

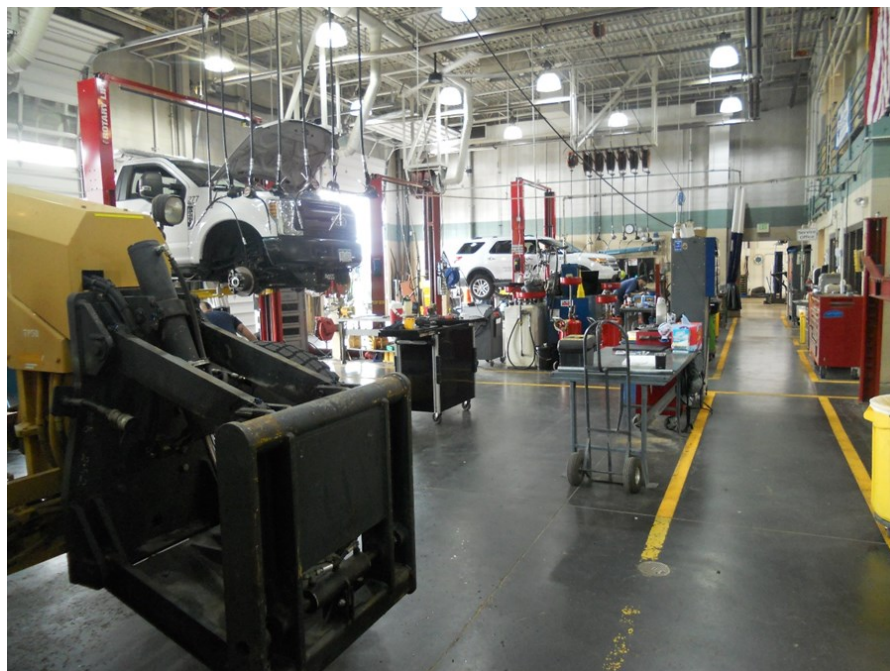


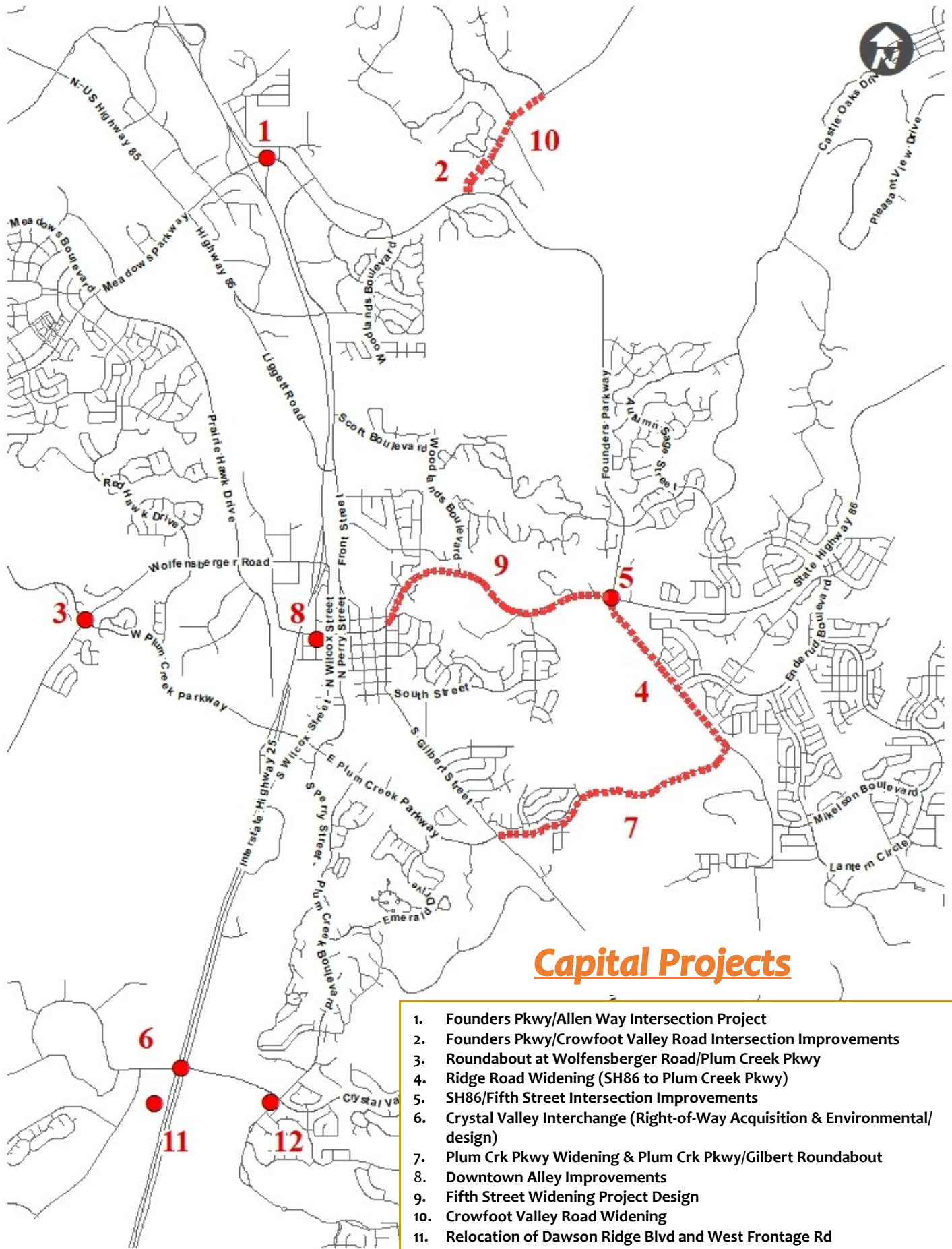
# Monthly Report

October 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.





## Capital Projects

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. Fifth Street Widening Project Design
10. Crowfoot Valley Road Widening
11. Relocation of Dawson Ridge Blvd and West Frontage Rd
12. Crystal Valley Pkwy & Plum Creek Blvd Roundabout Project

**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 close out the project. Town has advertised the Notice of Final Settlement which starts the process of final payment to the contractor. Town is estimating that all final paperwork will be submitted to CDOT by the end of November 2021. With final paperwork to CDOT in November this project will be closed out in December 2021

**Budget:** \$2.64M

**Close Out:** Winter 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: Waiting on CDOT formal close out of 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 landscaping work is anticipated to be complete by Fall 2021. The

work completed this month in progression to project close-out is as follows:

Completed irrigation and landscaping work on adjacent property

**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 Memmen parcel slope and temporary easements are complete. Negotiations with the remaining owners continues. The legal description for the CORE (IREA) easement was completed.

Stanley Consultants is the design firm for the project. The following is a summary of the activities performed this month:

- Compile the Utility Engineering (SUE) field work
- Compile survey of new improvements, start applying to plans
- Initial coordination with the Four Corners project and new adjacent developer
- Design a workaround to avoid ROW take on Haddad property

**Budget:** \$900,000

**ROW Acquisition:** Fall 2021

**Targeted Construction Completion:** Fall 2022

**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
- Continuing the analysis of a full and ¾ movement at the Bader Court / Emmaus Anglican access off 5<sup>th</sup> Street
- Continuing working on the utility plan for the entire project
- Continuing to work on environmental clearances and water quality with CDOT
- Continuing to work on establishing right of way needs and identifying areas in which additional right of way may be required



