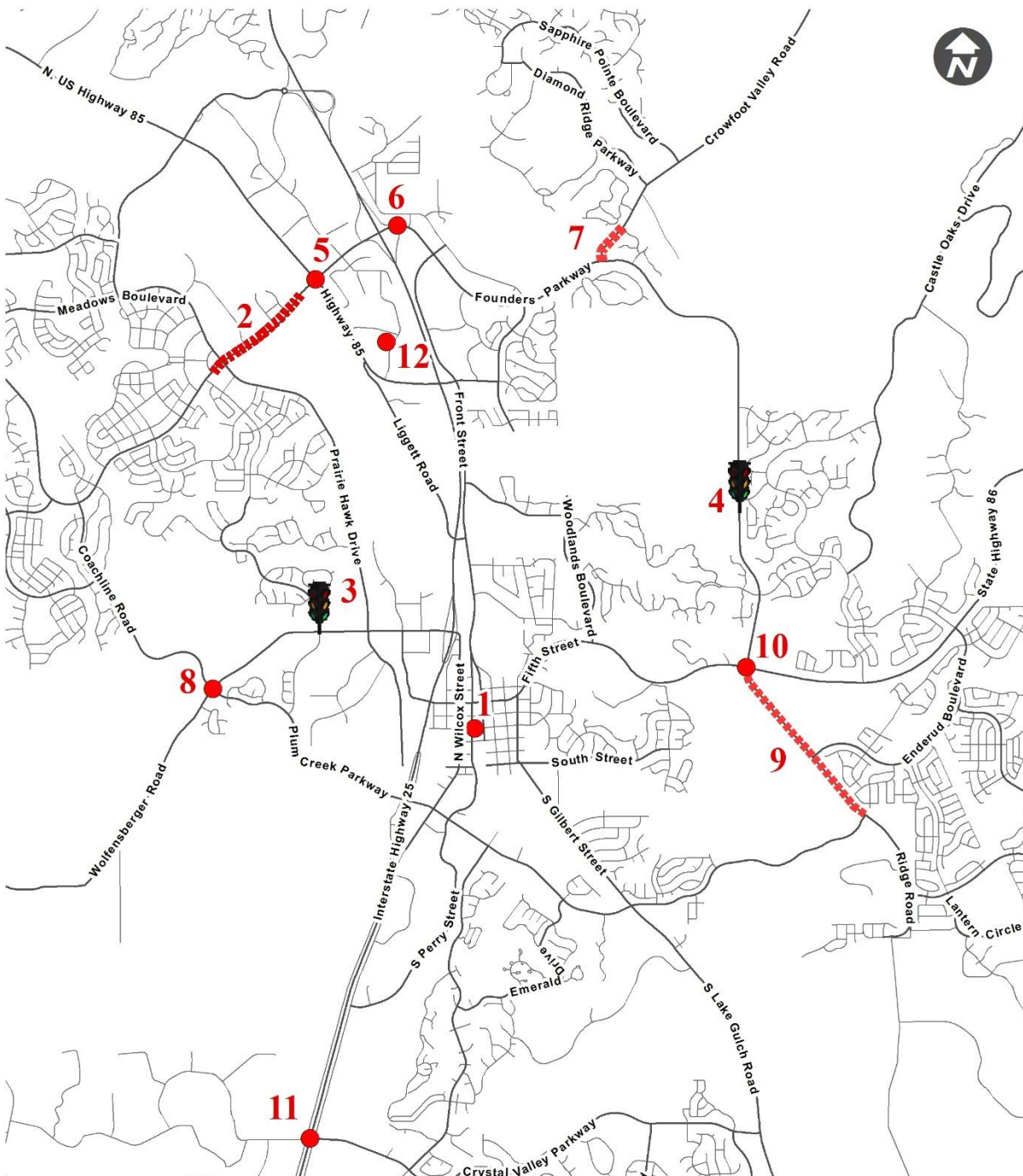


***Our Mission: To provide
outstanding service, safety
and support for
transportation infrastructure
and maintenance.***

MONTHLY REPORT – APRIL 2017



CAPITAL PROJECTS



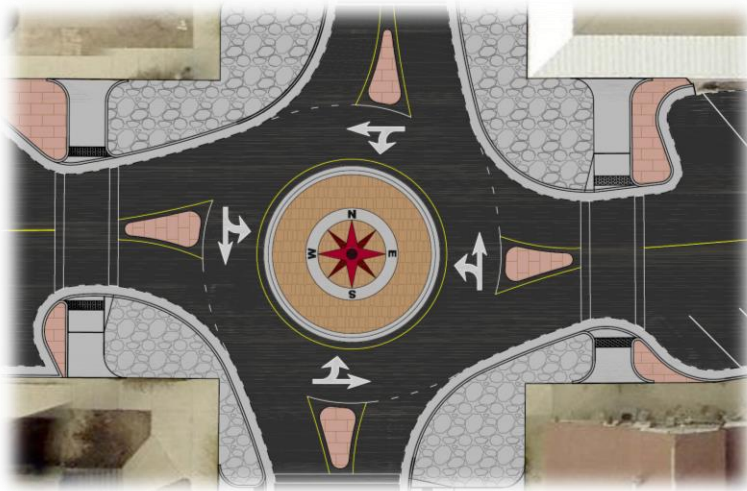
1. Roundabout at Perry Street/Third Street
2. Meadows Parkway Reconstruction
3. Traffic Signal at Wolfensberger Road/Red Hawk Drive
4. Traffic Signal at Founders Pkwy/Rising Sun Drive
5. US 85/Meadows Pkwy Intersection Improvements
6. Founders Pkwy/Allen Way Intersection Project
7. Founders Pkwy/Crowfoot Valley Road Intersection Improvements
8. Roundabout at Wolfensberger Road/Plum Creek Pkwy
9. Ridge Road Widening (SH86 to Plum Creek Pkwy)
10. SH86/Fifth Street Intersection Improvements
11. Crystal Valley Interchange (Right-of-Way Acquisition)
12. Public Works Facility Expansion

1. **Perry Street and 3rd Street Roundabout Project** – This project consists of a roundabout being constructed at the Perry Street/3rd Street intersection. **Phase: Design** – The following is a summary of the design activities that the contractor, Felsburg, Holt, and Ullevig, performed during this month:

- FHU has submitted 100% plans and specifications
- Town has placed project plans and specifications on Rocky Mountain BidNet
- Project is scheduled to bid in mid- May

Budget: Design: \$123,273 Construction: \$877,000

Projected Design Completion: Spring 2017 Projected Construction Completion: Summer 2017



2. **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 also add on-street bike lanes. **Phase: Design** – Felsburg, Holt and Ullevig is the design consultant for this project. The following is a summary of the project activities that took place during this month:

- Received environmental clearances from CDOT
