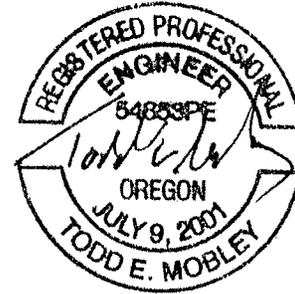




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Technical Memorandum

To: Wes Rogers, Oregon City School District
From: Todd E. Mobley, PE
Date: December 6, 2019
Subject: GLUA-19-00035, CU-19-00003 – Transportation Analysis Letter



RENEWS: 12/31/2020

Introduction

This memorandum is written for the subject application in response to the Determination of Application Incompleteness, dated November 6, 2019. Specifically, item 13 in the incompleteness notice requires submittal of a "Traffic Analysis Letter analysing the safety of the driveway on Warner Milne Road".

This memo provides the required Traffic Analysis Letter.

Proposed Use

The subject application is for the construction of a temporary access road and staging area related to the planned Gardiner Middle School building replacement. The temporary access will avoid construction impacts to Williams Street while the site is under construction and school is still in session at the existing Gardiner Middle School building.

A total of 10 temporary buildings are proposed as field office space for construction activities. There will be space for 26 parking stalls for employee parking.

Access to the staging area is proposed via a temporary gravel roadway that will be 25 feet in width, allowing two directions of traffic. The gravel roadway will intersect Warner Milne Road in the location of an existing curb cut, however the existing curb cut is narrow and will be widened to accommodate the 25-foot wide gravel roadway.

Figure 1 on page two shows the temporary access location along Warner Milne Road.

Access Operation

The staging area will serve as a field office, and most employees will arrive on site in the morning, typically before the morning peak of traffic on the surrounding roadways. While there will be some traffic coming and going throughout the day, it is expected to be minor, since most employees will arrive early, stay at the site for all or most of the day, then depart in the afternoon. In general, traffic volumes on the access to Warner Milne Road are expected to be low in volume.

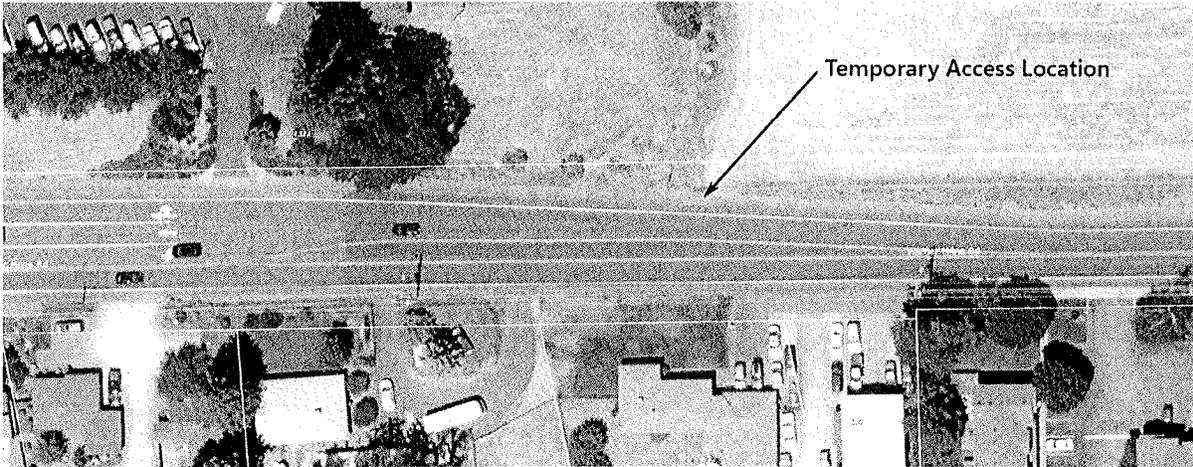


Figure 1: Warner Milne Road & Temporary Access Location

The temporary access will be located approximately 460 feet east of the signalized intersection of SE Linn Avenue/Leland Road at Warner Milne Road/Warner Parrott Road. Given this location, the access is far enough east of the intersection to avoid queue spillback from the traffic signal. In addition, at the access location there is a striped center median that is approximately 11 feet in width. This could serve a left-turn refuge for drivers making a left turn into the site, although the double yellow striping may discourage some drivers. Given the expected low traffic volumes on the site access, left turns into the site are not expected to be problematic, even if drivers choose not to use the striped median.

Sight Distance

Intersection sight distance was measured and evaluated in at the temporary access to Warner Milne Road in accordance with the standards established in A Policy on Geometric Design of Highways and Streets¹. According to AASHTO the driver's eye is taken to be 14.5 feet from the near edge of the nearest travel lane of the intersecting street and at a height of 3.5 feet above the minor-street approach pavement. The vehicle driver's eye-height along the major-street approach is assumed to be 3.5 feet above the cross-street pavement.

Based on the posted speed zone of 30 mph, the required intersection sight distance is 335 feet in each direction. Sight lines were measured in the field and found to be well in excess of 335 feet in each direction. Looking west, the intersection with Linn Avenue is clearly visible, which is approximately 460 feet away. Looking to the east, sight lines are essentially unrestricted. Figures 2 and 3 on page three show the line of sight in both directions.

¹ American Association of State Highway and Transportation Officials (AASHTO), A Policy on Geometric Design of Highways and Streets, 6th Edition, 2011.





Figure 3: Looking west from temporary access



Figure 2: Looking east from temporary access

Summary & Conclusion

The proposed temporary access to Warner Milne Road will be constructed in the same location of an existing curb cut but will be widened to accommodate the 25-foot wide gravel roadway serving the staging area. There is clear line of sight from the access location in both directions on Warner Milne Road and intersection sight distance standards are met. The widened driveway, together with the clear line of sight, will allow safe ingress and egress to the site during construction of the new Gardiner Middle School building.

