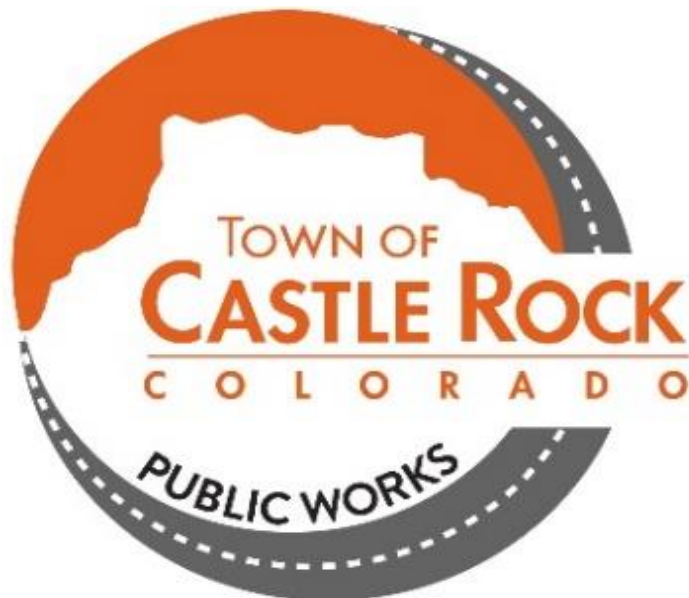


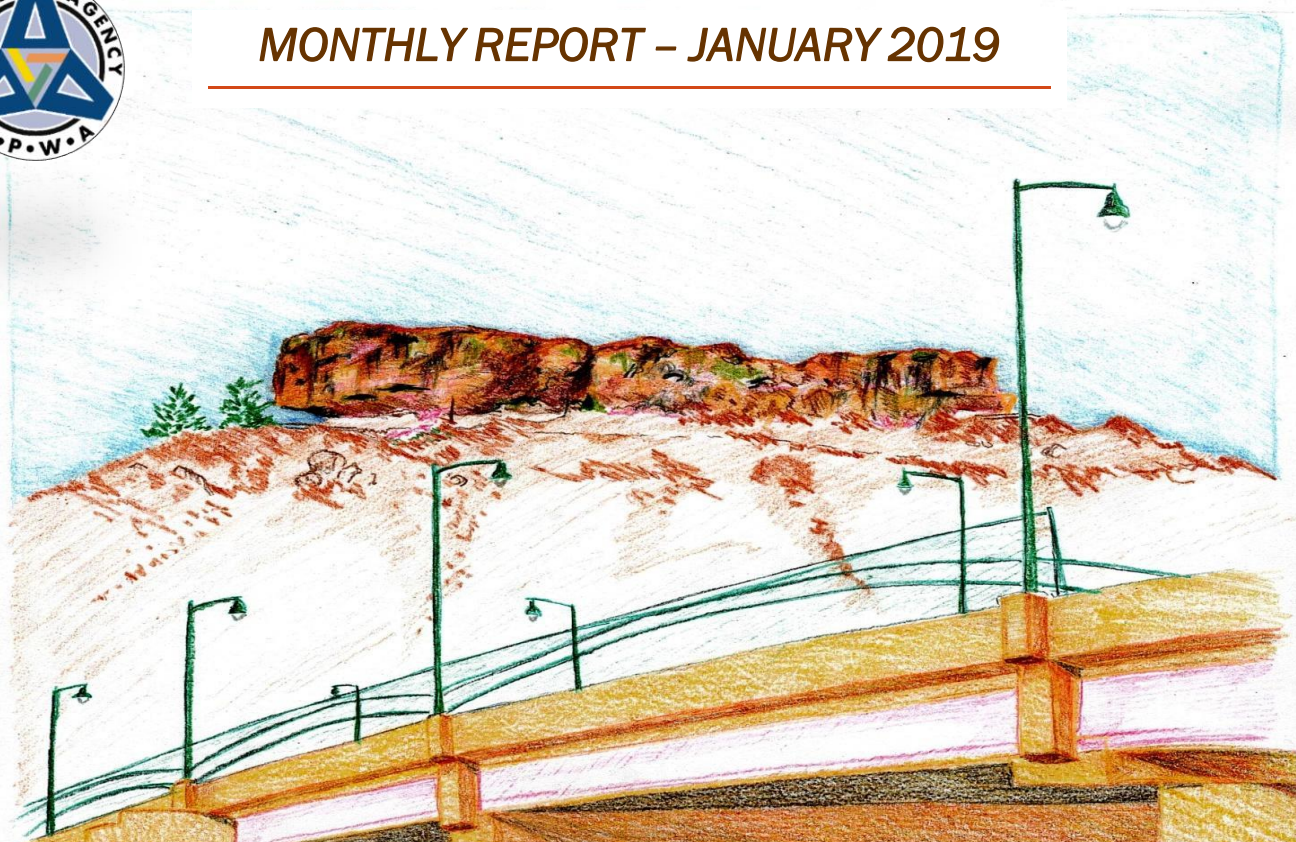


The Public Works Department operates under the CAN DO philosophy - We are committed to doing the job right with a positive attitude while staying dedicated to meeting the needs of our Town values and continually searching for opportunities to improve.

