September 18, 2023
WW# 0044552.00

PRELIMINARY TRAFFIC ASSESSMENT

Project:
DISD H. Grady Spruce High School
In Dallas, Texas

Prepared for:
City of Dallas

On behalf of:
Dallas Independent School District (DISD)

Prepared by:

Hunter W. Lemley, P.E., PTOE

Pacheco Koch
a Westwood company

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TX. REG. SURVEYING FIRM LS-100080-00

PRELIMINARY TRAFFIC ASSESSMENT
DISD H. Grady Spruce High School
Dallas, Texas

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LIST OF EXHIBITS:

The services of **Pacheco Koch** (PK) were retained by **BRW Architects** on behalf of **Dallas Independent School District (DISD)** to prepare a Preliminary Traffic Assessment, as requested by the City of Dallas, for the proposed development described below.

As described in Appendix A6 of the City of Dallas *Street Design Manual*, the purpose of a Preliminary Traffic Assessment is "to provide a snapshot of traffic information and potential issues related to a proposed development" and "to provide a technical justification to waive a traditional Traffic Impact Analysis."

This study was prepared by registered engineers at Pacheco Koch who are experienced in transportation and traffic engineering (the "Engineer"). Pacheco Koch is a licensed engineering firm based in Dallas, Texas, that provides professional engineering and related services.

