



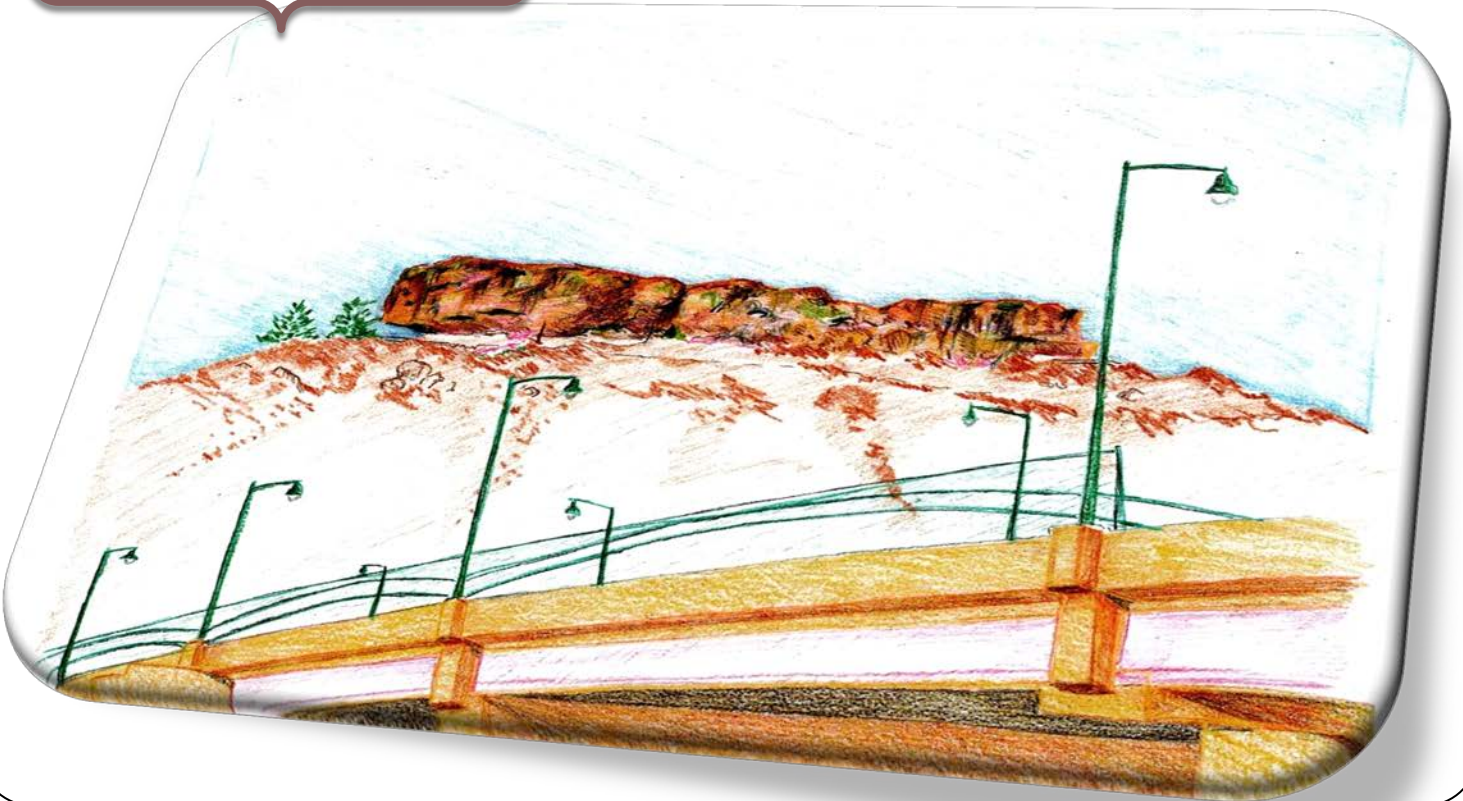
The Public Works Department operates under the CAN DO philosophy
- We are committed to doing the job right with a positive attitude
while staying dedicated to meeting the needs of our Town values
and continually searching for new opportunities to improve.

