No. 21-10684

To the Mayor and Members of the City Council

October 12, 2021

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SUBJECT: SCHOOL TRAFFIC CONGESTION ISSUES

The purpose of this informal report is to provide information on school traffic congestion issues, current processes, and discuss mitigation strategies for both existing and future issues.

Traffic Congestion issues:

Traffic congestion related to schools typically occurs for 30-45 minutes in the morning and afternoon during pick-up and drop-off times. At times, the queues are extended beyond the site due to arrival and departure occurring at the same time. Generally, charter schools do not offer bus services, which creates a more challenging situation because of the increased number of vehicles traveling to and from the school site. The fact that Charter schools are not bound by defined geographic limits coupled with the tendency to have combined campuses for Elementary, Middle, and High schools, creates a relativity high volume of trips during peak travel times.

The current traffic review process:

Currently, a Traffic Impact Analysis (TIA) is required for all new school development sites in the City of Fort Worth as a part of the platting process. Traffic management plans and circulation studies are both required as part of the TIA. For a plan to be accepted by the City, it must provide analysis demonstrating that all drop-off and pick-up queuing will be provided within the school site. The City of Fort Worth uses the Institute of Transportation Engineers (ITE) guidelines, which is the industry standard, for forecasting trip generations. Trip generation is the process of predicting the number of vehicle trips originating or destined for a specific site or traffic zone. ITE utilizes the number of students as the measurement of analysis for Charter Elementary Schools (ITE Land Use Code 537 – Charter Elementary School) provides for trip generation for students from Pre-K to Eighth Grade. Some Charter Schools within Fort Worth have expanded their populations to include high schools. A review of six specific schools was performed, 5 charter and 1 FWISD, for this IR and presented below.

1. **Uplift Crescendo Preparatory Academy:** This school is located at 1200 Cooks Lane in District 5. It was opened in August 2021 and current enrollment is 400 students with future enrollment estimated at 822 students. The TIA that was prepared for this school indicated that it would generate 933 am peak hour trips (two-way trips) and 532 pm peak hour trips at full enrollment with sufficient on-site queuing at 4,500 feet.

Staff was provided an aerial video showing stacking is provided per the TIA. However, it did not appear that the accepted circulation study was being implemented properly. Further discussion with the school is ongoing to mitigate these issues.

2. IDEA Rise Charter School on Cherry Lane: This School is located at 3000 S. Cherry Lane in District 3 and was opened in August 2019. Phase 1 and 2 have generated a current enrollment of 990 students. The third and final phase, scheduled for completion in 2025, will increase enrollment to 1,710 students. The TIA indicated that the current phase (phase 2) would generate 830 am peak hour trips and 549 pm peak hour trips. The final phase is estimated at 1,478 am peak hour trips and 988 pm peak hour trips with required queuing improvements of 6,250 feet of capacity to be built in 2025.

Staff is currently coordinating with the school and school traffic consultant to verify current enrollment and that the circulation study is being executed as defined by the TIA.

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3. **International Leadership Academy:** This school is located at 2301 Heritage Parkway in District 7. It was opened in August of 2014 with a full enrollment of 1,296 students, grades K thru 8th. The TIA that was prepared for this school estimated 1,269 am peak hour trips and 786 pm peak hour trips. The study further prescribed staggering drop-off/pick-up times for K through 5th to begin at 7:45 am/3:30 pm and 6th through 8th to begin at 8:15 am/4:15 pm. A total of 5,275 linear feet of queueing space and a total of 213 parking spaces were provided on-site

Staff is currently coordinating with the school and school traffic consultant to verify current enrollment and that the circulation study is being executed as defined by the TIA.

4. **International Leadership Academy:** This school is located at 10537 US-287 in District 7. Phase I opened in August 2017 with approximately 800 students - generating 1,232 am peak trips and 704 pm peak hour trips. While the study showed 2,800 feet of queuing space would be sufficient, a total of 3,250 feet was constructed for extra capacity in addition to a total of 408 parking spaces. Phase 2 estimates that total enrollment will be 1,600 students.