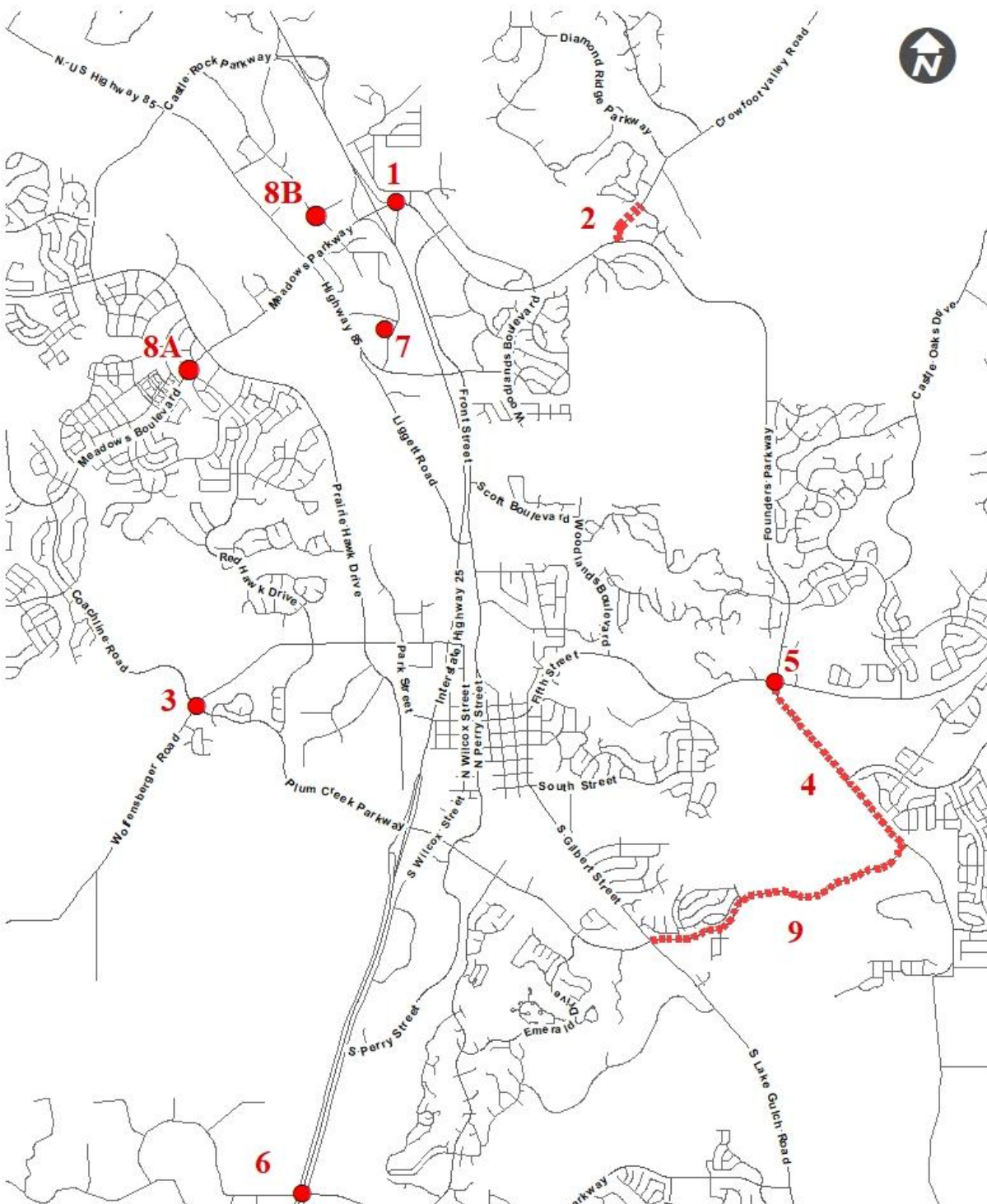
Our Mission: To provide outstanding service, safety and support for transportation infrastructure and maintenance.



MONTHLY REPORT – JANUARY 2019



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. Public Works Facility Expansion
8. 2018 Traffic Signal Program (8A & 8B)
9. Plum Crk Pkwy Widening & Plum Crk Pkwy/Gilbert Roundabout

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

- All final verification comments received from CDOT have been addressed for final submittal
- Coordinating with Legal for closing of final right-of-way acquisitions
- Worked with FHU on bid advertisement documents and construction schedule

Budget: \$760,000 **Design Completion:** Complete **ROW Completion:** 1st Quarter 2019

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: 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 at 99% completion. This project advertised for bid for construction on January 23. Bid opening will be held on February 13
- Staff is coordinating tree transplanting and replant plants/shrubs in the ROW areas acquired from the Metzler property. This operation will be completed prior to construction of the roadway.
- A revised ROW agreement has been submitted to CDOT for review.
- Bids were opened for the Crowfoot Detention Pond Improvement Project. The low bid was Premier earthworks & Infrastructure (PEI). This project will fulfill the MS4 requirements for the roadway project. Construction of this pond is scheduled to be completed prior to the construction of the roadway project. This item will be presented to Town Council on February 5.

Budget: \$650,000 (2016-19) **Design:** Complete **ROW Completion:** Spring 2019



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 potential accidents.

