



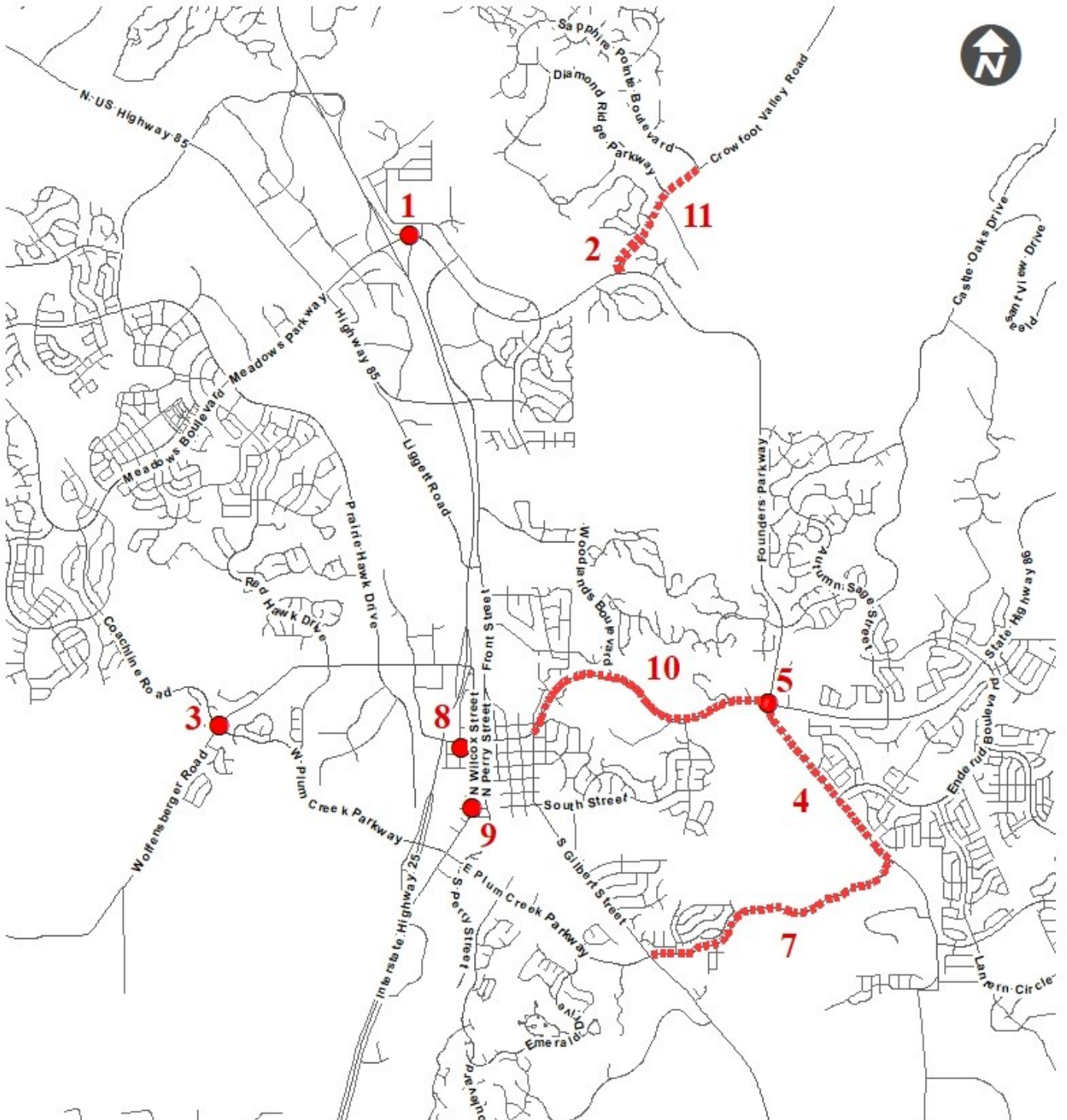
Monthly Report

August 2021

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

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





1. Founders Pkwy/Allen Way Intersection Project
2. Founders Pkwy/Crowfoot Valley Road Intersection Improvements
3. Roundabout at Wolfensberger Road/Plum Creek Pkwy
4. Ridge Road Widening (SH86 to Plum Creek Pkwy)
5. SH86/Fifth Street Intersection Improvements
6. Crystal Valley Interchange (Right-of-Way Acquisition & Environmental/design)
7. Plum Crk Pkwy Widening & Plum Crk Pkwy/Gilbert Roundabout
8. Downtown Alley Improvements
9. Wilcox and South Roundabout
10. Fifth Street Widening Project Design
11. Crowfoot Valley Road Widening

