

## **Attachment B**

### **Traffic Memo**

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**November 22, 2006**

<b>Date</b>	<b>To</b>
November 22, 2006	file 09009-XW-009-001
<b>Project Correspondence</b>	<b>cc</b>
	<b>From</b>
	Todd Pendleton, PE
	<b>Subject</b>
	West Gardiner Service Plaza / Rest Area – Route 126 Traffic Memo

## I. Traffic Volume Summary

Peak-hour traffic conditions on Route 126 in West Gardiner are summarized in Figure 1. The traffic volumes represent projections to 2008, assuming that the facility is *not* built.

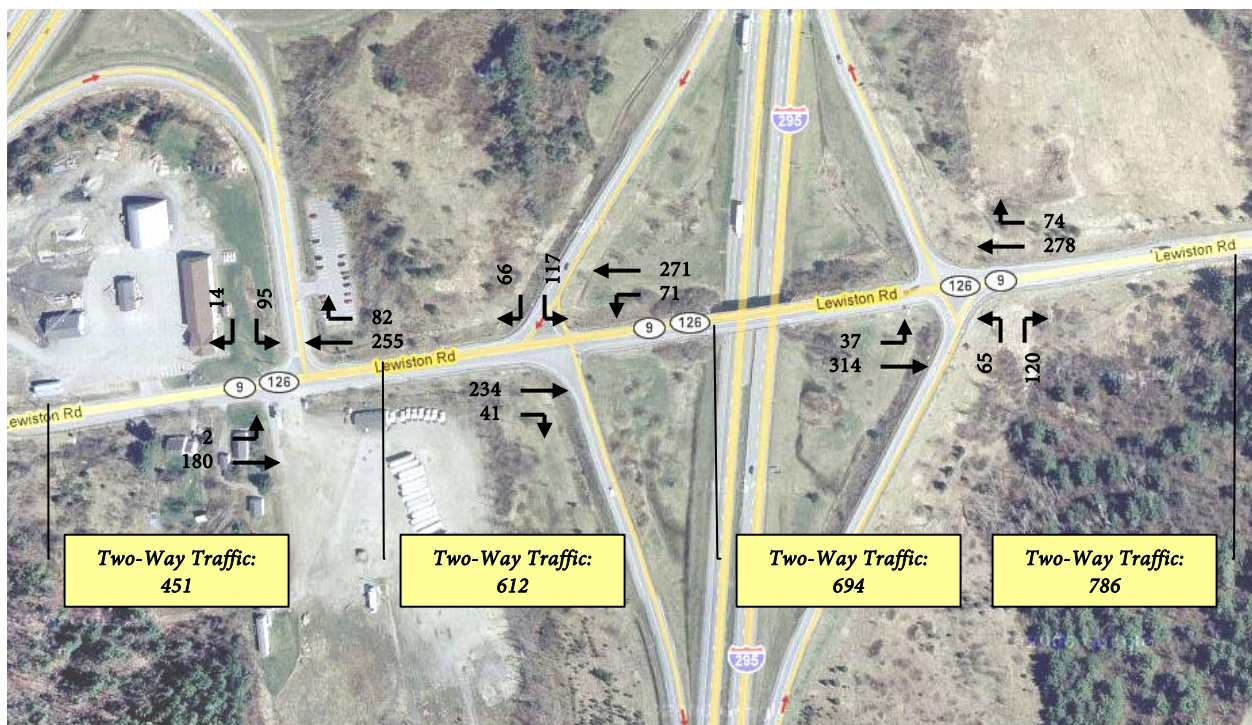


Figure 1 - 2008 No-Build Traffic, PM Peak Hour

As Figure 1 indicates, the busiest segment of the roadway was just east of the NB ramps on I-295. A total of 786 vehicles traversed this segment during the peak hour. The segment volumes gradually decrease as one travels from east to west.

The projected peak-hour volumes in the “build” condition are summarized in Figure 2.

