

# Report for the City Manager

## Community Services: Engineering

Date: October 7, 2024

The purpose of this document is to summarize the work the City of Dover Engineering Department from September 1<sup>st</sup> through September 30, 2024.



**Engineering**

Community Services | Dover, NH

Ken Mavrogeorge, PE – City Engineer  
Bill Boulanger – Special Projects Advisor  
Amelia DeGrace – Assistant City Engineer (Utilities)  
Jillian Semprini, PE – Assistant City Engineer (Transportation)  
Eric Sanderson – Facilities Project Manager  
Jamie Stevens – Waterfront Construction Manager  
Jordan Chambers – Engineering Technician  
Tim Puls, PE – Environmental Project Manager  
Brenna Weston – Engineering Intern

### **Staffing Update:**

Please join the Engineering Department in welcoming Timothy Puls, PE to the City of Dover as the Environmental Project Manager. Tim comes to Dover after spending time in the private sector working for Underwood Engineers. Tim, Professional Engineer and graduate of the University of New Hampshire, spent many years studying and working at the UNH Stormwater Center conducting research into various types of best management practices for the treatment of stormwater.



Figure 1: New Environmental PM,  
Tim Puls, PE

### **Staff Workload:**

In addition to their daily project management responsibilities, the City's Engineering staff also participate in the following Commissions, Committees, and Boards as either activate members or staff liaisons.

**Dover Utilities Commission (Amelia DeGrace):** The Dover Utilities Commission (DUC) met on September 16<sup>th</sup>. There was no old business. The Commission discussed the upcoming Apple Harvest Day event on October 5<sup>th</sup> in which the Energy Commission is hosting an event in City Hall. The Commission reviewed the Utilities and Finance Reports. There were no abatement requests.

**Transportation Advisory Committee (TAC) (Jillian Semprini):** TAC met on September 23<sup>rd</sup> and discussed pedestrian crossing requests at WDH and concerns from residents at Henry Law Avenue and Tennyson. The next meeting is scheduled for November 25, 2024.

**Planning Board (Ken Mavrogeorge):** Planning Board met on September 24<sup>th</sup>. Topics on the agenda included reviews for an extension of Crosby Road, a new commercial building for a landscaping business on Crosby, a minor lot line adjustment, and a minor subdivision.

**Municipal Alliance for Adaptive Management (MAAM) (Director John Storer and Tim Puls):** MAAM met on September 26<sup>th</sup>. Director of Community Services John Storer and Environmental Project Manager Timothy Puls attended the meeting in Rochester, NH. Adaptive Management Plan Revision 2024 was discussed and voted upon.

Seacoast Stormwater Coalition (SSC) (Tim Puls): The SSC met on September 18, 2024 in a virtual setting. Topics of the meeting included the following:

- MCM#1
  - Pet Waste Pledges
  - Septic Smart Week
- PTAP 2024 Nutrient Reductions
- EPA Update

The next Coalition meeting is scheduled for October 16<sup>th</sup>.

TIF Advisory Committee/Cocheco Waterfront Development Committee (CWDAC)/Park Subcommittee (Jamie Stevens):

- CWDAC met on September 17<sup>th</sup> to tour the waterfront development via vehicle and review various waterfront project updates including public and private component, the pump station upgrades, and a potential lease of space to Great Bay Rowing.
- TIF Advisory Committee did not meet.
- The CWDAC Park Sub-committee did not meet.

### **Customer Service:**

In addition to supporting other City Departments and working on Capital Projects, Engineering staff takes Service Calls from the public and responds to them as quickly as they can. The team meets regularly to review open Service Calls and discuss how to respond. The Table below shows the total calls year to date and over the past month.

Time Period	Logged Service Calls	Resolved Service Calls
2024 YTD	134	141
Sept 2024	16	29

### **Public Outreach:**

The Engineering Team routinely provides updates to Media Services for the various projects that are shared in advance of public meetings, major milestones, or in the event of a service shutdown or temporary road closure. Anyone can sign up for project specific updates.

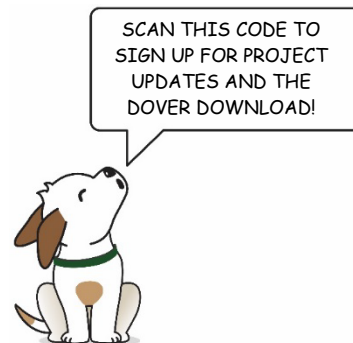


Figure 2: Rover the Community Services Dog and a QR Code to sign up for project specific updates and the Dover Download.