PUBLIC WORKS DEPARTMENT

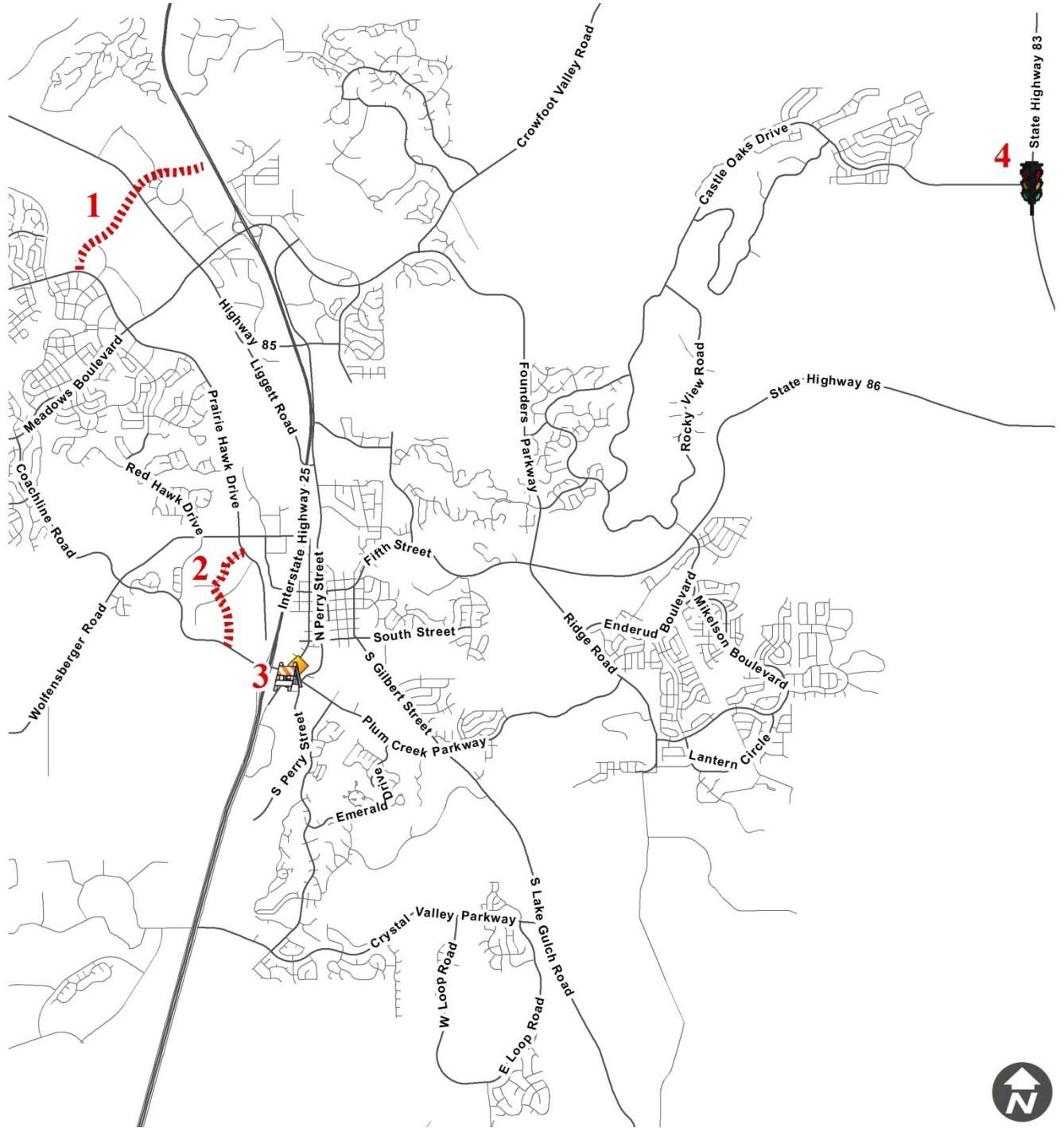
Monthly Report – April 2015

**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

#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 April:

- Continue structure excavation and grading for US 85 bridge construction
- Caisson drilling for US 85 future on and off ramps is complete
- Continue pier cap construction for future US 85 ramps, columns are complete
- Preparation for girder placement US 85 bridge and ramps
- Continue storm sewer improvements along US 85 and on Castlegate Drive North
- Continue wall construction for US 85 future on and off ramps
- Traffic switch onto the new I-25 bridge is complete
- Traffic impacts to the traveling public:
 - Castlegate Drive North from US 85 to Castlegate Drive West is closed. This closure will remain until summer 2016.
 - Traffic alignment lane shifts are present in the current configurations on both I-25 and US 85. Please use caution and follow the posted speed limits.