1. PROJECT DESCRIPTION

NAME OF DEVELOPMENT: DISD H. Grady Spruce High School

PROPERTY ADDRESSES: 9733 Old Seagoville Road, Dallas, TX 75217

LAND USE(S): Public school other than an open-enrollment charter school

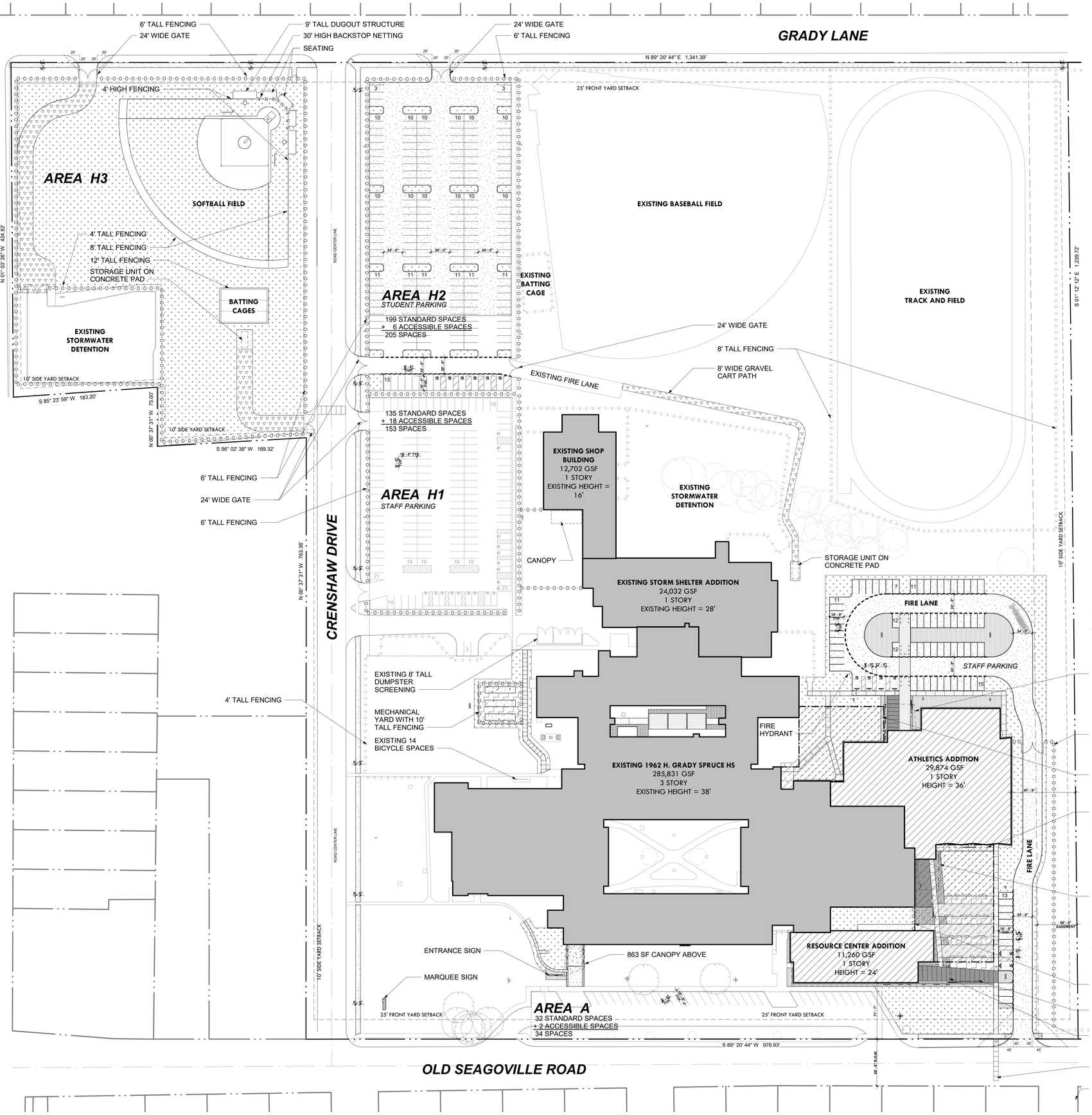
EXISTING ZONING: PD-989

PROPOSED ZONING: (no change)

SITE ACCESS: Three driveways (one entry only, one exit only) on Old Seagoville Road with additional access to staff parking lots. Six driveways on Crenshaw Drive with additional access to student and staff parking lots. Three driveways on Grady Lane with additional access to student and staff parking lots.

2. SITE PLAN

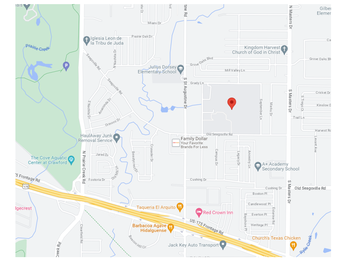
(see next page)



1 DEVELOPMENT PLAN
1" = 50'-0"

TRUE NORTH

VICINITY MAP



SITE INFORMATION

ZONING DISTRICT (PRIOR TO PD)	R-7.5A
PLANNED DEVELOPMENT	PD 989
FRONT YARD SETBACK (PD 989)	25 FT
SIDE YARD SETBACK (PD 989)	10 FT
REAR YARD SETBACK (PD 989)	15 FT (N/A)
TOTAL SITE AREA	31.543 ACRES (1,374,605 SF)
EXISTING 1962 FOOTPRINT	125,341 GSF
EXISTING SHOP WING FOOTPRINT	12,688 GSF
EXISTING 2020 ADDITION FOOTPRINT	23,073 GSF
TOTAL EXISTING BUILDING FOOTPRINT	161,102 GSF
FLOOR AREA TO BE DEMOLISHED	0 GSF
ATHLETICS ADDITION FOOTPRINT	30,099 GSF
RESOURCE CENTER ADDITION FOOTPRINT	11,260 GSF
TOTAL FOOTPRINT	202,461 GSF
TOTAL LOT COVERAGE (202,461 / 1,374,605)	14.8%
OVERALL BUILDING HEIGHT	38 FT
NUMBER OF STORIES	3
POTENTIAL FUTURE EXPANSION AREAS:	
WEST OF ATHLETICS ADDITION	8,500 GSF
SOUTH OF ATHLETICS ADDITION	14,500 GSF
TOTAL	23,000 GSF
LOT COVERAGE INCLUDING POTENTIAL FUTURE EXPANSION : (225,461 / 1,374,605)	16.4%