Phase: Construction – The following construction activities were performed by Rocky Mountain Excavating:

- Continue to work on BMP's / GESC
- Top and final lift to be placed in Spring 2019

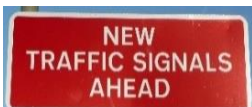
Budget: \$1.14M **Construction Completion:** Spring 2019

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: Stanley Consultants, Inc., has been awarded the design contract for this project. Design is 90% complete. Budget: \$400,000 Design Completion: Spring 2019

5. Founders Parkway (SH86)/Fifth Street Intersection Improvements – The Town's design consultant, Short Elliott Hendrickson, Inc. (SEH) investigated multiple alternatives to address safety concerns and capacity issues at this intersection. A roundabout was the preferred alternative by CDOT, who owns the right-of-way for this intersection. Phase: Design – Design is 30% complete. Town staff met with Emmaus Anglican Church and church's neighbor for relocation of driveway access to the church to accommodate the design of the roundabout. Staff will find out if the Town will receive DRCOG funding in February. If so, project will be designed per Federal requirements/standards. Budget: \$340,000 Design Completion: Spring 2019

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 – Town is currently in the process of right-of-way acquisition. Budget: Development Escrow ROW Completion: Fall 2019

7. Public Works Facility Expansion – This project consists of the addition and renovation of the Service Center building. Phase: Construction - Staff will present to Public Works Commission and Town Council in February for award of construction contract to Mark Young Construction. Budget: \$4,358,099 Construction Start: Spring 2019



8A&8B. 2019 Traffic Signal Program - In January, Town staff requested bids for signal poles, the longest lead time item for signal construction, obtained bids and submitted a purchase order for approval. On-call design consultant, Muller Engineering, performed survey work for subsurface utility engineering and is incorporating this information into the final plans that are due back to the Town in early February. Muller is providing design work of two signalized intersections, a new signal and a reconstruct to a permanent mast arm type. These intersections include, Meadows Boulevard and Future Street and the reconstruction of the Factory Shops Boulevard and New Memphis Court span wire signal. Staff anticipates inviting contractor bids for construction in February. Budget: \$47,200 Design Completion: Spring 2019

9. 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 Pkwy from Gilbert to Eaton streets
- 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 – Kimley-Horn is the consultant for this project. The following is a summary of design activities performed this month:

- 60% Plan Submittal Review
- Continued final roadway, signage, and striping design
- Addressed Town comments and prepared 90% Plan Package
- Coordinated final storm sewer design and water quality pond with Castle Rock Water

- Prepare legal descriptions for additional ROW required for project
 - Designed proposed RRFB pedestrian crossing
 - Obtained information for additional SUE investigations
 - Conducted property appraisals and continued property owner discussions for acquisitions
- Budget: \$794,375 Design & ROW Completion: Spring 2019**

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 closed circuit television (CCTV) and travel time monitoring devices at key intersections. In the month of January, staff and the Town’s signal maintenance contractor assisted with the installation of more p-series and q-series pan-tilt-zoom (PTZ) cameras and hardware. Weather delays and other maintenance priorities have delayed the schedule of camera installation. The Town’s maintenance contractor will continue assisting with the installation with a goal of being complete at the end of February, barring further weather delays. Staff completed all remaining site investigations for optimal placement for the deployment. Camera installation, including becoming operational with video feed to the Service Center, will be completed in early 2019. This portion of the phase 3 project is on budget and awaiting final installation at some locations.

In January, we continued collecting historic travel time data from all devices and are developing reports and analytics that will best serve management plan needs. Staff received conflicting information from CDOT on how to proceed with obtaining a fiber optic “handshake” that would enable replicating device data on the Town server from five devices to be installed at CDOT signalized intersections. The details and understanding of operation and maintenance responsibilities, as well as access to shared resources continue to be determined, delayed by CDOT decision making. We remain confident that a successful working arrangement will be established as all parties agreed this is the best outcome. Staff provided the CDOT COTrip managers with information necessary to present our device information on their site, and worked with IT to provide secure public access to CDOT and other Town stakeholders. This provides the ability for the Town to share the travel time info to the public via web page and with CDOT’s COTrip information service. This phase of the project installation is complete and within budget with communication and COTrip sharing to be complete in March 2019.



A continuation of the Phase 3 Project is being undertaken with the incorporation of Automated Traffic Signal Performance Measures (ATSPM). A proof of concept project using advanced detection and high-resolution data acquisition and analysis of signal operation has been implemented for improved system maintenance, operation, and optimization. Staff is using ATSPMs along the Plum Creek Parkway corridor between Emerald and I-25, and at other intersections where timing optimization challenges exist. The Town’s Strategic Plan from 2015 recommended signal system detection improvements that provided this type of information along key corridors. The use of ATSPMs meet this documented need and more, by providing a better understanding of system operation and maintenance needs and is helping us better serve our stakeholders in a cost effective manner.

Budget: \$520,000 Project Completion: Spring 2019



2018 Rectangular Rapid Flashing Beacon (RRFB) Project – In 2017, Town Council approved a project to install pedestrian crossing enhancements called, RRFB, around Town. RRFBs consist of a pedestrian activated yellow strobe light which notifies drivers that a pedestrian is at or with in the crosswalk. The lights are solar powered and cost approximately \$10,000 per location for the hardware and installation. They have proven to be an effective means of enhancing pedestrian safety. In 2018, staff continued to get regular requests to provide

pedestrian crossing enhancements around Town. These locations are added to a potential installation list, evaluated, and prioritized for installation as funds are available. The priority is based on pedestrian exposure, and speed of vehicles at the crossing.

