

City of
Fitchburg



Department of
Public Works

**301 Broad Street
Fitchburg, MA 01420
Phone: 978-829-1900**

DPW Weekly Update August 19 – August 26, 2019

Dear Mayor, Councilors, and Colleagues:

Back to School season is here! For DPW this means repainting school crosswalks and clearing sidewalks around the city's many schools. Back to school season also means the end of the summer programs and the end of pool season, and unfortunately, it also means we have to say goodbye to some of our summer help and interns:

- Kyle Koutonen is returning to UMass Lowell after doing a great job helping the Streets Division keep Main Street clean of litter and weeds all summer long.
- Connor St. Germain is returning to UMass Lowell for his senior year in Civil Engineering after assisting the Stormwater and Sewer engineering groups this summer.
- Kevin Barbara is returning to UMass Amherst for his junior year in Civil Engineering after helping the Stormwater and Sewer engineering groups this summer.
- Student Conservation Association (SCA) – The last of the four hitches will be leaving this week. They have spent the last two months building the Rollstone Hill Trail.

On the flip side, we are receiving new temporary help from the Massachusetts Department of Correction, who are providing between six and ten inmates from the minimum-security facility in Shirley every day to perform manual labor. These men are supervised by a MCI guard at all times and perform manual labor tasks including clearing of brush, cutting grass, painting, and straightening out headstones and retaining walls in the cemetery.

This week we also welcomed back Linda Brousseau from retirement on a part-time basis to assist with the wastewater administrative processes. We are so glad to have her back!

As always please feel to contact us with any comments, questions, concerns or suggestions regarding the enclosed report.

Sincerely,

Nicolas H. Bosonetto, PE
Commissioner of Public Works/City Engineer

CONSTITUENT SERVICES

DPW continued to respond to service requests in a timely manner through the [SeeClickFix](#) program. The overall number of outstanding requests are down 5% from previous 2-week period, while new requests increased by 12%. As the older requests continue to be completed and closed out, the average days to complete a request is down to less than 20 days.

	<u>This period</u> <u>8/11/19 -</u> <u>8/25/19</u>	<u>Previous Period</u> <u>7/27/19 -</u> <u>8/10/19</u>	<u>Change</u>
Total Request Backlog	318	336	-18 (-5%)
New Requests	82	73	+ 9 (+12%)
- Completed	22	36	-14 (-38%)
- Open	60	37	+23 (+62%)
- Acknowledged	53	55	-2 (-4 %)
Average days to complete	19.8	62.3	-42.5 (-68%)

Phones were very busy this week with customers seeking information regarding the water/sewer bills that went out last week (11,052 bills sent out). Most calls were complaints of higher than normal billings. DPW staff explained that there was a sewer rate increase and the billing period was also drier than it had been in a very long time and more water was being used by individuals. There were also a lot of inquiries regarding sewer abatements for swimming pool fillings.

ROADWAYS

DPW staff continued to improve and maintain the city's roadways and sidewalks through various on-going activities and projects.

Traffic

A stop sign was installed on Stevens Road at Industrial Road. Dead end signs were installed on Westminster Hill Road.

Per the request of FSU, parking signs were removed and the curb was painted yellow in front of Campus Pizza on Pearl Street. These changes were made to accommodate new pedestrian crossing signs.

Micro-Surfacing

DPW has contracted with Indus Inc. to micro-surface five roadways. Indus crack-sealed these roadways in preparation for the micro-surfacing which is scheduled to start on September 3rd. These crack-sealing operations are separate from Superior Sealcoating's contract.