- Addressed additional CDOT comments
- Held Final Office Review (FOR) meeting with CDOT on March 20 and collected comments
- Resubmitted 100% plans to CDOT
- Council approved alternative bid/construction schedule where the project will be bid in December of 2017 and constructed in summer of 2018

Budget: \$112,385 Projected Design Completion: Spring 2017

*On an additional note: Under the 2017 Bridge Maintenance Program, the Meadows Parkway bridges over Plum Creek will receive an interior bridge railing upgrade and under the 2017 Asphalt Overlay and Full Depth Reclamation project, they will receive a mill and overlay treatment.

3. & 4. **Intersection Signalization Projects** – This project will complete the installation of two new traffic signals; one at the intersection of Wolfensberger Road/Red Hawk Drive; and one at the intersection of Founders Parkway/Rising Sun Drive. **Phase: Design** – The design portion of the project is now complete and the project was advertised for construction in late March. A bid opening was held on April 20th with Sturgeon Electric Company, Inc. being the apparent low bidder. Presentations will be made to the Public Works Commission and Town Council in May with contract approval expected around the middle of the month. Construction is slated to occur over the summer. **Budget: \$460,000 Construction Completion: Fall 2017**

5. US85/Meadows Parkway Intersection Improvements - This project will construct a second northbound left turn lane at Meadows Parkway/US 85. **Phase: Design** - The design portion of the project to construct a second northbound left turn lane is complete. This project is expected to be bid during May. Construction is slated to occur over the summer. **Design Budget: \$107,000 Construction Completion: Fall 2017**