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



Traffic Switch onto the New I-25 Bridge

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** - Design Staff continues to work on finalizing the 90% roadway plans. The lower reach of the Industrial Tributary drainage plans are near 90% complete. Utilities Stormwater engineering has added another change order to the project to include the upper reach of Industrial Tributary. Once the plans have been approved, the Town's design consultant, Olsson Associates, will revise and provide the plans/profiles for the proposed project. **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.
- 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 is working on retaining a consultant to complete the design and have the design completed by the end of 2015 with construction planned to follow in 2016. **Budget:** \$345,000

4. **State Highway 83 and Castle Oaks Drive Intersection Signalization** – This project will complete the installation of 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 – In April, staff obtained bids from traffic signal construction contractors and began the process of getting WL Contractors, the lowest bidder, under contract. The signal poles are expected to be delivered by mid-to-late June. The contractor should be given notice to proceed by the end of May. **Budget:** \$225,000 **Construction Completion:** September 2015



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:** Design – The project manager has selected the consultant to assist in the design of the communications upgrade and is in the process of finalizing staffing support from other Town Departments in order to have all components of Phase 1 complete by the end of 2015. **Budget:** \$700,000 **Construction Completion:** End of 2015

ENGINEERING DIVISION

2015 Pavement Maintenance Program (PMP) - The 2015 PMP will focus its maintenance efforts in the central PMP area with additional work taking place on Plum Creek Boulevard and the downtown area.

The 2015 Asphalt Patching, Overlay and Reconstruction and the Concrete Curb, Gutter and Sidewalk projects began in early-April in the Castle North area. In general, work will progress through the Central PMP area in a clockwise manner preparing the streets to receive slurry seal and rejuvenating agent maintenance treatments. The secondary street reconstructs (Sunset Court, Canyon Drive, and Gigi Street) are underway with sidewalk repairs and the removal of the deteriorated pavements. The secondary street overlays (Saddleback Drive, Bayberry Lane, Meadows Lane, Lazy K Drive and Tanoa Court) also began with sidewalk repairs and asphalt patching. The Bayberry Lane overlay has been completed.



Public notification planning and website updates continue with assistance from the Community Relations team. An open house meeting was held on April 29 at the DC Oakes High School for the Plum Creek Boulevard Reconstruction Project. The entire scope of work including the proposed schedule was presented to approximately eighteen residents that attended. The Plum Creek Boulevard Reconstruction Project is scheduled to start on May 11 with the traffic shift. Traffic will be shifted to run both directions on the existing southbound lanes from Emerald Drive to Castlemaine Court while the existing northbound lanes are closed off for construction.

2016 Pavement Maintenance Program (PMP) - The PMP team completed the Overall Condition Index (OCI) for the secondary streets within the south PMP area. The team continues to work on the OCI for the primary street network which should be completed by first part of May. Condition rating is the evaluation of asphalt or concrete pavement; this applies a score which is utilized by the Town’s pavement management software to help determine the proper pavement treatment along with staff recommendations.

2015 Facilities Parking Lot Improvement Program - The contract with Straight Line Sawcutting, Inc. has been approved and staff is working with them to develop the project schedule. This contract will see needed improvements to four (4) Town facility parking lots as follows:

- Police Station and Rhyolite Park parking lots will receive concrete repairs, asphalt patching, and a full asphalt seal coat.
- Centennial Park parking lot will receive concrete repairs, and concrete pavement joint sealing.
- Fire Station 151 (Perry Street) parking lot will receive concrete repairs, asphalt patching, and a full asphalt overlay.

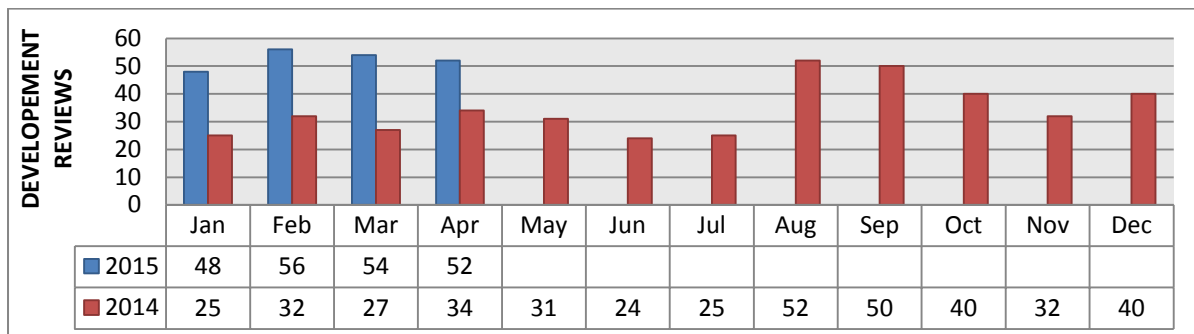
2015 Bridge Maintenance Program – Activities for the 2015 Bridge Improvement Program are as follows:

