MEMORANDUM

To:	City Fife, KPG Psomas
From:	Ed Koltonowski Joey Miller Kimley-Horn and Associates, Inc.
Date:	April 10, 2025
Kimley-Horn Project No.	090222083
Subject:	Vector Freeman Logistics – Comment Response

The purpose of this memorandum is to address City of Fife (City) comments in the February 4, 2025 memorandum addressing the intersection of Freeman Road E at N Levee Road and comments regarding revisions and recommendations for the traffic impact analysis (TIA) submitted in December 2024:

Freeman Road E at N Levee Road E Intersection:

- *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.*

Response:

See design exhibits provided separately

- *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.*

Response:

See design exhibits provided separately

- *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.*

Response:

Would not warrant all way stop for volume with the SR-167 extension but would recommend it for sight distance unless the intersection is moved approximal 130 feet to the west or a sight distance easement is obtained from the Tribe. The other all way stops along N Levee Road E would be in the same situation as this location. These statements can be placed into a revised TIA report if the city requires. See additional design exhibits.

- *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.*

Response:

Same situation for the other existing all way stops along N Levee Road E. Separate exhibit shows the changes needed at the intersection to meet city sight distance standards.

- *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.*

Response:

If all way stop is approved it would be design per MUTCD/City standards

- *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.*

Response:

This statement can be added to the TIA if the city requires, see the separate LOS Matrix.

- *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.*

Response:

See design exhibits provided separately

Unresolved TIA Review Comments:

- *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.*

Response:

The three intersections have been revised to reflect the same cycle length and coordinated settings. The updates do not change any of the LOS threshold conclusions in the report – does the report still need to reflect these changes?

- 54th Avenue E at Pacific Highway E (SR-99)

REPORT FUTURE W/ PROJECT LOS	LUC 154 - High Cube		LUC 150 - Warehousing		LUC 130 - Industrial Park		LUC 140 - Manufacturing	
	TIA	Revised	TIA	Revised	TIA	Revised	TIA	Revised
AM PEAK-HOUR	75.5 (E)	86.0 (F)	75.6 (E)	86.0 (F)	76.7 (E)	86.1 (F)	77.8 (E)	86.1 (F)
PM PEAK-HOUR	134.9 (F)	93.8 (F)	134.9 (F)	94.0 (F)	135.1 (F)	95.3 (F)	135.4 (F)	96.9 (F)

- 54th Avenue E at I-5 Southbound Ramps

REPORT FUTURE W/ PROJECT LOS	LUC 154 - High Cube		LUC 150 - Warehousing		LUC 130 - Industrial Park		LUC 140 - Manufacturing	
	TIA	Revised	TIA	Revised	TIA	Revised	TIA	Revised
AM PEAK-HOUR	19.3 (B)	16.4 (B)	19.5 (B)	16.5 (B)	19.9 (B)	16.8 (B)	20.7 (C)	17.6 (B)
PM PEAK-HOUR	31.0 (C)	15.1 (B)	31.1 (C)	15.3 (B)	31.2 (C)	15.3 (B)	31.6 (C)	15.8 (B)

- 54th Avenue E at 20th Street E

REPORT FUTURE W/ PROJECT LOS	LUC 154 - High Cube		LUC 150 - Warehousing		LUC 130 - Industrial Park		LUC 140 - Manufacturing	
	TIA	Revised	TIA	Revised	TIA	Revised	TIA	Revised
AM PEAK-HOUR	54.1 (D)	62.9 (E)	54.3 (D)	64.0 (E)	54.7 (D)	66.6 (E)	55.6 (E)	71.1 (E)
PM PEAK-HOUR	63.4 (E)	65.4 (E)	63.8 (E)	65.9 (E)	65.0 (E)	66.7 (E)	68.9 (E)	69.9 (E)

See attachments

- *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.*

Response:

The Synchro network has been revised to reflect southbound through/westbound right overlap from the previous southbound right/westbound right overlap. The updates do not change any of the LOS threshold conclusions in the report – does the report still need to reflect these changes?

- 54th Avenue E at I-5 Southbound Ramps

REPORT FUTURE W/ PROJECT LOS	LUC 154 - High Cube		LUC 150 - Warehousing		LUC 130 - Industrial Park		LUC 140 - Manufacturing	
	TIA	Revised	TIA	Revised	TIA	Revised	TIA	Revised
AM PEAK-HOUR	19.3 (B)	16.4 (B)	19.5 (B)	16.5 (B)	19.9 (B)	16.8 (B)	20.7 (C)	17.6 (B)
PM PEAK-HOUR	31.0 (C)	15.1 (B)	31.1 (C)	15.3 (B)	31.2 (C)	15.3 (B)	31.6 (C)	15.8 (B)

- *The Valley Avenue E/70th Avenue E intersection is missing eastbound and westbound right turn overlap phases.*

Response:

The Synchro network has been revised to reflect eastbound and westbound right turn overlap from the previous missing overlap. The updates do not change any of the LOS threshold conclusions in the report – does the report still need to reflect these changes?

