

**KILLEEN INDEPENDENT SCHOOL DISTRICT**  
EAST WARD / WEST WARD ELEMENTARY SCHOOL CONSOLIDATION

October 9, 2018

NOT FOR REGULATORY APPROVAL, PERMITTING, OR CONSTRUCTION - JASON ANDRUS TX # 19417

SCHEMATIC DESIGN PRESENTATION



ACKNOWLEDGMENTS	01
NARRATIVE	02
SITE ANALYSIS	03
SITE PLAN	04
PROGRAM	05
FLOOR PLANS	06
EXTERIOR PERSPECTIVES	07
INTERIOR PERSPECTIVES	08
PROJECT SCHEDULE	09



# KILLEEN INDEPENDENT SCHOOL DISTRICT

## NEW ELEMENTARY

### Superintendent

Dr. John Craft

### District Board Members

Corbett Lawler	Board President
Minerva Trujillo	Board Vice President
Susan Jones	Board Secretary
Shelley Wells	Board Member
JoAnn Purser	Board Member
Marvin Rainwater	Board Member

A special thanks for the input from the staff and teachers at East Ward Elementary School and Pershing Park Elementary School who attended our presentations.

### District Leadership

David Manley	Assistant Superintendent for Instructional Leadership Services
Diana Miller	Assistant Superintendent Curriculum & Instruction
Megan Bradley	Chief Financial Officer
Kirk Thomas	Special Assistant to Deputy Superintendent
Adam Rich	Executive Director for Facilities Services
Jo-Lynette Crayton	Executive Director for Elementary Leadership
Steve Hudson	Executive Director for Elementary Leadership
Helen Mowers	Executive Director for Technology Services
Janice Peronto	Executive Director for Special Education
Troy Kittell	Director of Construction and Facilities Planning
Martha Blount	Facilities Planning and Evaluation Specialist
John Dye	Director School Safety
George Ybarra	Director Purchasing Services
Edward Thomas	Director Transportation Services
John Hocking	Manager Telecommunications
Jeff Heckathorn	Coordinator PEIMS and Demographer
Linda Butler	Principal - Pershing Park Elementary School
Violet O. Simmons	Principal - Sugar Loaf Elementary School
Norma Baker	Principal - East Ward Elementary School
Lavonda Loney	Principal - Bellarie Elementary School
Maureen Adams	Principal - West Ward Elementary School
Shameka Kidd	Coordinator School Nutrition
Lori Alejandro	Coordinator School Nutrition

### Project Design Team

Huckabee - Austin, Texas		
LaShae Stinson	Jason Andrus, AIA	Michael Hall, AIA
Principal	Associate Principal	Design Director
Mike Vermeeren, AIA	Brian Cotsworth, AIA	Steve Meyers, AIA
Planning	Project Architect	Project Architect
Danielle Smith	Kelly Lawley, AIA	Sofi Abi Ashraf
Architectural Associate	Architect	Interior Designer

Caitlin Terwelp  
Interior Designer Associate

### Civil Engineering & Surveying

Kimley-Horn  
Austin, Texas

### Technology/Security

Crux Solutions  
Fort Worth, Texas

### MEP Engineering

IEG  
Westlake, Texas

### Geotechnical

Arias Engineering  
Austin, Texas

### Structural Engineering

Huckabee  
Houston, Texas

### Foodservice

FDP  
San Antonio, Texas





# KILLEEN INDEPENDENT SCHOOL DISTRICT

## NEW ELEMENTARY

### Project Introduction

East Ward/West Ward ES is a consolidation replacement school that will serve the feeder boundaries for the two existing schools. The project will reside on the current East Ward ES site. The new facility will accommodate a student population of 1,350 students and provide spaces and elements that are consistent with KISD's curriculum standards and those provided in Elementary School #35. The follow spaces are included in the program:

- Classrooms for Pre-Kindergarten through 5th grades including rooms to accommodate a robust bilingual program
- Special Education/ Resource Rooms
- Library/ Media Center
- Computer Labs
- Art and Science Rooms
- Music Rooms
- Gym/ Activity Room
- Cafeteria with Platform

### Site and Topography

The project site is approx. 8 acres bounded to the north by Rancier Avenue and commercial/retail establishments, to the east by Patton Drive and single family housing, to the south by Stone Avenue and single family housing, and to the west by single family housing. The site does not reside in the FEMA flood plain.

