



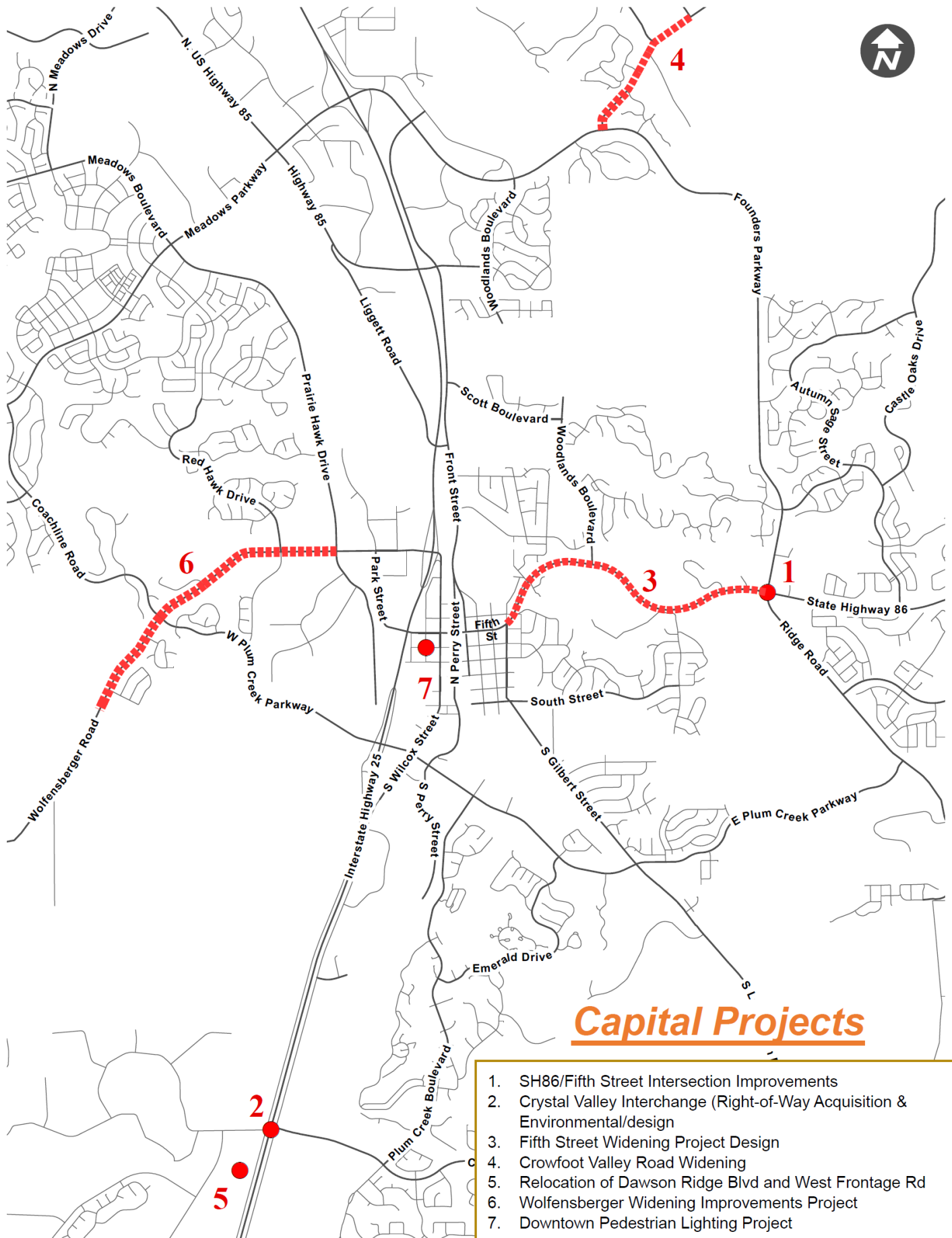
# Monthly Report

December 2024

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. SH86/Fifth Street Intersection Improvements
2. Crystal Valley Interchange (Right-of-Way Acquisition & Environmental/design)
3. Fifth Street Widening Project Design
4. Crowfoot Valley Road Widening
5. Relocation of Dawson Ridge Blvd and West Frontage Rd
6. Wolfensberger Widening Improvements Project
7. Downtown Pedestrian Lighting Project

