

## MEMORANDUM

**TO:** Dennis Chovan, PE

**DATE:** May 19, 2025

**FROM:** Stephen Moore, PE

**AVO:** 58559.004

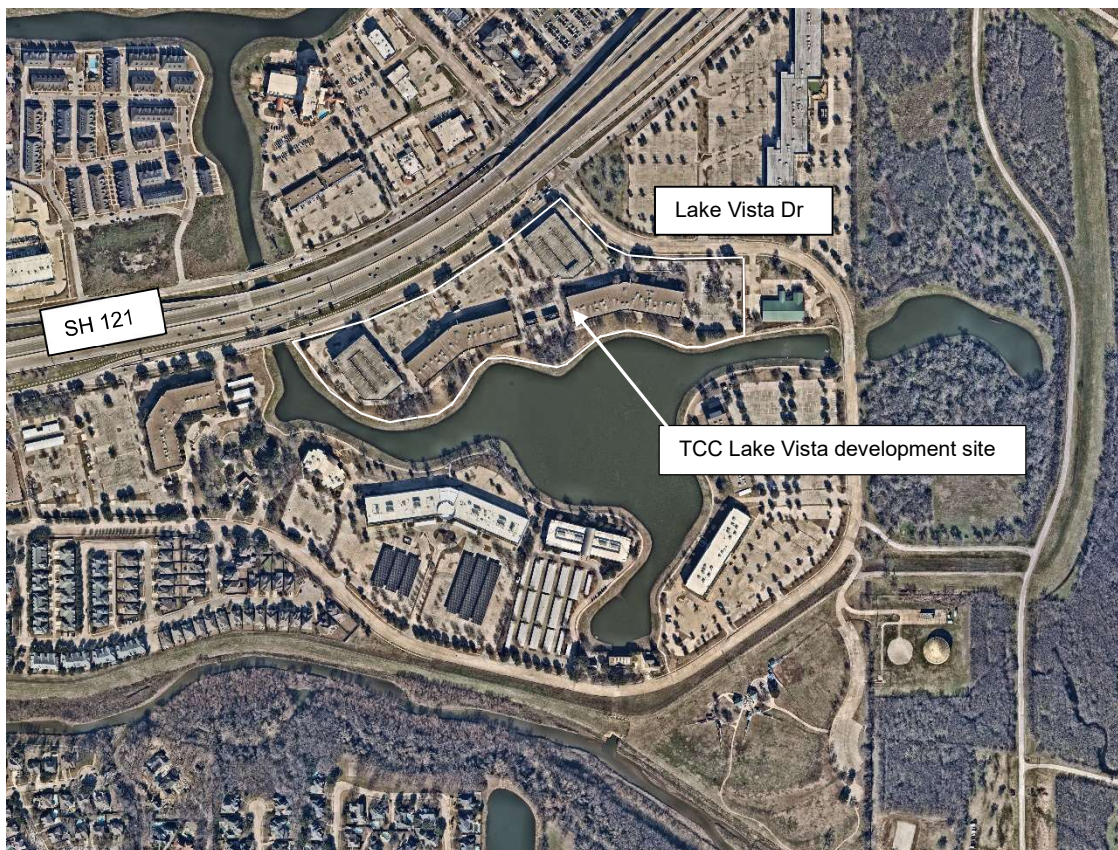
**EMAIL:** sMoore@halff.com



**SUBJECT:** TCC Lake Vista – Traffic Overview Memo

Halff prepared this memorandum on behalf of the Trammell Crow Company (TCC) to provide a traffic-related overview of the proposed Lake Vista warehouse development, to be located in the southwest quadrant of the State Highway (SH) 121 / Lake Vista Drive intersection in Lewisville. The development site currently contains two (2) two-story general office buildings. The proposed development will replace the two (2) existing office buildings with three (3) warehouse buildings. A site location map is provided below as **Figure 1**, and the site plan is included in the **Appendix**.

**Figure 1 – Site Location Map**



*Aerial image reprinted with permission from Nearmap. Image date January 15, 2025*

Halff prepared this memo as an initial traffic submittal for the project. Halff will follow up with a Traffic Impact Analysis (TIA), based on discussions and correspondence with City staff the week of May 12, 2025.

## Zoning

The site is currently zoned Light Industrial (LI). The site will undergo a zoning change to a Planned Development (PD).

## Site Trip Generation

Halff generated trips for the development for the existing and proposed site conditions and calculated the net change in trips expected due to the proposed redevelopment plan. Halff generated trips for the weekday AM and PM peak hours and the typical 24-hour weekday period, using historical trip generation data published by the Institute of Transportation Engineers (ITE) in their *Trip Generation Manual, 11<sup>th</sup> Edition*. **Table 1** below shows the generated trips for existing development.

