

**Date**  
11/9/18

**To**  
Nathan Poore

**Project Correspondence**

**From**  
Bruce Munger, PE, PTOE

**Subject**  
Falmouth Center Background Information

Ahead of the meeting on Wednesday, November 14, 2018, we would like to present the Town of Falmouth with a plan for the assessment and mitigation of traffic as a result of the proposed Falmouth Center development. **Figure 1** depicts the Conceptual Master Plan layout.

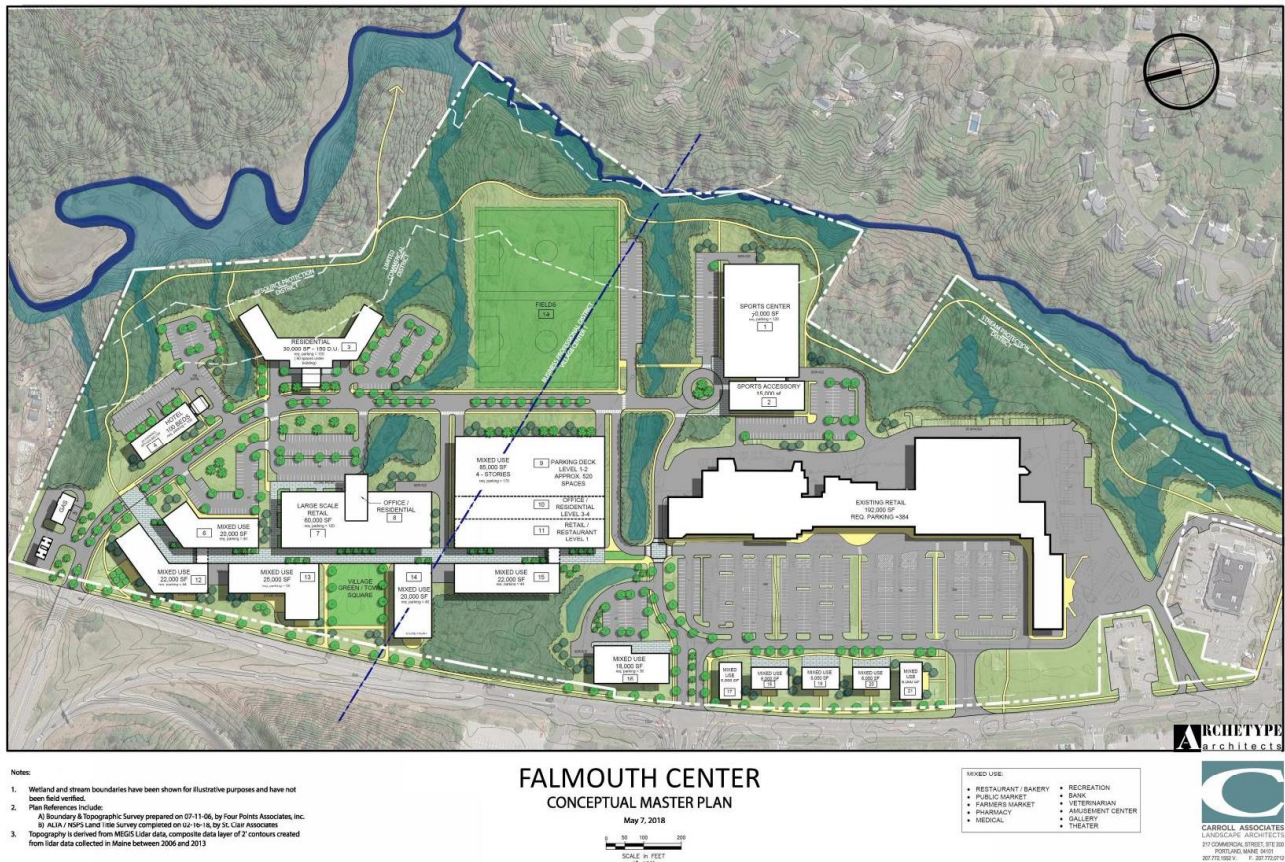


Figure 1: Falmouth Center Conceptual Master Plan Layout

The development is summarized in **Table 1** and is sorted into land use by building.

