



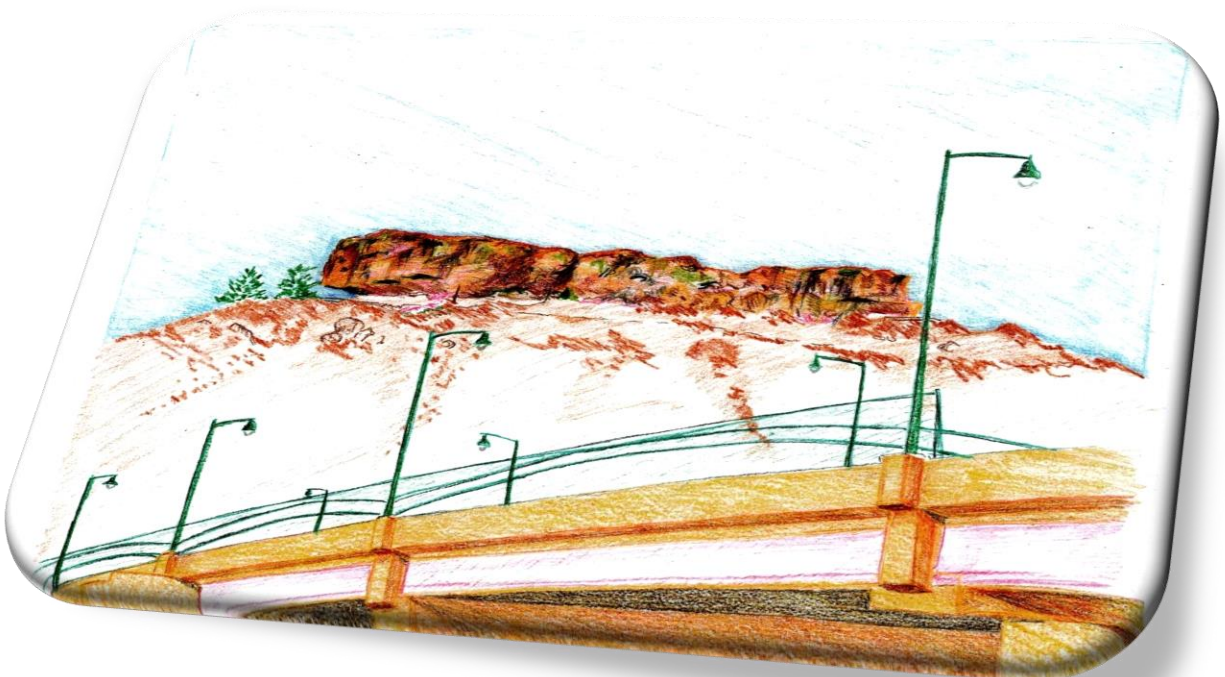
The Public Works Department operates under the CAN DO philosophy
- We are committed to doing the job right with a positive attitude
while staying dedicated to meeting the needs of our Town values
and continually searching for opportunities to improve.

