



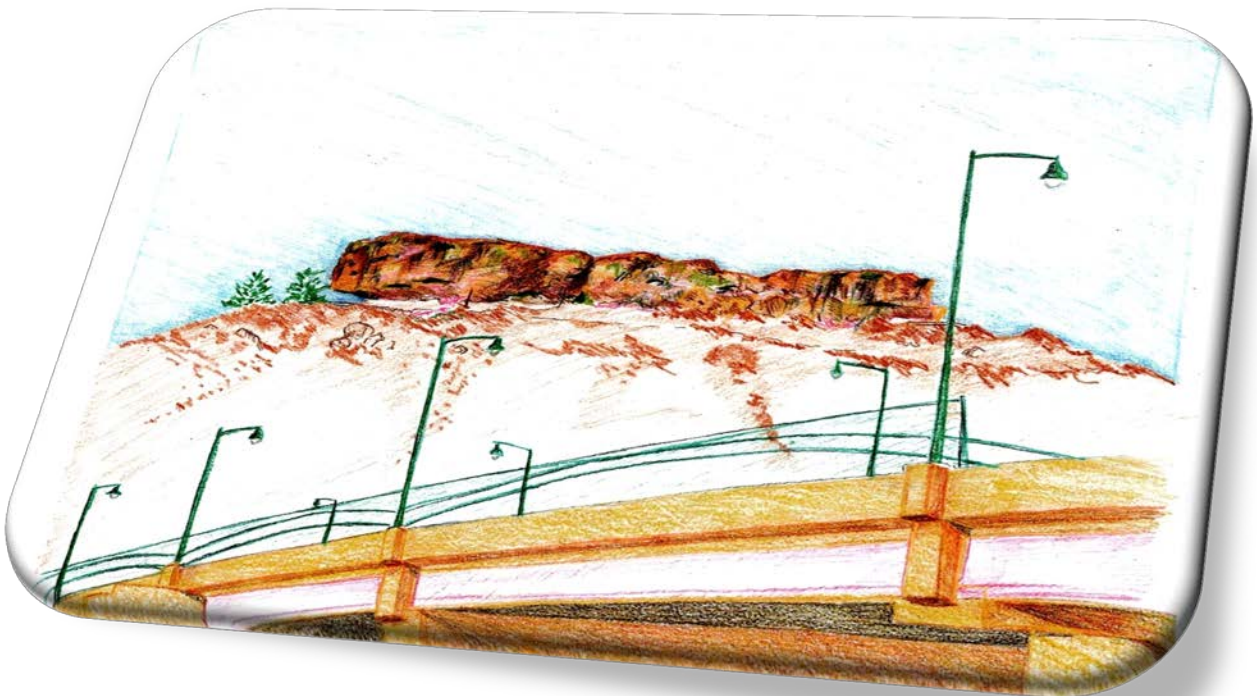
The Public Works Department operates under the CAN DO philosophy
- We are committed to doing the job right with a positive attitude
while staying dedicated to meeting the needs of our Town values
and continually searching for new opportunities to improve.

