

April 24, 2017

PK# 2268-17.048

Z 167-226

TRAFFIC MANAGEMENT PLAN

Project:

DISD H. Grady Spruce High School
In Dallas, Texas

Prepared for:

City of Dallas

On behalf of:

Dallas Independent School District

Prepared by:

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TX REG. ENGINEERING FIRM F-469

TX REG. SURVEYING FIRM LS-100080-00

TRAFFIC MANAGEMENT PLAN DISD H. Grady Spruce High School

Dallas, Texas

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INTRODUCTION

The services of **Pacheco Koch** (PK) were retained on behalf of **Dallas Independent School District (DISD)**, to prepare a Traffic Management Plan (TMP) for the *H. Grady Spruce High School* (the "School") located at 9733 Old Seagoville Road in Dallas, Texas. This TMP is site-specific and relates to the peak traffic activity associated with school traffic at the site.

DISD is seeking creation of a Planned Development District for the site from the City of Dallas (the "Approving Agency") to facilitate proposed site improvements. Submittal of a TMP, prepared by a registered professional engineer experienced and skilled in the field of traffic/transportation engineering, is one of the requirements of Approving Agency's application process. This TMP was prepared by registered professional engineers employed by Pacheco Koch. Pacheco Koch is a licensed engineering firm based in Dallas, Texas, that provides professional services in traffic engineering, transportation planning, and other fields.

Project Description

The site currently consists of an existing public high school. Current enrollment is summarized below in Table 1. The School is expected to accommodate an enrollment of approximately 2,065 students at full capacity. School starts at 9:15 AM and ends at 4:15 PM.

Table 1. Current Enrollment

LEVEL	STUDENTS ENROLLED
9th Grade	598
10th Grade	507
11th Grade	369
12th Grade	266
CURRENT TOTAL	1,740
PROJECTED TOTAL	2,065

*Enrollment data provided by DISD.

Access to the campus is provided on Old Seagoville Road and Crenshaw Drive, both local streets. Old Seagoville Road intersects with St. Augustine Drive (west of school) and Masters Drive (east of school), a community collector and a major arterial, respectively—both intersections are signalized. Crenshaw Drive is a private street and operates as one-way, northbound, during school hours. Land uses surrounding the site are predominately single-family residential with some multifamily and commercial uses in the vicinity.

A proposed site plan for the DISD H. Grady Spruce High School, provided by Baldwin Associates, is attached at the end of this report.

TMP Objectives

A Traffic Management Plan (TMP) is a site- or area-specific plan of recommended actions and strategies to manage vehicular traffic and parking, pedestrian activity, and travel by all other modes during peak demand conditions for a planned event. The “Objectives” of a TMP are to:

1. Provide a safe environment for all Users on site and the travelling public in the vicinity of the site during the Event times;
2. Minimize (and maintain within reasonable levels) travel delays and traffic congestion on site and in the vicinity of the site during the Event;
3. Ensure reasonable access and circulation is maintained on the public street system in the vicinity of the site during the Event;
4. Provide appropriate information to the travelling public in the vicinity of the site to allow for proper awareness of anticipated traffic conditions during the Event; and,
5. Promote reasonable strategies to manage travel demand to and from the site, including use of alternative modes of travel (such as walk, bike, bus, transit, etc.), when practical.

DEFINITIONS:

Terms are used in this report:

“Event” – a planned event(s), recurring or non-recurring, for which this TMP is being prepared (i.e., “school day”)

“School” (a.k.a., “Event Organizer”) – the person, group, or organization responsible for the Event

“TMP Manager” – a person or persons designated by the School to implement the TMP (also see additional tasks in the *Expectations* section)

“Users” – guests/patrons attending the Event

“Analyst” – the person(s) preparing the TMP for the School

“Approving Agency” – the municipality or government agency requiring the Traffic Management Plan

“Traffic Department” – the department of the public agency responsible for traffic operations for a given right-of-way

“Site” – the property at which the Event is located (generally assumed to be occupied by the School)

“TMP Strategies” – actions recommended by the Analyst to be undertaken before, during, or after the Event in order to manage traffic on or off site

DISCLAIMERS:

A TMP should be developed by, or in concert with, an individual familiar with the general characteristics of the Event and the associated traffic/transportation needs. For this study, PK worked with School representatives to develop the proposed recommendations.