PUBLIC WORKS DEPARTMENT

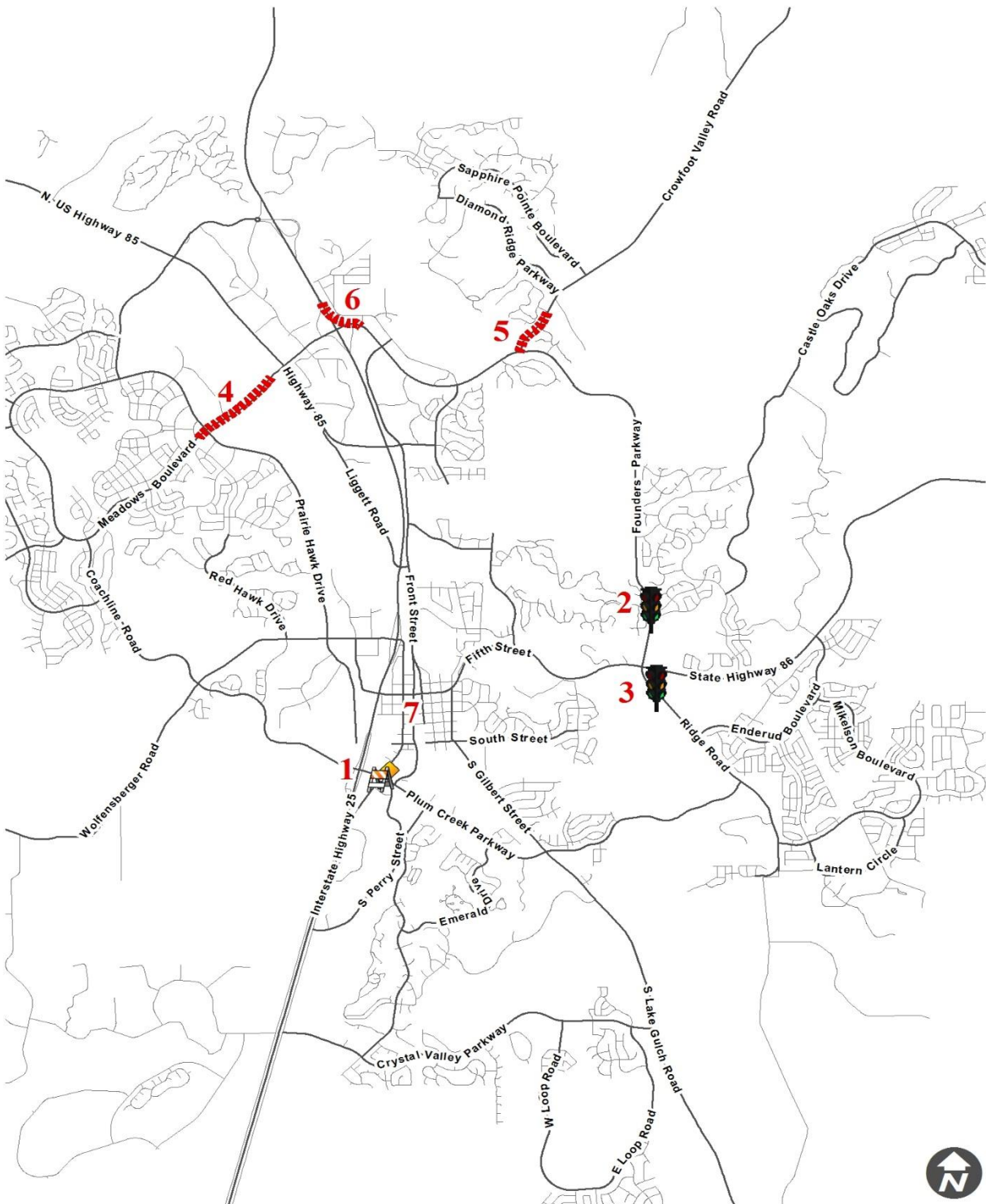


***Our Mission: To provide
outstanding service, safety
and support for
transportation infrastructure
and maintenance.***

MONTHLY REPORT – OCTOBER 2016



CAPITAL PROJECTS



1. Plum Creek Pkwy Intersection Improvements
2. Traffic Signal at Black Pine Drive/Copper Cloud Drive
3. Traffic Signal at Ridge Road/Kings Soopers Entrance
4. Meadows Parkway Reconstruction
5. Founders Pkwy/Crowfoot Valley Road Intersection Project
6. Founders Pkwy/Allen Way Intersection Project
7. Perry Street & 3rd Street Roundabout Project

1. **Plum Creek Parkway Intersection Improvements at Wilcox & Perry to I-25** – All construction improvements have been completed. Only signal work, including the proposed Active Traffic Management System (ATMS) remains for this project. The ATMS will continue it's testing into November with a field implementation date slated for the end of the month into early December. This system will vary the lane uses on the westbound approach of Plum Creek Parkway by time of day. **Budget:** Capital Fund: \$3,050,000; Pavement Maintenance Fund: \$553,850; Utilities Department: \$59,000 **Projected Construction Completion:** Extended to December 2016 due to the ATMS.

2 & 3. **Intersection Signalization Projects** - This project will complete the installation of two new traffic signals; one at the intersection of Black Pine Drive/Copper Cloud Drive/Founders Parkway; and one at Ridge Road/King Soopers Entrance. **Phase:** Construction – WL Contractors is wrapping up work at both the Founders Parkway and Black Pine / Copper Cloud intersection as well as at Ridge Road and King Soopers intersection. The signal on Ridge Road (pictured) will be in operation early in November with the signal at Black Pine going into operation mid-November. **Budget:** \$480,000 **Projected Construction Completion:** Fall 2016.



