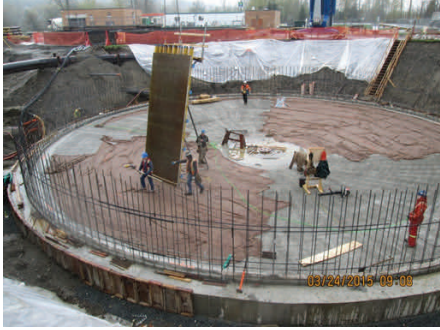


Engineering



Engineering is responsible for water and sewer, transportation and environmental services.

Third Quarter Report, 2015

Annis Road and Weeden Drive Pump Station



The Annis Road Booster Pump Station provides water service to the Falls development in the Eastern Hillside. Currently, it has reached its capacity due to the on-going development activities. Major mechanical and electrical upgrades including high capacity pumps are required to facilitate future growth in the area.

The Weeden Drive booster pump station serves a high elevation residential area of Promontory. The pump station requires an upgrade to provide backup fire flow pumping capacity. Major mechanical and electrical upgrades including BC Hydro service connection are required to accommodate the additional fire pump.

Norich Electric Ltd. is proceeding with the construction work of the project while Associated Engineering is providing required engineering services. The project is scheduled to be completed by the end of November 2015.

Camp River Road Water Main Installation

Camp River Road between Reeves Road and Standeven Road requires road rehabilitation works to improve the condition of the failing roadway. The performance review of the Camp River Road water main revealed that the 60 year old cast iron water main was prone to frequent breakages and should be replaced to avoid road repair work in the future and to improve water quality and reliability of the existing water supply in the local area.

The project consists of approximately 2,780m of water main installation along Camp River Road from Reeves Road to Standeven Road South and approximately 2,750 meters of asphalt level course and full road asphalt overlay to a maximum width attainable within the restrictions of private property, geometry, heritage trees and river bank.

Jakes Construction / ISL Engineering & Land Services Ltd design build team successfully completed the installation of water main and are currently in the process of completing road rehabilitation work. Construction of this \$1.25 million project is scheduled to be completed by the middle of October 2015.



Biological Treatment System Expansion Phase 1



The existing biological treatment system at the Wastewater Treatment Plant (WWTP) needs expansion to accommodate increased flows and loads due to growth as well as to meet discharge quality requirements in the future. The objective of this project is to construct a new Bioreactor Tank with associated equipment, a splitter Box and a third Clarifier to increase WWTP capacity and to maintain regulatory effluent quality requirements. NAC Constructors Ltd. / Opus DaytonKnight Ltd. design build team is currently proceeding with the construction work of this \$7.5 million project to be completed by the end of December 2015.

Southlands Drive Water Main Upgrade



The existing water main on Southlands Drive and Southlands Crescent between Elm Road and Roberston Elementary at 8580 Southlands Crescent requires upgrade to provide adequate fire protection to this important civic institution.

The project consists of approximately 110m of 250mm diameter DI water main installation along Southlands Drive and Southlands Crescent from Elms Road to the fire service connection of Robertson Elementary.

Jakes Construction / ISL Engineering & Land Services Ltd. design build team successfully completed this \$96,800 project before the commencement of school academic year in August 2015.

Chilliwack Mountain Zone 2 Pressure Reducing Valve (PRV) Station Upgrade

Chilliwack Mountain Zone 2 PRV station services residential development on the Chilliwack Mountain north face, and requires an upgrade to provide adequate fire flow to facilitate growth in the area. The Project consists of supplying a new PRV chamber complete with all valves and fittings and modifications to the existing water main. Supply of the PRV chamber was awarded to Coast Water Systems for \$62,500 after successful completion of Request for Quotation (RFQ) process. The installation of PRV chamber and water main modification works will be completed by Operations staff and the overall project is planned to be completed by end of 2015.