In January no further progress on this project occurred due to inclement weather. Application of pedestrian crossing striping will follow at all locations but is currently on hold due to snow operations, and will continue when possible. Town staff has provided all the labor to make signs, assemble the beacon and button array, complete the installations, and provide additional roadway striping. **Budget: \$35,900 Completion: 1st Quarter 2019**

Engineering Division



2019 Pavement Maintenance Program (PMP)

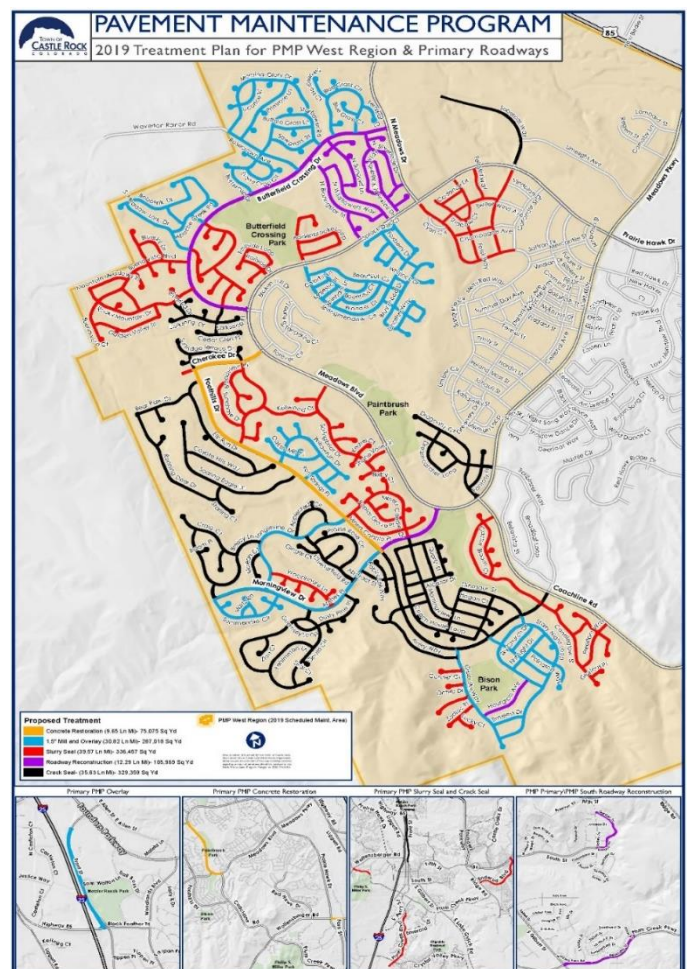
There were nine project bid openings completed in January and staff is in the process of evaluating the bids submitted and begin contract award recommendations. Contracts will be for Asphalt Overlay, Full Depth Reclamation, Curb, Gutter and Sidewalk Replacement, Slurry Seal, two Concrete Pavement Restorations, two Reconstruction Projects, and a Mastic & Crack Seal Project. This process includes checking and verifying all bid proposals and contractor references. Once the evaluation is complete, staff will prepare all contract documents to present to the Public Works Commission on March 4 and to Town Council on March 5.

The PMP map (shown right) indicates the proposed scheduled treatments for streets within the West PMP area and Primary Streets. This map may change based on maintenance treatments and resources available.

2019 Facilities Parking Lot

Improvements Program - With the project's bid opening complete in January, staff is in the process of evaluating the bids submitted and begin the contract award recommendations. This process includes checking and verifying all bid proposals and contractor references.

The scheduled parking lots for the 2019 Town Facility Parking Lot Improvement Project include the parking lots at the Crystal Valley Tank 15 site, Coachline Tank 17 site, Founders Village Park, and half of the Red Hawk Club House parking lot. Once the evaluation is complete, staff will prepare all contract documents to present to the Public Works Commission on March 4 and to Town Council on March 5.



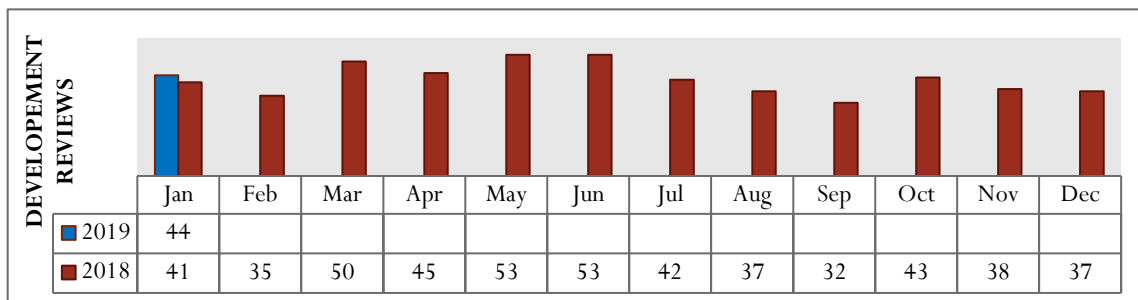
2019 Bridge Maintenance Program (BMP) - Bids for the 2019 Bridge

Rehabilitation for Front Street Flyover Bridge and the Perry Street Bridge were received on December 6, 2018. The low bid was within budget. Staff is preparing the contract documents to present to the Public Works Commission on March 4 and to Town Council on March 5. The project is expected to start in April and be complete by the end of May, pending weather.

