



Workforce Plan Engineering & Public Works

January 2025

**Engineering &
Public Works**
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Version History

Version	Authored By	Date	Reason for Revision
1.0	J. Clary	11/27/24	First record of workforce analysis
1.1	J. Clary	01/10/25	Ready for 2025-2029 Financial Plan discussion

1. Department Profile

The Engineering & Public Works Department's core functions include:

- Operation, maintenance, and rehabilitation of engineering infrastructure, including:
 - Sewer lift stations = 13
 - Sewer pipes = 58 km
 - Sewer manholes = 975
 - Sewer forcemains = 4 km
 - Storm drain pipes = 67 km
 - Storm Drain Manholes = 1010
 - Roads = 52km
 - Traffic Signal / Flashing Crosswalk intersections = 43
 - Buildings:
 - Municipal Hall
 - Public Works Yard
 - Public Safety Building (temporary)
 - Chafe House
 - Fleet = 75
- Planning, design, management, and construction of capital projects related to above assets
- Solid waste services:
 - Garbage and kitchen scrap collection
 - Yard and garden facility (operated by contractor)
- Development and building permit review and administration related to engineering infrastructure

In 2023, Council identified and adopted the following six priorities:

- Climate Resilience & Environmental Stewardship
- Diversified & Thriving Economy
- Engaged & Healthy Community
- Good Governance & Organizational Excellence
- Housing
- Strong Relationships & Partnerships

Much of the core functions provided by the department align with the categories in the Council Priorities Plan. The below table identifies projects listed in the Council Priorities Plan that directly impact the department and that are in addition to the core functions listed above.

Project	Related Council Priority
Climate Action Plans	Climate Resilience & Environmental Stewardship
Integrated Resource Management	Climate Resilience & Environmental Stewardship
Implement Active Transportation Network Plan	Engaged & Healthy Community
Parking Strategy	Housing
Asset management Program – Sanitary Sewer, Storm Sewer, and Facilities Asset Management Plans	Good Governance & Organizational Excellence

2. Pressures for Change

2.1 Increase in Development Related Work

Within the Engineering department, there is one Engineering Technologist that primarily manages the review of offsite servicing, frontage works, and traffic/parking impacts for development and building permits. For every permit request, this person is responsible for identifying the required Works and Services through the Subdivision and Development Bylaw, then reviewing and approving this work once it's completed by the developer's engineer. Over the years, the volume of development in the Township has increased, directly increasing the department's workload.

In addition to the increase in volume of applications, the complexity of the applications has increased. The time to review the servicing and coordinate with the developer and their engineer is significantly longer as the complexity and impact to municipal infrastructure increases. These complexities have created new processes that either weren't in use in the past or were infrequently used but are now commonplace. Examples of this includes:

- Traffic impact assessments
- Sewer capacity assessments
- Encroachment agreements for underpinning and crane swings
- Right-of-way agreements
- Active transportation improvements on frontages
- Coordination of third-party utility works (BC Hydro, Telus, Rogers)

Staff have accommodated the increase in development workload through:

- Longer development review times
- Longer response times on development related correspondence
- Reassignment of tasks to other staff
- Increased involvement on development related work from Manager and Director

The longer review and response time affects levels of service, whereas the reassignment of work and increased involvement from others has a cascading effect on staff resources. For example, the management of road occupancy and construction permits, which are required when 3rd parties work in municipal right-of-way, was historically completed by the same staff person doing development reviews. Now, this work is shared between two other Engineering Technologists, as an increase in development work increases the need for more permits and management of the right-of-way. As a result, proactive work these positions are meant to do is no longer occurring.

The additional involvement from management on development related work has reduced management ability to provide strategic and long-term planning. The Manager of Engineering currently spends approximately 30% of their time on development work, which is significantly more than historic levels.

The increase in development work also impacts Public Works staff, as Public Works has historically completed the majority of the offsite improvements (examples: curb, gutter, sidewalk, and sewer and drain connections). Due to the increased demand and lack of additional resources, staff have started to take on less of the development work, relying more on the developer's contractor to complete these tasks. The results of the pressures created by the increase in development work, along with other pressures on Public Works, are explained further in Section 2.3 below.

2.2 Council Priority Projects

The projects in the Council Priority Plan are in addition to the department's core functions, placing additional demands on staff capacity. Staff have limited capacity to deliver on these projects. While staff have optimistically taken on this work in the past, confident in our ability to deliver, the increase in workload has added significant strain on the department's resources. As a result, staff have seen an impact on our ability to deliver on commitments over time, as the required resources to implement these projects have been underestimated. Below are specific examples of how these projects are being implemented and the pressures on staff.

