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Traffic. Transportation Planning. Parking. Design.

Technical Memorandum

To: Karl Crawley — Masterplan Consultants

From: David Nevarez, PE, PTOE — DeShazo Group, Inc.

Date: April 3, 2017

Re: Traffic Management Plan for David G. Burnet Elementary School in Dallas, Texas
DeShazo Project Number 17026

INTRODUCTION

DeShazo Group, Inc. (DeShazo) is an engineering consulting firm providing professional services in traffic engineering, transportation planning and related fields. Masterplan Consultants retained the services of DeShazo on behalf of the Dallas Independent School District (DISD) to provide a requisite Traffic Management Plan (TMP) for David G. Burnet Elementary School. The school is located at 3200 Kinkaid Drive in Dallas, Texas.

At the time of this study, the school had an enrollment of 976 students in Pre-K through 5th grade. The school is undergoing renovations mainly attributed to additional classroom space with no change to student capacity. A proposed site plan showing proposed building modifications is attached as reference.

The school site is zoned R-10(A), Single Family. In order to gain entitlements for the proposed improvements, the school administration is seeking approval of a change to the development plan. As part of the approval process, the City of Dallas requires a TMP as a record of the preferred traffic control strategies and to ensure overall traffic safety and efficient operations. The plan is intended to assess anticipated traffic conditions during the morning drop-off and afternoon pick-up activities on the basis of satisfying these objectives. By consent of the TMP submittal, the school agrees to the strategies presented herein. In addition, the school is held self-accountable to enforce the plan until and unless the City of Dallas deems further mitigation measures are necessary.

TRAFFIC MANAGEMENT PLAN

A school TMP is important to safely achieve an optimum level of traffic flow and circulation during peak traffic periods associated with student drop-off and pick-up. By properly managing vehicular traffic generated during the critical periods, the safety and efficiency of other modes of travel — including walking — will also inherently improve while the operational impact on the public street system is minimized. **The TMP is a tool a tool to facilitate a safer and more efficient environment; it should not be considered a comprehensive set of instructions to ensure adequate safety.**

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The analysis summarized below utilizes the existing school site plan to evaluate aspects such parking and vehicle queuing (i.e., stacking) that occur at the school in order to accommodate the observed peak demands. A concerted effort and full participation by the school administration, staff, students, and parents are essential to maintain safe and efficient traffic operations.

School Operational Characteristics

Table 1 provides a summary of the known operational characteristics for the school.

Table 1. School Operational Characteristics

Enrollment:	Pre-K: 105 students Kindergarten: 116 students 1st-5th: 755 students *Total: 976 students*
Daily Start/End Schedule	>Start: 7:55 AM >End: 2:55 PM
Approximate Percentage of Students Travelling by Mode Other Than Drop-off/Pick-up:	By Daycare/Van: ≅ 5% (~49 Students) By Walking: ≅ 0% (Observed)

NOTE #1: To the highest degree practical, the accounts of existing conditions presented in this report were based upon actual on-site observations conducted by DeShazo during typical school conditions and from personal interviews of school representatives.
NOTE #2: Occasional functions or other events may be held at the school which generate traffic outside of the traditional peak drop-off and pick-up periods. While some of the measures presented in this report may be applicable in such cases, traffic characteristics other than those directly associated with the primary drop-off and pick-up periods are not the subject of this analysis.

Existing Site Access and Circulation

The school provides parking lots for faculty and staff only on Park Lane and Kinkaid Drive. During afternoon peak hours, a third parking lot located at the northwest corner of the school provides parking for parents. During school pick-up periods, traffic operations concentrate in the perimeter of the school with a significant number of vehicles parked on both sides of Park Lane. The majority of parents arrive from the east of the school traveling westbound on Park Lane. Once the parents park, they either cross the street to pick up students or wait for students to be dismissed. A school bus and van park eastbound on Kinkaid Drive without a designated loading area.

Passenger Unloading/Loading and Vehicle Queuing

DeShazo conducted field observations during typical school-day conditions on Tuesday, February 28, 2017. The peak number of parent-vehicles on site was quantified during the afternoon pick-up period. The total maximum vehicular accumulation peaked with 167 vehicles around the school. The school administration should immediately implement an active management of student loading to expedite queueing operations and reduce the maximum accumulation of traffic.