- In November, Staff will be presenting to the Public Works Commission and Town Council a resolution approving the First Amendment to the Service Agreement for Design of the Four Corners Intersection Improvement Project. This amendment is necessary to add additional scope of work that resulted from input from CDOT to complete additional traffic analysis, public feedback during project open houses to review access improvements, additional land acquisition services, and support necessary to assist with construction implementation. The proposed resolution would add \$355,096 to the project and extend the completion of service to December 31, 2023. The extension of the contract into 2023 will allow for consultant assistance in answering questions during the bidding and construction phases
- IGA with Douglas County has been reviewed by Town staff and submitted back to Douglas County for final edits. Schedule is to have the IGA to Town Council in early 2022 for approval. This IGA is for a Contribution to the project of 1 million dollars from Douglas County

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

**Design Completion:** 1st quarter 2022

**ROW Acquisition:** 1st quarter 2022

**Targeted Construction:** Winter 2023

#### 6. Crystal Valley Interchange – Pre-construction Activities –

The purpose of this project is to achieve acquisition of remaining right-of-way, complete design, 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 has been executed. Town staff is working with CDOT to begin reimbursement payments
- Jacobs continues working on the traffic count operations update, the traffic analysis, and survey
- Design criteria was finalized
- The CMGC RFP is out for review with CDOT and Douglas County

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

**Completion:** Summer 2023

**Targeted Construction:** Spring 2025

#### 7. Plum Creek Parkway Widening and Plum Creek Parkway/Gilbert Street Roundabout Project – This project will implement the Transportation Master Plan's identified improve-

ments 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 implementation 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 - Final contract items have been resolved and the project is ready to advertise for final payment.

**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:

- With Castle Rock Parks and Recreation, reached out for quote on Baldwin Park irrigation and landscape restoration
- Worked with local landscaper to obtain quote for Vista apartments sod installation
- Processed two of the remaining four change orders to close out construction contract

Roadway and roadside improvements are complete. The project team begins procurement activities to restore Baldwin Park. Remaining work includes: Baldwin park irrigation and landscaping restoration work.

**Budget:** \$7,507,723

**Construction Completion:** Fall 2021

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

- Executed service agreement with Kilty and Company to perform appraisal services for two parcels needed for construction (drainage and construction easements)
- Executed offsite drainage engineering service task order for floodplain delineation
- Continued refinement of 90% design for November final submittal

**Budget:** \$794,375

**Design Completion:** Winter 2021

**ROW Completion:** 1 quarter 2022

**Targeted Construction:** Winter 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 5<sup>th</sup> and 3<sup>rd</sup> streets
- 2 Alleys (Easterly Alleys 10 & 11) – Located East of Perry St. between 6<sup>th</sup> and 4<sup>th</sup> streets

**Phase – Construction**

- Construction is in the punch list phase; all alleys are open
- Maintaining site erosion control measures

**Budget:** \$877,900

**Completion:** Fall 2021

9. **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:

- Obtained CDOT executed IGA for construction funding (\$3.5 Million)
- Refined alternative concepts
- Evaluation of continuous Green-T intersection at Valley Drive began
- Set first open house date of January 20, 2022

**Budget:** \$1,500,000

**Design Completion:** December 2022

**Right-of-way acquisition:** Winter 2022

**Construction Completion:** Winter 2023

10. **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. Project is being managed by Douglas County Staff.

**Phase:** Design —The consultant continues with data research, including drainage report review and typical section review

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

**ROW Acquisition:** End of 2021

**Design Completion:** Summer 2022

**Construction Completion:** Spring 2023

11. **Relocation of Dawson Ridge Blvd and West Frontage Rd** – The purpose of this project is to relocate the I-25 West Frontage Rd to the west of the BNSF Railroad tracks to provide access to the surrounding neighborhoods and residents after the Crystal Valley Interchange is complete.

