




SKAGIT COUNTY PUBLIC WORKS DEPARTMENT

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MEMORANDUM

Date: March 1, 2018
To: Hal Hart, AICP, Director, Planning and Development Services
From: Paul A. Randall-Grutter, P.E., County Engineer 
Subject: Lake Erie Gravel Pit Review of Traffic Impacts (PL16-0556)

Overview

Development/expansion of Lake Erie Gravel Pit located (PL16-0556) at 13540 Rosario Road to extract 60,000 tons of material annually at the location of an existing un-reviewed gravel pit has been proposed. Review of the Applicant's Traffic Impact Analysis and its Addendum as well as addressing traffic safety concerns is our focus.

Existing Conditions

The active mining property at 13540 Rosario Road accesses the County road system (Rosario Road) just east of the 'Y' intersection with Marine Drive Wye on Fidalgo Island. Rosario Road is a Rural Major Collector roadway with a 40-mph speed limit. The road has an AADT (annualized average daily traffic) of 1,600 vehicles (7% trucks) in the road segment east of the access and an AADT of 3,900 vehicles (4% trucks) in the segment southwest of the access. Both segments are designated T3 Truck Routes – carrying 300,000 to 4,000,000 tons of freight per year.

Sight distance was measured from the existing access in both directions in February of 2018. Sight distance was 1,080 feet to the right (east) and 365 feet to the left (west) was. The sight distance to the right meets all sight distance criteria for cars and trucks at the 40-mph speed limit. The sight distance to the left meets AASHTO Safe Stopping Sight Distance of 305 feet for passenger cars approaching the access and Skagit County Road Standards Access sight distance requirements of 320 feet(Section 7.02(G)(2)). These values are different because AASHTO standards have been modified since Skagit County last updated the Road Standards in 2000. However, the shorter sight distance to the left does not meet AASHTO guidelines for intersection sight distance for cars (445 feet) or trucks (850 feet).

It was also noted upon site review that the private driveway that serves the existing site is a gravel surfaced path with no discernible asphalt apron. As such, there is increased opportunity for loose gravel, mud, and other debris to be pulled onto the travel lanes of Rosario by gravel trucks and other vehicles upon egress of the pit.

Applicant's Traffic Analysis

A Traffic Impact Analysis (TIA) dated September 9, 2016 was conducted by Gibson Traffic Consultants, Inc. on behalf of the Applicant. While we concur with Gibson's TIA methodology and conclusions, it was noticed that the collision history provided by the Washington State Department of Transportation (WSDOT) was incomplete. We requested and were provided an Addendum with corrected and accurate collision data.

The proposed increase of 26 daily truck trips (4 peak hour trips) to move 60,000 tons of gravel per year only required a Level 1 TIA per Skagit County Road Standards Section 4.02(A)(1). However, the Applicant voluntarily provided a comprehensive Level 2 TIA.

We concur with Gibson Traffic Consultants, Inc.'s TIA conclusions with regards to Trip Generation, Trip Distribution, and Level of Service (no impact). All Skagit County roadways will remain concurrent, and Level of Service standards maintained with approval of the Lake Erie Gravel Pit expansion as currently proposed.

Traffic Impacts

The projected increase in truck traffic from this proposed expansion increases the traffic on even the most lightly traveled haul route by less than 1%. Therefore, there is little to no impact on the road system or its concurrency. County road segment and intersection Level of Service is not impacted or changed by this expansion. The expansion as proposed will not impact route integrity or other road users including, school transportation, emergency services, bus stops or service, pedestrians, or bicycles.

Given the trip distribution and low level increase in peak hour traffic, the nearest intersection on the State Highway system (Campbell Lake Road at State Route 20 – 2 ½ miles away) will only see one additional peak hour trip per day. This low level of traffic increase will not trigger a mandatory WSDOT review.

Mitigation

Due to the low level of increased traffic and no expected reduction to Level of Service and Concurrency, we do not recommend mitigation to existing roadways.

Given the limited sight distance, and the fact that the Applicant owns the property west of the access, we recommend the Applicant clear the adjacent property to the west of the access in such a way as to gain maximum sight distance in this direction. This work may include brush and tree removal and possible minor bank cuts.

It is also our recommendation that an asphalt apron with rumble strips be constructed from the asphalt edge of Rosario Road into the pit property a distance of at least 100 feet. Commercial accesses are required to pave from the existing paved road edge to the property line but the additional paving will give adequate distance and vibration to remove most gravel, mud, and debris from trucks prior to exiting the pit and entering the County roadway.