

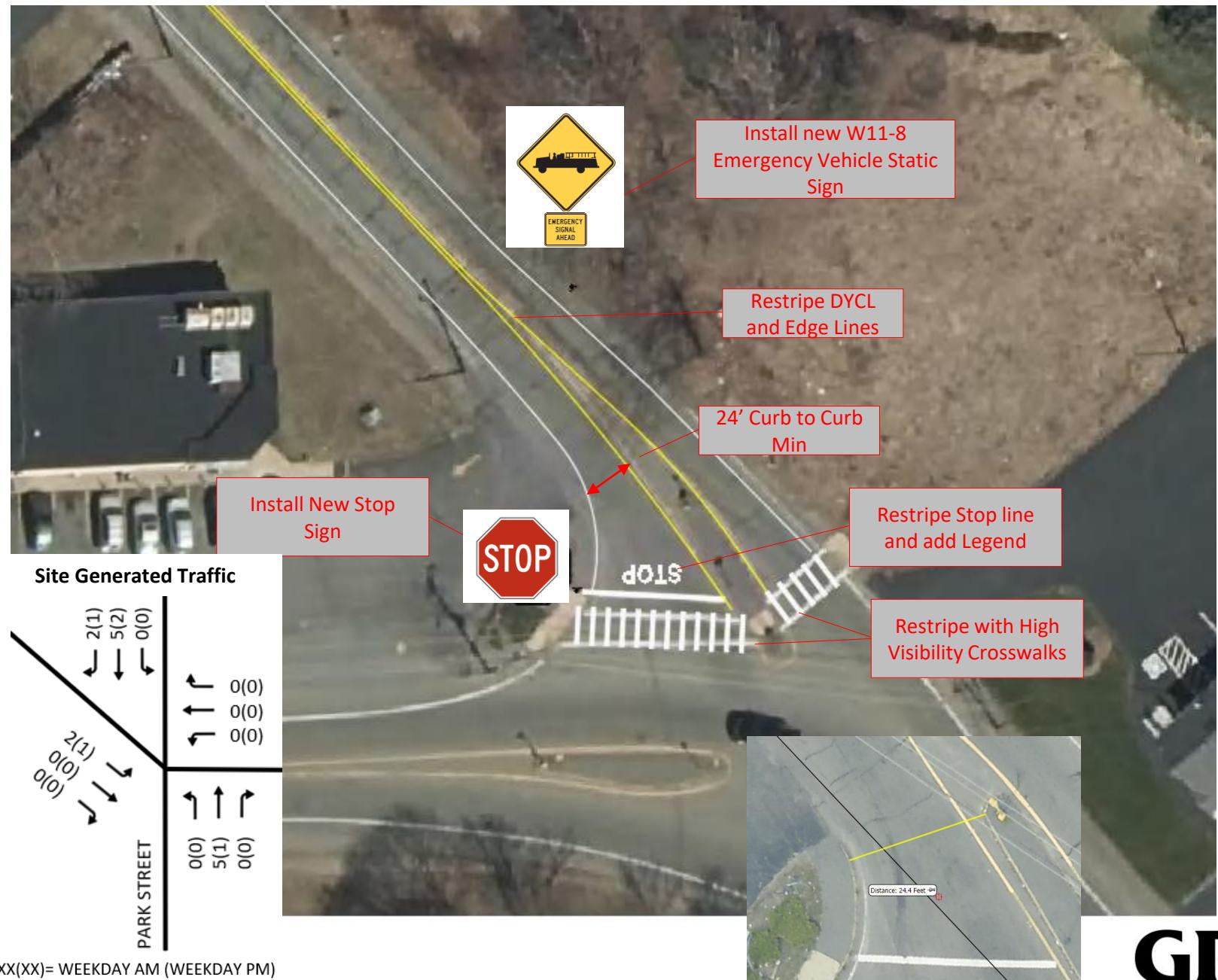
# Prospect Street at Park Street

## Impacts

- Less than 5 sec additional delay added during morning & evening peak hours
- No change in operational LOS
- At most additional 1 vehicle to SB queue
- Crash Rate: 0.34
  - (0.57 District Ave)
- **Traffic levels do not warrant traffic signalization**

## Proposed Mitigation

- Restripe Stop Line and Add "STOP" Legend for Improved visibility.
- Restripe DYCL and edge lines between Fire Station Drive and Park Street
- Install new STOP Sign
- Install Emergency Signal Ahead Sign



2022 Massachusetts  
Amendments to the 2009  
MUTCD

Section 4C.02 Warrant 1, Eight-Hour Vehicular Volume

Insert the following paragraphs:

**Standard:**

03A Except as provided in Paragraphs 03B and 03C below, Warrant 1 shall be met prior to the consideration of the installation of any new traffic control signal on State Highway.

