

Appendix K Access and Pedestrian Safety Analysis

Appendices

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Memorandum

To/Attention Addie Farrell, PlaceWorks **Date** October 5, 2023

From Mike Arizabal, Arcadis IBI Group **Project No** 136646

cc SMMUSD

Subject Grant ES Campus Master Plan Project - Access and Pedestrian Safety Analysis

Arcadis IBI Group has prepared an access and pedestrian safety analysis technical memorandum in support of an environmental impact report (EIR) for the proposed modernization of Grant Elementary School (Grant Elementary School Campus Master Plan) (Proposed Project) in Santa Monica, California. This memorandum assesses existing and proposed conditions for vehicular access (parking and drop-off/pick-up (DOPU) operations) and safety related to pedestrian circulation. The analysis was prepared in accordance with relevant City of Santa Monica Development Standards and the Santa Monica Department of Transportation (SaMoDOT). This technical memorandum includes a description of the Proposed Project, trip generation estimates for the Proposed Project, existing and future DOPU activities, data collection and observations, a pedestrian safety analysis, and a vehicle-miles traveled (VMT) screening.

THE PROPOSED PROJECT’S DESCRIPTION

The Santa Monica Malibu Unified School District (SMMUSD or District) owns and operates the Grant Elementary School (Grant ES) Campus (Campus), which is bordered by Pearl Street to the north, Pearl Place to the west, 24th Court to the east, and 24th Street and single-family homes to the south. The Campus is surrounded exclusively by residential land uses and is considered a neighborhood school where many of the students bike, walk, and skate to school. The main vehicular access to the Campus is off Pearl Street at the northern end with a secondary access off 24th Street at the southern end.

The District proposes the following three (3) phases:

- Phase 1: Renovate and expand the library in Buildings F and G, improve the central garden, and consolidate the TK and Kindergarten classrooms in Building A.
- Phase 2: Remove six (6) portable classrooms and remove playground restrooms, reconfigure the existing playfield and playground, relocate the parking lot, add a new one-story classroom building.
- Phase 3: Remove four (4) portable classrooms and two (2) classrooms from Building B and add a new two-story classroom building.

The Proposed Project is a Campus redevelopment project meant to update school facilities to facilitate modern-day teaching philosophies for the existing and projected enrollment and would not result in an increase in student population or enrollment, and as such a traffic study is not required per SaMoDOT guidelines.

EXISTING SCHOOL OPERATIONS AND CIRCULATION

Field observations of the Campus and its surroundings were conducted by IBI staff on Tuesday, May 3, 2022, and identified existing traffic patterns, access points, DOPU operations, pedestrian/vehicular conflict areas, and pedestrian circulation. All grades begin at 8:00am with TK-K dismissed at 1:45pm, Pre-K at 2:30pm, and Grades 1 through 5 between 2:40pm and 3:00pm during the week, except for Wednesdays where TK-K and Pre-K are dismissed at 1:00pm and the remaining students between 1:15pm and 1:30pm. No special events, activities, or early dismissal were scheduled during the observation day. While the majority of students are dropped off by a vehicle, Grant ES is a neighborhood serving public school, and many of its students walk, bike, or skate to and from the Campus.

The City's Safe Routes to Schools program aims to make taking active transportation to and from school a customary part of everyday life and includes the "Bike It! Walk It! Bus It!" events that take place twice a year, each fall and spring, to encourage safety training for students and their parents, outreach and events, and infrastructure improvements. In October 2022 the event had 3,315 total participants, including 481 from student, parents, and staff from Grant ES; and in May 2023, the event had 2,607 total participants, including 468 from Grant ES. Additionally, during the 2022-2023 school year Grant ES students had 48 enrollees in the Metro GoPass TAP card program for public transit; and a total of 2,175 total boardings were recorded for 2022-2023.

The current DOPU operations occur at two locations:

- **Pearl Street DOPU:** Curbside on the south side of Pearl Street between 24th Court and Cloverfield Boulevard
- **24th Street DOPU:** 24th Street at the southern end of the Campus, DOPU typically occurs within the existing parking lot in a counterclockwise manner.

Pearl Street DOPU: The Pearl Street DOPU area is limited to TK, Pre-Kindergarten, and Kindergarten students. In the morning and afternoon, cars were observed to queue on the south (eastbound) side of Pearl Street, between Cloverfield Boulevard and 24th Court. Cars were also observed parking on 24th Street, north of the Campus. A red curb exists on the portion of Pearl Street at its intersection with 24th Street. In the morning, drop-offs occurred as early as 7:30am. In the afternoon, cars were observed to arrive as early as 1:15pm and parked curbside along Pearl Street and 24th Street.