### Access and Site Circulation

Bus access to the site will utilize the existing curb cut off of Rancier Avenue at the northeast corner and buses will queue up at the front of the school. Special education buses will have a separate drop off/pick up drive off of Patton Drive. Parent access will be off of Stone Avenue with queuing at the back of the school. This arrangement provides the ideal separation of the various types of vehicles accessing the site. Maintenance access will utilize the entry point on Stone Avenue.

### Drainage

Stormwater will be captured off of the building roofs and stored temporarily in large above ground cisterns to control the flow of water off of the site. The remaining site stormwater will be surface drained to existing drainage locations around the perimeter of the site.

### Pavement

We anticipate that pavement for the onsite drives and parking lots will be concrete rather than asphalt, based on Killeen ISD's preference. We understand that the geotechnical study that will provide pavement thickness and subgrade preparation recommendations is underway.

### Building Design

The site design for the new campus is a balance of function and efficiency. The building footprint is minimized with a 3-story concept leaving as much available land area for site elements as possible. The parking requirements aim to get as close as possible to the district standards for elementary schools. The latest prototype schools have a parking ratio of 1 space for every 5 students (208 spaces for 1,050 students). Parking is provided to the maximum extent possible at East Ward and achieves a total parking count of 217 spaces for 1,300 students or 1 space for every 6 students. The campus is a neighborhood school with a high percentage of walkers, so pedestrian circulation is

controlled to maintain safety and security without impacting convenience. The play areas are located on the west side of the school, safely distant from vehicular traffic and conveniently located for students who will have 3 access points from the building. Landscaping will be low maintenance and drought tolerant.

The exterior design for the facility captures the KISD standards for traditional and timeless design, durability, and ease of maintenance. The majority of the palette includes stone and masonry with the use metal panels as an accent material. The backup material for the exterior walls will be metal studs as well as concrete masonry units. The front and back entry utilize exaggerated architectural elements for intuitive wayfinding for visitors and a sense of arrival for staff and students. Both entry points have similar designs so that students that arrive at the back of the school have the same entry experience as those that utilize the front. The structure is exposed and accented with wood elements and a wood soffit to highlight the entry and add warmth to the design. The entry canopies reduce the scale of the three-story building in response to the perception of the students that will inhabit the building daily and a lower secondary canopy pulls double duty by reducing the scale even further and providing functional protection from the elements for drop off and pick up. Punched windows create a consistent pattern around the building and stone surrounds create depth with shadows on the façade. Windows on the south and west have shading elements to further improve the efficiency of the low-E coating glazing.

The strategy for the floor plan aims to minimize the inconveniences of a 3-story facility while providing as many of the district prototype standards as possible. The front entry provides a controlled entry vestibule that will force visitors into the reception area to be checked in before gaining access to the rest of the school. The administration suite is a replica of the prototype district school. The library is located prominently at the front of the campus offering optimum access as well as taking advantage of north facing natural light. The ground floor is organized around a main corridor that runs front to back. The life skills suite, which includes 4 classrooms, each pair sharing support facilities, is off of the main hallway and also has an entry point directly off of the SPED bus loop. The activity room is the next space along the spine and provides an operable partition that can be opened and closed as needed for various class groups. At the end of the main hall is the dining room which also takes advantage of an expanse of windows for natural light while also serving as a performance space with a platform. The ground floor classrooms are for Pre-K thru K, thus all rooms are provided with dedicated restrooms. Music, science, and a computer lab are also provided. At the northwest corner of the building, the Communities in Schools room allows access from the exterior with the ability to lock off the rest of the school and also has a restroom which allows it to be autonomous and act as another flex classroom. The second floor is designed for 1st and 2nd grades, so the former classrooms have restrooms and latter ones do not. A remote administration suite, which includes an assistant principal office, counselor office, and workroom, is provided at the prominent corner where the main stair and elevator reside providing accessibility and passive supervision. This floor also has special education space, science, music, and a computer lab. The third floor houses 3rd, 4th, and 5th grade, thus all classrooms do not have restrooms, but plenty of shared restroom facilities are provided. A remote administration suite, music, science, and a computer lab are also present at this level.

### Structural Design

A geotechnical investigation is in progress, so the foundation system cannot be determined. However, if soil conditions are favorable, KISD prefers a slab-on-grade foundation system with drilled straight shaft piers. Columns will support a second floor of steel beams with steel decking and concrete topping. The roof will likely consist of steel beams and joists with a metal deck.



