

City of
Fitchburg



Department of
Public Works

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

DPW Weekly Update September 8 – September 15, 2019

Dear Mayor, Councilors, and Colleagues:

On Tuesday of this past week, a neighborhood meeting was held at the Great Wolf Lodge to discuss traffic safety issues on Franklin Road. Police Chief Martineau, Sgt. Daniel Boudreau and Lt. Howe were in attendance representing the FPD. Councilors Squailia, Beauchemin, and Dinatale were also in attendance and the meeting room was overflowing with approximately 50 residents who expressed their concerns about the speeding along Franklin Road and the safety of the intersection at Oak Hill Road and Franklin Road.

Many residents shared stories of cars crashing through their yards and overall expressed their general uneasiness of living next to a high-speed, high-volume roadway. They also brought to our attention many roadway deficiencies including lack of signage, drainage/icing problems, sharp curves, rocks protruding into the travel way, and lack of crosswalks.

After allowing every attendee an opportunity to speak, Chief Martineau and his team shared information collected by the FPD. Sgt. Boudreau reported that the speed trailers were set up along Franklin Road and collected traffic count and speed data. Approximately 2,500 vehicles travel along Franklin Road with an 85th Percentile speed of almost 40 MPH.

The intersection of Oak Hill Road and Franklin Road is a high-crash location, and is ranked #123 in [MassDOT's top 200 Crash Locations](#). The suspected reason for this safety problem are northbound vehicles not seeing the stop signs and running the intersection.

DPW and FPD are working closely together to investigate and mitigate the safety issues along the corridor. Streets Superintendent Withington, Sgt. Boudreau and myself followed up the meeting by touring the corridor last Friday and formulating a list of improvements, many of which are underway. Flashing LED stop signs have been purchased to increase visibility at the intersection and the abutting homeowners have been requested to cut back bushes and fences to increase sight line distances. We will keep you posted on the progress of this project.

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. In the past two weeks DPW received 78 new requests and completed 84 requests. The total outstanding requests backlog is now 355, a majority of which are for potholes, storm drains, and tree/brush trimming.

<u>Reporting Period</u> 9/2/19 - 9/15/19	
Previous Request Backlog	361
New Requests	+78
Completed Requests	-84
Total Request Backlog	355
Potholes	128
Storm Drains	84
Tree & Brush Pruning	45
Traffic, Signals, Signs	14
Berm Repairs	12
All other categories	72
New Requests	78
Acknowledged	65
Completed & Closed	14
Open	64

ROADWAYS

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

Traffic Signs, Signals, and Striping

Painted crosswalks and stop lines on:

- Daniels Street;
- Plymouth Street;
- Fairmount Street;
- Oak Hill Road.

Installed handicap and no parking signs on Salem Street. Removed two old handicap signs from Maverick Street.

Berms and Aprons

Bases for asphalt berms were prepared at the following locations:

- 396 Wanoosnoc Road;
- 270 Theresa Street;
- 56 Richardson Road.

Tree and Brush Trimming

Brush was cut at the following locations:

- Arn How Farm Road;
- Billings Road;
- Kinsman Road;
- High Rock Road;
- Wanoosnoc Road;
- Olin Avenue;
- Fairmount Street;
- Reingold Street;
- Elmwood Street;
- England Avenue;
- Maryland Avenue;
- California Avenue;
- Page Avenue;
- Nestor Avenue;
- Bonner Avenue;
- Glen Avenue.

Sidewalks

Repaired sidewalk surface at 470 Main Street to prevent water leaking into building vault.

Potholes

Pothole patching efforts continued this week with approximately 480 potholes¹ filled at various locations, including the following:

- Richardson Road;
- Johnson Street;
- Marshall Drive;
- Mattson Street;
- Farmer Avenue;
- Ashburnham Hill Road.

Supported Sewer Division by paving around reconstructed manhole covers at the following locations:

- High Street;
- Westminster Street;
- Kimball Street;
- Ashby State Road (2).

Aided FPD by removing two islands from the Police Station parking lot and repaving to make additional parking spaces.

Crack Sealing

No crack-sealing occurred last week. Our contractor has completed approximately 65% of the work so far and will continue to work throughout the city in the coming weeks.

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)

STORM WATER

Fitchburg Art Museum

DPW engineers visited the FAM to discuss flooding issues with Museum Director Nick Capasso. The intersection of Elm and Academy Street frequently floods during heavy rain events. DPW installed an overflow grate on the sidewalk in front of the FAM as a temporary measure that reportedly prevented flooding during three of the four most recent storms. The intersection drains into a culverted stream (Punch Brook) that runs beneath the intersection. DPW will install a level sensor in this culvert to determine how it responds to rainfall, and use this data to design drainage improvements for the intersection.

Stickney Road Culvert

DPW crews completed installing the two new 36" concrete barrels, backfilled with crushed rock, and compacted asphalt shavings into place to open the road to traffic. This week the DPW crews will complete building the headwalls with granite slabs. The roadway is currently open to traffic.



Figure 1 - Stickney Road Culvert

PARKS & RECREATION

Commissioner and the Parks Director toured Parkhill Park and Coolidge Park.