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

- An additional eastbound left turn lane from Founders Parkway to Allen Way
- A dedicated right turn lane from Founders Parkway to Allen Way
- An additional southbound right turn lane from Allen Way to westbound Founders Parkway
- An additional I-25 northbound on-ramp lane
- A second through lane at Allen Way and Allen Street

Phase: Construction – Close out— Work continues on the close out phase with CDOT. The project team (Town of Castle Rock, NORAA Contractors, FHU, and CDOT) continues to meet weekly to finalize the documentation needed to obtain reimbursement on payments made to the contractor. Reimbursements have been submitted to CDOT. The Town is working with the contractor on pay request #5 and finalizing the material manuals to be submitted to CDOT.

Budget: \$2.64M

Close Out: Fall 2021

2. Founders Pkwy (SH86)/Crowfoot Valley Road Intersection Improvement Project and Crowfoot Valley Road Widening Project – This project will address the need for the following improvements:

- An additional eastbound left turn lane from Founders Parkway to Crowfoot Valley Road
- An additional northbound lane on Crowfoot Valley Road between Founders Parkway and Knobcone Drive
- A southbound free right turn lane from Crowfoot Valley Road to westbound Founders Parkway
- Widen Founders Parkway both eastbound and westbound between the Crowfoot Valley Road and Woodlands Boulevard
- Widen Crowfoot Valley Road from Founders Parkway to Knobcone Drive

Phase: Construction: Closeout - No Change: Town staff and the project consultant have submitted all required project documents to CDOT in June and are still waiting to hear from CDOT if any additional information is still required to finalize this project. The Grading, Erosion, and Sediment Control permit remains open to monitor vegetation coverage and growth. Inspections will be performed until the requirements of the permit are achieved.

Budget: \$3,550,000

Close Out: Fall 2021

3. Wolfensberger Road/Plum Creek Parkway Roundabout Project - This project will accomplish the design and construction of a roundabout at this intersection to improve operations and minimize accident potential.

Phase: Closeout – Substantial completion was issued in Spring 2019. Punch list items are complete. The Town is working with the adjacent property owners to complete the final landscape tie-ins and adjustments. The final landscap-

ing work is anticipated to be complete by Fall 2021. The work completed this month in progression to project close-out is as follows:

Began grubbing and grading activities in advance of irrigation work

Remaining Budget: \$137,000

Final Completion: Fall 2021

4. Ridge Road Widening – Ridge Road will be widened from two to four lanes between the Founders Parkway (SH86)/Fifth Street/Ridge Road intersection and Plum Creek Parkway. The goal is to reduce traffic congestion on the Ridge Road corridor.

Phase: Design: The consultants continue to work on ROW acquisition. Slope and temporary easements have been finalized on the Memmen property. Staff is working with IREA to schedule the kickoff meeting for the relocation of their facilities. Staff is coordinating with the consultant to provide easement descriptions for IREA facilities.

Budget: \$900,000

ROW Acquisition: Spring 2021-Phase 1; Fall 2021- Phase 2

Targeted construction: 2024

5. Founders Parkway (SH86)/Fifth Street Intersection “Four Corners” Improvements – With new traffic studies submitted, the consultant will investigate multiple alternatives to address safety concerns and capacity issues at the intersection. Improvements under evaluation include:

- Southbound traffic – add left turn lane, add a free right turn lane, convert right turn lane to through/right
- Eastbound traffic – convert right turn lane to through right, add free right turn lane
- Northbound traffic – add left turn lane, add second through lane, add a free right lane
- Westbound traffic – add through lane, add a free right turn lane

Phase: Design: David Evans & Associates (DEA) is the design consultant for this project. The following is a summary of the activities performed this month:

- Continue work on the design of the project.
- Evaluating traffic and bike lane movements.
- Analyzing a full and $\frac{3}{4}$ movement at the Bader Court / Emmaus Anglican access off 5th Street.
- Had meeting with the Emmaus Anglican Church and private property owners on access.
- Working on the utility plan for the intersection.
- Working on environmental clearances with CDOT.
- Working on establishing right of way needs and identifying areas in which additional right of way may be required.
- Analyzed the access to east bound State Highway 86 to and from Founders Marketplace.

