



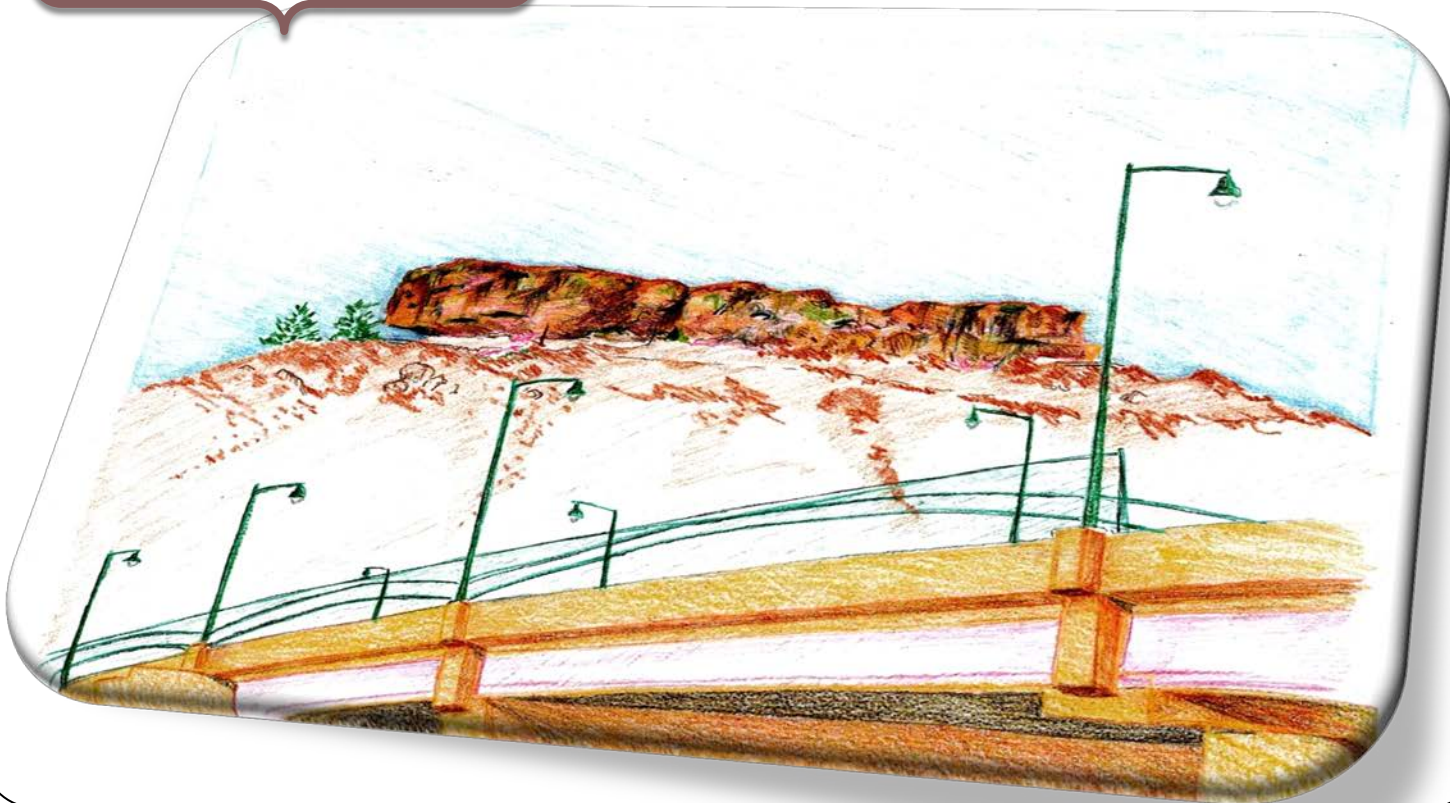
The Public Works Department operates under the CAN DO philosophy
- We are committed to doing the job right with a positive attitude
while staying dedicated to meeting the needs of our Town values
and continually searching for new opportunities to improve.