Bridge Painting

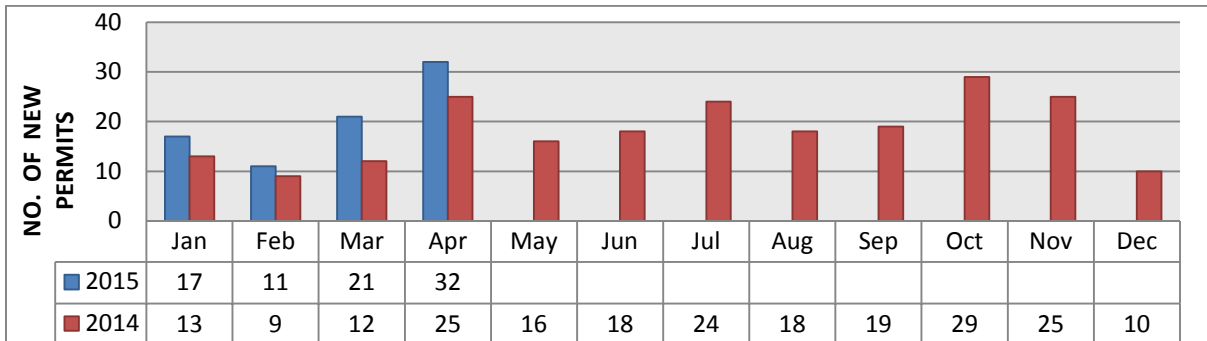
- Castle Oaks Drive/Cherry Creek: Re-paint bridge rails and approach rails.
- Front Street Flyover: Re-paint bridge rails, approach rails and fencing.

Staff is in the process of soliciting bids to implement needed concrete repairs, and an asphalt mill and overlay on the Wilcox Street bridge over Sellers Gulch.

Development Review - Included in the 52 submittals are 22 first time applications and two pre-applications. All but two of the reviews were completed by the due date assigned by the Development Services Project Manager.

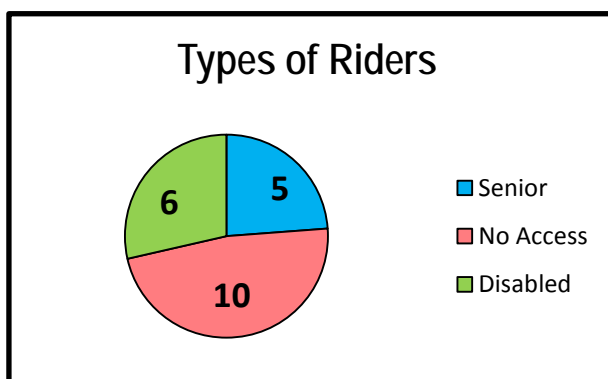
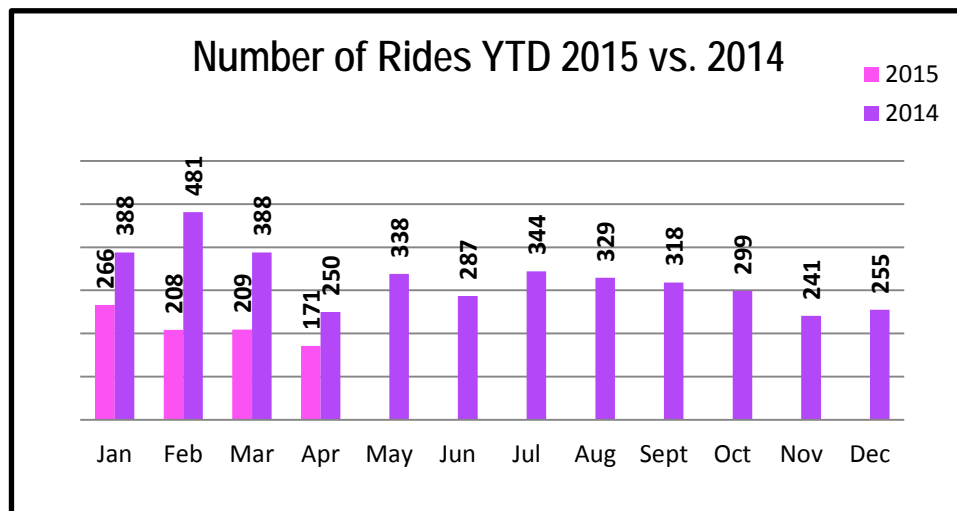


