



Diane Nichols Tradd  
*Assistant City Manager/DPD Director*

Craig Thomas  
*Deputy Director*

MEMORANDUM

TO: Eileen M. Donoghue, City Manager *EMD*

FROM: Diane N. Tradd, Assistant City Manager/DPD Director

DATE: December 13, 2018

SUBJECT: MOTION OF 12/4/18 BY COUNCILOR KENNEDY  
REQUEST CITY MANAGER INSTRUCT THE TRANSPORTATION ENGINEER TO  
REVIEW THE EFFICIENCY OF THE TRAFFIC LIGHT SEQUENCING ALONG  
ROUTE 113-VFW HIGHWAY

Beginning at the Tewksbury line, along Rogers Street, to Nesmith Street, over the bridge and traveling westbound on VFW Highway to towards the Rourke Bridge, there are thirteen traffic signals. Of those, nine are State-owned signals and four are City-owned signals. Refer to the attached map and table for more detail. Once the Route 38 Improvements project is complete, the City will own two more signals in that corridor. However, because those signal replacements are the result of safety improvements, it will require MassDOT approval to change the timing of those signals. In general, MassDOT does not allow the City to access their traffic controllers.

In order to synchronize/sequence traffic signals for such a long stretch, the traffic signals would need camera detection and the controllers for the signals would need to be interconnected. There are two options – radio interconnect or fiber optic lines connecting the controllers. A radio interconnect would require an unobstructed signal path between the signals. An example of a location in the City where radio interconnect would be feasible would be Merrimack Street downtown, which is relatively straight and the traffic signals are fairly close together. An example of a location where the City could use fiber-optic lines to connect controllers is along the Bridge Street corridor, beginning at Bridge and French, to Bridge and Merrimack, to Central and Merrimack to Prescott and Central. Some infrastructure (empty conduit) is in place and when Bridge and French is constructed, the remainder will be in place,

Interconnecting signals can really help with traffic congestion during peak times as the camera detection and connected controllers can turn a light red to stop traffic flowing into a congested area until the downstream controllers clear the roadway. The Transportation Engineer recommends requesting that MassDOT perform a study to determine if the signal timing could be sequenced to improve traffic flow along that route. It is also recommended that the City pursue options to have a case study of interconnected signals in the downtown along Bridge and Merrimack to evaluate the impact on traffic flow and congestion.

NV/ns

Attachment

cc: Natasha Vance, Transportation Engineer

<b>Name</b>	<b>Meter #</b>	<b>Street 1</b>	<b>Street 2</b>	<b>Type of Control</b>	<b>State Lights</b>	<b>Note</b>
80	13818698	Rogers Street	Phoenix Avenue	Fixed	Yes	Due to be replaced w MADOT Rte. 38 Improvement Project
84	14280057	Rogers Street	Boylston Street	Fixed	No	Due to be replaced w MADOT Rte. 38 Improvement Project
82	30706305	Rogers Street	Nesmith Street	Fixed	No	
3	97831518	Andover Street	Nesmith Street	Fixed	Yes	Due to be replaced w MADOT Rte. 38 Improvement Project
85	13820021	Route 38	East Merrimack	Semi-Actuated	Yes	Due to be replaced w MADOT Rte. 38 Improvement Project
61	93049494	Nesmith Street	Stackpole Street	Fixed	Yes	
8	11817422	Bridge Street	VFW Highway	Fully Actuated	Yes	
95	70164913	VFW Highway	Lakeview Avenue	Fixed	Yes	
78		VFW Highway	Aiken Street	Fixed	No	Under Construction, MADOT project
92		VFW Highway	University Avenue	Fixed	Yes	
93	11817320	VFW Highway	Mammoth Road	Fixed	Yes	Under Construction, MADOT project
94	11811759	VFW Highway	Varnum Avenue	Fixed	Yes	
67	61926158 or 40031570	Pawtucket Blvd.	Rourke Bridge	Fixed	No	