PUBLIC WORKS DEPARTMENT

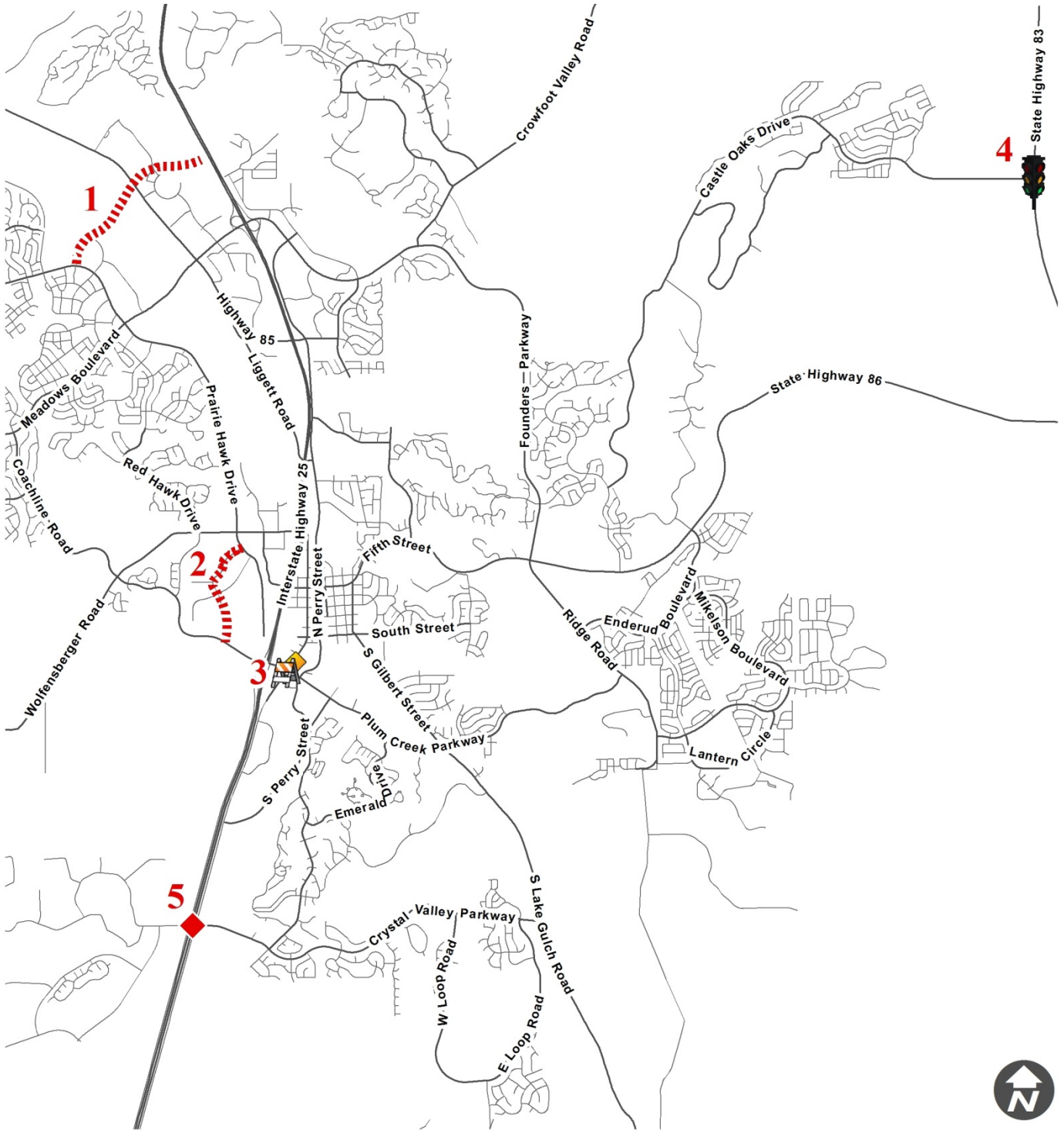
Monthly Report – October 2015

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

“CAN DO”



CAPITAL PROJECTS



PUBLIC WORKS DEPARTMENT

1. North Meadows Drive Extension Project
2. Prairie Hawk Extension – Industrial Tributary Trail & Drainage Way Improvements
3. Plum Creek Pkwy Intersection Improvements at Wilcox & Perry
4. Traffic Signal at Castle Oaks Drive/SH 83
5. CVDR/I-25 Interchange



#1

1. **North Meadows Drive Extension Project** - The Town's transportation project!! The following is a summary of the construction activities that took place during the month of September:

- Excavation of I-25 on and off ramps and roadway
- I-25 cast-in-place and precast panel wall construction
- US 85 bridge deck rebar placement
- US 85 overhang installation
- US 85 block wall construction for future trail
- US 85 on-and-off ramp deck completion
- US 85 on-and-off ramp roadway construction (asphalt and concrete paving)
- Grading for US 85 bridge construction and detention ponds
- Roadway construction between I-25 US 85 (asphalt pavement and curb & gutter)

Traffic impacts to the traveling public:

- Flaggers will be present from 7am to 5pm, Monday through Friday along US 85; please be prepared to stop.
- Castlegate Drive North from US 85 to Castlegate Drive West is closed and will remain closed until the summer 2016.
- Traffic alignment lane shifts are present in the current configuration on US 85; please use caution and follow the posted speed limits.
- The new Phase 2 traffic configuration on I-25 has no shoulders and narrower lanes; please use caution and follow the posted speed limits.

Phase: Construction Budget: 2015 - \$34.6M Construction Completion Date: June 2016.



Concrete Placement of the Bridge Deck US 85 (night work)

2. **Prairie Hawk Extension, Industrial Tributary Trail & Drainage Way Improvements** – This is a joint project with the Parks Department, Public Works Department, and the Utilities Stormwater Division. This project will include: a trail between East Plum Creek and Prairie Hawk Drive Extension along Industrial Tributary, Prairie Hawk Drive Extension between Wolfensberger Road and Plum Creek Parkway, and stream stabilization along Industrial Tributary between Prairie Hawk Drive and Atchison Way. **Phase: Design** – The Town's consultant, Olsson and Associates, has submitted 90% plans of the combined roadway drainage and lower tributary drainage plans, in addition to completion of the GESC plans. The Town will compile roadway and drainage

DESIGN

plans to complete the design phase. **Budget:** The overall Public Works budget for this project was \$500,000. Balance from 2014 has been carried over to finalize design and right-of-way acquisition. Construction year has not been established.