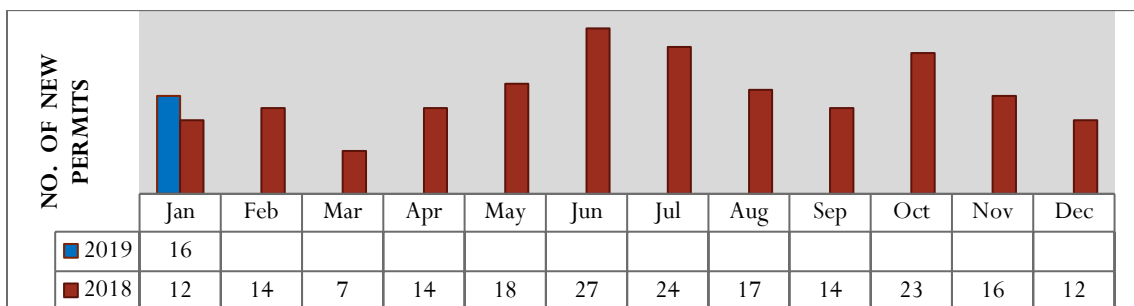
Staff is soliciting proposals from consultant engineers for construction inspection services related to structural components on the Front Street Flyover Bridge and the Perry Street Bridge.

Development Review and Permitting

Development Review - Included in the 44 submittals are 28 first time applications with 6 pre-applications. All reviews were completed on or before the due date by the PW Development Services Team.

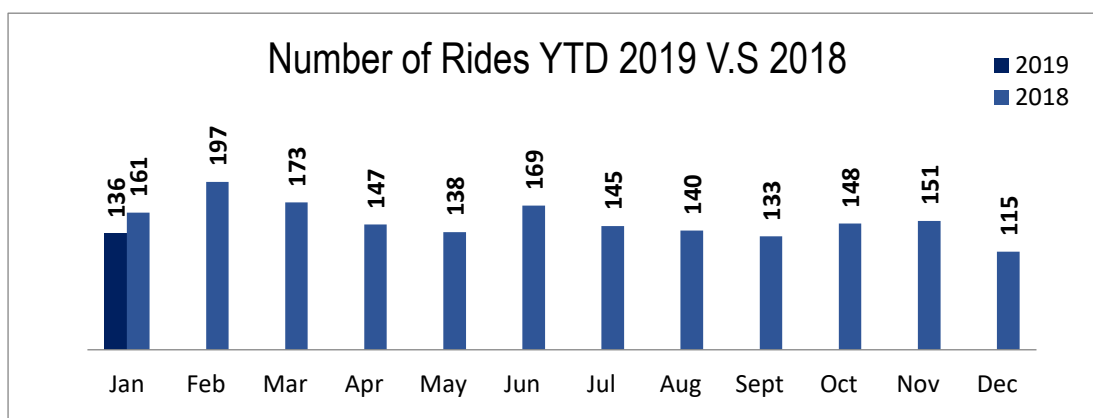


Permitting – 16 right-of-way permits were issued.

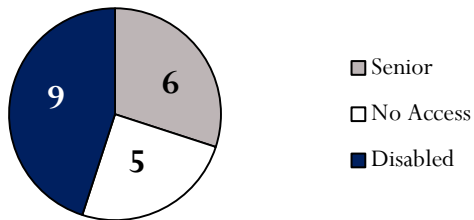


Transportation Division

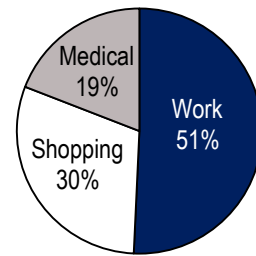
Taxi Voucher – For the month of January, the Taxi Voucher Program funded 136 rides; this was a 29% decrease from last January's total of 161 rides. Ridership this month is up from last month due to people going back to work after the holidays and riders needing help to get groceries.



Types of Riders Using the Service

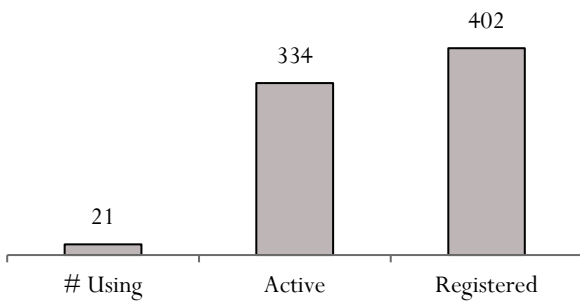


Ride Destinations

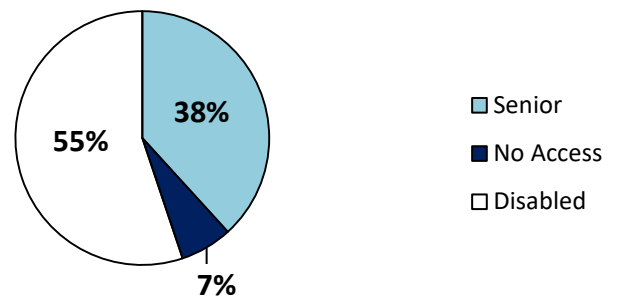


Rides are available for work, shopping or medical trips. Transportation services are provided for Castle Rock residents who are senior citizens, have a disability that prevents them from driving, or do not have access to a vehicle.