Students who walk or bike/skate to school enter through the northern end of the Campus. Marked crosswalks are present on the north and east legs of the 24th Street/Pearl Street intersection. Marked crosswalks are provided on all legs of Pearl Street's intersections with Cloverfield Boulevard and 25th Street. In order to facilitate safe pedestrian crossings from the neighborhood to the school, crossing guards are present at all three intersections in the morning and afternoon.

Pearl Street is a two-lane street with on-street parking and bike lanes on both sides of the street. During field observations, there was a bike in the bike lane and a parent who was parked opened their door. In this case, bikes needed to veer into the travel lane to avoid hitting the open door. Vehicles entering and exiting the DOPU curb area, coupled with the pedestrian crossing activity at the intersection of Pearl Street and 24th Street and bike activity caused some queues to extend from 24th Street to just past Cloverfield Boulevard. Other observations include some parents who park on Cloverfield Boulevard and walk their kids to the main entrance, avoiding the queue on Pearl Street.

24th Street DOPU: The 24th Street DOPU at the southern end of the Campus is utilized by Grades 1 through 5 students and is accessed primarily via Ocean Park Boulevard. 24th Street, a two-lane collector street that ends at the gated entrance into the southern portion of the Campus. On-street parking is allowed on either side of the street. Vehicles were observed to enter the Campus' driveway and follow the counterclockwise circular vehicular pattern within the existing staff parking lot, exiting back onto 24th Street. In the morning, drop-offs occurred as early as 7:40am. In the afternoon, cars were observed to arrive as early as 2:00pm and parked along 24th Street and within the parking lot. The vehicular access gate was observed to be open all day.

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It was noted during field observations that some parents drop-off or pick-up students in the 24th Street parking lot prior to the turnaround area. Children would cross the drive aisle either from or to their vehicle.

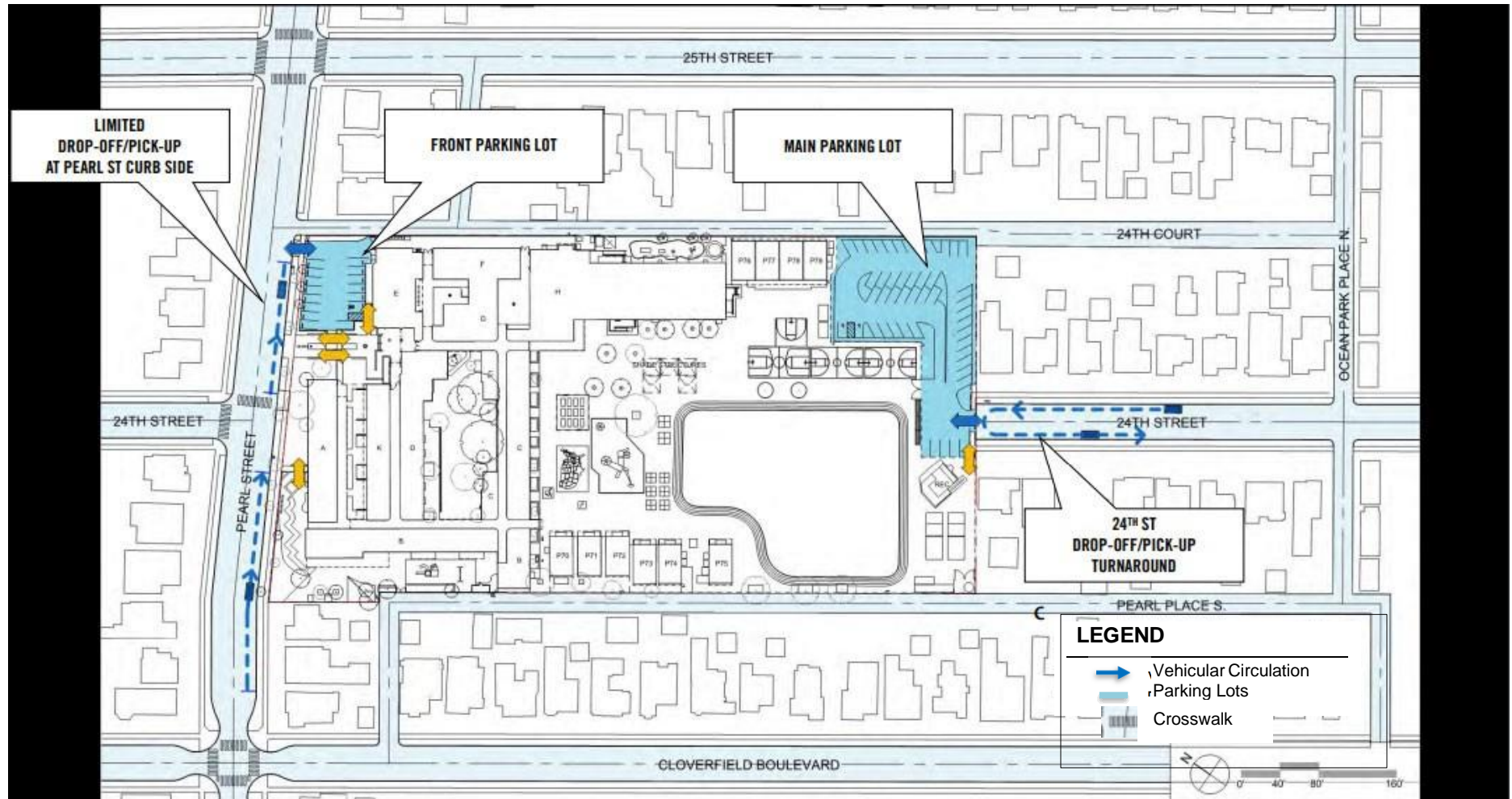
Two parking lots with a total of 62 spaces are provided at the Campus, the front lot (southwest corner of Pearl Street and 24th Court) and the main lot (southeast corner of the Campus). The front lot has 14 parking spaces and is reserved for administrative staff and visitors with administrative/office business. The main lot has 48 spaces and is used by other school staff/teachers. Figure 1 below shows the existing DOPU operations and parking lot locations.