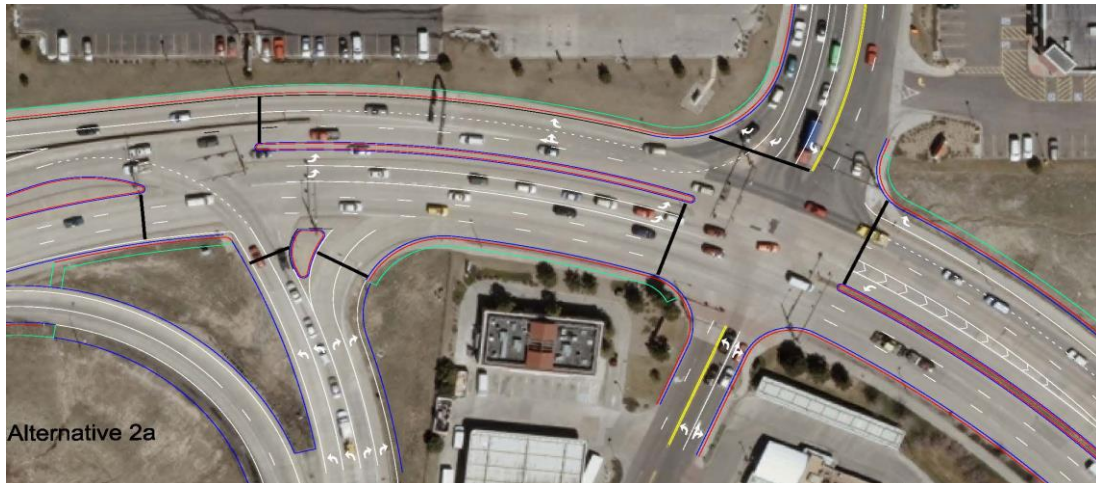
6. Founders Pkwy/Allen Way Intersection Improvement Project – This project will address the need for the following improvements:

- 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:

- Initial Field Survey has been obtained, processed and delivered to FHU.
- FHU is preparing preliminary design with an eye towards determining right-of-way needs to expedite acquisition if necessary. Completion of preliminary design layout will be contingent upon decisions made at the May 1st coordination meeting.
- Traffic analysis of the proposal concept is underway; a coordination meeting with the Town of Castle Rock is scheduled for May 1st. Following this meeting, a coordination session regarding the preferred concept, moving forward, will be held with CDOT.
- Environmental clearance documentation is underway. Field trips are occurring for wetlands and biological resources scheduled for Tuesday, May 2nd.

Budget: \$760,000 Projected Design & ROW Completion: Fall 2017



Proposed Intersection Layout

7. 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

Also under evaluation and not finalized:

- 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:

- Began preliminary design for a standard intersection widening
- Met with CDOT to collect input concerning traffic analysis and alternatives

Budget: \$650,000 (2016-17) **Projected Design & ROW Completion:** Winter 2017

8. 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:** Design – Staff solicited scoping cost proposals from four consulting firms from the Town's approved on-call list. These four firms were vetted by the Town staff and a recommendation has been forwarded to the Town Manager for the approval of a service agreement with Short Elliott Hendrickson Inc. (SEH). **Budget:** \$150,000 **Projected Design Completion:** Winter 2017 **Construction:** 2018

9. 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: Request for Proposals (RFP) for design services have been received. Staff recommendation for Stanley Consultants, Inc., will be presented at Public Works Commission and Town Council in May with contract approval expected around the middle of the month. **Budget:** \$400,000 **Projected Design Completion:** Winter 2017 **Construction:** 2018

10. Founders Parkway (SH86)/Fifth Street Intersection Improvements – 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 – Request for Proposals (RFP) for design services have been received. Staff recommendation for Short Elliott Hendrickson, Inc. (SEH) will be presented at Public Works Commission and Town Council in May with contract approval expected around the middle of the month. **Budget:** \$340,000 **Project Design Completion:** Winter 2017

11. 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 to allow for 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 Side Right-of-Way Plan Review (ROWPR). **Budget:** Development Escrow

12. Public Works Facility Expansion – This project will complete design plans for the building expansion. **Phase:** Design - The following is a summary of the design activities that the firm D2C performed during this month:

- 30% Schematic Design

Budget: \$220,000 **Project Design Completion:** Winter 2017

Traffic Signal System Upgrades - Phase 2 - Town staff, with assistance from the Town's maintenance contractor and vehicle detection vendors, continued work to install new equipment that will allow the observation of video detection feeds from the Town's traffic signals. This will allow staff to observe and address vehicle detection problems as they arise. In addition, staff continued with the deployment of radios to the remaining Town traffic signals yet to be installed on the Town's Ethernet based traffic signal communication network. Budget: \$400,000 Construction Completion: Spring 2017

Engineering Division

2017 Pavement Maintenance Program (PMP) - The 2017 PMP will focus its efforts in the south PMP area with additional work taking place on primary streets (Mikelson Boulevard, Black Feather Trail, Valley Drive and Wilcox Street).