OFF-STREET AUTOMOBILE PARKING SPACES REQUIRED:
- 9.25 SPACES PER HIGH SCHOOL CLASSROOM (2019 PD)
- 71 CLASSROOMS x 9.25 SPACES/ CLASSROOM = 657 SPACES

OFF-STREET AUTOMOBILE PARKING SPACES PROVIDED:
- 34 EXISTING AT AREA A
- 153 EXISTING AT AREA H1
- +205 NEW @ EXISTING AREA H2
- + 81 NEW @ AREAS C & K
- 473 TOTAL
- REFER TO ATTACHED TRAFFIC STUDY FOR PROPOSED PARKING COUNT JUSTIFICATION

BICYCLE PARKING SPACES REQUIRED PER DALLAS DEVELOPMENT CODE SEC. 51A-4.333:
- ONE BICYCLE PARKING SPACE PER 25 REQUIRED OFF-STREET PARKING SPACES. (657 / 25 = 27)
- NO MORE THAN 30 BICYCLE PARKING SPACES ARE REQUIRED ON ANY BUILDING SITE.

BICYCLE PARKING SPACES PROVIDED:
- 14 EXISTING
- 18 NEW
- 32 TOTAL

SITE PLAN LEGEND

- FIRE LANE STRIPING
- EXISTING PROPERTY LINE
- EXISTING FENCE TO REMAIN
- FENCE
- BACKSTOP NETTING
- EXISTING BUILDING
- NEW CONSTRUCTION
- CONCRETE PAVING
- INTEGRAL COLOR CONCRETE PAVING
- CONCRETE SIDEWALK
- FUTURE EXPANSION AREA
- CONCRETE PAVER
- GRAVEL
- EXISTING LIGHT POLE, FIXTURE AND BASE HEIGHT = 20'
- NEW LIGHT POLE, FIXTURE AND BASE HEIGHT = 20'
- EXISTING TREE

CASE NO.: XXXX-XXX

INTERIM REVIEW DOCUMENTS NOT FOR REGULATORY APPROVAL, PERMITTING, OR CONSTRUCTION
CRAIG S. REYNOLDS TX REG. NO. 9089

BROWN REYNOLDS WATFORD ARCHITECTS
3333 TRAVIS STREET
SUITE 250
DALLAS, TX 75204
214-528-8704
WWW.BRWARCH.COM

DALLAS ISD
H. GRADY SPRUCE HS ADDITIONS & RENOVATIONS
9733 OLD SEAGOVILLE RD DALLAS, TX 75217

NO.	REVISION	DATE

DATE AUGUST 31, 2023
DRAWN BY RV, MC
CHECKED BY AH, LWL
BRW PROJECT NUMBER 222060.00

AS0.1
SITE DEVELOPMENT PLAN

3. TRIP GENERATION

Table 1. Projected Trip Generation Summary

LAND USE (ITE LUC)	DAILY TRIP ENDS (WEEKDAY)	AM PEAK HOUR TRIP ENDS (ADJACENT STREET PEAK)	PM PEAK HOUR TRIP ENDS (ADJACENT STREET PEAK)
		Total (In/Out)	**Total** (In/Out)
Existing and Proposed Uses			
High School (1,467 Students) (ITE LUC #525)	2,846	**763** (519/244)	**205** (99/106)

Source: Institute of Transportation Engineers *Trip Generation* handbook, 11th Edition.

4. PARKING GENERATION

Table 2. Projected Parking Generation Summary

LAND USE (ITE LUC)	QUANTITY	AVERAGE RATE	PROJECTED PEAK PARKING DEMAND*
High School (ITE LUC #530)	1,467 Students	0.26	**381**

Source: Institute of Transportation Engineers *Parking Generation* handbook, 5th Edition.