Number of Riders Using the Service vs. Registered

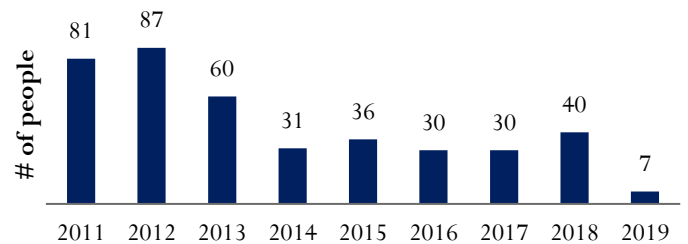


Percentage of the Total Rides (136) by Each Rider Type



There were seven new registrants for the Taxi program this month. Since its inception, a total of 402 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.

Number of People Registering for Program



Senior Activity Center Shuttle — The Senior Activity Center provided 645 rides in the month of January, which was a 5% increase from last month's rides of 616. The volunteer driver program provides service Monday through Friday from 9 am to 3 pm.

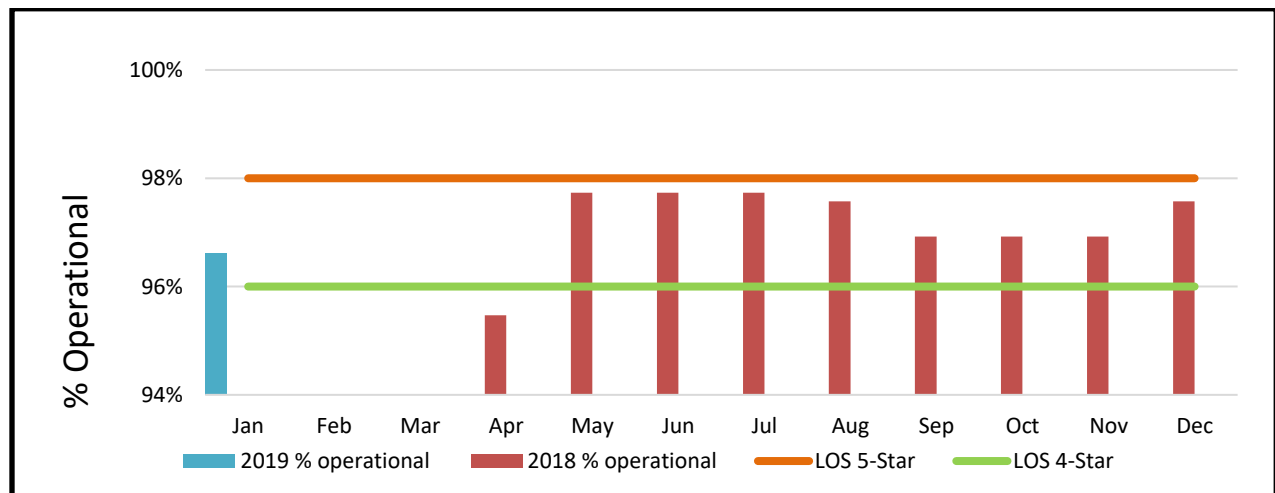
Traffic Engineering & Operations

Traffic Signal Operations and Maintenance In the month of January, staff addressed one request from the public related to traffic safety and maintenance. A total of 139 traffic signal maintenance tasks were completed in January. Town staff had 122 of those tasks and 17 were made by our signal maintenance contractor. The signal contractor's visits included several planned follow-up visits from preventative maintenance checks and assisting the Town with the installation of pan-tilt-zoom (PTZ) cameras. The signal contractor also continued to provide response assistance to the Meadows Boulevard/Sabercat Way intersection where the signal cabinet was destroyed in a traffic collision.

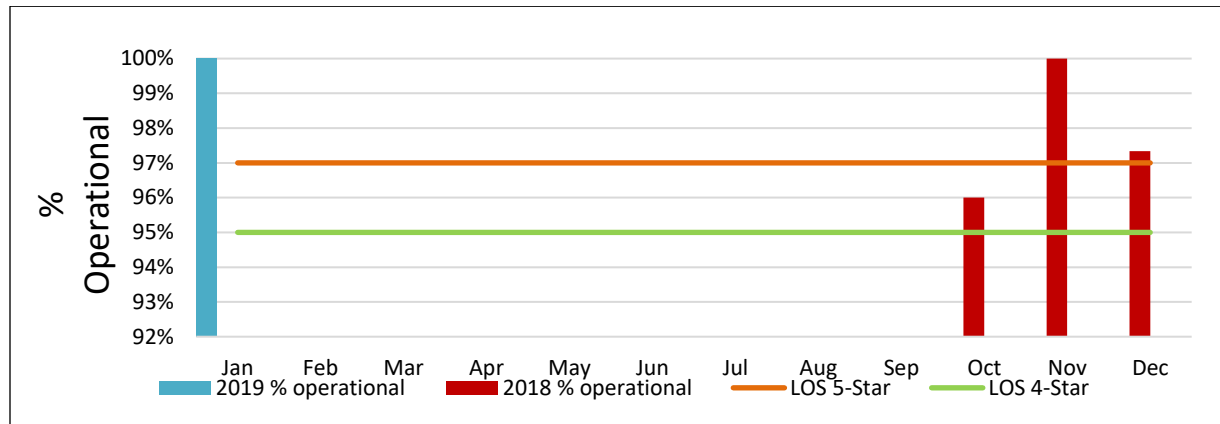


In addition, Town staff planned maintenance visits included the visual inspections of signalized intersection operations, updating of the controller configuration printouts residing in the cabinets, and quarterly preventative maintenance activities. Town staff also performed signal maintenance tasks for three signal timing changes, one emergency response task due to inclement weather, and seven non-emergency unplanned maintenance tasks. The emergency response task was for a power outage at Front Street/Blackfeather Trail intersection as a result of a faulted power line behind the meter. The most frequently visited signal during the month at five times was Front Street/Blackfeather Trail followed by Factory Shops Boulevard/New Memphis Court, Wolfensberger Road/Caprice Drive, Meadows Boulevard/Fell Mist Way at four times each.