Permitting - Included in the 32 new permits are: 1 - Residential Development (Hazen Moore, Filing 1), 2 - Commercial Development (The Move Building, Kneaders Bakery), 5 - Town Projects, and 24 - permits for work within the public right-of-way (9 of which were necessary due to current development). In addition to reviewing and approving 32 new permits, Public Works reviewed 6 existing permits and/or surety related documents.

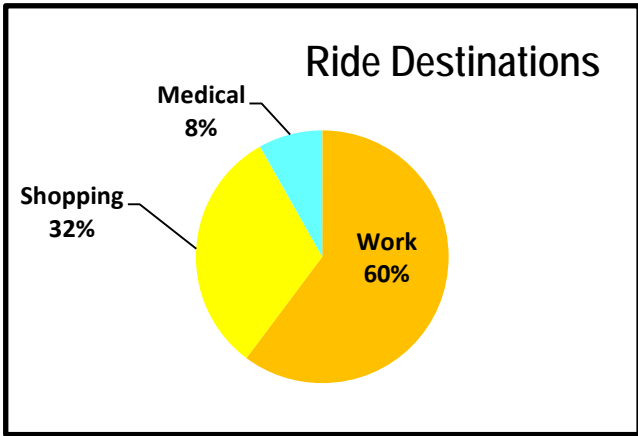


TRANSPORTATION SERVICES

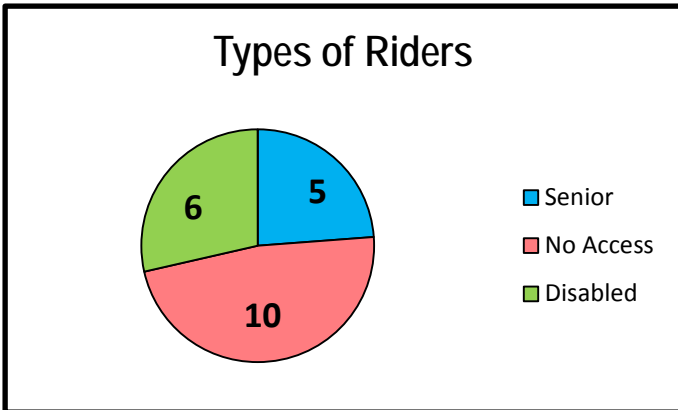
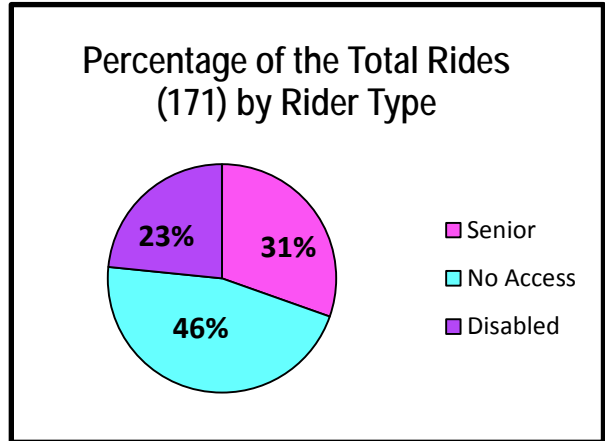
Taxi Voucher – For the month of April the Taxi Voucher Program funded 171 rides. This was about a 32% decrease over last April’s total of 250 rides. The rides have decreased since last month as other transportation services provided within Douglas County have been providing rides and some of our riders have reduced the number of trips they take within the month as a result of the \$2.00 surcharge approved by Town Council for this year’s budget to keep program costs under \$25,000.



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 April, there were 21 individuals who used the Town’s Taxi service.