# KILLEEN INDEPENDENT SCHOOL DISTRICT

## NEW ELEMENTARY

### Mechanical Design

The HVAC system will be designed to provide cooling and heating to maintain space temperatures of 72 °F in cooling mode, 70 °F in heating mode, and space relative humidity no greater than 50%. The building's HVAC equipment will be controlled via a building automation system. Ductless split systems will provide heating and cooling for IDF and MDF closets. Option 1: Ground Loop Heat Pumps: Classroom units served by water loop heat pump served by a dedicated loop pump, and coupled with a ground loop heat exchanger. Outside air will be treated via an electronic air cleaning device set to a maximum CO2 Threshold, as well as demand control ventilation. Large volume spaces are to be served by multi-stage water loop heat pumps with economizers and demand control ventilation; also coupled with the ground heat exchanger. Option 2: Packaged Rooftop Units: Classroom units served packaged direct expansion rooftop equipment with economizers and CO2 sensor for demand control ventilation. Large volume spaces are to be served by multi-stage packaged rooftop units with economizers and demand control ventilation. Roof Mounted Exhaust fans will serve group and private restrooms.

### Fire Protection Design

An automatic wet sprinkler system complete with flow and tamper alarms, meeting local and state requirements will be provided. Provision of such a system in additions and renovations should be reviewed by Killeen ISD before commencing design, since access by means of fire lanes and hydrants is the preferred solution.

### Plumbing Design

New water closets will be floor mounted. Lavatories will be wall mount tempered water metered type. Electric water coolers with bottle fillers. Condensate for RTUs will be routed from the roof below the roof deck then collected and disposed of in an approved receptor.

### Electrical Design

New electrical service will be provided to a new main switch with 480/3-phase power. Typical Classrooms will be provided general receptacles located throughout the room, as well as a teacher's workstation (coordinated with KISD, Huckabee, IEG, and Crux) to provide data and power connections for the teacher's desk, computer, and other similar devices. All dedicated computer receptacles will have an isolated ground. Auxiliary Power systems will be provided for, and will be coordinated with all parties noted above. All interior and exterior lighting will be served with high efficiency LED luminaires. Lighting controls will allow dimming and daylight harvesting where required. Emergency lighting will be provided by normal fixtures powered from multiple centrally located emergency lighting inverters.

### Fire Alarm Design

Provide new "Silent Knight" addressable fire alarm system to cover the entire facility as required by code and meeting intelligibility requirements of 2015 IBC. Provide ceiling mounted devices, and fire alarm pull stations at all exits. Provide complete corridor smoke coverage.

### Technology

Provide complete data and telephone cable plant including all horizontal cable, patch cable, face plate, fiber cabling between closets and equipment racks. Provide district standard audio-equipment for all classrooms and learning spaces. Provide complete sound reinforcement systems for all spaces as required. Provide complete intercom communication system per district standard. Provide emergency responder radio system and repeater. Provide complete district standard security system including building access control and video surveillance.

### Air Barrier Design

Air/water-resistive barrier shall be capable of performing as a continuous vapor-permeable air barrier and as a liquid-water drainage plane flashed to discharge to the exterior incidental condensation or water penetration. At wall cladding transitions, the air/water-resistive barrier shall form a continuous air barrier and shall make provision for water drainage, either by creation of an unobstructed drainage plane that extends across the cladding transition or by flashing to discharge to the exterior at the transition. Air barrier assemblies shall be capable of accommodating substrate movement and sealing substrate expansion and control joints, construction material changes, and transitions at perimeter conditions without deterioration and air leakage exceeding specified limits, or interruption of the drainage plane. The weather barrier assembly, including but not limited to, fluid applied air/water-resistive barrier membrane, sheathing fabric, transition membrane and flashing primer shall be obtained or approved as a single-source from the membrane manufacturer to ensure system compatibility and integrity. The barrier shall be installed, per the manufacturer's requirements, on the outside surface of inside wythe of exterior masonry cavity walls, on the outside surface of sheathing of exterior walls, and at related flashings for rough openings.