**1. Founders Parkway (SH86)/Fifth Street Intersection “Four Corners” Improvements**

– This project will enhance one of the primary intersections in Town. Founders Parkway, SH-86, Ridge Road and Fifth Street intersect at the project location. Each leg of the intersection is classified as a major arterial facility and the intersection is currently operating above its capacity. The improvements this project will implement include:

- Intersection will remain a full movement four-way intersection. Additional turn lanes and acceleration lanes will be added.
- Traffic signal improvements will be made to incorporate the larger intersection.
- Pedestrian and bicycle improvements will be constructed on all four sides of the project.
- Stormwater detention and water quality improvements will be constructed to capture the additional surface volume from the new intersection.

**Phase: Construction**

- Roadway has been opened
- Temporary stabilization has been placed on all areas that did not get final stabilization
- Punchlist has been sent to HEI Civil who is required to provide a schedule for completion of remaining punchlist items in Spring of 2025
- Ongoing issue with shoring area 2 on MSE wall has been analyzed by engineer of record and their recommendation for remedy has been provided to HEI Civil
- Liquidated damages will continue to be assessed until shoring area 2 is remedied per the recommendations
- Church driveway has been completed and plowing operations have been turned back over to Emmaus Church

**Budget:** \$12,400,000

**Targeted Construction Completion:** Winter 2024

**2. Crystal Valley Interchange – Construction Activities** – The purpose of this project is to build an interchange with I-25 in the southern end of Town which will reduce congestion at the Plum Creek interchange, on S. Wilcox and the E. Frontage Rd., and improve access to the highway for Crystal Valley Ranch, Montaine, and the future Dawson Trails developments.

**Phase: Construction—Package 1**

**Budget:** \$17,196,090.70

- Package 1 is nearing substantial completion
- Remaining finish grading, stabilization and trail improvements remain.
- Kraemer plans to request substantial completion in February - March of 2025
- Package 1 will be completed within budget

**Phase: Construction—Package 2**

**Budget:** \$78,400,000 total Construction funding

- Embankment has been completed on westside for abutment 1, pile driving has commenced and will continue through early February
- Work continues on piers 3 and 4 to ensure pier caps are

in place for girder set

- Girder set is tentatively planned for mid-February which will include closures of I-25 and various other traffic control plans that are being coordinated by the project team
- Outreach will be provided late January for upcoming closures
- Storm sewer installation continues on west side for the new portion of Dawson Trails Blvd
- Forming for abutment 5 continues on east side

**Targeted Construction Completion:** Summer 2027

**3. Fifth Street Widening—Pre-construction** – 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 fully built-out transportation network from South Gilbert Street to Ridge Road in two separate construction phases. The improvements include:

- Widen to 4-lanes from Woodlands Boulevard to Ridge Road
- Add on-street bike lanes between Gilbert Street and Ridge Road
- Add sidewalks from Sixth Street to Ridge Road
- Roundabout and signal light construction at Woodlands Boulevard and Valley Drive respectively.

**Phase: Design & ROW**

- Continued to refine construction documents addressing CDOT comments
- Negotiations with a number of property owners continue for purchase of properties
- Closed on five property acquisitions
- Three offers made for property acquisition adjacent to Town right-of-way
- Continue utility coordination for relocations

**Budget:** \$3,200,000

**Design Completion:** January 2025

**Right-of-way acquisition:** February 2025

**\*Targeted Construction Completion:** Phase 1: Late 2026, Phase 2: Late 2029

**4. Crowfoot Valley Road Widening** – This project involves the widening of Crowfoot Valley Road from the intersection of Knobcone Drive to the Town boundary. The objective of this project is to reduce congestion due to current and forecasted traffic volumes, as well as safety improvements for both vehicles and pedestrians alike. The project will include:

- Roadway widening to four through lanes
- Right and left turn auxiliary lanes where warranted
- Signal at Sapphire Pointe intersection
- Complete sidewalks throughout the project corridor

**Phase: Design & ROW**

- Transmitted offers to four (4) property owners along project for needed right of way and easements
- Began negotiating with four property owners for purchase of land and easements
- Continued CORE electric relocations on-site

