



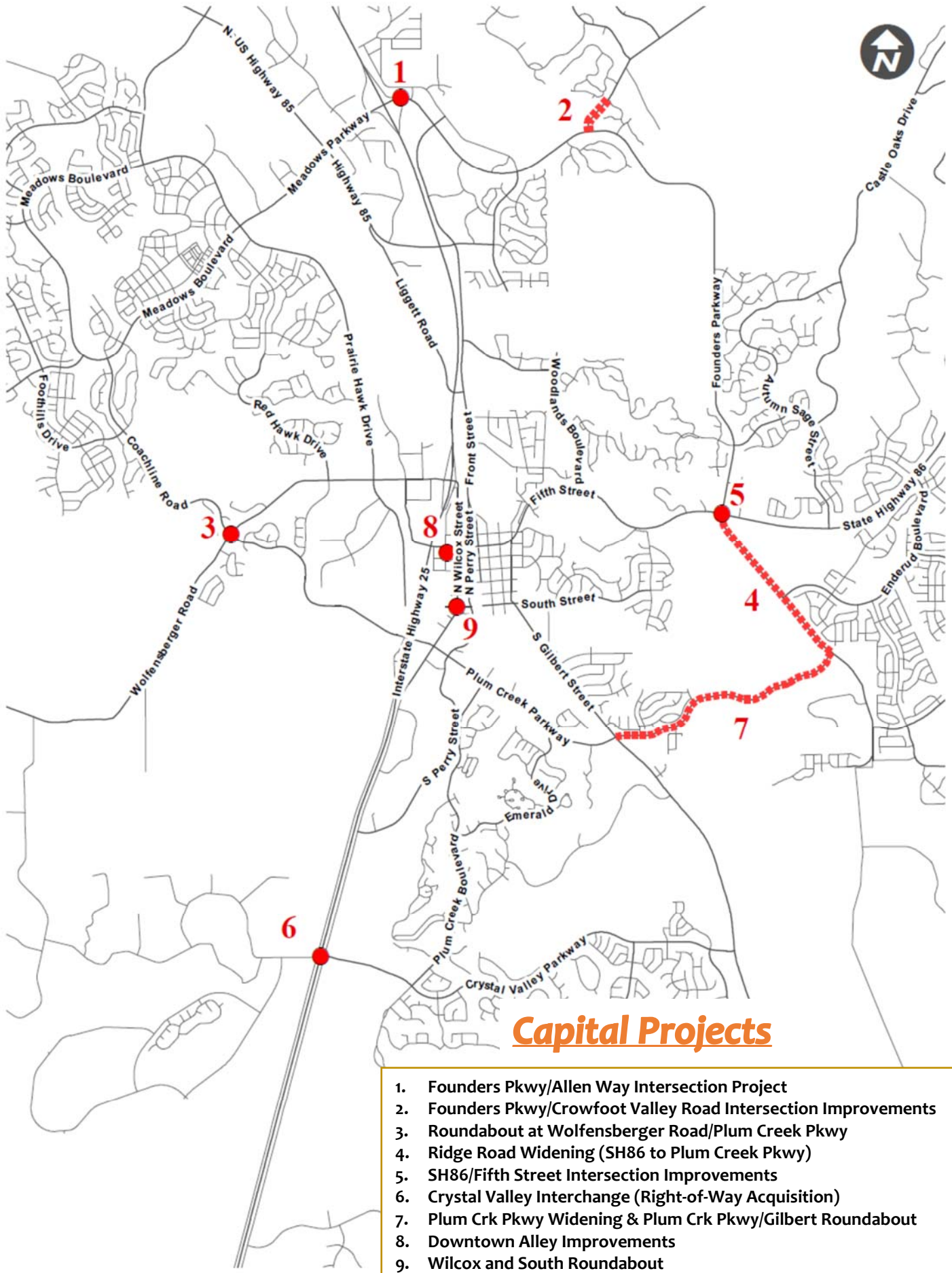
# Monthly Report

September 2020

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)
7. Plum Crk Pkwy Widening & Plum Crk Pkwy/Gilbert Roundabout
8. Downtown Alley Improvements
9. Wilcox and South Roundabout

**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 phase. The following is a summary of the construction activities that took place during this month:

- The remaining landscaping work was completed, and final change order being processed.
- Town staff and the contractor are working to complete required project documents.
- CDOT is working to close out the project by end of October.