Item	Length	Area	Estimated Cost
Rindge Rd (remainder)	4873'	17,868 sy	\$95,235
Cortland Ave	675'	2,805 sy	\$14,951
MacIntosh Ln	1240'	5,703 sy	\$30,397
Broad St	1183'	5,156 sy	\$27,481
Upham St	1620'	6,160 sy	\$32,833
PATCHING ESTIMATED (SY)		175 sy	\$30,000
POLICE SERVICES ESTIMATED			\$15,000
CRACK SEALING ESTIMATED			\$34,000
ESTIMATED TOTAL			\$279,896

Crack Sealing

Pavement contractors returned this week to continue crack sealing throughout the city. By filling pavement cracks, water and debris is prevented from entering into the pavement and subbase, thereby extending the pavement life for about five to seven years. Our contractor has completed approximately 45% of the work so far and will continue to work throughout the city in the coming week.

Preventative Maintenance			
Crack Sealing			
Contractor: Superior Sealcoating, Inc			
	<u>Cost</u>	<u>Material</u> <u>(gallons)</u>	
Budget	\$75,000	8,000	
This week	\$14,517	1,730	
Total To Date	\$33,669	3,881	
Percent Complete	45%	48%	

Corrective Maintenance

Pothole patching efforts continued this week with approximately 700 potholes¹ filled at various locations, including the following:

- Carey Street,
- Weymouth Street,
- Highland Ave,
- Damon Street,
- Ohio Street,
- Myrtle Ave,
- Congress Street,
- Washington Street,
- Miller Street,
- Kyle Road,
- Water Street,
- Clarendon Street,
- Electric Ave,
- Everett Street Ext,
- Mechanic Street,
- Elm Street, and
- Oak Hill Road.

¹ Based on average pothole size of 3.5 inches depth and 1.5 foot wide by 1.5 foot long (volume of 0.66 cubic feet or 0.02 cubic yards)

Sidewalks

The sidewalks along Bigelow Road leading to Crocker Elementary were cleared of brush by DPW Crews and the MCI crew.

Trees were trimmed along Tibbett Circle.

PARKS & RECREATION

DPW crews continued to work on the new trail on Rollstone Hill alongside volunteers from the [Student Conservation Association](#) (SCA) crews. This will be the last week volunteers from the SCA will be in Fitchburg this year. So far, substantial work has been completed building the parking area off of Shattuck Street and the trail section down to Bruce Street. As we wrap up the project for this year, we would like to thank the Fitchburg Greenway Committee for all of their leadership, financial and organizational contributions they have provided towards this and other trail projects.



Figure 1 - Rollstone Hill Trail

The Summer Playground Program concluded on Friday, August 23rd with the annual family fun day at Coolidge Park. The Event included over 80 kids and some parents. Pool Access was free from 11am – 2pm and participants utilized bounce houses, obstacle course and a slip and slide. The Recreation Department partnered with Fitchburg Public School Nutrition Services to offer a free cookout for children 17 and under.

- The J. Robert Crowley Swimming Complex and the Parkhill Park Splash Park closed for the season on August 25, 2019. The splash pad at Crocker Playground will remain open until a schedule time is arranged with the parks department.
- Concerts on the Common was cancelled on 8/21/2019 due to heavy rains prior to the event.
- Due to necessary field maintenance prior to Fitchburg Youth Footballs first games this week, the Free Friday Night Movie Series screening on August 23 has been cancelled.

This past weekend the Recreation Department, Beers for Good, and the Riverfront Parks and Trails Fund hosted a Steampunk Festival at Riverfront Park. DPW crews cleaned up Riverfront Park in preparation for the events and new LED lights are being installed to help light this and all other events at the park. The new LED lights replace the old lights and are set on a timer to illuminate from dawn to dusk.



Figure 2 - Riverfront Park Cleaning and Installing of LED Lights

CEMETERIES

The cemetery crews continued to maintain the grounds by mowing, trimming, cleaning graves and monuments, picking up litter and painting. In addition to routine maintenance and administration tasks, the following were completed:

Interments	0
Up righted monuments.....	5
Uncovered/cleaned flat monuments.....	0
Foundation marking for monuments.....	1
Catch basin repair	0
Filled sink holes.....	0
Trimmed Trees	9
Trimmed shrubs.....	0
Meeting with Families.....	6
Payments - invoiced/processed.....	2
Family Genealogy	3