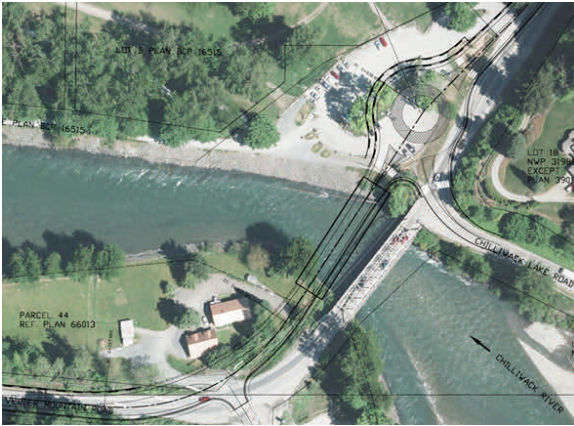
Well # 5 Testing



The City has identified the East Chilliwack Aquifer as the next source of water supply to augment the municipal water supply system. In 2013, Associated Engineering (AE) determined that it is possible to treat East Chilliwack Aquifer water for Iron and Manganese and recommended steps to bring the existing Well # 5 on-line.

Golder Associates was awarded the project after successful completion of a Request for Quotation (RFQ) process in July and currently completed all field work related to the project. This \$40,000 project is planned to be completed in November 2015.

Vedder Bridge Replacement



Requests for Expression of Interest were received from ten (10) Design-Build teams in August and on September 15th City Council authorized staff to advance the three lead proponents to the Request for Proposals (RFP) Stage.

- Martens Asphalt Ltd. / McElhanney Engineering Ltd.;
- Emil Anderson Construction (EAC) Inc. / Klohn Crippen Berger; and
- Surespan Construction Ltd. / Hatch Mott MacDonald.

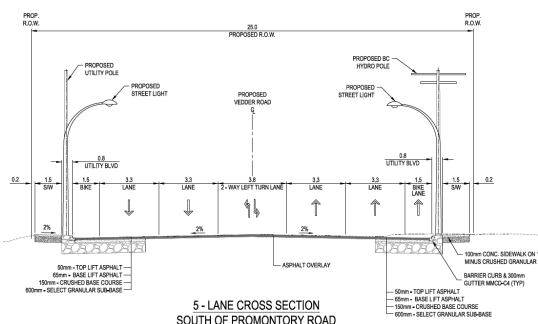
The release of the Request for Proposals (RFP) will be held until the Water Act Approval from the Ministry of Environment is received and additional geotechnical investigations have been completed.

Prest Road Roundabouts

Jakes Construction completed all required culvert works in September at both Bailey Road and Prairie Central Road. Road base preparation works began at both intersections with storm drainage works scheduled in October. BC Hydro continued pole and overhead relocation works at Prest and Prairie Central with anticipated completion in October. Telus and Shaw will follow BC Hydro to complete their necessary transfers. BC Hydro started new pole installation at Prest Road and Bailey Road in September.



Vedder Road South Pre-Design



During this quarter McElhanney Engineering has been finalizing the Vedder Road – Promontory to Chilliwack Lake Road Preliminary Design. This report includes updated engineering design solutions to consider roundabouts with a 4-lane cross section verses improved signalized intersections with a 5-lane cross section in order to provide improved vehicular movements and increased pedestrian and cyclist facilities, while considering safety, cost effectiveness and the performance of the designs. When complete the recommendations from this report will be presented to Council.

Concrete Works



City crews undertook the installation of concrete letdowns at a number of locations to help facilitate access for wheelchairs and strollers. These locations included:

- Existing midblock crosswalk on Broadway Street;
- Three new letdowns at the intersection of South Sumas Road and Sumas Prairie Road to facilitate new crosswalks; and
- Kipp Avenue and Edward Street.

In addition, City crews installed new concrete works to allow for the installation of street furniture at the following locations:

- Vedder Road and South Sumas Road (installation of bin);
- Young Road north of Olds (installation of bus bench and bin); and
- Wells Road east of Meadow Lark (installation of bus bench).

Roadway Markings

The roadway marking contract work is winding down for the year. The contract was awarded to Aardvark Pavement Marking Services. This year we saw the installation of approximately 475km of longline (yellow centerline and white lane lines). We also saw hundreds of thermoplastic applications including stop bars, crosswalks, zebra bars, “X” and arrows. Some parking stalls, “School” stencils, bike stencils and gore hatching areas were also repainted as part of the contract.

This year’s work included installation of numerous items to address safety and parking concerns. Most notably are the crosswalk installations near our school properties, shoulder line painting on Camp River Road and centerline painting on Weeden Drive and in the Garrison Crossing Area. As well as parking stall markings surrounding the Chilliwack Hospital Neighborhood.