Table 3. Base Code Parking Requirements

(Proposed Development, Based upon PK interpretations of City Code)

LAND USE	QUANTITY	RATE	PARKING REQUIREMENT
Public School [51A-4.204(17)(C)(iii)]	71 Rooms	9.25 space per classroom	657

NOTE: Based upon PK's interpretations of applicable City of Dallas parking requirements. Some parking reductions may apply

EXISTING PARKING SUPPLY: 776 PROPOSED PARKING SUPPLY: 464 Updated on 04/25/2024 by Steve E. Stoner, P.E., PTOE

Based on the above, the district is proposing for a reduction in parking spaces. This study shows that on a typical day, the maximum vehicles parked on-site is 226 vehicles. Below is a summary of the findings for the parking observations.

Parking Count Observations (See Appendix for detailed exhibit):

- Existing Student lot A: 0 vehicles
- Northern Faculty Lot B: 27 vehicles
- Northern Staff/Teacher Lot C: 110 vehicles
- Northern Maintenance Lot D: 6 vehicles
- Southern Visitor Lot E: 29 vehicles

- Eastern Visitor Lot F: 54 vehicles
- Grady Lane: 6 vehicles
- Old Seagoville Road: 26 vehicles

TOTAL: 258 vehicles (226 vehicles on site)

5. ROADWAY CONDITIONS

ADJACENT ROADWAYS:

(A) Old Seagoville Road, between Crenshaw Drive and September Lane

- Existing conditions:
  - Lanes: *two lanes, two-way operation with on-street parking*
  - Adjacent Bus Stops/Transit Facilities: *none (local street)*
  - Pedestrian Facilities: *6' sidewalk on north side of the street and 3' sidewalk on south side of the street*
- Current Traffic Volume:
  - Daily – *3,441 (Source: TxDOT, November 25, 2019)*
  - Peak Hour – *329 [5:00-6:00 PM] (Source: same as above)*
- City of Dallas Thoroughfare Plan Designation: *none (local street)*
- City of Dallas Bicycle Plan Designation: *On-Street Bicycle Facility*

(B) Crenshaw Drive, between Old Seagoville Road and Grady Lane

- Existing conditions:
  - Lanes: *two lanes, two-way operation (northbound one-way during school hours)*
  - Adjacent Bus Stops/Transit Facilities: *none (local street)*
  - Pedestrian Facilities: *4' sidewalks on east side of the street, 4' sidewalk on west side of the street adjacent to the student parking lot only*
- Current Traffic Volume: not available
- City of Dallas Thoroughfare Plan Designation: *none (local street)*
- City of Dallas Bicycle Plan Designation: *none*

(C) Grady Lane, between Crenshaw Drive and September Lane

- Existing conditions:
  - Lanes: *two lanes, two-way operation with on-street parking*
  - Adjacent Bus Stops/Transit Facilities: *none (local street)*
  - Pedestrian Facilities: *4' sidewalks on north and south sides of the street*
- Current Traffic Volume: not available
- City of Dallas Thoroughfare Plan Designation: *none (local street)*
- City of Dallas Bicycle Plan Designation: *none*

6. EVALUATION OF TRAFFIC OPERATIONS

ADJACENT INTERSECTIONS:

(a) Streets: Old Seagoville Road and Crenshaw Drive

- Existing Intersection Traffic Control Device: STOP control on minor street
- Reported Crashes in Prior Three Years:
  - Total: 2
  - Fatality: 0
  - Serious Injury: 0

(b) Streets: Old Seagoville Road and Campus Drive

- Existing Intersection Traffic Control Device: STOP control on minor street
- Reported Crashes in Prior Three Years:
  - Total: 1
  - Fatality: 0
  - Serious Injury: 0

(c) Streets: Crenshaw Drive and Grady Lane

- Existing Intersection Traffic Control Device: STOP control on minor street
- Reported Crashes in Prior Three Years:
  - Total: 1
  - Fatality: 0
  - Serious Injury: 0

ANTICIPATED TRIP DISTRUBITION: (see at the end of the memo)

This section provides on-site traffic circulation, including any temporary traffic control devices.