3. Plum Creek Parkway Intersection Improvements at Wilcox & Perry – This improvement project will consist of the following components:

- Remove the dip at the intersection of Wilcox Street and Plum Creek Parkway (located on the east side of Wilcox Street).
- Reconfigure the above intersection to have two northbound left turn lanes from Wilcox Street to Plum Creek Parkway and a new dedicated right turn lane on Plum Creek Parkway for westbound traffic turning onto Wilcox Street.
- Add a southbound right turn lane from Perry Street to Plum Creek Parkway.
- Add a westbound right turn lane from Plum Creek Parkway to northbound I-25.

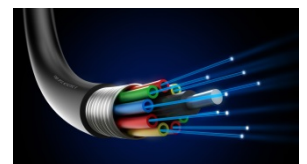
Phase: Design - Staff has retained Hartwig and Associates to prepare the design to be completed by the end of 2015 with construction planned to follow in 2016. Hartwig has submitted 60% complete plans and is currently on schedule for 90% plans by mid-December. **Budget:** \$345,000

4. State Highway 83 and Castle Oaks Drive Intersection Signalization – This project installed a new traffic signal at this intersection. In 2014, an engineering study was completed showing the need for a traffic signal at this intersection and the design was completed late in 2014. **Phase:** Construction Closeout –The signal contractor is making the final corrections from the initial punch list from CDOT. The Town and CDOT will conduct a final inspection in early November with the goal of closing out the project at that time. **Construction Completion:** September 2015.



5. Crystal Valley Parkway/Dawson Ridge/I-25 (CVDR) Interchange – Environmental Assessment Update Through coordination with the Colorado Department of Transportation (CDOT) and the Federal Highways Administration (FHWA), Public Works will be determining if the CVDR interchange may be constructed in phases. The 2004 Environmental Assessment will be reevaluated as necessary if CDOT and FHWA determine a phased interchange is feasible. **Phase:** Planning – Public Works staff met with CDOT in July to discuss potential phasing of the CVDR interchange. The Town will present CDOT information pertaining to the levels of service anticipated in various phased conditions. The Town seeks CDOT’s endorsement of a phased interchange in order to advance a plan to FHWA. Provided FHWA is receptive to a phased condition, the Town will reevaluate the Environmental Assessment, as needed. A meeting with CDOT and FHWA is scheduled for November 5. **Budget:** \$250,000 (Development Escrow Account)

Traffic Signal System Upgrades (Phase 1) – This project is the first step in implementing the system improvements that were initially identified as part of the October 2013 Signal System Evaluation study. The three main components of the Phase 1 project are a central communications upgrade, a central software upgrade that manages the signal system, and individual intersection traffic signal controller upgrades. **Phase:** Construction – The Town’s fiber optic contractor, Dillie & Kuhn, Inc., has submitted a cost estimate for the communication upgrade portion of the project for the Town to review. Once a contract is in place, work on the new traffic signal fiber communication system should break ground before the end of the year. For locations where fiber optic communication is not a viable option, due to topography and terrain, the Town will be using radio communication. We have reached out to a radio vendor to determine which type of radios will best serve



our needs based on the desired applications. At the same time, the Traffic Engineering Division has been working closely with DoIT for the procurement of the Ethernet switches needed as part of the communications upgrade. In addition, the department has completed a request for proposals (RFP) for the central software upgrade, and will be sending it to the CDOT and FHWA for their review. The intent will be to advertise the RFP in either late November or early December. Finally, we are in the process of purchasing our new ATC controller. The schedule is to have all components of Phase 1 complete by the end of 2015 but installation of some items will carry over into 2016.

Budget: \$700,000 **Construction Completion:** End of 2015/Early 2016

ENGINEERING DIVISION

Interstate 25, East Frontage Road – Street Improvements - Staff is working with the contractor, K&J Excavating, to construct curb, gutter and sidewalk along the Plum Creek Community Church frontage (north of the private driveway). This will complete the street improvements between the recently built Perry Street intersection and the church’s private driveway. Per the church’s development agreement, the church provided the Town \$40,634 cash-in-lieu of construction. Staff is estimating the improvement will cost approximately \$37,000.

6th Street Alley Retaining Wall and Pavement Failure - In June 2015, the retaining wall supporting the alley (north of 6th Street & between Wilcox and Jerry streets) failed during a significant rain event. The Town is contracting with Bohannon Huston, Inc. (BHI) to prepare plans for the construction of a retaining wall and repair of the alley pavement. BHI is expected to complete the plans in November 2015 with construction following thereafter.

2015 Community Development Block Grant (CDBG) - The Town has been awarded two grants to improve accessibility in public alleys within the downtown area. Public Works and Development Services will be requesting direction from Town Council to determine if the Town is still interested in accepting the 2014 and 2015 CDBG grants. Pending direction from Town Council, Public Works continues to plan for the reconstruction of four alley segments. Three of the alleys are located from 1st Street to Briscoe Street between Wilcox & East Plum Creek; one alley is located north of 7th Street between Wilcox & Perry. The design services contract has been awarded to Bohannon Huston, Inc. (“BHI”). **Phase:** Design – Construction Plans are 90% complete for southern alleys. BHI has submitted stormwater infrastructure design for the 7th Street alley. A stormwater easement is being sought to complete the plans. Pending direction from Town Council, Public Works plans to advertise the project for bids in January 2016 and commence construction in spring 2016.