Street Light Operations - The Town owned and operated street lights are inspected on a monthly basis with regard to the total percentage that are operational (i.e. on at night). In the month of January, approximately 97% of these street lights were operational. This operational level is a four out of five-star rating in the Department's infrastructure report card rating system.



Beacon Operations - The Town owned and operated beacons: school zone flashers, pedestrian rapid flashing, yellow flasher, and stop sign red flasher are inspected on a monthly basis with regard to the total percentage that are operational. In the month of January, 100% of these beacons were operational. This operational level is a five out of a five-star rating in the Department's infrastructure report card rating system.



Street Signs and Pavement Marking Maintenance - During the month of January, the Signs & Markings crew accomplished a total of 110 tasks. The crew work on a total of 20 tasks in support of several miscellaneous projects including signage and markings for the new rectangular rapid flash beacons (RRFB) installed around Town. In addition, the crew fabricated 11 news signs. Many of these signs were to replenish stock signs on the shelf. Finally, the crew completed windshield inspections around Town to identify and repair downed signs associated with the recent snow events.

Transportation Planning

Neighborhood Traffic Calming Program (NTCP) Update

No New Inquiries in January

Previous Inquiries

- **North Meadows Drive:** The speed and volume study was conducted in early January over a two-day period. The recorded 85th percentile speed was 31 mph and the average daily volume was 1,300 vehicles. According to the NTCP criteria, both data sets qualify for the NTCP. Town staff met with several neighborhood representatives to discuss the results of the study and to discuss the next steps. A neighborhood meeting will be scheduled to discuss the data and speeding concerns to see if the neighborhood wants to proceed with the program.
- **Second Street:** The homeowner who raised the speeding concern submitted the initial support petition; however, two of the signatures on the petition were renters. According to the program, signatures are required to be actual homeowners. The neighborhood's point of contact was notified and informed that he will need to collect two additional signatures from homeowners before a speed/volume can be conducted.
- **Saddleback Drive:** Town staff was not able to complete the final roadway striping due to weather. Staff will attempt to complete the striping as the weather permits.

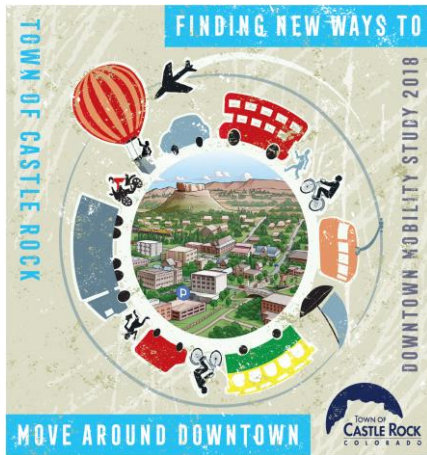


Town Staff Identified Projects

Butterfield Crossing Drive: Town staff is in the process of determining the future roadway striping for Butterfield Crossing Drive. Once a plan is decided, it will be shared with the contractor who has been selected to conduct the reconstruction project.

Development Review

Staff reviewed and commented on four transportation impact studies during the month of January. All reviews were completed on time.



Downtown Mobility Master Plan – The Town’s consultant has distributed several draft chapters of the report for review and comment, including recommendations. These chapters have been distributed to the technical working team for comments. The recommendations will also be shared with the Department Directors for their input prior to beginning the public review and comment period, and presentations to various boards and commissions. Final adoption of the plan by Town Council is currently scheduled for the month of April.

Some of the preliminary recommendations include;

1. Additional roundabouts at several downtown intersections, such as Wilcox/South streets, and Fifth/Jerry streets. Also at Wilcox Street/ Wolfensberger Road which is a CDOT controlled intersection and will require approval by the State.
2. Activate the downtown alleys – This recommended improvement would enhance the alleys and create a better shared use facility for people to bike and walk through downtown while still serving the needs of a traditional alley.
3. Complete gaps in the sidewalk system and look at widening sidewalks along certain streets, such as Jerry and Fifth streets.
4. Improve pedestrian safety – In addition to the roundabouts mentioned above, several intersection improvements would include the construction of curb extensions, and improved sight lines. Other improvements may include increased lighting levels and adding rapid flashing beacons at certain crosswalks.
5. Modify current Town standards to apply only to the downtown, such as the intersection level of service standard, and minimum sidewalk widths as properties redevelop.

I-25 / Blackfeather Trail Interchange and Founders Corridor Study - Town staff and CDOT had to reschedule the January meeting to February. The scope of the study will be discussed to how the study will proceed.

I-25/Crystal Valley Parkway – Tomah Road Paired Interchange Study - Town staff has been working with a consultant to determine the maximum vehicular capacity of the paired interchange concept and a standard full diamond interchange as identified in the Crystal Valley Parkway Environmental Assessment. This information will help assist Town staff in determining how much new development the interchange concepts can support.