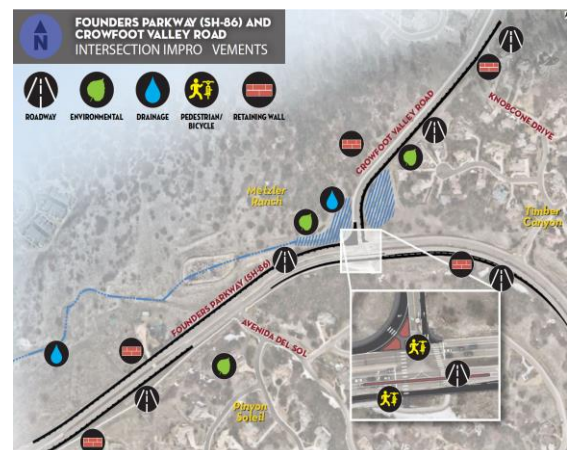
4. **Meadows Parkway Reconstruction** - This improvement project will consist of the reconstruction of the existing 4-lane roadway of Meadows Parkway from the intersection of Meadows Parkway and Prairie Hawk Drive to the west abutments of the Meadows bridges over Plum Creek. This reconstruction will also replace any broken curb/gutter, sidewalk, and also add on-street bike lanes. **Phase:** Design – Felsburg, Holt & Ullevig (FHU) was awarded the contract for design and have submitted 90% plans for review. **Budget:** \$112,385 **Project Design Completion:** December 2016

5. **Founders Pkwy/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 Pkwy and Knobcone Drive.
- A southbound free right turn lane from Crowfoot Valley Road to westbound Founders Parkway
- Eastbound lanes added that are separated from the left turn lanes to allow the eastbound lanes to avoid stopping for the signal.
- 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 – Staff is recommending to contract with Kimley-Horn for the design work. This item will be on the November 15th Town Council agenda. The early part of the design phase will verify whether this concept provides the best cost/benefit ratio or whether a different concept like a roundabout has a better ratio. **Budget:** \$650,000 (2016-17)

Projected Design & ROW Completion: November 2017

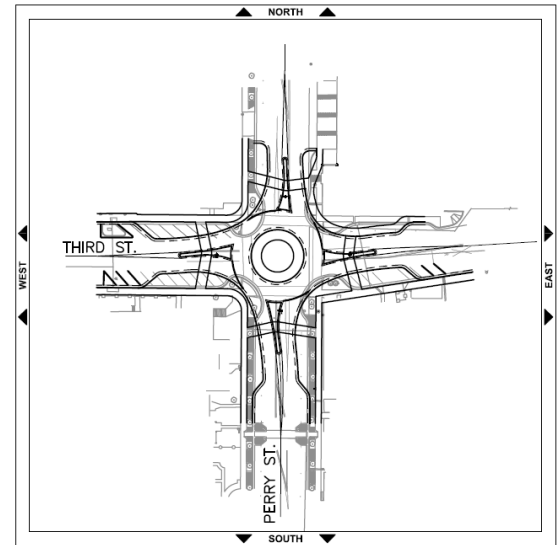


6. Founders Pkwy/Allen Way Intersection Improvement Project – *This project will address the need for the following improvements:*

- An additional eastbound left turn lane from Founders Parkway to Allen Way.
- A dedicated right turn lane from Founders 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 – Staff is conducting interviews with four design consultants. Selection of a design consultant along with the contract will be brought before the Public Works Commission in December and to Town Council in January 2017. **Budget:** \$760,000 **Projected Design & ROW Completion:** November 2017

7. 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 design contractor, Felsburg, Holt & Ullevig (FHU), has submitted 30% plans that are now under review. Budget: \$123,273 Projected Design Completion: December 2016*



Traffic Signal System Upgrades - Phase 2 - WL Contractors have begun installing both the battery backups and 332 style cabinet replacements in the field. In order to promote efficiency, the contractor installed all the Tesco battery backups before the cabinet replacements. The upgraded cabinets will provide more room for the technicians to effectively work in as well as house the new Ethernet switches, fiber optic and radio equipment.



Trafficon FLIR and Trafisense have passed the Town's evaluation period for bringing back vehicle video detection to the Town's Traffic Operations Center. The Town has decided to purchase the processor cards to be installed at the intersections that already have Trafficon equipment in place. In order to control costs, staff will also procure Iteris's Edge Connect video detection cards for the intersections that currently have Iteris video detection installed. **Phase 2 Budget:** \$400,000 **Construction Completion:** Winter 2016

ENGINEERING DIVISION

2016 Pavement Maintenance Program (PMP) - The 2016 Concrete Pavement Restoration project completed major maintenance activities on Front Street from Founders Parkway south past Milestone. Pavement joint sealing on Justice Way and Front Street is expected to be completed by the end of November.