Recommended TMP Strategies should be based upon applicable engineering principles of traffic safety and traffic operations.

Any recommended TMP Strategies involving traffic control devices in the public right-of-way (including installation or removal of signs, pavement markings, etc.) are subject to the approval of, and must be implemented under direction of, the Traffic Department.

No private individual should perform, or attempt to perform, any act of traffic control within public right-of-way; only deputized officers of the law or other authorized representatives of the Traffic Department may manipulate traffic conditions within the public right-of-way.

Pacheco Koch was not involved with site selection, site design, or the current operations for this project. Pacheco Koch is not responsible for the *implementation* of the recommended TMP Strategies contained in this study.

Methodology

When feasible, the Analyst should conduct first-hand observations of existing event to develop an understanding of site-specific traffic/transportation characteristics, such as: drop-off/pick-up frequency, parking needs, alternative travel mode use, safety issues, queuing, traffic congestion, site access, current traffic management strategies in use, etc. When it is not feasible to conduct such observations, interviews with staff or personnel familiar with those items is desirable. When neither option is available, the Analyst may be required to rely upon published information and/or professional judgment and experience.

Once the base information is assembled, the Analyst should estimate the projected traffic/transportation characteristics generated by the proposed Event. Next, the Analyst should inventory the attributes and resources of the subject site and determine how the site can best accommodate those projected conditions. Based upon that assessment, the recommended TMP Strategies shall be developed to optimally achieve the basic TMP Objectives. The recommended TMP Strategies should be reviewed by the School (ideally, the TMP Manager) for refinement and approval before formal submittal to the Approving Agency.

Expectations

NOTE TO SCHOOL: By submittal of a TMP to the Approving Agency, the School is implicitly agreeing to implement, maintain, and comply with the recommended actions presented herein subject to acceptance by Approving Agency and any associated conditions Approving Agency may impose. It is also inferred that the School agrees to be self-accountable for these actions until and unless Approving Agency deems further measures are appropriate or the TMP is no longer required.

Recommended TMP Strategies may include one-time measures to be implemented before the Event and/or ongoing actions to be performed before, during, or after the Event. Recommended TMP Strategies involving on-site measures or actions are generally considered to be the responsibility of the School.

To ensure appropriate compliance and consistent implementation of the TMP, it is recommended that the School appoint a TMP “Manager”. In general, a Manager should be a qualified and capable individual or group of individuals assigned to take responsibility of the TMP and be accountable for successful implementation in order to achieve the Objectives described earlier (see “*TMP Objectives*”). Other specific duties of the Manager include:

- Monitor effectiveness of TMP strategies and make prudent adjustments, as needed, to more effectively accomplish the TMP Objectives
- Maintain an awareness of readily-available alternative transportation modes serving the site and facilitate and promote their use during the Event when practical
- Serve as a liaison to the Approving Agency(-ies), when needed
- When applicable, provide training and direction to other personnel assigned to implement the TMP measures
- Provide instruction to Users on how to comply with the intent of the TMP

Recommended TMP Strategies were developed specifically for the period(s) of peak traffic demand and are depicted in the respective exhibits. For periods of less intense traffic demand, recommended TMP Strategies may be utilized, in part or in whole, as needed to realize the TMP Objectives.

Changes to TMP

Informal changes to any recommended TMP Strategies presented herein to improve efficiency or effectiveness may be implemented at the discretion of the School if those changes are prudent and do not compromise the TMP Objectives. It is recommended that changes implemented under such circumstances be documented and retained by the School for future reference or upon request. At the discretion of the Approving Agency, submittal of a formally revised TMP report/document or a validation study may be required on a predetermined or as-needed basis.