PUBLIC WORKS DEPARTMENT

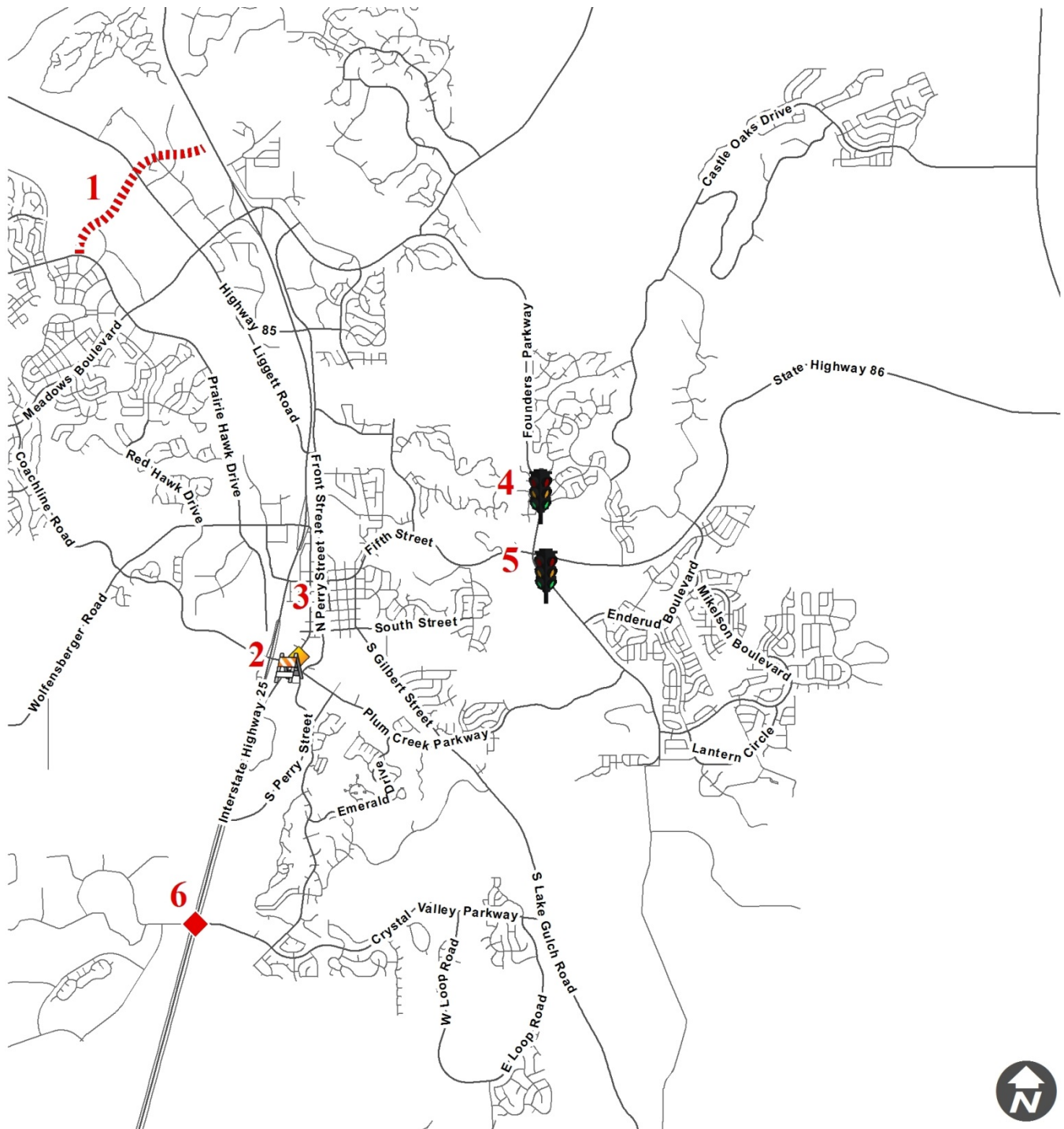
Monthly Report – January 2016

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

“CAN DO”



CAPITAL PROJECTS



1. North Meadows Drive Extension Project
2. Plum Creek Pkwy Intersection Improvements
3. Downtown Alley Rehabilitation
4. Traffic Signal at Black Pine Drive/Copper Cloud Drive
5. Traffic Signal at Ridge Road/King Soopers Entrance
6. Crystal Valley Parkway/Dawson Ridge/I-25 Interchange

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 January:

- Excavation and construction of I-25 on and off ramps and roadway
- I-25 cast-in-place and precast panel wall construction
- US 85 on-and-off ramp roadway construction (asphalt and concrete paving)
- Roadway construction between I-25 US 85 (asphalt pavement and curb & gutter)
- Concrete barrier on US 85 bridge structure
- Installing light standards on both US 85 and I-25 ramps
- Installed storm drainage pipe under I-25 bridge

Traffic impacts to the traveling public:

- 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: 2016 - \$9.5M Construction Completion Date: Summer 2016.



Concrete Paving I-25 Southbound On-Ramp

2. **Plum Creek Parkway Intersection Improvements at Wilcox & Perry to I-25** – 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. In addition, the eastbound approach will have a dedicated right turn lane onto southbound Wilcox and the westbound approach will have a dedicated right turn lane onto northbound Wilcox.
- 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 - Due to needed approvals from CDOT for the proposed improvements in the I-25 right-of-way, the project has been separated into two separate plan sets. The project engineer consultant, Hartwig and Associates, will commence work on the I-25 plan set in February. The remainder of the project, within the Town's jurisdiction, requires minor revisions and will be 100%

complete in mid-February. Per discussions with CDOT, the I-25 portion of the project requires the design of an Active Traffic Management System (ATM) which is a variable signage system that utilizes electronic signs to automatically assign the lane designation. Hartwig is expected to have first submittal of the I-25 improvements and ATM system design complete by mid-February. Staff continues to work with CDOT to get concurrence of the Minor Interchange Modification Request (MIMR). **Budget: \$345,000 Projected Construction Completion: Summer 2016**