The mastic crack seal contractor resumed operations on October 10th, in the Gould Circle neighborhood within the Meadows, Crystal Valley Parkway in Crystal Valley, and Mitchell Street in Founders. The contractor is currently performing work on Front Street and is scheduled to be completed by the first week of November.

The Miscellaneous Concrete contract completed the original scope of work and has begun working on additional repair items within the Town. This contract consists of repairing sidewalk trip hazards, and broken curb.



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

2016 Facilities Parking Lot Improvement Program – All major construction activities have been completed for this program. Staff is in the process of walking the various parking lots with the contractor to develop punch list items for the contractor to address prior to accepting into warranty.

2016 Bridge Maintenance Program (BMP) - All major construction activity has been completed for the 2016 BMP. Staff is in the process of walking the projects with the contractor to develop punch-list items for the contractor to address prior to accepting into warranty.

2017 Pavement Maintenance Program (PMP) - The PMP team continues working on the field reconnaissance for the 2017 PMP. This consists of the South PMP area, and scheduled primary streets, which include; Mikelson Boulevard between Sovereign Street and Ridge Road, Valley Drive, Wilcox Street between 5th and Wolfensberger, and complete mastic sealing on Crystal Valley Parkway. The purpose of the field reconnaissance is to quantify curb, gutter, and sidewalk as well as pavement areas which are in need of repair prior to the application of the final maintenance surface treatments such as slurry seal, asphalt overlay, or pavement reconstruction. Changes in the proposed streets may occur due to current evaluation taking place and/or actual bid pricing received that may require some modifications.



2017 Facilities Parking Lot Improvements Program - The PMP team has begun working on the field reconnaissance for the 2017 Facilities Parking Lot Improvements Program. This consists of the parking lots at the Prairie Hawk Fire Station, Bison Park, Wrangler Park, Gemstone Park, Paintbrush Park, East Plum Creek Trail Head parking lot, and Utilities Headquarters. Changes in the proposed facilities may occur due to current evaluations taking place and/or actual bid pricing received that may require some modifications.

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

Bridge Repair

- Meadows Parkway Bridges over Plum Creek – Upgrade left side bridge railing
- Plum Creek Parkway Bridge over the Union Pacific Railroad – Repair bridge deck, and girders