An updated Traffic Management Plan, which includes the circulation study, was provided to the City for phase 2. Staff has reviewed and accepted the updated plan as it complies with the current Traffic Engineering Manual (TEM) requirements.

5. Young Women's Leadership Academy: This school (FWISD) is located at 401 E 8th Street in District 9. This school was opened in August of 2010 with a phase I enrollment of 150 students. The current total enrollment is 504 students for grades 6th to 12th, according to the 20-21 school profile. No TIA was submitted previously as City policy only requires it during platting and this school site was an adaptive reuse of an existing building that did not require a platting application or related studies.

Staff is currently coordinating with the school to evaluate the vehicle circulation operations and provide recommendations on how to improve current conditions. Additionally, our Education Strategies Office facilitates regular coordination meetings with the respective Independent School Districts. One objective of these meetings is to anticipate future school site and expansion projects. This continued collaboration will aid in the coordination of future school infill projects and potentially ensure that traffic management is included in the project design phase.

6. **Uplift Elevate Preparatory:** This school is located at 10800 Chapin Road in District 3. It was opened in August of 2019 with a phase I enrollment of 760 students, increasing to an enrollment of 1,396 in 2021. Phase I will generate 1,226 am peak hour trips and 842 pm hour peak trips. The TIA required that phase 1 include a queuing space of 7,900 feet be constructed in 2018. Total build-out will have an enrollment of 2,044 and generate 1,846 am peak hour trips and 1,237 pm peak hour trips. The total queuing space required was determined to be 10,800 feet.

Staff is currently coordinating with the school and school traffic consultant to verify current enrollment and that the circulation study is being executed as defined by the TIA.

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Traffic Congestion Mitigation Options for Existing Schools:

- Evaluate the traffic circulation plan submitted initially to determine if the plan is being followed as described in the study.
- Suggest a staggered schedule with at least 30 minutes between start and end times, such as different drop-off and pick-up times for Elementary and Middle School.
- Have school staff direct traffic on the site (within the school boundary) to minimize queuing on adjacent roadways.
- Have off-duty police officers control traffic at intersections to reduce congestion and improve safety.
- Encourage biking and walking to reduce vehicle trips.
- Offer bus services.

The above changes will be dependent upon if the school is willing to make these changes. Fort Worth does not have a current ordinance or mechanism requiring existing charter schools to comply with the above mitigation proposal.

Future Traffic Impact Analysis Study and Mitigation Requirements for School Development:

As a result of existing traffic issues, staff is recommending that charter schools requesting permits to develop or redevelop in the City of Fort Worth be required to submit a Traffic Impact Analysis regardless of the number of vehicle trips generated by the school or whether platting is required. Chapter 12 of the Transportation Engineering Manual (TEM) provides guidelines for preparing a TIA. In addition to the guidelines, the following items shall be included in the TIA and beyond the school opening:

- The study area should include all site driveways, intersections adjacent to the school, and signalized intersections within 1 mile per the TEM guidelines. A level of service, queuing, and delay analysis shall be performed at all the intersections for background condition, with the buildout. A follow-up study would be required for any additions to the school, phasing plans, or as required by the TIA.
- The site shall accommodate vehicle queues for student drop-off and pick-up. A traffic circulation plan at the school site to address queueing issues during drop-off/pick-up hours. Queuing analysis must be included in the study.
- Mitigation measures to address queuing issues on the adjacent roadway such as infrastructure improvement, staggered schedule, traffic control by Police Officer, etc.
- The TIA shall include an infrastructure improvement plan to address the safety and congestion issues created by new traffic beyond the school site. The TIA should clearly define what infrastructure is needed and when it will be implemented.
- All infrastructure improvement shall be the responsibility of the developer to mitigate their new trips and bring the intersections/roadway back to the same level of service of the background condition.

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 A plan to address bicycle and pedestrian safety, such as the addition of sidewalks, bike lanes, missing sidewalk gaps, curb ramps, crosswalks, signage, school zone flashers, Rectangular Rapid Flashing Beacons, etc.

If you have any questions, please contact Tanya Brooks, Transportation and Public Works Assistant Director at (817) 392-7861 or Ty Thompson, Development Services Assistant Director at (817) 392-2120.

David Cooke City Manager

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