Budget: Grants: \$202,000*, Public Works: \$115,000; Utilities Department: \$45,000; Total: \$362,000

* Town Council will provide direction on the acceptance of grants in December 2015

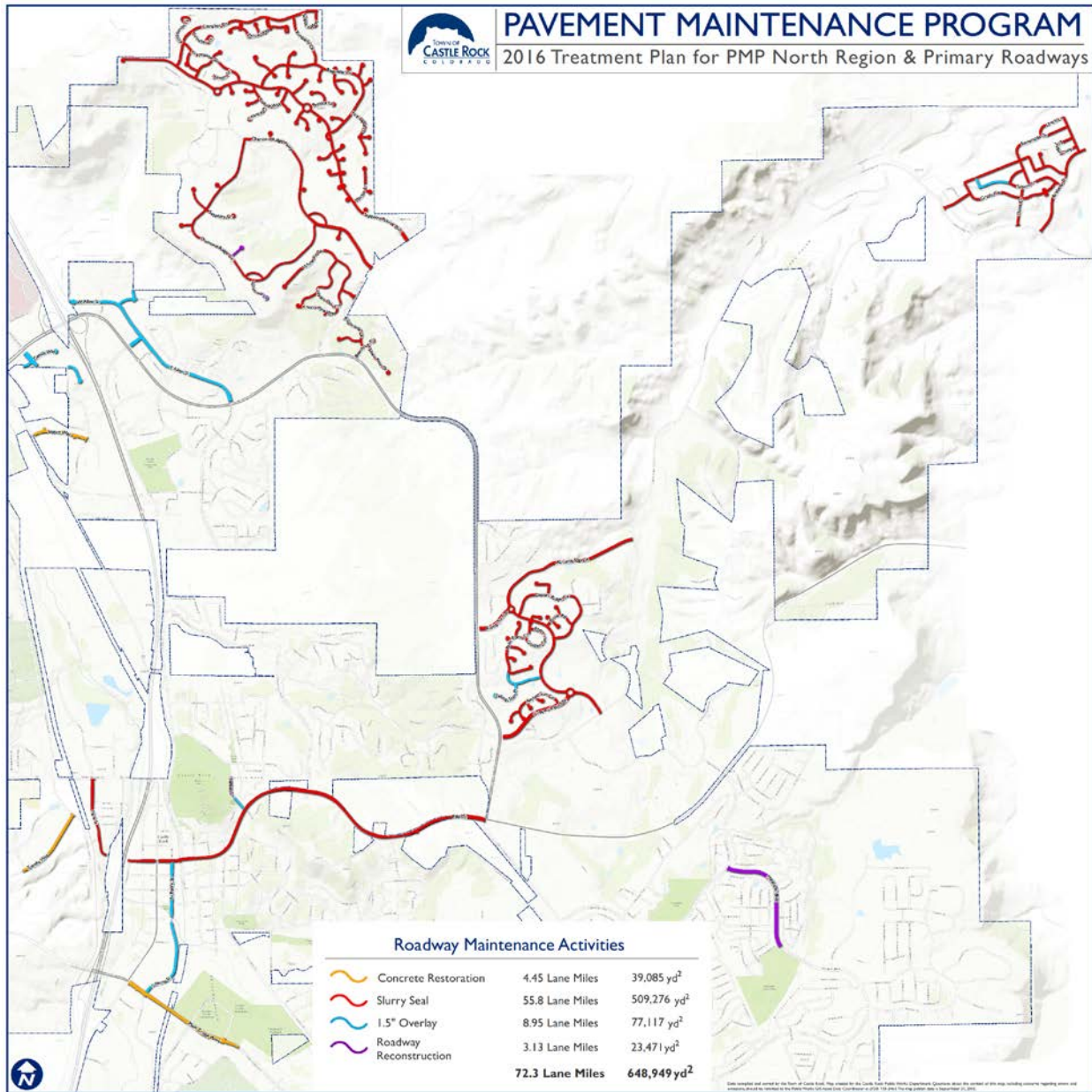
2015 Pavement Maintenance Program (PMP) - All major construction activity has been completed for the 2015 PMP. Staff is in the process of walking the projects with the contractor to develop punch list items for the contractor to address prior to accepting into warranty.



The Contractor for the 2015 Curb, Gutter, and Sidewalk project continues to work on miscellaneous concrete repair throughout Town. These repairs consist of resident’s request related to sidewalk trip hazard to deteriorating pavement and concrete repairs for the Utilities Department.

2016 Pavement Maintenance Program (PMP) - The PMP team continues working on the field reconnaissance for the 2016 PMP. This consists of the North PMP area, Mikelson Boulevard between Enderud Boulevard and Sovereign Street, 5th Street from Ridge Road to Wilcox, Park Street from Wilcox to Wolfensberger Road, Perry Street from 5th to Plum Creek Boulevard and Plum Creek Parkway from Wilcox to Fairgrounds Drive. 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.