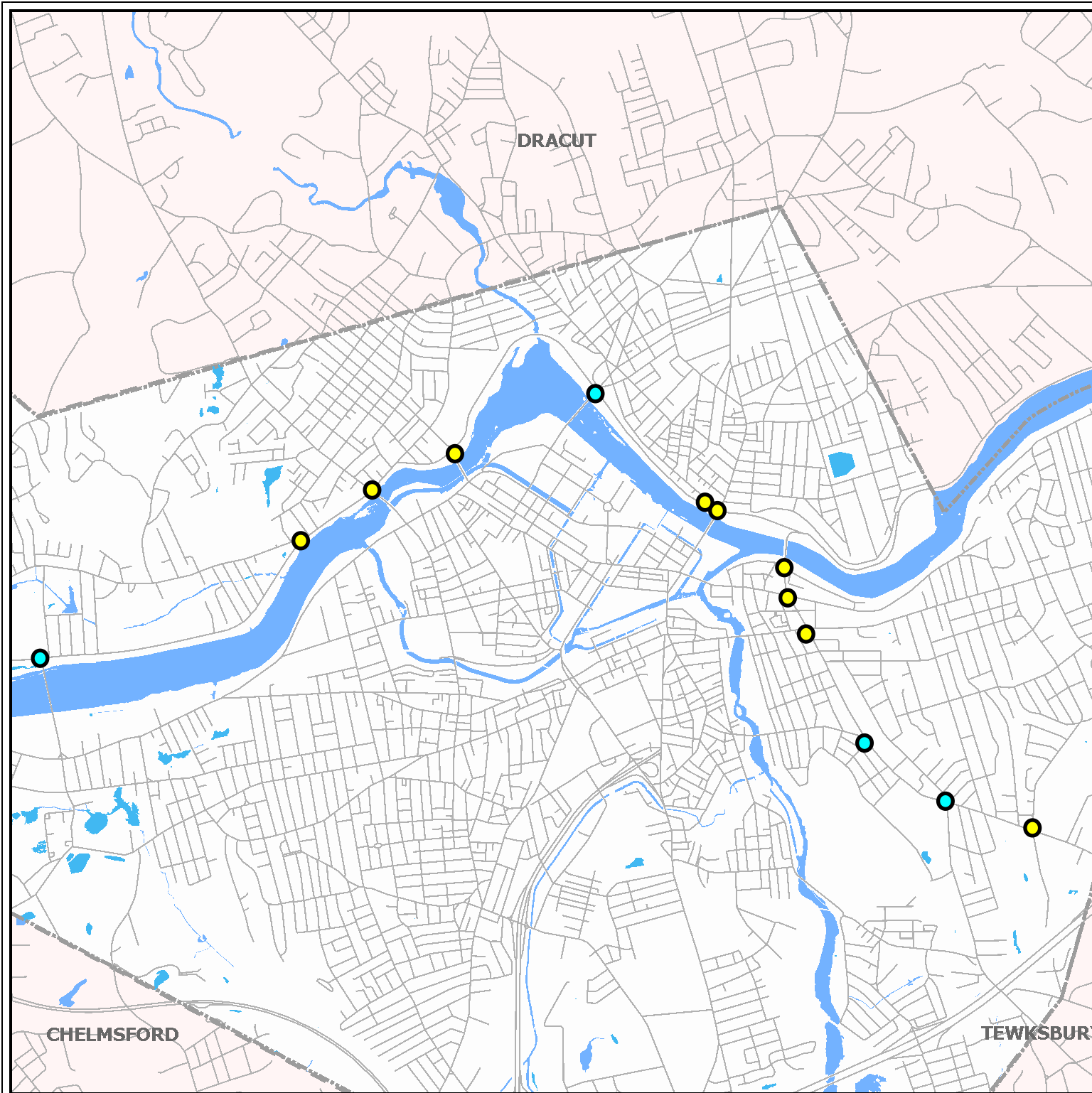
City owned in corridor  
State owned in Corridor



## City of Lowell Massachusetts

- Lowell Boundary
- Street Centerline
- Water Bodies
  - Open Water
  - River

- City-owned Traffic Signal
- State-owned Traffic Signal



**DISCLAIMER**  
Any map printed from this system is considered unofficial unless it has been stamped/logged/certified by the Office of the City Assessor.  
The City of Lowell makes no warranty of Representation as to the accuracy, timeliness or Completeness of any of the data. The City of Lowell Shall have no liability for the data or lack thereof, or Any decision made or action taken or not taken in Reliance upon any of the data.  
1" = 2866 ft      December 10, 2018