Option:

03B If an intersection on State Highway meets the criteria for Warrant 7, per Section 4C.08, and an Intersection Control Evaluation shows that alternatives to a traffic control signal are not practical or do not provide the same benefit, then a traffic control signal may be considered.

03C Massachusetts has an approved request for Interim Approval for IA-19, Optional Use of an Alternate Signal Warrant 7. As long as the Interim Approval remains active, the methodology described in IA-19 is an acceptable substitute for Warrant 7.

# Prospect Street at Pleasant Street

## Traffic Control Signal Warrant Analyses

(Based on MUTCD-2009 Edition)

Intersection:

Pop. <10,000? (Y/N)

Speed (in mph):

Park Street at Prospect Street

Count Date: 1/4/2023

Analysis Year: 2022

Adjustment Factor: 1

Analysis Date: 01/11/23

Analyst: JWD

Raw counts

?\* #Lanes\*

(one way)

1

1

1

Major Lanes: 1

Minor Lanes: 1

Enter the higher number of lanes for the major street approach

Enter the number of lanes for the minor street approach you want to analyze

\*Note: If intersection is a "T" intersection, leave cells blank for the non-existent approach

	Σ WB	Σ NB	Σ SB	Σ Major	Σ Minor	Σ Max Minor	W1 A	W1 B	W1combo	W2	W3
13:00	629	0	46	924	46	46	N	N	N	N	N
14:00	580	0	81	939	81	81	N	Y	N	N	N
15:00	391	0	52	719	52	52	N	N	N	N	N
16:00	403	0	80	763	80	80	N	Y	N	N	N
17:00	378	0	99	742	99	99	N	N	N	N	N
18:00	426	0	81	818	81	81	N	Y	N	N	N
19:00	400	523	0	87	929	87	N	Y	N	N	N
	524	521	0	109	1045	109	N	Y	N	Y	N
	589	569	0	159	1158	159	Y	Y	Y	Y	N
	576	626	0	168	1202	168	Y	Y	Y	Y	Y
	581	551	0	126	1132	126	N	Y	Y	Y	N
	449	413	0	108	862	108	N	Y	N	N	N
	305	323	0	61	628	61	N	N	N	N	N