**Budget:** \$810,000

**ROW Acquisition:** Early 2025

**Design Completion:** 2024

**\*Targeted Construction Completion:** Late 2025

**5. Relocation of Dawson Ridge Blvd and West Frontage Rd—**

The purpose of this project is to relocate the I-25 West Frontage Road 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: Construction** – The following is a summary of the activities performed this month:

- Floors and wingwalls of the southern box culvert poured and walls are being formed
- Contractor is forming the floor and wingwalls of the northern box culvert
- Construction of storm pipe and storm ponds continues
- County continued construction on their portion of Dawson Trails

**Budget:** \$11,555,000

**Targeted Construction Completion:** Summer of 2025

**6. Wolfensberger Widening Improvements Project—** Wolfensberger Road is a major arterial connection for local and regional travel between the westerly portions of Town and I-25. Roadway and pedestrian improvements for Wolfensberger 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 Wolfensberger Widening Improvements Project will complete all design elements for the implementation of the fully built out transportation network from the western Town limits to Prairie Hawk Drive.

- Widening roadway to a full 4-lane arterial section between Prairie Hawk Drive and Coachline/Plum Creek Pkwy. 2-lane arterial from Coachline/Plum Creek Pkwy to Town limits.
- Addition of sidewalk along both sides of Wolfensberger
- Roundabout construction at Red Hawk/Auburn and Wolfensberger Intersection
- Removal of existing traffic signal
- Stormwater drainage improvements
- Implementation of on street bike lanes West/East bound

**Phase: Planning/Design**

- Right of way acquisition will continue through-1st quarter 2025
- Design start up has been pushed to 2029
- Legal has drafted offer letters which will be send out

upon Jacobs Engineering completion of legal descriptions

**Budget:** \$2,500,000

**Design Completion:** TBD

**Right of Way Acquisition:** 2024

**\*Targeted Construction Completion:** TBD

**7. Downtown Pedestrian Lighting Project –** This is a project to install pedestrian lights to improve public safety, visibility, mobility, and access to destinations Downtown by installing new pedestrian light fixtures to increase lighting levels.

- Town staff continued to review and approve contractor submittals for the project. Notice to Proceed (NTP) to Morton Electric occurred last week, in early January.

**Budget:** \$600,000

**Construction Completion:** Spring 2025

*\*These schedules are subject to change based on adjusted revenue forecasts and results of bids received.*

**Traffic Signal System Upgrades –** This is a multi-year project which is on-going as funds are available. The project has included proven technology advances at signalized intersections for safety and efficient daily operations.

- Staff is a part of the CDOT managed, adaptive signal system project that has implemented adaptive signal timing on Founders Parkway, and Meadows Parkway, and Factory Shops Boulevard. Eight abutting Town signals are included in the system. Before and after comparison of travel time and number of vehicle stops in operations will be made.
- Staff initiated the Connected Vehicle hardware installation project by completing the procurement process for connected vehicle hardware. Steps to program, test, and install the first Roadside Unit (RSU) and Onboard Unit (OBU) hardware will now begin. A meeting with key staff in Fleet, Streets, DoIT, and Traffic teams took place and the project outline was reviewed. This is a two-year effort that is now underway.
- The Town received ADA accessible pedestrian push button equipment and will be installing the system at 3<sup>rd</sup> and Wilcox Street in the first quarter of 2025.

**Budget:** \$868,700

**Targeted Construction Completion:** April 2026

**2024 Safety Project –** This project includes concrete safety devices in conjunction with the Pavement Maintenance Program, installation of pedestrian crossing beacons (RRFBs) at six locations, Intelligent Transportation System (ITS) on Meadows Blvd to warn drivers of signal changes and queue awareness, and intersection and corridor safety improvements.

- Town contractor Adiona Transportation Systems completed the install of the sign posts and beacons, as well as replaced the traffic signal cabinet at Meadows and Limelight to support the system.

**Budget:** \$410,000

**Targeted Construction Completion:** Close of 2024



# Engineering Division

## 2024 PMP

### Miscellaneous Concrete Project

The contractor has received their CDOT permit and was able to complete the work on Meadows Parkway. The project is 100% complete.

## 2025 PMP

Bid books were posted for competitive bidding for the following projects the week of December 16th.