Sidewalk, curb and gutter repairs kicked off in early-April. The residents within the South PMP area were notified via letters mailed to their homes as well as the use of variable message boards, that repair and maintenance work was to begin. Work notices are delivered to the residents 48 -72 hours prior to start of work.



In general, work will progress through the south PMP area in a south to north manner, starting in the Crystal Valley area, then Plum Creek, Baldwin Park, Glovers, and neighborhoods off of South Street. The Town's contractors will be preparing the streets to receive slurry seal and asphalt overlay treatments. Sidewalk, curb and gutter repairs are expected to run through May and asphalt patching is scheduled to begin in May and run into June. The asphalt overlays and slurry seals will follow.



Traffic was shifted on Mikelson Boulevard in late-April to start the asphalt patching and curb and gutter repairs in preparation for an overlay. The Town's contractor began asphalt patching and concrete repairs on the east/north bound lanes of Mikelson Boulevard between Ridge Road and Lantern Trail. Concrete pavement, crosswalk, sidewalk, curb and gutter repairs started in the downtown area on North Wilcox Street mid-April.



Emerald Drive was closed between Emerald Court and McCracken Lane on April 10. Work is progressing nicely, with the removal of the existing deteriorated concrete pavement in this first section. Approximately three days prior to the scheduled start date of the Emerald Drive reconstruction, plans from a Developer were submitted to the Town for a new street to be constructed which would be accessed from Emerald Drive. These improvements include a waterline, and a sanitary sewer connection in Emerald Drive. Coordination with the Public Works Plan Review team, Castle Rock Water Plan Review team, Development Services, and the land developer allowed the connections to be installed prior to new asphalt pavement being placed. In addition to the development utility work, Castle Rock Water approached the PMP team to remove existing waterline stubs that were installed during original construction

of Emerald Drive and will not be used for future connections. With this coordination effort of utility work, the need for utility street cuts was eliminated. The addition of the utility work has put the Emerald Drive Reconstruction behind schedule by approximately a week.



The Coachline Road Concrete Pavement Restoration project's field reconnaissance was completed, and bid packets were posted on Rocky Mountain Bidnet on April 18th. The work to be performed under this contract includes removal and replacement of concrete pavement, cross pan, sidewalk, curb and gutter, diamond grinding of existing surface, and the removal and replacement of existing joint sealant. The bid opening is scheduled for May 4th.

Public notification planning and web site updates are continuing with assistance from the Community Relations team.

2017 Facilities Parking Lot Improvements Program – Staff is in the process of obtaining the Town Manager's approval of the contract. The scheduled parking lots for the 2017 Facilities Parking Lot Improvements Project include the following parking lots: Prairie Hawk Fire Station, Bison Park, Wrangler Park, Gemstone Park, Paintbrush Park, East Plum Creek Trail Head lot, and Castle Rock Water Headquarters.

2017 Bridge Maintenance Program (BMP) - Staff has identified the following locations for the 2017 BMP:

Bridge Repair

- Meadows Parkway Bridges over Plum Creek – Upgrade interior bridge railing
- Plum Creek Parkway Bridge over the Union Pacific Railroad – Repair bridge deck, and girders
 - ✓ The Town received four (4) bids on April 18th with Kraemer North America being the apparent low bidder. Presentations will be made to the Public Works Commission and Town Council in

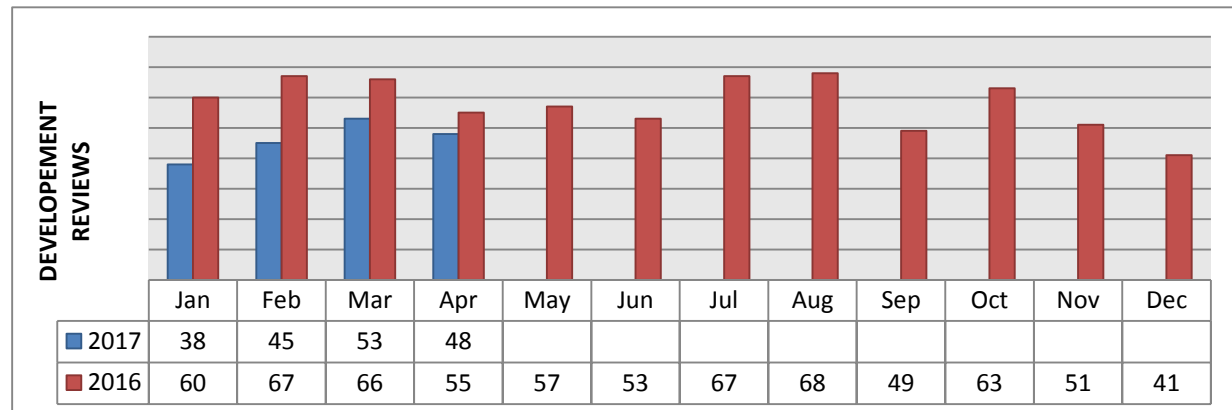
May with contract approval expected around the end of the month. Construction is slated to occur over the summer

