

MEMORANDUM

TO: Claire Powell, City Manager

FROM: Sirwan Shahooei, P.E., City Traffic Engineer

VIA David Salmon, P.E., City Engineer
Jim Proce, ICMA-CM, Assistant City Manager

DATE: February 5, 2024

SUBJECT: **Consideration of an Ordinance Amending the Lewisville City Code, SECTION 15-87(c), Limitations on Turning Around, Prohibiting U-Turns at the Following Intersections: Both Median Openings on State Highway 121 Business on either side of Huffines Boulevard, FM 544 across From Killian Middle School, West Vista Ridge Mall Drive at Highview Lane, and Valley Ridge Parkway at Valley Ridge Circle.**

BACKGROUND

To improve the safety of the residents and drivers in the City of Lewisville, the City staff is recommending prohibiting U-Turns at several locations throughout the City. These locations include the two median openings on State Highway 121 Business approximately 1400 ft. east of Huffines Blvd. intersection and 900 ft. west of Huffines Blvd. intersection, the median opening on F.M. 544 approximately 480 ft. east of the Killian Middle School Entrance, the intersection of West Vista Ridge Mall Dr. at Highview Ln., and the intersection of Valley Ridge Pkwy. at Valley Ridge Cir.

ANALYSIS

SH 121 BUS and Huffines Blvd. intersection: The speed limit on SH 121 BUS is 60 mph and some vehicles try to make U-turns at the median openings west and east of the Huffines Blvd. intersection. These median openings do not have a left turn bay on the eastbound direction causing u-turning vehicles to block the eastbound inside lane. Staff recommends prohibiting eastbound U-turns at the two median openings on State Highway 121 Business approximately 1400 ft. east and 900 ft. west of the Huffines Blvd. intersection and the installation of 'No U-Turn' signs per Figure 1.



Figure 1: Proposed 'No U-Turn' sign locations on SH 121 BUS

FM 544 across the Killian Middle School: The speed limit on FM 544 is 55 mph. On east bound FM 544, there is a median opening with a left turn bay for entering to the school driveway. At the school drop off times, some vehicles trying to avoid the queue in this median opening turn bay and take the median opening downstream to make a U-turn and enter the school driveway from the east direction. The second median opening, approximately 480 ft. east of the Killian Middle School Entrance is designed for westbound vehicles turning left and does not have a left turn bay for eastbound vehicles. U-turns in this median opening bring the left lane to a stop and is dangerous. In addition, it creates conflict for the westbound traffic as often the queue in the Killian Middle School driveway right turn lane backs up past the subject median opening causing u-turning vehicles to cut into the queue. Staff recommends prohibiting eastbound U-turns at the median opening approximately 480 ft. east of the Killian Middle School Entrance and the installation of a 'No U-Turn' sign per Figure 2.



Figure 2: Proposed 'No U-Turn' sign location on FM 544 across the Killian Middle School

West Vista Ridge Mall Drive at Highview Lane intersection: Trucks and trailers from the concrete batch plant on W Vista Ridge Mall Dr make U-turns at this intersection to shortcut their path to SH 121 BUS. There is no east bound left turn bay at the median opening and the road is too narrow for the trucks to make a U-turn. Trucks are required to make a few back and forth movements to make the turn and block the road in the process before being able to make the U-turn. Staff recommends prohibiting eastbound U-turns at the subject intersection and the installation of a 'No U-Turn' sign per Figure 3.



Figure 3: Proposed no 'No U-Turn' sign location on W Vista Ridge Mall Dr.

Valley Ridge Blvd. intersecting Valley Ridge Cir.: This intersection is located on the east side of the Valley Ridge Blvd. bridge over I-35E. The Median opening is designed for left turns in both directions to access Valley Ridge Cir. on the south and the auto dealership driveway on north. Eastbound vehicles crossing the bridge on Valley Ridge Blvd. usually have a high speed and a low sight distance that makes the U-turn for westbound vehicles very dangerous at this intersection. Staff recommends prohibiting westbound U-turns at the subject intersection and the installation of a ‘No U-Turn’ sign per Figure 4.

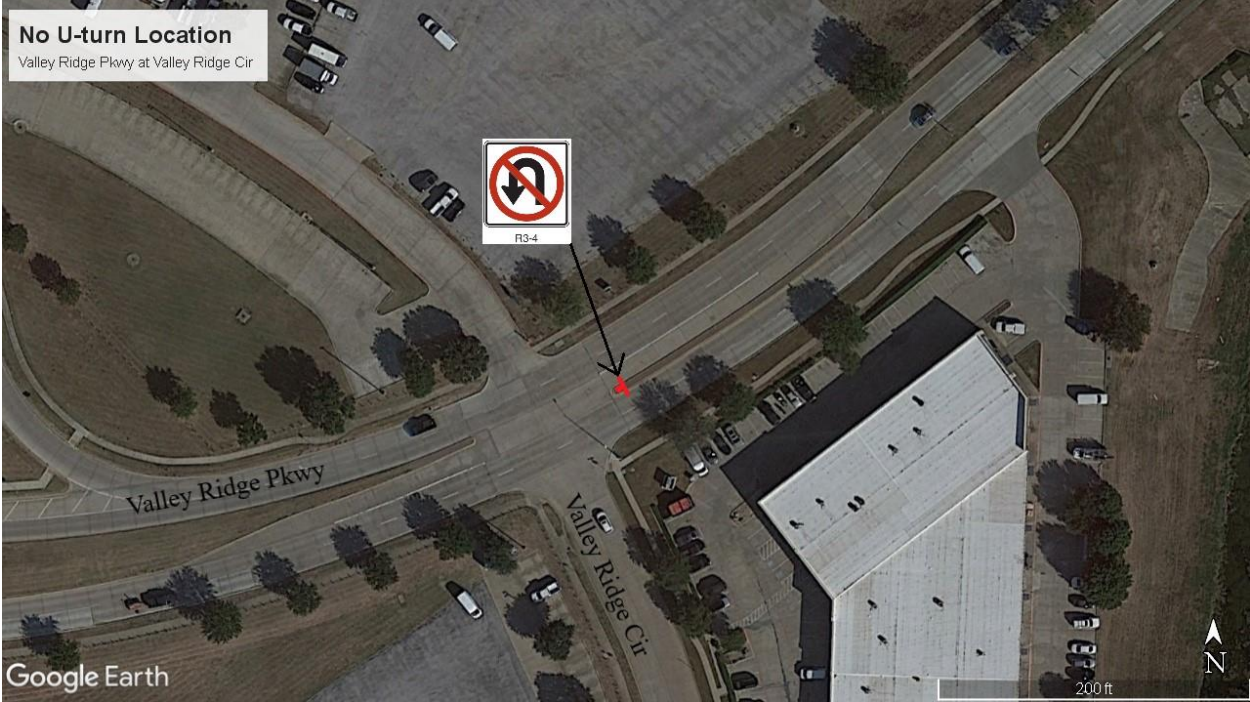


Figure 4: Proposed ‘No U-Turn’ sign location on Valley Ridge Pkwy.

All signage will be installed and maintained by the City of Lewisville Public Services Department and the Lewisville Police Department will enforce the no U-turn restriction. At the Nov 7, 2023 meeting, the Transportation Board considered this item and voted unanimously (7) to (0) to approve the item.

CITY STAFF’S RECOMMENDATION

That the City Council approve the ordinance as set forth in the caption above.