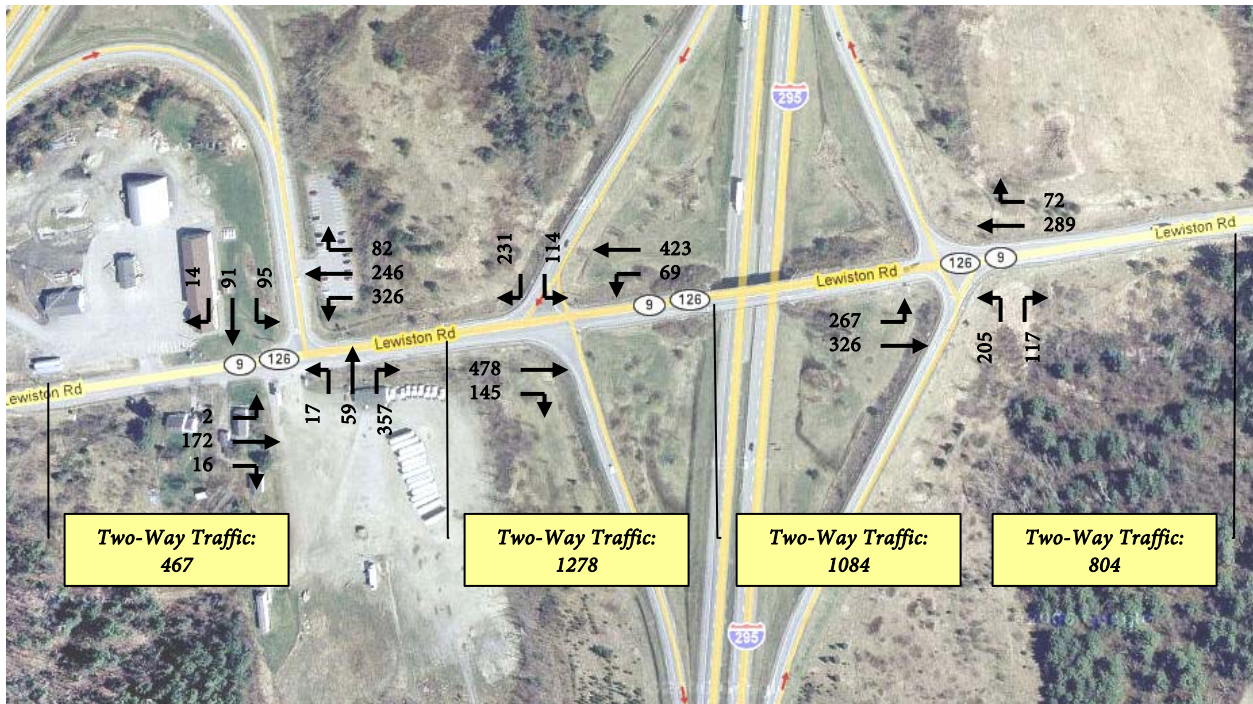


Figure 2 – 2008 Build Traffic, PM Peak Hour

Two important observations may be drawn from comparing Figure 1 and Figure 2:

- The busiest segment in the “build” condition is the segment between the Maine Turnpike ramp and the I-295 SB ramps. The traffic on this segment more than doubles, from 612 vehicles per hour (vph) in the “no-build” condition to 1278 vph in the “build” condition.
- Traffic on the segment to the west of the MTA ramp remains virtually unchanged. It only increased by 16 vph (from 451 to 467).
- Similarly, traffic to the east of the I-295 ramps also changed very little, increasing from 786 vph in the “no-build” condition to 804 vph in the “build” condition.

It is evident from these two figures that, from the perspective of Route 126, *the traffic growth associated with this service plaza is primarily restricted to the segments between the interstate ramps.* Traffic between the Turnpike (I-95) ramp and the I-295 ramps roughly doubles. Traffic on the other side of these ramps increases by 2-3%.

Figure 3 illustrates how the AADT’s are projected to change with the building of the proposed service plaza and rest area.