- Asphalt Mill and Overlay
- Roadway Reconstruction
- Slurry Seal
- Curb, Gutter and Sidewalk Replacement

Pre-bids and bid openings are scheduled for January 2025.

### 2025 Bridge Maintenance Program

Bid book was posted for competitive bidding. Pre-bid and bid opening are scheduled for January 2025.

### 2025 Facilities

Bid book was posted for competitive bidding for the following Parking lots

- Fire Station 155
- Philip S. Miller Park
- Rock Park

Pre-bid and bid opening are scheduled for January 2025.

# Transportation Planning & Traffic Engineering Division

### Taxi Voucher Program

For the month of December, the Taxi Voucher Program funded 99 rides; which is a 60% decrease from last year's December total of 165, and a 5% decrease from last month's total rides (104). Transportation services are provided for Castle Rock citizens who cannot drive, have a disability that prevents them

**Illuminated Street Name Signs** – Staff continued the installation of remaining signs with Lighthouse, the signal contractor for the Wolfensberger and Park, and Four Corners projects. Signs were installed in December at Wolfensberger and I-25 ramps, Plum Creek and Perry St., and Founders Pkwy. and Front St. The remaining location, Plum Creek Pkwy. and the Fairgrounds, was held up due to hardware issues and is scheduled to be completed next month.

**Budget:** \$73,582

**Targeted Construction Completion:** January 2025

**Safe Streets for All (SS4A) Safety Action Plan** – The Town was awarded a SS4A grant to create a Transportation Safety Action Plan (CSAP). The plan aims to expand on the biennial Crash Facts Report to identify a High Injury Network (HIN) and High Risk Network (HRN) and focus on making improvements in areas with a high potential for crash reduction.

- Fehr & Peers (F&P) incorporated comments from the Town Manager Office, Fire Chief, Police Chief, and Communications to obtain their endorsement of the community plan.
- Fehr & Peers (F&P) created an interactive dashboard of crash history, which is in the process of being transferred to a Town server for on-going support and hosting by the Town.
- The project schedule is to complete the plan this month and present it to Public Works Commission and Town Council for adoption in January.

**Budget:** \$300,000

**Targeted Plan Completion:** February 2025

**2025 Safety Project** – This project includes concrete safety devices in conjunction with the Pavement Maintenance Program, installation of pedestrian crossing beacons (RRFBs) at priority locations, and identified intersection and corridor safety improvements within the available budget.

- Safety projects in the PMP focus region for 2025 are currently being evaluated and will be finalized in the first quarter of 2025.
- The RRFB location list has been updated and prioritized. The top 13 locations are being reviewed more closely and being cost estimated for staff recommendation. By next month a recommendation for procurement and installation locations is planned.
- Projects that were identified and not completed last year are still being prioritized for implementation. This includes pedestrian and ADA improvements at Meadows Blvd. and North Meadows Drive; striping and speed management improvements at Plum Creek Pkwy and Auburn; striping and access safety improvements at the Plum Creek/Wolfensberger/Coachline roundabout; and speed management and striping improvements on Coachline Road from the Ridgeline trailhead to the roundabout.

**Budget:** \$431,000


**Construction Completion:** Close of 2025.

from driving, or do not have access to a vehicle. In December, 19 individuals used the Taxi service. Of those individuals, 90% of the rides were for work, 4% for shopping trips, and 6% for medical appointments. Forty-three rides were provided for people without access to a vehicle, 30 rides to seniors, and 26 rides to disabled riders.

The Castle Rock Senior Center provided a total of 981 rides in December.