Bridge Surface Treatment

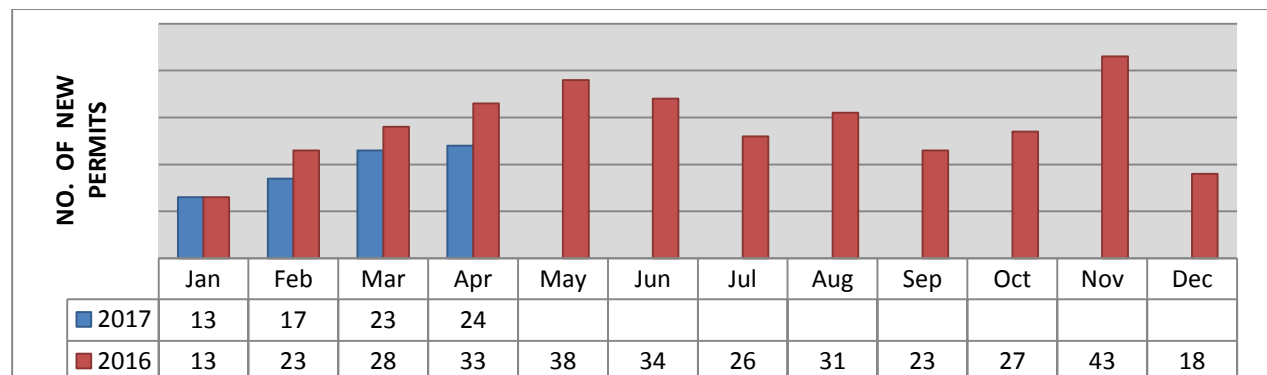
- Meadows Parkway Bridges over Plum Creek – Mill and overlay wearing surface
✓ Work is tentatively scheduled for May 30th through June 2nd and is to be performed as night work.

Development Review and Permitting

Development Review - Included in the 47 submittals are 21 first time applications with two pre-applications. All reviews were completed on or before the due date assigned by the Development Services Project Manager.