Emergency vehicle access is provided on all four sides of Campus. This includes Pearl Street, 24th Court, 24th Street, and Pearl Place. Additionally, emergency access is provided from the arrival court and around the field and playground areas at the south side of the Campus.

Six bike racks (for 12 bicycles) are located near the main entrance to the Campus off Pearl Street.



FIGURE 1: VEHICULAR CIRCULATION AND PARKING LOCATIONS





SCHOOL TRIP GENERATION AND DISTRIBUTION

A description of the methods utilized to generate trips related to the existing school population and their distribution to the DOPU areas are presented below.

Trip Generation

The trip generation for the Campus was estimated using the rate published for Land Use Code 520 (Elementary School) in the Institute for Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition, 2021). The Proposed Project would not change the school's existing programs, and the Proposed Project would not expand the school enrollment capacity or change school enrollment boundaries. The most recent student population figure for the 2022-2023 school year was 550 students, approximately 105 of which are Pre- K, TK, and Kindergarten students and 445 students in Grades 1 through 5.

Based on a 550-student population, a total of 1,249 daily trips are generated with 413 trips being in the AM (223 inbound and 190 outbound) and 248 trips in the PM (114 inbound and 134 outbound) and accounts for students who walk or are walked to and from the Campus.

Table 1 Proposed Project Trip Generation and Rates

Source	Land Use	Students	Trip Generation						
			Daily	AM Peak Drop-Off			PM Peak Pick-Up		
				In	Out	Total	In	Out	Total
			Rates						
ITE Code 520	Elementary School		2.27	0.41	0.35	0.75	0.21	0.24	0.45
			Estimated School Trips						
	Pre-K, TK, and K	105	239	43	36	79	22	25	47
	Grades 1-5	445	1,010	180	154	334	92	108	200
	Total	550	1,249	223	190	413	114	134	248

Trip generation rates:

1. Institute of Transportation Engineers (ITE) Trip Generation Manual

The trip generation was further broken down by grade level. Pre-K, TK, and K generate approximately 239 daily trips with 79 occurring in the morning AM (43 inbound and 36 outbound) and 47 trips in the afternoon PM (22 inbound and 25 outbound). Grades 1 through 5 are estimated to generate approximately 1,010 daily trips with 334 occurring in the morning AM (180 inbound and 154 outbound) and 200 in the afternoon PM (92 inbound and 108 outbound). It is assumed that the traffic associated with the Pre-K, TK, and K utilize the Pearl Street DOPU area and traffic associated with Grades 1 through 5 use the 24th Street DOPU.

The trip generation estimate is conservative as this is a neighborhood school with most students residing within a few miles of the Campus. A large percentage of the students walk, bike, or skate to and from the Campus, as determined by IBI observations and the previous walk audit conducted by community members, SMMUSD, and City of Santa Monica staff.

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THE PROPOSED PROJECT'S TRAFFIC-RELATED IMPACT ANALYSIS

Based on field observations, the estimated trip generation of the Campus (existing and proposed would remain the same), and the observations and recommendations referenced from the Santa Monica Safe Routes to School Walk Audit Report (October 2018), this section provides an analysis of the proposed improvements as they relate to issues identified for vehicular circulation and pedestrian safety. The proposed site plans for each phase are shown in Figures 2, 3, and 4. As shown in each of the figures, the only modification that has the potential to affect traffic and circulation is the provision of two new parking lots separated by a new playing field at the southern end of the Campus as part of the Phase 2 buildout of the Proposed Project. DOPU areas would remain unchanged and the parking lot on Pearl Street/24th Court would remain unchanged.

