



Monthly Report

July 2019

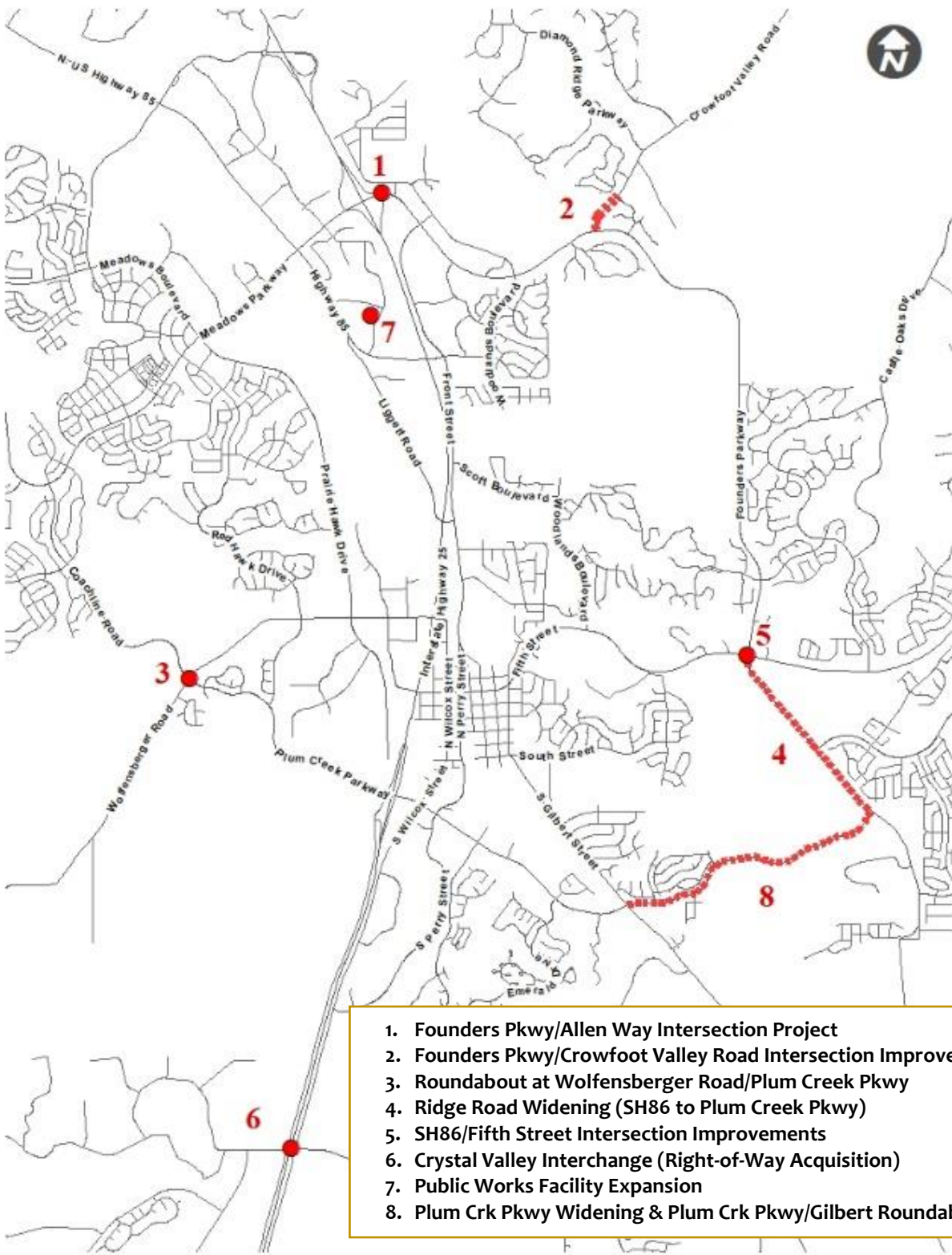


The Public Works Department operates under the CAN DO philosophy – We are committed to doing the job right with a positive attitude while staying dedicated to meeting the needs of our Town values and continually searching for opportunities to improve.