**Phase: Design** – Staff has completed the RFP for design and is working on executing a service agreement.

**Budget:** \$299,000

**Design Completion:** December 2022

**Construction Completion:** Fall 2023

12. **Crystal Valley Pkwy & Plum Creek Blvd Roundabout Project** This intersection is a major arterial currently controlled by stop signs in two directions. As the traffic volumes increase and with ongoing residential development and future construction of the new Crystal Valley Interchange, this existing traffic control will not be the most efficient and could contribute toward increased accidents. This project will accomplish the design of a roundabout intersection in order to improve the traffic capacity of the intersection, help to manage speeds along Crystal Valley Parkway, and to accommodate the growth in traffic that is expected to increase once the Crystal Valley Interchange has been constructed.

**Phase:** Design

- Request for proposals advertised on October 8, 2021
- Five proposals were received
- Taking Service Agreement to Town Council in December 2021

**Budget:** \$400,000 pending approval of budget amendment

**Design Completion:** June 2022

**Targeted Construction:** Spring 2023

**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 October, Town IT staff coordinated with the consultant and CDOT to establish protocol for data sharing. The adaptive system should be operational by February 2022.
- The Town’s ATSPM project is broken into two phases, Phase I and Phase II. Phase I includes detection purchase and installation at 15 intersections. In October,

detection has been purchased and staff recommended installation by contractor, Adiona Transportation Solutions. Phase II includes software development and signal timing. Bids are being reviewed for Phase II and selection should be made by November 15.

**Budget:** \$868,700

**Construction Completion:** End of year 2023

#### **2020—2021 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).

- The last item to resolve is relocating preemption devices, which is now complete and is being tested for successful operation. This project is expected to be complete in early November.

**Budget:** \$588,000

**Construction Completion:** November 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 beacon locations were installed this month. Final crosswalk markings and concrete work for pedestrian refuges is underway.

**Budget:** \$250,000

**Construction Completion:** Fall 2021

## Engineering Division

#### **2021 Pavement Maintenance Program (PMP)**

Meadows Blvd/Castleton Court concrete restoration was completed with planned quantities. The contractor will begin work on streets included in the expanded scope Monday, November 1. This work involves concrete panel repairs on Atchison Way and Topeka Way.

Miscellaneous Concrete Project began Monday, October 25 with the replacement of identified damaged curb, gutter and sidewalk around Town. These are areas that residents and other Town Departments submitted to Public Works throughout the year. The contractor will also be installing chase



drains and traffic safety improvements in designated locations.

The Sidewalk, Curb and Gutter project was completed in the month of May. The project came in under contract time and budget.

The Full Depth Reclamation project was completed in the month of May. The project came in under contract time and budget.

The Asphalt Overlay Project was completed in August. All expanded scope of work is complete. The project came in under contract time and budget.

The Meadows Blvd/Castleton Court concrete restoration project came in under contract time and budget.

The Slurry Seal Project was completed in early October. All expanded scope is complete and the project came in under contract time and budget.

The Town Facilities Parking Lot Improvements were completed on Thursday, October 14. The project came in under contract time and budget.

#### **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 early November and be complete by the end of December 2021, pending weather.

## Development Division

#### **Review and Permitting**

**Development Review** - All 55 reviews were completed. One was late by one day by the PW Development Services Team.

**Permitting & Inspection** – 34 right-of-way permits were issued.

## Transportation Planning & Traffic Engineering Division

#### **Taxi Voucher Program**

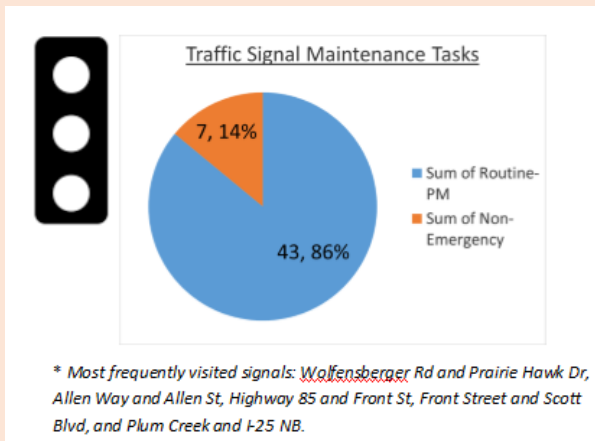
For the month of October, the Taxi Voucher Program funded 168 rides; which is a 68% increase to last year's October total of 100 rides, and a 23% increase from last month's total rides. Transportation services are provided for Castle Rock citizens who can-