3. **Downtown Alley Rehabilitation** – The Town has been awarded two grants to improve accessibility in public alleys within the downtown area. Public Works and Development Services have received direction from Town Council and will 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 100% complete for the project. Western States Land Services, Inc. has been retained to acquire two storm water easements to complete the plans. Public Works plans to advertise the project for bids in early February and commence construction in spring 2016. Budget: Grants: \$202,000; Public Works: \$115,000; Utilities Department: \$45,000 - Total: \$362,000 Projected Construction Completion: Summer 2016**
4. **Traffic Signal at Black Pine Drive/Copper Cloud Drive** - This project will complete the installation of a new traffic signal at this intersection. An engineering study was completed in 2015 showing the need for a traffic signal at this location. **Phase: Design – Muller Engineering submitted 90% plans late January for the Town and CDOT to review. Most of the engineering design comments were fairly minimal. Construction is expected to commence in spring/summer, however, final approvals are still pending with CDOT. Budget: \$230,000 Construction Completion: Fall 2016.**
5. **Traffic Signal at Ridge Road/King Soopers Entrance** - This project will complete the installation of a new traffic signal at this intersection. An engineering study was completed in 2015 showing the need for a traffic signal at this location. **Phase: Design – Muller Engineering submitted 90% plans late January for the Town to review. Construction is expected to commence in spring/summer. Budget: \$230,000 Construction Completion: Fall 2016**
6. **Crystal Valley Parkway/Dawson Ridge/I-25 (CVDR) Interchange – Environmental Assessment Update** - An update of the CVDR Interchange Environmental Assessment (EA) will be necessary as part of the approval process to construct the interchange. The present EA was completed in 2004. Based on discussions with CDOT, all sections of the 2004 EA must be updated as necessary to meet current Federal requirements. **Phase: Planning - Town and Douglas County staff met with CDOT and Federal Highway Administration (FHWA) on November 5 to discuss the project and potential construction phasing. FHWA representatives stated interchange phasing is not consistent with the American Association of State Highway & Transportation (AASHTO) policy and is not receptive to phasing the construction of the interchange. The Town may advance the project with acquisitions of right-of-way needed for the project and/or updating the EA as necessary for the full interchange. Discussions with CDOT continue. 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 – Dillie & Kuhn met the goal of installing all the**



pull boxes and pulling fiber in by the January 18 deadline. There was one location that was not finished due to the underground conduit being frozen. After receiving an estimate and talking with the design engineer, it was decided to wait for the spring thaw to finish the fiber work at that location. The lack of not having this intersection spliced with fiber will not affect the rest of the corridor or signal system performance. Dillie & Kuhn has started splicing operations along the Front Street corridor, and should have the system completed by mid-February, weather permitting.

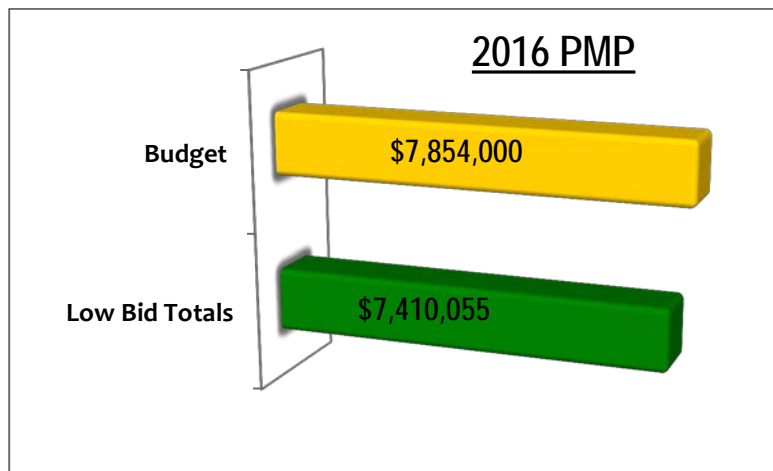


The purchase of the thirty-five Econolite touchscreen controllers will be arriving in early February. The department already has a contract in place with Econolite to assist in the programming and bench testing of each controller before they are installed in the field.

Submittals for the request for proposal of the traffic signal software upgrade project was due by January 15 at 2:00PM. Two proposals were received, one from each vendor who performed demonstrations for us back in August. The review team is in the process of going through each proposal and scoring them according to the vendors' self-evaluation, previous demonstration from the vendor, and the overall pricing. A decision of the selected vendor will be made by early February. **Budget: \$700,000 Construction Completion: Spring 2016**

ENGINEERING DIVISION

2016 Pavement Maintenance Program (PMP) - With the bid openings complete in January, staff is in the process of evaluating the bids submitted and begin the contract award recommendations. This process includes checking and verifying all bid proposals and contractor references. All five PMP project bids submitted were under budget by over 5%.