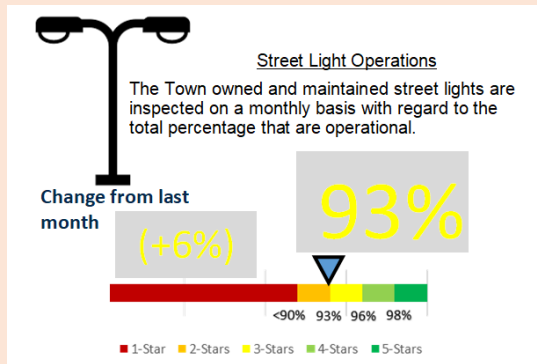
### Traffic Engineering and Operations

#### Traffic Signal Operations and Maintenance

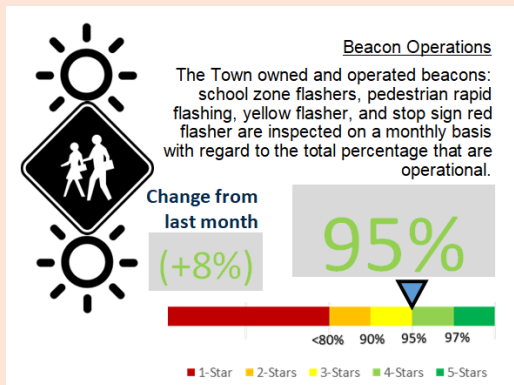


- Annual preventative maintenance was completed at all our intersections in December.
- The signal cabinet was replaced at Meadows Pkwy and Lime Light as a part of the advanced beacon project.

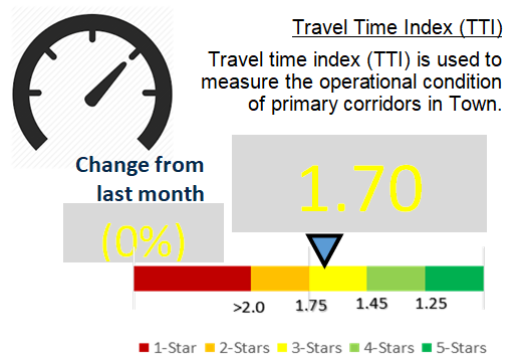
#### Street Light Operations



#### Beacon



#### Operations



#### Street Signs, Beacons and Pavement Marking Maintenance

For the month of December, the team completed 697 tasks. Of these tasks, 158 of them were sign work activities related to fabrication, install, repairs, replacements, inspections and investigations. Four hundred thirty-three (433) tasks were marking work activities related to fabrication, install, repairs, replacements, inspections and investigations. We had 62 beacon field inspections. Other tasks included 20 small projects, one locate, one delineator and 22 tasks related to streetlight fixtures. The team also provided support for two snow events 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 residential collector roadways. There were no new inquiries received in December. Staff notified the point of contact on Greenwater Circle that the street did not meet the minimum criteria to qualify for the program. While the 85<sup>th</sup> percentile speed was measured at 30 mph, the volume was well below the 500 average daily traffic volume threshold. Staff is still waiting for the results of the speed study for Canyon Drive. Staff is also waiting for residents to return the petitions for other streets before speed studies can be ordered. Staff sent the ballots for modifying the center median circle on Rising Moon Way. Ballots were due December 27<sup>th</sup>. Staff will count the ballots in January and notify the point of contact of the results of the vote. If approved, the circle will be removed and a speed hump will be installed next spring.

##### Transportation Master Plan (TMP) Traffic Projection Update:

Town staff has received the final report. The last invoice was submitted and the project is being closed out. The Town also received the ADA compliant version of the report to place on the project webpage. The Engineering Division is currently estimating construction costs for each project listed in the report. Upon completion, the report will be presented to Public Works Commission and Town Council.

### **Douglas County Transit and Multimodal Study:**

Public engagement is scheduled to begin early this year. The project team and consultant (Fehr & Peers) has been asked to present the study to Town Council in February. Fehr and Peers presented potential sub-regional transit service in the northern part of the County including a route between Lone Tree and Castle Rock. Town staff is scheduled to discuss this route and transit in general with the consultant in January.

### **Transit Projects:**

#### ***Federal Transit Administration (FTA) – Castle Rock Small Urbanized Area (UZA) Designation:***

The IGAs between the Town, City of Castle Pines and Douglas County have been completed. The task order with Benesch consulting will be finalized and the notice to proceed issued in January. The study is expected to take between 8-10 months to complete. A number of issues will be explored, including impacts of being designated a direct recipient, governance structure, funding, and conceptual services.

#### ***CDOT's Castle Rock Mobility Hub:***

CDOT and their consultant RS&H are scheduled to discuss the mobility hub with Town Council in February. Town staff will meet prior to the Council meeting in January to discuss topics and parameters of the Council discussion.