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



2015 Facilities Parking Lot Improvement Program - All major construction activity has been completed for the 2015 Facilities Parking Lot Improvements Program. Staff has developed a punch list for the contractor and once these items are completed, the project will be placed into warranty.

2016 Facilities Parking Lot Improvement Program - The PMP team has completed the field reconnaissance for the 2016 Facilities Parking Lot Improvements Program. The proposed parking lots for next year include:

- Founders Village Fire Station
- Crowfoot Valley Fire Station
- Butterfield Park
- Coachline Trailhead parking lot

The Utilities Department has requested the Meadows Water Treatment Plant and the Diamond Ridge Pump Stations be included in the 2016 Facilities Parking Lot Improvement Program. These facilities are adjacent to facilities included in the original scope of work and would be cost effective to address at this time.

2016 Bridge Maintenance Program - Staff has identified the following locations for the 2016 Bridge Improvement Program:

Bridge Repair

- Castle Oak Drive Bridge over Cherry Creek: Raise and level bridge approach slabs and expansion joints.

Bridge Surface Treatment

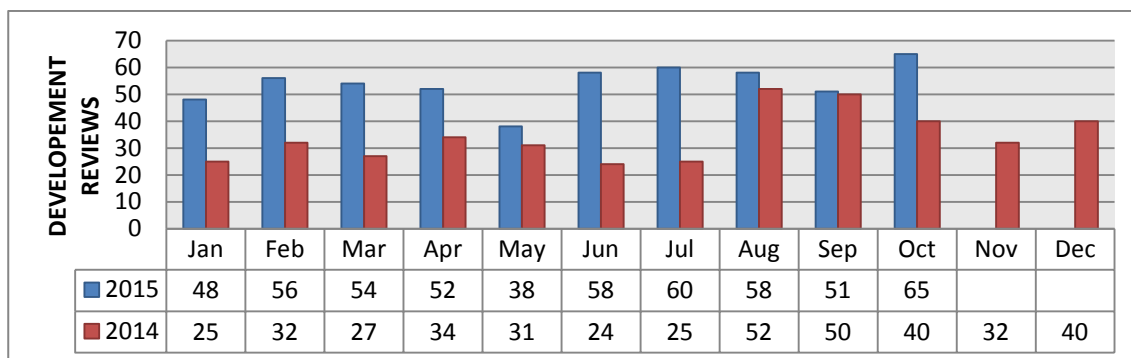
- Wilcox Bridge over Sellers Gulch: Apply new water proofing membrane and remove and replace the asphalt wearing surface.

Bridge Painting

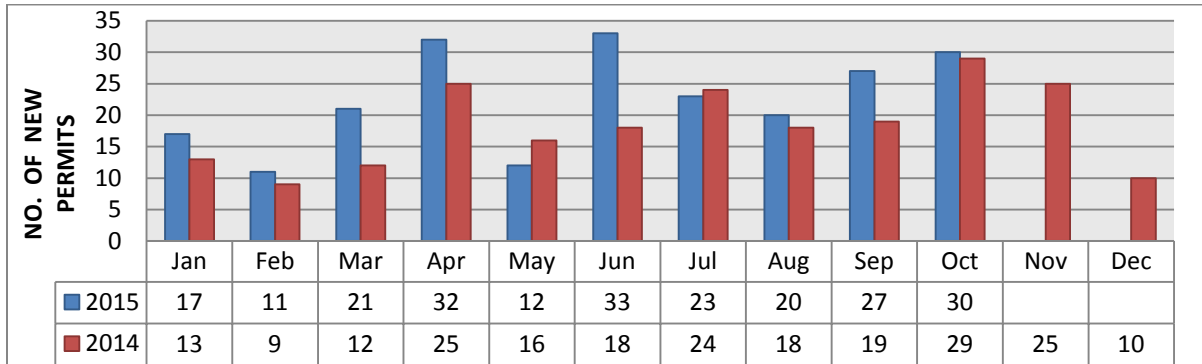
- Wilcox Bridge over Sellars Gulch
- Plum Creek Parkway Bridge over BNSF Railroad
- Perry Street Bridge over BNSF Railroad

Development Review and Permitting

Development Review - . Included in the 65 submittals are twenty-four first time applications with eight pre-applications. Eight reviews were completed after the due date assigned by the Development Services Project Manager. The Town has a contract with Bohannon-Huston to assist with Development Reviews and a new full time Plan Review Engineer will start next month.