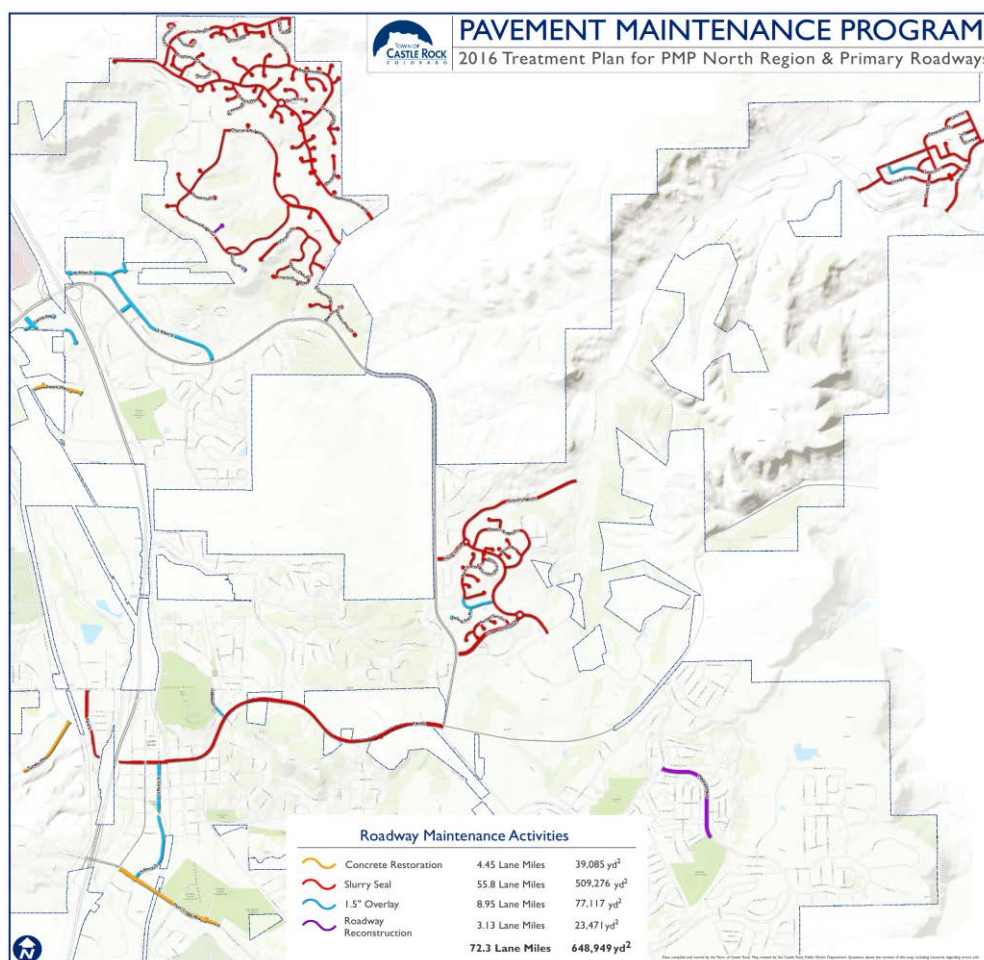


Contracts under consideration this year are:

- Asphalt Patching, Overlay and Reconstruction Project
- Curb, Gutter, Sidewalk and Miscellaneous Concrete Project
- Slurry Seal Project
- Concrete Restoration Project
- Mikelson Boulevard Reconstruction Project

Once the evaluation is complete, staff will prepare all contract documents to present to the Public Works Commission on March 7th and to Town Council on the March 15th meeting.

The PMP map (shown below) indicates the proposed scheduled treatments for street within the North PMP area and primary streets pending Council approval.



2016 Facilities Parking Lot Improvement Program - The bid opening for this program is complete and the process of checking and verifying the bid documents is currently underway. Low bid was 11% under budget at \$199,789. This contract will see needed improvements to eight (8) Town facility parking lots as follows:

- Founders Village Fire Station will receive asphalt patching, a full asphalt seal coat, and concrete pavement joint sealing.
- Crowfoot Valley Fire Station will receive asphalt patching, a full asphalt seal coat, concrete repairs, and concrete pavement joint sealing.
- Butterfield Park will receive asphalt patching, a full asphalt seal coat, concrete repair, and concrete pavement joint sealing.
- Coachline Trail Head Parking lot will receive a full asphalt seal coat.
- Matney Park Parking lot will receive asphalt patching, and a full asphalt seal coat.
- Meadows Water Treatment Plant will receive concrete repairs, asphalt patching, and a full asphalt overlay.
- Diamond Ridge Pump Station will receive a full asphalt seal coat.
- Police Station Parking lot will receive a full asphalt seal coat.