<b>Table 1: Falmouth Center Building Use and Dimensions</b>				
<b>Building #</b>	<b>Use</b>	<b>Footprint (S.F.)</b>	<b>Total S.F.</b>	<b>Mix (for parking)</b>
1	Sports Facility	(350x200) 70,000	70,000	350x52
1a	Fields	0	0	174,800 sf
2	Sports accessory	(200x75) 15,000	30,000	150 x 100
3	Residential	30,000	180,000	1000 sf/unit
4	Hotel	13,000	78,000	120 rooms
5	Gas Station & Car Wash	2,000	2,000	
6	Mixed Use	20,000	80,000	40 ret 120 office
7	Public Market	60,000	60,000	3 per 1000 sf
8	Office	5,000	25,000	
9	Garage	88,258	176,500	300 sf/space
10	Retail	35,500	35,500	
11	Residential	12,000	60,000	
12	Mixed Use	22,000	44,000	30 ret+28 rest+44off
13	Mixed Use	25,000	50,000	40ret+28 rest+50 off
14	Mixed Use	20,000	40,000	30 ret+28 rest+40 off
15	Mixed Use	22,000	44,000	30 ret+28 rest+44off
16	Retail/Office/Residential	18,000	54,000	
17	Retail/Office/Residential	6,000	30,000	12 ret+24 off +12 res
18	Retail/Office/Residential	6,000	30,000	12 ret+24 off +12 res
19	Retail/Office/Residential	6,000	30,000	12 ret+24 off +12 res
20	Retail/Office/Residential	6,000	30,000	12 ret+24 off +12 res
21	Retail/Office/Residential	6,000	30,000	12 ret+24 off +12 res

The development is anticipated to create a village-type atmosphere with behind building parking, the continuation of existing trail, and buildings near the face of the road – matching the existing vision of the Route 1 corridor. A new entrance is proposed to the north of the Route 1, Bucknam Road and the Shopping Center intersection. This intersection would allow for the removal of the ramps from the Falmouth Spur and to create a safer at-grade intersection. Preliminary analysis indicates this intersection would likely need to be signalized.

## Study Area

To accommodate the effects of this development, the following study area is anticipated in **Figure 2**. This study area will be formally determined at the MaineDOT scoping meeting. This will include all signalized intersections in the areas highlighted in pink