TRAFFIC MANAGEMENT PLAN

NOTE: Recommended TMP Strategies contained herein are based upon the best data, site-specific information, and analytical processes readily available at the time of the study. However, specific quantities related to traffic congestion at peak periods (e.g., duration, length of queue, etc.) are estimated values. Actual quantities may vary due to unknown or unquantifiable variables and other operational factors that may occur. In the event that actual, future conditions

generate undue burden on Users and/or the travelling public, modifications to the TMP should be considered. (See preceding NOTE for guidance on implementing changes to the TMP.) However, in extreme conditions, TMP actions may not be capable of mitigating all traffic conditions, and it may be incumbent on the School to consider operational, institutional, or other long-term changes to address issues on a more permanent basis.

A graphical summary of existing conditions is depicted in **Exhibit 1**; graphical summaries of recommendations and proposed conditions are depicted in **Exhibit 2**. All assumptions, calculations, and other quantitative data are provided in the **Appendix**.

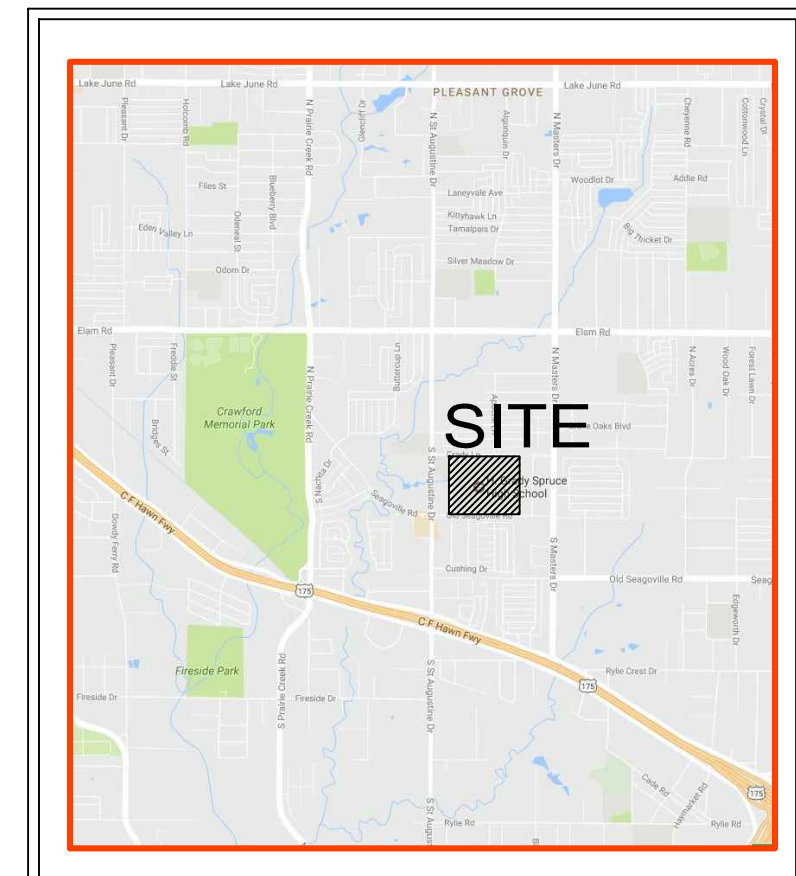
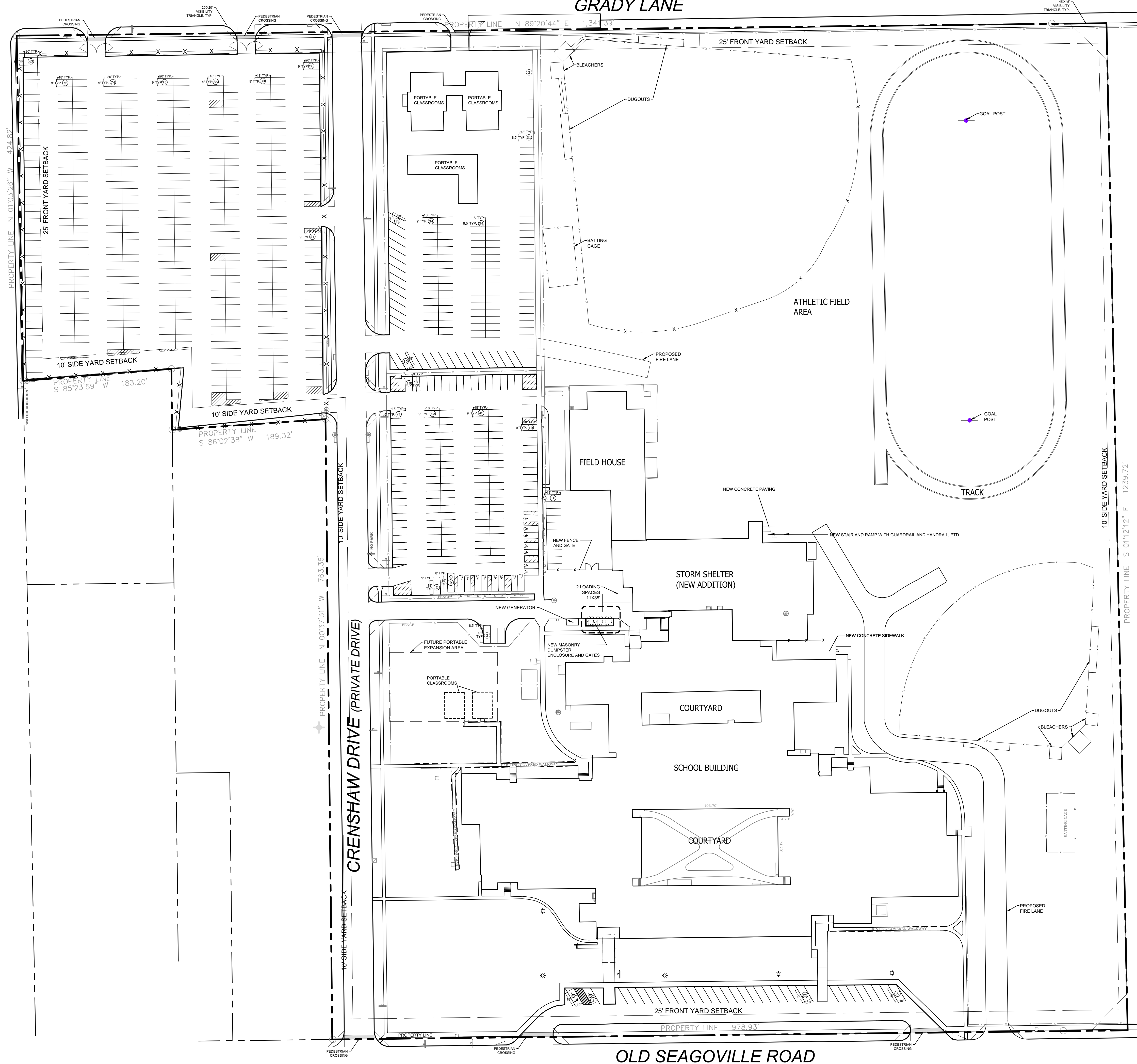
A summary of specific recommendations are provided below:

1. Enforce existing, on-street parking restrictions in residential areas (not fronting school property) during school traffic periods. [Intent: to minimize impact to neighborhood.]
2. Allow short-term, on-street parking along school frontages during school traffic periods (i.e., adjust existing restrictions).
3. Convert the first parking aisle in the Student Parking Lot to parent waiting/loading area. Parking should be angled with one-way flow as illustrated in **Exhibit 2**. [Intent: To provide an off-street location for parents to stand/park during afternoon pick-up period in lieu of standing/parking in front of residences.]
4. Install a mid-block crosswalk on Crenshaw Drive for students entering student lot.

END OF MEMO

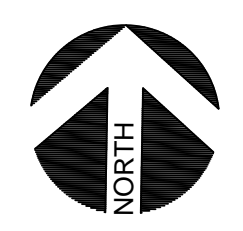
GRADY LANE

ST. AUGUSTINE ROAD



VICINITY MAP

NTS



SITE DATA TABLE

ZONING DISTRICT	PD for public school
TOTAL SITE AREA	31.543 ACRES
LAND USE	Public school
	Grades 9-12
TOTAL FLOOR AREA	290,000 SQ FT
	PROVIDED
BUILDING STORIES/HEIGHT	3 stories/ 38FT
LOT COVERAGE	15%
SETBACKS	
	MIN.
FRONT SETBACK	25 FT
SIDE SETBACK	10 FT
REAR SETBACK	15 FT
PARKING	
HIGH SCHOOL CLASSROOMS (91)	
9.5 PER CLASSROOM	
TOTAL REQUIRED	864.5
PROVIDED	865



1

DEVELOPMENT PLAN

SCALE: 1" = 60'-0"



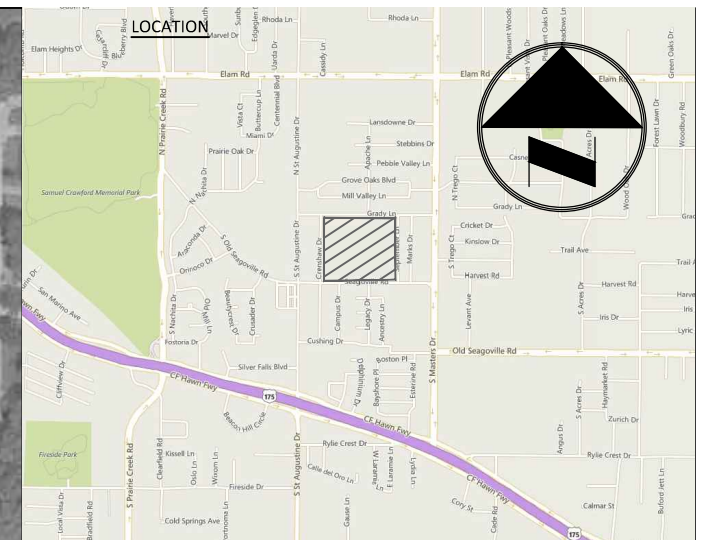
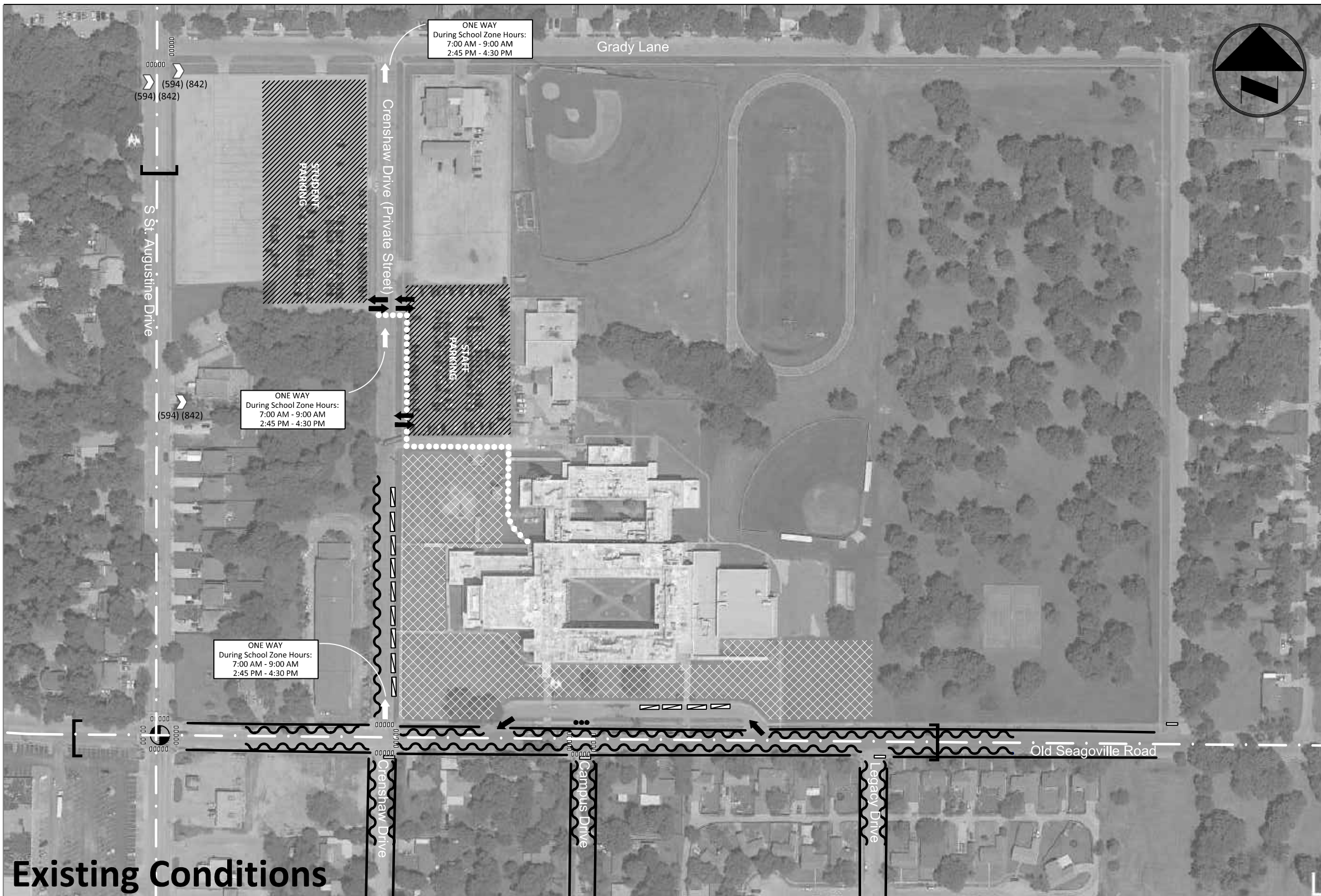
CASE #Z167-226