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



Capital Projects



1. **Founders Pkwy/Allen Way Intersection**

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:

- Started the Signal Pole caisson installation
- Installed the Traffic Signal conduit
- Started the Grading, Erosion, and Sediment Control (GESC) for the project
- Started the Storm Sewer Drainage Inlet Modifications
- Started the removal of concrete pavement between Allen Way and the north bound on Ramp to I-25

Budget: \$760,000

Design Completion: Complete

Construction Completion: Fall 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: *Construction, Intersection Improvements:*

- The contractor has placed the lower lifts of asphalt pavement along the south side of Founders Pkwy, the remaining items include the top lift of asphalt pavement, guard rail installation, and general clean up in this area.
- Temporary asphalt pavement was placed so Crowfoot traffic could be shifted to the east to

allow the contractor to work on the free right turn lane.

- The contractor has been constructing the retaining wall on the west side of Crowfoot.
- The project is currently on schedule.

Phase: *Construction, Detention Pond Improvements:*

- The contractor has completed the work at the pond, including seeding.
- The project is in warranty. Staff is working with the contractor to make final payment.

Budget: \$3,550,000

Construction Completion: Winter 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*

- Continue work on BMP's / GESC
- Placed the final asphalt lift
- Completed final striping of the new roadway, sidewalk, topsoil and seeding
- Started the close out documentation of the project

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

Phase: *Design*

100% plans have been provided. Staff is working on requesting proposals to initiate the ROW acquisition, and utility relocation process

Budget: \$400,000

Design Completion: Spring 2019

5. **Founders Parkway (SH86)/Fifth Street Intersection Improvements**

– A roundabout has been identified as the preferred upgrade

Phase: *Design*

- Staff will find out if the Town will receive DRCOG funding in August of 2019.
- Design is on hold until DRCOG funding is known. Design is 30% complete.

Budget: \$340,000

Design Completion: Pending award

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

Acquisition – The purpose of this project is to achieve acquisition of remaining right-of-way.

Phase: *Right-of Way Acquisition*

Appraisal Services - started.

Acquisition Services

- East Side of I-25 – Initial appraisal discussion are in progress.
- East Side of I-25 – Continue to work on offer letters.
- West Side of I-25 – Town continuing to work with CDOT and FHWA on the Access Line Locations.

Budget: Development Escrow

Completion: Fall 2019

7. **Public Works Facility Expansion** – This project consists of the addition and renovation of the Service Center building.

Phase: Construction

Work has continued on both the new phases of the addition which include; 1. The addition of two new fleet service bays on the north side of the existing building which will be turned over at the end of August beginning of September and 2. New office space on the south side of the existing building. 3. New exit off Castleton Court is being installed.

Budget: \$4,960,349

Construction Finish: Spring 2020

8. **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 –

- Continued working on the Widening of Plum Creek Pkwy from Eaton St. to Ridge Road design package.
- Continued finalizing the Roundabouts and Widening of Plum Creek Pkwy from Gilbert St. to Eaton St.
- Obtained utility potholing information for existing utilities
- Continued the development of the project specifications and bid package and overall design.

Drainage design package

- Submitted and addressed 90% plans to Town review comments. Preparing final plans and specifications for bidding in August.

Right of Way Acquisition / Appraisal

- Acquisition Services

- Mailed out all offer letters to property owners.

Budget: \$794,375

Design & ROW Completion: Spring 2019

Engineering Division

2019 Pavement Maintenance

Program (PMP) – The 2019 PMP will focus its efforts in the West PMP area with additional work taking place on primary streets (Meadows Boulevard, Wolfensberger Rd., Butterfield Crossing, Foothills Dr., Cherokee Dr., & Morning View Dr.).

Slurry seal began on Monday July 8, and was completed on Friday, July 26.

Contractor performed asphalt patching in areas that had deficiencies in the street. Vance Bros. applied a Type II slurry seal to 336,457 square yards. Street sweeping operation began this month as well.



Butterfield Crossing was closed from Rosecrown Ave. to Blue Grass Circle to allow the complete removal of existing concrete pavement in this phase. This was done in an effort to speed up the project, as several days were lost due to inclement weather. Bottom mat paving in this phase was placed on Friday, July 26. The last phase from Blue Grass Circle to N. Meadows will close on Monday, July 29. The contractor is working to have the project complete before school starts.



Full Depth Reclamation work continues in Phase 2. The reclamation process of the asphalt in phase 2 was completed and bottom mat paving began on July 8. All bottom mat paving was completed on Friday, July 26.



Paving of the top mat is scheduled to begin on Monday, July 29.

Concrete restoration work on Foothills Drive, Cherokee and Meadows Blvd.

continued during the month of July. Curb, gutter and sidewalk repair, ADA ramp install, removal of concrete pavement, diamond grinding and joint

sealing we all part of the scope of work. Contractor is working in a clockwise fashion to minimize disruption to the traveling public.