Budget: \$1,200,000 for design in 2020 with DRCOG Grant Reimbursement (Town share \$240,000)

Design Completion: 1st quarter 2022

ROW Acquisition: TBD during Preliminary Design stage

Targeted construction: Summer 2022

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

The purpose of this project is to achieve acquisition of remaining right-of-way and set aside future project funding allowing potential funding partnerships to assist with advancing construction.

Phase: Right-of Way Acquisition

- Acquisition Services
 - East Side of I-25 – Town Staff is moving forward with properties which are in various states of negotiation.
 - West Side of I-25 – Town staff and consultants are preparing Notice of Intent for several property owners. The SWQ property closed in early May.

Phase: Design—Interchange Access Request and Environmental Assessment Reevaluation, and Design

- The BUILD grant agreement is scheduled to be presented to Council on September 7 for approval. The funding of the grant is reimbursement of up to \$5.4M with a cost sharing of 45% grant and 55% funded by the Town.
- The Service Agreement with Jacobs Engineering Group for pre-construction services has been executed. Jacobs and Town staff have hosted the official Kickoff meeting with all stakeholders, including CDOT and FHWA.
- Jacobs continues with the traffic count operations update, the traffic analysis, and survey.
- Staff and Jacobs have established the design criteria for the roadway associated with the interchange.
- Staff has completed the delivery method workshop. This workshop consisted of a panel of all stakeholders determining which method of delivering will be most beneficial to the project schedule and budget. The result of the workshop was that the CMGC delivery method would be the best to achieve the successful delivery of this project with the proposed schedule. Staff is moving forward with evaluating and making recommendations as the process continues.
- The Request for Proposal on the West Frontage Road realignment has been issued.

Budget: \$6,500,000, and Development Escrow

Completion: Summer 2023

Targeted Construction: 2023

7. Plum Creek Parkway Widening and Plum Creek Parkway/Gilbert Street Roundabout Project –

This project will implement the Transportation Master Plan's identified improvements for this corridor. The addition of the remaining two lanes of the master planned four-lane roadway on Plum Creek Parkway between Eaton Street and Ridge Road. Not only will it include the addition of two lanes, but also bicycle and pedestrian multi use lanes. It will also include roundabout modifications at Ridge Road. The improvement has been broken out into three phases in order to meet the department's objectives. Phase 1A included portions of storm sewer improvements between Gilbert and Eaton. Phase 1B includes all roadway/utility/pedestrian access improvements between Gilbert and Eaton, including the implemen-

tation of roundabouts at the intersections of Gilbert and Eaton. Phase 2 includes all roadway/utility/pedestrian access improvements between Eaton and Ridge Road.

Phase 1A: Drainage Improvements: Close out - Town staff and the contractor are working on completing final documents to close out the project, and address issues discovered during construction of Phase 1B.

Budget: \$1,158,300

Construction Completion: Complete

Phase 1B: Plum Creek Pkwy Widening and Roundabout: Construction - The following is a summary of activities performed this month:

- Installed backflow preventer at Baldwin Park
- Began soil amendment and prep for seeding at detention pond

July 2021 brought the project closer to substantial completion. Roadway and roadside improvements are complete. The project team and contractor now shift focus to restoring Baldwin Park for the remaining summer construction season. Remaining work includes: detention pond seeding and mulching, and Baldwin park irrigation and landscaping restoration work.

Budget: \$7,507,723

Construction Completion: Summer 2021

Phase 2: Design and ROW Acquisition – The following is a summary of design activities performed this month:

Continued plans preparation for final submittal

Budget: \$794,375

Design Completion: Summer 2021

ROW Completion: Fall 2021

Targeted construction: 2022

8. **Downtown Alley Improvements:** Four alleyways in the downtown area are beyond their service life and are not providing an appropriate level of service. Reconstruction of alley pavement in addition to drainage improvements and sanitary sewer system replacement will renew the service life of both the pavement and sanitary sewer in the area.