2016 Bridge Maintenance Program - The bid opening for the Castle Oaks Drive Bridge over Cherry Creek Approach Slab Leveling project was held on January 27. One bid was received and was within budget at \$78,585.

Bids were received for the Wilcox Bridge over Sellers Gulch Repair project as part on the 2016 Asphalt Patching, Overlay and Reconstruction project on January 26, also within budget at \$76,582. Staff is in the process of evaluating the bids submitted and begin the contract award recommendations.

The following locations are proposed for painting maintenance to be performed by the Street Operations and Maintenance Division:

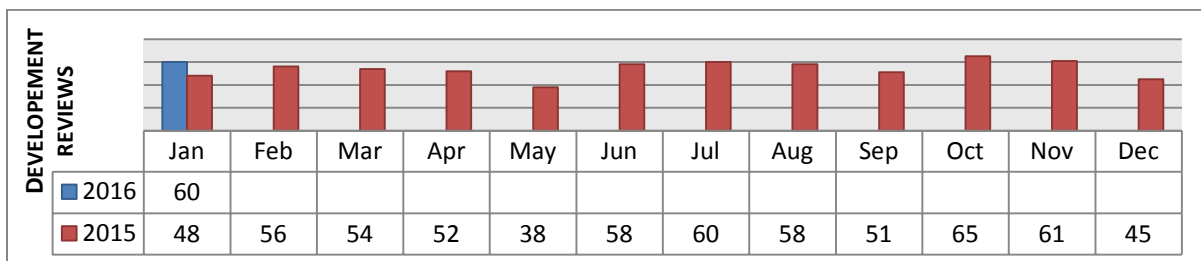
Bridge Painting

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

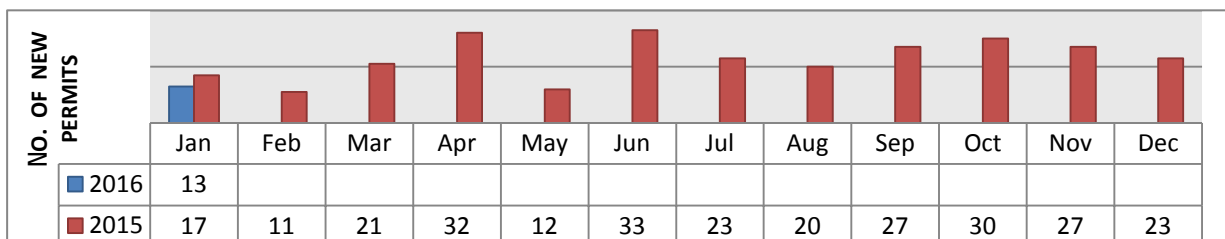
6th Street Alley Retaining Wall and Pavement Failure - In June 2015, the retaining wall supporting the alley (north of 6th Street & between Wilcox and Jerry streets) failed during a significant rain event. Bohannon Huston, Inc. (BHI) has completed the plans for the construction of a retaining wall and repair of the alley pavement. Staff is meeting with adjacent property owners to discuss the wall improvements. The construction completion date will be identified once discussions with the property owners are completed.

Development Review and Permitting

Development Review - Included in the 45 submittals are sixteen first time applications with five pre-applications. All reviews were completed on or before the due date assigned by the Development Services Project Manager.



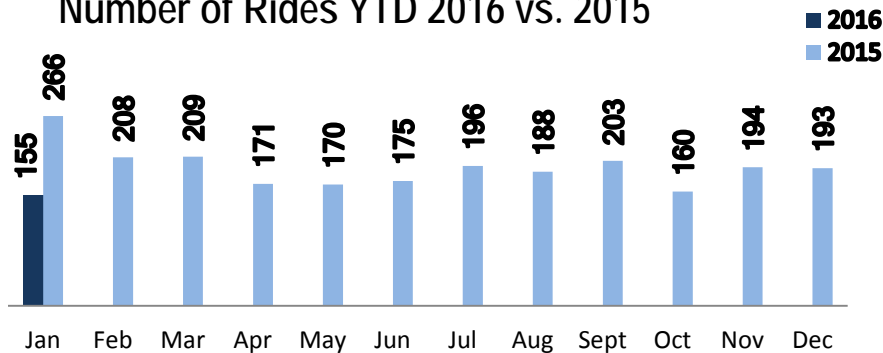
Permitting - Included in the 13 permits are: 1 - Commercial Development (Promenade – King Soopers Block 6; 3 - Residential Developments (Trickle Channel in Plum Creek, Liberty Village PA7, and Terrain PA44); 1 - Town Project; and 8 permits for work within the public right-of-way (5 of which were necessary due to current development, and 3 of which required a pavement cut).