Apple Harvest Day:

Engineering staff met in September to plan displays for the 40<sup>th</sup> Apple Harvest Day which was scheduled for Saturday October 5<sup>th</sup>. New Community Service Banners were created this year to highlight the various services that the Department provides across all of the divisions. Magnets were created to provide quick access to the Service Request Portal.

Water Service Line Inventory:

The United States Environmental Protection Agency’s (EPA’s) revised Lead and Copper Rule (LCRR) requires all community water systems to prepare a service line inventory by October 16, 2024. This revision is in response to the Flint, MI water crisis; inventories will be available to the public and will be used to identify service lines with potential lead contamination.

The inventory has been a true team effort, with the Office of Information Technology (OIT), Community Services Utilities, Water & Sewer Billing, Media Services, and Engineering all pitching in. NHDES awarded the City a \$75k grant to prepare the inventory.

The inventory work to date includes identifying approximately 10,000 service line locations, which the team will need to identify the service materials for. In order to determine the materials of service lines, staff must comb through record drawings, water tie cards, and other City documents. To help staff identify materials for services lines, an online survey has been developed and is currently live through the City’s website for the public to submit information on their water service. Approximately 580 responses were received during the survey.

Customers of the Dover water system can expect to receive a notice in November if the material of their water service has not been determined as part of the current inventory effort. A second opportunity to submit information to Community Service will be available later in 2024 as the inventory enters its next phase.