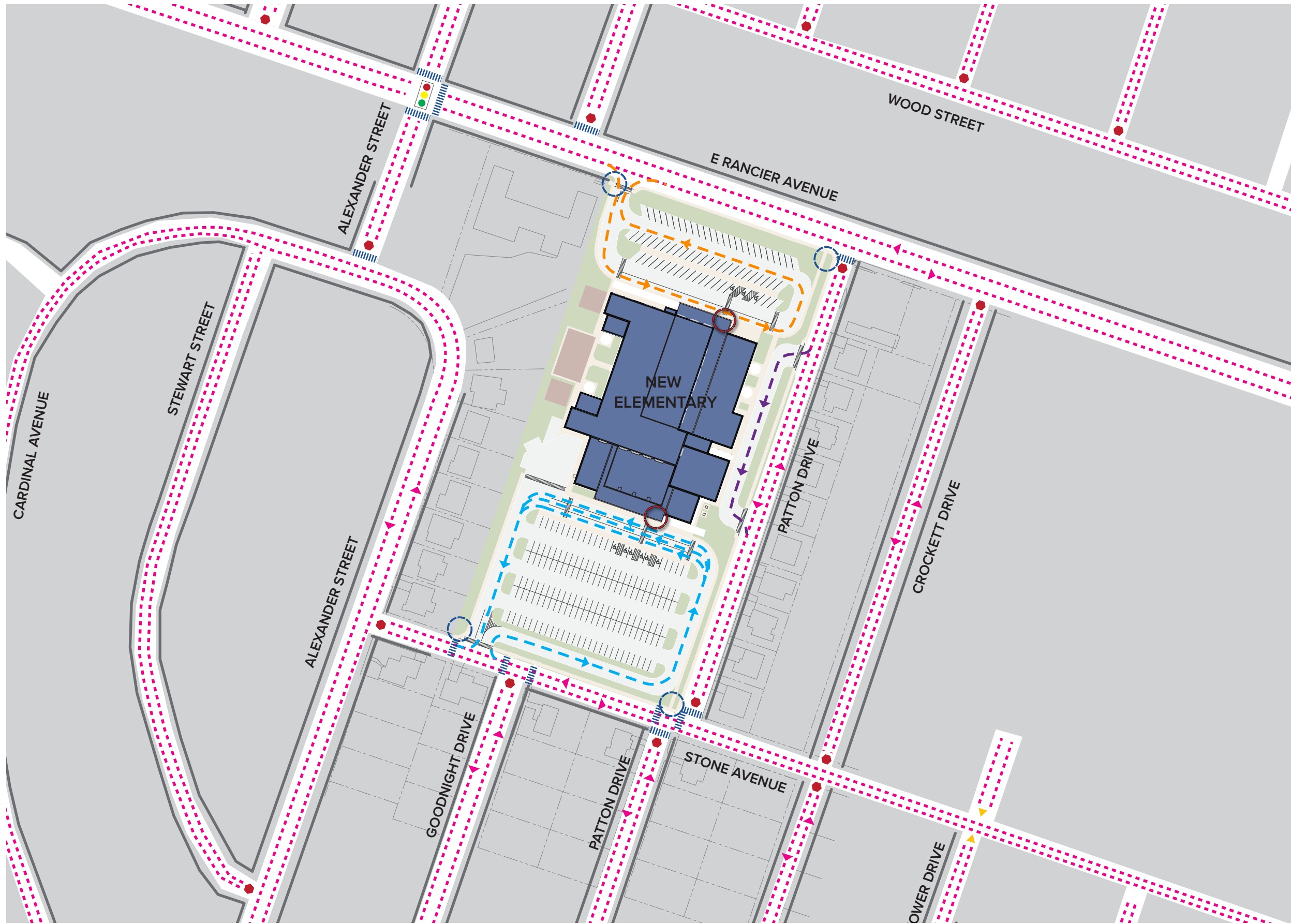
Products:

- BASF Corporation; MasterSeal AWB 660: [www.master-builders-solutions.basf.us](http://www.master-builders-solutions.basf.us)
- DuPont Building Innovations; Tyvek Fluid Applied WB: [www.dupont.com](http://www.dupont.com)
- PROSOCO, Inc; R-GUARD Spray Wrap MVP: [www.prosoco.com/r-guard/#sle](http://www.prosoco.com/r-guard/#sle)
- Sto Corp; Sto EmeraldCoat: [www.stocorp.com/sle](http://www.stocorp.com/sle).

### Roof Design

Low Slope Roofs shall consist of 80 mil PVC-KEE single ply roof membrane, fully adhered. The substrate shall be unfaced gypsum roofing coverboard, ½" thickness, adhered in low rise adhesive to insulation in ribbons and around edges of each board. Rigid polyisocyanurate insulation board to be installed in layers of maximum two inches (2") thickness, to achieve a minimum LTTR thermal resistance rating of 25ci in accordance with 2015 IECC Table C402.1.3. First layer of insulation board shall be fastened to the metal deck, subsequent layers adhered in low rise adhesive. Tapered insulation shall be provided where required to provide ¼" per foot finished roof slope at flat decks, crickets around drains, and at the upslope sides of equipment curbs. Width of crickets shall be no less than one-third the length of crickets in accordance with National Roofing Contractors' Association (NRCA) Roofing Manual recommendations. Tapered insulation sumps shall be provided at primary roof drains (minimum 4'x4' size) and primary scuppers (minimum 4' x 2' size) to provide ½" per foot slope.