**Budget:** \$2.64M

**Construction Complete:** Fall 2020

**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:** Close out phase. The following is a summary of the construction activities performed this month:

- Town staff and the contractor are working to complete required project documents.
- Three change orders being processed for approval with CDOT.
- Goal is to be closed out by end of October.

**Budget:** \$3,550,000

**Construction Completion:** Fall 2020

**3. Wolfersberger 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 relation to project closeout is as follows:

- Completed scoping discussions to determine remaining landscaping work
- Submitted proposal to adjacent property owners for approval

**Remaining Budget:** \$120,000

**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:**

- 100% plans have been provided.
- The consultants continue to work on ROW acquisition.
- Staff submitted the project construction plans to IREA to initiate their design for relocation of facilities and providing power to the street lights. IREA states that plans will be completed by mid-October. With these IREA plans, the Town can seek any additional right-of-way or easements necessary for the project.

**Budget:** \$400,000

**ROW Acquisition:** Winter 2020

**5. Founders Parkway (SH86)/Fifth Street Intersection “Four Corners” Improvements** – With new traffic studies submitted, the Town, and CDOT will continue to investigate multiple alternatives to address safety concerns and capacity issues at this intersection.

**Phase: Design**

- David Evans & Associates was selected as the top design consultant firm. Staff presented at the September Public Works Commission and received recommendation for Council approval. Staff presented to Council in September meeting, Council approved the Service Agreement for the design of the Four Corners Intersection Improvement project.
- After receiving no proposals for the initial project management (extension of staff) Request of Proposal (RFP), staff revised the RFP and posted. One proposal was received. Staff is currently evaluating the proposal and negotiating fees. It is anticipated to submit a service agreement for approval to the Town Manager in the first part of October.

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

**Design Completion:** Fall 2021

**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 partnerships to assist with advancing construction.

**Phase: Right-of Way Acquisition**

- Acquisition Services

- o East Side of I-25 – Offers continue to be sent out. Several properties are in the negotiation phase.
- o West Side of I-25 – Appraisals are complete. Town staff and consultants are preparing Notice of Intent for several property owners.

**Phase:** Interchange Access Request and Environmental Assessment Reevaluation

- Town staff continues to meet with CDOT and FHWA to establish priority activities for the interchange approval.
- The Town received notice of the federal BUILD Grant award. Town staff canceled the Request for Proposal (RFP) for the full design of the interchange due to added requirements of the federal grant. Staff is working with CDOT to determine the grant requirements and is anticipating to post the revised RFP by end of November. Staff will be working on the Intergovernmental Agreement (IGA) between CDOT and the Town which identifies the general terms of the grant, scope of work, and funding provisions awarded to the Town. The funding of the grant is reimbursement of up to \$5.4M with a cost sharing of 45% grant the Town is 55%.

**Budget:** \$4,600,000, and Development Escrow

**Completion:** Winter 2020 (right of way acquisitions)

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 2 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 3 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: Construction (100%)** - The following is a summary of activities performed this month:

- Town staff is inspecting punchlist work for final acceptance
- Staff is compiling final quantities and back charges for the contractor’s contract

**Budget:** \$1,158,300

**Construction Completion:** Complete

**Phase 1B: Plum Creek Pkwy Widening and Roundabout: Construction (60% Complete)** - The following is a summary of activities performed this month:

- Completed roundabout construction at the intersection of Plum Creek Parkway and Gilbert.