Future CDOT Bustang Stop - Town staff met with CDOT staff, the County, and the CDOT’s consultants to continue the discussion on the Bustang stop in Castle Rock. The three possible stop locations have not changed and are expected to be further assessed as part of the I-25 PEL study. These locations include the possible stop near the Downtown Douglas County building, the CDOT excess right-of-way parcel at Wilcox Street and Wolfensberger Road, and the undeveloped land along I-25 in the proposed Pine Canyon development. Pros and cons for each stop was presented by CDOT at the public open house held in January. Conceptual designs and rough cost estimates were also shared with the technical team. The least expensive option is the Wolfensberger Road location, and also demonstrates a lot of benefits for the Bustang service. The most expensive option is the Pine Canyon location which calls for some infrastructure improvements and an ultimate stop location in the center median of I-25.



DRCOG Active Transportation Plan (ATP) – This plan was adopted by the DRCOG Board at the January 16 meeting.

DRCOG 2021 – 2023 Transportation Improvement Program - The Douglas County Sub-regional technical team met in early January to discuss potential projects and process. No Steering Committee meeting was held. The Town did submit the SH-86(Founders Parkway)/Ridge Road/Fifth Street intersection project to CDOT for concurrence and funding support. CDOT will inform the Town by February 8 if they concur and will contribute funds for the project.



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!

Fleet Services Division started out 2019 with a bang by completing an all time high in number of work orders at **154** (average is 105) plus our work output numbers for the month of January was over **\$70,000** of parts and labor were billed!



Performance Benchmarks

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

Outcome: Fleet team completed 84% of the work orders within 24-hours of opening repair requests or service requests. This benchmark number shows how quick the Fleet Services Division is working on vehicles to get them back on the road.

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

Outcome: Town vehicles and equipment were available 98.3% 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)

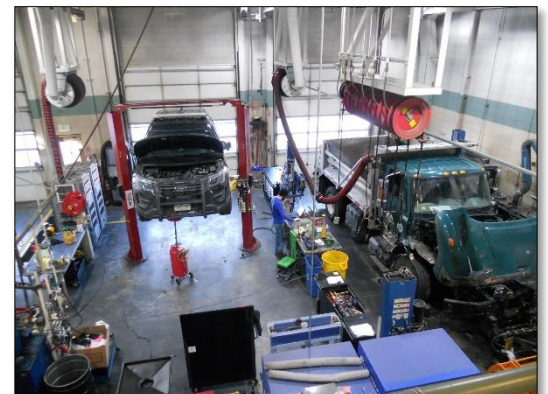
Outcome: Technician productivity was 64.3%. This is mainly due to some much needed time off for several technicians.

PUBLIC WORKS DEPARTMENT



Replacing oil pan during snow storm

Keeping Castle Rock on the move!!!



Street Operations & Maintenance Division

During the month of **January**, the Street Operations & Maintenance Division (SO&MD) performed work in six (6) maintenance operations:

- Snow & Ice Control
- Ice Mitigation
- Road Shoulder Maintenance
- Street Sweeping
- Pothole Patching
- Equipment Maintenance

Snow & Ice Control

January delivered five snow events for the Town of Castle Rock, totaling about 25 inches. The SO&MD crew carried out snow plowing operations in close collaboration with Water Department and Parks Department for regular plowing operations as well as enhanced operations. Three operations required the deployment of the enhanced program, one of which took everyone by surprise as the forecast called for much less snow than we received. The crews responded to the surprise call for the drivers within 30 minutes and carried on until the work was done. Snow removal operations were required to remove excess snow from the downtown area on two occasions, taking a total of 164 dump truck loads of snow and ice out of the area.



Ice Mitigation

Crews have cleared 13.28 lane miles of ice during the month of January. The unseasonably heavy and wet snow coupled with low overnight freezing temperatures, resulted in a significant amount of ice buildup throughout the Town. Crews employed two motor graders, two loaders with ice breakers, four dump trucks, and in some cases even hand shovels trying to get rid of as much ice from the roadway as possible.



Road Shoulder Maintenance

Our crew did take advantage on a lull between storms to address road shoulder maintenance on Castle Oaks Drive and Crowfoot Valley Road. These operations greatly enhance the drivability, drainage, and overall appearance of the roadways.



Street Sweeping

Crews were also able to carry out street sweeping operations. The purpose of these operations is to remove as much of the grit applied during snow plowing operations as possible, in order to mitigate their impact on air quality. These operations are weather sensitive and in spite of the small amount of time available, crews were able to sweep 144.76 lane miles of roadway removing 108 cubic yards of material.



Pothole Patching

Streets O&MD responded to numerous pot holes in every area of town. These are forming in great number due to the frequent freeze/thaw that is a common feature in Colorado winters. The crews have so far filled approximately 500 potholes using 5 tons of asphalt patch.



Equipment Maintenance

During snow operations it is imperative that maintenance be done to keep the equipment in good working order that it will be available when it is most needed. The frequent snow storms took their toll and only through partnering with the Fleet Services Division was the equipment made available for use during the snow storms.

Looking Ahead

Looking to the month of **February**, crews will maintain their readiness to respond to snow events as they arrive by continuous maintenance of the equipment, plow operations, and our own training. Crews will continue to address icing issues and work to keep sweeping operations going when weather permits.