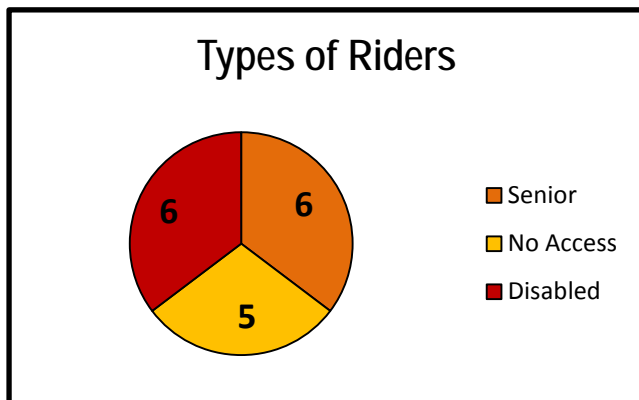
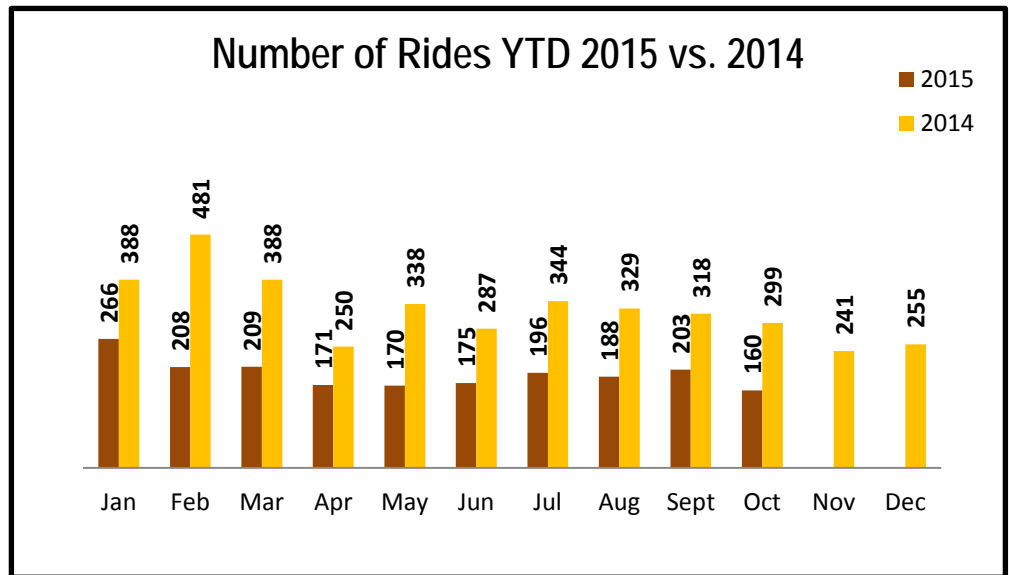


Permitting - Public Works approved and began inspections of thirty new permits in the month of October 2015. Included in the 30 permits are: 1 - Commercial Development (Popeyes) and 29 permits for work within the public right-of-way (9 of which were necessary due to current development, and two required a pavement cut that was patched within 24 hours).



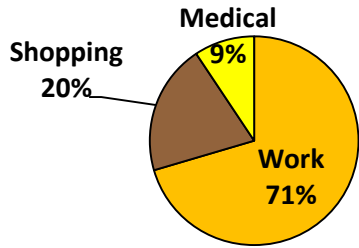
TRANSPORTATION SERVICES

Taxi Voucher – For the month of October the Taxi Voucher Program funded 160 rides, this was about a 46% decrease over last October’s total of 299 rides. The rides have decreased since last month as some of our regular riders have utilized other programs, while others have reduced their overall 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. In October, there were 17 individuals who used the Town’s Taxi service.

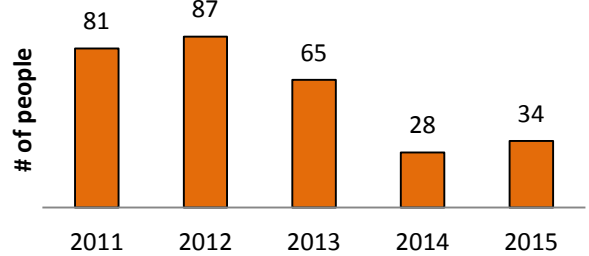
Ride Destinations



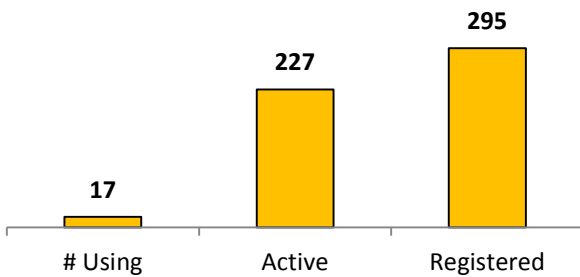
Rides are available for work, shopping or medical trips.

One person registered for the Taxi program this month. Since its inception, a total of 295 people have registered for this program. Currently 68 of these past registrants are inactive or have dropped out of the program.

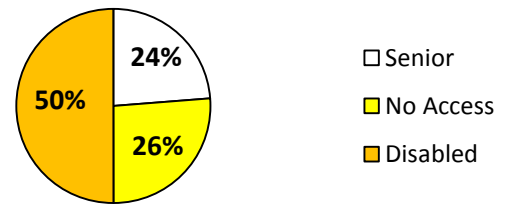
Number of People Registering



Number of Riders Using the Service vs. Registered



% of the Total Rides (160) by each Rider Type



Senior Center Shuttle - The Senior Center provided 707 rides in the month of October which was an increase of 6% from last month's rides of 662. The volunteer driver program provides service Monday through Friday from 9 am to 3 pm.



Town Trolley – The Trolley had a busy month providing rides for a variety of events during the month of October. The events included the Downtown Merchant’s Associations’s Oktoberfest, a wedding, the Senior Center’s Fall Senior Day Trip, the World Compass Academy Charter School’s Kindergarten Field Trip to the Lowell Ranch and the Town’s Annual Trick or Treat Street Event.