2019 Facilities Parking Lot

Improvements Program - This contract will see needed improvements to three parking lots at Town Parks, and one Parking lot in the Downtown area as follows:

- Crystal Valley Tank
- Coachline Tank
- Red Hawk Golf Course (South half)
- Founders Park (Asphalt and Concrete sections)

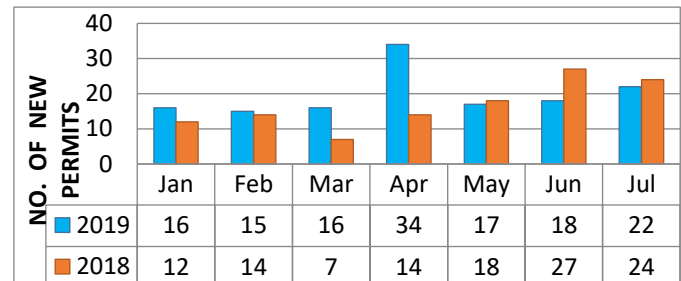
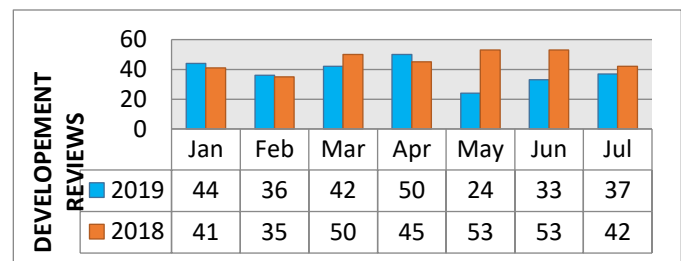
Pre-construction meeting is scheduled for July 31. Work begins in August and will continue through September.

2019 Bridge Maintenance Program

(BMP) - The contractor completed work on the Perry Street Bridge this month. The thin bond overlay on the bridge deck was installed and permanent pavement markings were done. Contractor completed all improvements, including the asphalt mill and overlay of Front Street Flyover Bridge. All work on this project were completed by July 8. Bridge Painting to begin in late summer.

Development Review and Permitting

Development Review - Included in the 50 submittals are 21 first time applications with four pre-applications. All reviews were completed on or before the due date by the PW Development Services Team.



Permitting - 17 right-of-way permits were issued

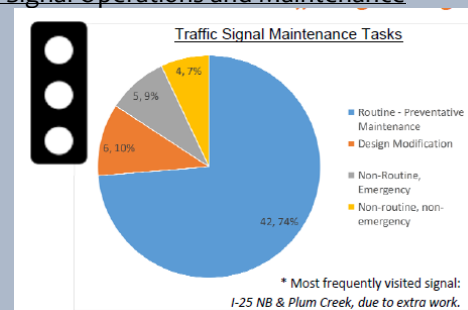
Transportation Planning & Traffic Engineering Division

Taxi Voucher Program

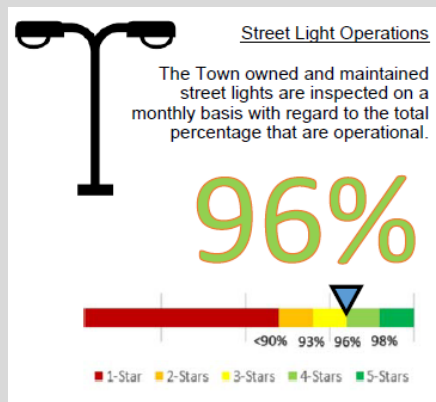
For the month of July, the Taxi Voucher Program funded 152 rides; this was a 5% increase from last July's total of 145 rides. Ridership this month is up 27 rides from last month. Transportation services are provided for Castle Rock citizens who cannot drive, have a disability that prevents them from driving, or do not have access to a vehicle. In July, 20 individuals used the Town's Taxi service. Of those that used the service, 70% of the rides were for work, 16% were for grocery shopping trips, and 14% for medical appointments. Three new people have registered for the service this past month.