Description of Existing Conditions

- **On-Site Circulation**:

  Parent traffic enters the area traveling via Old Seagoville Road and Crenshaw Drive. Parent traffic queues/stands in the queuing recessed area on site south of the school building as well as on the eastbound and westbound curbsides of Old Seagoville Road past the frontage of the property. Parent vehicles also queues/stands on the northbound and southbound curbsides of Crenshaw Drive, Campus Drive, and Legacy Drive.

  Fourteen (14) school buses load and unload students along the northbound curbside of Crenshaw Drive adjacent to the site. Buses arrive in a staggered manner and loads students all at once. Buses depart to the north as Crenshaw Drive operates as one-way northbound during school hours.

  Staff and visitor parking lots are provided surrounding the site.

- **Temporary Traffic Control Devices**:

- Temporary traffic control devices are not proposed to be used for this TMP in order to facilitate drop-off/pick-up operations.

Description of Proposed Conditions

(NOTE: only changes to the Existing Conditions are mentioned below)

- **On-Site Circulation**:

  Parent traffic is to enter the new to be constructed parking lot east of the school building via a new driveway on Old Seagoville Road.

  Parent traffic is to enter the student parking lot northwest of the school building and of Crenshaw Drive via the easternmost driveway on Grady Lane. Traffic will travel in a clockwise manner and exit the queueing area through the westernmost driveway after the vehicle has sufficiently unloaded/loaded the student(s) exiting/entering the vehicle.

- **Temporary Traffic Control Devices**:
  - Temporary traffic control devices are not proposed to be used for this TMP in order to facilitate drop-off/pick-up operations.
- EVAULATION OF SCHOOL ZONES:
  - Relocation of the school zones is not recommended.

7. SITE ACCESS EVALUATION

- Old Seagoville Road: Three Driveways (existing and proposed)
- Crenshaw Drive: Six Driveways (including two to access the Student Parking Lot)
- Grady Lane: Three Driveways (including two to access the Student Parking Lot)
- Faculty and staff park within the parking lots immediately south, east, and northwest of the school building, entering and exiting throughout the entire day. The access points for the faculty and staff parking lot to the south and east of the school building are located along Old Seagoville Road. Additionally, the access points for the faculty and staff parking lot to the northwest of the school building are located along Crenshaw Drive.
- Students park within the parking lot west of Crenshaw Drive, entering in the morning and exiting in the afternoon. Two access points for the student parking lot are located along Crenshaw Drive with the northernmost driveway being gated. The access points along Grady Lane are also gated. All student traffic enters from the south and exits towards the north as Crenshaw Drive operates as one-way northbound during school hours.

- RECOMMEDNATION: It is recommended to allow access to the driveways on Grady Lane and "gate" the open driveway on Crenshaw Drive to facilitate the parent drop-off that will now occur within the parking lot.

8. CERTIFICATION STATEMENT

"I, Hunter W. Lemley, hereby certify that the information provided in this report is complete and accurate to the best of my knowledge."