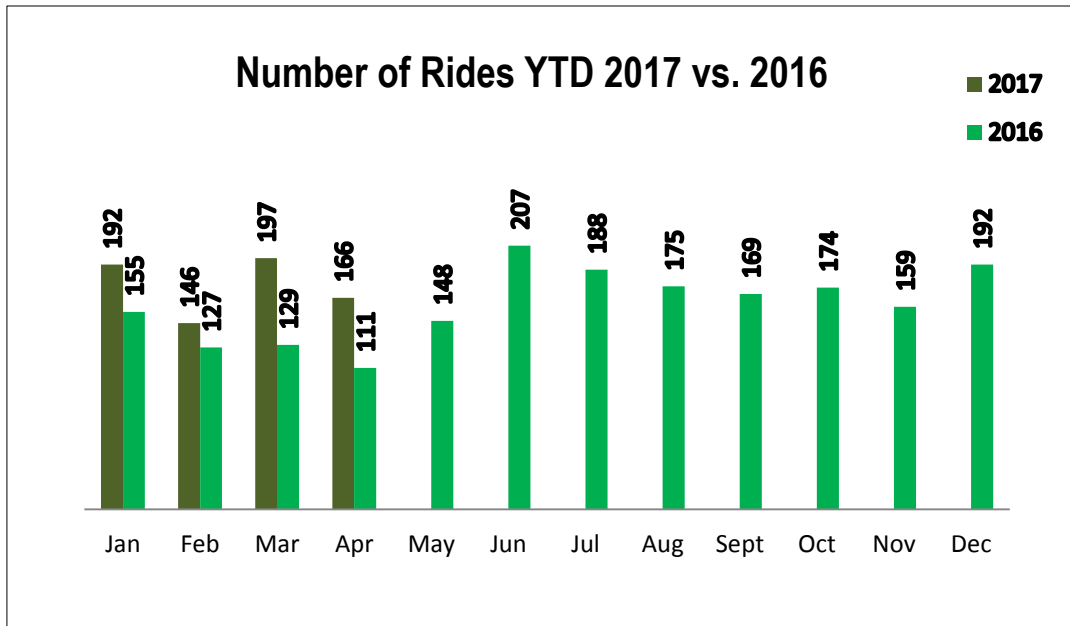


Permitting - Included in the 24 permits are: one Residential Development (Crystal Valley Ranch F3, the Pinnacle); three Commercial (Citadel Station Lot 1, Bronco Hut; Renaissance School Early Grading; Prairie Hawk Drive widening); and 20 permits for work within the public right-of-way, nine of which were necessary due to current development, and three were a pavement cut.



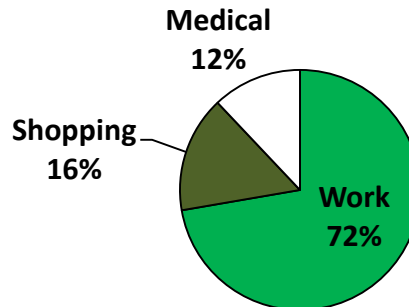
Transportation Division

Taxi Voucher – For the month of April, the Taxi Voucher Program funded 166 rides, this was a 50% increase from last April's total of 111 rides. The increase in rides is a result of taking more riders to get to their jobs on a weekly basis and more grocery shopping related rides.

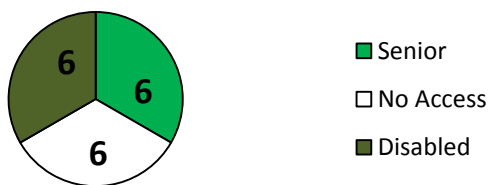


Rides are available for work, shopping or medical trips. Transportation services are provided for Castle Rock residents who are senior citizens, have a disability that prevents them from driving, or do not have access to a vehicle.

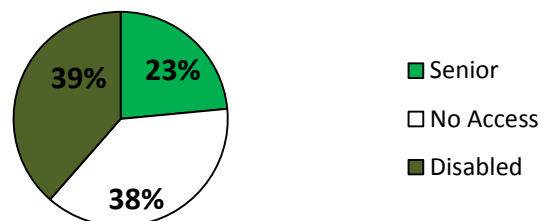
Ride Destinations



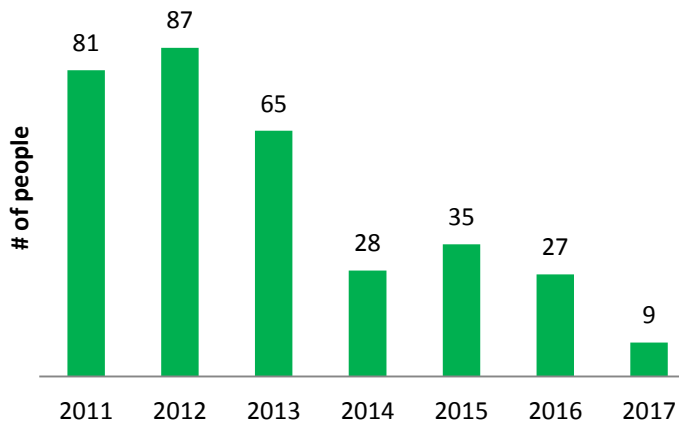
Types of Riders Using the Service



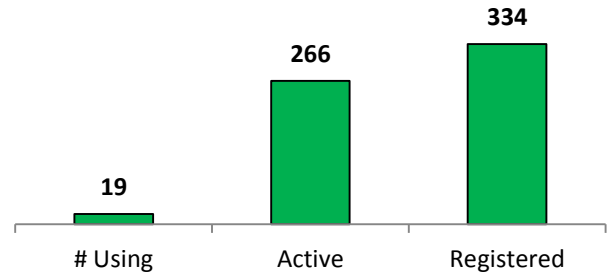
Percentage of the Total Rides (166) by Each Rider Type



Number of People Registering for Program Each Year

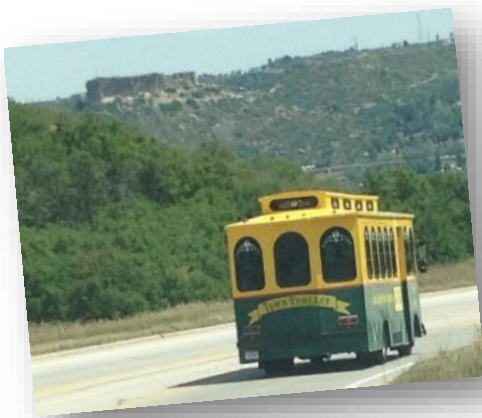


Number of Riders Using the Service vs. Registered



There were three new registrants for the Taxi program this month. These two individuals are needing help to get to work during the week. Since its inception, a total of 332 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.

