

**REPLINGER & ASSOCIATES LLC**  
TRANSPORTATION ENGINEERING

September 12, 2017

Ms. Christina Robertson-Gardiner  
City of Oregon City  
PO Box 3040  
Oregon City, OR 97045

**SUBJECT: REVIEW OF TRANSPORTATION ANALYSIS LETTER – MT. PLEASANT  
SCHOOL PLAN AMENDMENT, REZONE, SITE PLAN REVIEW – PZ17-  
01, ZC17-04 & SP17-114**

Dear Ms. Robertson-Gardiner:

In response to your request, I have reviewed the materials submitted in support of the proposed plan amendment and rezoning of the entire Mt. Pleasant School campus and the redevelopment of the Annex for use as government offices. The relevant materials included the project narrative, site plan and the Transportation Analysis Letter (TAL). The TAL is dated September 11, 2017 and was prepared under the direction of Chris Brehmer PE of Kittelson & Associates, Inc.

The applicant is seeking approval for a Zone Change from “R-10” Single-Family Dwelling District and “R-3.5” Dwelling District to “I” Institutional District and from “MR” Medium Density Residential Comprehensive Plan Designation to “QP” Public/Quasi-Public as well as minor exterior alterations with a Minor Site Plan and Design Review to allow for Oregon City Community Development offices to relocate to the Mt. Pleasant Annex. The Annex building is approximately 6,850 square feet. The main building, approximately 39,000 square feet, is currently leased to and is being used by a private school, Marylhurst School.

The site is located in the northwest quadrant of the intersection of Warner Parrott Road and Linn Avenue. The total site is approximately 8.49 acres. Approximately 0.42 acres is designated MR in the Comprehensive Plan and zoned R 3.5. The remainder of the site is designated QP and zoned R-10. The applicant proposes the entire site be rezoned Institutional. A key element of the proposal is the establishment of a trip cap based upon the trip generation of the former Mt. Pleasant Elementary School, the previous, long-term use of the site.

The former Mt. Pleasant Elementary School totaled approximately 45,850 square feet and accommodated approximately 400 students. The TAL provides estimates of the trip generation of the school using data from Institute of Transportation Engineers’ *Trip Generation Manual*. Calculations were performed using both the building size and the number of students. Based on building size, the elementary school’s trip generation was

calculated to produce 238 AM peak hour trips and 143 PM peak hour trips. These values are proposed as the basis for a trip cap.

The TAL provides a basis upon which the proposal can be evaluated for transportation impacts.

## Comments

- 1. Trip Cap.** The trip cap is an important feature of the proposal because it allows the applicant to show compliance with the Transportation Planning Rule while allowing redevelopment of the site without extensive analysis and documentation. Without a trip cap, the applicant would need to analyze a “reasonable worst case” development scenario. Such a scenario could produce much higher traffic volumes that might require mitigation and amendments to the Transportation System Plan. The trip cap, which limits the development on the rezoned property to 238 AM peak hour trips and 143 PM peak hour trips allows the city to conclude that the transportation impacts of the rezoning are minimal. I find that the calculations for the proposed trip cap are appropriate and that the city can make findings that, with the trip cap, the Transportation Planning Rule criteria are met.
- 2. Trip Generation.** The TAL presents information on trip generation from the operation of Marylhurst School, which is expected to operate at the site until June 2019, and the proposed redevelopment of the Annex building as government offices. According to the TAL, using data from Institute of Transportation Engineers’ *Trip Generation Manual*, the private K-8 school is calculated to produce 176 AM peak hour trips and 117 PM peak hour trips. A 6,850 square foot government office is calculated to produce 40 AM peak hour trips and 8 PM peak hour trips. Thus, the total site is calculated to produce 216 AM peak hour trips and 125 PM peak hour trips. This is below the proposed trip cap and the calculated trip generation for the prior Mt. Pleasant Elementary School of 238 AM peak hour trips and 143 PM peak hour trips. Due to the overall decrease in trips in comparison to the prior use, the traffic impacts of the proposed rezoning and redevelopment of the Annex can be considered to be of no significance.
- 3. Access Locations.** According to the TAL, the applicant does not intend to alter the existing site access. The access to Linn Avenue is an exit only driveway. The accesses on Warner Parrott Road are divided for inbound and outbound. As noted in the TAL, the “School Entrance” signing does not adequately convey the driveway’s intended function. The engineer also suggests the deteriorated signing at the driveway for Linn Avenue should be replaced. The applicant should also be aware that changes in access may be required in connection with implementation of projects specified in the Transportation System Plan, namely a planned roundabout that is the identified solution for the intersection of Warner Parrott Road/Warner Milne Road/Leland Road/Linn Avenue.