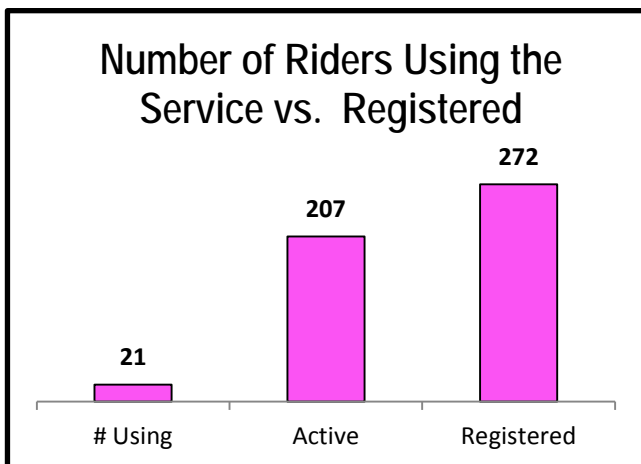
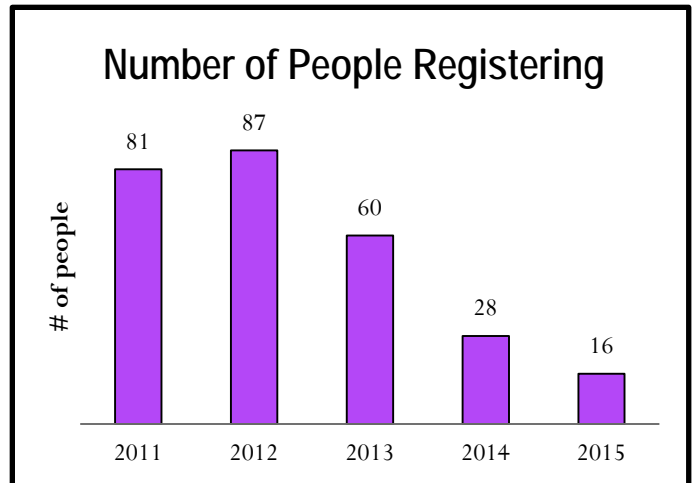


Rides are available for work, shopping or medical trips.



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 April, there were 21 individuals who used the Town's Taxi service.

Four people registered for the Taxi program this month. Since its inception, a total of 272 people have registered for the Town of Castle Rock Taxi Voucher Program. Currently 65 of these past registrants are inactive or have dropped out of the program.



Senior Center Shuttle - The Senior Center provided 742 rides in the month of April which was an increase of 5% from last month's rides of 705. The volunteer driver program provides service Monday through Friday from 9 am to 3 pm.



Town Trolley – The Trolley got to say goodbye to Mark Stevens, Town Manager, along with Public Works Employees at his last Monthly Managers Meeting with the Town of Castle Rock.

TRAFFIC ENGINEERING & OPERATIONS



WELCOME A.J.!!

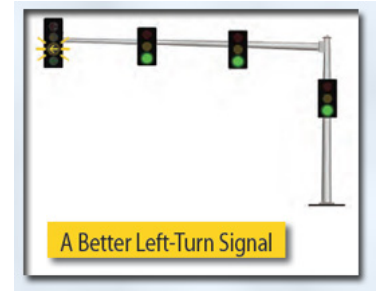
Anthony (AJ) Pacheco has accepted the position of Signs & Markings Tech II left vacant due to Randy Worthington's retirement with the Town. A.J. will be involved in the design and fabrication of Town street signs and markings. Staff is glad to have A.J on board.

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

- During April there were a total of 10 non-routine traffic signal maintenance visits completed by the Town Staff and/or the Town's signal maintenance contractor. This met the goal of 13 or fewer non-routine visits per month. Of the 10 overall visits, 8 visits were to traffic signals in flash mode when they should not have been. Six of these eight signals were in flash due to

the signals on Front Street corridors not coming out of late-night flash at 5:30 in the morning. Equipment failures that cause problems such as these will be fully addressed during the Phase 1 traffic signal system upgrades set to be complete by the end of 2015. The other two traffic signals in flash were due to equipment in need of repair.