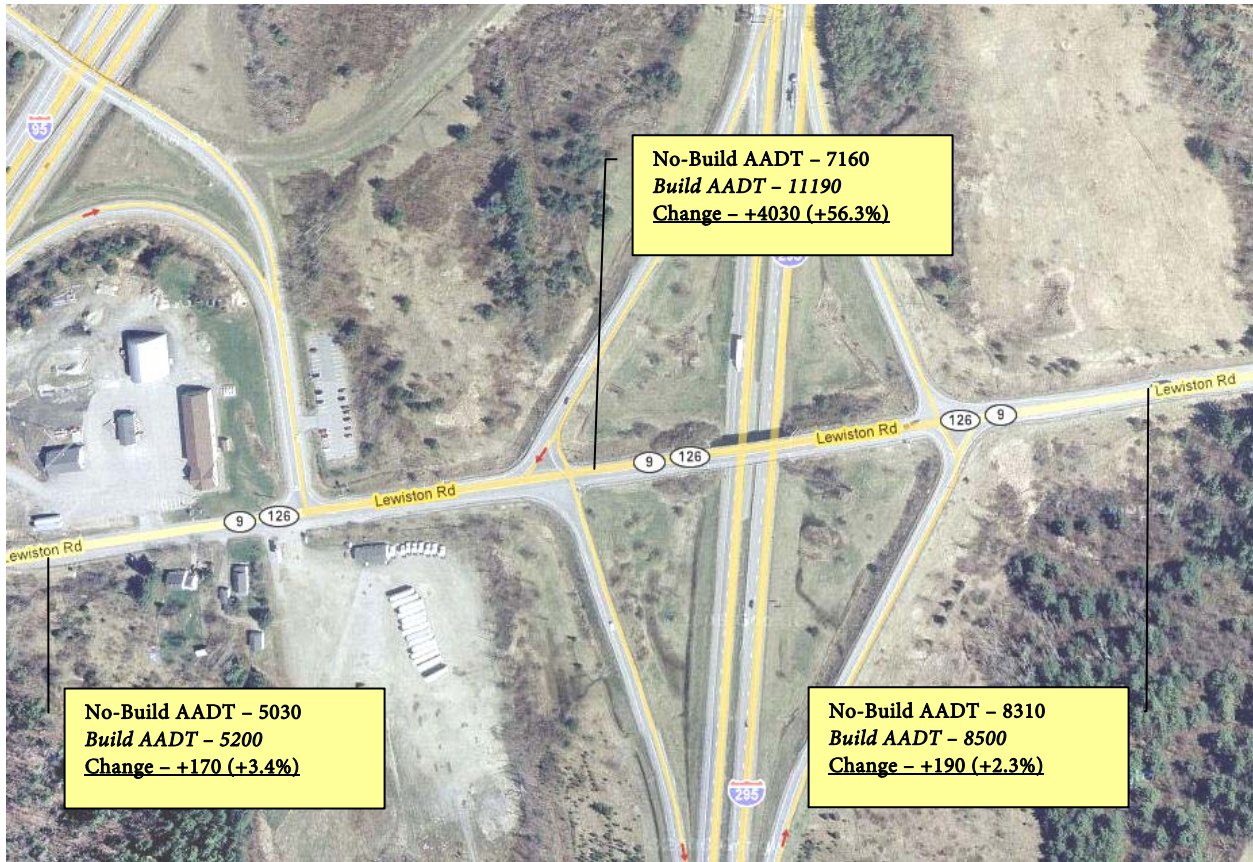


Figure 3 – 2008 Projected AADT's, No-Build vs. Build

The change in AADT's mirrors the change in peak-hour volumes. On the segments that lie outside the interstate ramps, the AADT's experience marginal increases. Between the ramps, however, they increase by over 50%. This phenomenon can be attributed to this fact: the vast majority of service plaza patrons will both come from and return to the interstate.

## II. Route 126 Modifications

Modifications to Route 126, which provides access to the site from I-295 and the Maine Turnpike, will be incorporated into the project. These modifications will provide safety measures and improve the mobility of the Route 126 corridor. Anticipated modifications to Route 126 include: 1) adding left turn lanes at three intersections that provide access to the I-295 and Turnpike on ramps; 2) lighted raised islands and flashing beacons as traffic calming measures; and, 3) a pavement overlay.