Currently, Campus access from vehicular DOPU for TK-K grades is provided from Pearl Street with some caregivers parking along 24th Court, at the front of the Campus. Grades 1 through 5 are dropped off at the rear of the Campus at the entrance to staff parking along 24th Street.

The Proposed Project would maintain a DOPU area in the north parking lot. All classrooms at-ground and second floors would be connected via covered outdoor walkways on the internal Campus-facing side of the east and west wings of the school buildings. Covered outdoor circulation would connect the east and west wings across the Campus in three locations.

Vehicular access to the Campus would remain along Pearl Street and 24th Street for TK, K, and Pre-K students. The existing parking lot in the northeastern portion of the Campus would remain and would be used for visitor and administrative parking.

The existing L-shaped parking lot in the southeast portion of the Campus would be reconfigured into two new parking lots, located at the southeast and southwest corners of the Campus, separated by the improved athletic field. Each parking lot would include approximately 40 parking stalls and would provide staff and after-hours/weekend community parking that is utilized for joint us purposes (i.e., soccer games). Overall, the Proposed Project would increase parking on the Campus from 62 to 94 parking spaces and reduce the need on-street parking.

An arrival court that connects south parking lots to 24th Street would be provided and would accommodate vehicular circulation to parking lots at the SE and SW corners of the Campus. Staff parking would be separated from daily DOPU operations with the implementation of the new parking lots, and students who walk or bike to campus and arrive from 24th Street would have access to the campus from the south without having to cross vehicular circulation. Provision of the arrival court and the two proposed lots at the southern end of the Campus would improve circulation for vehicles on 24th Street by providing additional space for vehicles to enter through the new parking lots on either side of the Campus and exit back onto 24th Street. All vehicles entering via 24th Street for DOPU operations can be accommodated on-site within the arrival court, eliminating queuing and/or on-street parking on 24th Street.

Emergency vehicle access would continue to be provided on all four sides of the Campus. This includes Pearl Street, 24th Court, 24th Street, and Pearl Place. Additionally, emergency access would continue to be provided from the arrival court and around the field and playground areas at the south side of Campus.

The Proposed Project does not propose any changes to the DOPU operations on Pearl Street. With no increase to the student population as part of the Proposed Project, no new impacts are anticipated.

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Pedestrian Safety and Circulation

A large portion of the student population walks and bikes to and from the Campus via the adjacent neighborhood, with the majority entering the Campus from the main entrance off Pearl Street. Pedestrian paths would need to be delineated to connect the sidewalk on Pearl Street to the entrance of the Campus. Any walkways through the Pearl Street area would need to continue to maintain pedestrian treatments for added safety. These existing treatments include clearly marked crosswalks, stop signs, and crossing guards.