Senior Center Shuttle - The Senior Center provided 780 rides in the month of April which was a 4% increase from last month's rides of 747. The volunteer driver program provides service Monday through Friday from 9 am to 3 pm.



Town Trolley - The Trolley received five sponsors this year and has already been booked for a number of events for the spring and summer. The Trolley will get to be running around town providing a fun ride for its passengers!

Traffic Engineering & Operations

Traffic Signal Operations and Maintenance - For the month of April there were a total of twenty non-routine traffic signal maintenance visits completed by either Town staff or the Town's signal maintenance contractor. Most of these visits were related to vehicle detection problems or pedestrian push button change outs. Other repairs completed were associated with LED change outs for pedestrian signal heads or vehicle signal heads.



Street Signs and Pavement Marking Maintenance - During April, the signs and markings crew straightened 76 signs and posts in addition to the fabrication of 12 new signs. They also spent time installing new signs for the newly installed rectangular rapid flash beacons on Meadows Boulevard near the Grange. In all, they completed 614 tasks during the month. Finally, the sign technicians also completed inspections of the 455 street lights in Town.

Coming in May, the annual paint season will begin. The Section will have four (4) seasonal employees onboard to assist with paint projects around Town. In addition, the Town's newly selected striping maintenance contractor, Colorado Barricade, will begin work on the long line painting around Town.

Transportation Planning

Neighborhood Traffic Calming Program (NTCP)

Updates:

- **Woodlands and Escavera:** Staff will be utilizing a PMP contractor to construct the raised concrete curb extensions for the six speed cushions and raised pedestrian island along Saddleback, Ridgetrail and Black Pine drives. The lowest bid was around \$40,000. The remaining work (e.g. design, striping, and asphalt) will be done in house by Town staff. The timeframe for construction is anticipated to occur in late June with completion within a month. Residents will be notified as the start of construction nears.

Transportation Master Plan (TMP) Update - The project team has identified improvements for all modes of transportation needed to accommodate full build-out of the Town. This includes roadway, bike and pedestrian projects. During April, Town staff has been conducting public outreach efforts to collect feedback from residents and businesses regarding the proposed plan and improvements. As part of the outreach efforts, a second public open house was held at the Douglas County High School, presentations were also given to the Planning Commission, and other stakeholders. Presentations will also be given to the DDA and EDC in the month of May. The public has also left comments on the project website. Additional stakeholder meetings are planned in the coming months, including presentations to the Public Works Commission. A public review period will also be held once a copy of the draft report is available for review. A presentation is anticipated to occur to the Town Council in July for adoption.



Development Review -

- Staff reviewed and commented on three (3) transportation impact studies during the month; two of the studies involved the Meadows Filing 20 area. All reports were completed by the due date.
- The development plan for Culver's restaurant was reviewed. The proposal has been amended and is currently proposed to be subdivided into two separate parcels for development.



Fleet Services

"Keeping Castle Rock on the Move"



The Fleet Services Division stayed very busy repairing and maintaining Town vehicles and equipment in the month of April. Total labor and parts billed was \$54,000 with the team working on a total of 120 Town vehicles and equipment.

Two of our technicians, Chad Bednar and Mac McKelvy, were recertified by the Automotive Service Excellence group (ASE). They retained their master certification in both light duty automotive and heavy duty trucks. In addition, Angie Williams completed the Town's supervisor training program and received her certification.

The Fleet Services Division is continuing to receive new vehicles that were ordered for 2017 and have put into service one 2017 Chevy Colorado for Castle Rock Water and one 2017 Freightliner/Schwarze street sweeper for Public Works Street Operations & Maintenance.



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

Outcome: Fleet team completed 78.3% of the work orders within 24-hours of opening repair requests or service requests. This goal was achieved while working on some very big repairs. This number shows the quick turnaround of vehicles that come into our shop for repairs.