not drive, have a disability that prevents them from driving, or do not have access to a vehicle. In October 23 individuals used the Taxi service. Of those individuals, 72% of the rides were for work, 21% for shopping trips, and 7% for medical appointments. Seventy-three rides were provided for people without access to a vehicle, 59 rides to seniors, and 36 rides to disabled riders.

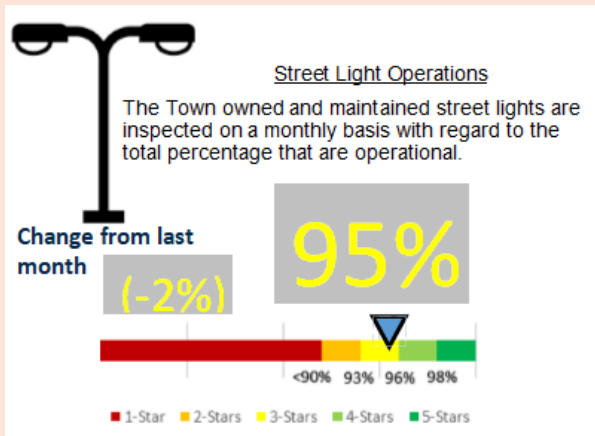
The Castle Rock Senior Center provided 753 rides in October.

### Traffic Engineering and Operations

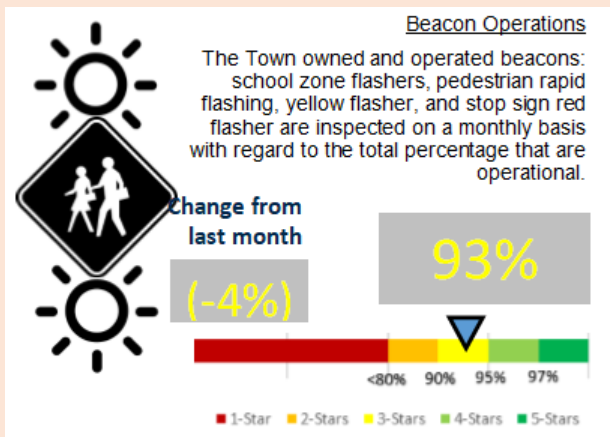
#### Traffic Signal Operations and Maintenance



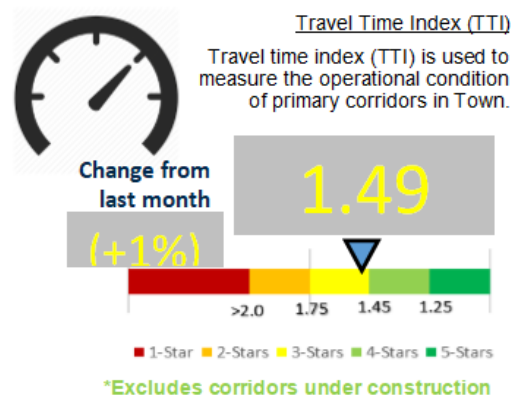
#### Street Light Operations



#### Beacon



### Operations



### Street Signs and Pavement Marking Maintenance

For the month of October, the crew accomplished 1260 tasks. Of these tasks, 30 of them were sign work activities related to fabrication, install, repairs, replacements, inspections and investigations. One-hundred two were related to signs and markings projects. We had 190 RRFB related tasks, including windshield inspections, new installations, repair tasks and investigations. We completed 930 marking tasks related to install, inspections, and replacements. Other tasks included work zone, special events, and underground locates and traffic count tasks.