2 of 8    9 of 8    3 of 8    4 of 4    1 of 1

### Warrant Analyses

Warrant 1: Condition A Minimum Vehicular Volume Warrant is Not Met

Warrant 1: Condition B Interruption of Continuous Traffic Warrant is Met

Warrant 1: Combination of Warrants 1A and 1B is Not Met

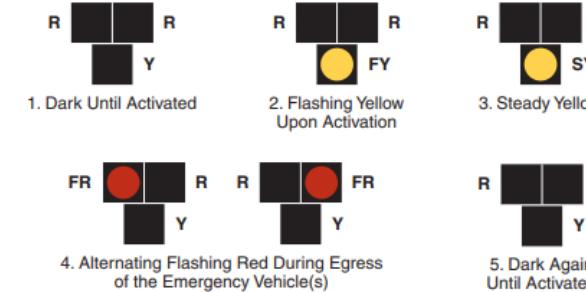
Warrant 2: Four-Hour Warrant is Met

Warrant 3: One-Hour Warrant is Met

# Prospect Street at Fire Station Drive

Figure 4G-1. Sequence for an Emergency-Vehicle Hybrid Beacon

Legend  
 SY Steady yellow  
 FY Flashing yellow  
 FR Flashing red



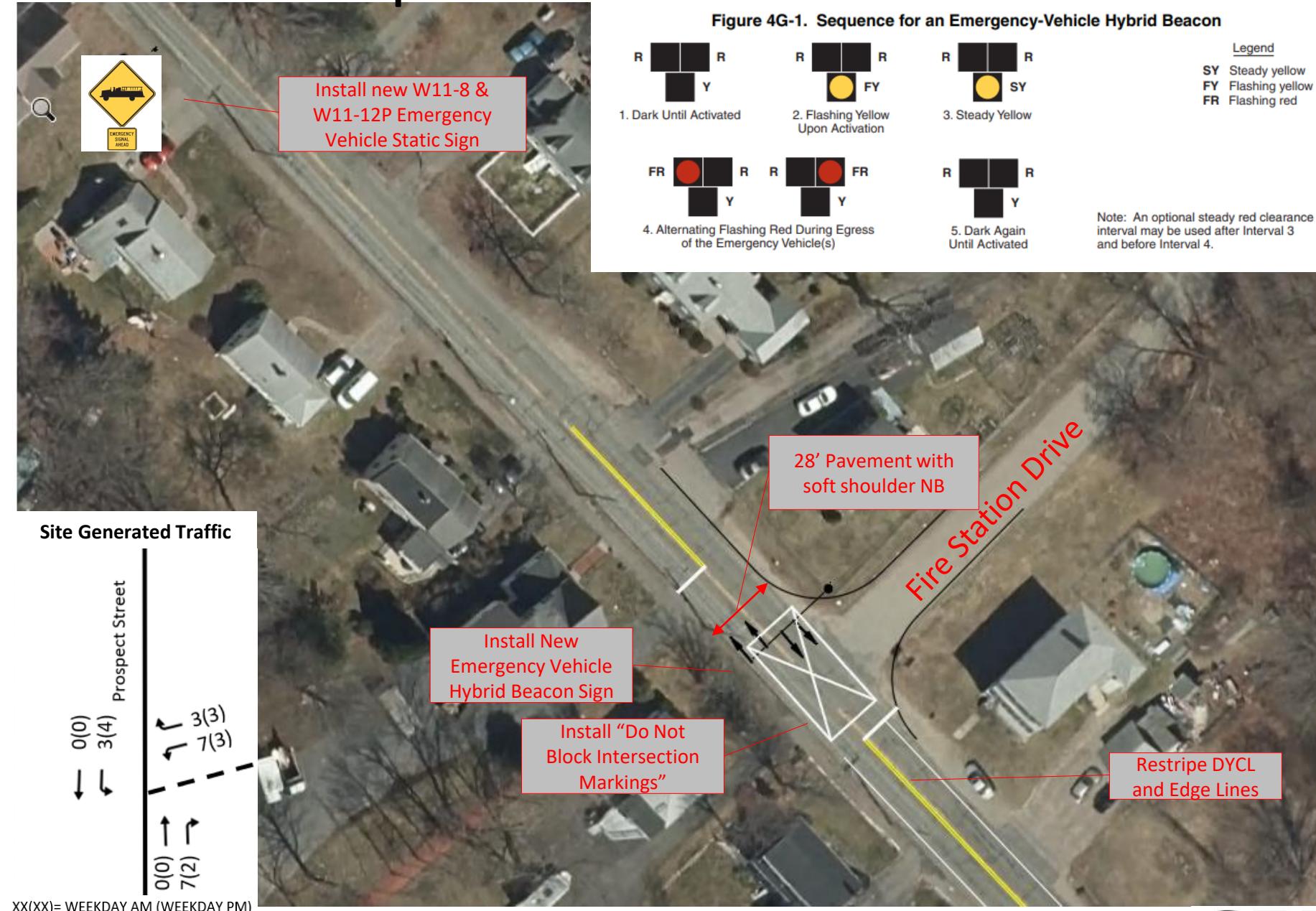
Note: An optional steady red clearance interval may be used after Interval 3 and before Interval 4.

## Impacts

- SB Left Turn operates at LOS 'A'
- WB turns operate at LOS 'B'
- 8 Firefighters on 24 hour shift
- 0800 Shift Change
- No Site Traffic During Morning Peak
- Improved Traffic Operations in Town Center with Removal of Fire Station and interruption of Coordinated Traffic Signal
- Majority of traffic (65%) to Park St
- Sight lines in excess of 800' well over requirements of 45 mph

## Proposed Mitigation

- Emergency Hybrid Signal Beacon
- Activated only during emergency response
- Install Emergency Signal Ahead Signs on Prospect St