- Achieved 82% completion of Storm Drainage Improvements
- Completed over 2,400 LF of curb and gutter in preparation to construct remaining eastbound Plum Creek Parkway lanes.
- Substantially completed dry utility relocations throughout entire project limits (Black Hills, IREA)
- Began phase 1 construction of the Eaton Roundabout
- Commencement of structures installation at the future water quality pond

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

**Construction Completion:** Winter 2020

**Phase 2: Design and ROW Acquisition (30% Complete)** – The following is a summary of design activities performed this month:

- ◇ Completed topographic survey of the phase 2 limits, including adjacent properties.
- ◇ Completed Dry/Wet utility locates and mapping within the phase 2 limits
- ◇ Compiled/completed conceptual design plans
- ◇ Outlined Value Engineering concepts to investigate during the 30% preliminary design, including the evaluation of ROW acquisition to save on retaining wall costs during construction.

**Budget:** \$794,375

**Completion:** Winter 2020

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) – Located West of Jerry St. between 5<sup>th</sup> and 3<sup>rd</sup> streets
- 2 Alleys (Easterly Alleys) – Located East of Perry St. between 6<sup>th</sup> and 4<sup>th</sup> streets

**Phase – Design/Advertisement**

- The project team advertised the 2020 Downtown Alley Rehabilitation Project and obtained two bids
  - ◇ The advertisement of the 2020 alleys (Westerly Alleys) did not achieve the competitive/qualified bids that were anticipated.
- The project team has identified solutions to obtain qualified and more competitive bids, by advertising all alleys for a 2021 construction.
- Commenced dry utility relocation (IREA, Century Link) efforts ahead of construction
- Continue public stakeholder outreach/coordination efforts to minimize construction impacts to affected businesses.

**Budget:** \$900,000

**Completion:** Adjusted to Summer 2021

**9. Wilcox and South Roundabout** – This intersection is currently controlled by stop signs in two directions. As the traffic volumes increase, this existing traffic control will not be the most efficient and could contribute toward increased congestion and accidents. This project is for the design of a roundabout intersection, which will improve operations and minimize accident potential.

**Phase: Design:** The consultants continue to work on design, with 90% plans expected next.

- Town Staff is continuing to work on ROW acquisition with offer letters pending.
- Construction phasing options are being considered and a potential early construction start also being considered in January instead of March pending Town review and acceptance.

**Budget:** \$1,850,000

**Design completion:** End of 2020

**Construction completion:** Summer 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.

- Trafficast, the travel time device vendor, has gained access to the CDOT server and is working on data flow to the Town's server. This connection will provide travel time information in Town on CDOT corridor's Meadows and Founders Parkway, and at the Wolfensberger interchange.
- Vehicle detection equipment replacements are complete at four of five intersections. The new detectors are reporting to the Town's signal performance metric system,
- A detection system trial is still in progress at Front and Black Feather.
- Town has been awarded a Traffic Operation technology grant through a DRCOG application process for fiscal years 2021 and 2022. The project will make automated traffic signal performance metric (ATSPM) system improvements, including installing advance detection equipment and improve ATSPM software dashboard functions.
- In September, staff began planning an initial stakeholder meeting to review goals and objectives for the ATSPM project, as well as an action plan for the four project components. Prior to spending any funds an IGA between CDOT and the Town will need to be approved

**Budget:** \$993,700

**Construction Completion:** End of 2022 (for grant project)

**2020 Intersection Signalization Construction Project** – This project will construct two signals in 2020, at Meadows Boulevard & Cherokee Drive and a temporary span wire signal at Hwy 85 and Liggett Rd.

- IREA and the Town are working on a solution that uses

an abandoned overhead line that leads directly to Liggett Road for the meter and power connection to the traffic signal equipment.

- Signal poles have been delivered for Cherokee Drive, delivery date for Liggett Road poles is expected in November. Other Town supplied materials have been ordered and their purchasing process begun.
- Morton Electric began construction of caissons and other underground infrastructure at Cherokee in September.
- The Miscellaneous Concrete program contractor built sidewalk and ADA ramp improvements at Hwy 85 and Liggett in preparation for the signal construction.