- 2 Alleys (Westerly Alleys 14 & 17) – Located West of Jerry St. between 5th and 3rd streets
- 2 Alleys (Easterly Alleys 10 & 11) – Located East of Perry St. between 6th and 4th streets

Phase – Construction

- All new sewer line and manholes in alleys 14 and 17 have been installed.
- Completed Concrete paving in alley 10.
- Completed Concrete paving in alley 11.
- Started final grade prep in alleys 14 and 17.
- Black Hills Energy (BHE) completed lowering its gas lines in alleys 10 and 11. Continue lowering their gas lines in alleys 14 and 17
- Continue with public outreach/coordination efforts to minimize construction impacts to affected businesses
- Maintaining site erosion control measures

Budget: \$877,900

Completion: Fall 2021

9. **Wilcox and South Roundabout** – This project replaced the two-way stop controlled intersection with a single lane roundabout. As traffic grows, the two-way stop was expected to see increased traffic delay and safety concerns. The new roundabout is expected to improve operations and minimize accident potential.

Phase: Closeout:

- Punch list items remain
- Install crossspan on South Street across alley just south of the new parking structure
- Provide two handicap parking stalls next to Union and Barber Shop
- Final pay application to be submitted once all punch list work is completed

Budget: \$2,270,243

Construction Completion: Completed

10. **Fifth Street Widening Project Design** – Fifth Street is a major arterial connecting local and regional travel between the easterly portions of Town and I-25. Roadway and pedestrian improvements for Fifth Street have been identified within the 2017 Transportation Master Plan (TMP) that will maintain adequate capacity and ensure efficient road network connections for future development.

The Fifth Street Widening project will complete all design elements for implementation of the full build-out transportation network from South Gilbert Street to Ridge Road as identified in the TMP. The transportation network improvements identified in the TMP are as follows:

- Widening to a 4-lane major arterial configuration from Woodlands Blvd. to Ridge Road
- Implementation of on-street bike lane/shoulder from South Gilbert Street to Ridge Road
- Addition of sidewalk from Woodlands Blvd. to Ridge Road along south side of Fifth Street

Fifth Street Widening Project Design - The following is a summary of activities performed this month:

- Ongoing design
- Completed survey activities

Budget: \$1,500,000

Design Completion: December 2021

Right-of-way acquisition: 2022

Targeted construction: 2023 (looking to advance all construction to 2023 in order to use \$3.5M DRCOG grant funding)

11. **Crowfoot Valley Road Widening** – Crowfoot Valley Road will be widened between the Knobcone Drive and Macanta Blvd. Currently, this section of Crowfoot Valley Road is a two lane transition section of asphalt roadway with portions in the Town of Castle Rock and in Douglas County. Recent improvements have been completed at both ends of this project along Crowfoot Valley Road, and the intent of this project is to complete improvements to the “gap” between these improvements. The proposed roadway will be a four-lane section, including painted median / turn lanes, with bike lanes in both directions.

Phase: Design —The consultant has completed the utility locates and field survey. The consultant continues with data research, including drainage report review and typical section review. The Town, and Douglas County held a public outreach open house on August 19. The residents were asked to provide feedback on speed reduction concepts and were informed a traffic signal will be installed at Sapphire Point Blvd as part of the widening project. In general, feedback was positive on the concepts presented, the information presented at the open house will be available for additional comments on the project web page until September 10, 2021. The consultant is continuing to work on evaluating to make recommendations on the feasibility of the conceptual elements.

Budget: \$2,000,000 (Town contribution to construction funding; IGA to be executed with County)

ROW Acquisition: End of 2021

Traffic Signal System Upgrades – This project is a multi-year signal system upgrade project that began in 2015 and is ongoing as funds are available. The project has included proven technology advances at signalized intersections, for our daily operations, and for communications between the center and each intersection.

- Staff is a part of the CDOT managed, adaptive signal system project that will implement adaptive signal timing on Founders and Meadows Parkway, as well as a six abutting Town signals. In August, Town IT staff coordinated with the consultant and CDOT to establish protocol for data sharing.
- In August, CDOT notified the Town that our Automate Traffic Signal Performance Metric (ATSPM) project should complete all three Phase RFPs so the project only requires one approval. Town has met with CDOT ITS twice and is finalizing RFPs. All clearances have been accepted and approved.

Budget: \$868,700

Construction Completion: End of year 2022

2020 Intersection Signalization Construction Project – Signals were constructed at Meadows Boulevard & Cherokee Drive (mast arm signal) and at Hwy 85 & Liggett Rd (temporary span wire signal).

- In August, dimmable photocells were installed and four old luminaires were removed by IREA.
- The last item to complete is troubleshooting preemption devices. Contractor has submitted failing equipment to manufacturer for warrant replacement.