Changed the signs for Coggshall Park to reflect new closing times and updated schedule.

Continued to drain swimming pool and started winterization of park facilities.

CEMETERIES

The cemetery crews continued to maintain the grounds by mowing, trimming, cleaning graves and monuments, picking up litter and painting. Fall flowers were planted.

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

Interments	4
Up righted monuments.....	0
Uncovered/cleaned flat monuments	0
Foundation marking for monuments.....	2
Catch basin repair	0
Trimmed Trees	0
Trimmed shrubs.....	0
Meeting with Families.....	9
Payments - invoiced/processed.....	10
Family Genealogy	7

WATER SUPPLY

Water Treatment

Reservoir Levels as of 9/12/19			
Northern Reservoirs	Elevation below spillway		Southern Reservoirs
Fitchburg/Ashby	-1.94 feet	-0.72 feet	Meetinghouse
Scott	Full	-2.82 feet	Mare Meadow
Lovell	-2.20 feet	Full	Bickford
Water Filtration Plant Flows/Production			
	Falulah Plant	Regional Plant	Totals
Raw Water Inlet (Gal)	8,563,000	27,358,000	35,921,000
Backwash to waste (Gal)	913,000	3,163,000	4,076,000
Finish Water - Treated & Distributed (Gal)	7,650,000	24,195,000	31,845,000
Efficiency	89%	88%	88.6%

The watersheds continued to be patrolled and maintained. Falulah Brook was patrolled for beaver activity, and after capturing one beaver last week, three of their dams were removed this week. FPD was contacted to remove abandoned boat on Ashby West Road and ATV trails were blocked. The spillways, dams, and areas around pump stations and storage tanks were mowed.

Fire Hydrants

Total Hydrants	Out of Operation	Hydrants Replaced	Hydrants Repaired	Painted	Flushed
1,632	2	0	1	0	21

- All fire hydrants except for two are operational in the city. The hydrant at Cushing Street by River Front Park is shut off because the water main is damaged.
- FWD personnel repaired/rebuilt a hydrant on McDonald Avenue, the Fire Department was notified that it was back in service.
- FWD crews continued flushing/lubricating hydrants on the High System this week in the areas of Clarendon Street, Arlington Street, Bond Street, and Prospect Street.

Water Distribution

- FWD crews cleared brush over the 20-inch water main on Burma Road to access a leak. The area was excavated and the leak was found to be at a 1-inch tap on the water service to 699 Franklin Rd. The leak was repaired and trench backfilled.
- Water Division Engineering discussed the new water main tie-in on Main Street with contractor at City Hall. The new 8-inch water main location needs to be changed due to conflict with two large electrical vaults on Main Street. New location will be where the old 6-inch water main was/is. Contractor will be installing the new sewer line first and then the new water main.

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

Water Permits and Inspections	
Type	Number
Emergency DigSafe Markouts	0
DigSafe Markouts	18
Inspections of Work on Water System	3
Record Plan Updates	8
Curb Stops Turned off/on	10
Located/cleaned gate/curb boxes	4
Final Readings/Real Estate Closings	17
New Meter Installations	15
Backflow Preventers Tested	18
Residential Appointments Made	5
Totals	98

WASTE WATER

Sewer System

- Reset SMH at intersection of Simonds Street and High Street.
- Filled in a sink hole on Valley Street for DPW Streets Division, and prepped for paving.
- Cut back brush from CSO-64 Chamber Easement, off of Water Street.
- Reset two (2) collapsing manhole covers on Ashby State Road.
- Coordinated with DPW Streets Division to pave structures on Ashby State Road, Westminster Street, and Kimball Road.
- Reset manhole on Sanborn Street at Westminster Street.
- Reset sinking manhole at #372 Kimball Street
- Returned frames and covers for scrap steel: \$70 returned to the Wastewater Enterprise.
- 4 CSO Activations occurred, due to rain event.
- Jetted line on Burnap Street at request of homeowner.
- Performed weekly pump station checks.
- Service call at #57 Maryland Avenue (sewer smell): was discovered to be a homeowner issue.
- Raised buried manhole at #294 Electric Avenue.
- Raised buried manhole, in easement, at #560 Rindge Road.
- Conducted field investigations to find additional buried manholes: found 3 and marked out for Dig-Safe, so that the manholes can be raised.
- Drafted a Notice to Proceed for additional heavy cleaning of Trunk Sewer.
- Continued investigating odor complaints in West Fitchburg: trunk sewer under Phillips appears to be in good condition, however trunk sewer's concrete encasement is exposed; odors are likely originating from West Plant.

Plant Operations

Plant operations for the first week of September show a rainfall event caused a 0.74 million gallon bypass of the secondary treatment system.

<u>Week of 9/1/2019 - 9/7/2019</u>	
Sewage Flow	35.2 Million Gallons
Rainfall	0.25 inches
Secondary Bypass	0.74 Million Gallons
BOD _{in} (lbs)	81,425 pounds
BOD _{out} (lbs)	5,422 pounds
BOD Removal (%)	93.30%
TSS _{in} (lbs)	126,725 pounds
TSS _{out} (lbs)	5,221 pounds
TSS Removal (%)	95.90%

The plant treated 35.2 million gallons of waste water (compared with 31.5 million gallons of water supplied to the city). The 3.7 million gallon balance (10%) is due to many sources, including stormwater inflow and groundwater infiltration (I&I).

