REPLINGER & ASSOCIATES LLC
TRANSPORTATION ENGINEERING

November 15, 2019

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

SUBJECT: REVIEW OF TRANSPORTATION ANALYSIS – BEAVERCREEK CONCEPT PLAN AND LEGISLATIVE AMENDMENTS – LEG19-03

Dear Ms. Robertson-Gardiner:

In response to your request, I have reviewed the Transportation Analysis (TA) submitted in support of the Beavercreek Concept Plan and proposed legislative amendments. The TA, dated June 21, 2019, was prepared under the direction of Kevin Chewuk and Amanda Deering of DKS Associates.

The focus of the analysis was to demonstrate that the requirements of Oregon Administrative Rule (OAR) 660-012-0060, the Transportation Planning Rule (TPR), are met for the Beavercreek Concept Plan area in Oregon City, Oregon. The study area comprises the adopted 2008 Beavercreek Concept Plan area, which established land use designations, design guidelines and future transportation infrastructure needs. The Beavercreek Concept Plan area is roughly bounded by the Urban Growth Boundary to the east, Beavercreek Road to the west, Old Acres Road to the south and Thayer Road to the north. The TA shows adequacy of the current Oregon City Transportation System Plan (TSP) to accommodate development specified in the Beavercreek Concept Plan.

The analysis focused on assessing the transportation impact of a more intense development of the Concept Plan area than had been assumed for the development of the TSP. According to the TA, the net increase resulting from the implementation of the Concept Plan would be 750 new dwelling units and 4095 new jobs. The analysis is for the TSP horizon year as is typically performed for showing compliance with the TPR. No interim or intermediate years were analyzed.

Overall

I find the TA addresses the city's requirements and provides an adequate basis to demonstrate compliance with the TPR.

Comments

1. ***Trip Generation.*** The TA presents information on PM peak hour trip generation from more intense development of the Concept Plan area. The authors calculate that under the plan designations and zoning proposed for Concept Plan that area would accommodate an additional 750 new dwelling units and 4095 new jobs above those assumed for the TSP. Trip generation characteristics were based on the rates the PM peak hour in modeling developed for the TSP. Based on the new dwelling units and new jobs, the net effect of the plan designations and zoning changes would be 925 PM peak hour trips being added to the regional street network. The trip generation calculations appear to be accurate and reasonable.

2. ***Transportation System Used for Analysis.*** As described above, the focus was on demonstrating compliance with the TPR. The base transportation system used for the analysis included projects within and adjacent to the Concept Plan area. Specifically, the analysis assumed the following projects for both the baseline (TSP level development) and the more intense development consistent with the Beavercreek Concept Plan:

    - Roundabout at the **Beavercreek Road/Glen Oak Road** intersection (TSP Project D39)
    - Roundabout at the **Beavercreek Road/Loder Road** intersection (TSP Project D44)
    - **Meyers Road** extension from OR 213 to High School Avenue (TSP Project D46)
    - **Meyers Road** extension from Beavercreek Road to the Meadow Lane Extension (TSP Project D47)
    - **Clairmont Drive** extension from Beavercreek Road to the Holly Lane South Extension (TSP Project D54)
    - **Glen Oak Road** extension from Beavercreek Road to the Meadow Lane Extension (TSP Project D55)
    - **Timbersky Way** extension from Beavercreek Road to the Meadow Lane Extension (TSP Project D56)
    - **Holly Lane** extension from Thayer Road to the Meadow Lane Extension (TSP Projects D58 and D59)
    - **Meadow Lane** extension to the Urban Growth Boundary, north of Loder Road (TSP Projects D60 and D61)
    - **Loder Road** extension from Beavercreek Road to Glen Oak Road (TSP Project D64)

- **Beavercreek Road** improvements from Clairmont Drive to the Urban Growth Boundary, south of Old Acres Lane (TSP Projects D81 and D82)
- **Loder Road** improvements from Beavercreek Road to the Urban Growth Boundary (TSP Project D85)

The analysis included two scenarios for Holly Lane. The operational analysis described below was conducted both with and without the section of Holly Lane between Maplelane Road and Thayer Road.

3. ***Operational Analysis.*** The operational analysis of key intersections identified above and assuming the TSP projects listed above was conducted for the PM peak hour. The analysis was performed using appropriate traffic analysis tools including Syncro for signalized intersections and Sydra for roundabouts. The authors of the TA conclude:

> "During the evening peak hour, all study intersections operate within adopted mobility targets under all scenarios after assuming the baseline transportation system improvements from the TSP."

The authors' conclusions about all study area intersections meeting operational standards applies regardless of whether Holly Lane was included or excluded in the system. It is also worth noting that the authors found Beavercreek Road would meet mobility standards with the configuration specified in the TSP. Mobility standards would also be met if Beavercreek Road were to widened to five lanes in sections where three lanes had been specified.

Appropriate tools and procedures appear to have been used to evaluate the study area intersections. I concur with the authors' analysis and conclusions about meeting TSP mobility targets.

4. ***Conclusions.*** The authors of the TA conclude:

> "Overall, the current TSP includes adequate transportation system projects for the Beavercreek Concept Plan area to comply with the Transportation Planning Rule (TPR). All transportation impacts as a result of the additional housing units and employees in the Beavercreek Concept Plan area are addressed by current TSP projects."

I concur with the authors' conclusion that the proposal is consistent with the TPR. The proposed plan designation changes and rezoning do not change the functional classification of any existing or planned transportation facility; do not degrade the performance of existing or planned facilities such that mobility standards are not met;

and do not cause a significant effect as defined under the Transportation Planning Rule.

Conclusion and Recommendations

I find that the TA provides an adequate basis upon which impacts of the development can be assessed. The TA provides documentation that the key intersections will meet adopted mobility standards and that the proposed changes comply with the TPR.

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

Sincerely,

John Replinger, PE
Principal

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