04/20/2017

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Baldwin
Associates

9733 OLD SEAGOVILLE ROAD
CITY OF DALLAS, TEXAS



LEGEND:

No Parking	Parking Allowed
— - Existing, On Street	--- - Existing, On Street
↔ - Proposed, On Street	↔ - Proposed, On Street
▨ - Off-street	▨ - Off-street (General)
	➡ - Access Point


Queuing/Loading

- ▨ - Parent Waiting and Loading Area
- ~ - Queue Area (Unmanaged)
- ↔ - Circulation/Flow
- ➡ - Access Point
- ▨ - School Bus Loading/Unloading
- ➡ - School Bus Access Point

Pedestrian/Other

- oooo - Trail/Path
- - Crosswalk
- ▨ - Student Waiting Area
- [] - School Zone
- - Traffic Cone
- Σ - Public Transit Stop (DART Route No.)
- · — - City Designated Bicycle Route
- ▭ - Stop Line
- ⊕ - Traffic Signal

Existing Conditions



 THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY STEVE E. STONER, P.E. 84828 ON 02/24/2017. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

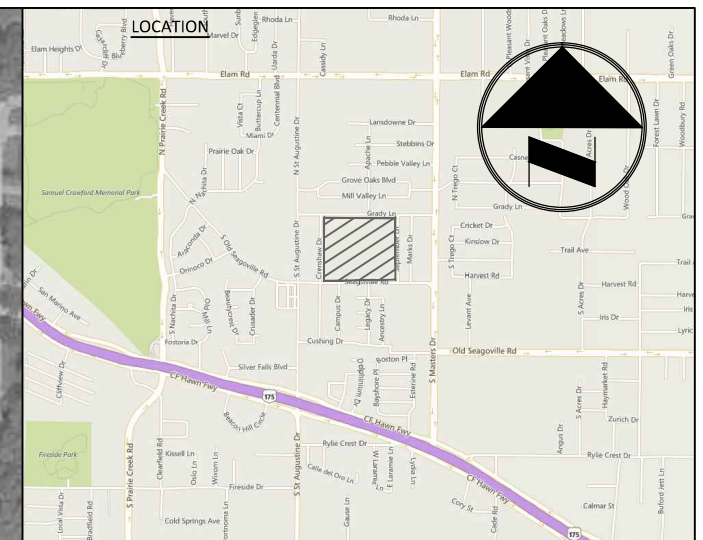
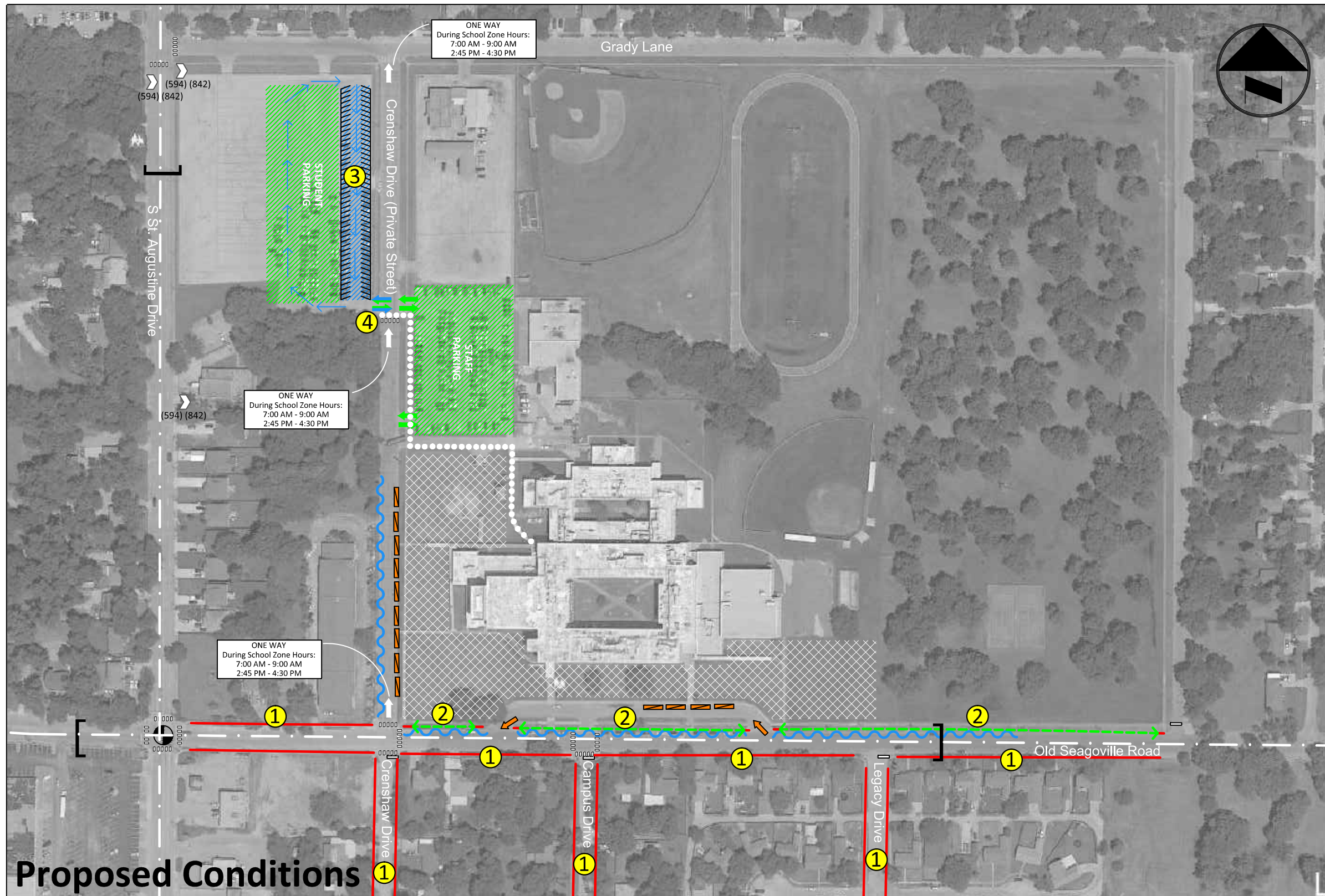
BACKGROUND:

Event Information: _____
 Approving Agency: City of Dallas
 Event/Type: Public School (High School)
 Event Organizer: H. Grady Spruce High School
 Event Time(s)/Date (s): Weekday morning & evenings (seasonal)
 Event Frequency: [Recurring] / Occasional / One-Time

NOTE: This drawing is conceptual only and does not reflect a detailed design.