**Table 1 – Existing Trip Generation**

Land Use [Density] {ITE Code}	Weekday AM Peak Hour of the Adjacent Street Traffic			Weekday PM Peak Hour of the Adjacent Street Traffic			24-Hour Weekday
	In	Out	Total	In	Out	Total	Total
General Office Building [245,904 sf*] {710}	319	44	363	60	290	350	2,538

\* total of both general office buildings on the site

**Table 2** below shows the generated trips for proposed development. Trips are shown for the overall development, and are broken out into truck trips and other vehicle trips.

**Table 2 – Proposed Trip Generation**

Land Use [Density] {ITE Code}	Weekday AM Peak Hour of the Adjacent Street Traffic			Weekday PM Peak Hour of the Adjacent Street Traffic			24-Hour Weekday
	In	Out	Total	In	Out	Total	Total
Warehousing – truck trips [316,303 sf] {150}	3	3	6	5	4	9	177
Warehousing – other vehicle trips	44	12	56	13	42	55	361
Warehousing – total vehicle trips	47	15	62	18	46	64	538

\* total of the three (3) proposed warehouse buildings on the site

**Table 3** below shows the net change in generated trips resulting from the proposed redevelopment.

**Table 3 – Net Change in Trip Generation**

Scenario	Weekday AM Peak Hour of the Adjacent Street Traffic			Weekday PM Peak Hour of the Adjacent Street Traffic			24-Hour Weekday
	In	Out	Total	In	Out	Total	Total
Existing	319	44	363	60	290	350	2,538
Proposed	47	15	62	18	46	64	538
<b>Net Change</b>	(272)	(29)	(301)	(42)	(244)	(286)	(2,000)

As shown in **Table 3**, the proposed redevelopment of the Lake Vista site is projected to reduce the number of trips generated by the site by 301 in the weekday AM peak hour, 286 in the weekday PM peak hour and 2,000 over a typical 24-hour weekday period.

### Site Access

The site is currently served by three (3) driveways along the eastbound SH 121 frontage road and four (4) driveways along Lake Vista Drive. The existing driveway locations are summarized in **Table 4** below.

**Table 4 – Site Driveway Summary – Existing Conditions**

Driveway	Driveway Type	Driveway Location	Deceleration Lanes
<b>Eastbound SH 121 Frontage Road</b>			
West driveway	Right in / Right out	230' west of middle driveway; 580' east of nearest upstream driveway	Right turn lane
Middle driveway	Right in / Right out	295' west of east driveway	Right turn lane
East driveway	Right in / Right out	260' west of Lake Vista	Right turn lane
<b>Lake Vista Drive</b>			
North driveway	Full access	340' south of the EB SH 121 frontage road	Right turn lane
South driveway	Full access	315' south of north driveway; 81' north of existing medical office driveway	None

The proposed development plan calls for the following driveways, as described in **Table 5** below and shown on the site plan. The development plan proposes to remove the middle driveway connection from the eastbound SH 121 frontage road and shift the locations of the east and west driveways. Along Lake Vista Drive, the north driveway will be shifted slightly to the north, while the south driveway will remain in its current location.

**Table 5 – Site Driveway Summary – Proposed Conditions**

Driveway	Driveway Type	Driveway Location	Deceleration Lanes
<b>Eastbound SH 121 Frontage Road</b>			
West driveway	Right in / Right out	505' west of middle driveway; 490' east of nearest upstream driveway	Right turn lane (proposed)
East driveway	Right in / Right out	455' west of Lake Vista	Right turn lane (proposed)
<b>Lake Vista Drive</b>			
North driveway	Full access	305' south of the EB SH 121 frontage road	Right turn lane (proposed)
South driveway	Full access	355' south of north driveway; 81' north of existing medical office driveway	None

### Study Intersections, Analysis Scenarios and TIA Methodology

As mentioned, Halff will prepare a TIA for the proposed development as part of the City's development process. Based on correspondence with City staff, Halff will evaluate the weekday AM and PM peak hour operations of the following intersections in the TIA:

- Westbound SH 121 frontage road / Lake Vista Drive
- Eastbound SH 121 frontage road / Lake Vista Drive

Halff will evaluate the intersection operations, and the operations of the four (4) proposed site driveways, for the following scenarios:

- Existing conditions (intersections only)
- Build out year background (no build) conditions (intersections only)
- Build out year total (build) conditions (intersections and driveways)

Halff will address truck traffic accessing the site and passing through the aforementioned study intersections and will provide Autoturn exhibits showing the truck turning paths for movements into and out of the site and through the intersections. Halff will provide estimates of single-vehicle equivalencies for the projected truck traffic generated by the development and will incorporate this information into the analyses performed for the TIA. Halff will also address access spacing, intersection sight distance and the need for deceleration lanes at the proposed site driveways, based on applicable City of Lewisville, Texas Department of Transportation (TxDOT) and American Association of State Highway and Transportation Officials (AASHTO) guidelines and requirements.

# Appendix