END OF MEMO

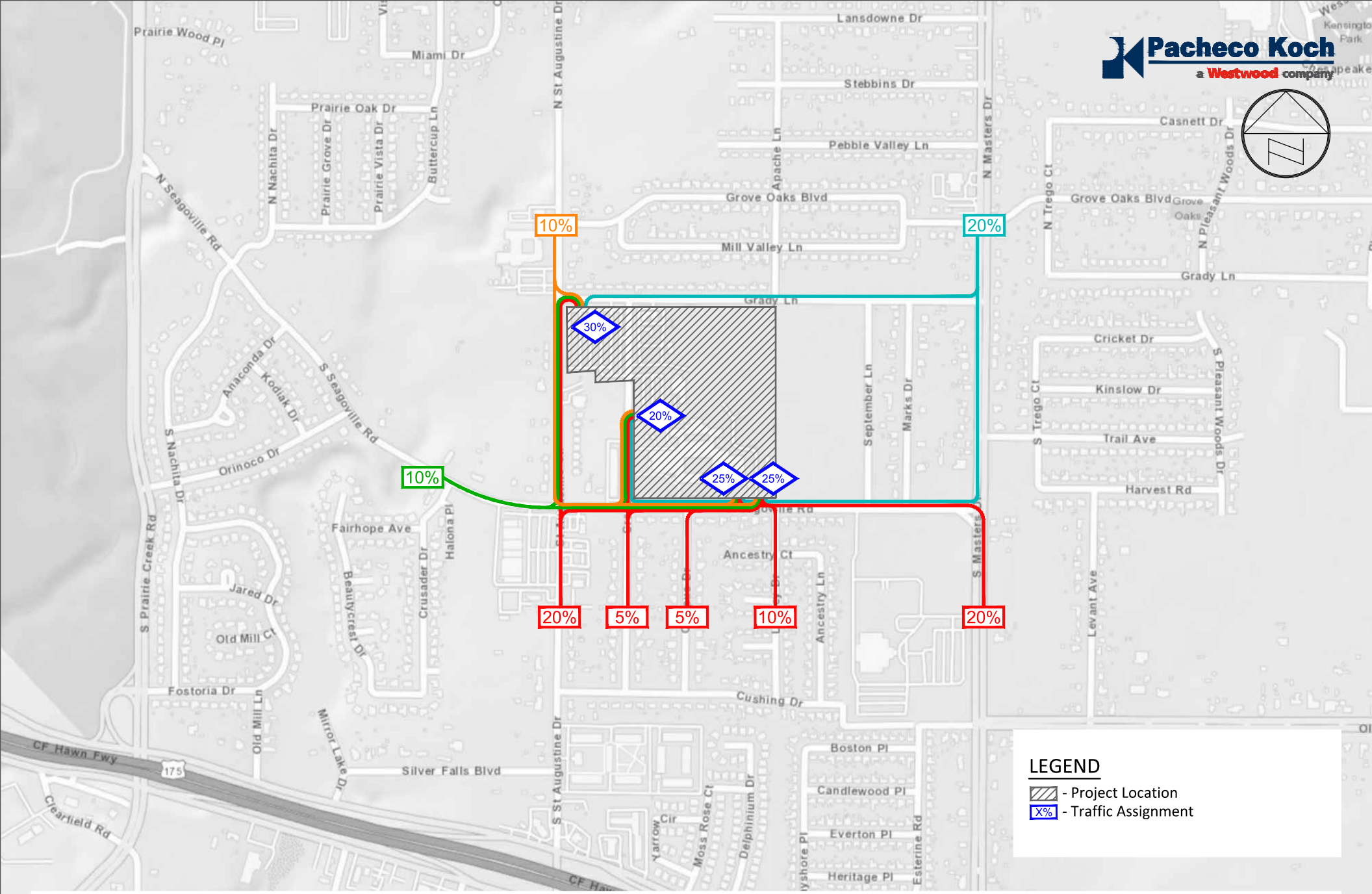
Site Location Map

DISD H. Grady Spruce High School, Dallas, Texas

PK-WW R0044552.00 (LHC: 08/01/23)