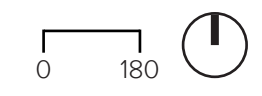
For Performance Criteria for Roofs, Wind Uplift shall be calculated with appropriate load factors in accordance with ASCE 7-10 for field, perimeter, and corner zones. Provide perimeter edges, copings, and other terminations of roofing with assemblies tested in compliance with ANSI/SPRI ES-1 to have resistances greater than calculated wind loads. Provide Two-Year Contractor's Warranty for materials and installation. Provide Roof Manufacturer's 30-Year No Dollar Limit (NDL) System Warranty. The Guarantee shall be transferable. Provide coverage for hail damage in specified warranty.

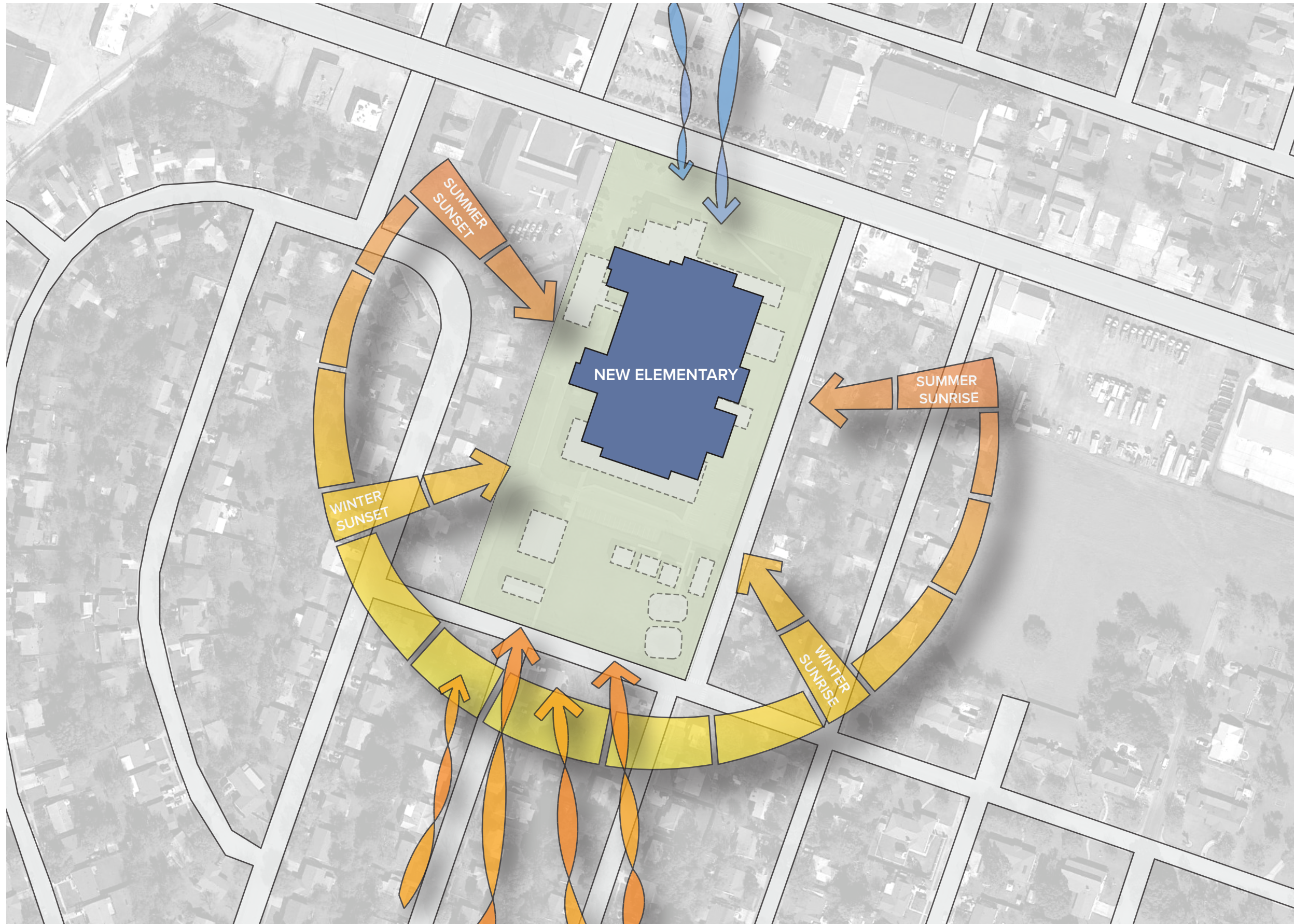


**LEGEND**

- SITE**
- NEW ELEMENTARY
- ENTRY
- CIRCULATION**
- ▶ PARENT ROUTE
- ▶ BUS ROUTE
- ▶ SPED ROUTE
- ▶ SURROUNDING CIRCULATION
- SIDE WALK
- PEDESTRIAN ENTRY