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VMT SCREENING

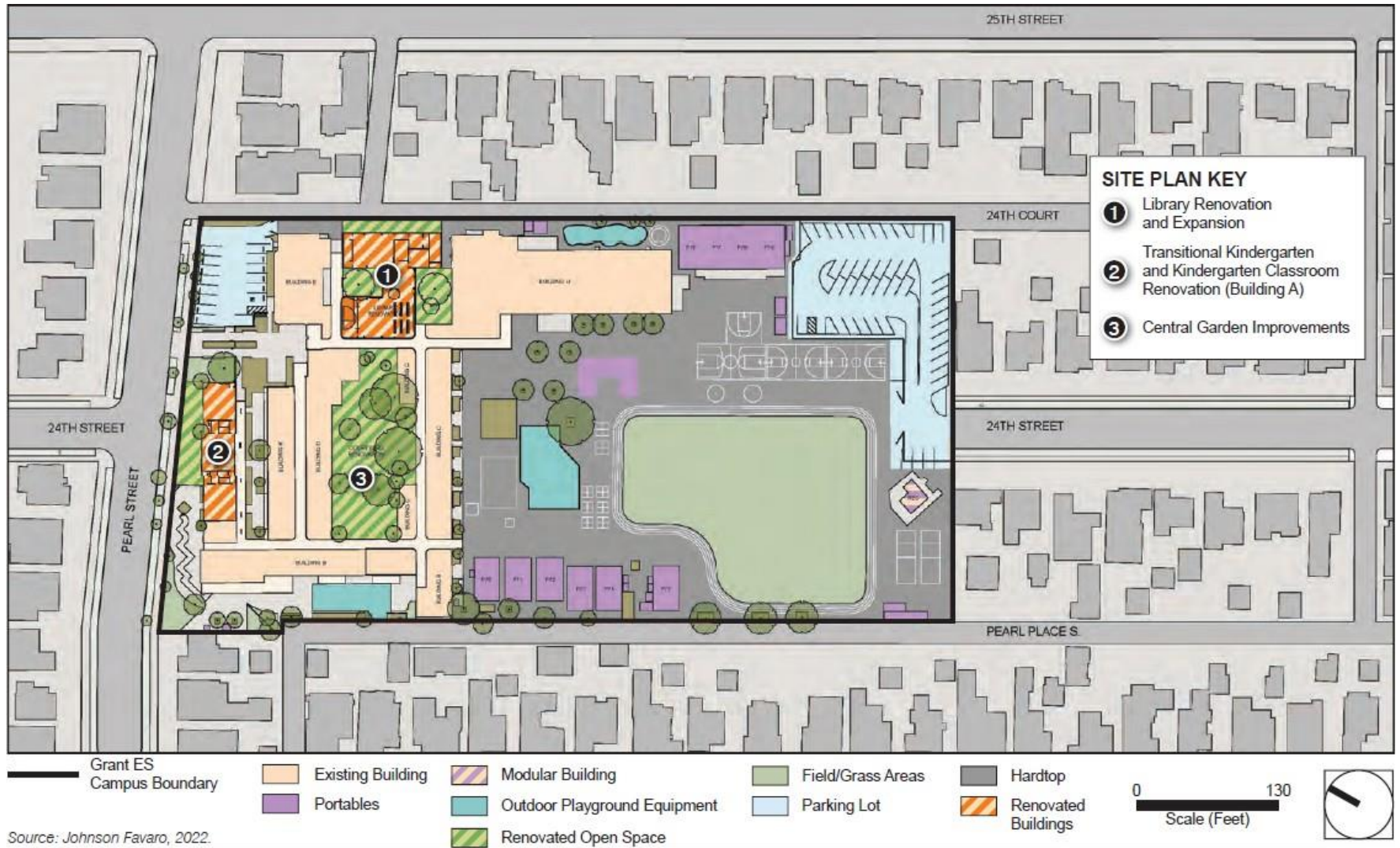
The updated California Environmental Quality Act (CEQA) Guidelines Section 15064.3, certified and adopted by the California Natural Resources Agency in December 2018 have been in effect since July 2020 and specify VMT as the appropriate metric to evaluate project impacts. On June 9, 2020, the Santa Monica City Council adopted a new process for analyzing the transportation impacts of land use and transportation projects consistent with State law (Office of Planning and Research). For land use projects in Santa Monica, the analysis consists of a two-step process which includes VMT screening and, if necessary, VMT analysis. The adopted screening criteria, analytical methods, and significance thresholds, are outlined as follows:

1. Does the project include the development of the following land uses, which are screened out from further analysis?
 - a. 200 residential dwelling units or less
 - b. 100% affordable housing
 - c. 50,000 sf or less of commercial floor area by land use type
 - d. New construction of educational facilities/institutions (such as increased classrooms, gym/recreational space, and other supportive areas) provided that there would be no student enrollment increase or if student enrollment is increased, 75% of the student body comes from within 2.0 miles of the Campus.
 - e. Expansions of civic/government use (such as fire and police stations) and utility facilities less than 50,000 sf or replacement of such uses/facilities (in same or another location) to serve the community, or if larger than 50,000 sf, the project would not result in more than 50 net new additional full time equivalent employees.
 - f. Local serving Parks and Recreational facilities, as determined by City Staff

As the Proposed Project falls under category 1d, the Proposed Project would not be required to prepare a VMT analysis (project only needs to meet one criterion to be screened out of a VMT study). A presumption of a non-significant transportation impact can be made for the Proposed Project.