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

Outcome: Town vehicles and equipment were available 97.8% of the time. This demonstrates a very low percentage of downtime and shows how well we are keeping Castle Rock "On the Move".

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

Outcome: Technician productivity was 77.5%. This was well above our benchmark and shows the Fleet Services Division is providing the most cost effective service to Town customers as possible.



Fleet Tech Mac McKelvy using mobile lifts to repair dump truck in the yard.



Fire truck in shop for service.

Street Operations & Maintenance Division

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

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

Street Sweeping

During the month of April, staff performed sweeping activities following the snow events with the goal of sweeping 40% of all the primary roadways that received de-icing materials. Staff met the goal and continued on to sweep 100% of primary roadways helping to keep our waterways and the air we breathe a little cleaner. During these operations the staff removed 135 yards of material.



Pavement Maintenance

During the month of April, staff performed four full depth pavement repairs; a large repair on North Foxtail Drive following a water line break; and two major concrete repairs on Butterfield Crossing Drive due to deteriorated pavement to the point where simple pothole operations would not suffice. Staff also completed a full depth asphalt repair on 8th Street.

Pothole Patching

During the month of April, SO&MD received **three** requests for pothole repairs which were completed within two days of the request. Additionally, staff worked on patching potholes on New Memphis, Castlegate Drive, Liggett Road, Enderud Boulevard, Meadows Boulevard, Prairie Hawk Drive, Morning View Drive, Foothills Drive, Sunridge Terrace Drive, Butterfield Crossing Drive, and on Coachline Road. In all, staff completed **387** pothole repairs.

Snow & Ice Control

Staff responded to **three** snow events this month. During the first event we received **3"** of snow, however; due to the warm pavement temperatures any snow that accumulated on the roads melted quickly. The second event delivered **5"** and was a little more difficult in the higher elevations of Town where the roadways had 2-3" of wet snow and slush on them during the morning commute and the lower elevations only had about 1" of slush. The third event brought us about **8"** of snowfall and once



again, it melted on the roadways about as fast as it was falling. After a long night of cold temperatures, the snow did start to accumulate on the roadways and cause some minor adverse driving conditions in the morning. However, thanks to the assistance from several Parks and Water department employees, staff was able to keep up with the conditions and maintain service levels. During each event, staff responded quickly and completed the operations on average four hours ahead of our eight-hour service goal.



Crack Sealing Program

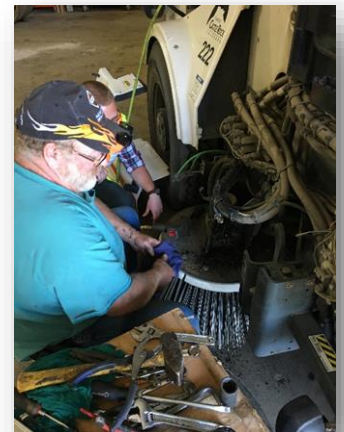
The crack seal machine was fired-up and staff got back to work in the West Meadows area performing maintenance sealing operations. During these operations, staff revisits the areas that received a pavement maintenance treatment two years prior. These operations greatly improve the life of the roadway by minimizing the deteriorating effects of any new cracks that have appeared. During these operations the staff was able to complete crack sealing on five lane miles of roadway.

Equipment Maintenance

Staff performed a lot of equipment maintenance on all of the dump trucks after each snow event, and other maintenance on various pieces of equipment in our fleet. In all, the staff completed 75 work requests during the month.

Training

Five SO&MD staff members attended the Town's DISC training session, which is focused towards helping employees recognize each other's personality styles, so that they can better work together as a team. The staff really enjoyed the class and received a lot of positive feedback and correspondence from other staff members who had previously taken the course.



Special Operations

Staff responded to three special operation requests. The first request was to help repair an electric gate control box that was damaged during the first snow events. The second request was to remove a truckload of trash and debris that was illegally dumped on North Rocky View Road. The third request was to inspect and perform any needed repairs to the Castle Rock Artwork signs at I-25 and Meadows Parkway. The staff enjoyed working on the lights and made sure they are ready to go for another year of welcoming people to our Town.



Looking Ahead

During the month of May, the SO&MD staff will be deploying all of our street sweepers to sweep the Town. During these operations, that we call our 'Spring Sweep', the goal is to sweep every road in town. Additionally, staff will be focusing their efforts on continuing the crack sealing maintenance operations in the Central part of town. This area covers Red Hawk, Metzler Ranch, Castle North, Woodlands, and Escavera.