VEHICULAR QUEUING		
	On Site	Stone Dr.
EW/WW	57	39





**LEGEND**

**SITE**

- BUILDINGS
- EXISTING BUILDINGS
- ENTRY

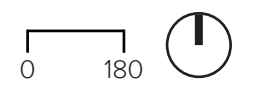
**WIND**

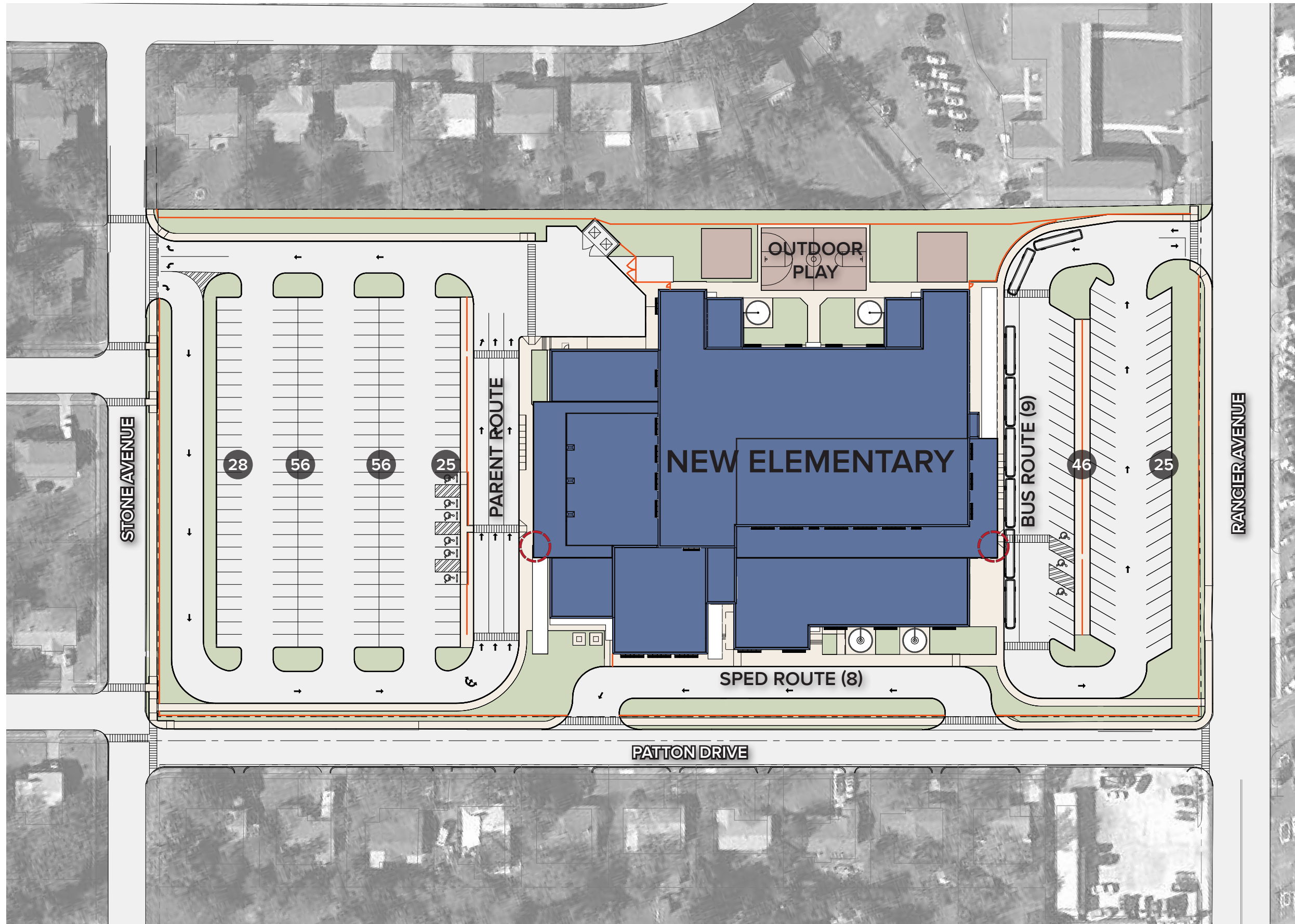
- WINTER WINDS
- SUMMER WINDS

**SUN**

- SUN PATH

ACRES	
EW/WW	7.80





VEHICULAR QUEUING		
	On Site	Stone Ave
EW/WW	57	39