Implement Active Transportation Network Plan

When the Active Transportation Network Plan (ATNP) was approved, Council approved a new Project Coordinator position (Engineering Technologist III), at the request of staff. The intent of that position was to lead the implementation of the ATNP through 50% of their workload and lead the implementation of the Inflow & Infiltration (I&I) program through the remaining 50%. Staff underestimated the workload required to deliver on the ATNP. Although projects have been implemented successfully, involvement from management has been significant and the time to implement these projects is increasing, delaying the overall implementation. It is estimated that at least 40% of the Manager of Engineering's time is assigned to ATNP related work. The Project Coordinator that was intended to only work 50% of the time on the ATNP, fluctuates from at least 80% of their time during construction of projects like Lampson and Tillicum, to minimal time outside of construction. During that time, the Project Coordinator is assisting on right-of-way management for major development sites and coordinating utility repairs with Public Works. This has resulted in sewer renewals through the I&I budget being stalled.

Public Works has been successful in implementing quality capital improvements in the ATNP, including the entrance to the Archie Browning parking lot off Lyall Street and the new sidewalk on Munro Street. The pressures of this and other pressures on Public Works is explained further in Section 2.3 below.

Parking Action Plan

The Parking Action Plan has several actions that will be led by the department and staff do not have the capacity to take on this new work. An example of this work is transitioning from Residential Parking Only to Permit parking. This is a significant task that takes resources to complete, along with the other tasks in the plan. The Action Plan identified a new staff person is needed at almost full time at the beginning, which would transition to as low as 20% of their time in future years when they will assist with road permits. Focusing only on this workload, staff identified an Engineering Technologist II to complete this work, when the information was presented to Council on July 8, 2024 (see Staff Report No. EPW-24-019 for further details). As the pressures identified elsewhere in this report are considered, staff are now identifying the need for a Project Manager in 2025. This person would initiate the roll out of the Parking Action Plan, then a new Technologist II could continue its implementation starting in early 2026.

2.3 Work For Others

As described above, the workload has increased for Public Works through developments and

capital projects. Further demands on Public Works outside of the core functions described above include:

- 3rd party utility repair (Public Works completes repairs to municipal infrastructure)
- Sewer maintenance for View Royal's pump stations
- Irrigation work in parks
- Traffic calming projects (examples: sign, bollard, and planter installations)
- Maintaining new types of infrastructure maintenance (examples: quick build bike facilities and traffic calming)

Although some of this work is minor at times or has always been work Public Works assists with, on the whole, it takes resources away from the core functions of Public Works. The department is not sized correctly to handle both its core functions and the additional work, resulting in a situation where there is more work than available resources to complete it. As all of the above work is cost recoverable or charged to capital works, Public Works consistently underspends its allocated operating budget and core work that is budgeted doesn't occur. It's not feasible to predict exactly what the impacts of this are, but over time we are starting to see evidence of this. Bus shelters and graffiti management are showing signs of being under resourced and staff are losing capacity to react to increase in graffiti. Crack sealing of roads to extend the useful life of the asset isn't completed annually as in years past. Catch basin cleaning to prevent flooding and environmental hazards isn't completed annually as in years past. To address these challenges, staff propose utilizing existing operating budget and capital projects to hire new staff.

3. Existing Positions

Roles	Current # of FTE Positions
Director	1.0
Office Administrator	1.0
Manager of Engineering	1.0
Engineering Technologist III	3.0
Engineering Technologist II	2.0
Manager of Public Works	1.0
Technical Support	1.0
Purchasing Clerk	1.0
Public Works Supervisor	1.0
Chargehands	6.0
Equipment Operators	2.0
Utility Operator	1.0
Labourer II	6.0
Truck Driver III	1.0
Refuse Collection	2.0
Building Maintenance	1.0
Mechanic Supervisor	1.0
Mechanic	1.0
Total Current FTEs	33