The drainage project at Forest Hill Cemetery was substantially completed this week. DPW Cemeteries, Engineering, Parks, and Streets Division crews collaborated on the project to design and install a leaching catch basin and 180 feet of 12-inch perforated drainage pipe. The pipe connects into the concrete box culvert that runs under the cemetery. The purpose of the project is to lower the groundwater levels below six feet, thereby allowing dry burials in that section of the Forest Hill Cemetery. It is anticipated that between 500 and 900 new burial plots can be accommodated in this area. The additional revenue and space will add the necessary capacity to extend the cemetery's operations for at least another 5 to 8 years. Monitoring wells have been inserted at the site, and ground water elevations will be monitored for the next several months to determine if any additional drainage is necessary.

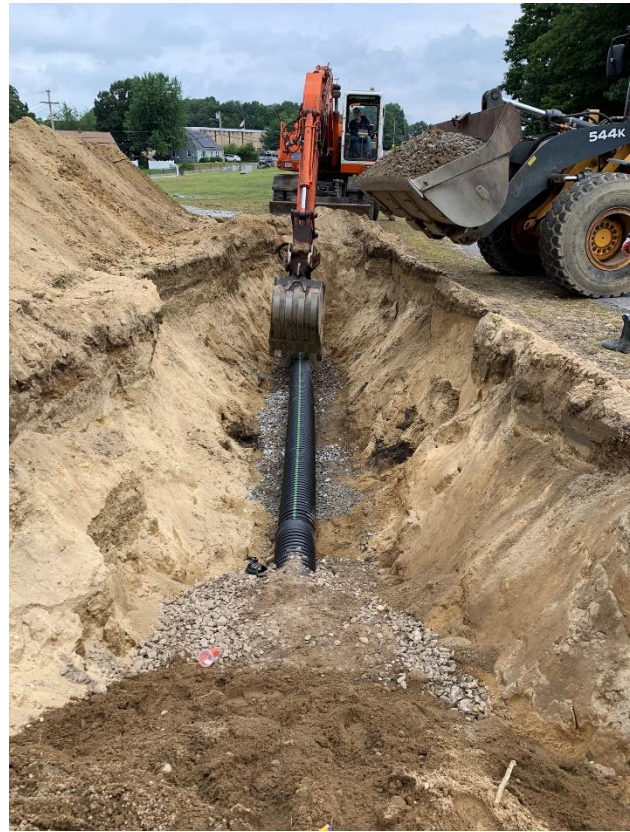


Figure 3 - Installation of Drainage System

WASTE WATER

Improvement projects and maintenance operations continued at the waste water treatment facility. A high-intensity rainfall events during the first part of last week caused localized flooding and bypass events at CSOs and at the treatment plant.

Collection System

- Laid 100 feet of pipe on Hartford Street to re-direct a catch basin from the sanitary system to the storm drain system. Trench patch was prepped and curb reset. Trench work will be completed this week.
- Responded to a service call at 8 Dwight Street. CCTV'd main sewer to assist homeowner, camera showed that lateral is packed full of roots near connection to City-sewer; issue was determined to be a homeowner issue.

- Responded to a service call at 52 Hartford Street. Lateral was collapsed. Sewer crews repaired the lateral for the owner and added its location to our records, as it was previously unknown.
- Checked CSO Regulators three times due to high intensity rain events. Recorded 17 overflow events during the week.
- Drafted Consent Decree Semi-Annual Report that is submitted to EPA and MassDEP.
- Started performing flow meter calculations for overflow volumes.
- Responded to a service call at Airport: DW White (airport contractor) hit the encasement pipe for the force main from Cobbler Drive Pump Station. Repair to encasement was made with a sleeve.
- Floats were repaired at Cobbler Drive Pump Station: wires corroded and were giving false readings (See picture).



Figure 4: Cobbler Drive Pump

STORM WATER

The Dry Weather Stormwater Outfall Inspection program was completed for this year. This program is required as part of the MS4 permit (Municipal Separate Storm Sewer System). All outfalls were mapped during the first year of the permit, and approximately 65% of the outfalls were inspected and tested through this year. The remaining outfalls will be inspected during next year's dry season in accordance with the permit.