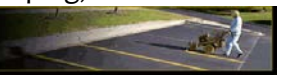
Traffic Engineering & Operations

Traffic Signal Operations and Maintenance - The following provides a summary of the activities during the month of October with regard to the operation and maintenance of the traffic signal system.

- For the month of October there were nine non-routine traffic signal maintenance visits completed by either the Town staff or the Town's signal maintenance contractor. This met the goal of 13 or fewer non-routine visits per month. Five of the requests were associated with intersections that remained in flash instead of coming out of nighttime flash due to a clock malfunction. Our maintenance contractor has been working at the intersection of Plum Creek Parkway and Wilcox Street to repair a broken conduit that was accidentally damaged by another contractor while doing work for the Town on another project.

Signs and Pavement Marking Maintenance - In the month of October, the Signs and Markings crew finished the annual painting program by installing new crosswalks, stop bars and arrows in the middle part of the Town. They also spent a portion of the month on delineator repair and sign boot/post maintenance around Town. The Town’s striping contractor, Kolbe Striping, painted over 225,000 linear feet of long line paint which completes the second and final round of long line painting throughout the Town.

STRIPING



With regard to special events, the crew spent 47 hours in setting out nearly 900 traffic control devices for use at various special events, including the Annual Trick or Treat Street.

Transportation Planning

**UNDER
REVIEW**

Neighborhood Traffic Calming Program (NTCP)

An update on the NTCP is as follows:

- Saddleback Drive - Town staff met with the point of contact for the neighborhood and discussed the results of the current speed and volume data. An additional meeting will be arranged with the HOA and homeowners to discuss the next steps of the program which includes establishing a working group made up of neighborhood homeowners.
- Pueblo Alta Way in the Cobblestone Ranch – A speed and volume study was conducted in October. It was determined that the street does not meet the minimum criteria to qualify for the program. The homeowner has been notified of the results and other options available to address their concerns, such as educational outreach.
- Staff has met with a homeowner in the Meadows neighborhood on Breezy Lane who is concerned with cars speeding on the street. The homeowner has been provided a petition to circulate amongst the neighborhood to gather the required signatures before the Town can proceed with the Program.
- Staff has not been contacted by the homeowners along Rock Creek Drive in the Meadows who previously voiced a concern with regard to speeding. Should staff receive the signed petition, a speed and volume study will be scheduled.

Policy Revisions

Town Council adopted the revisions to the NTCP policy at their October 20 meeting. The amended document has been uploaded to Town's website replacing the previous version. All future inquiries to the NTCP will utilize this revised document.

Comprehensive Plan Update

Public Works staff attended several open houses held for the Comprehensive Plan update. There were several questions regarding timing of certain roadway improvement projects, such as the extension of Prairie Hawk to Tomah Road and the Crystal Valley Road interchange at I-25. Additional emails were forwarded to Public Works regarding worsening traffic conditions throughout Town. The areas of concern include Founders Parkway, downtown, and areas in the south part of Town. People were glad to hear that the Town is considering updating the Transportation Master Plan next year.

Railroad Quiet Zone – Downtown Castle Rock

Due to recent feedback from Town residents, the Town Council has directed staff to prepare an agenda item to be presented before Council to discuss the railroad quiet zone in downtown Castle Rock. Staff is gathering the requested information and will be working to get this on an upcoming Town Council agenda. It is anticipated that this will occur before the end of 2015.

**Quiet
Zone**

Development Review Projects

- Staff has been working with the developer and future tenants for the Promenade development. The proposed apartments and the King Soopers have raised issues about increased traffic volumes and proposed access to the site. However, working closely with the applicant and their consultants all of Town staff's concerns have been addressed. The proposed project was presented to the Planning Commission on October 29 and received a recommendation of approval.
- The traffic study for the Canyons South housing project has been reviewed by Public Works. There are still several outstanding issues that need to be addressed, but is near completion. A list of potential Development Agreement items has been generated for discussions with Town staff and the developer.

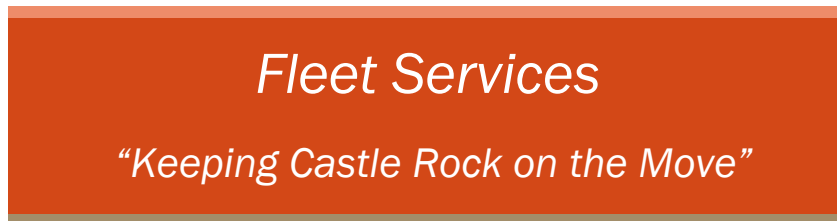
PUBLIC WORKS DEPARTMENT

- The Pioneer Ranch development proposal has submitted a draft Transportation Impact Analysis (TIA) to the Town. The applicant would like to see what potential transportation improvement projects may be required before an actual annexation and zoning application is made. Public Works is currently reviewing the study and identifying what public improvements are needed and should be included in a Development Agreement.
- Staff is also still reviewing several traffic impact studies for a restaurant and mixed use projects in the downtown area.