Budget: \$588,000

Construction Completion: Summer 2021

Rectangular Rapid Flashing Beacon (RRFB) 2021 Project – This project completes about half of the requested pedestrian beacon crossing locations that staff received in 2019.

- All locations were installed this month and striping and concrete work is being finalized.

Budget: \$250,000

Construction Completion: Fall 2021

Engineering Division

2021 Pavement Maintenance Program (PMP)

The 2021 PMP will focus its efforts in the Central/North PMP area with additional work taking place on primary streets (Meadows Blvd./Castleton Dr., Crystal Valley Pkwy., Front Street and Scott Blvd).

Meadows Blvd/Castleton Court Concrete Restoration Project began Monday, May 17. The contractor completed the work on Meadows Blvd., and Castleton Ct. Both roads are now open to normal traffic. The contractor will begin work on streets included in the expanded scope Monday, August 30. This work involves concrete panel repairs on Atchison Way and Topeka Way.



Asphalt Overlay Project was completed in August. The contractor completed all punch list items. Project came in under contract time and budget.



Slurry Seal Project began Tuesday, July 6, with the placement of slurry seal. The contractor will continue to work in the Central area and the North area. Asphalt patching will continue for a couple more weeks. Delays were encountered due to shortage of oil required to produce asphalt. All planned work is expected to be complete by September 3.



The Sidewalk, Curb and Gutter Project was completed in the month of May. The contractor completed all punch list items. Project came in under contract time and budget.

The Full Depth Reclamation Project was completed in the month of May. The contractor completed all punch list items. The project came in under contract time and budget.

2021 Facilities Parking Lot Improvements Program

This year's maintenance program will see needed improvements made to fourteen (14) parking lots from various Town Departments. These parking lots will see various improvements such as; curb, gutter & sidewalk replacement, asphalt mill and overlay, asphalt patching, slurry seal and seal coat.

Parking lots include the following:

- Service Center front & back (2 lots)
- Red Hawk Golf Course (North Half)
- Red Hawk Maintenance Shop
- Rhyolite Park
- Rec. Center
- Castle Oaks 6 Well Field
- Castle Oaks 7 Well Field
- Prairie Hawk Well Field (A7)
- Canyon South Well Field
- Woodlands 1 Well Field
- Tank 16
- Sellars Gulch Lift Station
- Mitchell Creek Lift Station

Work is scheduled to begin in early September and be complete by October 29.

2021 Bridge Maintenance Program (BMP)

Staff is working with the consultants to complete all documents in relation to the maintenance work. Bids for the 2021 Bridge Rehabilitation for S. Wilcox Bridge over E. Plum Creek, will be submitted for competitive bids upon completion of all submittals, the consultant will submit an estimation of costs. This project is expected to start in September and be complete by the end of October 2021, pending weather.

Development Division

Review and Permitting

Development Review - All 46 reviews were completed. One was late by one day by the PW Development Services Team.

Permitting & Inspection – 27 right-of-way permits were issued.

Transportation Planning & Traffic Engineering Division

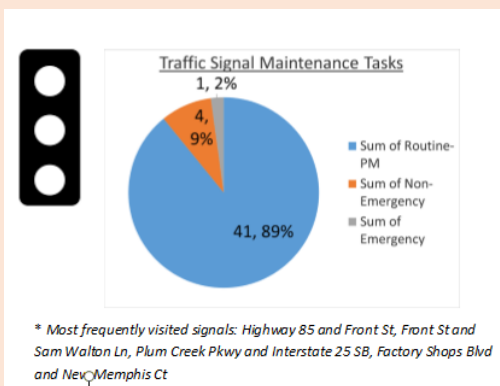
Taxi Voucher Program

For the month of August, the Taxi Voucher Program funded 129 rides; which is a 7% increase to last year's August total of 121 rides, but a 15% decrease from last month's total rides. 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 August, 22 individuals used the Taxi service. Of those individuals, 72% of the rides were for work, 17% for shopping trips, and 11% for medical appointments. Forty rides were provided for people without access to a vehicle, 34 rides to seniors, and 55 rides to disabled riders

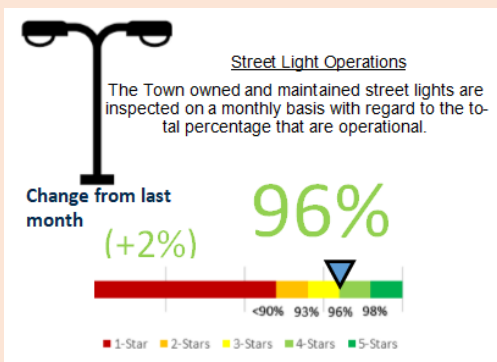
The Castle Rock Senior Center provided 549 rides in August.