#### ***Front Range Passenger Rail (FRPR):***

No update: Town staff and staff from the FRPR are still planning to meet early next year to continue discussions about a potential train station in Town. Discussions will also include the station location.

## **Fleet Services**

As you drive around Castle Rock and see the different departments providing first-class service throughout the community, you will notice how they rely on their Town vehicles. The Fleet Division takes pride in knowing that those vehicles are reliable and safe to operate and that they are providing a service for our community and our residents. Our services support the Police and Fire Departments, Public Works, Parks and Recreation and Castle Rock Water. We also support the important functions of Development Services, Engineering, Traffic, Signs and Markings, the Recreation and Activity Center and Town Hall.

The Fleet Services Division completed 117 work orders in December. Staff focused on closing out 2024 with asset inventories and completing active jobs. The Parts team had a very successful inventory that included new police equipment for new vehicles.

Cycle counts performed throughout the year contributed to low variances and increased accountability of these valuable assets. Our Fleet Technicians did a great job in 2024 by completing 1612 work orders for jobs ranging from preventative, general and capitalization of vehicles. Their efforts resulted in a 97% fleet availability for all of 2024 and adding new vehicles to the fleet. Staff have done a remarkable job of making necessary repairs and installing new equipment for 46 new vehicles in 2024. Another 31 surplus vehicles from 2024 replacements are scheduled for decommission and public auction in early 2025.

Looking forward to 2025, the Fleet Services Division will continue to grow and produce at a high level. New vehicle selections and design specifications are currently in progress for various asset classes. Replacement vehicles will likely trend downward in 2025 while new additions for Police and Fire are expected to increase significantly. Sourcing of emergency equipment is also currently in progress to upfit the new police vehicles and work trucks in 2025. The increased demand for Fleet Services has us looking to replace a Fleet Technician in early 2025 and potentially adding another this year or next to address our increased work load. Bay and storage space is also an issue that will need to be addressed in our 5-year plan. Thank you to the Fleet Services staff for their contributions to the Town of Castle Rock and keeping the Town on the move.

Below are photos of some of the new assets added to the fleet in 2024.



## **Street Operations & Maintenance Division**

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

- \*Asphalt Maintenance
- \*Crack Seal & Mastic Operations
- \*Verge Maintenance
- \*Snow/Ice Control Operations
- \*Ice Breaking

### **Asphalt Maintenance**

The crew devoted 397 hours to various asphalt repairs, most of which were pothole repairs. The potholes consumed 4160 lbs. of cold mix asphalt to repair the equivalent of 277 potholes. In addition to this, 20 tons of hot mix asphalt was used for the last full depth patches of the season. The asphalt plants have shut down for the winter so the primary repair focus will be on potholes for the next few months.

### **Crack Seal and Mastic Operations**

With the conclusion of Pre-PMP (Pavement Maintenance Program) crack seal operations, the team took advantage of mild weather to get ahead of the spring season Maintenance crack seal operation.

The team worked over 105 hours, covering roughly 8.58 lane miles in the Founders area. Winter is the best time for this operation as the cracks are at their widest and the ambient temps are more merciful to the crew when compared to the heat of July.

### **Snow and Ice Control Operations**

Only one minor snow storm initiated the deployment of plows. The crews worked 260 hours to mitigate cold temps and ice buildup on the roadways. The major concern for this storm was icing. 243 tons of salt was required to keep Castle Rock rolling. Only 2.4 inches actually fell for the month.

### **Ice Breaking**

The cold temperatures resulted in an early deployment of the ice breaking crews. Ice breaking operations typically occur in January and February, but the Division maintains the flexibility to respond to meet the need when it does arrive. The crews worked 110 hours to clear 3 lane miles in response to 10 concerns.

### **Verge Maintenance**

Road Verge doesn't go away in the wintertime and the crew works to keep it maintained with trimming, shouldering, and trash pick up operations. In total, 140 hours were used to remove 63 bags of trash from the roadways, re-establish 1.28 edge line miles of road shoulder, as well as trim trees to maintain sight radius.

### **Looking ahead**

For January, the primary focus is the mitigation of the impacts of winter weather on the Town's roadways. Ice breaking and pothole repairs will also be a prime focus for the next month.