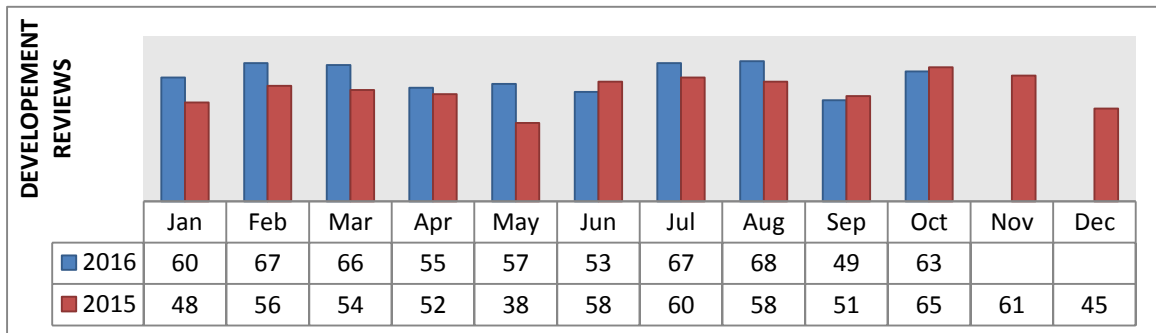
Bridge Surface Treatment

- Meadows Parkway Bridges over Plum Creek – Mill and overlay wearing surface

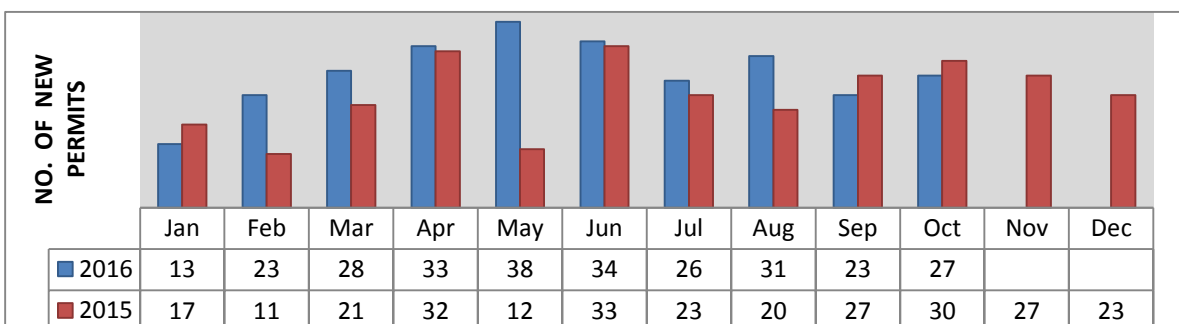
Treatments and locations may change pending current evaluations taking place and/or actual bid pricing received that may require some modifications.

Development Review and Permitting

Development Review - Included in the 63 submittals are 22 first time applications with 22 first time applications and five pre-applications. All reviews were completed on or before the due date assigned by the Development Services Project Manager.

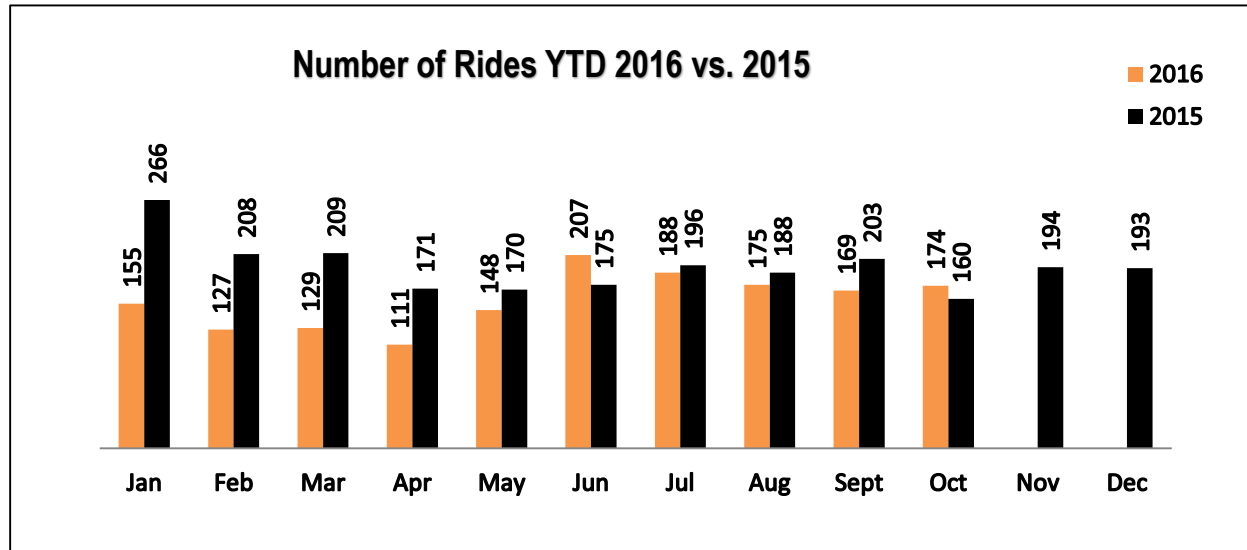


Permitting - Included in the 27 permits are: 1 - Commercial Developments (Auwind Expansion); 1 – Multi-Family Residential Development (Meadows Filing 20 Luxury Apartments – Early Grading); 5 – Town Projects; and 20 permits for work within the public right-of-way, 13 of which were necessary due to current development, and one was a pavement cut.



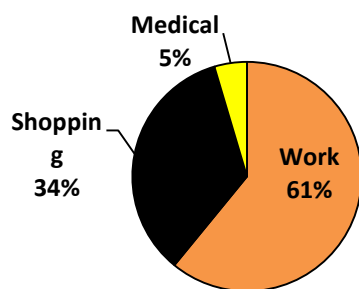
TRANSPORTATION SERVICES

Taxi Voucher – For the month of October the Taxi Voucher Program funded 174 rides, this was about a 9% increase over last October's total of 160 rides. The rides have increased since last month due to riders needing a few more rides to work and a couple of new riders needing help to get to their jobs and the grocery store.