Traffic Engineering and Operations

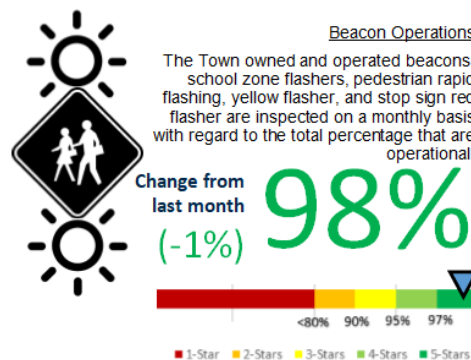
Traffic Signal Operations and Maintenance



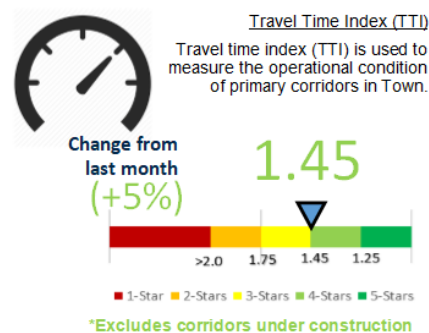
Street Light Operations



Beacon



Operations



Street Signs and Pavement Marking Maintenance

For the month of August, the crew accomplished 1293 tasks. Of these tasks, 272 of them were sign work activities related to fabrication, install, repairs, replacements, inspections and investigations. 90 were related to signs and markings projects. We had 192 RRFB related tasks, including windshield inspections, repair tasks and investigations. We completed 730 marking tasks related to install, inspections, replacements, work zone, special events, and other locate and traffic count tasks.

Paint season is ending for the Town crew. Signalized intersection marking paintwork by Colorado Barricade is continuing, as well as sporadic long line painting as paint & beads are available from suppliers.

Transportation Planning

Neighborhood Traffic Calming Program (NTCP):

The NTCP exists to verify and address quality of life items associated with vehicular traffic on local neighborhood streets and certain collector roadways. The Rising Moon Way plan to convert the existing mini circle to a speed hump has been completed. No new inquiries for the NTCP were received in August. There are several streets in various stages of the program. These streets include Arabella, Echo Park Drive, Bellavista Street, Tree Top Drive, Black Canyon Drive, and Knob Cone. Town staff is still awaiting a petition for Graganey Drive. Speed study results for Black Canyon, Riverwood Way, Tree Top Drive and Echo Park Drive show that the streets do not qualify for the traffic calming

program. However, new speed studies have been ordered for Black Canyon and Tree Top drives now that Aspen View Academy is back in session due to the proximity of the street to the school. The speed and volume criteria were close to being met on both streets during summer and staff wants to see conditions when school is in session. The other street homeowners have been notified that they do not qualify.

Castle Rock Downtown Alley Master Plan:

The project held an alley walk through with IREA, the DDA, property owners, and Town staff to evaluate the possibility of burying the overhead electrical lines along the Festival Park alley and the alley along the Move building. While undergrounding the lines is possible, the cost is unknown. IREA is asking for a work order to create an estimate for undergrounding the lines from Festival Park to 3rd Street. This should provide a good estimate for the remaining alleyways. The project team will have a booth at the Oktoberfest event in September to collect public input. Additionally, sidewalk decals will be located at several alley locations to direct people to the project website. On the website, people are asked to fill out a questionnaire for more public input.

Downtown Castle Rock Grants:

Town staff received news that the pedestrian street light grant for Downtown is being recommended for federal funds through the DRCOG Transportation Improvement Program. The project would install new acorn style streetlights along several Downtown streets in need of lighting enhancements. The grant award is for \$480,000 with a local match of \$120,000. The DRCOG Board still needs to approve the project before the funds are made available in fiscal years 2022-2023. CDOT has also decided to move forward with funding the Town's Revitalizing Main Streets grant for \$150,000 with a local match of \$15,000. This project will improve the visibility of several downtown crosswalks, add street furniture, and construct year round outdoor dining patios along Wilcox Street. The funds will become available once a contract with CDOT has been executed.