Arcadis is DPW's consultant in charge of this program and they will be analyzing the laboratory results from outfalls that were found to have dry-weather flows during inspections.

- 181 out of 277 (65%) outfalls inspected to date
- 147 (81%) were found to be dry, no additional inspection needed
- 34 found wet/flowing during dry weather, samples/testing conducted to determine source

DPW substantially finished the drain line installation on Seneca Street to alleviate water run-off onto the street.

WATER SUPPLY

Water Treatment

Reservoir Levels as of 8/21			
Northern Reservoirs	Elevation below spillway		Southern Reservoirs
Fitchburg/Ashby	-0.98 feet	-0.66 feet	Meetinghouse
Scott	Full	-1.82 feet	Mare Meadow
Lovell	-2.32 feet	Full	Bickford
Water Filtration Plant Flows/Production from 8/16 to 8/22			
	Falulah Plant	Regional Plant	Totals
Raw Water Inlet (Gal)	9,432,000	28,342,000	37,774,000
Backwash to waste (Gal)	1,332,000	3,112,000	4,444,000
Finish Water - Treated & Distributed (Gal)	8,100,000	25,230,000	33,330,000

Transfer between reservoirs is currently under way. Mare Meadow is being pumped into Meetinghouse reservoir. Reservoir and spillways areas are being maintained and patrolled.

Fire Hydrants

Total Hydrants	Out of Operation	Hydrants Replaced	Hydrants Repaired	Painted	Flushed
1,632	1	0	1	1	8

- All fire hydrants except for one are operational in the city. The hydrant at Cushing Street by River Front Park is shut off because the water main is damaged.
- FWD crews replaced a hydrant on Maryland Avenue (near #47). Crews needed to shut down the water main (work was completed on Monday/Tuesday, affected customers were notified the previous Friday) to complete the work. FWD crews installed the new hydrant, anchor tee, gate valve, and interconnect piping. The trench needed to be plated overnight and the hydrant itself was installed on the second day (water service to customers was only disrupted for a few hours on the first day while the old tee was being cut out and replaced with a new anchor tee/valve). Trench was backfilled, compacted, and paved.
- Assisted with a hydrant/fire flow test at TriTown Landing.

Water Distribution

- Installed a new 3-inch compound meter at Wallace Towers. Water was being shut off to the building for other work so we used this opportunity to replace meter so that they would not have another disruption in service for the meter change-out.
- Collected sample of water and investigated discolored water complaint at 47 Newton Street.

- Leak developed on the owner's side of the service line to 207 Electric Avenue. FWD personnel need to excavate the curb stop box as it was crooked, preventing crews from getting a wrench on it. Property owner hired a contractor who replaced the owner's side of the service line. FWD crews poured a new concrete section of sidewalk that had been removed during the course of excavating/straightening the curbstop box. All work was completed by Friday.
- Raised curbstop box and replaced box cap at 371 Lunenburg Street.
- Raised curbstop to grade at 95 Old Deerfield Road.
- Installed a curb stop box extension at 44 Jeffery Street.
- Flushed blow-offs on Institute Street, Phillips Avenue, Central Avenue, Terrace Place, Baltic Lane, Vernon Court, Highview Street, Vernon Street @ Cottage, Billotta Way, Shea Street Extension, Cathy Street, and Felton Street.
- Staff attended annual MWWA outing at Wachusett Mountain Ski area.
- Drop off dye tablets (for identifying leaks in toilets) to owners of 56 West Street and 665 Townsend Street.