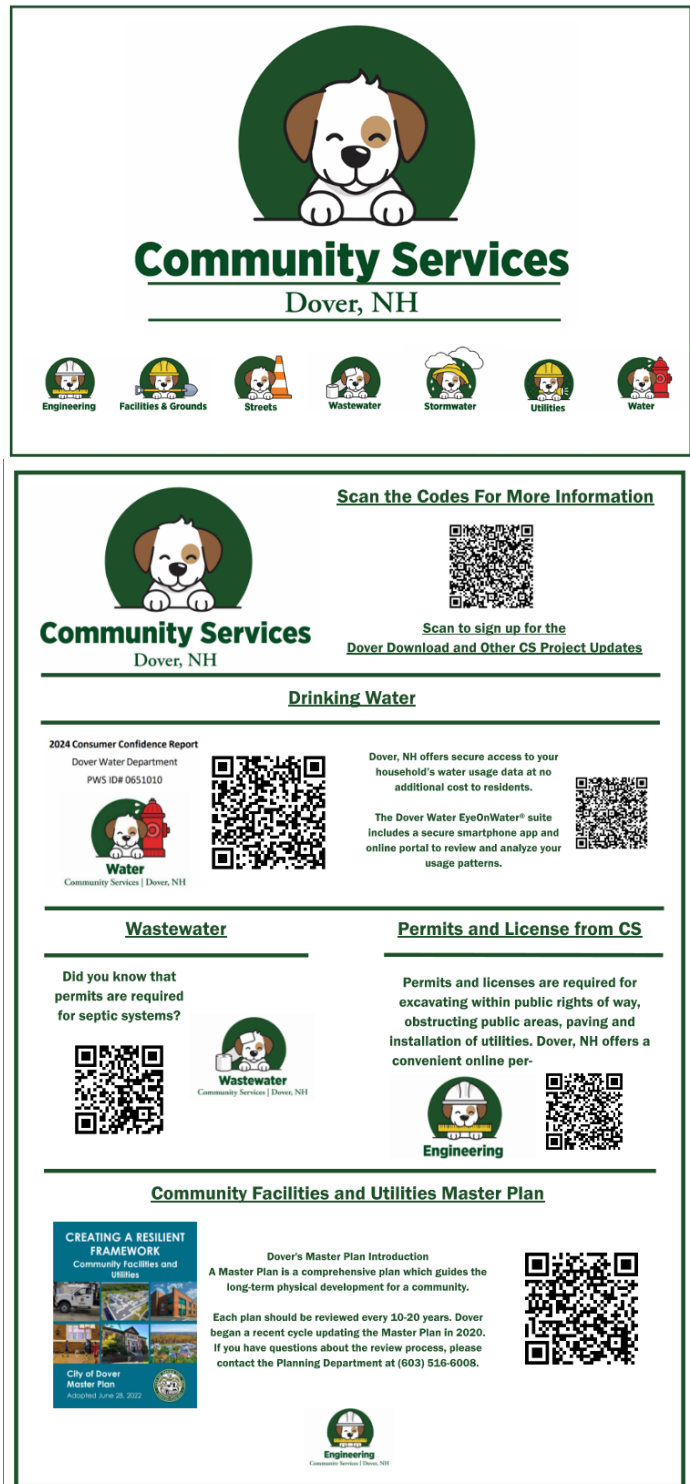


Figure 3: Apple Harvest Day Materials.

## Engineering Projects:

As noted above, the Engineering staff is actively supporting a number of projects across the city. The following are some highlights on just some of the active projects.

### Project Highlight: Crosby Road Drainage Evaluation



Figure 4: Full drainage channel at Crosby Road.

Each year the City of Dover allocates a portion of the operating budget to cover stormwater improvements. In order to determine the most efficient and effective ways to manage these funds, the City regularly hires consultants to conduct detailed engineering analyses. One such analysis recently kicked off for an evaluation of the Crosby Road Industrial Park.

Flooding of the properties along Crosby Road has been observed by, and reported to, the City of Dover. Based on these observations, it is assumed that the current system of roadside swales and culverts is in need of either increased maintenance or major rehabilitation.

The City's objective with the project is to determine what, if any, upgrades are required to the drainage system to ensure it functions properly for the foreseeable future.

However, insufficient accurate knowledge exists as to the existing characteristics (accurate mapping and physical details, hydraulic capacity, etc.) of the existing drainage system to know what the extent rehabilitation is required or the options for rehabilitation or upgrade.



Figure 6: Downstream of the CSX culvert looking back towards Crosby Road.

A Request for Proposals (RFPs) was released for a drainage evaluation for the Crosby Road Industrial Park and recently awarded to Engineering consultant VHB. VHB will be conducting document research as well as a combination of ground and aerial survey in the fall of 2024. These investigations will help the engineers determine recommendations for the City to implement. It is anticipated that the recommended improvements will need to be added to a future CIP and may include some need for a public/private partnership between property owners.

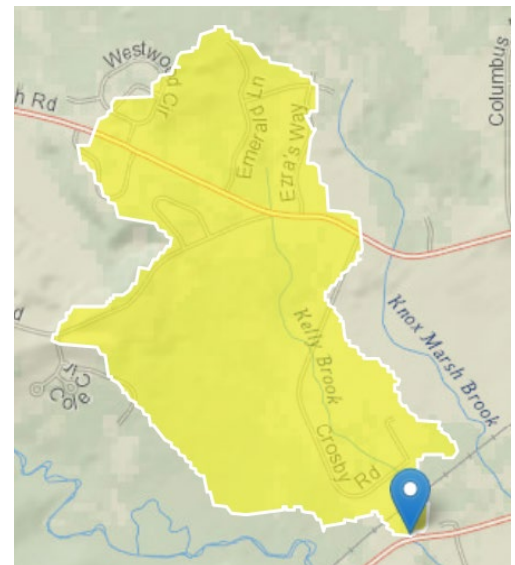


Figure 5: Watershed for the CSX culvert near Crosby Road.

### Adventure Park:

The Adventure Park Playground at Henry Law Park has undergone significant renovations. The project was coordinated by Facilities Project Manager Eric Sanderson and Special Projects Advisor Bill Boulanger. The renovations included the removal of existing wooden log retaining walls and their replacement with granite blocks and curbing. The Facilities, Grounds, and Cemetery staff constructed a new deck for the water pumps, painted the gundalow, and helped restore the park to its original state. MacKinnon and Sons Excavation was hired to perform the site work, with assistance from Community Services Utilities and Streets & Drains crews to position the large stones required for the project. To complete the renovations, three hundred yards of playground mulch was installed across the entire play area.

### Fifth and Grove Reconstruction:

The City's contractor continued to install drainage and water main within the project area in September. The Fifth and Grove project includes new utilities, accessible sidewalks, signage, and the complete reconstruction of the roadway.

