

Memorandum

To: City of Fife
From: KPG Psomas
Date: 2/4/2025
Re: Review of Vector Freeman Logistics December 2024 Submittal

KPG Psomas completed a review of the updated the October 21, 2024 technical memo on the Freeman Road E/N Levee Road E intersection (Kimley-Horn) and additional transportation information found in the resubmitted Civil drawing set dated December 20, 2024. The June 2024 Traffic Impact Analysis (TIA) has not been updated. The previous comments from our August 14, 2024 review memorandum have not been addressed and are included on pages 3-4.

This review builds upon comments previously provided on the following documents: May 23, 2024 technical memo on the Freeman Road E/N Levee Road E intersection (Kimley-Horn), November 2023 TIA, 2022 Revised Scoping Worksheet, and the 2021 Draft Scoping Worksheet. The development is located in the City of Puyallup and the development's access is onto Freeman Road E in the City of Fife. This review focuses on the impacts in the City of Fife.

Freeman Road E/N Levee Road E Intersection

A May 23, 2024 memorandum was prepared by Kimley-Horn that evaluated the Freeman Road E/N Levee Road E intersection. A revised memorandum was submitted on October 21, 2024. The only change between the May 23, 2024 memorandum and the October 21, 2024 memorandum is the addition of a MUTCD All-Way Stop Control Warrant paragraph at the bottom of page 3.

The applicant proposes to convert the Freeman Road E/N Levee Road E intersection to all-way stop control. The analysis states the MUTCD all-way stop Warrants B and E are met, justified by the lack of adequate sight distance for southbound Freeman Road E at the existing intersection. However, the sight distance issue is not caused by a permanent condition such as topography and could be resolved by removal of vegetation. Therefore, the MUTCD all-way stop warrants have not been satisfied at the intersection.

The City of Fife's and the City of Puyallup's preferred improvement for the Freeman Road E/N Levee Road E intersection is a southbound left turn lane, southbound right turn lane, eastbound left turn lane, an eastbound receiving/acceleration lane for the southbound left turn lane, and maintaining stop control only for southbound Freeman Road E. This alternative results in LOS D or better for all land use alternatives. This improvement maintains traffic flows on N Levee Road E and provides a two-stage left turn for vehicles from southbound Freeman Road E. The Freeman Logistics Traffic Impact Analysis in Chapter 10 Future Improvement Alternatives evaluated this

alternative. Please provide a conceptual design for this alternative. Include analysis of adequate sight distance for southbound Freeman Road E. Show the sight distance triangle and relationship to the right of way line on the north side of N Levee Road E.

KPG Psomas reviewed the May 23, 2024 Kimley-Horn memorandum and provided review comments in a memorandum dated August 14, 2024. The revised October 21, 2024 memorandum did not address many of the comments provided by KPG Psomas. The following provides the status (blue underlined text) of unresolved comments on the memorandum.

- The Kimley-Horn memorandum dated 5/23/2024 states “There is an existing sight distance concern for the southbound turn movements.” Revise the analysis to document this sight distance issue and propose mitigation to address sight distance for conditions without and with the SR 167 extension. This comment has not been addressed. The analysis should include measurement of existing sight distance, comparison with AASHTO requirements, and potential improvements such as vegetation trimming.
- The intersection needs to be widened to accommodate simultaneous WB-67 turning movements. Sheet C45 shows that the WB-67 southbound left and westbound right turning movements will not be able to be made at the same time. This comment has not been addressed. Sheet C42 in resubmitted design set still shows that the paths for a WB-67 southbound left turn would conflict with a WB-67 westbound right turn. The southbound left turn and westbound right turn would need to be able to occur at the same time to provide the option for minor street stop control (Freeman Road E) at this intersection.
- On page 66, the TIA recommends the installation of all-way stop control to address intersection delay. Prior to consideration of an all-way stop control, an all-way stop warrant analysis should be conducted for each of the land use alternatives using the Manual on Uniform Traffic Control Devices (MUTCD) Section 2B All-Way Volume Warrant. The analysis of intersection improvements should address travel needs in both the near term and long term. An all-way stop warrant analysis should also be conducted for conditions after completion of the SR 167 extension when the intersection volumes will be lower. This comment has not been addressed. Analysis does provide discussion of MUTCD warrants B and E, but not in sufficient detail (as noted above). Please provide a detailed warrants analysis per MUTCD guidance.
- If all-way stop were installed at the intersection, it could not be converted back to 2-way stop control (if the intersection no longer meets the all-way stop warrant after the SR 167 extension opens), unless the sight distance issues are resolved. This comment has not been addressed.
- The conversion of the intersection to all-way stop control would require the three stop signs/stop bars to be located close at the intersection to ensure safety and efficient operations. To have the westbound stop sign/stop bar located close to the intersection may require widening N Levee Road E so that a WB-67 vehicle making a southbound left turn can clear a vehicle waiting at the westbound stop sign. This comment has not been addressed. Sheet C42 shows that design would result in conflicting WB-67 turning movements between the southbound left turn movement and westbound right turn movement.