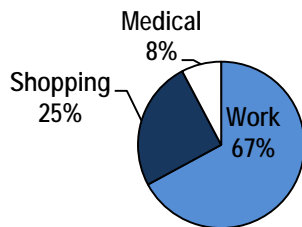
TRANSPORTATION SERVICES

Taxi Voucher – For the month of January, the Taxi Voucher Program funded 155 rides, this was about a 42% decrease over last January's total of 266 rides. The rides have decreased a little since last month partially due to the colder weather and snow storms with riders not making additional trips outside of their typical work schedules.

Number of Rides YTD 2016 vs. 2015



Ride Destinations



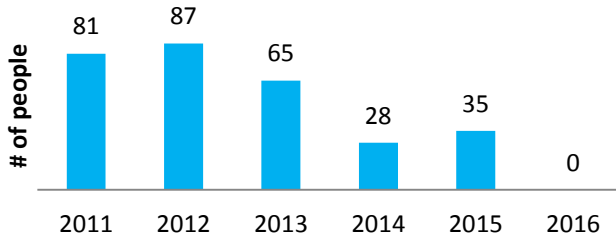
Rides are available for work, shopping or medical trips. Transportation services are provided for Castle Rock residents who are senior citizens, have a disability that prevents them from driving, or do not have access to a vehicle. In January, there were 17 individuals who used the Town's Taxi service.

Types of Riders



There were no new registrants for the Taxi program this month. Since its inception, a total of 296 people have registered for this program. Currently 68 of these past registrants are inactive or have dropped out of the program.

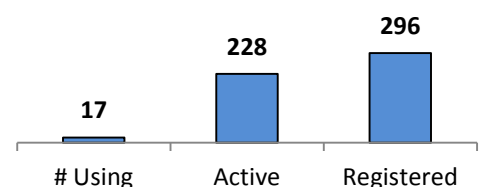
Number of People Registering



% of the Total Rides (155) by Each Rider Type



Number of Riders Using the Service vs. Registered



Senior Center Shuttle - The Senior Center provided 616 rides in the month of January which was an increase of 10% from last month's rides of 560. The volunteer driver program provides service Monday through Friday from 9 am to 3 pm.



Town Trolley – The Trolley provided transportation for a couple events this past month with the the Season of the Star's Winterfest Event and two World Compass Academy School field trips. Despite the cold weather and a couple of snow storms, the Trolley was out and about giving riders a fun time throughout downtown for their events.

Traffic Engineering & Operations

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

- For the month of January, there were a total of ten 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. Several of these issues were detection related, in which cameras needed to be replaced or reset. There were multiple calls at one intersection where police and fire reported seeing false side street calls. Between the on-call contractor and Town staff, there was no identifiable cause due to not seeing any abnormalities during their field investigation. There were a few more LED's that needed changing out at the intersection of Wolfensberger and Prairie Hawk. Efforts were made between CDOT and the Town to help better serve the traffic along the Meadows/ Founders corridor. Other than minor equipment malfunctions, the adjustments seem to be helping progress traffic for both the AM and PM peak periods.

Signs and Pavement Marking Maintenance - In the month of January the Signs and Markings crew finished replacing batteries in 12 school beacons. They also spent a portion of the month on 68 delineator repairs and sign boot/post maintenance around Town.



With regard to special events, the crew spent 8 hours in setting out nearly 42 traffic control devices for use at various special events.

The crew spent 54 hours fabricating 117 signs for various jobs and stock also inspecting 584 signs around the Town.



Transportation Planning

Neighborhood Traffic Calming Program (NTCP) - NTCP inquiry updates:

- The homeowner along Breezy Lane was notified that the street did not meet the minimum criteria to qualify for the NTCP. Staff has offered to work with the homeowner on neighborhood educational efforts if the homeowner would like to pursue this option.
- Staff utilized the Police radar signs for the Black Pine Drive in the Escavera neighborhood. This sign was installed to gather data for the upcoming Saddleback Drive traffic calming meeting for the Woodlands and Escavera neighborhoods. Staff is still trying to find a location to hold the meeting in the month of February. The Staff Team for the traffic calming plan met and finalized the conceptual plan for Saddleback Drive that will be presented to homeowners at the meeting. The Staff Team is recommending to the neighborhoods a combination of speed cushions and center medians.