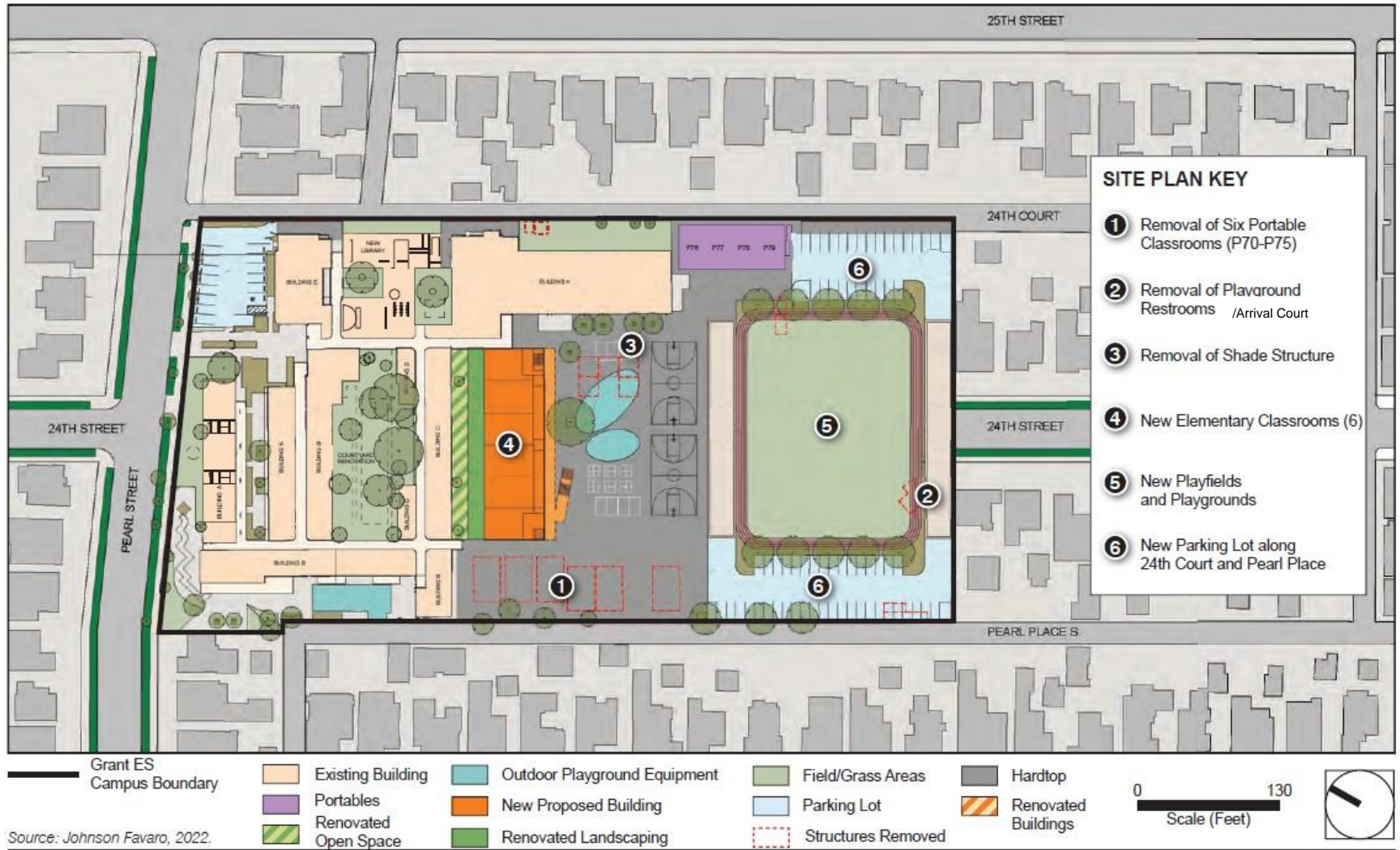


FIGURE 2: PHASE 1 SITE PLAN



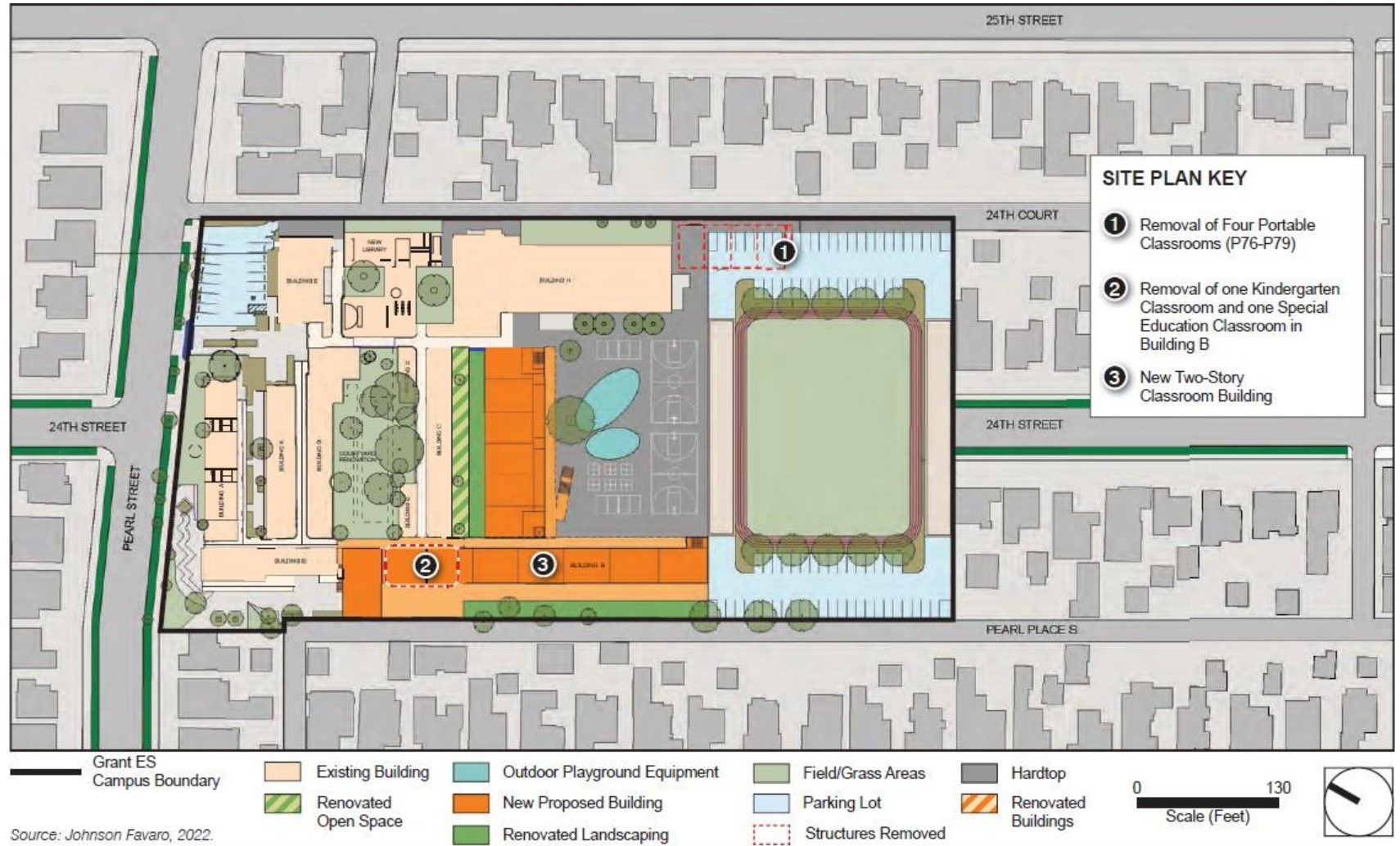
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FIGURE 3: PHASE 2 SITE PLAN