Back to School



One of the largest projects the Safer City team undertakes each year is the “Back to School” enforcement and education project. This year 18 school zones were visited by the team with organized set ups. Safety Bear welcomed students on the first day of school at Bernard Elementary along with the Safer City team. The StarFM Kindness Crew worked with Sardis Elementary students and the Safer City team to reward drivers adhering to the 30 km/h zone in front of Sardis Elementary during week two of the project. The new variable message board has been moving from school to school with slow down school zone messages.

Safer City reached out to local businesses asking for their support by displaying “Back To School” reminder messages on their electronic or static roadside advertising boards. In total, 25 businesses rose to the occasion and displayed a number of safety messages. We appreciate businesses sacrificing their advertising space in an effort to collectively improve road safety in our local school zones.

Hey Neighbour, Slow Down

Both Conrad Street and Kathleen Drive neighbours took advantage of deploying the Hey Neighbour, Slow Down program this quarter. They deployed a maximum amount of signs and collectively took action on addressing speeding in their neighbourhood. The sign program increased knowledge of the program and initiated interest for other neighbourhoods where we hope to deploy the signs soon.



Yale / Vedder / Kerr

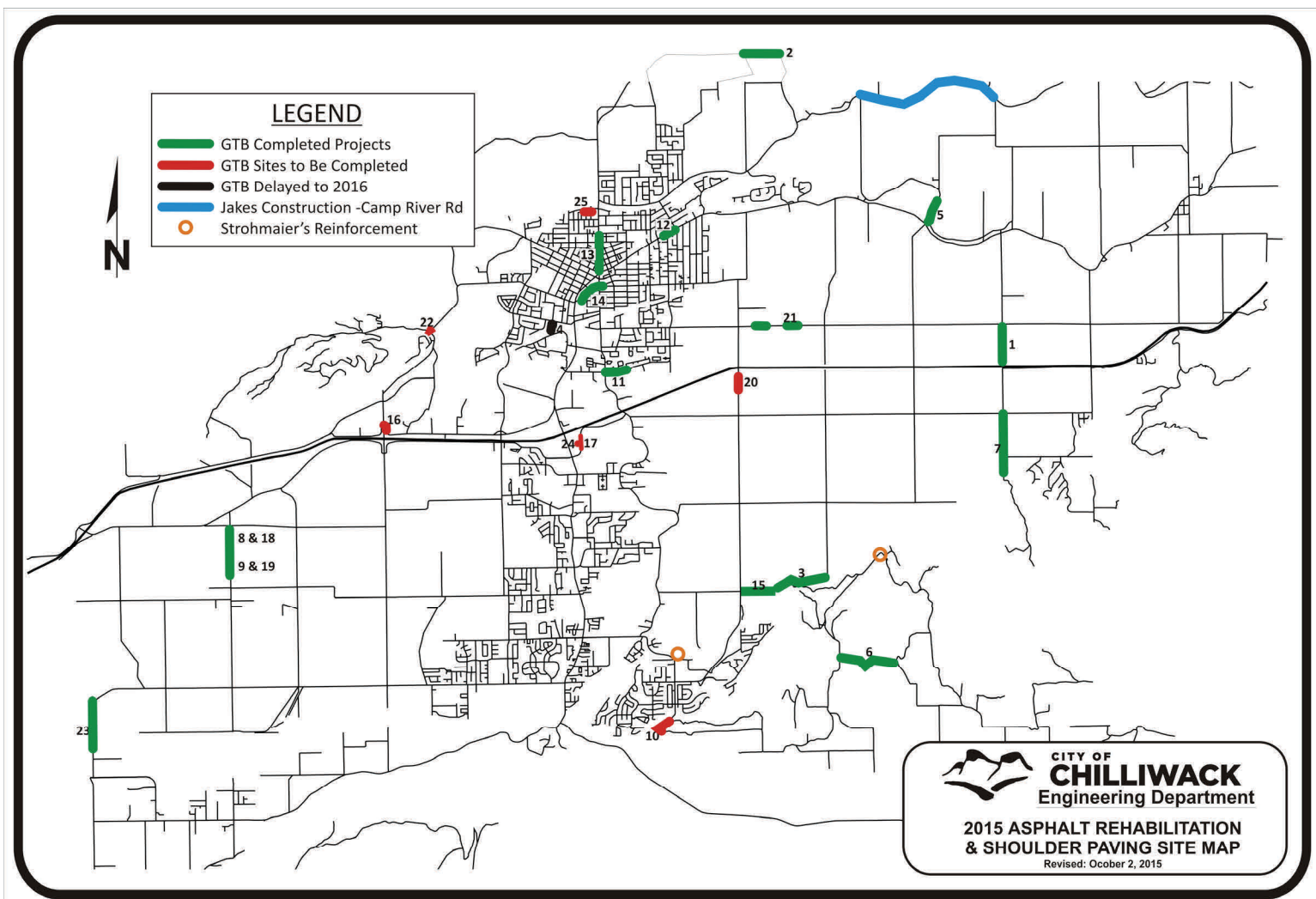


The intersection improvements for the Yale/Vedder/Kerr intersection have been completed by Crown Contracting. Due to traffic related issues being identified at this intersection it became a candidate for potential road safety improvements. Now that the safety improvements have been completed; drivers are now benefiting from the advance warning signal for eastbound traffic which advises that the signal ahead is changing to red; the eastbound right turn lane modification has improved merge visibility for drivers; pedestrians can utilize the realigned east/west crosswalk; and the overhead lane-use signs assist drivers with their lane choices. This safety oriented project was jointly funded by the City and ICBC.

2015 Asphalt Rehabilitation and Shoulder Paving

These two budgets cover work done by GTB Construction under the “2015 Asphalt Rehabilitation & Shoulder Paving” contract, Strohmaier’s Excavating under the “2015 Road Base Reinforcement”, Jake’s Contracting under the paving portion of the “Camp River Road Water Main Replacement”, and railway crossing improvements.