The school provides enough capacity for 146 vehicles as depicted in **Exhibit 1**. The designated areas for queuing operations is considered adequate upon enforcement of an active traffic management plan based on studies of other schools with similar enrollment characteristics.

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Recommendations to Facilitate Queueing Operations

Queue pick-up participation is a challenge that schools in our community face constantly. Full cooperation of all school staff members, students and parents is crucial for the success of the systematic queue. Proper training of school staff is recommended. Sufficient communications at the beginning of each school term (and otherwise, as needed) with students and parents on their duties and expectations is recommended.

The following recommendations are provided to school administration for the management of vehicular traffic generated by the school during peak traffic conditions. Generally, traffic delays and congestion that occurs during pick-up periods is notably greater than the traffic generated during the morning drop-off period due to timing and traffic concentration. In most instances, achieving efficiencies during the afternoon period is most critical, while the morning traffic operations require nominal active management.

Traffic Queue Operations

- As shown on **Exhibit 1**, parents picking up students in Pre-K and Kindergarten should immediately proceed to form a double queue upon arriving at the school during the afternoon pick-up period. The northwest lot provides 752 linear feet of on-site queuing—enough capacity for a double queue for more than 32 vehicles. Parents for all other grades should proceed to form a systematic queue along the perimeter of the road in a clockwise direction without obstructing any private driveway. Dismissal of grades 1 through 5 should be limited to the front of the school on Kinkaid Drive.

- Pedestrian access to/from school should be limited to the front of the building on Kinkaid Drive to encourage student pick-up at designated areas only.

Student Safety

- Student safety should remain paramount at all times. School administration should remind students, parents and staff of their expectations relative to this traffic management plan continuously throughout the school year.

- School administration should review traffic operations and address any problems concerning this traffic management plan and identify solutions in the interest of student safety.

- There is no evidence of any students walking home after school. School administration should investigate *A Safe Routes to School* program for students to walk home or ride bikes safely.

- In accordance with the Transportation Code, Section 545.4252, State law prohibits the use of wireless communication devices while operating a motor vehicle during the time a school zone is in effect. Restrictions do not apply to stopped vehicles or the use of handheld free devices.

School Bus/Daycare Vans Operations

- All school and daycare van pick-up activities should be designated at the loading zone located at the northeast corner of the school site as shown in **Exhibit 1**.

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Enforcement

- School officials should appoint a safety committee whose objective is to implement actions of this TMP and make any necessary adjustments to enforce a coordinated traffic management plan.
- The plan includes a specific number and location of school staff and adult crossing guards. An appropriate number of school staff shall be assigned to fulfill the duties of student supervision, traffic control, and other related duties as generally depicted on the plan.
- Maintain the closure of the fence to discourage remote parking and to encourage parents to pick-up students at the designated loading areas as shown in **Exhibit 1**.

SUMMARY & RECOMMENDATIONS

This TMP is to be used by DISD David G. Burnet Elementary School to provide safe and efficient transportation of students, staff, and faculty. The Plan was developed with the intent of optimizing safety and efficiency and the goal of accommodating vehicular traffic generated by the school at peak traffic periods within the site. The details of the TMP shall be reviewed by the school on a regular basis to confirm its effectiveness.