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FIGURE 4: PHASE 3 (BUILDOUT) SITE PLAN



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CONSTRUCTION-RELATED TRAFFIC

The Proposed Project would be constructed in three phases, with construction activities for Phase 1 anticipated to start as early as summer 2024. While the exact dates for the later phases are not known, for purposes of evaluating potential impacts from implementation of the Proposed Project, construction activities for Phase 2 were assumed to start in summer 2025, and construction activities for Phase 3 were assumed to start as early as summer 2028.

The construction for Phase 1 would occur over approximately 12 months and include the following activities renovation and expansion of the existing library, renovation of the transitional kindergarten and kindergarten classrooms, and improvements to the central garden; and no demolition would occur during Phase 1. The construction for Phases 2 and 3 is anticipated to occur over approximately 24 months and 24 months, respectively. The District would request an After Hours Work Permit to allow for construction outside of the allowed hours identified in the Santa Monica Municipal Code section 4.12.110(a) which limits the hours of construction to 8:00 a.m. to 6:00 p.m. on weekdays and 9:00 a.m. to 5:00 p.m. on Saturday; and prohibits construction on Sundays and holidays. The After-Hours Construction Permit would allow Proposed Project construction to begin at 7:00 a.m. The earlier arrival of contractors would allow them to be within the work area prior to student arrival/drop-off, thereby improving pedestrian safety and reducing traffic congestion during construction activities.

The District would post one sign along the street frontage of each construction area and notifications to neighbors within a 500-foot radius of construction activities. The notifications would include a description of the activities and the dates and times that these activities would take place. The notifications must also include the contact information of the permit holder (i.e., the District) and the City contact. The District would be required to follow Santa Monica Municipal Code section 4.12.110, which limits the hours of construction to 8:00 a.m. to 6:00 p.m. on weekdays and 9:00 a.m. to 5:00 p.m. on Saturday, unless an exemption is requested; and prohibits construction on Sundays and holidays. School operation would continue during construction as under current conditions, and students would occupy existing buildings including portable buildings on the Campus during construction activities.

The maximum estimated number of construction-related trips occurring during any phase is 52 trips (Phase 2 Building and Asphalt Demolition and Debris Haul, Site Preparation). The 52 trips would be spread out over the course of a single workday. Routing of these trips would occur on Ocean Park Boulevard (Santa Monica designated Truck Route) to 24th Street and ultimately to a staging area within the Campus, away from school operations.

These vehicle trips would include construction workers traveling to the Campus as well as delivery trips associated with construction equipment and materials. Delivery of construction materials to the Campus would require several oversized vehicles that may travel at slower speeds than existing traffic. Construction traffic would be scheduled in concert with the operations of the school, ensuring that trucks are not moving in or out during DOPU times. Construction workers would park in the designated staging area to provide adequate parking for all employees and visitors to the Campus throughout the duration of construction activities of the Proposed Project.

During construction activities, the construction contractor would be required to prepare and implement a Construction Management Plan (CMP) to address safety hazards, including but not limited to avoidance of construction staging and delivery during off-peak DOPU times (see Mitigation Measure T-1 below).