As the project transitions from below grade work to finish work, roadway base materials will be excavated so that a new road section can be installed. This work will be closely followed by paving of the roadway in advance of the winter season. Traffic disruptions within the project area are expected intermittently for the rest of 2024 as the project progresses. Drivers are encouraged to sign up for project updates to keep up with proposed closures, detours, and shifts in traffic patterns to minimize delays. Alternative routes are available around the project site.

Patrons to local businesses are encouraged to sign up for notices too as parking restrictions on Fifth and Grove will continue through 2024 and into early 2025 in select areas as construction progresses.

### Portland Ave Retaining Wall:

The City's contractor, GW Brooks, continues to make progress on the project. The sidewalks and new street lighting were installed allowing Portland Ave to once again open to two-way traffic. A new guardrail will be installed when it arrives to the site to complete the project. It is anticipated that work will last until the end of 2024.



*Figure 7: Adventure Park Improvements are complete and the park reopened in time for Apple Harvest Day.*

Cochecho Waterfront Redevelopment:

Construction on the developer's project is progressing steadily. Foundations for Buildings C, D, and three townhome clusters have been completed. Vertical construction is underway on the elevator shaft and parking garage stair well in Buildings C and D. Subcontractors have mobilized to begin pre-slab installations for electrical and plumbing within the foundations. Electrical and telecom infrastructure has been installed on the exterior of Buildings C, D, E-1, and E-3.

Private utilities work is nearly complete within Parcels 1-4 and 1-6 to service Buildings C, D, E-1, and E-3 townhome clusters. Subgrade adjustments are in progress to prepare for base pavement in the common area.

The public improvements project continues to make significant strides. The Flex MSE shoreline treatment has completed the first phase of 400 feet and is continuing for another 200 feet. Electrical and telecom work in the roadway sections of Payne Street is complete, drainage elements have been installed, and water improvements include an 8" isolation valve and a lateral service for future building A. Roadway sub base materials are being installed, and the roadway is being prepared for base pavement installation in the first week of October.



*Figure 8: Foundation work on the private development continues with the construction of the elevator shafts.*



Figure 9: Utility duct bank installation in Payne Street progresses along in preparation for street reconstruction and paving.



Figure 10: Installation of the flexible mechanically stabilized earth wall (MSE) along the Cochecho River.

## Facilities Projects:

### Inspection Services Building Construction:

The Inspection Services construction project is progressing as planned. Excavation and foundation work were completed in August, followed by underground plumbing installation and backfilling. On September 25<sup>th</sup>, Mast Road was reopened to two-way traffic, and traffic signals were removed. Rough framing commenced in the final week of September, with an estimated completion date of late-October, weather permitting. Upon completion of the first-floor framing, Community Services staff will backfill the remaining exposed area along Mast Road. Concrete floors are scheduled to be poured on October 11<sup>th</sup>, marking the conclusion of the concrete work phase.



Figure 11: New Inspection Services' foundation is nearly complete.

### Library Interior Renovation:

The Dover public library interior renovation project is progressing steadily. The designer SMP Architects has been working on finalizing the plans and bid documents throughout September, and they are expected to deliver these important documents by the end of this month. Once the documents are released, they will be made public by the end of October, and interested parties will have until late November to submit their bids. The anticipated start of construction is this winter.



In preparation for the renovation, city staff has been actively working to finalize plans for the temporary relocation of the library during construction. The goal is to ensure that library services remain accessible to the community while the renovation work is underway.

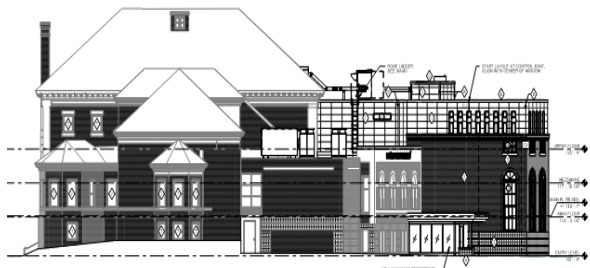


Figure 12: Library Renovation Renderings



### Jenny Thompson Pool Renovation:

The renovation of the Jenny Thompson Pool has been delayed until Fall 2025 due to the timing of expected bid submissions and seasonal weather conditions. The bid submissions are anticipated to take place between late November and early December. It was decided that it would be more advantageous to start construction next Fall (2025) after the summer swimming season concludes. The renovation project will include the replacement of gutters, drain lines, diving boards, pumps, decks, and deck drains.