PARKING COUNT		
	ES #35	EW/WW
TOTAL	208	236

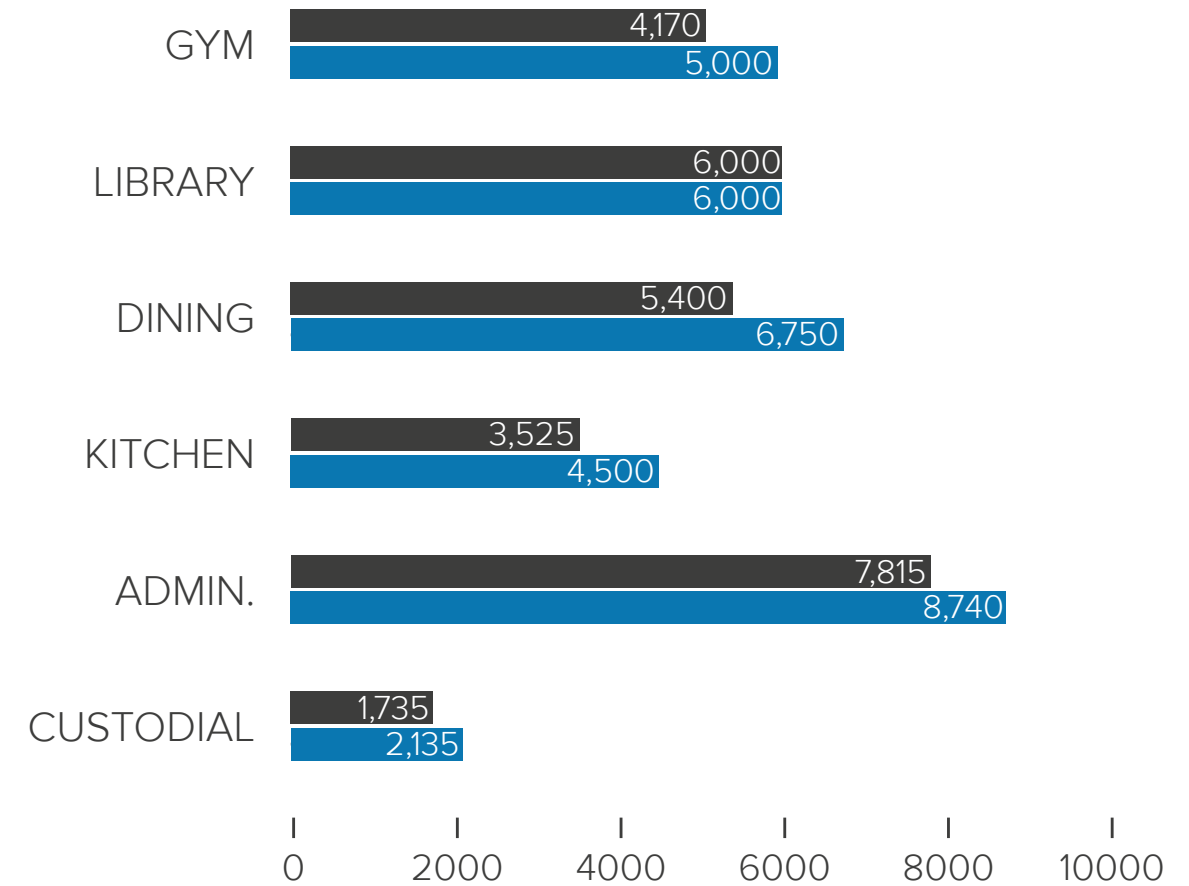


SITE PLAN



	ES #35	EW/WW
PRE-K - FIRST (RESTROOMS)	24	22
SECOND - FIFTH (NO RESTROOMS)	31	30
BILINGUAL (PK-1)	0	5
BILINGUAL (2-5)	0	6
TALENTED & GIFTED	1	1
COMMUNITIES IN SCHOOL	0	1
LIFE SKILLS	2	4
ART/SCIENCE	2	3
MUSIC	3	3
COMPUTER LAB	2	3

