Traffic Management Plan

FOR

Dr. Frederick Douglass Todd Sr. Middle School 2445 E. Ledbetter Drive Dallas, TX 75216

PREPARED FOR:

City of Dallas

November 08th, 2024



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1. Introduction

Urban Engineers Group (UEG) is tasked to prepare a traffic management plan for Dr. Frederick Douglass Todd Sr. Middle School, located at 2445 E. Ledbetter Drive in Dallas, Texas. The goal in the traffic evaluation is to assess current queue patterns of all vehicular traffic generated by the school during peak traffic periods and provide recommendations to help reduce or prevent queuing of vehicles within the city streets during these drop-off/pick-up times.

Dr. Frederick Douglass Todd Sr. Middle School is a public school located at 2445 E. Ledbetter Drive, in the southeastern quadrant of Dallas, Texas. It is nestled in a predominantly residential neighborhood, surrounded by family homes and a Montessori school to the north. The school property is bordered by four public streets as follows:

- East Ledbetter Drive (Loop 12): This is a primary arterial road that runs east-west through the city. It serves as the main access point to the school.
- Horizon Drive: A north-south road that intersects East Ledbetter Drive, forming a T-junction.
- 52nd Street: This is an east-west residential street that borders the school property.
- **Veterans Drive:** A residential street that bordering the school property which provides an alternative route for accessing the school from the east.



Figure 1 - Campus Aerial View



2. Field Visit & Data Collection

The school has four access driveways: one main entrance on East Ledbetter Drive and three other driveways on Horizon Drive.

- The main entrance is located on East Ledbetter Drive and serves as both the primary entry point and the drop-off area for parents and buses. During the afternoon hours, it is used as a pick-up area for school buses only.
- Two of the driveways on Horizon Drive are closed with gated access to a employee parking lot, while the third is an exit-only lane for drop-off vehicles allowing vehicles to exit and turn right.
- Another access point, along Veterans Drive, is used primarily by school parents to pick up their children in the afternoon.
- All bus riders are picked up on the parking lot side of the campus.

UEG staff performed two separate field visits on Oct 09th, 2024 (Wednesday) between 7am-9am, and 2:30pm to 4:30pm to observe and record school-generated traffic conditions during morning drop-off and afternoon pick-up hours and assess the queue pattern.

UEG staff also coordinated with school officials to gather the information regarding school enrollment, faculty size, crossing guards/officers, transport, and more which is included under Section 3. Findings and Recommendations.

Refer to below exhibit for the access points, and drop-off/pick-up locations.



Figure 2 - Ingress & Egress Access Points Exhibit



3. Findings and Recommendations

Based on our coordination with the school staff, Dr. Frederick Douglass Todd Sr. Middle School currently has a total enrollment of 428 students, with approximately 120 students relying on bus transportation and 200 students being dropped off or picked up daily. Additionally, about 100 students choose to walk to school each day. The grade-level breakdown includes 138 students in 6th grade, 133 students in 7th grade, and 157 students in 8th grade.

Drop-Off and Pick-Up Procedures

The school's drop-off period is between 7:45 am and 8:45 am in the morning. Security is provided by 2 to 3 staff members at the drop-off area, 2 to 3 at the metal detector, and two campus officers who monitor the entire morning drop-off process. As there are no clear designated drop-off areas, many of the observed vehicles tended to stop randomly at indiscrete locations. Some cars were turning into the drop-off lane and stopping abruptly, blocking traffic on E. Ledbetter Drive. The driveway off E. Ledbetter Drive is not ADA/TAS-compliant, causing delays for turning vehicles.

The school's pick-up time is 3:55 pm in the afternoon. Approximately 6 to 8 staff members supervise students on the Veterans Drive side of the building, while 2 to 3 staff members monitor the bus pickup area. The bus riders are picked up from the parking lot side, while all parents' pickup is off Veterans Drive.

Traffic Management

Three regular school buses and two handicap school buses were observed on campus in the morning and afternoon. There are two crossing guards at the Veterans Drive intersection during morning drop-off hours and a total of four crossing guards (two at Veterans Drive and two at 52nd Street) during pick-up hours. No temporary traffic control devices were observed on or along the campus.

Traffic Flow and Observations

UEG staff assessed queue lengths during drop-off and pick-up hours. During drop-off hours, a total queue length of six vehicles was observed at the drop-off lane off E Ledbetter Drive, with all vehicles queued within school limits and no spill-over into the city right-of-way. During pickup times, the queue builds up along Veterans Drive and extends all the way north to the 52nd Street intersection (approximately 0.18 miles). **Refer to Traffic Management Exhibit in Appendix A.**

Additional Observations

UEG staff observed parents dropping off along E. Ledbetter Drive without entering the designated drop-off lane, with approximately 15 such instances noted in the morning. Parents were also observed violating the right-turn only restriction on the exit driveway off Horizon Drive, with approximately 10 such instances. During pick-up hours, some parents parked on E. Ledbetter Drive (westbound curb lane) to pick up students. Some vehicles were also parked along the northbound travel lane of Veterans Drive (across from the pickup area) to avoid joining the queue along the southbound travel lane of Veterans Drive. Students were observed crossing Veterans



Drive mid-block at random places to enter parents' pick-up vehicles. This activity resulted in traffic disruptions while also endangering the safety of students.

Recommendations

To improve safety and mobility during the process of both drop-off and pick-up of students, UEG recommends installing signs and markings to direct vehicles to a designated drop-off area in the morning, as cars were seen stopping randomly along the drop-off lane. UEG also recommends improving the driveway slope and a wider turning radius to make it both ADA/TAS-compliant and easier for vehicles to enter drop off lane from E. Ledbetter Drive. UEG also recommends staggering drop-off times by 10 to 15-minute intervals at 7:30 AM, 7:45 AM & 8:00 AM for various grades.

For afternoon queue resolution, UEG recommends staggering pick-up times by grade to reduce queue lengths along Veterans Drive. UEG recommends staggering pick-up times by a 15-minute interval at 3:30 PM, 3:45 PM & 4:00 PM, which would help alleviate the traffic congestion on Veterans Drive. UEG recommends exploring the possibility of dedicated parallel pickup lanes, on Veterans Drive, to ensure the unimpeded flow of regular traffic.

Additionally, UEG recommends enforcing measures to reduce illegal parking along E. Ledbetter Drive and Veterans Drive during drop-off and pick-up hours and to reduce left-turn movements at the exit driveway on Horizon Drive.



Appendix A

Traffic Management Plan Exhibit