**Budget:** \$588,000

**Construction Completion:** End of 2020

**Rectangular Rapid Flashing Beacon (RRFB) 2020 Project** – This project addresses the requested pedestrian beacon crossing locations that staff received in 2019 at the 10 highest priority locations.

- In September, installation of beacon equipment, signs, and markings was completed.
- All RRFB installations were substantially complete as of September 28th including many of the punch list items. All beacons are operating per staff observations, except the median beacon at Oasis installed by Town staff.
- Remote access and cloud connectivity to each location has been configured and is operational.
- The Castle Oaks-Oasis location had a pedestrian refuge installed by the Miscellaneous Concrete program. Town staff installed the RRFBs at this location only and is working on troubleshooting remaining issues.

**Budget:** \$170,000

**Construction Completion:** Fall 2020

# Engineering Division

## 2020 Pavement Maintenance Program (PMP)

The 2020 PMP is focusing its efforts in the Central PMP area with additional work taking place on primary streets (Meadows Boulevard, Prairie Hawk Dr., Factory Shops Blvd., and Park Street). The PMP primary street work consisted of asphalt mill, overlay, and full depth reclamation and total reconstructs.

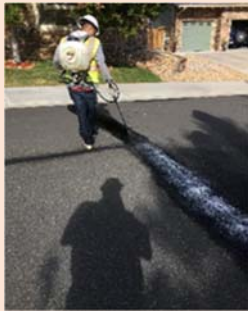
2020 PMP projects completed to date are:

- \* Curb, Gutter & Sidewalk Replacement Project
- \* Asphalt Overlay Project

- \* Full Depth Reclamation Project
- \* Meadows Blvd. & Prairie Hawk Drive Reconstruction Project.

The Slurry Seal Project began the week of August 24 with the removal of traffic calming devices on Loon Circle and Bittern Street. Contractor began asphalt patching along Castle Oaks Drive and moving from east to west. This is a 35-day contract. The contractor should complete all repairs in this timeframe.

The Crack Seal/Mastic Seal operation began the week of August 24, in the Central PMP area. This project will crack seal streets that are in a condition that did not require a surface treatment such as a slurry seal or overlay. This is a 25-day contract. The contractor completed the work September 18.



The 2020 Miscellaneous Concrete Replacement began August 31, 2020. This contract provides the Town the means to repair concrete infrastructure, such as sidewalk, curb and gutter and crosspans throughout the Town as well as updating older pedestrian access ramps to ensure they meet Americans with Disabilities Act (ADA) compliance.



Public notification planning and web site updates are continuing with assistance from the Community Relations team.

This is a 35-day contract. The contractor plans to complete the work before the end of September.

## 2020 Facilities Parking Lot Improvements Program

This contract will see needed improvements to four (4) parking lots, and paved entrances to CR Water Pump Station, Treatment Plant, Lift Station and Well site. The locations that are scheduled this year are:

- Milestone Pump Station (Founders Pkwy)
- Miller Treatment Plant (Plum Creek Blvd)
- Prairie Hawk Well Field (A7)
- Castle Oaks Lift Station

Work is scheduled to begin the last week of this month, and is expected to be completed mid-October. Contractor awarded the project is Straight Line Sawcutting Inc.

## 2021 PMP

The PMP team began working on the field reconnaissance for the 2021 PMP in September. This consists of the North PMP area, and scheduled primary streets, which include; Promenade

Pkwy, Meadows Boulevard between Prairie Hawk Dr. and Coachline Rd., Wolfensberger Rd., Crystal Valley Parkway and S. Wilcox St/ south of Plum Creek Parkway intersection, Front St. and Scott Blvd. The purpose of the field reconnaissance is to quantify curb, gutter, and sidewalk as well as pavement areas, which are in need of repair prior to the application of the final maintenance surface treatments such as slurry seal, asphalt overlay, or asphalt pavement mill and overlay. Changes in the proposed streets may occur due to current evaluation taking place and/or actual bid pricing received that may require some modifications.