Meters

- Investigated zero/repeat readings and tampers discovered during monthly billing.
- New Neptune meters/MIUs (meter interface units aka electronic registers) are being installed whenever access is gained to a house/building (for any purpose, not just for investigation of zero usage).
- Inspected/sealed new meter installations by private contractors and installed MIUs (plumbers installed the meters and FWD personnel inspect the installation and install the MIU).
- Measured lay length of 6-inch compound meter at Fitchburg High School and confirmed it is the same dimensions as the Neptune 6-inch compound (it is). Coordinated/scheduled installation of new meter with school maintenance personnel – will be completed on 8/30.
- Installed MIUs at locations on Ashby State Road and checked reception by gateways – all came in through system so this questionable coverage area looks good and there should not be any issues.
- Compiled list of additional meters and miscellaneous parts needed for meter upgrade project and sent to Ti-Sales for pricing. Pricing was received and was then forwarded to Weston & Sampson to be processed as change order #1.

In addition to routine maintenance and administrative tasks, the following services were completed:

Permits and Inspections	
<u>Type</u>	<u>Number</u>
Emergency DigSafe Markouts	3
DigSafe Markouts	16
Inspections	3
Record Plan Updates	15
Curb Stops Services	3
Located/cleaned gate/curb boxes	3
Final Readings	12
Meter Installs	7
Backflow Preventers Tested	24
Residential Appointments Made	
Totals	194

ENGINEERING

Asset Management

- StreetScan has completed its data collection of the city's streets and will now commence the sidewalk assessment. The street data will be processed and analyzed to determine the pavement condition using a Pavement Condition Index (PCI).
- Engineering Division, the Cemeteries Division and IT finalized the RFP for cemetery management software. The cemeteries database is a vital system for the proper maintenance of records and genealogical resources. The proposed software will feature a GPS enabled app that allows visitors to find burial sites easily. DPW GIS intern is currently collecting data points for existing burial plots.
- Engineering Division completed and submitted a grant application for the MassDEP Asset Management Plans (AMP) grant. The application requested \$69,000 to be matched with \$46,000 cash match and \$46,000 of in-kind services match. The grant, if obtained, will be used to digitize the water distribution system maps into the city's overall GIS based asset management system. Stormwater and wastewater systems are already being collected by the Engineering Division.

Permits and Inspections		
<u>Type</u>	<u>Number</u>	<u>Fees</u>
Dig-Safe requests	13	n/a
Dumpster Permits		
Driveway Permits		
Sign Permits		
Trench Inspections	3	\$225
Excavation Permits	3	\$1,050
Sewer Permits	1	\$2,000
Sewer/Drain Inspections		
Parcel Updates		
Planning Reviews		
Totals	20	\$3,275

ADMINISTRATION

Totals for invoices paid and deposits are for the period 8/5/19-8/24/19

Invoicing, Warrants, and Payrolls							
	Invoices		Deposits		Billings		Payroll
<u>Division</u>	<u>Number</u>	<u>Total \$</u>	<u>Number</u>	<u>Total \$</u>			
Administration			*Note 1	\$ 3,275.00			
Engineering							
Streets	45	\$ 29,767					
Cemeteries	20	\$ 11,521					
Parks	14	\$ 2,249					
Recreation	16	\$ 4,843					
Water Supply	96	\$ 95,224					
Waste Water	96	\$ 664,408	*Note 2	\$ 65,490.00			
Total	287	\$ 808,013	-	\$ 68,765.00	\$ -	\$ -	\$ -
*1 - Engineering Permits		4					
*2 - Septage at East Plant (Gallons)		770,471					

- Submitted request to the Mayor and City Council to accept and allow expenditure of a \$500,000 MassDOT Small Bridge Program grant for the Westminster Hill Road Bridge repairs.
- Prepared Chapter 90 reimbursement request to MassDOT for Main St/Mt Elam Road paving. Request totals \$460,510.08 and will be submitted early next week when signatures can be secured from the City Auditor.
- Attended meeting with Sprint regarding the DPW GPS accounts and changes coming that will impact GPS tracking for plowing operations.
- Attended internal meeting regarding on-call contractors.
- Reviewed invoices for both Admin/Engineering/Streets and Wastewater, coded and sent to Jennifer Brennan at the Senior Center to input for payment.