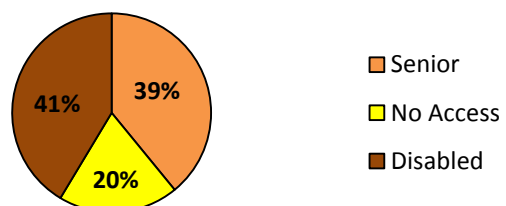


Rides are available for work, shopping or medical trips. Transportation services are provided for Castle Rock residents who are senior citizens, have a disability that prevents them from driving, or do not have access to a vehicle.

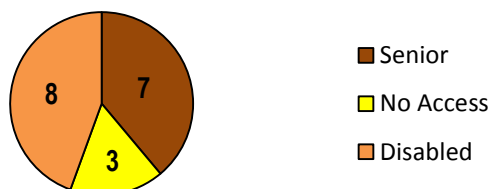
Ride Destinations



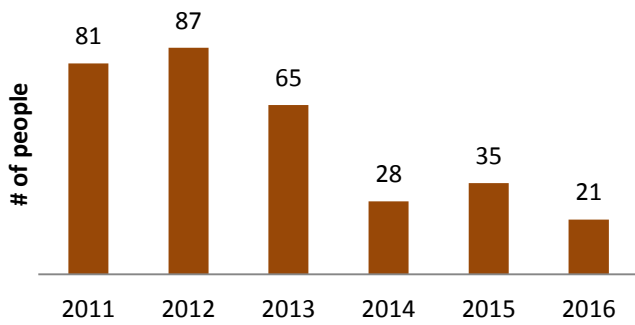
Percentage of the Total Rides (174) by each Rider Type



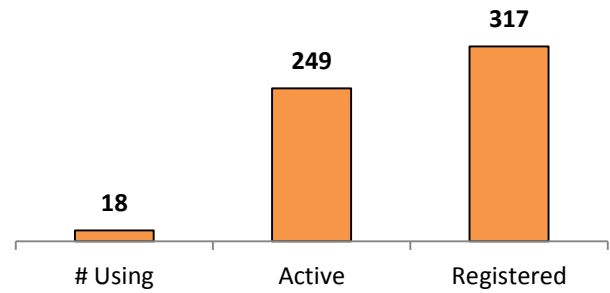
Types of Riders Using the Service



Number of People Registering for Program



Number of Riders Using the Service vs. Registered



There were four new registrants for the Taxi program this month. Since its inception, a total of 317 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 640 rides in the month of October which was an increase of 3% from last month's rides of 624. The volunteer driver program provides service Monday through Friday from 9 am to 3 pm.

Town Trolley - The Trolley provided rides for three different events in the month of October which included Oktoberfest, Castle Rock Utilities Department Citizen's Academy Night and Castle Rock's Annual **Trick or Treat Street**. Fun was had by all as they got to ride the Trolley around Town.



Traffic Engineering & Operations

Traffic Signal Operations and Maintenance - For the month of October there were a total of five non-routine traffic signal maintenance visits completed by either Town staff or the Town's signal maintenance contractor. In addition, the Town performed travel time runs on the various signalized corridors in Town. The results are used to determine potential congestion levels and traffic timing plan effectiveness along each of the signalized corridors.



Street Signs and Pavement Marking Maintenance - During the month of October, the Signs & Markings crew assisted with the set-up of traffic control devices for several special events including the annual **Trick or Treat Street**.

They also worked to finalize the remaining summer painting tasks of repainting crosswalks, stop bars and arrows throughout Town. This included the installation of the **creative crosswalk** layouts (as pictured below) in the downtown area on Perry Street and Wilcox Street. Now with the summer painting season winding down, sign maintenance activities are beginning to pick up again so the technicians started with the fabrication of 26 new signs.



Transportation Planning

Neighborhood Traffic Calming Program (NTCP)

NTCP New Inquiry:

- The HOA manager for the Terrain neighborhood shared concerns with Town staff about vehicles speeds on a number of streets in the neighborhood, but primarily Autumn Sage. It was explained to them that Autumn Sage is a higher classified roadway than a local residential street, and that Autumn Sage is designed for higher volumes and speeds. An initial support petition was emailed to them in case homeowners wanted to pursue the program.

Updates:

- **Knob Cone Drive:** Town staff has completed the data collection and it is currently being analyzed to determine if the street qualifies for the program.
- **Cherry Plum Way:** Town staff is still awaiting the return of the support petition to begin the traffic/volume study.