Mitigation Measure T-1:

Before the start of construction of each phase, the SMMUSD shall work with the City of Santa Monica Public Works Department to develop and implement a Construction Management Plan that is specific to the needs of each phase. The Construction Management Plan shall include a Temporary Traffic Control Plan (TTCP) to address anticipated impacts to or closures of public rights-of-way. The Construction Management Plan (including the TTCP) shall be submitted to the City Public Works Department for approval prior to construction of each phase of the Proposed Project. The TTCP shall demonstrate appropriate traffic handling during construction activities for all work that could impact the traveling public (e.g., the transport of equipment and materials to the campus area). The TTCP shall minimize hazards through industry-accepted traffic control practices. At a minimum, the TTCP shall require the contractor to do the following:

- Obtain transportation permits necessary for oversize and overweight load haul routes and follow regulations of the applicable jurisdiction for transportation of oversized and overweight loads;
- Provide adequate signage and traffic flagger personnel, if needed, to control and direct traffic for deliveries, if they could preclude free flow of traffic in both directions or cause a temporary traffic hazard; prohibit deliveries of heavy equipment and construction materials during periods of heavy traffic flow (i.e., 30 minutes before or after school start and end times);
- Develop a Traffic Education Program to assist in educating parents, students, and staff on drop-off/pick-up procedures specific to each phase of construction that includes informational materials regarding student drop-off and pick-up procedures via regular parent/school communication methods and posted on the school website;
- Utilize portable message signs and information signs at construction sites as needed;
- Coordinate with the responsible agency departments, including the City of Santa Monica Public Works and Planning Departments, and the City of Santa Monica Fire Department no less than 10 days prior to the start of the work for each phase including specifying whether any temporary vehicle, pedestrian, or bicycle construction detours are needed, if construction work would encroach into the public right-of-way, or if temporary use of public streets surrounding the campus is needed; and
- Review all existing emergency access and evacuation plans and identify procedures for construction area evacuation in the case of an emergency declared by local authorities.
- Additionally, the District shall ensure that the construction contractor follows all applicable requirements and regulations established in the City of Santa Monica Procedures and Requirements for Temporary Traffic Control Plans to ensure the TTCP is prepared to City standards and approved as necessary.



CONCLUSIONS

A full traffic impact analysis was not required since the proposed changes in the Campus master plan would not result in changes to the school enrollment number. Instead, the analysis focused on reviewing the proposed access and DOPU locations, specifically reviewing traffic operations and pedestrian safety at and near these locations as a result of the Proposed Project.

The analysis of existing conditions shows congested conditions along 24th Street at the southern end of the Campus. Observations noted vehicles either stacking in the street or utilizing the on-street parking on 24th Street prior to DOPU.

The Proposed Project would include an arrival court that connects the new south parking lots to 24th Street and would accommodate vehicular circulation to parking lots at the southeast and southwest corners of campus. The arrival court would provide a safer DOPU area for students that are dropped off or picked up at the southern end of the Campus, since parking for school staff would be separated from daily DOPU operations, and students who walk or bike to campus and arrive from 24th Street would have access to the campus from the south without having to cross vehicular circulation. Provision of the arrival court and the two proposed lots at the southern end of the Campus would improve circulation for vehicles on 24th Street by providing additional space for vehicles to enter through the new parking lots on either side of the Campus and exit back onto 24th Street. All vehicles entering via 24th Street for DOPU operations can be accommodated on-site within the arrival court, eliminating queuing and/or on-street parking on 24th Street.

The Proposed Project would be consistent with current best practices to support students walking and bicycling to school, as described in the City's SRTS program. Pedestrian treatments such as high-visibility striping on crosswalks would be provided at the Pearl Street sidewalk as it crosses the existing Pearl Street driveway entrance, and signage that promotes clear messages to drivers, pedestrians, and bicyclists entering and exiting the Campus, would be provided for any new pedestrian paths that would cross along Pearl Street. Although there is no increase in enrollment as part of the Proposed Project, an increase in parking from 62 spaces to 94 spaces addresses the need for after-hours and weekend staff/community parking. The additional parking would also reduce the need for on-street parking.

A presumption of a non-significant transportation impact can be made for the Proposed Project as it meets the VMT screening criteria set forth by the SaMoDOT. Furthermore, impacts to traffic as considered less than significant as the Proposed Project would not increase the existing student population or enrollment figures (i.e., trip generation associated with existing school operations not proposed to change).

Construction-related trips to and from the Campus should be limited to off-peak hours - hours not occurring during DOPU operations and hours that do not correspond with the adjacent street AM or PM peak hour. Staging areas shall remain on Campus throughout the duration of construction. A maximum of 52 construction-related trips would occur for one day during Phase 2, spread across the 8-hour workday (about 6 trips per hour).

IBI Group is a group of firms providing professional services.