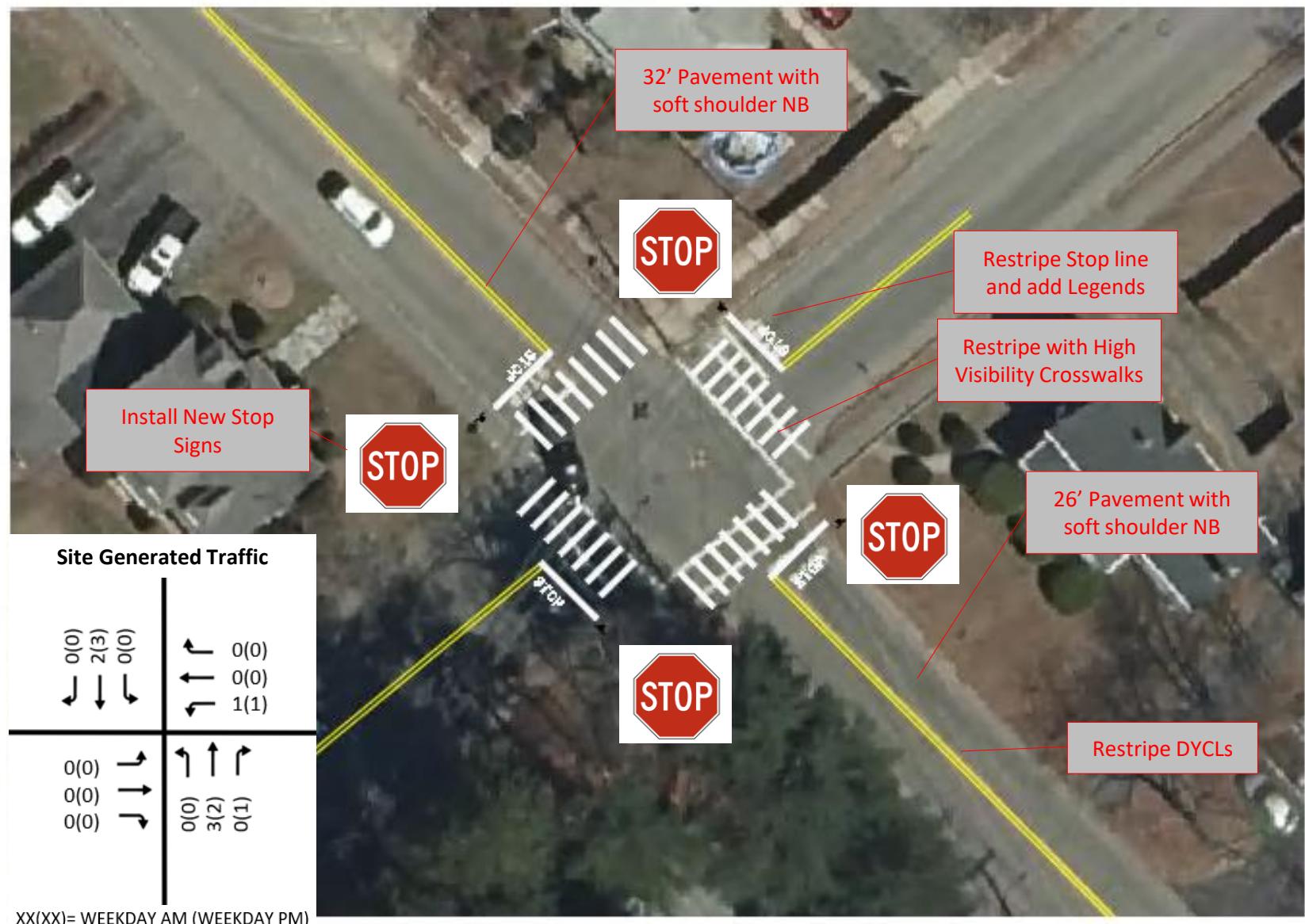
# Prospect Street at Walnut Street

## Impacts

- Less than 1 sec additional delay added during morning & evening peak hours
- No change in operational LOS
- At most additional 1 vehicle to NB queue
- Crash Rate: 0.73
  - (0.57 District Ave)

## Proposed Mitigation

- Restripe Stop Line and Add "STOP" Legend for Improved visibility on all approaches
- Restripe DYCL on all approaches
- Install new STOP Signs on all approaches
- Restripe all crosswalks with high visibility "ladder" style markings
- Trim vegetation to ensure visibility of warning signal and signs.



## Prospect Street at Pleasant Street

### Impacts

- Less than 3 sec additional delay added during morning & evening peak hours
- No change in operational LOS
- At most additional 1 vehicle to NB queue
- Crash Rate: 0.17
  - (0.57 District Ave)