Quiet Zone

Railroad Quiet Zone – Downtown Castle Rock

Since presenting an agenda item to the Town Council on November 17 regarding potential considerations for creating a quiet zone in downtown Castle Rock, staff completed work to prepare information for a public open house to garner public feedback. An option where minor modifications are made to the medians at the 5th Street crossing and the 2nd Street crossing is closed has been analyzed and was discussed with the public at the open house. The proposed alternative, as well as the findings of the analyses, were presented to the public at an open house presented at Town Hall the evening of January 12 from 6PM to 8PM. The open house was well attended with 95 feedback forms received either at the open house or in the online forum. Town staff will then take the public feedback received and provide an update to Town Council at the February 2 meeting.

Safe Routes to School (SRTS)

The Town submitted a SRTS grant for nine locations to install new rectangular rapid flashing beacon (RRFB) crosswalk signs along several routes to elementary schools and Mesa Middle. CDOT expects to notify applicants in spring of 2016.



The Town received RRFB signs for three new locations in Town, including the crosswalk at Woodlands and Saddleback to assist children going to the nearby high school and recreation center. The signs are expected to be installed within the next few weeks weather permitting.

Transportation Master Plan (TMP) Update

Public Works staff met and discussed the scope of the TMP update. It was decided that the Town will first solicit the pre-approved list of consulting firms to collect bid proposals. The project is projected to be completed in early 2017.

Transportation
Master Plan

Impact Fee Study

Public Works staff is coordinating with Finance on this update and the study will be coordinated with the Transportation Master Plan schedule to account for updated projects.



Development Review

- Staff met with the traffic consultant for the proposed Pine Canyon development. A new submittal addressing Town comments is expected to be submitted in February. Potential

Development Agreement (DA) items that address transportation projects are being discussed within Public Works, Development Services, and the Town attorney.

- Staff has also been discussing the Canyons South development and potential DA items. The revised Transportation Impact Analysis (TIA) was submitted to the Town at the end of January and is currently being reviewed along with the potential DA items.



Fleet Services

"Keeping Castle Rock on the Move"



The Fleet Services Division had a good start to 2016! In January, Fleet Services technicians worked very hard to repair and make sure the Town's snow removal equipment was ready. The team billed out just over \$64,000 of labor and parts for the month and technicians worked on 91 Town vehicles or equipment and completed 102 work orders.

The Fleet Services Division is pleased to announce the hiring of **Angie Williams** as our new Fleet Support Technician. Angie comes to us from the Finance Department and has already made a positive impact with her many skills.



Fleet management has also reapplied to become an ASE certified "**Blue Seal of Excellence**" and we are awaiting confirmation of that achievement.



Objective/Benchmark: Complete at least 80% of our work orders within 24-hours of coming to shop.

Outcome: Fleet Services team completed 70.3% of the work orders within 24-hours of opening repair requests or service requests. This number is below our benchmark due to the high volume of repairs this month.

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

Outcome: Town vehicles and equipment were available 97.1% 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 77.1%.