END OF MEMO

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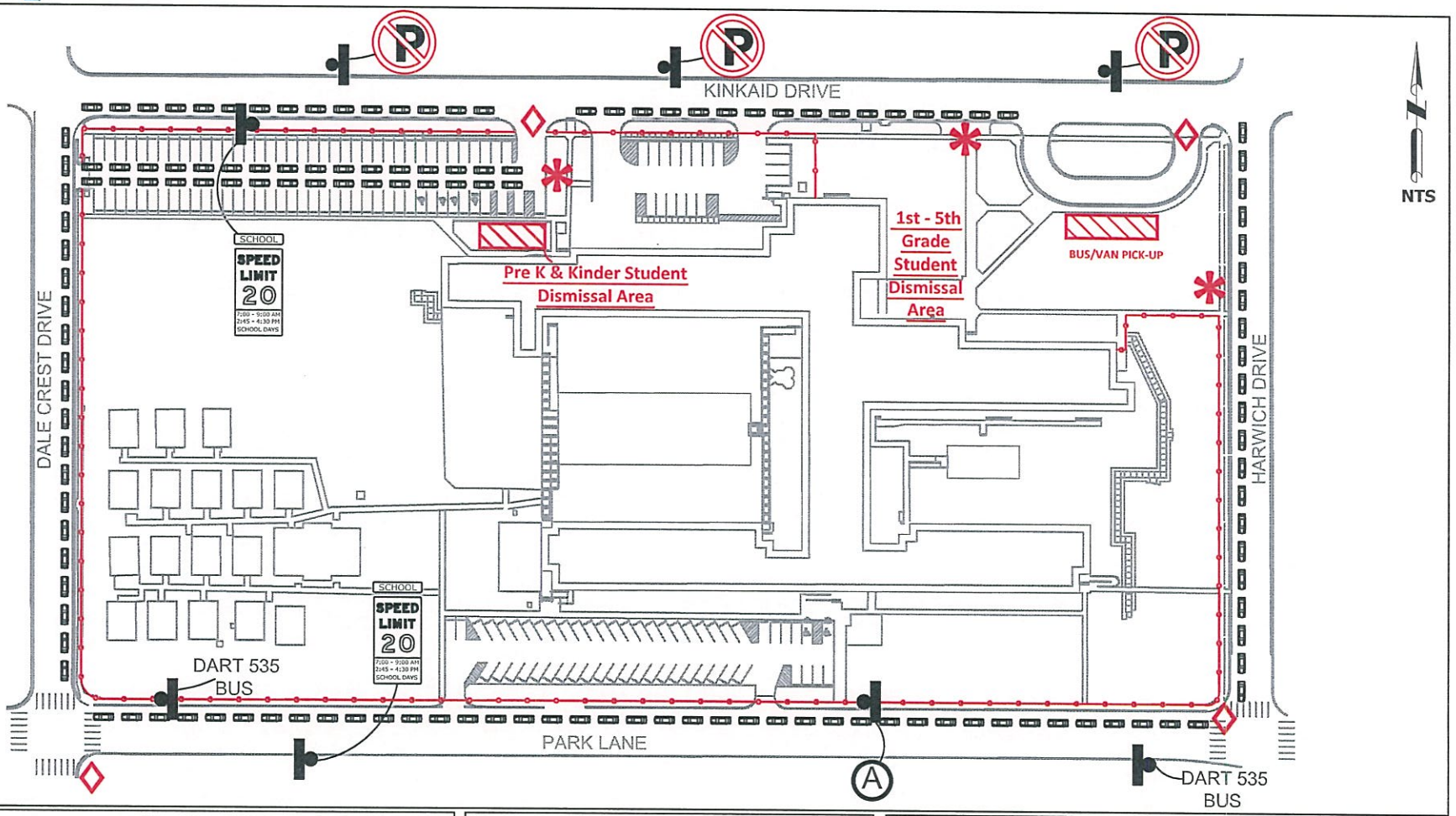

Queuing Summary

Student Group	Student Enrollment	Dismissal Time	Vehicular Traffic Demand	
				Queue
Pre K- 5th	976 Students 5% Bus 5% Walk	2:55 PM	Provided*	3,431 LF (146 cars)
			Required**	3,431 LF (146 cars)
			Surplus	0 LF (0 cars)

** Exceeds existing conditions; calcualated upon enforcement of managed traffic operations*
Vehicular queue calculated at 23.5 feet/passenger car based on field observations.

Legend

- * - School Staff
- Student Pick - Up
- School Crossing Guard
- Traffic Signs
- (A) - QUEUE LANE PULL FORWARD NO PARKING OR UNATTENDED VEHICLES 7:00 - 9.00 AM 2:45 - 4.30 PM SCHOOL DAYS

The purpose of this Traffic Management Plan (TMP) is to evaluate traffic operations that promote safety and efficient vehicle circulation. The school administration should adhere to this TMP. Any deficiency due to spillover of queuing into undesignated areas of the city rights-of-way, including roadway travel lanes, should be corrected by the school immediately.

I, David Nevarez, P.E. #106200, certify that site constraints preclude the school's ability to accommodate vehicular queue on-site. While it may not be feasible to eliminate queuing in public rights-of-way, establishing a designated school route will lessen impact to neighborhood as well as background traffic on the main roads. This option is subject to approval by the City of Dallas Mobility and Street Services Department.

EXHIBIT 1

Traffic Management Plan

DISD David G. Burnet Elementary School
3200 Kinkaid Drive, Dallas, TX 75220

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