- Town staff, with assistance from the traffic signal maintenance contractor, installed left turn arrows on the eastbound and westbound approaches of Blackfeather Trail to Front Street and at the same time changed the turn arrows on all four approaches over to a flashing yellow arrow operation. The turn arrows on the Blackfeather Trail approaches were requested by a resident and were found to be needed through an engineering study. The new turn arrows and flashing yellow arrows should help to reduce congestion and improve safety at this intersection.
- One burned out incandescent indication was replaced during April.
- In addition, the traffic signal indications were upgraded from incandescent bulbs to LED indications at the Wilcox Street and Perry Street intersections on Plum Creek Parkway during April. This upgrade will help to improve the visibility of the signals as well as reduce the power consumption of both intersections.
- First quarter preventative maintenance checks were completed at all 31 Town owned traffic signals during mid-April. These maintenance checks included visually inspecting all of the signal equipment at each intersection and observing the operations to confirm each signal is operating as intended. Several minor repairs will occur in May based on the findings of these maintenance checks.
- Finally, Town staff monitored and modified traffic signal timing at Town operated signals or made recommendations to CDOT for timing modifications to CDOT operated signals due to the shifts in traffic around Town due to the Founders Parkway roadway construction project.



Signs and Pavement Marking Maintenance - For the month of April, the Signs & Markings crew inspected the bollards located on 2nd Street and repaired 13 that were broken. These bollards are used to close streets in the downtown area during special events. As for the special events themselves, the sign technicians set out 125 work zone safety devices to provide traffic control during the events.



Throughout the month, the sign shop fabricated 72 signs to be installed in various locations throughout the Town. Staff also installed 58 new signs in various locations throughout Town which brings our sign total up to 13,165.

During April, 14 new painted symbols were installed in various locations to bring our symbol total up to 5,052 in the Town. The Town's pavement marking contractor also began work on the annual paint program. This contract involves painting the lane miles on Town streets.



Finally, staff inspected 435 Town owned street lights and found 19 not working. These repairs are completed under a maintenance contract.

Transportation Planning

Neighborhood Traffic Calming Program (NTCP)

- Several new inquiries were received for potential inclusion in the traffic calming program. Inquiries include two streets in the Meadows neighborhood (Bella Vista Street and Broadleaf Loop), and two streets in the Founders neighborhood (Parsons Avenue and Ashcroft Avenue). Town staff met with all the homeowners to listen to concerns and provide information on the program. Currently, staff has received two support petitions which are currently being verified.
- A public meeting was held with the Woodlands and Escavera HOAs to discuss the results of the speed/volume study on Saddleback Drive. Town staff presented the data from the study as well as other traffic information for the neighborhoods. Staff also discussed the next steps in the program and how it will proceed. At this point, the Town will work with the homeowners on educational issues and targeted enforcement, and also the review the streets signing and striping. Within four months, the Town will conduct another speed/volume study to determine if the measures reduced the speed or volumes below the program thresholds.
- The NTCP was presented to Town Council on April 28, seeking future direction on any necessary program changes. Town Council decided to retain the program and directed staff to amend the program based on lessons learned from previous projects. Staff will begin working on amendments and plan to present them to the Public Works Commission in the coming months.



DRCOG 2016-2021 Transportation Improvement Program (TIP) Cycle

The DRCOG Board approved the 2016-2021 TIP in April. Castle Rock was awarded roughly \$3.3 million for two projects: the reconstruction of Meadows Parkway (US 85 to Meadows Blvd.) in FY'17, and the Founders Parkway / Allen Way intersection improvements (FY'17 thru FY'19). In addition, CDOT has identified up to \$1.6 million for safety improvements at the Founders Pkwy/ Crowfoot Valley Road intersection (FY'18). All of these projects will require a local match of at least 20%, which may include Town, County, or developer funds. Projects have also been approved by Town Council in the current 5 year CIP.

DRCOG Regional Transportation Plan (RTP) Bike Facilities Update

Town staff will meet with other County jurisdictions and DRCOG in the first part of May to update the regional bike facilities map. This new map will replace the current map in the RTP. It is anticipated that this new map will be utilized in future TIP programs.

Douglas County Transit Demand Study

Town staff met with the project manager from the County regarding the transit demand study. Demographic data and growth projections have been shared with the County to conduct their analysis. A second stakeholders meeting is scheduled for the first part of May.



Development Review Projects

Staff has been working with the developer and their consultants on several large proposals within the Town limits and town growth boundary. In particular, the Canyons South project and the associated transportation impact study have been reviewed and are currently being discussed amongst the other departments. The Castle Oaks/Terrain project is also going through the approval process for additional phases and rezoning applications.