## Development Review and Permitting

**Development Review** - All 42 reviews were completed on or before the due date by the PW Development Services Team.

**Permitting & Inspection** – 24 right-of-way permits were issued and over 225 inspections were conducted.

# Transportation Planning & Traffic Engineering Division

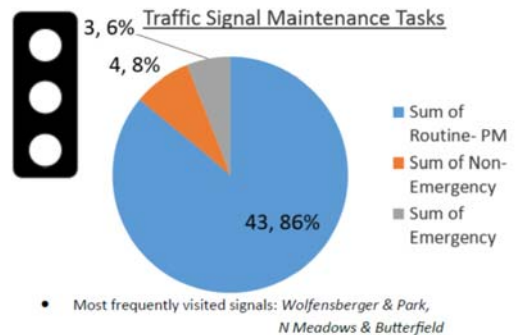
## Taxi Voucher Program

For the month of September, the Taxi Voucher Program funded 113 rides; this was a 5% decrease from last year's September total of 119 rides and a 7% 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 September, 18 individuals used the Town's Taxi service. Of those that used the service, 69% of the rides were for work, 7% were for shopping trips, and 24% for medical appointments.

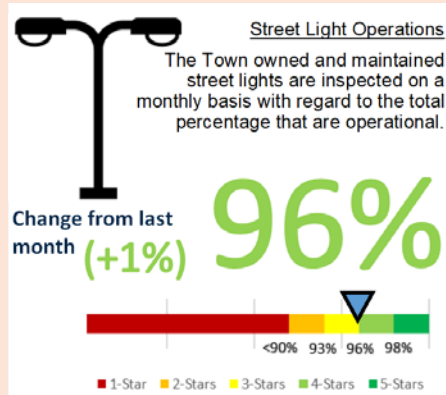
The Castle Rock Senior Center provided 379 rides in September.

## Traffic Engineering and Operations

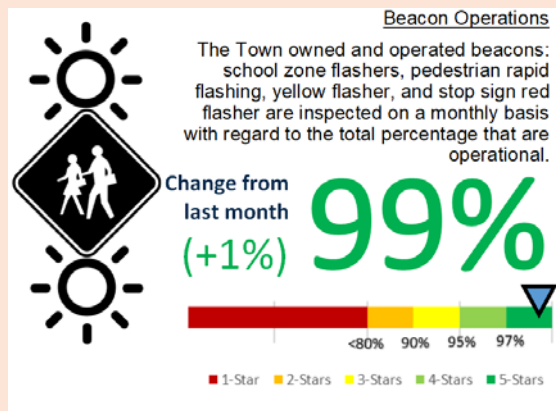
### Traffic Signal Operations and Maintenance



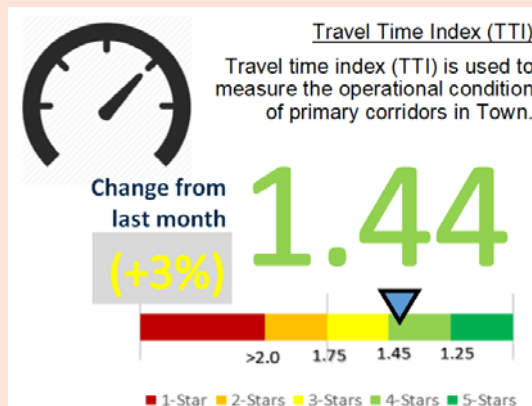
## Street Light Operations



## Beacon



## Operations



## Street Signs and Pavement Marking Maintenance

During the month of September, the crew accomplished 3,427 tasks. Of these tasks 320 of them were sign work activities related to fabrication, install, repairs, replacements, inspections and investigations. 2,871 of these tasks were markings work activities related to investigations, inspections, replacements, original install, retirements and 55 are for misc. projects. The crew provided traffic control setup and take down for one special event (Tri the Rock), and provided devices for Artfest. We had 108 rectangular rapid flashing beacon (RRFB) windshield inspections

and one traffic count. Contractor long line striping for fall was completed this month.