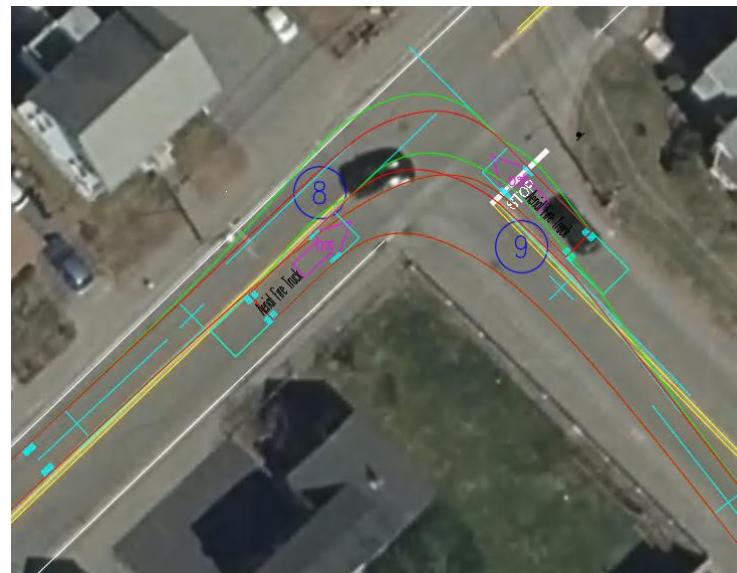
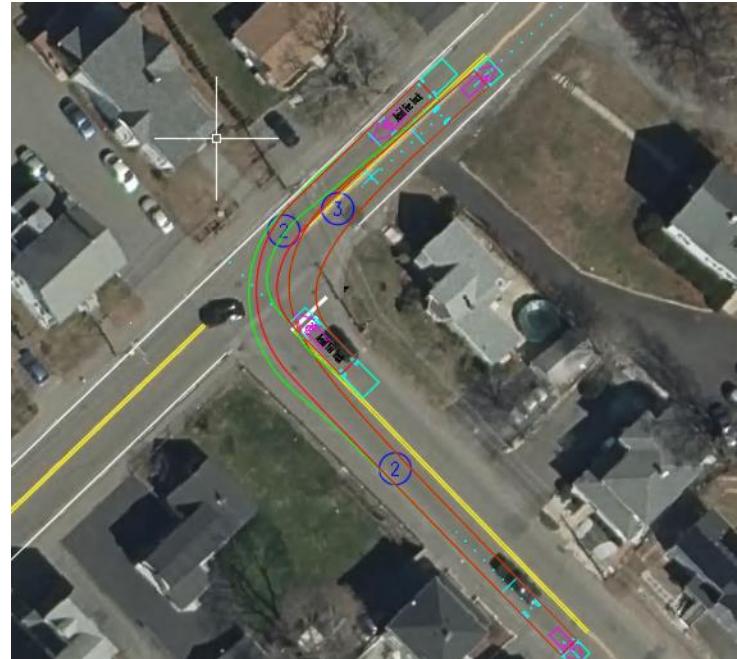
### Proposed Mitigation

- Restripe Stop Line and Add "STOP" Legend for Improved visibility.
- Restripe DYCL
- Install new STOP Sign

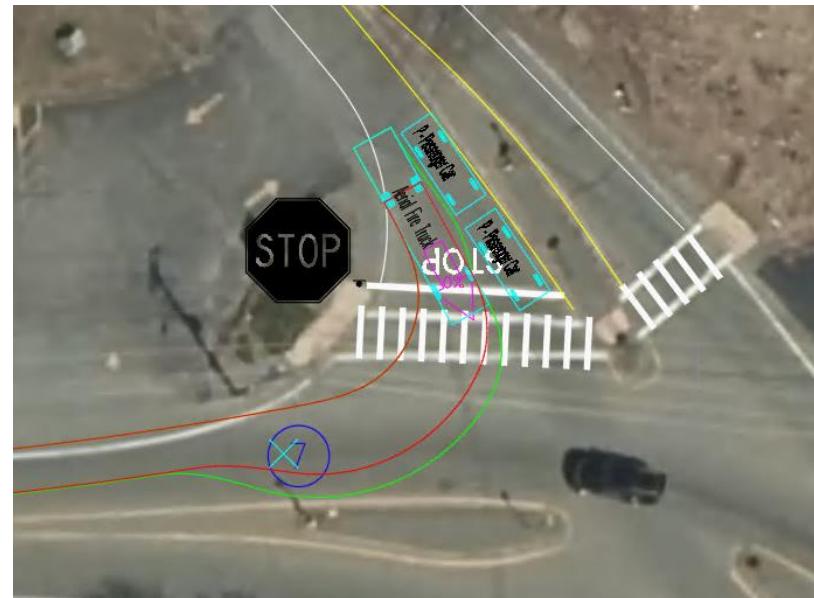


# Fire Truck Movements

Pleasant St at Prospect St



Prospect St at Park Street



Prospect St at Fire Station Drive