4. Additional/New Positions Required

Positions	Reason for Increase	Forecasted Position Needs			
		2025	2026	2027	2028
Office Administrator (Records Management; shared with Development Services)	To track records and assist in filing and retrieving records to ensure compliance with all statutory records management requirements.	+0.5			
Project Manager	<p>Manage projects currently being led primarily by Managers and Director. Example projects:</p> <ul style="list-style-type: none"> - Parking Action Plan - Sewer renewals - Asset Management Plans <p>Some large projects (example: Esquimalt Road Active Transportation Improvements) will still be led by the Manager or Director, but this role will take on some of the workload by leading projects independently.</p>	+1.0			TBD
Engineering Technologist II	To support and lead implementation of the Parking Action Plan, once the Project Manager above initiates the major actions. In future years when Parking isn't the primary focus, this role will manage road permits and right-of-way use. This will free up capacity for other Technologists that are meant to support asset management and project coordination.		+1.0		TBD
Engineering Technologist III – Development / Capital Coordinator	To complete development reviews and coordination, if the current level of development is sustained. If development decreases significantly, this role will complete capital project coordination as staff anticipate an increase in this workload through implementation of asset management plans. At this time, staff estimate this role to be shared between both functions. Staff will monitor workload and regularly reassess the specific need as workload evolves.			+1.0	TBD
Auxiliary Labourer II	The number of auxiliary workers to be determined on an ongoing basis, based on workload and available funding through existing operating and future capital projects. Historically Public Works would utilize this approach, but several years ago this	TBD*	TBD*	TBD*	TBD*

Positions	Reason for Increase	Forecasted Position Needs			
		2025	2026	2027	2028
	practice stopped. In 2023 staff were successful in hiring one auxiliary labourer who primarily supported the implementation of the new speed limit signs. Staff recommend continuing this practice as it allows Public Works to better adjust to workload demands.				
Labourer II	To increase capacity to support existing operating, cost recoverable work, and capital work. The 2025 increase will increase graffiti management to previous levels provided by Public Works. Requests in 2026 and beyond are to gradually create a new Capital Crew that will primarily be funded through capital projects (examples: sewer renewals and new sidewalks).	+1.0*	+1.0*		+1.0*
Truck Driver II	To increase capacity to support existing operating, cost recoverable work, and capital work. This position, along with the Labourer II in 2025, are meant to bring Public Works closer to baseline. This position will free up the existing street sweeper operator to complete street sweeping closer to full-time.	+1.0*			
Superintendent	Current supervisor manages 19 full time employees. This new position will provide additional staff management and planning capabilities. Currently staff are reactive, and this role will create capacity to do proactive planning.		+1.0		
Equipment Operator	To increase capacity to support existing operating, cost recoverable work, and capital work. This person will form part of a new Capital Crew (Chargehand, Operator, and 2 Labourers) that will primarily be funded through capital projects (examples: sewer renewals and new sidewalks).			+1.0*	
Chargehand – Capital Works	To increase capacity to support existing operating, cost recoverable work, and capital work. This person will form part of a new Capital Crew (Chargehand, Operator, and 2 Labourers) that will primarily be funded through capital projects (examples: sewer renewals and new				+1.0*

Positions	Reason for Increase	Forecasted Position Needs			
		2025	2026	2027	2028
	sidewalks).				
Refuse Collector	To address bus stop and Parks garbage, and increase graffiti / sanitation of bus shelters. Remaining 0.5 FTE coming from existing Parks operating for auxiliary staff.			+0.5	
* Expected FTE utilizing existing operating, cost recoverable work, and capital budgets to fund positions		2.0	1.0	1.0	2.0
Total new FTEs requiring new operating funding		1.5	2.0	1.5	TBD

The current workforce plan reflects the known pressures described in this report. As staff develop detailed asset management plans, staff anticipate an increase in maintenance and capital work to occur. This is reflected in the gradual increase in Public Works staff funded through existing operating and future capital works, with a full capital crew expected in 2028. Updated staff requests and forecasts to be regularly reassessed based on evolving workload demands.

5. Identified Risks

The following are identified as gaps or risks in the department:

- 5.1 Records management levels of service are currently not being achieved and will continue to not meet requirements. This results in potential legal liability.
- 5.2 Response time for development reviews and correspondence continues to decrease resulting in reputational impact or decrease in development.
- 5.3 Maintenance of assets decreases and expected levels of services are not met. This is currently evident at bus shelters and with graffiti management, but over time, this will become more apparent in other assets (examples: delayed filling of potholes, number of sewer backups increase, sinkholes occur).
- 5.4 Implementation of major projects continue to primarily be managed by Managers and Director, resulting in delayed implementation of the Council Priority Plan.
- 5.5 Staff continue to be reactive and deliver just in time or delayed results creating a lack of strategic and long-term planning. This will result in decreased levels of service and lost revenue opportunities (example: fees and charges for sewer and drain connections, and road permits are out of date, but management doesn't have capacity to adequately assess and implement changes).
- 5.6 Staff are operating at an unsustainable level that may cause fatigue or burn-out, resulting in poor staff retention.

6. Future Growth

- 6.1 This plan is based on current information and only anticipates an increase in workload identified in implementing upcoming asset management plans. Staff recognize that the development community plays an important role in demand for staff resources and is subject to change at any time. As such, staff delayed a request for support specific to development reviews until 2027 to allow staff to monitor demands and impacts of other changes in the plan.