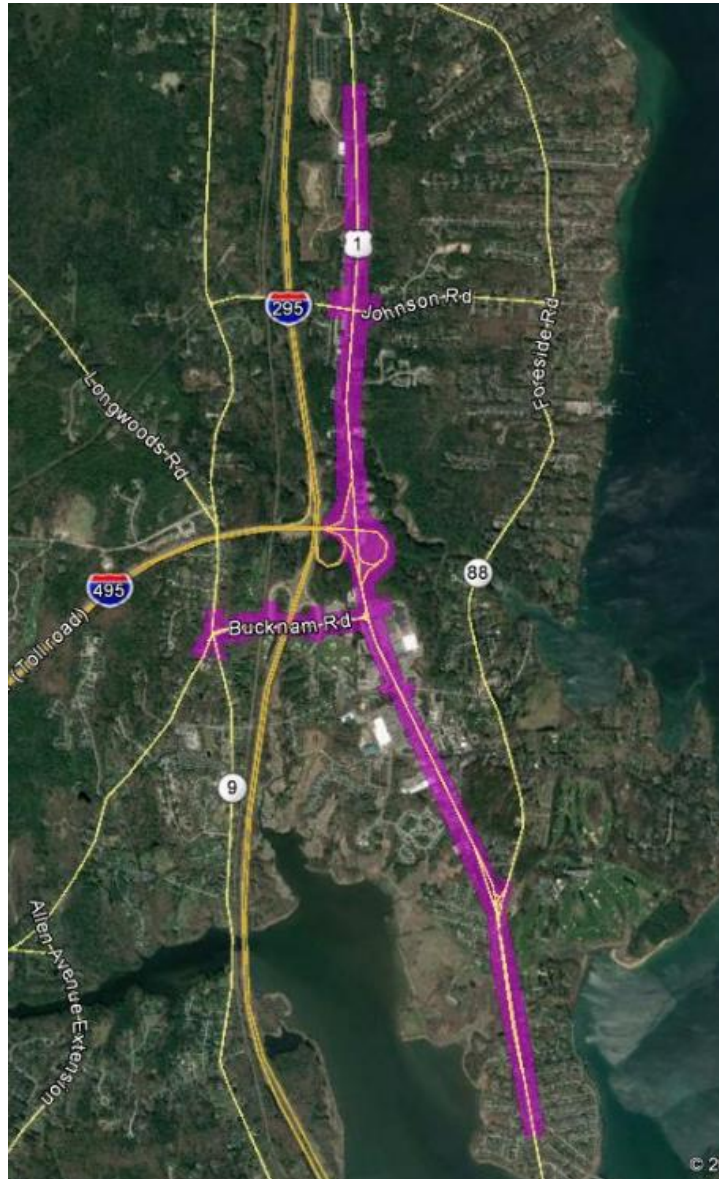


Figure 2: Falmouth Center Study Area

## Base Volumes

Base volumes have been obtained from MaineDOT and TYLin gathered as part of the Route 1 Corridor Study from Falmouth to Yarmouth. Additional counts will be performed by HNTB staff from 11/13 – 11/15. The volumes will be used for existing and future analyses.

## Trip Generation

The calculation of trips will be determined using standard MaineDOT methodology – the 7<sup>th</sup> Edition ITE Trip Generation Manual. Through this methodology, four types of trip generation will be determined:

- *Internal Capture* – those trips between buildings and land uses on the proposed new development site;
- *Pass-By Trips* – those trips made by users who are on the way to their primary destination and stop at the proposed new development without changing their route;
- *Non-Pass-By Trips*
  - *Diverted Trips* – those trips made by users who have a primary trip but will now go out of their way (divert) to make a stop at the proposed new development;
  - *New (Primary) Trips* – those trips made by users who are making new primary trips and are adding new traffic to the region

## Trip Distribution

This area is incredibly unique to the state of Maine – a major hub where Route 1, I-295 and I-95 meet. It is anticipated that the majority of trips (nearly 75%) would come from these sources while the remainder will come from local roads.

## Intersection Analysis

Intersections will be analyzed using standard Maine Department of Transportation Methodology. This requires that a future no-build and build scenarios be created (with proposed mitigation) to ensure that *new development does not have an adverse effect on existing traffic*.

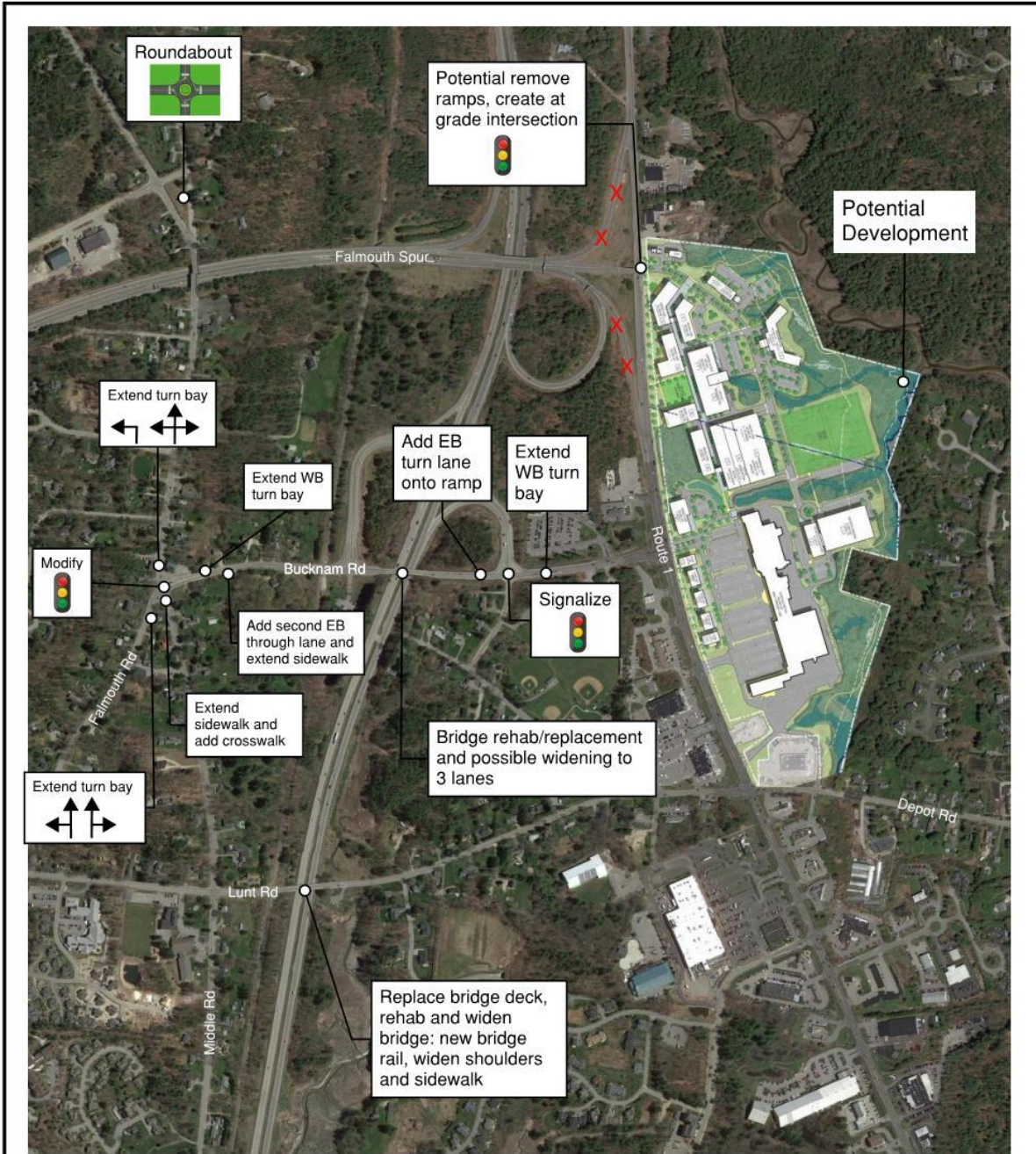
LOS	Signalized	Unsignalized
A	<10	<10
B	10-20	10-15
C	20-35	15-25
D	35-55	25-35
E	55-80	35-50
F	>80	>50