REPORT FUTURE W/ PROJECT LOS	LUC 154 - High Cube		LUC 150 - Warehousing		LUC 130 - Industrial Park		LUC 140 - Manufacturing	
	TIA	Revised	TIA	Revised	TIA	Revised	TIA	Revised
AM PEAK-HOUR	20.8 (C)	28.5 (C)	20.9 (C)	28.8 (C)	21.0 (C)	29.3 (C)	21.5 (C)	30.5 (C)
PM PEAK-HOUR	27.5 (C)	39.0 (D)	27.7 (C)	39.2 (D)	28.8 (C)	39.2 (D)	33.6 (C)	39.9 (D)

- *Some of the study intersections timing plans have incomplete timing splits that show unused green time (gray areas).*

Response:

The Synchro network has been revised to reflect adjusted timings to remove gray areas as well as the previously submitted network, which matches the signal timing data we were provided from the presiding jurisdiction. The updates do not change any of the LOS threshold conclusions in the report – does the report still need to reflect these changes?

- 54th Avenue E at 23rd Street E

REPORT FUTURE W/ PROJECT LOS	LUC 154 - High Cube		LUC 150 - Warehousing		LUC 130 - Industrial Park		LUC 140 - Manufacturing	
	W/ Gray	No Gray	W/ Gray	No Gray	W/ Gray	No Gray	W/ Gray	No Gray
AM PEAK-HOUR	8.0 (A)	7.9 (A)	8.0 (A)	7.9 (A)	8.0 (A)	8.0 (A)	8.2 (A)	8.1 (A)
PM PEAK-HOUR	7.9 (A)	7.9 (A)	8.0 (A)	8.0 (A)	8.2 (A)	8.2 (A)	8.6 (A)	8.6 (A)

- 70th Avenue E at Valley Avenue E

REPORT FUTURE W/ PROJECT LOS	LUC 154 - High Cube		LUC 150 - Warehousing		LUC 130 - Industrial Park		LUC 140 - Manufacturing	
	W/ Gray	No Gray	W/ Gray	No Gray	W/ Gray	No Gray	W/ Gray	No Gray
AM PEAK-HOUR	28.5 (C)	28.5 (C)	28.8 (C)	28.8 (C)	29.3 (C)	29.3 (C)	30.5 (C)	30.5 (C)
PM PEAK-HOUR	39.0 (D)	41.0 (D)	39.2 (D)	41.2 (D)	39.2 (D)	41.1 (D)	39.9 (D)	42.0 (D)

- *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.*

Response:

The turning movements have been evaluated to reroute the project generated trips from SR-167 to travel along Valley Avenue E for each of the separate land use code scenarios. The TIA can be revised to include new development trip assignments with the SR-167 extension for the intersections of Freeman Road E at Valley Avenue E and Freeman Road E at N Levee Road E (approximately a 25% shift away from the Freeman/Levee Rd intersection). The adjusted trip assignments are shown below. We understand that Freeman Road from north of the site all the way to the new SR-167 interchange will be reconstructed with the WSDOT project, including the railway crossing and Valley Avenue E intersection and interconnect with the railway line. The improvement project is fully funded and has started mobilization. Do we need to update the TIA to reflect these trip assignment changes at Freeman Road E at N Levee Road E and Freeman Road E at Valley Avenue E, as is does not change any of the level of service conclusions. See below for queuing, trip assignments and LOS updates.

- Freeman Road E at Valley Avenue E

95TH PERCENTILE QUEUING W/ 167 EXTENSION	LUC 154 - High Cube		LUC 150 - Warehousing		LUC 130 - Industrial Park		LUC 140 - Manufacturing	
	TIA	Revised	TIA	Revised	TIA	Revised	TIA	Revised
AM PEAK-HOUR	57	59	59	61	60	64	66	81
PM PEAK-HOUR	53	58	53	63	61	88	71	123

- Freeman Road E at N Levee Road E

	LUC 154 - High Cube		LUC 150 - Warehousing		LUC 130 - Industrial Park		LUC 140 - Manufacturing	
	W/O 167	W/ 167	W/O 167	W/ 167	W/O 167	W/ 167	W/O 167	W/ 167
PM PROJECT TRIPS AT INTERSECTION	21	13	44	28	84	49	171	84
REPORT FUTURE W/ PROJECT LOS	38.8 (E)	14.2 (B)	44.4 (E)	14.4 (B)	59.6 (F)	14.7 (B)	108.7 (F)	15.4 (C)

- *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.*

Response:

The Development will be conditioned to be in coordination with the interconnect construction making this additional SIM analysis unwarranted for the TIA.

APPENDIX A

SUPPORTING DOCUMENTS