- The Traffic Impact Analysis (November 2023) in *Chapter 10. Future Improvement Alternatives* evaluated an additional improvement scenario for the intersection that included a southbound left turn lane, southbound right turn lane, eastbound left turn lane, an eastbound receiving/acceleration lane for the southbound left turn lane, and stop control only for southbound Freeman Road E. This alternative results in LOS D or better for all land use alternatives and should be included in the analysis. [This comment has not been addressed. The applicant should provide a layout of this alternative and evaluate the alternative in the analysis.](#)
- Options should be explored to meet sight distance and intersection widening requirements. These include negotiating right-of-way or easements with adjacent property owners or relocation of the intersection to the west to avoid impacts to tribal properties east of Freeman Road E. [This comment has not been addressed.](#)

Unresolved TIA Review Comments

The June 2024 TIA has not been updated. The review comments from our August 14, 2024 review memorandum have not been addressed and these comments are listed below.

- The three intersections of Pacific Highway E/54th Avenue E, I-5 southbound ramps/54th Avenue E, and 20th Street E/54th Avenue E have incorrect signal phasing, timing, coordination, and cycle lengths. These three intersections are coordinated with the same cycle lengths during the AM and PM peak hours. [The PM Synchro files still have different cycle lengths, and the three intersections are not coordinated.](#)
- The I-5 southbound ramps/54th Avenue E intersection should include a separate signal phase for the southbound through movement with a westbound right turn overlap. [The edit is incorrect. The overlap phase is for southbound through/westbound right and not the southbound right/westbound right.](#)
- The Valley Avenue E/70th Avenue E intersection is missing eastbound and westbound right turn overlap phases. [Still missing the overlap phases.](#)
- Some of the study intersections timing plans have incomplete timing splits that show unused green time (gray areas). [Not complete. Some intersections still have timing plans with unused green time.](#)
- Pacific Highway E/70th Avenue E intersection is missing volumes (import error).
- **Union Pacific Railroad Crossings** – The Freeman Road E/Valley Avenue E intersection is located 170' north of the Union Pacific Railroad (UPRR) tracks. This section of TIA evaluates if northbound vehicle queues from the intersection will extend back to the UPRR tracks. The queuing analysis in Tables 20-24, reports the HCM results for the 50th percentile queue and 95th percentile queue for the northbound through movement. The northbound intersection approach has a 50' left turn lane and a shared through-right turn lane. Review of the Synchro reports found that the left turn queues exceed the 50' left turn storage length and would block the through lane. The left turn queue lengths in some alternatives are also longer than the

through lane queues, which is what is reported in Tables 20-24. [Somewhat evaluated. The TIA includes traffic forecasts with the SR 167 extension for only the Freeman Road E/Valley Avenue E intersection and the Freeman Road E/N Levee Road E intersection. The analysis does not revise the trip assignment to reflect the opening of the SR 167 extension. We would expect additional development vehicle and truck traffic to travel to and from the north to use the new SR 167/Valley Avenue E interchange. Revise the TIA to include new development trip assignments with the SR 167 extension for the two intersections of Freeman Road E/Valley Avenue E and the Freeman Road E/N Levee Road E.](#)

- HCM methodology does not calculate the effect of the left turn queue exceeding the storage length of the left turn lane and blocking the through lane. We recommend using SimTraffic simulation to calculate the northbound queue lengths. [Evaluation completed and analysis identifies potential for traffic to block tracks for up to 5 percent of the time. This is not sufficiently mitigated. MUTCD 8C.09 states “If a grade crossing is equipped with flashing-light signals and is located 200 feet or less from an intersection or midblock location controlled by a traffic control signal,..., the intersection should be provided with rail preemption in accordance with Section 4F.19....” Each of the land use alternatives are expected to generate a high number of daily truck trips, many of which will travel north to the Freeman Road E/Valley Avenue intersection once the SR 167 is open. Railroad preemption at the Freeman Road E/Valley Avenue signalized intersection should be required as mitigation.](#)
- Truck Turn Exhibit South Access (pdf page 878) shows 14.5’ northbound travel lane. Revise drawing to show 12’ travel lane width consistent with southbound direction. [Resolved. Sheet C30 shows 12’ travel lanes on Freeman Road E.](#)