### Ballfield Dugout repairs:

The ballfield dugout repair project is nearing completion. All structural repairs have been finished, and the roofing work is expected to be completed by mid-October. At Horne Street Park and Woodman Park, Covered Bridge Outdoor Construction has successfully repaired the dugouts and concession stands, and has also installed new metal roofing. The Shaw's Lane softball field dugouts have undergone significant structural repairs, and the roofing is anticipated to be finished by mid-October. Sullivan Drive has required the most extensive repairs, including leveling one dugout



*Figure 13: Horne Street baseball field dugouts and facilities received new metal roofs and fresh paint.*

and constructing a new retaining wall to prevent further settling. The roofing for Sullivan Drive is also expected to be completed by mid-October. Overall, the ballfield dugout repair project is progressing well, with the majority of the work already completed.

### Willand Emergency Warming Shelter:

The Willand Road Emergency Warming Shelter is undergoing seasonal pre-occupancy building improvements, with an expected opening date in mid-November. Over the summer, the water heater failed and was replaced under warranty by Dennis Munson Plumbing and Heating. Portsmouth Quality Flooring has been contracted to remove the existing flooring and install new vinyl tile flooring. The flooring installation is expected to be completed by mid-October.

### City Wide Access Controls and CCTV Installation:

Eric Sanderson, the Facilities Project Manager, has been actively working with the IT department to integrate a number of city buildings with Access Controls and Close Circuit Television systems. This comprehensive project aims to enhance security and improve overall building management efficiency.

To ensure that vendors have a clear understanding of the project requirements and can provide accurate and competitive bids, multiple walkthroughs have been conducted with these vendors. During these walkthroughs, detailed information about the specific needs and challenges of each

building was discussed, including existing infrastructure, security protocols, and desired functionalities.

By conducting these thorough walkthroughs, Eric and the IT department have been able to gather valuable insights and ensure that the vendors have the necessary information to develop tailored solutions that meet the city's specific requirements. This collaborative approach will help to ensure the successful implementation of the Access Controls and Close Circuit Television systems and contribute to a safer and more secure environment for city employees and residents.

The bid opening for this important project will take place on October 8, 2024, at 2 PM.

### **Permits and Licenses:**

#### Permit and License Summary for September 2024:

Driveway Permits:	13
Utility Licenses:	1
Paving Licenses:	1
Excavation Permits:	11
Certificate of Occupancy Inspections:	12
Construction:	1
Obstruction Permits:	1

#### Wastewater Permit Review Summary for September 2024:

Sewer Connection Permit:	3
Septic Design Reviews:	0

### **Site Review/Project Oversight Support:**

#### Technical Review Committee:

The City's Engineering staff typically takes between 1 to 4 hours for each review as part of the Technical Review Committee. The review focuses on engineering related design elements such as utilities (water and sewer), stormwater, parking lot layout and pedestrian pathways. To ensure that projects efficiently move through the TRC process, City Engineering staff is available for preapplication meetings with applicants. To schedule a meeting with staff, call 603-516-6450.

Three (3) projects came to TRC in September that required Engineering review:

- 103 Court Street – Residential Development
- 114 Silver Street – Residential Development
- Crosby Road – Roadway Extension and Subdivision



Figure 14: Mixed use development at 2 Grove Street.

Preconstruction Meetings:

There were no preconstruction meetings held in September.

Construction Oversight:

Engineering Technician, Jordan Chambers, continues to conduct oversight of over 65 private construction projects approved by the Planning Board. Projects that are underway or have been completed include:

- Tiny Home Development (Back River Rd.)
- Goosetail Dr (757 Central Ave.)
- 725 Central Ave Development (Central Ave and Brick Rd.)
- Medical Office Building (Durham Rd.)
- Northeast Credit Union (Education Way)
- Emerson Ridge (Old Oak St.)
- Ember Dr (New Rochester Rd.)
- Mixed Use Residential – The Station (2 Grove St)
- Waterfront Private Development
- Chase Bank on Central Ave
- 59 Tolend Rd.



*Figure 15: New tenant community center on Karolina Dr for the White Cliffs of Dover.*



*Figure 16: Foundation of 55 Pointe Place is moving along.*