TX. REG. ENGINEERING FIRM F-469 PK #2404-17.036
 TX. REG. SURVEYING FIRM LS-100080-00 (HWL: 02/24/17)

EXHIBIT 1 **Z167-226**
Traffic Management Plan
Existing Conditions
 DISD H. Grady Spruce High School, Dallas, Texas




- LEGEND:**
- | | |
|-------------------------|----------------------------|
| No Parking | Parking Allowed |
| — - Existing, On Street | --- - Existing, On Street |
| ↔ - Proposed, On Street | ↔ - Proposed, On Street |
| /// - Off-street | /// - Off-street (General) |
| | ← - Access Point |
- Queuing/Loading**
- /// - Parent Waiting and Loading Area
 - ~ - Queue Area (Unmanaged)
 - ↔ - Circulation/Flow
 - ← - Access Point
 - ▭ - School Bus Loading/Unloading
 - ← - School Bus Access Point
- Pedestrian/Other**
- oooo - Trail/Path
 - - Crosswalk
 - ▣ - Student Waiting Area
 - [] - School Zone
 - - Traffic Cone
 - Σ - Public Transit Stop (DART Route No.)
 - · - City Designated Bicycle Route
 - ▭ - Stop Line
 - ⊕ - Traffic Signal

Proposed Conditions

STEVE E. STONER
 LICENSED PROFESSIONAL ENGINEER
 84828
 Steve E Stoner

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TX. REG. ENGINEERING FIRM F-469 PK #2404-17.036
 TX. REG. SURVEYING FIRM LS-100080-00 (HWL: 02/24/17)

BACKGROUND:

Event Information
 Approving Agency: City of Dallas
 Event/Type: Public School (High School)
 Event Organizer: H. Grady Spruce High School
 Event Time(s)/Date (s): Weekday morning & evenings (seasonal)
 Event Frequency: [Recurring] / Occasional / One-Time

NOTE: This drawing is conceptual only and does not reflect a detailed design.

- RECOMMENDATIONS**
- ① Enforce Existing, On-street Parking Restrictions in Residential Areas (Not Fronting School Property) During School Traffic Periods
 - ② Allow Short-term, On-street Parking Along School Frontages During School Traffic Periods (Adjust Existing Restrictions)
 - ③ Convert First Parking Aisle in Student Parking Lot to Parent Waiting/Loading Area
 - ④ Install Mid-block Crosswalk on Crenshaw Drive

EXHIBIT 2 **Z167-226**

Traffic Management Plan
Proposed Conditions

DISD H. Grady Spruce High School, Dallas, Texas

Pacheco Koch

School TMP Trip Assumptions
H. Grady Spruce High School, Dallas, Texas

Pacheco Koch

2/22/2017

GRADE	ENROLLMENT		MODE SPLIT					QUEUE (FT)*		
	CURRENT	FUTURE	% Bus	% Walk	% Drive	% Other*	% Pick-Up	2.78 (Based on On-site Observations)		
								DEMAND	AVAILABLE	SURPLUS
HIGH SCHOOL			5%	20%	5%	2%	68%			
9th	598									
10th	507									
11th	369									
12th	266									
TOTAL	1740	2065	103	413	103	41	1404	3904	4083	179

Data Source: The 'mode splits' listed above were based upon information provided by the School and, where practical, field-verified and refined by Pacheco Koch.

* 'Other' refers to conditions that reduce the number of students being picked-up in a single vehicles, such as: after-school programs, sibling/carpools, etc.