Fleet Services

“Keeping Castle Rock on the Move”



“We’re Proud of Our Blue Seal Team”

The Fleet Services Division is proud to announce that it has again ranked in the Top 100 best government fleets in North America at #52 for 2015. This was an improvement of 29 spots from our 2014 ranking. The ranking is based on productivity, use of technology, collaboration, creativity, turn-around time, staff development, wise use of resources and more.



The Fleet team was also honored to receive the **Green Leaf Award** for 2015 from the Project Green Team. The Fleet team has worked hard to identify, develop, and implement environmentally and fiscally sustainable programs and procedures. Both awards were achieved from a great team effort and a lot of hard work. This shows our commitment to providing the best possible service to our customers.



Training...

Fleet Technicians Eric Dena, and Chris Selheim completed a two day comprehensive training class in Hydraulics and fluid power presented by Struble Fluid in Denver.

Several new vehicles were received into the fleet this month including a Ford Escape for the Development Services Department and a Ford Explorer as well as a Ford F150 for the Utilities Department. The Fleet Division has a total of 18 vehicles and equipment on order for replacement or additions to the fleet and should start arriving this month.



PUBLIC WORKS DEPARTMENT



Objective/Benchmark: Complete at least 80% of our Work orders within 24-hours of coming into the shop.

Outcome: Fleet team completed 79.5% of the work orders within 24-hours of opening repair requests or service requests.

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

Outcome: Town vehicles and equipment were available 98% of the time.

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

Outcome: Technican productivity was 77%.

Fleet technicians also completed 118 work orders and the Fleet Division billed out \$64,000 of labor and parts in the month of April.



STREET OPERATIONS & MAINTENANCE DIVISION

In the month of April the Street Operations & Maintenance Division performed three (3) specific operations:

- Pothole Repairs
- Snow & Ice Control
- Sweeping



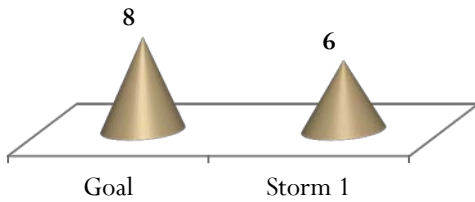
As you may know, weather this year has caused more potholes than usual, and the Street Operations & Maintenance Division is working diligently to get to them all. Staff patched 6,126 potholes on Plum Creek Boulevard, Emerald Drive, Plum Creek Parkway, Front Street, Fifth Street, Wilcox Street, Woodlands Boulevard, Blackfeather Trail, Meadows Boulevard, Coachline Road, Millwagon Trail, Morningview Drive, Butterfield Crossing Drive, Ridge Road, and Mikelson Boulevard. The crew also performed two full depth patches on South Street and Wild Star Way. With the new hot box patch trailer, the crew used 60 tons of hot mix to patch these holes with the material cost of \$3,588.00. To get to all the potholes, staff is prioritizing the repairs based on hazard and the type of roadway. Staff is currently working on priority roadways that have the most number and the largest-sized potholes per section of roadway.

If weather cooperates, we hope to have the worst potholes on the main roads repaired within the next month.

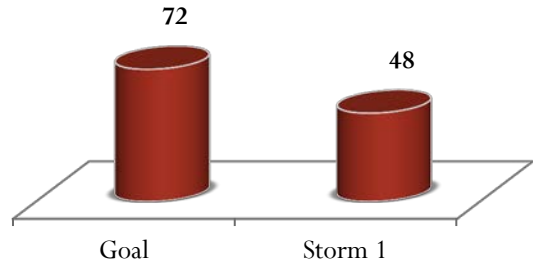
One snow storm occurred within the month of April totaling 9.7 inches of snow. Personnel from the Street Operations & Maintenance Division plowed all the Priority 1's and 2's for a total of 1,888 miles. Per current guidelines, residential streets get plowed when eight inches of snow or more is in the street after March 15th. With this storm we only had about two inches in the street at any giving time.



Number of Hours After Snow Storm That Town Roads Were Plowed



Number of Hours After Snow Storm When Snow Piles Removed from Downtown



Staff swept 398 lane miles of the Priority 1's and 2's to clean up after the winter months.

During the month of May staff will continue patching potholes and sweeping all the roads within the Town. Also, the Crack Sealing Program will commence when the weather allows. Crack sealing is a process of routing the cracks, cleaning the cracks, and then finally sealing the cracks. This keeps the moisture out of the sub-base to extend the life of the pavement.