Traffic Engineering and Operations

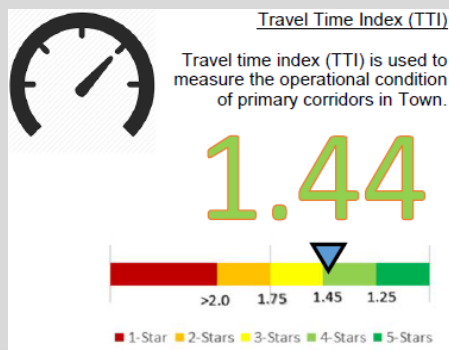
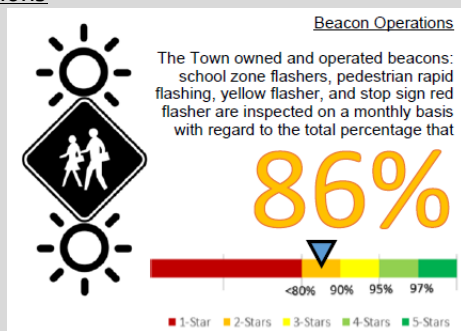
Traffic Signal Operations and Maintenance



Street Light Operations



Beacon Operations



Street Signs and Pavement Marking Maintenance

During the month of July, the crew accomplished 628 tasks. Of these tasks, 33 of them were windshield inspections related to markings, signs and rapid flash beacons. Sign work related to fabrication, install, repairs, replacements, etc. accounted for 134 tasks. Marking work accounted for 378 tasks of original installs and crosswalk / stop bar replacement. The marking team is starting to paint symbols in the downtown area and south / east parts of Town before moving onto the west side to complete crosswalk and stop bar replacement is starting to paint symbols in the downtown area and south / east parts of Town before moving onto the west

side to complete crosswalk and stop bar replacement painting following the completion of PMP projects.

The crew also completed 16 tasks related to traffic control support for special events, including working the Western Heritage Welcome and the Douglas County Fair Parade. Finally, the team worked on two special projects this month with the Crystal Valley Pkwy speed limit change project and the install of new radar speed feedback signs.

Transportation Planning

Neighborhood Traffic Calming Program (NTCP):

The NTCP exists to verify and address resident speeding concerns on local neighborhood streets and certain collector roadways. There were no new inquiries in July but the following streets have active traffic calming cases in progress;

Diamond Ridge Pkwy
N. Meadows Drive just south of Meadows Blvd.

DRCOG 2021 – 2023 Transportation Improvement Program (TIP):

The current draft of the 2021-2023 DRCOG TIP is expected to be heard at the August DRCOG Board meeting. The Town currently has one project on the proposed funding list. This project consists of intersection improvements at the SH-86/Founders Pkwy/5th Street/Ridge Road intersection.

DRCOG Community Mobility Planning and Implementation (CMPI) Projects:

Town staff submitted two grant applications for potential funding through the DRCOG Community Mobility Planning and Implementation (CMPI) program. The two projects are;

1. Downtown Alley Master Plan
2. Downtown Alley Master Plan Implementation - This project would reconstruct the alley between Festival Park and 3rd Street into a shared alley as designed in the Alley Master Plan.

Traffic Signal System Capital Improvements

Traffic Signal System Upgrades (Phase 3) – This project is the third phase of a multi-year signal system upgrade project that was first approved as part of the 2015 budget process. The two main components of the Phase 3 project are the installation of closed circuit television (CCTV) and travel time monitoring devices at key intersections.

- The installation of CCTV cameras is nearly complete with the only camera not reporting video back to the Service Center located at the Crowfoot Valley emergency signal.
- All travel time monitoring devices on Town owned signals are operational.
- Staff continued conversations with CDOT about travel time device installations on CDOT signals. The current plan is for the Town to procure the devices and CDOT will install and maintain the devices. A data feed will be shared through CDOT for the Town to perform analytics.
- COTrip is now receiving and publishing Castle Rock's travel time data.
- Staff is still working with CDOT on how to share CCTV still images on COTrip.
- 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 is wrapping up along the Plum Creek Parkway corridor between Emerald and I-25.
- The use of ATSPMs provides a better understanding of system operation and maintenance needs and is helping us better serve our stakeholders in a cost effective manner.
- In July, staff continued reviewing metrics on Plum Creek Parkway using the SPM data. There is enough information to conclude this trial and understand that continuing with SPM data implementation is beneficial.
- We plan to continue implementing SPM and advanced detection devices on the consistently lowest performing corridors and eventually the entire system.

Budget: \$520,000

Construction Completion: Summer 2019

2019 Intersection Signalization Construction Projects

– This project will construct one new signal at Meadows Boulevard / Future Street and one replacement traffic signal at Factory Shops Boulevard / New Memphis Court.