EXHIBIT 1

Sources: Esri, HERE, Garmin, USGS, Inter
Korea, Esri (Thaila

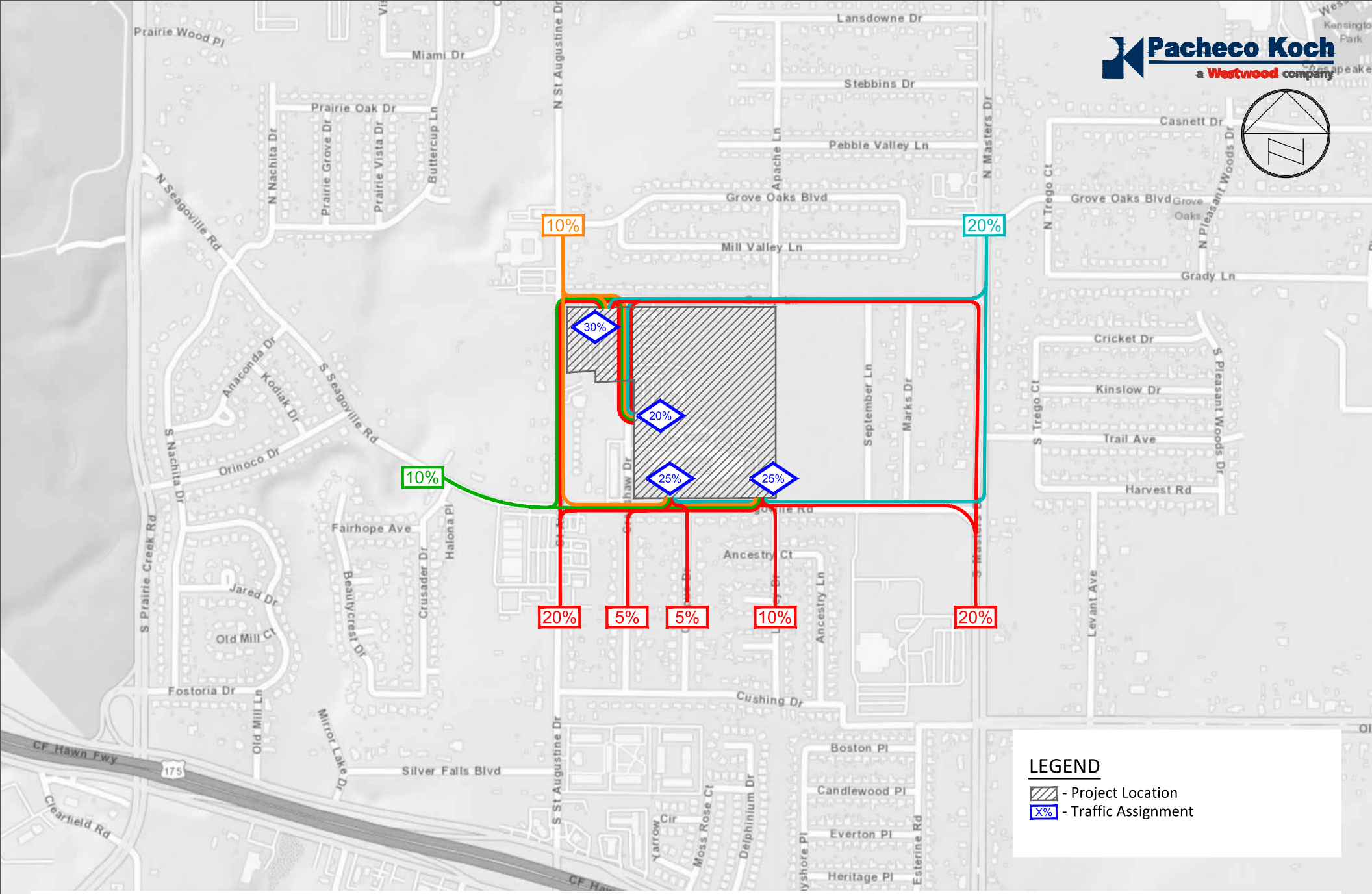


Site Generated Trip Distribution - Inbound

DISD H. Grady Spruce High School, Dallas, Texas

PK-WW R0044552.00 (LHC: 08/01/23)