Paint season is ending for the Town crew. Work by the Town’s marking contractor, Colorado Barricade, is 74% complete for white long lines, 64% complete for yellow long lines, and 92% complete for signalized intersection symbols, crosswalks and stop bars.

### 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. No new inquiries for the NTCP were received in October. At this time, there are no active projects for traffic calming.

#### Castle Rock Downtown Alley Master Plan:

The project was presented and discussed with the DDA/DMA Board and the Chamber of Commerce in October. Now that the primary public input period has ended, the project team will begin to develop conceptual plans for the selected alleys. Input can still be provided on the design and other elements throughout the project. Approximate order of magnitude costs estimates to bury the overhead power lines are being calculated and will be included in the plan as part of the cost estimates.

#### Downtown Castle Rock Grants:

Town staff will be attending upcoming DRCOG meetings to discuss the requirements for the Downtown pedestrian street light grant. The funds will be available in Fiscal Years 2022 and 2023. The project will install roughly 40 new acorn style streetlights



along several low-lit Downtown streets. The grant award is for \$480,000 with a local match of \$120,000. The Town has approved the Scope of Work (SOW) for the CDOT Revitalizing Main Streets grant for \$150,000 with a local match of \$15,000. Once the agreement is executed, the project will begin. The SOW will improve the visibility of several downtown crosswalks on Wilcox, add benches and trashcans, and construct four, year round outdoor dining patios in Downtown. Lastly, the Town should hear about the RAISE grant application for the Crystal Valley Interchange construction this fall.

## Fleet Services

*Keeping Castle Rock on the Move*



ACCREDITED  
AGENCY



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



*New hybrid patrol interceptor*

The Fleet Division had a very productive month in October completing 112 work orders and processing 129 vehicles for the month. Total output for the month was \$71,334 with \$31,000 of that being direct labor. Technician productivity was also very good for the month of October coming in at 83.3%. In addition, Fleet availability came in at 96.8% all well above our benchmarks.

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



*New ambulance for Fire*

need to repair vehicles and reduce downtime. The Fleet Division also received and entered into service one new ambulance for the Town.

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

**Outcome:** Fleet team completed 81.9% 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 96.8% 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 83.3%. This productivity number was a very good increase considering the difficulty in getting some parts and some larger jobs that were completed.

## Street Operations & Maintenance Division

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

\*Road Verge Maintenance  
\*Street Sweeping  
\*Gravel Road Maintenance

\*Pothole Repair  
\*Asphalt Patch Repair

### Road Verge Maintenance

During October, crews wrapped up the majority of road verge maintenance operations for the year. With the growing season over, mowing, trimming, and spraying activities will be concluded until spring. Trash cleanup will be an ongoing and continuous process. The crew dedicated 324 hours to clean up and mow the last areas in need covering just over 120 edge line miles.

### Pothole Repair

In October, Streets division dedicated 96.5 labor hours inspecting and repairing potholes throughout 184 lane miles of roadway within the Town. Crews used 7 tons of hot mix asphalt to repair the equivalent of 933 potholes found during these inspections.

### Street Sweeping Operations

October saw the start of the Town wide fall sweeping program



and the last of the downtown and business area AM sweeping program. Streets crews swept just over 588 lane miles of roadway over the course 445 labor hours, between these two operations. A total of 430 cubic yards of material was removed from the roadway and disposed of.

#### Gravel Road Maintenance

Maintenance and shoulder repair work was undertaken on 3.86 miles of Town roadways. Crews worked 134 hours to maintain these roadways and shoulder areas.

#### Asphalt Patch Repair

Streets Division executed repair on numerous asphalt patches throughout Town. In all, Crews dedicated 232 hours and used just under 49 tons of Hot Mix Asphalt. The repairs were carried out as a response to a combination of road condition need and Utility repair cuts.

#### Looking Ahead

In November, the Division is maintaining vigilance to be ready to respond to snow. The Town wide Fall sweeping operations will continue as well as asphalt and pothole repairs as weather permits.