Douglas County Transit Demand Study

Town staff attended the last technical working group meeting for the Douglas County Transit Demand Study. At the meeting, the group participated in a workshop identifying what type of transit system would be appropriate for Douglas County. The group looked at different types of service such as a local circulator, point-to-point service, and regional service plans, as well as what type of investment would be appropriate for each service type.

Douglas County has been asked to present the results of the study to the Public Works Commission on December 7. Final recommendations are anticipated in the early part of 2016.



The Fleet Service Division had a very busy and productive month of October. The Fleet Services team billed out just over \$56,000 of labor and parts for the month and technicians worked on 118 Town vehicles or equipment and completed 123 work orders. Fleet Services technicians also started work on all shop equipment repairs and updates for the coming year.

The Fleet Services Division took delivery of two new Ford F150 trucks for the Utilities Department and will work to get those into service by mid-November.



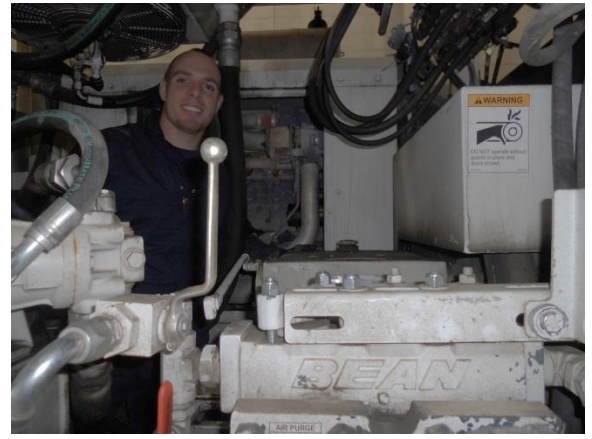
Objective/Benchmark: Complete at least 80% of our Work orders within 24-hours of coming to shop.
Outcome: Fleet team completed 80.7% of the work orders within 24-hours of opening repair requests or service requests. This was slightly above our benchmark.

Objective/Benchmark: Town vehicles and equipment available for use 95% of time.
Outcome: Town vehicles and equipment were available 97.6% of the time. This 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: Technican productivity was 87.9%. This productivity percentage was our best of the year.



WORKING ON TOWN TROLLEY W/SHOP LIFT



TECHNICIAN ERIC DENA WORKING ON VAC TRUCK

STREET OPERATIONS & MAINTENANCE DIVISION

In the month of October the Street Operations & Maintenance Division performed eight (8) specific operations:

- Asphalt & concrete repairs
- Crack sealing
- Street sweeping
- Street coring
- Road shoulder maintenance
- Equipment maintenance
- Gravel road maintenance
- Training

Asphalt and Concrete Operations

During the month of October, the crew was able to repair **356 potholes** on the following roadways: Emerald Boulevard, Butterfield Crossing Drive, and Wilcox Street. The focus of the operations was to repair the majority of the hazardous potholes in each area.



Crack Sealing

Crack sealing operations continued on the Town's main roadways, as well as in some residential areas. The crew put down 8,580 pounds of material on 33.82 lane miles of roadway. The residential operations were performed in the Diamond Ridge and Sapphire Point subdivisions. The main route roadways that received crack sealing were the southern portion of Ridge Road roundabout, East Plum Creek Parkway, Gilbert Street, and a short section of Front Street.

Street Sweeping

Fall sweeping operations are continuing to keep our Town looking beautiful and to help protect the stormwater systems. During the month the crews swept 1,487 lane miles of roadway picking up over 166 yards of materials. The leaves started to drop fast near the end of the month and the crews are working in all of the various areas around Town. Additionally, the crew has been diligently sweeping the business areas every Friday morning to help keep our business areas clean so visitors can have a beautiful shopping experience.



Street Coring

The streets crew completed 18 coring sample operations for the Engineering Division in preparation for the 2016 PMP program. Cores were taken to determine the total asphalt thickness and density of each roadway to allow the Engineering division to determine the extent of the repairs needed on each roadway.

Road Shoulder Maintenance

During the month of October the crew started our Fall weed control operations; mowing and trimming of the road right-of-way areas throughout the Town. These activities will continue into the next month until all of the areas are completed.



Equipment Maintenance

The crew performed a lot of equipment maintenance this month in preparation for this upcoming winter activities; completing the installation and repairs on all of the snow plows and sanders. Additionally the crew completed the fabrication of a loader attachment and installed the control box for our new snow blower.





Gravel Road Maintenance

The crew performed some much needed repairs to the gravel alleyway just east of Perry Street and south of the Front Street flyover parking area. The alleyway was an unimproved dirt roadway that had poor drainage causing major problems for the traveling public that used this section of roadway during inclement weather. The alleyway would often get filled with mud holes and debris which would then get tracked out onto the adjacent roadways. The crew was able to re-grade the alleyway to improve the drainage away from the local businesses, and install 260 tons of recycled asphalt millings for an improved driving surface.

Training

Nine operators completed the LTAP training course “Safety on the Job”.



During the month of November, the Streets Operations & Maintenance Division will continue our Fall sweeping and weed Control operations, as well as deal with any snowfall that comes our way. Let it snow... let it snow, because we need the moisture and we love making the roadways safer for our travelling public!