## 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. There were no new traffic calming inquiries in September. Staff completed several speed studies during the month to determine if they qualified for the program, the following streets did not qualify: Dales Pony Drive, Morning Glory Drive, and Tabor Drive. The following is an update for the two active projects:

- Diamond Ridge Pkwy: All returned ballots voted in favor of the proposed plan. 13 out of 15 ballots were returned. The traffic calming improvements will be completed next spring as part of the planned Pavement Maintenance Program work in the area. Staff has contracted with a consultant to complete the design work.
- Bittern Street / Loon Circle: Town staff completed the installation of traffic calming replacement features: new speed cushions, signs, and markings in early September.

### Castle Rock Transit Feasibility Study:

Town staff has been gathering feedback on the draft Transit Feasibility Study during September. Several presentations were made to a number of stakeholders including, the Public Works Commission. All comments will be incorporated into the final draft that will be presented to Town Council for their adoption on October 20th. Recommendations include a phased implementation plan that could start with the expansion of the current taxi voucher program to ultimately a plan that could include the entire Town being serviced by a private microtransit company with regional service to the Ridegate RTD Station. Transit recommendations are not funded and resources would need to be balanced with other transportation needs in Town.

## 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 vehi-

cles 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. Fleet Services received and put into service one new Ford Escape Hybrid this past month for the DoIT Department. This new hybrid vehicle should get approximately 45MPG which should save the Town on fuel expenses.



The Fleet Division was very productive and that shows in our benchmark comparisons listed below. The Fleet Division billed out \$71,000 of parts and labor and completed 117 work orders. Technicians Chris Selheim and Eric Dena completed advanced circuit and electrical testing training from the Automotive Training group.

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

**Outcome:** Fleet team completed 82.7% 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.

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

**Outcome:** Town vehicles and equipment were available 98.6% 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 71.4%. This productivity number was a very good considering the difficulty in getting some parts.

Overall we completed 117 work orders and processed \$71,000 in parts and labor and another \$24,000 in fuel transactions.

## Street Operations & Maintenance Division

During the month of **September**, the Street Operations & Maintenance Division (O&MD) carried out operations in a number of core functionalities as well as preparing for the upcoming winter season.

The Streets team performed work in the following maintenance operations:

- \*Asphalt Patching & Pothole Repair
- \*Pre PMP Crack Sealing

- \*Sweeping
- \*Special Operations

### Asphalt Patching and Pothole Repair

In the month of September, Streets crews completed two patches for Castle Rock Water as well as 9 other patches in Town. In following the system of periodic inspection and repair, the crews also completed pothole repairs on both concrete and asphalt pavements in the Meadows subdivision. In all the team used 52 tons of hot mix and 1800 lbs. of concrete in making these repairs.

### Sweeping

Crews have begun to perform the Fall sweep in the month of September. Being careful to avoid areas with large trees as they have yet to drop their leaves. So far the team has swept 93 lane miles of the almost 700 lane miles in Town. During this process the sweeper operators have picked up 82 cubic yards of material from the roads here in Castle Rock.

### Pre PMP Crack Sealing

In September, Streets crews completed all 17 lane miles of crack sealing in preparation for the 2021 pavement maintenance program using 17,600lbs of material in the North PMP area.



### Special Operations

Crews also worked to update and present the annual snow plow driver training. The power point was upgraded extensively to offer a deeper understanding of how to operate the plow equipment as well as the levels of service expected from the program. Crews also drove a course in the Public Works cold storage yard honing their skills while the snow managers rode along with them.



### Looking Forward

In the month of October crews are expected to continue the Fall sweep assuming the leaves fall more rapidly. Also ,crews will be working to wrap up the majority of large asphalt projects for the season with hot mix plants beginning to slow down production. The Fall mowing session should likely be completed in the month of October as well, crews have held off on this task due the high fire dangers in Town.