- 4. Driveway Width.** According to the OCMC, non-residential driveway accesses are required to be a minimum of 15 feet and maximum of 40 feet in width. According to the TAL, both exits onto Warner Parrott and Linn Avenue satisfy this standard, with widths of 24 feet and 28 feet, respectively. The existing entrance on Warner Parrott Road is only 12 feet wide. The engineer recommends that this driveway be widened to at least 15 feet to satisfy the Code standards. Since the planned roundabout project at Warner Parrott/Warner-Milne/Leland/Linn could alter this driveway's location, I do not recommend reconstruction of the driveway in connection with this development application. The applicant should be aware, however, that modification may be required if safety issues susceptible to correction by driveway widening develop at this location.
- 5. Intersection Spacing.** The proposal does not alter or create any new intersections. The engineer evaluates the site access for compliance with city spacing requirements. He notes that the access to Linn Avenue is less than 175 feet from the intersection of Warner Parrott Road/Linn Avenue. He suggests the possibility of altering this exit to a right-turn only exit. While I do not support this suggestion at this time, the applicant should be made aware that the city may require that it be designated for right-turns only if safety issues develop at this location that could be mitigated by such a restriction.
- 6. Sight Distance.** The engineer measured sight distance at the site driveways. He noted that adequate sight distance is available, but identified tree branches of trees on the property that, if not maintained, could limit sight distance. Maintaining vegetation on the site is recommended.
- 7. Safety Issues.** The TAL provides crash information for the most recent three-year period for four locations. Two crashes were reported at one of the site driveways; 26 crashes were reported at Warner Parrott/Warner Milne/Leland/Linn. More than half the reported crashes involved property damage only. The crash rate is modest and crashes are typical of those at signalized, urban intersections. There is little reason to expect that the safety issues would be altered by the proposed development. The engineer concludes that there are no inherent safety issues associated with the design and location of the site access driveways. I concur.
- 8. Consistency with the Transportation System Plan (TSP).** The TAL notes that the site frontage is largely complete today, including a striped bicycle lane and sidewalks commensurate with the Minor Arterial designation. The most significant deficiency is the missing section of sidewalk along the west portion of the Warner Parrott Road frontage. This sidewalk should be installed in connection with either this land use action or a more substantial development in the future. The TAL also notes the inclusion in the TSP of Project D34, a roundabout at the intersection of Warner Parrott Road/Warner Milne Road and Linn Avenue/Leland Road.

**9. *Transportation Planning Rule (TPR) Analysis.*** As noted above, the proposal involves rezoning from R3.5 and R-10 to Institutional. The engineer concludes that, due to the proposed trip cap, the rezoning will not will “significantly affect” the transportation system. I concur. It should be noted that should any proposal be brought forward that would result in this trip cap being exceeded, additional analysis and justification would be required to comply with the TPR.

