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SUBJECT: ATHEY CREEK MIDDLE SCHOOL RELOCATION
TRAFFIC IMPACT ANALYSIS - SUPPLEMENTAL INFORMATION

NEIGHBORHOOD QUESTIONS

This memorandum provides supplemental answers to questions raised by the community at a series of neighborhood meetings for the relocated Athey Creek Middle School on Dollar Street in West Linn, Oregon. The questions that will be answered in this memorandum are listed below:

1. How were the modal split numbers determined for the relocated middle school on Dollar Street?
2. How will the middle school traffic impact Dollar Street?
3. Was an alternative traffic control option considered besides the roundabout at the Willamette Falls Drive/Brandon Place intersection?

RESPONSES

The responses below address the questions raised by the community as listed above.

1. HOW WERE THE MODAL SPLIT NUMBERS DETERMINED FOR THE RELOATED MIDDLE SCHOOL ON DOLLAR STREET?

The future middle school will have a capacity of 850 students.

The West Linn School District staff estimated that approximately 450 students (about 53% of total students) will be bused to the relocated middle school on 12 school buses. The number students being bused from each school zone was estimated using middle school residence-based enrollment forecasts from the School District and were verified with standard engineering practices.

The remaining students (400) were assumed to walk, bike, or be driven to school.
Note that students that live within the walking boundary, which was assumed to be a 1-mile radius around the school, are not provided regular school bus service. Using the student enrollment information, it was estimated that approximately 250 students live within the 1-mile radius walking boundary and could walk or bike to school at full buildout (when the school operates at the 850-student capacity). The remaining 150 students were assumed to be driven to school. The traffic

operations based on these assumptions are shown in Table 9 on page 22 of the Transportation Impact Study (TIS).

Additionally, a sensitivity analysis was conducted that analyzed the traffic operations if the student walking and biking assumptions were reduced to 100 students, 300 students were driven to school, and 450 students took the school bus. Refer to pages 23 – 24 of the TIS on the School District website for details. The sensitivity analysis showed that three of the four study intersections met the City's operating standard (average vehicle delay less than 35 seconds). The intersection of Willamette Falls Drive/Ostman Road was shown to have an average vehicle delay of 52 seconds (13 seconds more than when 250 students are assumed to walk or bike) for the midday peak hour.

Due to questions from the public, an additional sensitivity analysis was conducted where only 50 students were assumed to walk or bike, 350 students were driven to school, and 450 students took the school bus. The analysis resulted in similar findings as the previous sensitivity analysis. The average vehicle delay at Willamette Falls Drive/Ostman Road was 59 seconds for the midday peak hour. All other study intersections sufficiently met the City's operating standard.

In summary, even if the number of students that walk or bike to school is as low as 50 students, the study intersections are expected to operate within the City's standards except for Willamette Falls Drive/Ostman Road.

At this time, the City of West Linn does not desire to improve the Willamette Falls Drive/Ostman Road intersection. The existing traffic congestion at the Willamette Falls Drive/Ostman Road intersection is due to local traffic as well as regional traffic. If capacity is increased at the intersection, the City of West Linn is concerned it will encourage more regional trips on Willamette Falls Drive. The School District will pay System Development Charges (SDCs) to the City when the middle school is approved. That money can be used by the City to improve the intersection in the future if the City decides improvements are desired.

2. HOW WILL THE MIDDLE SCHOOL TRAFFIC IMPACT DOLLAR STREET?

There will be two new accesses to the middle school on Dollar Street. One is located on the eastern edge of the site and will provide access to the staff parking lot and the school bus loading area; this driveway is not intended for parent pick-up/drop-off activity. The other access is the Brandon Place extension (public street) from Dollar Street to Willamette Falls Drive, which will provide access to the middle school.

The middle school is estimated to generate approximately 60-100 trips on Dollar Street during the AM peak hour (8 - 9am) and 50-90 trips on Dollar Street during the Midday peak hour (3:10 - 4:10 pm). The traffic operations for these two accesses on Dollar Street are estimated to meet the City's operating standard (average vehicle delay less than 35 seconds) once the middle school is built.

Additional traffic analysis was conducted for the two River Heights Circle intersections on Dollar Street. These intersections are estimated to have an average vehicle delays less than 15 seconds on the River Heights Circle approaches once the middle school is built.

3. WAS AN ALTERNATIVE TRAFFIC CONTROL OPTION CONSIDERED BESIDES THE ROUNDABOUT AT THE WILLAMETTE FALLS DR/BRANDON PL INTERSECTION?

Yes, a two-way stop control was analyzed (stop signs on the Brandon Place and Fields Bridge Park driveway). However, the intersection was not able to meet the City's operating standard (average vehicle delay less than 35 seconds) with the relocated middle school traffic under the sensitivity analysis scenario (100 students walk/bike, 350 students driven, 450 students bussed). Because of the proximity to the Tualatin River bridge, Willamette Falls Drive cannot be widened to the west of Brandon Place to accommodate an eastbound left turn lane at the intersection. A roundabout was determined to provide significantly more capacity than a two-way stop option.

Additionally, a roundabout provides many safety benefits for pedestrians and bicyclists. Roundabouts can reduce the types of crashes where people are seriously hurt or killed by 78% - 82%. The curvature of a roundabout results in lower vehicle speeds (15 mph – 25 mph) and provide shorter crossings for pedestrians by providing a center refuge island at each crossing. To learn more about the benefits of roundabouts, visit the Federal Highway Administration website: www.safety.fhwa.dot.gov/intersection/innovative/roundabouts.

A traffic signal was also considered but was not desired. Again, because of the proximity to the Tualatin River bridge, Willamette Falls Drive cannot be widened to accommodate an eastbound left turn lane at the intersection. With a traffic signal and lack of an eastbound left turn lane, eastbound capacity would be limited as left turn vehicles would block through vehicles. Additionally, a traffic signal would not provide the same safety benefits that a roundabout would provide.

OTHER INFORMATION

Please refer to the Transportation Impact Study (TIS) for other transportation analysis related questions or the School District's Project Website (www.wlwv.k12.or.us/domain/1997).

Let us know if you have any other questions. Thanks!

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