Fleet Services

Keeping Castle Rock on the Move



As you drive around Castle Rock and see many different departments providing first-class service, you will notice how they rely on their Town-issued vehicles. The Fleet Division takes great pride in knowing that those vehicles are reliable and safe to operate.

Fleet Services Division continues to make sure that Town vehicles and equipment are ready for operation. This includes public safety vehicles like Police & Fire but also other department vehi-

cles that need to be in use to provide great service for our residents.

The Fleet Division was very busy and productive in the month of August completing 132 work orders and processing a total of 119 vehicles. Total output for the month was \$83,052 with \$37,000 of that being direct labor. Technician productivity was also very good for the month of August coming in at 79.3%. And Fleet availability came in at 96.6% all well above our benchmarks.

The Fleet Division also received into service four new Police Utility Interceptors, these new patrol vehicles are all the Hybrid version which will save the Town on fuel expense as well as producing less emissions. This will make a total of 15 patrol vehicles that are the hybrid version.

Our Parts Department continues to work through supply shortages which has slowed down some of our repair times. We are confident they will find alternate suppliers to provide us the parts and supplies we need to repair vehicles and reduce downtime.

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

Outcome: Fleet team completed 78.2% of the work orders within 24-hours of opening repair requests or service requests. This benchmark number shows how quickly vehicles and equipment get serviced and repaired and back on the job. This benchmark number is just under our monthly objective.

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

Outcome: Town vehicles and equipment were available 96.6% of the time. This high fleet availability rate means that Town vehicles and equipment are ready when they are called upon to perform.

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

Outcome: Technician productivity was 79.3%. This productivity number was a very good increase considering the difficulty in getting some parts and some larger jobs that were completed.



Tandem axle dump truck on new mobile column lifts

Street Operations & Maintenance Division

During the month of August, the Street Operations & Maintenance Division (SO&MD) performed work in the following maintenance operations:

- *Road Verge Maintenance
- *Sweeping
- *Bridge Maintenance
- *Pothole Repair
- *Crack Seal
- *Special Operations

Road Verge Maintenance

In August, Streets Division personnel carried out 31 hours of trash clean up, removing 15 bags of trash. Mowing operations were carried out on 76.41 edge line miles of roadway, requiring 258 labor hours. And 80 labor hours were dedicated to rebuilding road shoulders. Tree trimming was performed on primary snow routes in order to keep them clear for plows and street sweepers. While trimming trees, crews disposed of 149 cubic yards of branches.

Pothole Repair and Asphalt Patching

In August, the Streets team spent 380.5 labor hours repairing asphalt pavements in the Town. In performing these operations, the team used 52 tons of hot mix asphalt and 360 lbs. of cold mix. Supervisors also inspected 38 miles of roadway for defects and ride quality in order to stay proactive in addressing potholes on our roadways.

Crack Seal Operations

In August, Streets Division crews sealed 9.8 miles of asphalt roadways in preparation for the 2022 Pavement Maintenance Program and the equivalent of 6 miles worth of parking lot/roadway at the Phillip S. Miller Activity Complex. Crews dedicated 396 labor hours applying 15,300 lbs. of sealant.



Street Sweeping Operations

In August, crews spent 125.5 hours sweeping roadways specifically in downtown and the business areas. The crew swept a total of 200 lane miles, removing 45 cubic yards of material and hauled 47 tons of materials to the landfill which were picked up from the roads over the last couple of months. A portion of this time was also spent addressing concrete spills and other debris dropped on roadways.

Special Operations

Street operators participated in the annual Touch a Truck event hosted by Castle Rock Police Department. Interacting with stakeholders while showcasing our snow and ice equipment.



Bridge Maintenance

In August, Streets crews ground out all rust, cleaned primed and painted the westbound bridge on Meadows Parkway over Plum Creek. This operation serves to help protect the bridge from road salt and enhances the lifespan of the bridge. All of these operations took 330 labor hours.

Looking Ahead

In September, crews will begin to inspect all of the snow moving equipment. Performing functional testing and calibrations, swapping out worn or damaged parts, making minor repairs, and installing new mounts for the plow tracking tablets. Also, the Streets Division will host the Annual Snow Plow Operators Training both in a classroom setting and operating the plows through an obstacle course designed by the snow managers. Crews should also complete crack sealing for pre PMP Operations.