- Elk Run Drive: The re-test for the street was discussed with the original homeowner expressing the speeding concerns. It was decided that the street would be re-tested in November even though construction traffic is still occurring in the area.
- Starry Night Loop & Quartz Street: Town staff has received the initial support petition for Starry Night Loop and Quartz Street in the Meadows. The petitions are being reviewed for completeness.
- Woodlands and Escavera: An additional neighborhood meeting was held on October 12 in the Panorama Hall at the Castle Rock Recreation Center from 6:30-7:00pm. The Working Group was asked if there should be any changes to the proposed plan or if it should be released for the homeowners vote as currently proposed. The members concurred that the plan should be released as proposed. Accordingly, the ballots, along with an informational mailer, was sent to all the homeowners along Saddleback Drive, Ridgetrail Drive, and Black Pine Drive to vote on the plan and are due back the end of November. The informational mailer was also sent to all the homeowners in Woodlands and Escavera neighborhoods.

Transportation Master Plan

Transportation Master Plan (TMP) Update - Town staff and the consultant have been preparing material and presentation data for the upcoming public meetings in November. These meetings include the Public Works Commission on November 7th, Planning Commission on November 10th and a public open house on November 16th.

Existing conditions, goals and policies, as well as initial modeling results will be shared at the meetings.

Development Review

- Staff has reviewed and commented on 3 transportation impact studies during October, including the proposed Miller's Landing and Pine Canyon expansion projects. All reports were completed by the due date, except Pine Canyon. Additional review time was requested due to the accelerated schedule for the Miller's Landing project.
- Staff continues to work on the Miller's Landing DA identifying transportation improvements and triggers.



Fleet Services

"Keeping Castle Rock on the Move"



The Fleet Services Division had a very productive month of October. The Fleet Services team increased productivity and preventative maintenance compliance and reduced overall downtime for the Town's fleet of 355 vehicles and equipment. Total service and parts was over \$66,000 which has put us on track to exceed the projected income. The Town's technicians completed 118 work orders and serviced or repaired 107 vehicles.



The Fleet Services team also completed a very successful auction where they were able to auction seven old units and brought in \$78,500 in auction proceeds which was well above our projections.



Technicians Mac McKelvy and Eric Dena attended advanced technical training put on by Napa and Angie Williams attended the user group meeting for our fleet software.



The Fleet Division was also able to put into service two new utility interceptors for the Police Department.



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

Outcome: Fleet team completed 74% of the work orders within 24-hours of opening repair requests or service requests. This was just a little below our benchmark.

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

Outcome: Town vehicles and equipment were available 96.5% of the time. This demonstrates a very low percentage of downtime and shows how well we are keeping Castle Rock on the move even with major repairs needed on several vehicles.

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

Outcome: Technician productivity was 83.1%. This was well above the benchmark and our best month to date in 2016.



Technician completing preventative maintenance service on trailer for the snow cat

Street Operations & Maintenance Division

During the month of **October**, the Street Operations & Maintenance (SO&M) Division performed work in 9 maintenance operations functions:

- Pothole Patching
- Asphalt Milling
- Crack Seal Maintenance
- Road Shoulder Maintenance
- Snow & Ice Control
- Equipment Maintenance
- Training
- Special Operations

Pot Hole Patching Operations

During the month of October SO&M performed pothole patching for several days on the following roadways: Wagon Wheel Drive, Enderud Boulevard, Lantern Trail, Ridge Road, Castlemaine Place, Prairie Hawk Drive, Switch Grass Drive, Foothills Drive, Dusty Pine Trail, Morning View Drive, and New Beale Street to name a few. In all, 966 pothole repairs were completed. It is important to note that we only received nine requests during the month for pothole repairs.