This methodology utilizes Level of Service (LOS) from the Highway Capacity Manual, “the average total vehicle delay of all movements through an intersection” in the form of A-F. LOS A correlates to a free-flow condition with less than 10 seconds of delay to LOS F, a jammed condition with greater than 80 seconds of delay for a signalized intersection and greater than 50 second of delay for an unsignalized intersection.

## Potential Mitigation

It is anticipated that mitigation will be required for this area. Projects currently in the MaineDOT and Town of Falmouth workplans are being examined to thoughtfully integrate and cause the least disruption possible. As shown in **Figure 3**, the following projects have currently been identified.

It is important to the Developer and for staff to note that just because we can build our way out of congestion, doesn't mean you should. The project isn't proposing to change the sections on Route 1 to 5 lanes or in any way to change the character or the area. Instead, proposed changes include improvement such as the addition of turn lanes, increasing the storage length of existing turn lanes where necessary, retiming and improving the coordination of existing signals and incorporating the added capacity of currently planned projects.



**HNTB**

SHEET NUMBER

**1**

OF 1

**FALMOUTH CENTER  
POSSIBLE FUTURE PROJECTS**

There are several locations where mitigation is anticipated:

- Intersection of Route 1, Bucknam Road, and the Shopping Center
- Intersection of Route 1 and Depot Road
- Intersection of Route 1 and Clearwater Drive

## **Reviews**

Reviews will happen at every step of the way by two independent entities:

- **MaineDOT:** MaineDOT will review all aspects of this development as part of its review of the Traffic Movement Permit
- **Peer Review:** The Town of Falmouth has hired Tom Errico of TYLin International to be an independent reviewer

It is our intention to work hand in hand with MaineDOT, TYLin and the Town to produce the best development for the Town of Falmouth with the least traffic impact possible to the existing users of the infrastructure.

## **Timing/Schedule**

The process will follow the existing MaineDOT process for Traffic Movement Permits with additional public involvement from the Town. This process is roughly as follows:

- Step 1: Submit Sections 1-6 of the TMP to MaineDOT
- Step 2: Meet with MaineDOT to discuss and make any updates to the permit application
- Step 3: Meet with the peer reviewer for the Town to discuss assumptions made, plans proceeding forward
- Step 4: Complete Steps 1-6 of the TMP application with MaineDOT
- Step 5: Host a scoping meeting with MaineDOT involving the Consultant (HNTB), the Town, neighboring municipalities, MaineDOT, and the peer reviewer for the Town
- Step 6: Finalize the TMP

Additional public involvement is anticipated.

## **Conclusion**

It is our intention to follow the standard Maine Department of Transportation process for Traffic Movement Permits in order to have the most successful project possible. This includes determination of additional traffic the development will produce, proposal of mitigation strategies in keeping with the Route 1 corridor vision and coordinated with current projects, analyses, reviews and public involvement.