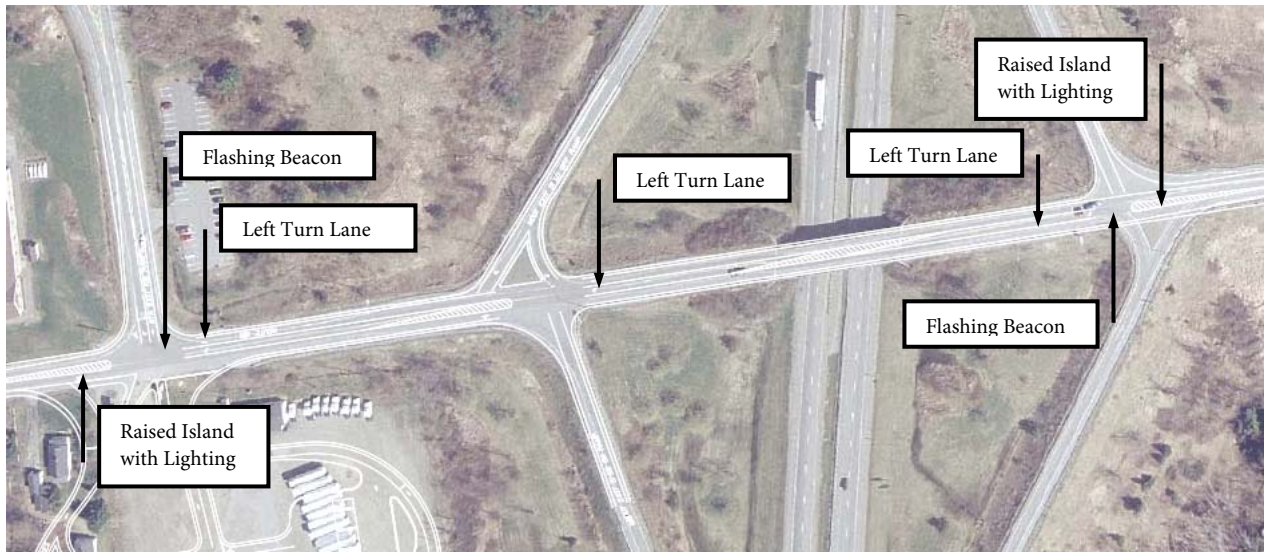


Figure 4 – Sight Distance Modifications

**III. Level of Service (LOS)**

Figure 5 provides a summary of the level of service (LOS) experienced at each intersection. The light-colored boxes depict the LOS in the 2008 no-build scenario, while the dark-colored boxes represent the LOS in the “build” scenario. The LOS represents a weighted average for all movements through the intersection.

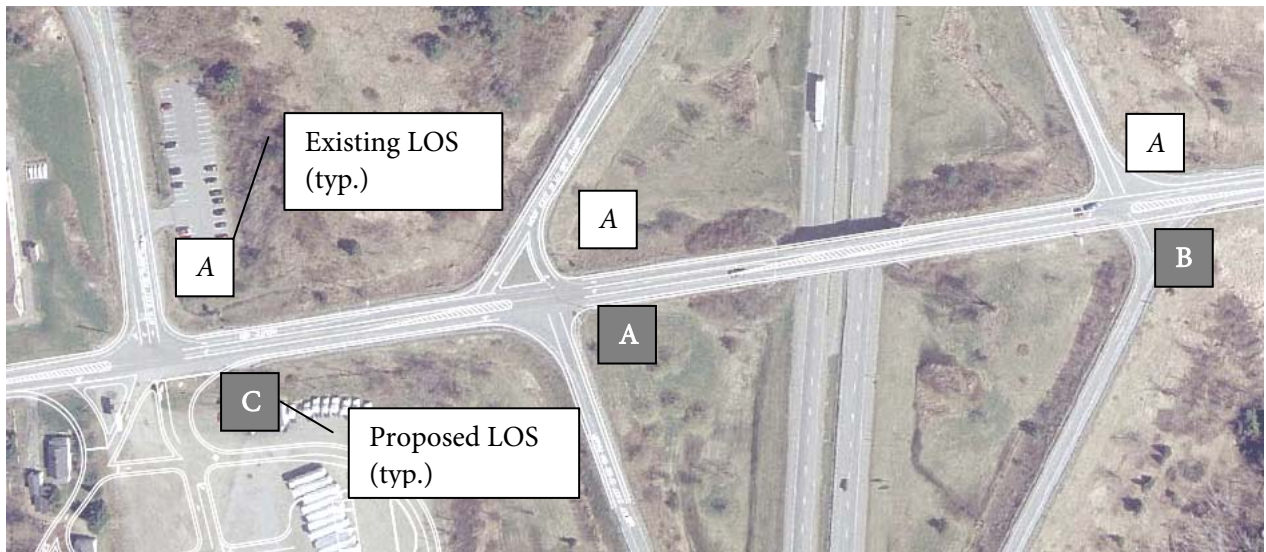


Figure 5 – Route 126 Level of Service (LOS)

The most noteworthy change, as expected, is at the access point to the service plaza and rest area. The LOS falls from A to C as a result of the plaza-related traffic. The intersection of Route 126 and the NB ramps also experiences a decline in LOS, though its decline is less (from A to B). The intersection of Route 126 and the SB ramps does not experience a degraded LOS.



In fact, according to MaineDOT's most recent High Crash Location Listing, only one location in West Gardiner qualifies as a high-crash location. The HCL is the northbound link on I-295 between the Cobbosseecontee Stream and the NB off-ramp to Route 126. The link experienced 14 accidents over a 3-year period, and its CRF was 1.09. However, this link should *not* be affected by the introduction of the service plaza and rest area. The plaza will encourage more people to *exit* I-295 (in order to access the service plaza), but it will not attract more people *onto* I-295.