The following map shows the major project status at a glance:



2015 Asphalt Rehabilitation and Shoulder Paving

GTB Construction will be wrapping up their portion of the program shortly. Examples of work recently completed by GTB are as follows:





Bailey Road Japanese Knotweed Control

The Environmental Services Department identified the invasive Japanese Knotweed plant growing within the zone requiring excavation on Bailey Road. This plant has the ability to penetrate and damage asphalt, reinforced concrete and most other structural materials. It grows quickly and spreads easily so special efforts were taken to dispose of the plant tops, sterilize the roots and secure the excavated area to prevent any undetected plant fragments from regenerating on the site.



Road Base Reinforcement

Strohmaier's Excavating, constructed a Mechanically Stabilized Earth (MSE) wall to replace concrete lock block that was overturning on Elk View Road at the sharp curve just downhill from Wincott Road.



Shotcrete was placed along the footing portion of the lock block wall on Uplands Road (East) to prevent the loss of base gravel that had been migrating down the steep slope.

Transit Shelter Installation



Pattison completed the installation of the first of the 2015 new transit shelters on Vedder Road north of Promontory Road. Seven more shelters will be placed before the end of the year.

Crosswalk Installation

A new marked crosswalk was placed on Sumas Prairie at South Sumas (North).

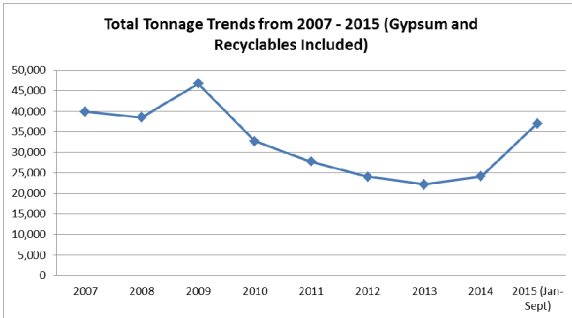


Traffic Signal Improvements



In response to a WorkSafe BC order a new traffic signal was installed on Vedder Road at Chilliwack Lake Road with a remote control feature to allow a flagger to manually control the intersection during peak traffic flow.

Bailey Landfill Financial Plan Update



A comprehensive financial plan for the Bailey Landfill was completed in August. The plan compares capital and operating cost estimates with estimated revenues to ensure sufficient funds are available for required works.

The landfill has received an influx of waste from private haulers serving multi-family complexes and businesses since late 2014. The waste industry is dynamic and landfill tonnages can fluctuate significantly from month-to-month or year-to-year, requiring frequent review and analysis.