**ACADEMIC SPACES**



**SPACE COMPARISON (SF)**

**ES #35**  
1,120 students  
PROGRAM = 131,733 SF

**EAST WARD / WEST WARD**  
1,350 students  
PROGRAM = 154,976 SF  
**ACTUAL = 151,720 SF**









# Huckabee

KILLEEN EAST WARD / WEST WARD ES INITIAL CONCEPT REVIEW  
NOT FOR REGULATORY APPROVAL, PERMITTING, OR CONSTRUCTION - JASON ANDRUS TX # 19417

EXTERIOR PERSPECTIVE 7.4

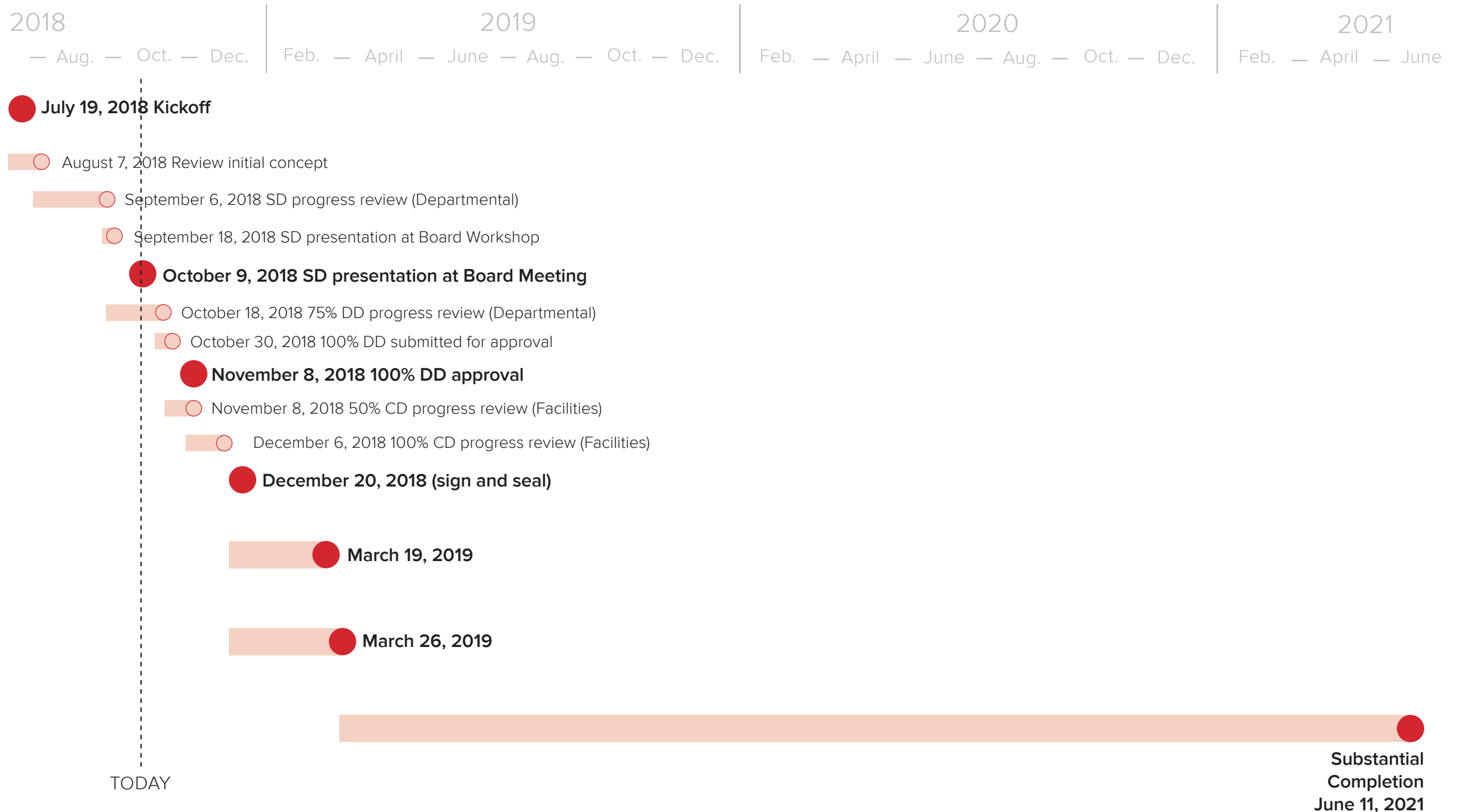


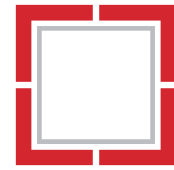






PROJECT DATES
Kickoff
Schematic Design
Design Development
Construction Documents
Bid & Award
Jurisdictional Review
Construction





**MORE THAN** ARCHITECTS