**10. *Conclusions and Recommendations.*** The engineer recommends a trip cap for the entire site that limits the trips generated to 238 AM peak hour trips and 143 PM peak hour trips. With this trip cap, the engineer concludes that there are “no new trip impacts associated with the proposed rezone.” In addition, the engineer makes the following recommendations:

- Existing site driveway signage should be removed or replaced in conjunction with the proposed site re-development, particularly the “SCHOOL ENTRANCE” sign on Warner Parrot Road as well as the “STOP” sign and “DO NOT ENTER” sign at the Linn Avenue exit driveway.
- Sidewalk should be completed along the Warner Parrott Road site frontage in conjunction with standard frontage improvements. Should the City choose to retain the existing north-south mid-block crosswalk of Warner Parrott Road along the site frontage, consideration should be given to providing ADA-compliant ramps for the crosswalk.
- The City should consider replacing the current pedestrian signals at the intersection of Warner Parrott Road/Warner Milne Road and Linn Avenue/Leland Road with countdown timers and constructing ADA-compliant curb ramps on the frontage side of the intersection.
- The City could consider reconstructing the sidewalk and curb ramp on the southeast corner of the Linn Avenue/Williams Street intersection.
- The City could choose to make the Linn Avenue exit at right turn only exit. A “RIGHT TURN ONLY” sign could be added, and additionally the driveway could be altered in a way to discourage left turns.
- On-site landscaping along Warner Parrott Road should be continued to be maintained in order to maintain sight distance at the exit.

I concur with most of these recommendations, but do not recommend all of them be made conditions of approval for this land use action. My recommendations for conditions of approval are presented below.

## **Conclusion and Recommendations**

I find that the TAL provides an adequate basis upon which to assess the impacts of the proposed comprehensive plan amendment, rezoning and redevelopment of the Annex

building. I agree that with the trip cap, traffic impacts are of no significance and the action complies with the Transportation Planning Rule.

As conditions of approval for the proposed land use action, I recommend the following:

1. A trip cap be established for the entire site based on 238 AM peak hour trips and 143 PM peak hour trips.
2. Any subsequent development of the site must be compared with the established trip cap. Should this value be exceeded by any development proposal additional analysis and justification will be required to show compliance with the Transportation Planning Rule.
3. Existing site driveway signage should be removed or replaced in conjunction with the proposed site re-development, particularly the "SCHOOL ENTRANCE" sign on Warner Parrot Road as well as the "STOP" sign and "DO NOT ENTER" sign at the Linn Avenue exit driveway.
4. On-site landscaping along Warner Parrott Road should be continued to be maintained in order to maintain sight distance at the exit.

For more extensive redevelopment of the site, the applicant should be aware that the following conditions of approval are likely to be recommended:

5. The sidewalk should be completed along the Warner Parrott Road site frontage in conjunction with standard frontage improvements.

If safety issues develop at site access points, the applicant should be aware that the following actions may be required:

6. The city may need to make the Linn Avenue exit at right turn only exit. A "RIGHT TURN ONLY" sign could be added, and additionally the driveway could be altered in a way to discourage left turns.
7. The entrance driveway at Warner Parrott Road, which is currently 12 feet wide, may need to be widened to the code minimum of 15 feet width.

Additional pedestrian and ADA compliance issues were identified in the TAL. These issues should be considered by the city in connection with city-wide priorities for improving pedestrian safety and accessibility. Making these issues conditions of approval for rezoning or development of the Annex, however, does not appear appropriate. The pedestrian safety and accessibility issues include:

8. Should the City choose to retain the existing north-south mid-block crosswalk of Warner Parrott Road near the west end of the site frontage, consideration should be given to providing ADA-compliant ramps for the crosswalk.
9. The city should consider replacing the current pedestrian signals at the intersection of Warner Parrott Road/Warner Milne Road and Linn Avenue/Leland Road with countdown timers and constructing ADA-compliant curb ramps on the frontage side of the intersection.
10. The city could consider reconstructing the sidewalk and curb ramp on the southeast corner of the Linn Avenue/Williams Street intersection.

If you have any questions or need any further information concerning this review, please contact me at [replinger-associates@comcast.net](mailto:replinger-associates@comcast.net).

Sincerely,

A handwritten signature in black ink that reads "John Replinger". The signature is written in a cursive, flowing style.

John Replinger, PE  
Principal