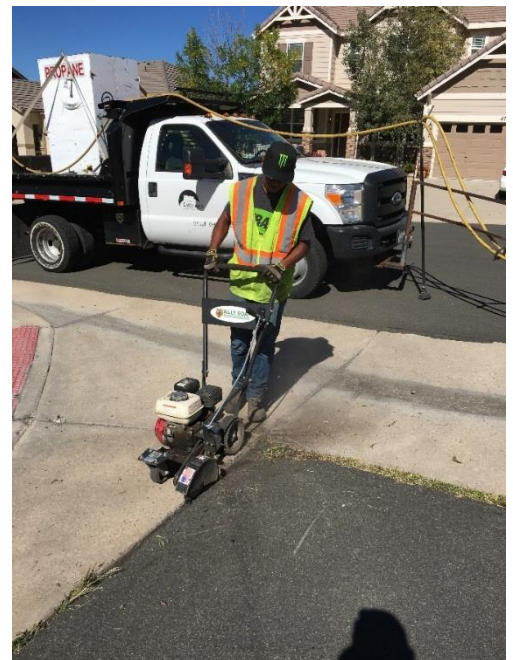


Milling Operations

During the month of October, the staff was able to mill down road bumps at 5 locations. These bumps, which are usually 2 – 3” high and go completely across the driving lane, normally build up at locations where the asphalt pavement meets a concrete roadways. Staff removed the road bumps at the following locations; Plum Creek Parkway and I-25, Santa Fe Drive and Justice Way, Endurud Boulevard and Lantern Trail, and at the intersection of Mikelson Boulevard and Lantern Trail. The staff also removed a large bump in the roadway on Lantern Trail, just south of Cascade Avenue.

Crack Seal Maintenance

During the month of October staff continued to work on our maintenance crack sealing operations in the west Meadows area. These operations are performed on roadways that received slurry seal and pavement overlays two years ago, in order to preserve and lengthen the life of the roadways. Staff was able to complete sealing operations on 8.76 lane miles of roadway. Approximately 53.19 lane miles of roadway remains to be sealed in to reach our goal by the end of the year.



Street Sweeping

During the month of October staff started the Fall sweeping activities where the goal is to sweep the entire Town (620 lane miles) at least once. Generally these activities start once the leaves start to drop in earnest. Staff started sweeping in the Sapphire Point subdivision and have worked their way south in a clockwise rotation. The sweeping has been completed in the following areas: Sapphire Point, Diamond Ridge, Metzler Ranch, Castle

North, Woodlands, Escavera, Terrain, Cobblestone Ranch, Founders Village, and Castlewood Ranch. Staff is now working their way south from the Castle Heights area. To date, staff has completed 243



lane miles of the 620 lane miles of roadway. Additionally, staff was able to complete two of our AM sweeping operations for the business areas. In total, 231 yards of materials have been removed from our roadways, helping to keep our waterways and the air we breathe a little cleaner.

Road Shoulder Maintenance

Staff has started our fall road shoulder mowing operations. The goal for these operations is to pick up trash and perform mowing and trimming operations on 80.4 edge line miles of roadway, to help keep the town a little cleaner, to minimize localized snow drifting, and to reduce potential fire danger.

During the month staff was able to complete these operations on 6.3 edge line miles in the following areas: Factory Shops, Meadows Parkway & I-25, Wolfensberger Road & I-25, and Front Street. During these operations staff removed about 18 bags of trash.

Snow & Ice Control

SO&M has received our annual salt and aggregate materials order for the upcoming winter season's snow and ice control operations. The materials come in separately from different vendors and must be mixed and stockpiled by the staff. During these operations, staff mixed 1,250 tons of materials. We are now fully stocked and ready for the 2016-17 winter season!

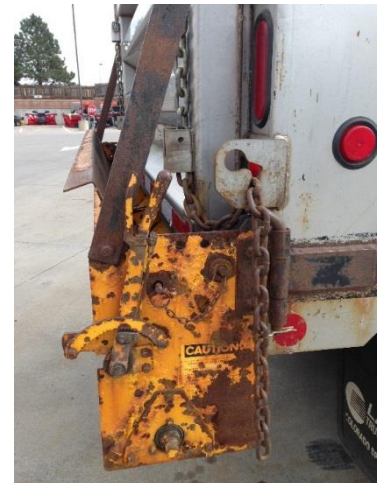
Equipment Maintenance

Equipment maintenance was performed on the following pieces of equipment to keep our operations going smoothly: the dump truck sander units, the crack seal machine, and our liquid asphalt emulsion tach machine.



Training

Annual snow plow driver training session was performed. This is geared towards bringing new employees up to speed with our snow and ice control policies and procedures, as well as refreshing current employees. There was a great participation at this event by the 65 employees who attended. There will be another session later this year to train any new employees and current employees that were not able to make the first event.



Special Operations

Staff responded to five special operations requests; two road kill removals and clean-up of a rock spill on Crystal Valley Parkway. The other two events were supporting the Town's Chemical Hazardous Waste Round-Up and also a "Touch a Truck" event.

Looking Ahead

During the month of November, the SO&M Division will continue with crack seal maintenance operations, road shoulder maintenance operations (shouldering and mowing), and the Fall street sweeping operations.