- In July, Factory Shops / New Memphis became operational and is currently being monitored for operational issues. Illuminated street name signs are the last item to be installed.
- IREA's meter install has delayed the "turn-on" of the Meadows Blvd / Future Street signal. The contractor continues to align heads and wire the cabinet and will be ready for turn on by mid-August when IREA expects power to be switched on.
- Punch-list items will follow at both locations and are expected to be completed by Fall.

Budget: \$667,000

Construction Completion: Fall 2019

2019 Illuminated Street Name Sign Project – This project will be installing illuminated street name signs at several signalized intersections in Town along the major "ring" road that loops around the Town of Castle Rock.

- The sign installation locations in 2019 include Factory Shops Blvd / New Memphis Court, Meadows Blvd. / Future Street, I-25 northbound and southbound off-ramps and Meadows/Founders Parkway, signs will also be placed at I-25 / Plum Creek Parkway, Founders / Crowfoot Valley Road, and Founders / Allen.
- In July, staff received the first shipment of signs and began installing them on the new 2019 signalized intersections. Signs were also received for the CDOT ramp improvement project signals. Staff also placed an order for signs to be installed as a part of the Town managed signalized intersection projects on CDOT corridors.
- Staff completed a letter agreement with CDOT Region 1 regarding maintenance of Town owned signs on CDOT signal infrastructure.

Budget: \$55,000

Design Completion: End of 2019

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 was busy in July 2019 Keeping Castle Rock on the move. The Fleet Division billed out \$64,000 of parts and labor and met 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 79% of the work orders within 24-hours of opening repair requests or service requests. This benchmark number shows how quick the Fleet 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 98.2% 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 84.4%. This was well above our benchmark of 70% compared to the standard set by the American Public Works Association (APWA).

Additionally, Fleet was able to put seven new vehicles into service: Four police interceptors and three work trucks for the Parks Department. Two fleet technicians completed advanced engine diagnostic training for 6.7L Cummins diesel engines. The overall work orders completed were 144, which is higher than our average of 125 a month.

Street Operations & Maintenance Division

During the month of **July**, the Street Operations & Maintenance Division (SO&MD) performed work in five (5) maintenance operations:

- Crack Seal Operations
- Asphalt and pothole patching
- Vegetation Control
- Special Operations
- Gravel Road Maintenance

Crack Seal Operations.

Crack Seal crews have been working diligently on crack sealing the maintenance portion of the crack seal program, which is Crystal Valley, Plum Creek, and parts of Glover. Crews completed 35.49 lane miles of roadway using 64,710 pounds (32 tons) of crack seal material. The rain and some wet conditions have slowed progress but the team is still making good time and delivering a quality crack seal treatment to enhance the life expectancy of the roadway.

Asphalt Patching

During the month of July, Streets O&M crews have used 17.84 tons of hot mix asphalt in addition to 1080 pounds of cold mix asphalt to repair potholes and full or partial depth patches. Plum creek Parkway, Ridge road, and Front Street were the main areas of major work with numerous smaller tasks being completed throughout town. Crews also responded to an emergency patch needed on Crystal Valley Parkway. Working in conjunction with Water Department and Development Services, the water pipe was repaired and the patch in place within six hours.

Vegetation Control

Streets Division crews worked to knock down vegetation ahead of the crack seal crews. This entails a two-pronged approach of herbicide application and mechanical removal. 85 lane miles were treated for weed control with lots of attention paid to transverse cracks and other anomalies that would impede the crack seal process.

Special Operations

Streets crews were engaged in a number of Special Operations that include the fabrication and replacement of an entire span of handrail damaged by a car, along Castleton Court. Managing and monitoring the deposition of millings in the snow storage area north of Caprice St. Receiving and preparing to mix the salt and sand required for this upcoming winter season. As well as sweeping in preparation for and cleaning up after, the Cattle Drive event.



Gravel Road Maintenance

Streets crews responded to Rocky View Road and Castle Oaks Drive to fine tune and finish up the grading and resurfacing of these gravel roads to ensure a smooth surface after the large amount of rain the Town has received. Crews retouched 9.34 lane miles of gravel roadway during this last month.

Looking Ahead

Looking into the month of August the Streets O&M division plans to continue Crack Seal Operations as well as Asphalt patching. Training opportunities are also being made available through LTAP and Streets personnel are eager to work toward their certifications. Bridge Maintenance Operations are also scheduled to begin.