Working on light duty plows



Plow truck in shop for repair

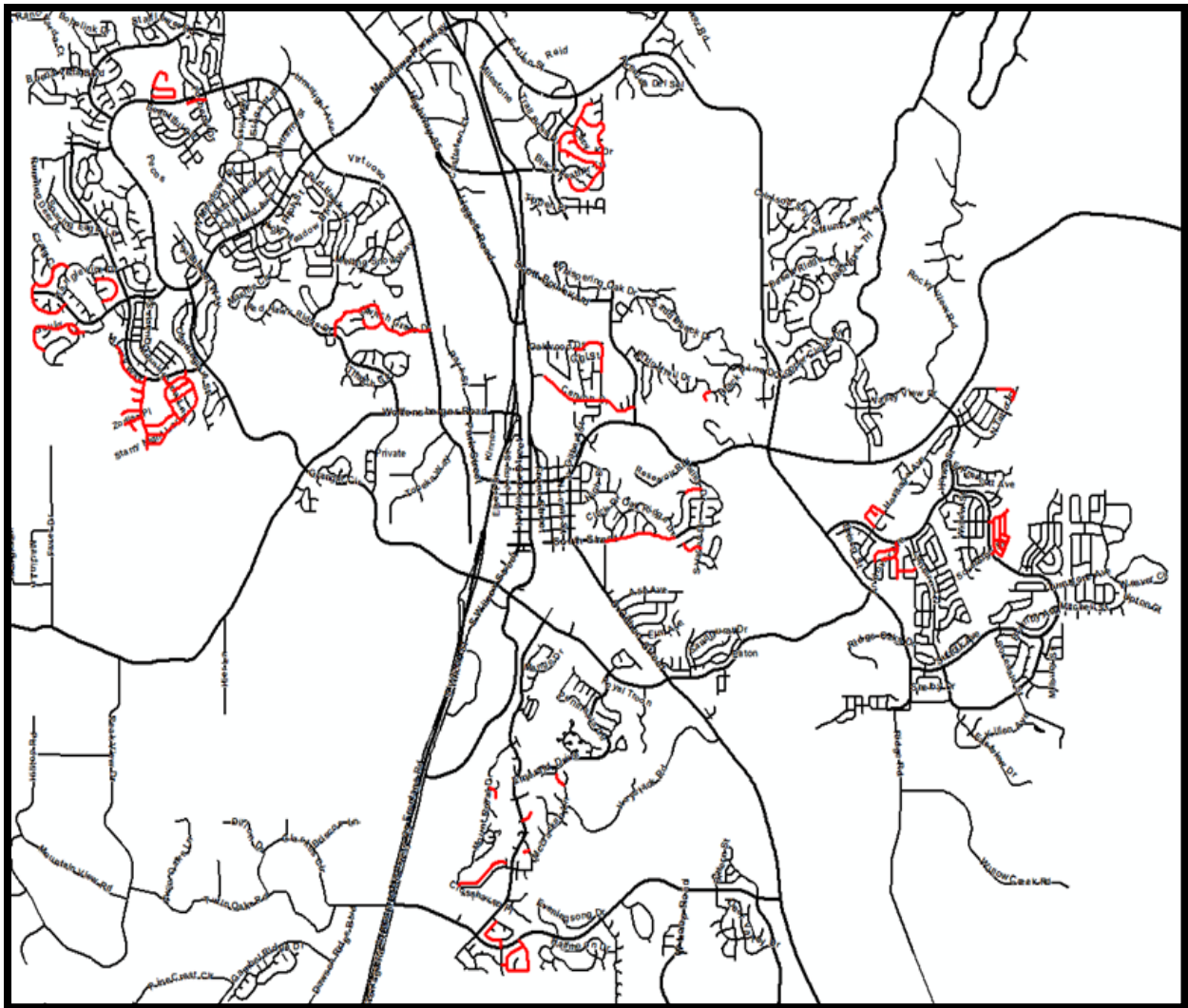
STREET OPERATIONS & MAINTENANCE DIVISION

In the month of **January**, the Streets Division performed 4 specific operations:

- ❖ Ice Control
- ❖ Snow Control
- ❖ Asphalt and Concrete repairs
- ❖ Street sweeping

Ice Control –

The Street's crew continued to work on the ice control operations during the month of January. The crew was able to complete ice control activities on the roadways during the last month as indicated in the map below. The area is systematically evaluated and then prioritized on a list for follow-up to sand the areas. When needed, ice cutting is also prioritized based on high pedestrian areas, such as schools, and for traffic safety, such as stop sign approaches. Another priority is to keep drainage areas clear so snowmelt has a place to go. It should be noted that not all icy areas will be cleaned up by the Town, but rather left to melt on its own.



Snow Control -

During the month of January the Street Operations & Maintenance Division performed plowing and deicing operations during **3** snow events. These snow events delivered a total of **3-3/4"** of snow. On each of these events, the crew was able to complete the plowing operations ahead of our **8** hour performance goal.



Asphalt and Concrete Operations -

During the month of January, the crew was able to repair potholes on the following roadways: Plum Creek Parkway, Wilcox Street, Perry Street, Coachline Drive, Meadows Boulevard, Emerald Drive, Mikelson Boulevard, Willow Run Drive, Wolfensberger, Dales Pony Drive, Woodlands Boulevard, Blackfeather Trail, Crystal Valley Parkway, Ridge Road, and Butterfield Crossing Drive. Pothole repairs are prioritized according to vehicle damage potential. Potholes that have the potential to create damage to vehicles are repaired first.

The crew also made two Utility cut road repairs during the month (one at Moore Drive/South Street, and another on Ridge Trail Court).



Street Sweeping -

The crew picked up materials from our primary roads network and completed another one of our night time sweeping operations, this time in the North business area. These night time operations are completed early in the morning to minimize traffic disruptions and to get into the parking stalls that are usually full of cars during the day.

Looking Ahead -

During the month of February the Streets Division will continue our Snow & Ice Control operations with the emphasis on ice removal. Additionally the crew will continue working on pothole repairs and street sweeping activities throughout the month.