Overall, 38 tons of organics and 60 tons of solids were removed from the waste water and prevented from entering the Nashua River in one week.

Plant maintenance continued with preventative on the various elements of the treatment system.

Work Order Report September 6th - September 12th					
Demand Statistics		PM Statistics		Averages	
Rejected Work Orders	0	Rejected Work Orders	0	% Total Work Orders Completed On Time	100.00%
Demand Work Orders	3	PM Work Orders	22	Avg. Days Late / All Work Orders	0
Demand Work Orders Completed Late	0	PM Work Orders Completed Late	0	Avg. Days to Complete / All Work Orders	4.25
Demand Work Orders Completed On Time	3	PM Work Orders Completed On Time	22	Total Man Hours	184
% Demand Work Orders Completed On Time	100.00%	% PM Work Orders Completed On Time	100.00%		
Avg. Days Late / Demand Work Order	0	Avg. Days Late / PM Work Order	0		
Avg. Days to Complete / Demand Work Order	2	Avg. Days to Complete / PM Work Order	4.37		

Miscellaneous

- Deputy Commissioner Murawski gave a presentation on Fitchburg’s Wastewater Collection and Treatment to the Massachusetts Water Pollution Control Association’s (MWPCA) Quarterly Meeting at Mount Wachusett in Princeton, MA.
- Coordinated for NWS/NOAA Hydrologist-in-Charge, David Vallee, to give presentations to Fitchburg 8th Graders (at McKay, Memorial, and at Longsjø), on STEM Week’s final day (Fri. – Oct. 25th).
- Participated in Fitchburg’s “Community Health Resource Fair”, on Thursday – Sept. 12th, at the Fitchburg Senior Center.
- Met with UNITIL gas division to discuss the state of the natural gas industry and the move towards Renewal Natural Gas (RNG) requirements. There are possible opportunities to reevaluate the anaerobic digester project for the west treatment plant.
- Attended the Water & Waste Water Commission meeting on Wednesday September 11.



ENGINEERING

Planning Board

After meeting and corresponding with the BF Brown project proponent (NewVue Communities) and their engineering consultants, DPW drafted a memo summarizing concerns and possible resolution to the retaining wall issues. Attended the September 10 Planning Board meeting in support of DPW comments on the following projects:

- 16 Prospect Street
- 132 Pleasant Street
- 310 Broad Street
- 346 River Street
- BF Brown redevelopment

Asset Management

StreetScan will start collecting sidewalk data this week. The contractor will be using a push-buggy version of their data collection system as pictured below. The raw data collected from the pavement part of the project is currently being analyzed and going through QA/QC.



Figure 2 - Sidewalk scanner

Engineering Services			
	<u>Type</u>	<u>Number</u>	<u>Fees</u>
PERMITS	Dumpster Permits	1	
	Trench Permits	1	\$225.00
	Excavation Permits		
	Driveway Permits		
	Sign Permits		
	Sewer Permits		
INSPECTIONS	Driveway Inspections		n/a
	Trench Inspections		n/a
	Site Inspections		n/a
	Dig-Safe requests	8	n/a
	Sewer/Drain Inspections		n/a
	Parcel Updates		n/a
	New Address Assignments		n/a
	Planning Reviews		n/a
	Totals	10	\$225.00

ADMINISTRATION

This past week, DPW business administration processed 106 vendor invoices and processed payroll totaling \$218,913.

Invoicing, Warrants, and Payrolls						
	Invoices		Deposits		Billings	Payroll
<u>Division</u>	<u>Number</u>	<u>Total \$</u>	<u>Number</u>	<u>Total \$</u>		
Streets/Admin/Engineering	46	\$ 83,037	*Note 1	\$ 725		\$ 64,387
Cemeteries	19	\$ 2,806				\$ 12,044
Parks						\$ 6,332
Recreation						\$ 3,131
Water Supply	31	\$ 71,673				\$ 55,020
Waste Water	10	\$ 416,250	*Note 3	\$ 187		\$ 78,000
Total	106	\$ 573,765	-	\$ 912	\$ -	\$218,913
*1 - Engineering Permits			3			
*2 - Septage at East Plant (Gallons)						
*3- Scrap Castings						

- Reviewed August month end budget reports for accuracy and submitted reclass requests to City Auditor for costs inadvertently posted to incorrect accounts.
- Attended meeting with City’s new property insurance company Traveler’s Insurance.
- Attended internal meeting regarding paving contributions from various utilities.
- Attended sales pitch with T-Mobil Government sales rep. Referred sales rep to Trevor in IT.
- Processed bi-weekly payrolls. Total payroll for DPW department is \$218,913.
- Researched and processed vendor warrants. Total invoices paid for DPW \$573,765.
- Continued to work with the Greenway Committee on the Rollstone Hill Trail project budgets and remaining work to complete.