EXHIBIT 2A

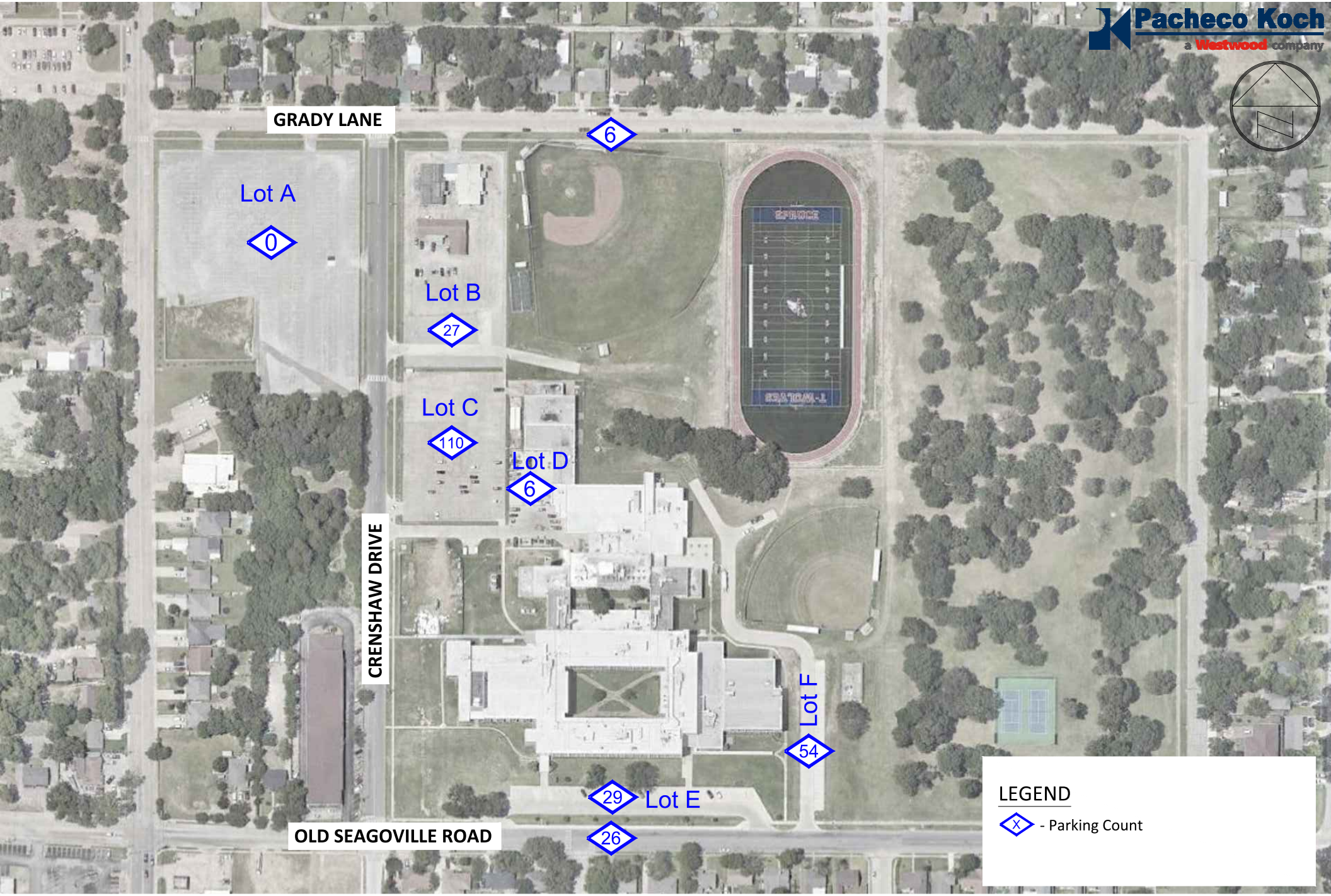


Site Generated Trip Distribution - Outbound

DISD H. Grady Spruce High School, Dallas, Texas

PK-WW R0044552.00 (LHC: 08/01/23)

EXHIBIT 2B



Parking Count

DISD H. Grady Spruce High School, Dallas, Texas

PK-WW R0044552.00 (LHC: 09/12/23)