The recent increase is likely related to the decreased cross-border movement of solid waste to landfills within Washington State as a result of the current low exchange rate on the dollar. City staff also worked with the private waste sector in 2014 to establish a pricing structure for large customers. An upsurge in waste directly affects the available landfill airspace. Therefore, a revised closure date of 2056 has been projected, down from 2075.

Adopt a River Clean Up Event

Through BC and World Rivers Day, we are reminded of the value our local waterways provide to our community. The City continues to honor the Fraser and Chilliwack/Vedder Rivers by helping to facilitate community cleanups along their banks.

On September 27, over 300 Chilliwack residents headed to the banks of the Vedder/Chilliwack River to give a little back to the river which gives our community so much. Building off the success of the April Adopt a River clean-up event, the September event saw the removal of four tonnes of garbage for an annual total of seven tonnes in 2015 alone. The Adopt a River events are coordinated by the Chilliwack Vedder River Cleanup Society in cooperation with the City and FVRD. Environmental Services staff were on hand to coordinate, answer questions, and engage with residents through an interactive display. The City also provided free tipping at the Bailey Landfill so the gathered material could be recycled and disposed of responsibly.



Residential Curbside Organic Waste Program



In September, Environmental Services staff commenced a two-month outreach program to engage residents about planned changes to the City's Residential Curbside Collection Program.

In the spring of 2017, organic material (food waste and yard waste) will be collected for composting.

Information booths were set up at a variety of venues to discuss the program and solicit feedback. Residents were asked to provide input on aspects of the new program through a survey at www.chilliwack.com/organics.

Feedback so far has been positive, and over 550 surveys were submitted by the end of September. The survey results will be taken into consideration, along with proposals from waste collection contractors in 2016 to determine the best program for Chilliwack residents. Additional outreach activities will be carried out closer to the program implementation date.

Tzeachten Open House



On August 19, Environmental Services staff participated in the Tzeachten Open House community event. Activities included information booths by various organizations, activities for children, and a barbecue. At the City of Chilliwack booth, visitors played interactive games to learn about water conservation, composting, and free recycling options for a variety of household items.

Adopt a Road & Adopt a River Program Update

The Adopt a River and Adopt a Road programs are getting a fresh new look. New graphics were created showing consistency across the existing two programs and extending into the two newly created Adopt a Park and Adopt a Trail programs administered by the Operations Department.

New Adopt a River signs were installed for the September 27, BC Rivers Day cleanup, while the Adopt a Road signs are being phased in. Both programs are very popular, with 19 volunteer groups participating in the Adopt a River program and 57 groups participating in the Adopt a Road program.



Fall City-Wide Garage Sale

The Fall City-Wide Garage Sale took place on Saturday, September 26, from 8:30 am – 1:30 pm. Residents were able to register their home address online and have their location listed on the City of Chilliwack website as well as in the local paper. Multi-family dwellings (apartments, townhomes) were also encouraged to join by participating as a group with a neighborhood sale under one address. In addition, the City website directed participants to a list of organizations in which they could take their leftover useable clothing and household items after the sale.

A total of 157 addresses signed up to participate, which was similar to the number from the fall event last year. This popular semi-annual initiative continues to support our reuse and recycle goals at little cost to the public.

Collinson Pump Station Upgrade Project

This \$2,500,000 project will receive 1/3 Federal and 1/3 Provincial grant funding in the amount of \$1,666,666 under the Building Canada Fund for Flood Protection.

Construction by Gerry Enns Contracting Ltd. is under way with the new electrical building including MCC equipment, generator, underground BC Hydro service and one of the new pump/motor assemblies complete. Work is currently under way in the underground pump chamber to accommodate the second pump/motor, new intake screen, new automated screen cleaner, conveyor and HVAC equipment. The project is scheduled for completion in October 2015 and will double the pumping capacity of this station, which serves the Greendale area.



East Dyke (Young Road) Upgrade Project

The East Dyke (Young Road) Upgrade Project has a budget of \$2.34 million, with a 1/3 cost sharing arrangement among the City and Provincial and Federal governments. Construction by the design build team of Martens Asphalt/McElhanney began mid-March 2015 and is nearing completion. The Certificate of Substantial Completion has been granted as of September 11, 2015.

